

## Positive Results Continue from Resource Drilling at Colorado-V Project in Ecuador

### Highlights

- Colorado-V Project drilling results on next 6 holes of a 15-hole program (11-holes now completed) continue to produce outstanding results
- Highlights include (see Table 1)<sup>1</sup>:
  - **537.6m at 0.5 g/t AuEq - 0.3 g/t Au, 2.6 g/t Ag, 0.1 % Cu from surface including;**
    - 60.9m at 0.6 g/t AuEq - 0.3 g/t Au, 4.5 g/t Ag, 0.1% Cu from 42.1m and;
    - 54.4m at 0.6 g/t AuEq - 0.3 g/t Au, 2.4 g/t Ag, 0.1% Cu from 243.7m and;
    - 60.0m at 0.6 g/t AuEq - 0.3 g/t Au, 2.7 g/t Ag, 0.1% Cu from 348.4m

within a larger intercept of

    - **657.3 m at 0.4 g/t AuEq - 0.2 g/t Au, 2.3 g/t Ag, 0.1% Cu from surface (CVDD-24-026)**
  - **461.0m at 0.5 g/t AuEq - 0.4 g/t Au, 2.1 g/t Ag, 0.1 % Cu from 52.3m including;**
    - 244.8m at 0.6 g/t AuEq - 0.4 g/t Au, 2.6 g/t Ag, 0.1% Cu from 52.3m including;
    - 103.6m at 0.8g/t AuEq - 0.7 g/t Au, 2.9 g/t Ag, 0.1% Cu from 137.6m;

within a larger intercept of

    - **701.7m at 0.4 g/t AuEq - 0.3 g/t Au, 1.7 g/t Ag, 0.1% Cu from 52.3m (CVDD-24-028)**
  - **401.1m at 0.5 g/t AuEq - 0.3 g/t Au, 2.1 g/t Ag, 0.1 % Cu from surface, including;**
    - 210.9m at 0.6 g/t AuEq - 0.4 g/t Au, 2.9 g/t Ag, 0.1% Cu from surface, including;
    - 29.3m at 1.2 g/t AuEq - 0.8 g/t Au, 6.8 g/t Ag, 0.2% Cu from 138.6m;

within a larger intercept of

    - 711.6m at 0.4 g/t AuEq - 0.3 g/t Au, 1.8 g/t Ag, 0.1 % Cu from surface (CVDD-24-024)
- Confirms that the entire CV-A anomaly covering 400 x 800 metres is mineralised from surface

**Managing Director, Kris Knauer commented on the results:** *"Our resource drilling program in Ecuador continues to deliver positive results. These intersections are higher-grade and wider than those from the first holes in the program. This round of drilling has produced intersections of over 700 metres and confirms that the entire CV-A anomaly covering an area of 400 metres x 800 metres is mineralised from surface and open at depth.*

*We are excited to see what this will mean in terms of a maiden Colorado V Mineral Resource Estimate when the program is complete."*

<sup>1</sup> Gold Equivalent (AuEq) values - requirements under the JORC Code (refer below Table 1 on pages 8-9)

**Challenger Gold (ASX:CEL)** ("**CEL**" or the "**Company**") is pleased to publish the drilling results from the next six holes of its 15-hole program (11-holes completed) at the Colorado-V Project CV-A and CV-B anomalies. This Program is designed to establish a maiden Mineral Resource Estimate ("**MRE**") in accordance with the JORC 2012 Code.

The six holes were drilled in the CV-A anomaly, covering an area of 400 x 800 metres. These holes represent a series of 150 to 200-metre step-outs, as well as 50 to 100 metre infill from earlier drilling. The results from these holes include (see Table 1 for further details):

- CVDD-24-028: 701.7m at 0.4 g/t AuEq, incl. 461.0m at 0.5 g/t AuEq and 244.8m at 0.6 g/t AuEq
- CVDD-24-024: 711.6m at 0.4 g/t AuEq, incl. 401.1m at 0.5 g/t AuEq and 210.9m at 0.6 g/t AuEq
- CVDD-24-026: 537.6m at 0.5 g/t AuEq

The Company has completed the program with assay results from the final four holes in the 15-hole drilling program, including three holes in the western half of the CV-B anomaly, still pending. The Company anticipates a significant maiden MRE from the CV-A anomaly at the completion of the drilling program based on results to date.

## Colorado V Drill program and Ecuador Assets

Colorado V adjoins CEL's 100%-owned El Guayabo project, where the Company has reported an MRE of **4.5 Moz AuEq at a grade of 0.5 g/t AuEq**, including a high-grade core of **1.45 Moz AuEq at 1.0 g/t AuEq**. The Company is earning an initial 50% interest in Colorado V by investing US\$8 million. The current resource drilling program is expected to fulfill the Company's earn-in commitments under the Colorado V farm-in agreement.

CEL has completed 11,720 metres of drilling during Campaign #1 and 3,929m of drilling during Campaign #2 (previously released on the ASX on 26 July 2024) at Colorado V, in addition to re-logging of 23,498 metres of historical drilling, of which 11,920m has also been re-assayed by CEL. Earlier CEL drilling produced the following notable results:

- CVDD-22-001: 528.7m at 0.5 g/t AuEq, including 397.1m at 0.6 g/t AuEq
- CVDD-22-005: 564.1m at 0.4 g/t AuEq, including 278.0m at 0.6 g/t AuEq
- CVDD-22-007: 732.3m at 0.3 g/t AuEq, including 247.2m at 0.5 g/t AuEq
- CVDD-22-008: 773.9m at 0.4 g/t AuEq, including 402.8m at 0.6 g/t AuEq

The Company plans to monetise its Ecuadorian assets to focus on the near-term high-grade production opportunity at its flagship Hualilan Gold project, following the release of a maiden MRE at Colorado V. The Company has determined that the market currently attributes little value to the existing 4.5 Moz MRE in the 100% owned Guayabo concession and the substantial exploration potential of its Ecuadorian assets as they stand.

The earlier drilling results provide an opportunity to add significant value to the project through a small infill drilling program, which is expected to enable the estimation of a significant maiden MRE for CV-A and CV-B prior to monetization.

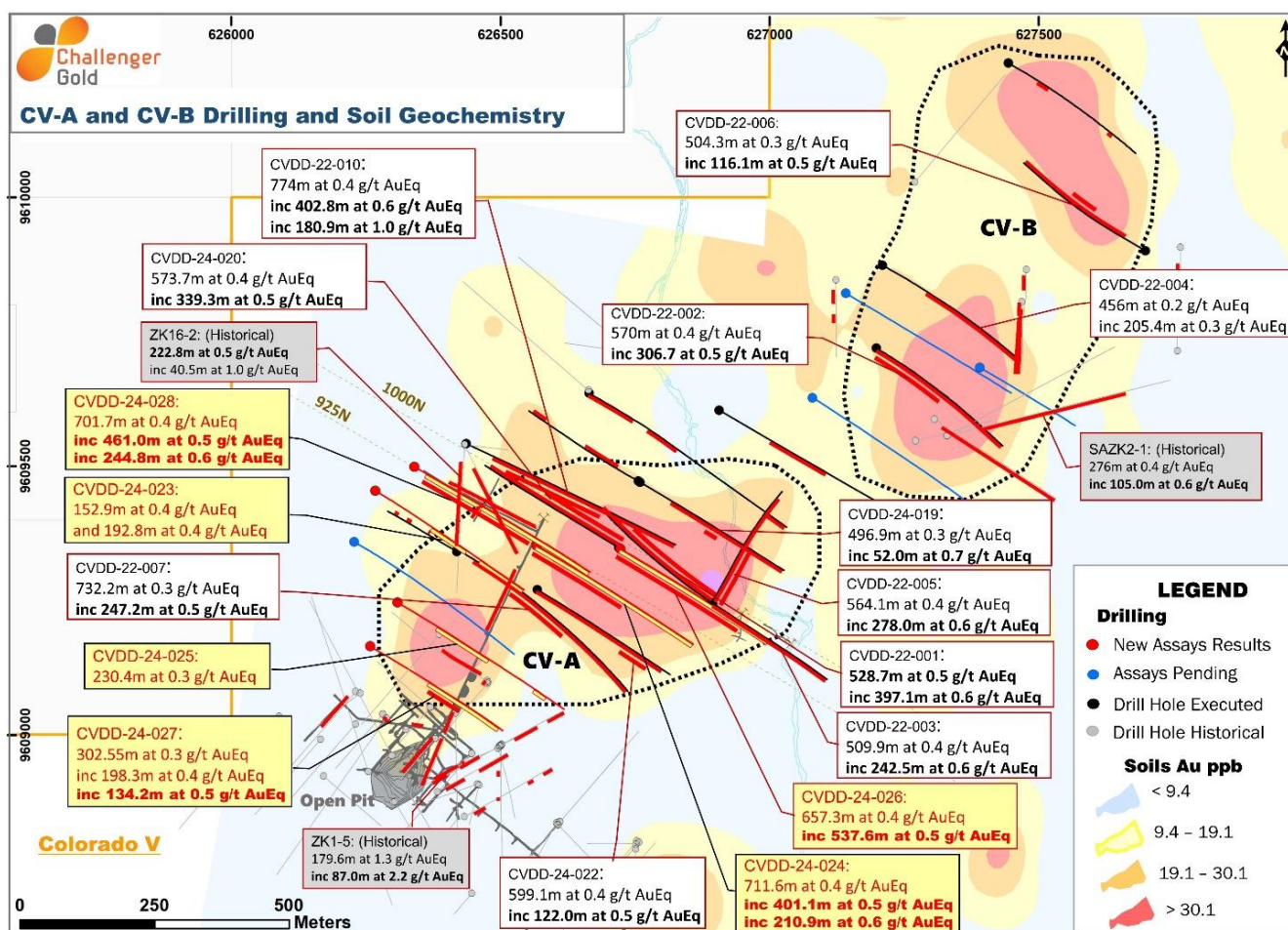


Figure 1 – Plan view showing CV-A and CV-B with Au in-soil geochemistry, executed drilling (black traces) and holes with assays pending (blue traces)

## CVDD-22-023

CVDD-24-023 was drilled to test 150 metres down-dip and on section of CVDD-22-007 (732.2m at 0.3 g/t AuEq, incl 247.2m at 0.5 g/t AuEq) and 150 metres southwest along strike from CVDD-24-020 (537.7m at 0.4 g/t AuEq incl 339.3m at 0.5 g/t AuEq). The hole was collared 250 metres outside of the CV-A anomaly in order to test below earlier drilling thus it was not expected to intersect mineralisation before 250 metres downhole.

The results confirm the extension of the mineralisation as expected with the hole intersecting two zones of mineralisation. An upper zone of **152.9m at 0.4 g/t AuEq (0.3 g/t Au, 1.3 g/t Ag, 0.04 % Cu)** from 247.3m including **49.3m at 0.5 g/t AuEq (0.4 g/t Au, 1.9 g/t Ag, 0.1 % Cu)** from 292.8 metres.

A deeper intersection of **192.8m at 0.4 g/t AuEq (0.2 g/t Au, 1.6 g/t Ag, 0.1% Cu)** from 462.2 metres including **52.2m at 0.5 g/t AuEq (0.4 g/t Au, 1.5 g/t Ag, 0.1 % Cu)** from 478.2 metres and **31.5m at 0.5 g/t AuEq (0.3 g/t Au, 2.8 g/t Ag, 0.1 % Cu)** from 613.8 metres.

### **CVDD-22-024 and CVDD-24-028**

CVDD-24-024 was drilled to step 100 metres west along strike from CVDD-22-001 (528.7m at 0.5 g/t AuEq, including 397.1m at 0.6 g/t AuEq) as shown in Figures 1 and 2. The hole confirmed the extension of the high-grade core of CV-A intersecting **711.6m at 0.4 g/t AuEq (0.3 g/t Au, 1.8 g/t Ag, 0.1 % Cu)** from surface including **401.1m at 0.5 g/t AuEq (0.3 g/t Au, 2.1 g/t Ag, 0.1 % Cu)** from surface including **210.9m at 0.6 g/t AuEq (0.4 g/t Au, 2.9 g/t Ag, 0.1% Cu)** from surface, containing several additional higher-grade zones (refer Table 1).

CVDD-24-028 was drilled on the same fence of holes as CVDD-24-024 being collared 250 metres north-west of CVDD-24-024 to test 200 metres below CVDD-24-024. The hole intersected **701.7m at 0.4 g/t AuEq (0.3 g/t Au, 1.7 g/t Ag, 0.1% Cu)** from 52.3m including **461.0m at 0.5 g/t AuEq (0.4 g/t Au, 2.1 g/t Ag, 0.1 % Cu)** from 52.3m including **244.8m at 0.6 g/t AuEq (0.4 g/t Au, 2.6 g/t Ag, 0.1% Cu)** from 52.3m. Like CVDD-22-010 located 100 metres along strike, CVDD-24-028 contained a higher-grade zone, including; **103.6m at 0.8g/t AuEq (0.7 g/t Au, 2.9 g/t Ag, 0.1% Cu)** from 137.6m including **24.4m at 1.1 g/t AuEq (1.0 g/t Au, 2.5 g/t Ag, 0.1% Cu)** from 137.6m and **14.6m at 1.0 g/t AuEq (0.9 g/t Au, 3.0 g/t Ag, 0.1% Cu)** from 174.0m and **35.6m at 1.0 g/t AuEq (0.8 g/t Au, 3.9 g/t Ag, 0.1% Cu)** from 205.6m.

This intersection extends the high-grade core of CV-A another 100 metres southwest along strike from CVDD-22-010 (774.0m at 0.4 g/t AuEq, incl 402.8m at 0.6 g/t AuEq including 180.9 metres at 1.0 g/t AuEq) and CVDD-22-001 (528.7m at 0.5 g/t AuEq, incl 397.1m at 0.6 g/t AuEq).

### **CVDD-24-026**

CVDD-24-026 was drilled as an infill hole between CVDD-22-010 (774.0m at 0.4 g/t AuEq, incl 402.8m at 0.6 g/t AuEq) and CVDD-22-003 (509.4m at 0.4 g/t AuEq, incl 245.5m at 0.6 g/t AuEq). These holes were separated by 400 metres so an infill hole was required to allow the proposed MRE to be extended across this gap.

The intersection of **657.3 m at 0.4 g/t AuEq (0.2 g/t Au, 2.3 g/t Ag, 0.1% Cu)** from surface including **537.6m at 0.5 g/t AuEq (0.3 g/t Au, 2.6 g/t Ag, 0.1 % Cu)** from surface confirms the continuity of the mineralisation between the two earlier holes. The intersection also contained several higher grade zones including **60.9m at 0.6 g/t AuEq (0.3 g/t Au, 4.5 g/t Ag, 0.1% Cu)** from 42.1m and **54.0m at 0.6 g/t AuEq (0.3 g/t Au, 2.7 g/t Ag, 0.2% Cu)** from 243.7m and **60.0m at 0.6 g/t AuEq (0.3 g/t Au, 2.7 g/t Ag, 0.1% Cu)** from 348.4m.



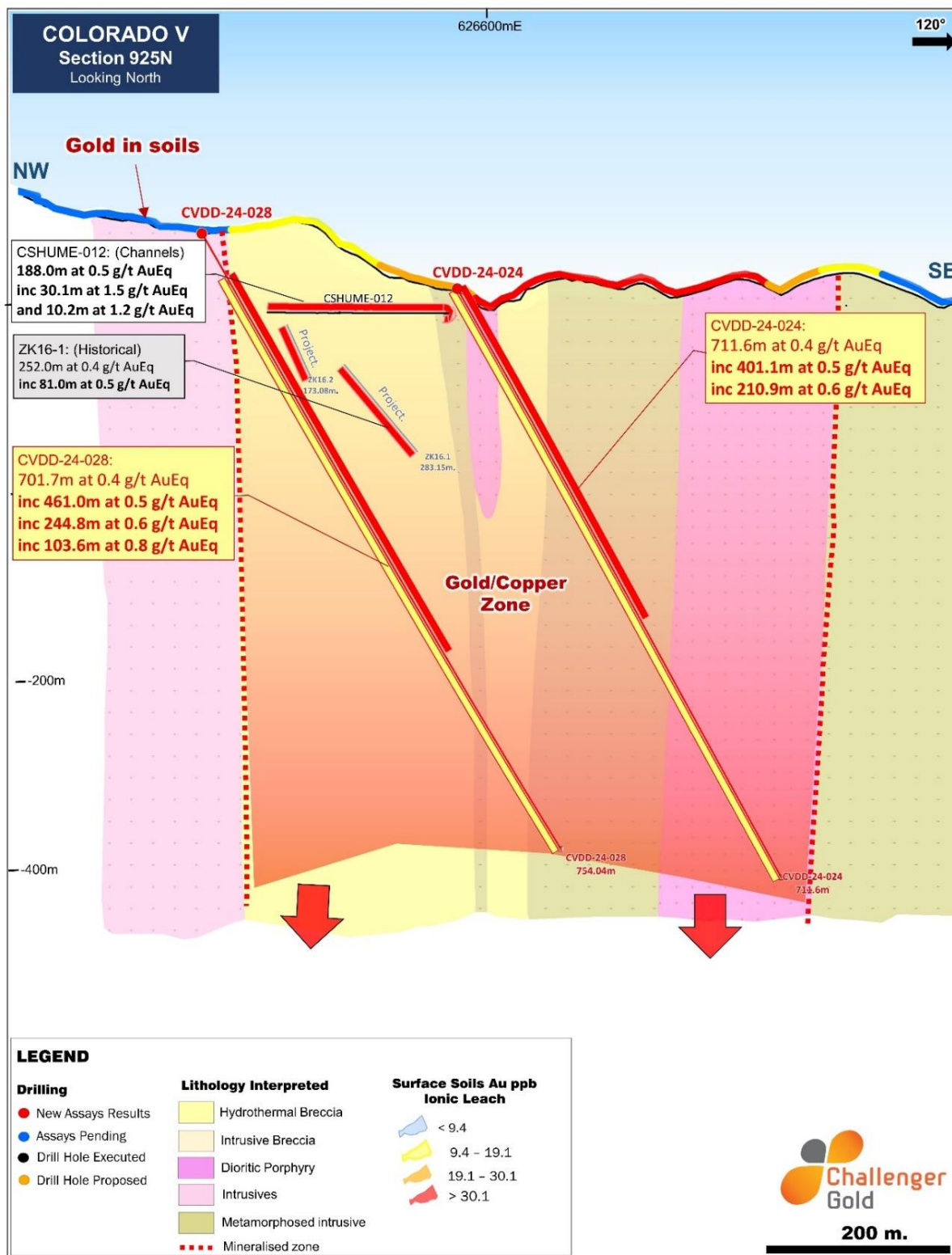


Figure 2 – Cross Section 925N showing CVDD-24-024 and CVDD-24-028 - CV-A anomaly

Challenger Gold Limited  
ACN 123 591 382  
ASX: CEL

Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

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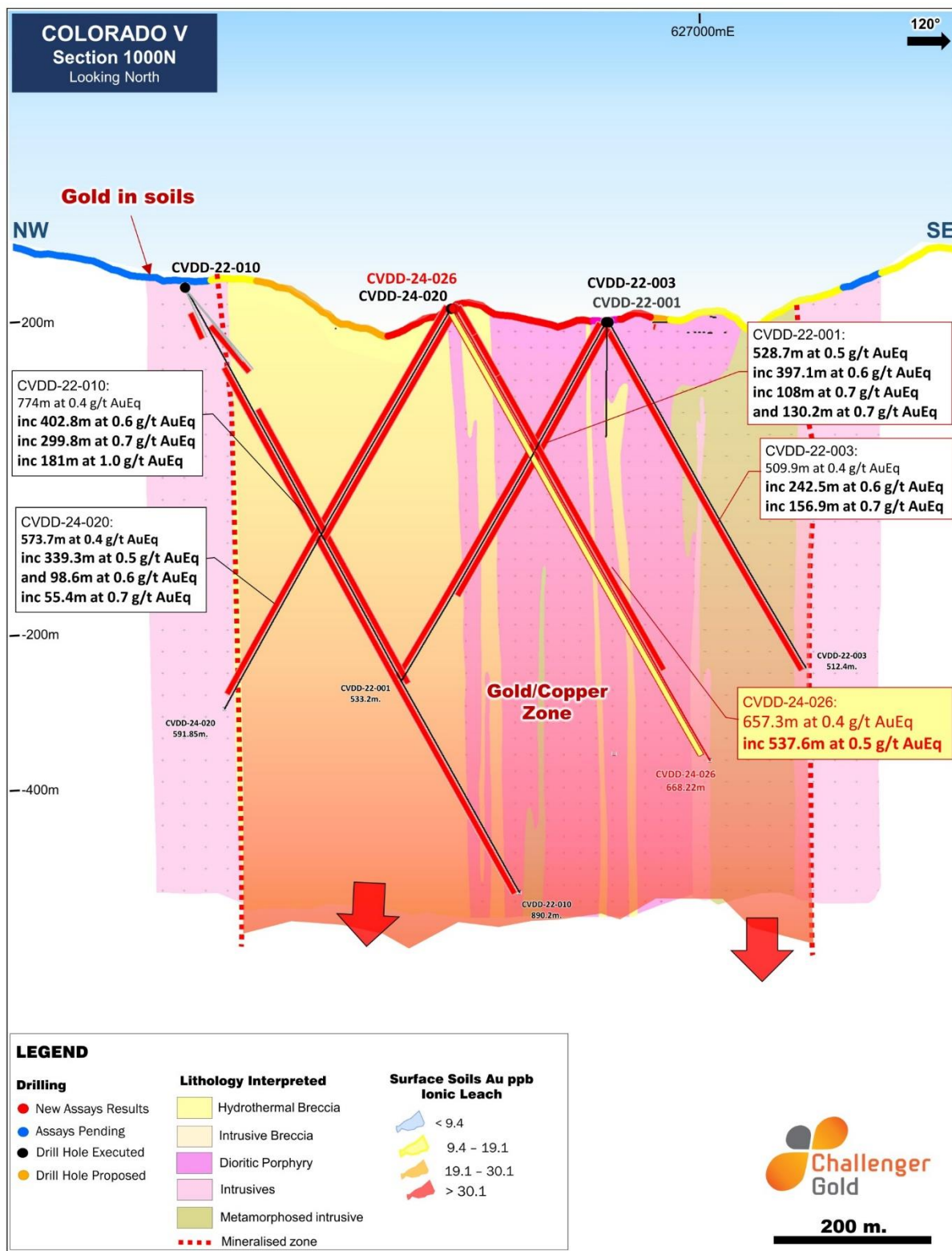


Figure 3 – Cross Section 1000N showing CVDD-24-020 and CVDD-24-026 in the core of the CV-A anomaly

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## CVDD-24-025 and CVDD-24-027

CVDD-24-027 was drilled to step 400 metres south-west along strike from CVDD-22-001 (528.7m at 0.5 g/t AuEq, including 397.1m at 0.6 g/t AuEq) and CVDD-24-023. CVDD-24-023 (152.9m at 0.4 g/t AuEq and 192.8m at 0.4 g/t AuEq - reported in this release) was drilled 150m southwest of CVDD-22-001 in an area of no previous drilling. CVDD-24-025 was drilled to test a further 150 metres south-west along strike from CVDD-24-023 with CVDD-24-027 collared a further 200 metres along strike (Figure 1). All three holes intersected mineralisation confirming mineralisation extends a further 400 metres along strike to the south-west at the CV-A anomaly and remains open to the south-west along strike.

CVDD-24-025 intersected three zones of mineralisation. An upper intersection of **230.4 m at 0.3 g/t AuEq (0.2 g/t Au, 1.0 g/t Ag, 0.03% Cu)** from 176.3 metres including **11.4m at 0.5 g/t AuEq (0.4 g/t Au, 0.5 g/t Ag, 0.02 % Cu)** from 176.3 metres and **16.3m at 0.5 g/t AuEq (0.4 g/t Au, 1.7 g/t Ag, 0.04 % Cu)** from 328.4 metres. Two deeper Intersections of **21.9m at 0.3 g/t AuEq (0.2 g/t Au, 0.9 g/t Ag, 0.04 % Cu)** from 565.9 metres and **53.6m at 0.3 g/t AuEq (0.2 g/t Au, 1.7 g/t Ag, 0.06 % Cu)** from 613.8 metres.

CVDD-24-027 intersected **302.6m at 0.3 g/t AuEq (0.2 g/t Au, 1.4 g/t Ag, 0.1% Cu)** from 250.3 metres including **198.3m at 0.4 g/t AuEq (0.3 g/t Au, 1.6 g/t Ag, 0.1 % Cu)** from 250.3 metres and **134.2m at 0.5 g/t AuEq (0.3 g/t Au, 2.1 g/t Ag, 0.1 % Cu)** from 263.3 metres. Additionally, this intercept contained several narrower higher-grade zones including **6.0m at 2.3 g/t AuEq (1.4 g/t Au, 11.0 g/t Ag, 0.4 % Cu)** from 263.3 metres (refer Table 1).

This ASX release was approved by the Managing Director.

### For further information contact:

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### Previous announcements referred to in this release include:

**23 Feb 2022** - Major Au-Cu-Ag Mineralised System Confirmed at El Guayabo

**06 June 2022** - Two New Copper Gold Discoveries at Colorado V Ecuador

**04 July 2022** - Drilling Expands Colorado V Discoveries in Ecuador

**05 Oct 2022** - 500m Intersections at Colorado V Project Ecuador

**14 June 2023** - Initial MRE of 4.5Moz AuEq at El Guayabo Project, Ecuador

**26 July 2024** - 500 metre Intercepts in First Drill Holes from Ecuador

Table 1: Significant Intercepts reported this ASX release

| Drill Hole (#) | From (m) | To (m) | Interval (m) | Au (g/t) | Ag (g/t) | Cu (%) | Mo (ppm) | AuEq (g/t) | Comments             | Gram Metres |
|----------------|----------|--------|--------------|----------|----------|--------|----------|------------|----------------------|-------------|
| CVDD-24-023    | 52.3     | 56.3   | 4.0          | 1.59     | 2.44     | 0.05   | 0.7      | 1.7        | 0.1 g/t AuEq cut off | 6.8         |
|                | 247.3    | 400.3  | 152.9        | 0.28     | 1.34     | 0.04   | 1.1      | 0.4        | 0.1 g/t AuEq cut off | 55.8        |
|                | inc      | 260.5  | 268.5        | 8.0      | 0.74     | 0.01   | 0.6      | 0.8        | 0.5 g/t AuEq cut off | 6.2         |
|                | and      | 292.8  | 342.0        | 49.2     | 0.40     | 0.06   | 1.2      | 0.5        | 0.5 g/t AuEq cut off | 25.9        |
|                | inc      | 300.8  | 308.8        | 8.0      | 0.63     | 0.07   | 1.6      | 0.8        | 0.5 g/t AuEq cut off | 6.2         |
|                | and      | 318.8  | 324.8        | 6.0      | 0.66     | 0.07   | 1.1      | 0.8        | 0.5 g/t AuEq cut off | 4.8         |
|                | and      | 385.9  | 395.1        | 9.2      | 0.52     | 0.11   | 1.5      | 0.7        | 0.5 g/t AuEq cut off | 6.7         |
|                |          | 462.2  | 655.0        | 192.8    | 0.22     | 0.07   | 5.0      | 0.4        | 0.1 g/t AuEq cut off | 68.6        |
|                | inc      | 478.2  | 530.2        | 52.0     | 0.38     | 0.06   | 2.3      | 0.5        | 0.5 g/t AuEq cut off | 26.1        |
|                | and      | 613.8  | 645.2        | 31.5     | 0.27     | 0.12   | 6.2      | 0.5        | 0.5 g/t AuEq cut off | 16.3        |
| CVDD-24-024    | 0.0      | 711.6  | 711.6        | 0.25     | 1.77     | 0.07   | 16.5     | 0.4        | 0.1 g/t AuEq cut off | 279.8       |
|                | inc      | 0.0    | 401.1        | 401.1    | 0.32     | 0.07   | 12.5     | 0.5        | 0.5 g/t AuEq cut off | 192.1       |
|                | inc      | 0.0    | 210.9        | 210.9    | 0.41     | 0.08   | 13.9     | 0.6        | 0.5 g/t AuEq cut off | 125.5       |
|                | inc      | 4.0    | 53.5         | 49.5     | 0.52     | 0.07   | 8.3      | 0.7        | 0.5 g/t AuEq cut off | 33.3        |
|                | and      | 120.6  | 210.9        | 90.4     | 0.46     | 0.12   | 18.4     | 0.7        | 0.5 g/t AuEq cut off | 65.3        |
|                | inc      | 138.6  | 167.8        | 29.3     | 0.80     | 0.19   | 17.0     | 1.2        | 1.0 g/t AuEq cut off | 35.5        |
|                | and      | 274.4  | 313.9        | 39.5     | 0.47     | 0.09   | 10.3     | 0.7        | 0.5 g/t AuEq cut off | 25.9        |
| CVDD-24-025    | 176.3    | 406.7  | 230.4        | 0.19     | 1.00     | 0.03   | 3.7      | 0.3        | 0.1 g/t AuEq cut off | 59.2        |
|                | inc      | 176.3  | 187.7        | 11.4     | 0.42     | 0.02   | 3.3      | 0.5        | 0.5 g/t AuEq cut off | 5.2         |
|                | and      | 245.8  | 254.1        | 8.2      | 0.33     | 0.03   | 3.5      | 0.4        | 0.5 g/t AuEq cut off | 3.3         |
|                | and      | 328.4  | 344.7        | 16.3     | 0.40     | 0.04   | 5.4      | 0.5        | 0.5 g/t AuEq cut off | 8.2         |
|                |          | 565.9  | 587.8        | 21.9     | 0.24     | 0.04   | 13.2     | 0.3        | 0.1 g/t AuEq cut off | 7.0         |
|                | 613.8    | 667.4  | 53.6         | 0.20     | 1.69     | 0.06   | 4.8      | 0.3        | 0.1 g/t AuEq cut off | 17.8        |
| CVDD-24-026    | 0.0      | 657.3  | 657.3        | 0.23     | 2.31     | 0.10   | 23.8     | 0.4        | 0.1 g/t AuEq cut off | 292.6       |
|                | inc      | 0.0    | 537.6        | 537.6    | 0.25     | 0.11   | 19.2     | 0.5        | 0.5 g/t AuEq cut off | 257.6       |
|                | inc      | 42.1   | 103.0        | 60.9     | 0.29     | 0.13   | 8.8      | 0.6        | 0.5 g/t AuEq cut off | 35.1        |
|                | inc      | 69.0   | 96.5         | 27.5     | 0.41     | 0.15   | 8.7      | 0.7        | 0.5 g/t AuEq cut off | 20.1        |
|                | and      | 149.8  | 203.5        | 53.7     | 0.31     | 0.12   | 10.3     | 0.6        | 0.5 g/t AuEq cut off | 30.0        |
|                | and      | 243.7  | 298.1        | 54.4     | 0.31     | 0.12   | 18.5     | 0.6        | 0.5 g/t AuEq cut off | 30.3        |
|                | and      | 348.4  | 408.4        | 60.0     | 0.28     | 0.15   | 30.0     | 0.6        | 0.5 g/t AuEq cut off | 34.8        |
|                | and      | 430.6  | 457.5        | 26.9     | 0.36     | 0.12   | 34.0     | 0.6        | 0.5 g/t AuEq cut off | 16.5        |
|                | and      | 610.7  | 620.7        | 10.0     | 0.35     | 0.11   | 32.2     | 0.6        | 0.5 g/t AuEq cut off | 5.8         |
| CVDD-24-027    | 250.3    | 552.9  | 302.6        | 0.21     | 1.36     | 0.05   | 4.4      | 0.3        | 0.1 g/t AuEq cut off | 94.0        |
|                | inc      | 250.3  | 448.6        | 198.3    | 0.27     | 0.05   | 5.7      | 0.4        | 0.5 g/t AuEq cut off | 76.1        |
|                | inc      | 263.3  | 397.5        | 134.2    | 0.33     | 0.07   | 7.2      | 0.5        | 0.5 g/t AuEq cut off | 64.7        |
|                | inc      | 263.3  | 287.2        | 23.9     | 0.48     | 0.15   | 8.3      | 0.8        | 0.5 g/t AuEq cut off | 18.5        |
|                | inc      | 263.3  | 269.3        | 6.0      | 1.44     | 0.44   | 14.8     | 2.3        | 1.0 g/t AuEq cut off | 14.0        |
|                | and      | 317.5  | 323.8        | 6.3      | 0.55     | 0.04   | 1.8      | 0.6        | 0.5 g/t AuEq cut off | 3.9         |



|             |       |       |       |      |      |      |      |     |                      |       |
|-------------|-------|-------|-------|------|------|------|------|-----|----------------------|-------|
| and         | 346.0 | 372.7 | 26.8  | 0.49 | 3.31 | 0.09 | 13.3 | 0.7 | 0.5 g/t AuEq cut off | 18.4  |
| CVDD-24-028 | 52.3  | 754.0 | 701.7 | 0.29 | 1.74 | 0.05 | 6.8  | 0.4 | 0.1 g/t AuEq cut off | 283.7 |
| inc         | 52.3  | 513.3 | 461.0 | 0.35 | 2.08 | 0.06 | 3.1  | 0.5 | 0.5 g/t AuEq cut off | 221.1 |
| inc         | 52.3  | 297.1 | 244.8 | 0.42 | 2.62 | 0.06 | 2.0  | 0.6 | 0.5 g/t AuEq cut off | 138.1 |
| inc         | 137.6 | 241.2 | 103.6 | 0.66 | 2.92 | 0.07 | 2.1  | 0.8 | 0.5 g/t AuEq cut off | 84.4  |
| inc         | 137.6 | 162.0 | 24.4  | 1.02 | 2.54 | 0.06 | 2.0  | 1.1 | 1.0 g/t AuEq cut off | 27.9  |
| and         | 174.0 | 188.6 | 14.6  | 0.88 | 3.02 | 0.07 | 1.9  | 1.0 | 0.5 g/t AuEq cut off | 15.3  |
| and         | 205.6 | 241.2 | 35.6  | 0.76 | 3.92 | 0.09 | 2.5  | 1.0 | 0.5 g/t AuEq cut off | 34.2  |
| and         | 588.3 | 596.6 | 8.3   | 0.70 | 5.38 | 0.12 | 16.3 | 1.0 | 0.5 g/t AuEq cut off | 8.1   |
| and         | 617.8 | 625.0 | 7.2   | 0.32 | 2.64 | 0.09 | 18.8 | 0.5 | 0.5 g/t AuEq cut off | 3.8   |
| and         | 740.4 | 748.9 | 8.5   | 0.91 | 1.10 | 0.05 | 11.6 | 1.0 | 0.5 g/t AuEq cut off | 8.8   |

#### <sup>1</sup> Gold Equivalent (AuEq) values - Requirements under the JORC Code

- Assumed commodity prices for the calculation of AuEq is Au US\$1780 Oz, Ag US\$22 Oz, Cu US\$9,650/t, Mo US\$40,500/t
- Metallurgical recoveries are estimated to be Au (85%), Ag (60%), Cu (85%) Mo (50%) across all ore types (see **JORC Table 1 Section 3 Metallurgical assumptions**) based on metallurgical test work.
- The formula used:  $AuEq (g/t) = Au (g/t) + [Ag (g/t) \times 0.01236] + [Cu (\%) \times 1.68604] + [Mo (\%) \times 7.076120]$
- CEL confirms that it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

## ADDITIONAL INFORMATION

### COMPETENT PERSON STATEMENT – EXPLORATION RESULTS AND MINERAL RESOURCES

The information that relates to sampling techniques and data, exploration results, geological interpretation and Mineral Resource Estimate has been compiled Dr Stuart Munroe, BSc (Hons), PhD (Structural Geology), GDip (AppFin&Inv) who is a full-time employee of the Company. Dr Munroe is a Member of the AusIMM. Dr Munroe has over 20 years' experience in the mining and metals industry and qualifies as a Competent Person as defined in the JORC Code (2012).

Dr Munroe has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results and Mineral Resources. Dr Munroe consents to the inclusion in this report of the matters based on information in the form and context in which it appears. The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

The Mineral Resource Estimate for the Hualilan Gold Project was first announced to the ASX on 1 June 2022 and updated 29 March 2023. The Mineral Resource Estimate for the El Guayabo Project was first announced to the ASX on 14 June 2023. The Company confirms it is not aware of any information or assumptions that materially impacts the information included in that announcement and that the material assumptions and technical parameters underpinning the Mineral Resource Estimate continue to apply and have not materially changed.

Table 2: El Guayabo Interim MRE, June 2023

| Domain   | Category        | Mt           | Au<br>(g/t) | Ag<br>(g/t) | Cu<br>(%)   | Mo<br>(ppm) | AuEq<br>(g/t) | AuEq<br>(Mozs) |
|--|-----------------|--------------|-------------|-------------|-------------|-------------|---------------|----------------|
| <i>US\$1,800 optimised shell<br/>&gt; 0.3 g/t AuEq</i> | Inferred        | 212.2        | 0.36        | 2.8         | 0.07        | 6.5         | 0.50          | 3.4            |
| <i>Below US\$1,800 shell<br/>&gt;0.4 g/t AuEq</i>      | Inferred        | 56.5         | 0.46        | 1.8         | 0.07        | 7.5         | 0.59          | 1.1            |
| <b>Total</b>   | <b>Inferred</b> | <b>268.7</b> | <b>0.38</b> | <b>2.6</b>  | <b>0.07</b> | <b>7.2</b>  | <b>0.52</b>   | <b>4.5</b>     |

Note: Some rounding errors may be present

<sup>2</sup> Gold Equivalent (AuEq) values - Requirements under the JORC Code

- Assumed commodity prices for the calculation of AuEq is Au US\$1800 Oz, Ag US\$22 Oz, Cu US\$9,000/t, Mo US\$44,080/t
- Metallurgical recoveries are estimated to be Au (85%), Ag (60%), Cu (85%) Mo (50%) across all ore types (see **JORC Table 1 Section 3 Metallurgical assumptions**) based on metallurgical test work.
- The formula used:  $AuEq (g/t) = Au (g/t) + [Ag (g/t) \times 0.012222] + [Cu (\%) \times 1.555] + [Mo (\%) \times 4.480026]$
- CEL confirms that it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold

## FORWARD LOOKING STATEMENTS

The announcement may contain certain forward-looking statements. Words 'anticipate', 'believe', 'expect', 'forecast', 'estimate', 'likely', 'intend', 'should', 'could', 'may', 'target', 'plan', 'potential' and other similar expressions are intended to identify forward-looking statements. Indication of, and guidance on, future costings, earnings and financial position and performance are also forward-looking statements.

Such forward looking statements are not guarantees of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Challenger Gold Ltd, its officers, employees, agents and associates, which may cause actual results to differ materially from those expressed or implied in such forward-looking statements. Actual results, performance, or outcomes may differ materially from any projections or forward-looking statements or the assumptions on which those statements are based.

You should not place any undue reliance on forward-looking statements and neither. Challenger nor its directors, officers, employees, servants or agents assume any responsibility to update such information. The stated Production Targets are based on the Company's current expectations of future results or events and should not be relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.

Financial numbers, unless stated as final, are provisional and subject to change when final grades, weight and pricing are agreed under the terms of the offtake agreement. Figures in this announcement may not sum due to rounding.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant original market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

## HUALILAN GOLD PROJECT SCOPING STUDY

All references to the Scoping Study and its outcomes in this announcement relate to the ASX Announcement of 8 November 2023 'Hualilan Gold Project Scoping Study'. Please refer to that announcement for full details and supporting documentation.

*Table 3: Hualilan Hold Project Mineral Resource Estimate (March 2023)*

| Domain                                       | Category  | Mt          | Au<br>(g/t) | Ag<br>(g/t) | Zn<br>(%)  | Pb<br>(%)   | AuEq<br>(g/t) | AuEq<br>(Moz) |
|--|-----------|-------------|-------------|-------------|------------|-------------|---------------|---------------|
| US\$1,800 optimised shell<br>> 0.30 ppm AuEq | Indicated | 45.5        | 1.0         | 5.1         | 0.38       | 0.06        | 1.3           | 1.9           |
|  | Inferred  | 9.6         | 1.1         | 7.3         | 0.43       | 0.06        | 1.4           | 0.44          |
| Below US\$1,800 shell<br>>1.0 ppm AuEq       | Indicated | 2.7         | 2.0         | 9.0         | 0.89       | 0.05        | 2.5           | 0.22          |
|  | Inferred  | 2.8         | 2.1         | 12.4        | 1.1        | 0.07        | 2.8           | 0.24          |
| <b>Total</b>                                 |           | <b>60.6</b> | <b>1.1</b>  | <b>6.0</b>  | <b>0.4</b> | <b>0.06</b> | <b>1.4</b>    | <b>2.8</b>    |

*Note: Some rounding errors may be present*

### <sup>1</sup> Gold Equivalent (AuEq) values - Requirements under the JORC Code

- Assumed commodity prices for the calculation of AuEq is Au US\$1900 Oz, Ag US\$24 Oz, Zn US\$4,000/t, Pb US\$2000/t
- Metallurgical recoveries are estimated to be Au (95%), Ag (91%), Zn (67%) Pb (58%) across all ore types (see *JORC Table 1 Section 3 Metallurgical assumptions*) based on metallurgical test work.
- The formula used:  $\text{AuEq (g/t)} = \text{Au (g/t)} + [\text{Ag (g/t)} \times 0.012106] + [\text{Zn (\%)} \times 0.46204] + [\text{Pb (\%)} \times 0.19961]$
- CEL confirms that it is the Company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

## About Challenger Gold

Challenger Gold Limited's (ASX:CEL) aspiration is to become a globally significant gold producer. The Company is developing two complementary gold/copper projects in South America with the Company's flagship Hualilan Gold Project in San Juan, Argentina containing resources of **2.8 million ounces gold equivalent**.

- Hualilan Gold Project**, located in San Juan Province Argentina, is a near term development opportunity. It has extensive drilling with over 150 historical and almost 900 CEL drill-holes. The Company has released a JORC 2012 Compliant resource of **2.8 Moz AuEq** which remains open in most directions. This resource contains a high-grade core **9.9 Mt at 5.0 g/t AuEq for 1.6 Moz AuEq** and **29.1Mt at 2.2 g/t AuEq for 2.4 Moz AuEq** within the larger MRE of **60.6 Mt at 1.4 g/t AuEq for 2.8 Moz AuEq**. The resource was based on approximately 220,000 metres of CEL drilling. Drill results have included **6.1m @ 34.6 g/t Au, 21.9 g/t Ag, 2.9% Zn, 67.7m @ 7.3 g/t Au, 5.7 g/t Ag, 0.6% Zn, and 63.3m @ 8.5 g/t Au, 7.6 g/t Ag, 2.8% Zn**. This drilling intersected high-grade gold over 3.5 kilometres of strike and extended the known mineralisation along strike and at depth in multiple locations. Recent drilling has demonstrated this high-grade skarn mineralisation is underlain by a significant intrusion-hosted gold system with intercepts including **209.0m at 1.0 g/t Au, 1.4 g/t Ag, 0.1% Zn** and **110.5m at 2.5 g/t Au, 7.4 g/t Ag, 0.90% Zn** in intrusives. The Hualilan Scoping Study demonstrates production of 116,000 oz Au, 440,000 oz Ag, 9175t Zn (141,000 oz AuEq) at an ASIC of US\$830/oz over an initial 7 year mine life. CEL's current program will include a Pre-Feasibility Study, and regional exploration along the previously unexplored 30 kilometres of prospective stratigraphy.
- El Guayabo Gold/Copper Project** covers 35 sq kms in southern Ecuador and is located 5 kilometres along strike from the 20.5 million ounce Cangrejos Gold Project<sup>1</sup>. Prior to CEL the project was last drilled by Newmont Mining in 1995 and 1997 targeting gold in hydrothermal breccias. Historical drilling demonstrated potential to host significant gold and associated copper and silver mineralisation. Historical drilling has returned a number of intersections including 156m @ 2.6 g/t Au, 9.7 g/t Ag, 0.2% Cu and 112m @ 0.6 % Cu, 0.7 g/t Au, 14.7 g/t Ag were not followed up. CEL's maiden drilling program confirmed the discovery of a major Au-Cu-Ag-Mo gold system spanning several zones of significant scale. The Company has drilled thirteen regionally significant Au-soil anomalies with over 500 metres of mineralisation intersected at eight of these thirteen anomalies, confirming the potential for a major bulk gold system at El Guayabo. The Company reported a **maiden 4.5 Moz gold equivalent MRE** with mineralisation remaining open in all directions. This MRE is based on 43 drill holes, for 22,572 metres, from the Company's Phase 1 and 2 diamond core drill program at its 100% owned El Guayabo concession. The drilling has focussed on 3 of the 7 anomalies that have returned plus 500 metre drill intercepts. CEL has recently commenced an estimated 8,000m drill program designed to allow the reporting of a maiden Mineral Resource Estimate on two additional anomalies in the Colorado V concession. At the completion of this program the company intends to initiate a strategic process to explore options to monetise, or spin-off, its Ecuador assets.

<sup>1</sup> Source : Lumina Gold (TSX : LUM) July 2020 43-101 Technical Report



## JORC Code, 2012 Edition – Table 1 Report Template

### Section 1: Sampling Techniques and Data -El Guayabo Project

(Criteria in this section apply to all succeeding sections.)

| Criteria                   | JORC Code explanation   | Commentary  |
|----------------------------|---|---|
| <b>Sampling techniques</b> | <ul style="list-style-type: none"> <li>- <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>- <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>- <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>- <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul> | <p><b>CEL Drilling (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>• CEL have drilled HQ diamond core which is sampled by cutting the core longitudinal into two halves. One half is retained for future reference and the other half is sent for sampling.</li> <li>• Sampling is done according to the geology. Sample lengths range from 0.5 to 2.5 metres. The average sample length is 1.5m. Samples are prepared at SGS Laboratories in Guayaquil for 30g fire assay and 4-acid digest ICPMS and then assayed in SGS Lima.</li> <li>• The sample size is considered representative for the geology and style of mineralisation intersected. All the core is sampled for assay.</li> </ul> <p><b>Historic Drilling (El Guayabo):</b></p> <ul style="list-style-type: none"> <li>• Newmont Mining Corp (NYSE: NEM) (“<b>Newmont</b>”) and Odin Mining and Exploration Ltd (TSX: ODN) (“<b>Odin</b>”) core drilled the property between February 1995 and November 1996 across two drilling campaigns.</li> <li>• The sampling techniques were reviewed as part of a 43-101 Technical report on Cangrejos Property which also included the early results of the El Joven joint venture between Odin and Newmont, under which the work on the El Guayabo project was undertaken. This report is dated 27 May 2004 and found the sampling techniques and intervals to be appropriate with adequate QA/QC and custody procedures, core recoveries generally 100%, and appropriate duplicates and blanks use for determining assay precision and accuracy.</li> <li>• Duplicates were prepared by the Laboratory (Bonder Cleg) which used internal standards. Newmont also inserted its own standards at 25 sample intervals as a control on analytical quality</li> <li>• Diamond drilling produced core that was sawed in half with one half sent to the laboratory for assaying per industry standards and the remaining core retained on site.</li> <li>• Cu assays above 2% were not re-assayed using a technique calibrated to higher value Cu results hence the maximum reported assay for copper is 2%.</li> <li>• All core samples were analysed using a standard fire assay with atomic absorption finish on a 30 g charge (30 g FAA). Because of concerns about possible reproducibility problems in the gold values resulting from the presence of coarse gold, the coarse crusher rejects for all samples with results greater than 0.5 g/t were re-assayed using the “blaster” technique - a screen type fire analysis based on a pulverized sample with a mass of about 5 kg. Samples from most of these intersections were also analysed for Cu, Mo, Pb, Zn and Ag.</li> <li>• CEL has re-sampled sections of the Newmont and Odin drill core. ¼ drill core was cut over intervals that replicated the earlier sampling. Sample intervals ranged from 0.7 – 4.5m with an average of 2.0m. 533 samples totaling 1,094.29m were collected. Sampling was done for Au analysis by fire assay of a 30g charge and 43</li> </ul> |

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| Criteria | JORC Code explanation | Commentary   |
|----------|-----------------------|--|
|          |                       | <p>element 4-acid digest with ICP_AES determination.</p> <ul style="list-style-type: none"> <li>Field mapping (creek traverse) by CEL includes collection of rock chip samples for assay for Au by fire assay (50g) with AAS determination and gravimetric determination for values &gt; 10 g/t Au and assay for 48 elements by 4-acid digest with ICP-MS determination. Rock chip samples are taken so as to be as representative as possible of the exposure being mapped.</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>Soil sampling: A database of 4,495 soil analyses has been provided by Goldking Mining Company S.A. (GK). No information has been provided on the method of sample collection or assay technique. The soil analyses include replicate samples and second split analyses. Pulps have been securely retained by Goldking Mining Company and have been made available to CEL for check assay. Check assaying is planned, including repeat sampling.</li> <li>Rock chip sampling during regional mapping has been done on selected exposures. Sampling involves taking 2-3 kg of rock using a hammer from surface exposures that is representative of the exposure.</li> <li>Selected intervals of drill core have been cut longitudinally and half core were submitted for gold determination at GK's on-site laboratory prior to CEL's involvement with the Project.</li> <li>Re-sampling of the core by CEL involves taking ¼ core (where the core has previously been sampled) or ½ core (where the core has not previously been sampled). The core is cut longitudinally and sample intervals of 1 – 3 meters have been collected for analysis. ZK0-1 and ZK1-3 have been analysed for gold by fire assay (30g) with ICP determination and other elements by 4 acid digest with ICP-AES finish (36 elements) at SGS del Peru S.A.C. SAZK0-1, SAZK0-2, SAZK2-1, ZK0-2, ZK0-5, ZK1-5, ZK1-6, ZK2-1, ZK3-1, ZK3-4, ZK13-1 and ZK18-1 have been analysed for of gold by fire assay (30g) with ICP determination and other elements by 4 acid digest with combined ICP-AES and ICP-MS finish (50 elements) at SGS del Peru S.A.C. Samples from other holes have been analysed for gold by fire assay (30g) with ICP determination and overlimit (&gt;10 g/t Au) by fire assay with gravimetric determination and other elements by 4-acid digest with ICP-MS (48 elements) at ALS Laboratories in Peru.</li> <li>Underground development has been mapped and channel sampled. Channel samples have been taken by cutting a horizontal channel of approximately 5 cm width and 4 cm depth into the walls at a nominal height of 1m above the ground. The channel cuts were made with an angle grinder mounted with a diamond blade. Samples were extracted from the channel with a hammer and chisel to obtain a representative sample with a similar weight per metre as would be obtained from a drill core sample. Analysis of the samples has been done by ALS Laboratories in Peru using the same preparation and analysis as has been used for drill core samples.</li> </ul> |

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| Criteria                     | JORC Code explanation  | Commentary   |
|------------------------------|--|--|
| <b>Drilling techniques</b>   | <ul style="list-style-type: none"> <li>- Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>  | <p><b>CEL Drilling (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>• Diamond core drilling from surface collecting HQ core (standard tube). The core is not oriented.</li> </ul> <p><b>Historic Drilling:</b></p> <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>• Diamond core drilling HQ size from surface and reducing to NQ size as necessary. The historical records do not indicate if the core was oriented</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>• Diamond drilling was done using a rig owned by GK. Core size collected includes HQ, NQ and NQ3. There is no indication that oriented core was recovered.</li> </ul>  |
| <b>Drill sample recovery</b> | <ul style="list-style-type: none"> <li>- Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>- Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>- Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul> | <p><b>CEL Drilling (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>• Core run lengths recovered are recorded against the drillers depth markers to determine core recovery. Core sample recovery is high using standard HQ and NQ drilling</li> <li>• No relationship between sample recovery and grade has been observed.</li> </ul> <p><b>Historic Drilling:</b></p> <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>• In a majority of cases core recovery was 100%.</li> <li>• In the historical drill logs where core recoveries were less than 100% the percentage core recovery was noted.</li> <li>• No documentation on the methods to maximise sample recovery was reported in historical reports however inspection of the available core and historical drilling logs indicate that core recoveries were generally 100% with the exception of the top few metres of each drill hole.</li> <li>• No material bias has presently been recognised in core.</li> <li>• Observation of the core from various drill holes indicate that the rock is generally fairly solid even where it has been subjected to intense, pervasive hydrothermal alteration and core recoveries are generally 100%. Consequently, it is expected that the samples obtained were not unduly biased by significant core losses either during the drilling or cutting processes</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>• Core from Goldking has been re-boxed prior to sampling where boxes have deteriorated, otherwise the original boxes have been retained. Core lengths have been measured and compared to the depth tags that are kept in the boxes from the drilling and recovered lengths have been recorded with the logging.</li> <li>• Where re-boxing of the core is required, core has been placed in the new boxes, row-by row with care taken to ensure all of the core has been transferred.</li> <li>• No relationship has been observed between core recovery and sample assay values.</li> </ul> |

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| Criteria   | JORC Code explanation   | Commentary  |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|---|---|--------------|-------------------|-----------------|-----------------|-----------------|---------------|-------|-------|----------|----------|---------|----|-------|-------|----------|----------|---------|----|-------|--------|---------|----------|---------|--|-------|--------|---------|----------|---------|--|-------|--------|---------|----------|---------|----|-------|--------|---------|----------|---------|--|-------|-------|---------|----------|---------|--|-------|--------|---------|----------|---------|--|-------|--------|---------|----------|---------|--|-------|--------|--------------|--------------|--------------|--|-------|--------|----------|----------|---------|----|-------|-------|---------|----------|---------|--|-------|--------|--------------|--------------|--------------|--|-------|--------|--------------|--------------|--------------|--|-------|--------|--------------|--------------|--------------|--|-------|--------|--------------|--------------|--------------|--|-------|--------|----------|----------|---------|----|-------|--------|---------|----------|---------|--|-------|--------|---------|----------|---------|--|------------|----------|-----------|--|-------------------|-----|-----------|----------|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Logging    | - Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. | <ul style="list-style-type: none"><li>All drill current drill core and all available historic drill core has been logged qualitatively and quantitatively where appropriate. All core logged has been photographed after logging and before sampling.</li><li>Peer review of core logging is done to check that the logging is representative.</li><li>100% of all core including all relevant intersections are logged</li><li>Progress of current and historic El Guayabo and Colorado V drill core re-logging and re-sampling is summarized below:</li></ul>   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            | - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.   | <div>Historic EL Guayabo Drilling</div> <table><thead><tr><th>Hole_ID</th><th>Depth (m)</th><th>Logging Status</th><th>Core Photograph</th><th>Sampling Status</th><th>Total Samples</th></tr></thead><tbody><tr><td>GY-01</td><td>249.2</td><td>Complete</td><td>Complete</td><td>Partial</td><td>25</td></tr><tr><td>GY-02</td><td>272.9</td><td>Complete</td><td>Complete</td><td>Partial</td><td>88</td></tr><tr><td>GY-03</td><td>295.99</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-04</td><td>172.21</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-05</td><td>258.27</td><td>Partial</td><td>Complete</td><td>Partial</td><td>56</td></tr><tr><td>GY-06</td><td>101.94</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-07</td><td>127.0</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-08</td><td>312.32</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-09</td><td>166.25</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-10</td><td>194.47</td><td>missing core</td><td>missing core</td><td>missing core</td><td></td></tr><tr><td>GY-11</td><td>241.57</td><td>Complete</td><td>Complete</td><td>Partial</td><td>84</td></tr><tr><td>GY-12</td><td>255.7</td><td>Partial</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-13</td><td>340.86</td><td>missing core</td><td>missing core</td><td>missing core</td><td></td></tr><tr><td>GY-14</td><td>309.14</td><td>missing core</td><td>missing core</td><td>missing core</td><td></td></tr><tr><td>GY-15</td><td>251.07</td><td>missing core</td><td>missing core</td><td>missing core</td><td></td></tr><tr><td>GY-16</td><td>195.73</td><td>missing core</td><td>missing core</td><td>missing core</td><td></td></tr><tr><td>GY-17</td><td>280.04</td><td>Complete</td><td>Complete</td><td>Partial</td><td>36</td></tr><tr><td>GY-18</td><td>160.35</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>GY-19</td><td>175.42</td><td>Pending</td><td>Complete</td><td>Pending</td><td></td></tr><tr><td>Logged (m)</td><td>1,043.71</td><td>Re-logged</td><td></td><td>Samples Submitted</td><td>289</td></tr><tr><td>Total (m)</td><td>4,185.01</td><td>Odin Drilled</td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><t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| Hole_ID      | Depth (m)         | Logging Status  | Core Photograph | Sampling Status | Total Samples | GY-01 | 249.2 | Complete | Complete | Partial | 25 | GY-02 | 272.9 | Complete | Complete | Partial | 88 | GY-03 | 295.99 | Pending | Complete | Pending |  | GY-04 | 172.21 | Pending | Complete | Pending |  | GY-05 | 258.27 | Partial | Complete | Partial | 56 | GY-06 | 101.94 | Pending | Complete | Pending |  | GY-07 | 127.0 | Pending | Complete | Pending |  | GY-08 | 312.32 | Pending | Complete | Pending |  | GY-09 | 166.25 | Pending | Complete | Pending |  | GY-10 | 194.47 | missing core | missing core | missing core |  | GY-11 | 241.57 | Complete | Complete | Partial | 84 | GY-12 | 255.7 | Partial | Complete | Pending |  | GY-13 | 340.86 | missing core | missing core | missing core |  | GY-14 | 309.14 | missing core | missing core | missing core |  | GY-15 | 251.07 | missing core | missing core | missing core |  | GY-16 | 195.73 | missing core | missing core | missing core |  | GY-17 | 280.04 | Complete | Complete | Partial | 36 | GY-18 | 160.35 | Pending | Complete | Pending |  | GY-19 | 175.42 | Pending | Complete | Pending |  | Logged (m) | 1,043.71 | Re-logged |  | Samples Submitted | 289 | Total (m) | 4,185.01 | Odin Drilled |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  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|            | Hole_ID   |   | Depth (m)    | Logging Status    | Core Photograph | Sampling Status | Total Samples   |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-01      | 249.2   | Complete  | Complete     | Partial           | 25              |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-02      | 272.9   | Complete  | Complete     | Partial           | 88              |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-03      | 295.99  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-04      | 172.21  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-05      | 258.27  | Partial   | Complete     | Partial           | 56              |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-06      | 101.94  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-07      | 127.0   | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-08      | 312.32  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-09      | 166.25  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-10      | 194.47  | missing core  | missing core | missing core      |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-11      | 241.57  | Complete  | Complete     | Partial           | 84              |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-12      | 255.7   | Partial   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-13      | 340.86  | missing core  | missing core | missing core      |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-14      | 309.14  | missing core  | missing core | missing core      |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-15      | 251.07  | missing core  | missing core | missing core      |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-16      | 195.73  | missing core  | missing core | missing core      |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-17      | 280.04  | Complete  | Complete     | Partial           | 36              |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-18      | 160.35  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GY-19      | 175.42  | Pending   | Complete     | Pending           |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Logged (m) | 1,043.71  | Re-logged   |              | Samples Submitted | 289             |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total (m)  | 4,185.01  | Odin Drilled  |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|            |   |   |              |                   |                 |                 |                 |               |       |       |          |          |         |    |       |       |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |    |       |        |         |          |         |  |       |       |         |          |         |  |       |        |         |          |         |  |       |        |         |          |         |  |       |        |              |              |              |  |       |        |          |          |         |    |       |       |         |          |         |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |              |              |              |  |       |        |          |          |         |    |       |        |         |          |         |  |       |        |         |          |         |  |            |          |           |  |                   |     |           |          |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Challenger Gold Limited  
ACN 123 591 382  
ASX: **CEL**

Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
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| Criteria   | JORC Code explanation    | Commentary        |                 |                        |                          |                              |
|--|--------------------------|-------------------|-----------------|------------------------|--------------------------|------------------------------|
|  |                          | JDH-06            | 302.74          | Complete               | Complete                 | Partial 98                   |
|  |                          | JDH-07            | 105.79          | missing core           | missing core             | missing core                 |
|  |                          | JDH-08            | 352.74          | missing core           | missing core             | missing core                 |
|  |                          | JDH-09            | 256.70          | Complete               | Complete                 | Partial 49                   |
|  |                          | JDH-10            | 221.64          | Complete               | Complete                 | Partial 43                   |
|  |                          | JDH-11            | 217.99          | Pending                | Complete                 | Pending                      |
|  |                          | JDH-12            | 124.08          | Complete               | Complete                 | Partial 22                   |
|  |                          | JDH-13            | 239.33          | Complete               | Complete                 | Partial 21                   |
|  |                          | JDH-14            | 239.32          | Complete               | Complete                 | Partial 30                   |
|  |                          | <b>Logged (m)</b> | <b>1,038.09</b> | <b>Re-logged</b>       |                          | <b>Samples Submitted 263</b> |
|  |                          | <b>Total (m)</b>  | <b>3,245.18</b> | <b>Newmont Drilled</b> |                          |                              |
| <b>CEL El Guayabo Drill Hole Processing Completed during Drill Camp #1, Phase #1 2021-2022</b> |                          |                   |                 |                        |                          |                              |
|  | Hole_ID                  | Depth (m)         | Logging Status  | Core Photograph        | Sampling Status          | Total Samples                |
|  | GYDD-21-001              | 800.46            | Complete        | Complete               | Complete                 | 581                          |
|  | GYDD-21-002              | 291.70            | Complete        | Complete               | Complete                 | 204                          |
|  | GYDD-21-002A             | 650.58            | Complete        | Complete               | Complete                 | 282                          |
|  | GYDD-21-003              | 723.15            | Complete        | Complete               | Complete                 | 545                          |
|  | GYDD-21-004              | 696.11            | Complete        | Complete               | Complete                 | 513                          |
|  | GYDD-21-005              | 632.05            | Complete        | Complete               | Complete                 | 445                          |
|  | GYDD-21-006              | 365.26            | Complete        | Complete               | Complete                 | 258                          |
|  | GYDD-21-007              | 651.80            | Complete        | Complete               | Complete                 | 407                          |
|  | GYDD-21-008              | 283.68            | Complete        | Complete               | Complete                 | 214                          |
|  | GYDD-21-009              | 692.67            | Complete        | Complete               | Complete                 | 517                          |
|  | GYDD-21-010              | 888.60            | Complete        | Complete               | Complete                 | 620                          |
|  | GYDD-21-011              | 314.46            | Complete        | Complete               | Complete                 | 227                          |
|  | GYDD-21-012              | 797.65            | Complete        | Complete               | Complete                 | 588                          |
|  | GYDD-21-013              | 517.45            | Complete        | Complete               | Complete                 | 388                          |
|  | GYDD-22-014              | 783.60            | Complete        | Complete               | Complete                 | 546                          |
|  | GYDD-22-015              | 368.26            | Complete        | Complete               | Complete                 | 265                          |
|  | GYDD-22-016              | 469.75            | Complete        | Complete               | Complete                 | 314                          |
|  | <b>Logged (m)</b>        | <b>9,927.23</b>   |                 |                        | <b>Samples Submitted</b> | <b>6,915</b>                 |
|  | <b>Total Drilled (m)</b> | <b>9,927.23</b>   |                 |                        |                          |                              |

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Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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| Criteria | JORC Code explanation | Commentary  |                  |                       |                          |                      |
|----------|-----------------------|---|------------------|-----------------------|--------------------------|----------------------|
|          |                       | <b>CEL El Guayabo Drill Hole Processing Completed during Drill Camp #1, Phase # 2 2022-2023</b>   |                  |                       |                          |                      |
|          |                       | <b>Hole_ID</b>  | <b>Depth (m)</b> | <b>Logging Status</b> | <b>Core Photograph</b>   | <b>Total Samples</b> |
|          |                       | GYDD-22-017   | 860.75           | Complete              | Complete                 | 601                  |
|          |                       | GYDD-22-018   | 734.05           | Complete              | Complete                 | 534                  |
|          |                       | GYDD-22-019   | 861.05           | Complete              | Complete                 | 632                  |
|          |                       | GYDD-22-020   | 750.00           | Complete              | Complete                 | 544                  |
|          |                       | GY2DD-22-001  | 776.40           | Complete              | Complete                 | 520                  |
|          |                       | GYDD-22-021   | 812.85           | Complete              | Complete                 | 596                  |
|          |                       | GYDD-22-022   | 702.85           | Complete              | Complete                 | 514                  |
|          |                       | GYDD-22-023   | 795.55           | Complete              | Complete                 | 573                  |
|          |                       | GYDD-22-024   | 650.00           | Complete              | Complete                 | 466                  |
|          |                       | GYDD-22-025   | 1194.05          | Complete              | Complete                 | 881                  |
|          |                       | GYDD-22-026   | 1082.45          | Complete              | Complete                 | 803                  |
|          |                       | GYDD-22-027   | 875.35           | Complete              | Complete                 | 658                  |
|          |                       | GYDD-22-028   | 521.20           | Complete              | Complete                 | 364                  |
|          |                       | GYDD-22-029   | 528.95           | Complete              | Complete                 | 382                  |
|          |                       | GYDD-22-030   | 691.20           | Complete              | Complete                 | 506                  |
|          |                       | GYDD-23-031   | 696.40           | Complete              | Complete                 | 486                  |
|          |                       | GYDD-23-032   | 781.45           | Complete              | Complete                 | 586                  |
|          |                       | GYDD-23-033   | 565.85           | Complete              | Complete                 | 387                  |
|          |                       | GYDD-23-034   | 413.65           | Complete              | Complete                 | 307                  |
|          |                       | GYDD-23-035   | 381.85           | Complete              | Complete                 | 258                  |
|          |                       | GYDD-23-036   | 767.45           | Complete              | Complete                 | 573                  |
|          |                       | GYDD-23-037   | 823.10           | Complete              | Complete                 | 607                  |
|          |                       | GYDD-23-038   | 651.80           | Complete              | Complete                 | 466                  |
|          |                       | GYDD-23-039   | 812.40           | Complete              | Complete                 | 598                  |
|          |                       | GYDD-23-040   | 352.40           | Complete              | Complete                 | 255                  |
|          |                       | GYDD-23-041   | 779.00           | Complete              | Complete                 | 543                  |
|          |                       | GYDD-23-042   | 746.40           | Complete              | Complete                 | 528                  |
|          |                       | GYDD-23-043   | 742.15           | Complete              | Complete                 | 556                  |
|          |                       | <b>Logged (m)</b>   | <b>20,350.60</b> |                       | <b>Samples Submitted</b> | <b>14,724</b>        |
|          |                       | <b>Total Drilled (m)</b>  | <b>20,350.60</b> |                       |                          |                      |
|          |                       | <b>Colorado V:</b>  |                  |                       |                          |                      |
|          |                       | <ul style="list-style-type: none"> <li>Core has been logged for lithology, alteration, mineralisation and structure. Where possible, logging is quantitative.</li> <li>Colorado V core re-logging and re-sampling is summarized below:</li> </ul> |                  |                       |                          |                      |

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|----------|-----------------------|-------------------------------|-----------|----------------|-----------------|-----------------------|
|          |                       | Historic Colorado V Drilling: |           |                |                 |                       |
|          |                       | Hole_ID                       | Depth (m) | Logging Status | Core Photograph | Total Samples         |
|          |                       | ZK0-1                         | 413.6     | Complete       | Complete        | Samples Submitted 281 |
|          |                       | ZK0-2                         | 581.6     | Complete       | Complete        | Samples Submitted 388 |
|          |                       | ZK0-3                         | 463.0     | Complete       | Complete        | Samples Submitted 330 |
|          |                       | ZK0-4                         | 458.0     | Complete       | Complete        | Samples Submitted 350 |
|          |                       | ZK0-5                         | 624.0     | Complete       | Complete        | Samples Submitted 482 |
|          |                       | ZK1-1                         | 514.6     | Complete       | Complete        | Samples Submitted 288 |
|          |                       | ZK1-2                         | 403.1     | Complete       | Complete        | Not Re-Sampled        |
|          |                       | ZK1-3                         | 425.0     | Complete       | Complete        | Samples Submitted 279 |
|          |                       | ZK1-4                         | 379.5     | Complete       | Complete        | Samples Submitted 267 |
|          |                       | ZK1-5                         | 419.5     | Complete       | Complete        | Samples Submitted 266 |
|          |                       | ZK1-6                         | 607.5     | Complete       | Complete        | Samples Submitted 406 |
|          |                       | ZK1-7                         | 453.18    | Complete       | Complete        | Samples Submitted 370 |
|          |                       | ZK1-8                         | 556.0     | Complete       | Complete        | Not Re-Sampled        |
|          |                       | ZK1-9                         | 220.0     | Complete       | Complete        | Samples Submitted 140 |
|          |                       | ZK2-1                         | 395.5     | Complete       | Complete        | Samples Submitted 320 |
|          |                       | ZK3-1                         | 372.48    | Complete       | Complete        | Samples Submitted 250 |
|          |                       | ZK3-1A                        | 295.52    | Pending        | Pending         | Pending               |
|          |                       | ZK3-2                         | 364.80    | Complete       | Complete        | Samples Submitted 235 |
|          |                       | ZK3-4                         | 322.96    | Complete       | Complete        | Samples Submitted 156 |
|          |                       | ZK4-1                         | 434.0     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK4-2                         | 390.5     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK4-3                         | 650.66    | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK4-4                         | 285.0     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK5-1                         | 321.90    | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK5-2                         | 321.0     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK5-3                         | 446.5     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK5-4                         | 508.0     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK5-5                         | 532.0     | Complete       | Complete        | Samples Submitted 378 |
|          |                       | ZK6-1                         | 552.6     | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK6-2                         | 531       | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK10-1                        | 454.0     | Complete       | Complete        | Samples Submitted 229 |
|          |                       | ZK10-2                        | 318.82    | Complete       | Complete        | Samples Submitted 206 |
|          |                       | ZK10-3                        | 331.52    | Complete       | Complete        | Samples Submitted 220 |
|          |                       | ZK11-1                        | 237.50    | Complete       | Complete        | Not Re-sampled        |
|          |                       | ZK12-1                        | 531.50    | Complete       | Complete        | Not Re-sampled        |

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|----------|-----------------------|-------------------|------------------|-------------------|---------------|--------------------------|--------------|
|          |                       | ZK12-2            | 510.6            | Complete          | Complete      | Not Re-sampled           |              |
|          |                       | ZK13-1            | 394.0            | Complete          | Complete      | Samples Submitted        | 246          |
|          |                       | ZK13-2            | 194.0            | Complete          | Complete      | Not Re-sampled           |              |
|          |                       | ZK16-1            | 324.0            | Complete          | Complete      | Samples Submitted        | 212          |
|          |                       | ZK16-2            | 385.83           | Complete          | Complete      | Samples Submitted        | 223          |
|          |                       | ZK18-1            | 410.5            | Complete          | Complete      | Samples Submitted        | 286          |
|          |                       | ZK19-1            | 548.60           | Complete          | Complete      | Not Re-sampled           |              |
|          |                       | ZK100-1           | 415.0            | Complete          | Complete      | Not Re-sampled           |              |
|          |                       | ZK103-1           | 524.21           | Complete          | Complete      | Not Re-sampled           |              |
|          |                       | ZK105-1           | 404.57           | Complete          | Complete      | Not Re-sampled           |              |
|          |                       | ZK205-1           | 347.0            | Complete          | Complete      | Samples Submitted        | 211          |
|          |                       | SAZK0-1A          | 569.1            | Complete          | Complete      | Samples Submitted        | 396          |
|          |                       | SAZK0-2A          | 407.5            | Complete          | Complete      | Samples Submitted        | 260          |
|          |                       | SAZK2-1           | 430.89           | Complete          | Complete      | Samples Submitted        | 195          |
|          |                       | SAZK2-2           | 354.47           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK2-1             | 121.64           | missing core      | missing core  | missing core             |              |
|          |                       | CK2-2             | 171.85           | missing core      | missing core  | missing core             |              |
|          |                       | CK2-3             | 116.4            | missing core      | missing core  | missing core             |              |
|          |                       | CK2-4             | 146.12           | missing core      | missing core  | missing core             |              |
|          |                       | CK2-5             | 357.56           | Complete          | Complete      | Complete                 |              |
|          |                       | CK2-6             | 392.56           | Complete          | Complete      | Complete                 |              |
|          |                       | CK3-1             | 185.09           | missing core      | missing core  | missing core             |              |
|          |                       | CK3-2             | 21.75            | missing core      | missing core  | missing core             |              |
|          |                       | CK3-3             | 138.02           | missing core      | missing core  | missing core             |              |
|          |                       | CK5-1             | 273.56           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK5-2             | 273.11           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK13-1            | 227.1            | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK13-2            | 231.16           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK13-3            | 197.06           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK13-4            | 176.57           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK13-5            | 184.70           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | CK21-1            | 143.47           | Complete          | Complete      | Not Re-Sampled           |              |
|          |                       | <b>Logged (m)</b> | <b>25,315.07</b> | <b>Re-logged</b>  | <b>23,498</b> | <b>Samples Submitted</b> | <b>7,894</b> |
|          |                       | <b>Total (m)</b>  | <b>24,414.20</b> | <b>Core Shack</b> |               |                          |              |
|          |                       | <b>Total (m)</b>  | <b>26,528.26</b> | <b>Drilled</b>    |               |                          |              |

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|----------|-----------------------|--|-----------|----------------|--------------------|-------------------|------------------|
|          |                       | CEL Colorado V Drill Hole Processing Completed during Drill Camp #1, 2022: |           |                |                    |                   |                  |
|          |                       | Hole_ID  | Depth (m) | Logging Status | Core<br>Photograph | Sampling Status   | Total<br>Samples |
|          |                       | CVDD-22-001  | 533.20    | Complete       | Complete           | Complete          | 398              |
|          |                       | CVDD-22-002  | 575.00    | Complete       | Complete           | Complete          | 412              |
|          |                       | CVDD-22-003  | 512.40    | Complete       | Complete           | Complete          | 384              |
|          |                       | CVDD-22-004  | 658.95    | Complete       | Complete           | Complete          | 478              |
|          |                       | CVDD-22-005  | 607.15    | Complete       | Complete           | Complete          | 456              |
|          |                       | CVDD-22-006  | 600.70    | Complete       | Complete           | Complete          | 427              |
|          |                       | CVDD-22-007  | 808.00    | Complete       | Complete           | Complete          | 602              |
|          |                       | CVDD-22-008  | 535.70    | Complete       | Complete           | Complete          | 306              |
|          |                       | CVDD-22-009  | 890.80    | Complete       | Complete           | Complete          | 668              |
|          |                       | CVDD-22-010  | 890.20    | Complete       | Complete           | Complete          | 645              |
|          |                       | CVDD-22-011  | 672.50    | Complete       | Complete           | Complete          | 481              |
|          |                       | CVDD-22-012  | 756.70    | Complete       | Complete           | Complete          | 556              |
|          |                       | CVDD-22-013  | 752.45    | Complete       | Complete           | Complete          | 467              |
|          |                       | CVDD-22-014  | 863.40    | Complete       | Complete           | Complete          | 642              |
|          |                       | CVDD-22-015  | 758.35    | Complete       | Complete           | Complete          | 558              |
|          |                       | CVDD-22-016  | 558.45    | Complete       | Complete           | Complete          | 380              |
|          |                       | CVDD-22-017  | 746.05    | Complete       | Complete           | Complete          | 540              |
|          |                       | Logged (m)   | 11,720.00 |                |                    | Samples Submitted | 8,400            |
|          |                       | Total (m)  | 11,720.00 |                |                    |                   |                  |
|          |                       | CEL Colorado V Drill Hole Processing Completed during Drill Camp #2, 2024  |           |                |                    |                   |                  |
|          |                       | Hole_ID  | Depth (m) | Logging Status | Core<br>Photograph | Sampling Status   | Total<br>Samples |
|          |                       | CVDD-24-018  | 451.16    | Complete       | Complete           | Complete          | 265              |
|          |                       | CVDD-24-019  | 621.69    | Complete       | Complete           | Complete          | 364              |
|          |                       | CVDD-24-020  | 591.85    | Complete       | Complete           | Complete          | 342              |
|          |                       | CVDD-24-021  | 295.80    | Complete       | Complete           | Complete          | 171              |
|          |                       | CVDD-24-022  | 600.37    | Complete       | Complete           | Complete          | 356              |
|          |                       | CVDD-24-023  | 656.53    | Complete       | Complete           | Complete          | 377              |
|          |                       | CVDD-24-024  | 711.60    | Complete       | Complete           | Complete          | 418              |
|          |                       | CVDD-24-025  | 745.34    | Complete       | Complete           | Complete          | 440              |
|          |                       | CVDD-24-026  | 668.22    | Complete       | Complete           | Complete          | 392              |
|          |                       | CVDD-24-027  | 568.30    | Complete       | Complete           | Complete          | 328              |
|          |                       | CVDD-24-028  | 754.04    | Complete       | Complete           | Complete          | 443              |
|          |                       | CVDD-24-029  | 700.10    | Complete       | Complete           | Complete          | 401              |

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|---|--|---|-----------------|----------|--------------------------|--------------|
|   |  | CVDD-24-030   | 700.99          | Complete | Complete                 | Complete     |
|   |  | CVDD-24-031   | 402.53          | Complete | Complete                 | Complete     |
|   |  | CVDD-24-032   | 731.51          | Complete | Complete                 | Complete     |
|   |  | <b>Logged (m)</b>   | <b>9,200.03</b> |          | <b>Samples Submitted</b> | <b>5,376</b> |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <li>- If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>- For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>- Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>- Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>- Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul> | <p><b>CEL (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>• For sampling, all core is cut using a diamond saw, longitudinally into two halves. One half is sampled for assay and the other retained for future reference. Where duplicate samples are taken, ¼ core is cut using a diamond saw to prepare two ¼ core duplicates.</li> <li>• The location of the cut is marked on the core by the geologist that logged the core to ensure the cut creates a representative sample.</li> <li>• The sample preparation technique is appropriate for the material being sampled</li> </ul> <p><b>Historic:</b></p> <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>• Core was cut with diamond saw and half core was taken</li> <li>• All drilling was core drilling as such this is not relevant</li> <li>• Sample preparation was appropriate and of good quality. Each 1-3 m sample of half core was dried, crushed to a nominal – 10 mesh (ca 2mm), then 250 g of chips were split out and pulverized. A sub-sample of the pulp was then sent for analysis for gold by standard fire assay on a 30 g charge with an atomic absorption finish with a nominal 5 ppb Au detection limit.</li> <li>• Measures taken to ensure that the sampling is representative of the in-situ material collected is not outlined in the historical documentation however a program of re-assaying was undertaken by Odin which demonstrated the repeatability of original assay results</li> <li>• The use of a 1-3 m sample length is appropriate for deposits of finely disseminated mineralisation where long mineralised intersections are to be expected.</li> <li>• CEL ¼ core sampling was done by cutting the core with a diamond saw. Standards (CRM) and blanks were inserted into the batched sent for preparation and analysis. No duplicate samples were taken and ¼ core was retained for future reference. The sample size is appropriate for the style of mineralisation observed.</li> <li>• CEL rock chip samples of 2-3 kg are crushed to a nominal 2mm and a 500 g sub-sample is pulverized. The rock chips are collected from surface expose in creeks. Sampling is done so as to represent the material being mapped. The sample size is appropriate for the grain size of the material being sampled.</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>• No information is available on the method/s that have been used to collect the soil samples.</li> </ul> |                 |          |                          |              |

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|---|---|--|
|   |   | <ul style="list-style-type: none"> <li>Selected intervals of drill core have been cut longitudinally using a diamond saw and ½ core has been sampled. Sample intervals range from 0.1m to 4.5m with an average length of 1.35m. The size of the samples is appropriate for the mineralisation observed in the core.</li> <li>Re-sampling of the core involves cutting of ¼ core (where previously sampled) or ½ core where not previously sampled. ¼ or ½ core over intervals of 1-3 metres provides an adequate sample size for the material being sampled.</li> </ul>  |
| <b>Quality of assay data and laboratory tests</b> | <ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul> | <p><b>El Guayabo:</b><br/><b>CEL: Camp #1, Phase#1</b></p> <ul style="list-style-type: none"> <li>All drill core collected by CEL has been crushed to a nominal 2mm size. A 500 g sub-sample has been pulverized to 85% passing 75 micron at the SGS Laboratory in Guayaquil. Sub-samples of the pulps have been analyzed by SGS for Au by Fire Assay (30g) with AAS determination and gravimetric determination where over limit. Sub-samples of the pulps are also assayed for a multi element suite by 4-acid digest with ICPMS determination (including Cu, Mo, Ag, Zn, Pb, S and Fe). All assay techniques are partial assays of the total sample.</li> <li>Samples submitted by CEL include standards (CRM), blanks and duplicate samples to provide some control (QAQC) on the accuracy and precision of the analyses.</li> <li>6 different CRM pulp samples have been submitted with the core samples. All 6 are certified for Au, 2 are certified for Ag, 5 are certified for Cu, 1 is certified for Fe and 3 are certified for Mo.</li> <li><b>For Au, of 222</b> CRM pulp analyses, 215 are within +/- 2 SD (97%)</li> <li><b>For Ag, of 54</b> CRM pulp analyses, all are within +/- 2 SD (100%)</li> <li><b>For Cu, of 126</b> CRM pulp analyses, 125 are within +/- 2 SD (99%)</li> <li><b>For Mo, of 83</b> CRM pulp analyses, 81 are within +/- 2 SD (98%)</li> <li><b>For Fe, of 65</b> CRM pulp analyses, 63 are within +/- 2 SD (97%)</li> <li><b>118</b> samples of pulp that are known to have a blank Au value have been included with the samples submitted. 16 samples returned Au values of &gt;5 ppb (up to 11 ppb) indicating only mild instrument calibration or contamination during fire assay.</li> <li><b>337</b> ¼ core duplicate samples have been submitted. The duplicate analyses for Au, Ag, Cu, Pb, Zn, As and Mo have been analysed. The duplicate sample analyses follow very closely the original analyses providing assurance that the sample size and technique is appropriate.</li> </ul> |

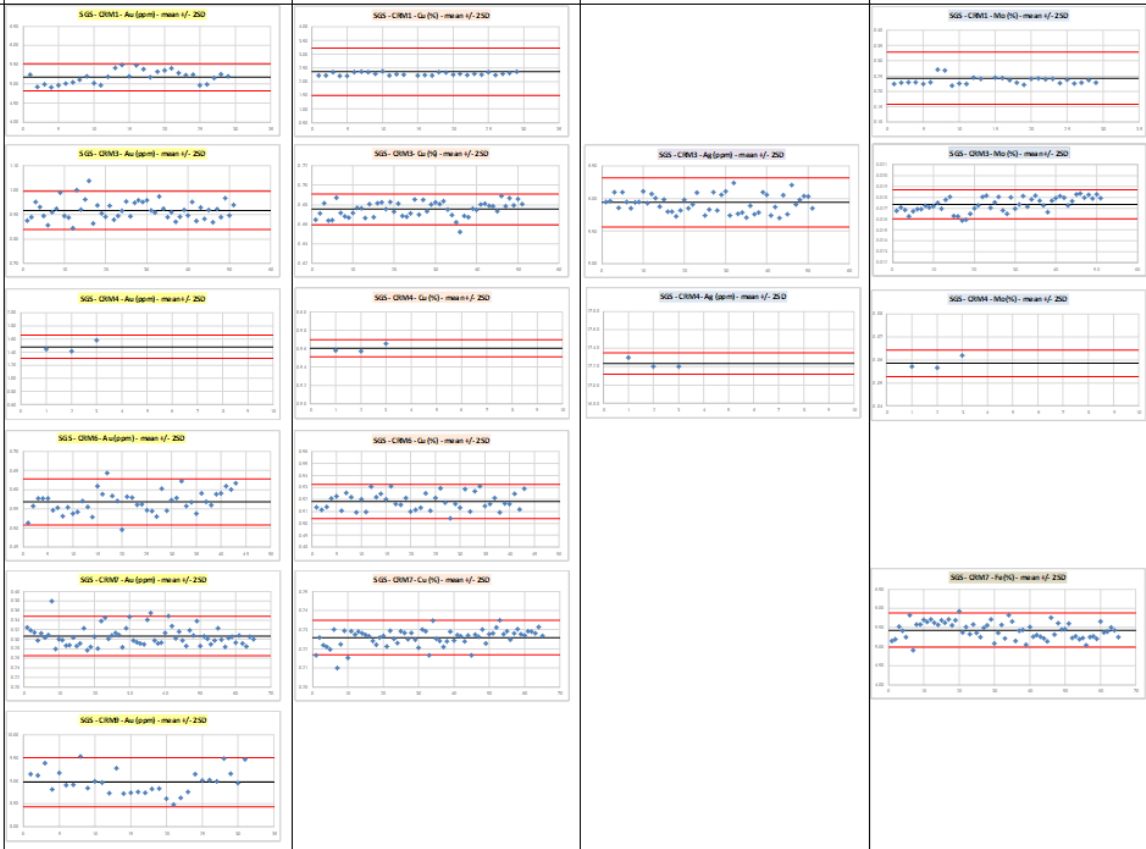
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|          |                       |  |  |  |  |

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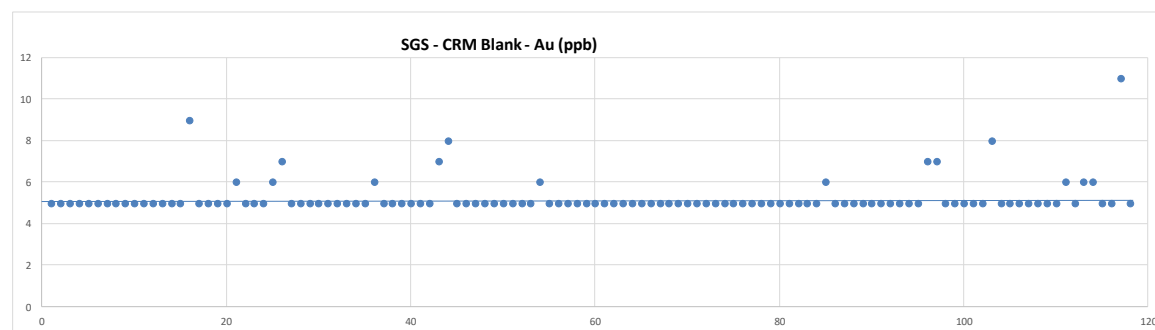
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#### CEL: Camp #1, Phase#2

- All drill core collected by CEL has been crushed to a nominal 2mm size. A 500 g sub-sample has been pulverized to 85% passing 75 micron at the SGS Laboratory in Guayaquil. Sub-samples of the pulps have been analyzed by SGS for Au by Fire Assay (30g) with AAS determination and gravimetric determination where over limit. Sub-samples of the pulps are also assayed for a multi element suite by 4-acid digest with ICPMS determination (including Cu, Mo, Ag, Zn, Pb, S and Fe). All assay techniques are partial assays of the total sample.
- Samples submitted by CEL include standards (CRM), blanks and duplicate samples to provide some control (QAQC) on the accuracy and precision of the analyses.
- 7 different CRM pulp samples have been submitted with the core samples. All 7 are certified for Au, 3 are certified for Ag, All 7 are certified for Cu, 1 is certified for Fe and 4 are certified for Mo.
- **For Au, of 453** CRM pulp analyses, 445 are within +/- 2 SD (98%)
- **For Ag, of 155** CRM pulp analyses, 150 are within +/- 2 SD (97%)
- **For Cu, of 453** CRM pulp analyses, 444 are within +/- 2 SD (98%)
- **For Mo, of 286** CRM pulp analyses, 272 are within +/- 2 SD (95%)
- **For Fe, of 2** CRM pulp analyses, All are within +/- 2 SD (100%)
- **228** samples of pulp that are known to have a blank Au value have been included with the samples submitted. 11 samples returned Au values of >5 ppb (up to 9 ppb) indicating only mild instrument calibration or contamination during fire assay.
- **671** ¼ core duplicate samples have been submitted. The duplicate analyses for Au, Ag, Cu, Pb, Zn, As and Mo have been analysed. The duplicate sample analyses follow very closely the original analyses providing assurance that the sample size and technique is appropriate.

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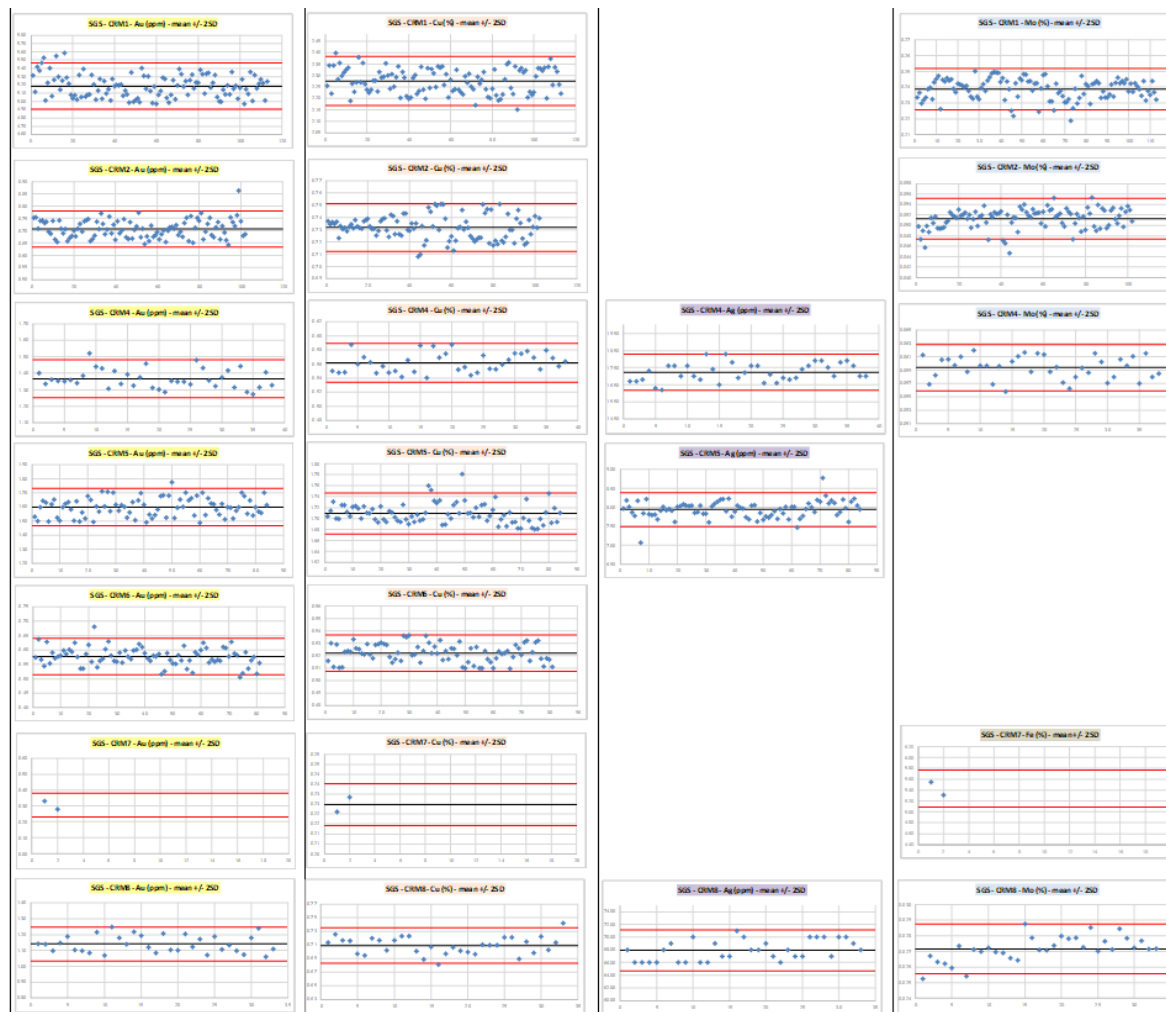
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## Criteria

## JORC Code explanation

## Commentary



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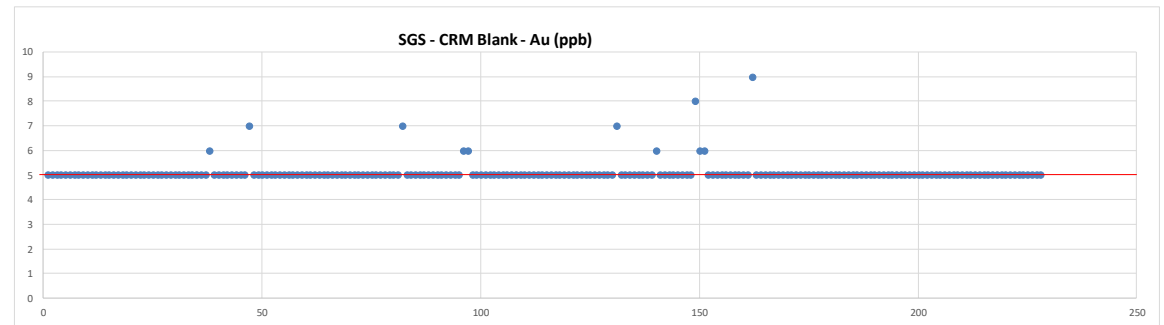
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## Criteria

## JORC Code explanation

## Commentary



## Historic:

- The nature, quality and appropriateness of the assaying and laboratory procedures used by Newmont and Odin are still in line with industry best practice with appropriate QA/QC and chain of custody and are considered appropriate.
- Available historical data does not mention details of geophysical tools as such it is believed a geophysical campaign was not completed in parallel with the drilling campaign.
- Duplicates were prepared by the Laboratory (Bonder Cleg) which used internal standards. Newmont also inserted its own standards at 25 sample intervals as a control on analytical quality. Later Odin undertook a re-assaying program of the majority of the higher-grade sections which confirmed the repeatability.
- Given the above, it is considered acceptable levels of accuracy and precision have been established
- CEL ¼ and ½ core samples were prepared for assay at SGS Del Ecuador S.A. in Quito, Ecuador with analysis completed by in Lima at SGS del in Peru S.A.C and by ALS Laboratories in Quito with analysis completed by ALS in Vancouver, Canada. Samples were crushed and a 500g sub-sample was pulverized to 85% passing 75 µm. The technique provides for a near total analysis of the economic elements of interest.
- CEL rock chip samples were prepared for assay at ALS Laboratories (Quito) with analysis being completed at ALS Laboratories (Peru). The fire assay and 4-acid digest provide for near-total analysis of the economic elements of interest. No standards or blanks were submitted with the rock chip samples.

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| Criteria | JORC Code explanation | Commentary  |
|----------|-----------------------|---|
|          |                       | <p><b>Colorado V:</b><br/> <b>CEL: Camp #1, Phase#1</b></p> <ul style="list-style-type: none"> <li>All drill core collected by CEL has been crushed to a nominal 2mm size. A 500 g sub-sample has been pulverized to 85% passing 75 micron at the SGS Laboratory in Guayaquil. Sub-samples of the pulps have been analyzed by SGS for Au by Fire Assay (30g) with AAS determination and gravimetric determination where over limit. Sub-samples of the pulps are also assayed for a multi element suite by 4-acid digest with ICPMS determination (including Cu, Mo, Ag, Zn, Pb, S and Fe). All assay techniques are partial assays of the total sample.</li> <li>Samples submitted by CEL include standards (CRM), blanks and duplicate samples to provide some control (QAQC) on the accuracy and precision of the analyses.</li> <li>8 different CRM pulp samples have been submitted with the core samples. All 8 are certified for Au, 3 are certified for Ag, 7 are certified for Cu, 1 is certified for Fe and 4 are certified for Mo.</li> <li><b>For Au, of 352 CRM</b> pulp analyses, 346 are within +/- 2 SD (98%)</li> <li><b>For Ag, of 134 CRM</b> pulp analyses, 127 are within +/- 2 SD (95%)</li> <li><b>For Cu, of 338 CRM</b> pulp analyses, 324 are within +/- 2 SD (96%)</li> <li><b>For Mo, of 197 CRM</b> pulp analyses, 187 are within +/- 2 SD (95%)</li> <li><b>For Fe, of 15 CRM</b> pulp analyses, all are within +/- 2 SD (100%)</li> <li><b>162</b> samples of pulp that are known to have a blank Au value have been included with the samples submitted. 24 samples returned Au values of &gt;5 ppb (up to 11 ppb) indicating only mild instrument calibration or contamination during fire assay.</li> <li><b>474</b> ¼ core duplicate samples have been submitted. The duplicate analyses for Au, Ag, Cu, Pb, Zn, As and Mo have been analysed. The duplicate sample analyses follow very closely the original analyses providing assurance that the sample size and technique is appropriate.</li> </ul> |

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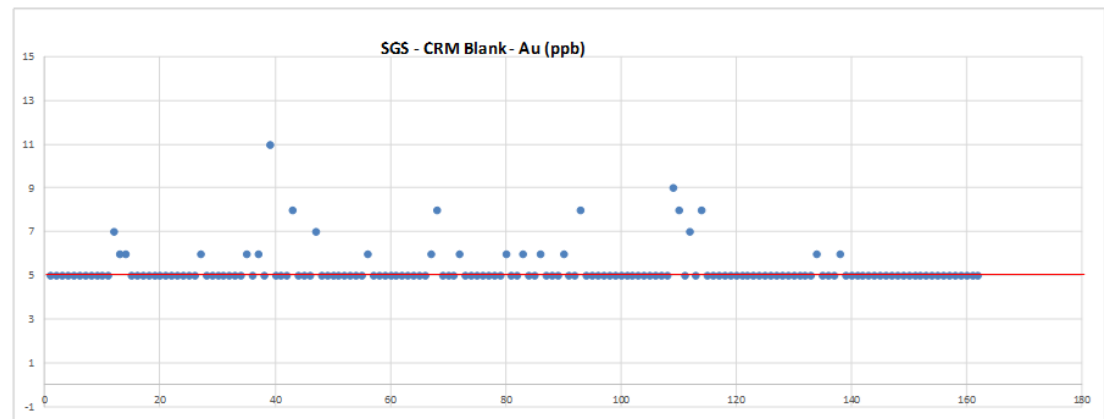
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| Criteria | JORC Code explanation | Commentary |
|----------|-----------------------|------------|
|----------|-----------------------|------------|



#### Historic:

- No information is available on the methods used to analyse the historic soil or drill core samples. Assay results are not provided in this report.  
Soil samples have been analysed by GK for Au, Cu, Ag, Zn, Pb, As, Mn, Ni, Cr, Mo, Sn, V, Ti, Co, B, Ba, Sb, Bi and Hg. Pulps have been securely retained and check assaying is planned.
- Drill core was partially assayed for gold only with assays undertaken by Goldking's on site laboratory
- CEL samples of drill core re-sampled by CEL. Blanks and CRM (standards) were added to the batches to check sample preparation and analysis.  
3 separate CRM's were included in the batches sent for analysis. All three have certified Au values. The results of the analysis of the CRM are shown below. With a few exceptions, the CRM has returned results within +/- 2 SD of the certified reference value. There is no bias in the results returned from either SGS or ALS laboratories. CRM3 analyses by fire assay at SGS did not include overlimit (>10 g/t).

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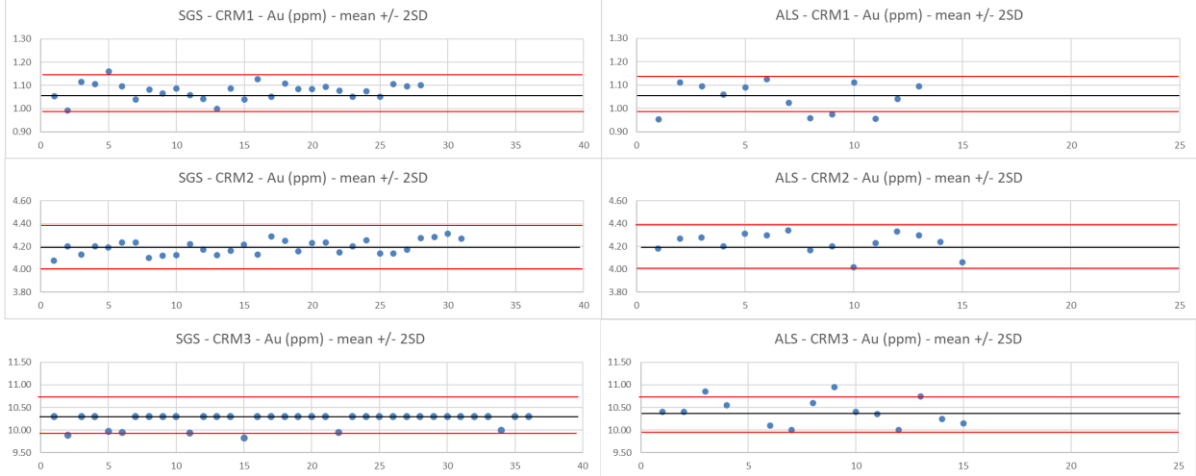
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|----------|-----------------------|--|
|          |                       |  <ul style="list-style-type: none"> <li>No duplicate samples have been submitted.</li> <li>Two different blanks have been included randomly within the sample batches. A CRM blank with a value of &lt;0.01 ppm (10 ppb) Au was used initially. More recent batches have used a blank gravel material which has no certified reference value. The results are shown below. The first 4 gravel blanks show elevated Au values which is believed to be due to contamination of the blank prior to submission and not due to laboratory contamination. With one exception, the blanks have returned values below 10 ppb.</li> </ul> |

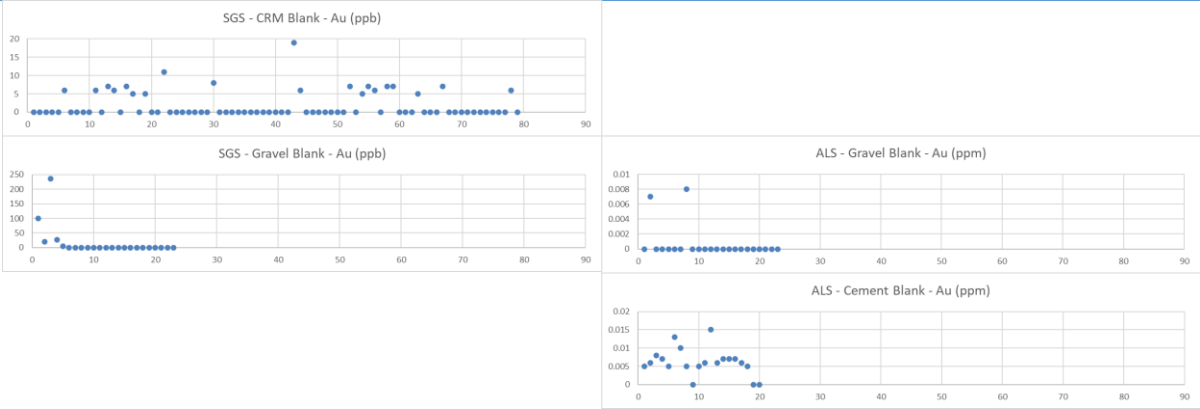
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|--|---|--|
|  |   |    |
| <b>Verification of sampling and assaying</b> | <ul style="list-style-type: none"> <li>- The verification of significant intersections by either independent or alternative company personnel.</li> <li>- The use of twinned holes.</li> <li>- Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>- Discuss any adjustment to assay data.</li> </ul> | <p><b>CEL Drilling (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>• Samples from significant intersections have not been checked by a second laboratory. No holes have been twinned.</li> <li>• Data from logging and assaying is compiled into a database at the Project and is backed up in a secure location. CEL GIS personnel and company geologists check and verify the data. No adjustments are made to any of the assay data.</li> </ul> <p><b>Historic:</b></p> <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>• All intersections with results greater than 0.5 g/t were re-assayed using the “blaster” technique - a screen type fire analysis based on a pulverized sample with a mass of about 5 kg. Additionally, Odin re-assayed the many of the higher-grade sections with re-assay results demonstrating repeatability of the original results.</li> <li>• Neither Newmont nor Odin attempted to verify intercepts with twinned holes</li> <li>• Data was sourced from scanned copies of original drill logs and in some cases original paper copies of assay sheets are available. This data is currently stored in a drop box data base with the originals held on site.</li> <li>• No adjustments to assay data were made.</li> <li>• CEL assay data has not been independently verified or audited. Data is stored electronically in MS Excel and PDF format from the Laboratory and entered into a Project database for analysis. There has been no adjustment of the data.</li> </ul> |

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|--------------------------------|---|--|
|                                |   | <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>There is no information available on the verification of sample and assay results. No assay data is provided in this report. Soil replicate samples and second split assay results have been provided but not fully analysed at this stage.</li> <li>Of the 4,495 soil samples in the GK database, 166 are replicate samples and 140 are second split re-analyses. 37 samples have no coordinates in the database. The remaining 4,152 have analyses for all 19 elements indicated above.</li> <li>Significant intersections have been internally checked against the assay data received. The data received has been archived electronically and a database of all drill information is being developed. There is no adjustment of the assay data.</li> </ul>  |
| <b>Location of data points</b> | <ul style="list-style-type: none"> <li>- Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>- Specification of the grid system used.</li> <li>- Quality and adequacy of topographic control.</li> </ul> | <p><b>CEL Drilling (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>Drill hole collars are surveyed after the drilling using a DGPS. The co-ordinate system used is PSAD 1956, UTM zone 17S.</li> <li>Down-hole surveys are performed at regular intervals down hole (nominally 50 metres or as required by the geologist) during the drilling of the hole to ensure the hole is on track to intersect planned targets. Down hole surveys are done using a magnetic compass and inclinometer tool fixed to the end of the wire line. Down hole surveys are recorded by the drillers and sent to the geologist and GIS team for checking and entry into the drill hole database.</li> </ul> <p><b>Historic:</b></p> <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>Newmont undertook survey to located drill holes in accordance with best practice at the time. No formal check surveying has been undertaken to verify drill collar locations at this stage</li> <li>Coordinate System: PSAD 1956 UTM Zone 17S Projection: Transverse Mercator Datum: Provisional S American 1956</li> <li>Quality of topographic control appears to be + - 1 meter which is sufficient for the exploration activities undertaken.</li> <li>Rock chip samples have been located using topographic maps with the assistance of hand-held GPS.</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>Coordinate System: PSAD 1956 UTM Zone 17S Projection: Transverse Mercator Datum: Provisional S American 1956</li> <li>No information is available on the collar and down-hole survey techniques used on the Colorado V concession.</li> <li>Rock chip sample locations are determined by using a handheld GPS unit which is appropriate for the scale of the mapping program being undertaken.</li> </ul> |

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| Criteria   | JORC Code explanation  | Commentary  |
|--|--|---|
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>- Data spacing for reporting of Exploration Results.</li> <li>- Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>- Whether sample compositing has been applied.</li> </ul>                               | <ul style="list-style-type: none"> <li>• Drilling is exploration based and a grid was not considered appropriate at that time.</li> <li>• A JORC compliant Mineral Resource has not been estimated</li> <li>• Sample compositing was not used</li> </ul>  |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>- Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>- If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul> | <ul style="list-style-type: none"> <li>• A sampling bias is not evident.</li> <li>• Drill pads are located in the best possible location to ensure there is no bias introduced, subject to the topography and existing infrastructure. The steep terrain and thick vegetation often dictates where it is possible to place a drill collar.</li> </ul>   |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>- The measures taken to ensure sample security.</li> </ul>  | <p><b>CEL Samples (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>• All CEL samples are held in a secure compound from the time they are received from the drillers to the time they are loaded onto a courier truck to be taken to the laboratory. The logging and sampling is done in a fenced and gated compound that has day and night security. Samples are sealed in bags and then packed in secure poly weave bags for transport</li> </ul> <p><b>Historic:</b><br/><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>• Newmont sent all its field samples to the Bondar Clegg sample preparation facility in Quito for preparation. From there, approximately 100 grams of pulp for each sample was air freighted to the Bondar Clegg laboratory (now absorbed by ALS-Chemex) in Vancouver, for analysis. There is no record of any special steps to monitor the security of the samples during transport either between the field and Quito, or between Quito and Vancouver. However, Newmont did insert its own standards at 25 sample intervals as a control on analytical quality.</li> <li>• CEL samples are kept in a secure location and prepared samples are transported with appropriate paperwork, securely by registered couriers. Details of the sample security and chain of custody are kept at the Project office for future audits.</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>• GK analysed samples in an on-site laboratory. It is understood that the samples have remained on site at all</li> </ul> |

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| Criteria                 | JORC Code explanation  | Commentary   |
|--------------------------|--|--|
|                          |  | <p>times.</p> <ul style="list-style-type: none"> <li>CEL have collected samples at the core shed at El Guayabo and secured the samples in polyweave sacks for transport by courier to SGS Laboratories in Guayaquil for preparation. SGS in Guayaquil courier the prepared sample pulps to SGS in Peru for analysis. Photographs and documentation are retained to demonstrate the chain of custody of the samples at all stages.</li> </ul>   |
| <b>Audits or reviews</b> | - <i>The results of any audits or reviews of sampling techniques and data.</i> | <p><b>CEL drilling (El Guayabo and Colorado V):</b></p> <ul style="list-style-type: none"> <li>There has been no audit or review of the sampling techniques and data</li> </ul> <p><b>Historic:</b></p> <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>The sampling techniques were reviewed as part of a 43-101 Technical report on Cangrejos Property which also included the early results of the El Joven joint venture between Odin and Newmont, under which the work on the El Guayabo project was undertaken. This report is dated 27 May 2004 and found the sampling techniques and intervals to be appropriate with adequate QA/QC and custody procedures, core recoveries generally 100%, and appropriate duplicates and blanks use for determining assay precision and accuracy.</li> <li>There have been no audits or reviews of CEL data for the El Guayabo.</li> </ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"> <li>No audits or reviews of sampling techniques and data is known. Goldking did twin two earlier holes with results still being compiled.</li> </ul> |

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## Section 2: Reporting of Exploration Results -El Guayabo Project

(Criteria in this section apply to all succeeding sections.)

| Criteria                                       | JORC Code explanation  | Commentary  |
|--|--|---|
| <b>Mineral tenement and land tenure status</b> | <ul style="list-style-type: none"> <li>- Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>- The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul> | <ul style="list-style-type: none"> <li>- The El Guayabo (Code. 225) mining concession is located within El Oro Province. The concession is held by Torata Mining Resources S.A (TMR S.A) and was granted in compliance with the Mining Act ("MA") in on April 27, 2010. There are no overriding royalties on the project other than normal Ecuadorian government royalties.</li> <li>- The property has no historical sites, wilderness or national park issues.</li> <li>- The mining title grants the owner an exclusive right to perform mining activities, including, exploration, exploitation and processing of minerals over the area covered by the prior title for a period of 25 years, renewable for a further 25 years. Under its option agreement, the owner has been granted a negative pledge (which is broadly equivalent to a fixed and floating charge) over the concession. In addition, a duly notarized Irrevocable Promise to Transfer executed by TMR S.A in favor of AEP has been lodged with the Ecuador Mines Department.</li> <li>- The Colorado V mining concession (Code No. 3363.1) located in Bellamaria, Santa Rosa, El Oro, Ecuador was granted in compliance with the Mining Act ("MA") in on July 17, 2001. It is adjacent to El Guayabo concession to the north. The concession is held by Goldking Mining Company S.A. There are no overriding royalties on the project other than normal Ecuadorian government royalties.</li> <li>- The concession has no historical sites, wilderness or national park issues.</li> <li>- The El Guayabo 2 (Code. 300964) mining concession is located Torata parish, Santa Rosa canton, El Oro province, Ecuador. The concession is held by T Mr. Segundo Ángel Marín Gómez and Mrs. Hermida Adelina Freire Jaramillo and was granted in compliance with the Mining Act ("MA") on 29April 29, 2010. There are no overriding royalties on the project other than normal Ecuadorian government royalties.</li> <li>- The property has no historical sites, wilderness, or national park issues.</li> </ul> |
| <b>Exploration done by other parties</b>       | <ul style="list-style-type: none"> <li>- Acknowledgment and appraisal of exploration by other parties.</li> </ul>  | <p><b>El Guayabo:</b></p> <ul style="list-style-type: none"> <li>- Previous exploration on the project has been undertaken by Newmont and Odin from 1994 to 1997. This included surface pit and rock chip geochemistry, followed by the drilling of 33 drill holes for a total of 7605.52 meters) to evaluate the larger geochemical anomalies.</li> <li>- The collection of all exploration data by Newmont and Odin was of a high standard and had appropriate sampling techniques and intervals, adequate QA/QC and custody procedures, and appropriate duplicates and blanks used for determining assay precision and accuracy.</li> <li>- The geological interpretation of this data, including core logging and follow up geology was designed and directed by in-country inexperienced geologists. It appears to have been focused almost exclusively for gold targeting surface gold anomalies or the depth extensions of higher-grade gold zones being exploited by the artisanal miners. The geologic logs for all drill holes did not record details that would have been typical, industry standards for porphyry copper exploration at that time. Several holes which ended in economic mineralisation have never been followed up.</li> </ul>   |

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Mr Kris Knauer, MD and CEO  
Mr Sergio Rotoondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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| Criteria                      | JORC Code explanation   | Commentary  |                     |             |           |                     |             |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
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|                               |   | <ul style="list-style-type: none"><li>- In short, important details which would have allowed the type of target to be better explored were missed which in turn presents an opportunity to the current owner.</li></ul> <p><b>Colorado V:</b></p> <ul style="list-style-type: none"><li>- All exploration known has been completed by GK. Drilling has been done from 2016 to 2019. 56 drill holes, totaling 21,471.83m have been completed by GK.</li></ul> <p><b>El Guayabo 2:</b></p> <ul style="list-style-type: none"><li>- Exploration work undertaken by the previous owner was limited to field mapping and sampling including assaying of a small number of samples for gold, silver, copper, lead and zinc. The report is only available in Spanish and assays were conducted in a local laboratory in Ecuador with the majority of this work undertaken in 2017.</li></ul>   |                     |             |           |                     |             |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| <b>Geology</b>                | <ul style="list-style-type: none"><li>- <i>Deposit type, geological setting and style of mineralisation.</i></li></ul>  | <ul style="list-style-type: none"><li>- It is believed that the El Guayabo, El Guayabo 2, and Colorado V concessions contain a “Low Sulfide” porphyry gold copper system and intrusive-related gold. The host rocks for the intrusive complex is metamorphic basement and Oligocene – Mid-Miocene volcanic rocks. This suggests the intrusions are of a similar age to the host volcanic sequence, which also suggests an evolving basement magmatic system. Intrusions are described in the core logs as quartz diorite and dacite. Mineralization has been recognized in:<ul style="list-style-type: none"><li>– Steeply plunging breccia bodies (up to 200 m in diameter) associated with intrusive diorites emplaced in the metamorphic host rock.</li><li>– Porphyry style veins and stockwork as well as late Quartz/Calcite/sulfide veins and veinlets</li><li>– Disseminated pyrite and pyrrhotite in the intrusions and in the metamorphic host rock near the intrusions.</li></ul></li></ul>  |                     |             |           |                     |             |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| <b>Drill hole Information</b> | <ul style="list-style-type: none"><li>- <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i><ul style="list-style-type: none"><li>o <i>easting and northing of the drill hole collar</i></li><li>o <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li><li>o <i>dip and azimuth of the hole</i></li><li>o <i>down hole length and interception depth</i></li><li>o <i>hole length.</i></li></ul></li><li>- <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li></ul> | <p><b>El Guayabo Historic drill hole information is provided below.</b></p> <table><tr><th>DRILLHOLE CODE</th><th>EAST (X)</th><th>NORTH (N)</th><th>ELEVATION (m.a.s.l)</th><th>AZIMUTH (°)</th><th>DIP (°)</th><th>FINAL DEPTH</th><th>DRILLED BY</th></tr><tr><td>DDHGY 01</td><td>628928.09</td><td>9605517.20</td><td>839.01</td><td>360</td><td>-90.0</td><td>249.20</td><td>Odin</td></tr><tr><td>DDHGY 02</td><td>629171.15</td><td>9606025.55</td><td>983.16</td><td>360.0</td><td>-90.0</td><td>272.90</td><td>Odin</td></tr><tr><td>DDHGY 03</td><td>629041.84</td><td>9606312.81</td><td>1063.37</td><td>305.0</td><td>-60.0</td><td>295.94</td><td>Odin</td></tr><tr><td>DDHGY 04</td><td>629171.68</td><td>9606025.18</td><td>983.2</td><td>125.0</td><td>-60.0</td><td>172.21</td><td>Odin</td></tr><tr><td>DDHGY 05</td><td>628509.21</td><td>9606405.29</td><td>989.87</td><td>145.0</td><td>-60.0</td><td>258.27</td><td>Odin</td></tr><tr><td>DDHGY 06</td><td>629170.56</td><td>9606025.97</td><td>983.11</td><td>305.0</td><td>-60.0</td><td>101.94</td><td>Odin</td></tr><tr><td>DDHGY 07</td><td>629170.81</td><td>9606025.80</td><td>983.16</td><td>305.0</td><td>-75.0</td><td>127.00</td><td>Odin</td></tr><tr><td>DDHGY 08</td><td>628508.95</td><td>9606405.74</td><td>989.86</td><td>145.0</td><td>-75.0</td><td>312.32</td><td>Odin</td></tr><tr><td>DDHGY 09</td><td>629171.22</td><td>9606025.88</td><td>983.22</td><td>45.0</td><td>-75.0</td><td>166.25</td><td>Odin</td></tr><tr><td>DDHGY 10</td><td>629170.77</td><td>9606025.24</td><td>983.12</td><td>225.0</td><td>-75.0</td><td>194.47</td><td>Odin</td></tr><tr><td>DDHGY 11</td><td>628507.97</td><td>9606405.33</td><td>989.83</td><td>160.0</td><td>-60.0</td><td>241.57</td><td>Odin</td></tr><tr><td>DDHGY 12</td><td>629087.18</td><td>9606035.53</td><td>996.98</td><td>125.0</td><td>-60.0</td><td>255.7</td><td>Odin</td></tr><tr><td>DDHGY 13</td><td>629242.46</td><td>9605975.42</td><td>997.292</td><td>320.0</td><td>-65.0</td><td>340.86</td><td>Odin</td></tr><tr><td>DDHGY 14</td><td>629242.27</td><td>9605975.64</td><td>997.285</td><td>320.0</td><td>-75.0</td><td>309.14</td><td>Odin</td></tr><tr><td>DDHGY 15</td><td>629194.67</td><td>9605912.35</td><td>977.001</td><td>320.0</td><td>-60.0</td><td>251.07</td><td>Odin</td></tr><tr><td>DDHGY 16</td><td>629285.92</td><td>9606044.44</td><td>1036.920</td><td>320.0</td><td>-60.0</td><td>195.73</td><td>Odin</td></tr><tr><td>DDHGY 17</td><td>629122.31</td><td>9606058.64</td><td>1021.053</td><td>125.0</td><td>-82.0</td><td>280.04</td><td>Odin</td></tr><tr><td>DDHGY 18</td><td>628993.10</td><td>9606035.45</td><td>977.215</td><td>140.0</td><td>-60.0</td><td>160.35</td><td>Odin</td></tr><tr><td>DDHGY 19</td><td>629087.23</td><td>9606034.98</td><td>997.332</td><td>45.0</td><td>-53.0</td><td>175.41</td><td>Odin</td></tr></table> | DRILLHOLE CODE      | EAST (X)    | NORTH (N) | ELEVATION (m.a.s.l) | AZIMUTH (°) | DIP (°) | FINAL DEPTH | DRILLED BY | DDHGY 01 | 628928.09 | 9605517.20 | 839.01 | 360 | -90.0 | 249.20 | Odin | DDHGY 02 | 629171.15 | 9606025.55 | 983.16 | 360.0 | -90.0 | 272.90 | Odin | DDHGY 03 | 629041.84 | 9606312.81 | 1063.37 | 305.0 | -60.0 | 295.94 | Odin | DDHGY 04 | 629171.68 | 9606025.18 | 983.2 | 125.0 | -60.0 | 172.21 | Odin | DDHGY 05 | 628509.21 | 9606405.29 | 989.87 | 145.0 | -60.0 | 258.27 | Odin | DDHGY 06 | 629170.56 | 9606025.97 | 983.11 | 305.0 | -60.0 | 101.94 | Odin | DDHGY 07 | 629170.81 | 9606025.80 | 983.16 | 305.0 | -75.0 | 127.00 | Odin | DDHGY 08 | 628508.95 | 9606405.74 | 989.86 | 145.0 | -75.0 | 312.32 | Odin | DDHGY 09 | 629171.22 | 9606025.88 | 983.22 | 45.0 | -75.0 | 166.25 | Odin | DDHGY 10 | 629170.77 | 9606025.24 | 983.12 | 225.0 | -75.0 | 194.47 | Odin | DDHGY 11 | 628507.97 | 9606405.33 | 989.83 | 160.0 | -60.0 | 241.57 | Odin | DDHGY 12 | 629087.18 | 9606035.53 | 996.98 | 125.0 | -60.0 | 255.7 | Odin | DDHGY 13 | 629242.46 | 9605975.42 | 997.292 | 320.0 | -65.0 | 340.86 | Odin | DDHGY 14 | 629242.27 | 9605975.64 | 997.285 | 320.0 | -75.0 | 309.14 | Odin | DDHGY 15 | 629194.67 | 9605912.35 | 977.001 | 320.0 | -60.0 | 251.07 | Odin | DDHGY 16 | 629285.92 | 9606044.44 | 1036.920 | 320.0 | -60.0 | 195.73 | Odin | DDHGY 17 | 629122.31 | 9606058.64 | 1021.053 | 125.0 | -82.0 | 280.04 | Odin | DDHGY 18 | 628993.10 | 9606035.45 | 977.215 | 140.0 | -60.0 | 160.35 | Odin | DDHGY 19 | 629087.23 | 9606034.98 | 997.332 | 45.0 | -53.0 | 175.41 | Odin |
| DRILLHOLE CODE                | EAST (X)  | NORTH (N)   | ELEVATION (m.a.s.l) | AZIMUTH (°) | DIP (°)   | FINAL DEPTH         | DRILLED BY  |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 01                      | 628928.09   | 9605517.20  | 839.01              | 360         | -90.0     | 249.20              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 02                      | 629171.15   | 9606025.55  | 983.16              | 360.0       | -90.0     | 272.90              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 03                      | 629041.84   | 9606312.81  | 1063.37             | 305.0       | -60.0     | 295.94              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 04                      | 629171.68   | 9606025.18  | 983.2               | 125.0       | -60.0     | 172.21              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 05                      | 628509.21   | 9606405.29  | 989.87              | 145.0       | -60.0     | 258.27              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 06                      | 629170.56   | 9606025.97  | 983.11              | 305.0       | -60.0     | 101.94              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 07                      | 629170.81   | 9606025.80  | 983.16              | 305.0       | -75.0     | 127.00              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 08                      | 628508.95   | 9606405.74  | 989.86              | 145.0       | -75.0     | 312.32              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 09                      | 629171.22   | 9606025.88  | 983.22              | 45.0        | -75.0     | 166.25              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 10                      | 629170.77   | 9606025.24  | 983.12              | 225.0       | -75.0     | 194.47              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 11                      | 628507.97   | 9606405.33  | 989.83              | 160.0       | -60.0     | 241.57              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 12                      | 629087.18   | 9606035.53  | 996.98              | 125.0       | -60.0     | 255.7               | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 13                      | 629242.46   | 9605975.42  | 997.292             | 320.0       | -65.0     | 340.86              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 14                      | 629242.27   | 9605975.64  | 997.285             | 320.0       | -75.0     | 309.14              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 15                      | 629194.67   | 9605912.35  | 977.001             | 320.0       | -60.0     | 251.07              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 16                      | 629285.92   | 9606044.44  | 1036.920            | 320.0       | -60.0     | 195.73              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 17                      | 629122.31   | 9606058.64  | 1021.053            | 125.0       | -82.0     | 280.04              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 18                      | 628993.10   | 9606035.45  | 977.215             | 140.0       | -60.0     | 160.35              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |
| DDHGY 19                      | 629087.23   | 9606034.98  | 997.332             | 45.0        | -53.0     | 175.41              | Odin        |         |             |            |          |           |            |        |     |       |        |      |          |           |            |        |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |       |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |      |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |        |      |          |           |            |        |       |       |       |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |          |       |       |        |      |          |           |            |         |       |       |        |      |          |           |            |         |      |       |        |      |

Challenger Gold Limited  
ACN 123 591 382  
ASX: **CEL**

Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary |
|----------|-----------------------|------------|
|----------|-----------------------|------------|

| DRILLHOLE CODE | EAST (X)  | NORTH (N)  | ELEVATION (m.a.s.l) | AZIMUTH (°) | DIP (°) | FINAL DEPTH | DRILLED BY |
|----------------|-----------|------------|---------------------|-------------|---------|-------------|------------|
| JDH01          | 627185.78 | 9606463.27 | 933.47              | 280.0       | -60.0   | 236.89      | Newmont    |
| JDH02          | 627260.37 | 9606353.12 | 921.56              | 280.0       | -45.0   | 257.62      | Newmont    |
| JDH03          | 627191.61 | 9606200.35 | 952.82              | 280.0       | -45.0   | 260.97      | Newmont    |
| JDH04          | 627429.81 | 9606324.00 | 933.80              | 280.0       | -45.0   | 219.00      | Newmont    |
| JDH05          | 627755.97 | 9606248.70 | 1066.24             | 280.0       | -45.0   | 210.37      | Newmont    |
| JDH06          | 628356.37 | 9606416.13 | 911.58              | 150.0       | -45.0   | 302.74      | Newmont    |
| JDH07          | 628356.37 | 9606416.13 | 911.58              | 150.0       | -75.0   | 105.79      | Newmont    |
| JDH08          | 628356.37 | 9606416.13 | 911.58              | 150.0       | -60.0   | 352.74      | Newmont    |
| JDH09          | 628507.01 | 9606408.43 | 990.18              | 150.0       | -45.0   | 256.70      | Newmont    |
| JDH10          | 628897.96 | 9606813.62 | 985.60              | 270.0       | -45.0   | 221.64      | Newmont    |
| JDH11          | 628878.64 | 9606674.39 | 1081.96             | 270.0       | -45.0   | 217.99      | Newmont    |
| JDH12          | 629684.61 | 9606765.31 | 993.45              | 150.0       | -60.0   | 124.08      | Newmont    |
| JDH13          | 629122.61 | 9606058.49 | 1020.98             | 125.0       | -60.0   | 239.33      | Newmont    |
| JDH14          | 628897.15 | 9605562.77 | 852.59              | 90.0        | -45.0   | 239.32      | Newmont    |

#### Historic Colorado V Drill Hole Information:

| Hole ID | East (m)   | North (m)   | Elevation | Azimuth (°) | Dip (°) | Final depth   | Driller          |
|---------|------------|-------------|-----------|-------------|---------|---------------|------------------|
| ZK0-1   | 626378.705 | 9608992.99  | 204.452   | 221         | -60     | <b>413.60</b> | Shandong Zhaojin |
| ZK0-2   | 626378.705 | 9608992.99  | 204.452   | 221         | -82     | <b>581.60</b> | Shandong Zhaojin |
| ZK0-3   | 626475.236 | 9609095.444 | 197.421   | 221         | -75     | <b>463.00</b> | Shandong Zhaojin |
| ZK0-4   | 626476.119 | 9609098.075 | 197.225   | 221         | -90     | <b>458.00</b> | Shandong Zhaojin |
| ZK0-5   | 626475.372 | 9609100.909 | 197.17    | 300         | -70     | <b>624.00</b> | Shandong Zhaojin |
| ZK1-1   | 626310.629 | 9608865.923 | 226.385   | 61          | -70     | <b>514.60</b> | Shandong Zhaojin |
| ZK1-2   | 626313.901 | 9608867.727 | 226.494   | 150         | -70     | <b>403.10</b> | Shandong Zhaojin |
| ZK1-3   | 626382.401 | 9608894.404 | 229.272   | 61          | -70     | <b>425.00</b> | Shandong Zhaojin |
| ZK1-4   | 626502.206 | 9608982.539 | 227.333   | 61          | -70     | <b>379.50</b> | Shandong Zhaojin |
| ZK1-5   | 626497.992 | 9608979.449 | 227.241   | 241         | -70     | <b>419.50</b> | Shandong Zhaojin |
| ZK1-6   | 626500.813 | 9608979.367 | 227.315   | 180         | -70     | <b>607.50</b> | Shandong Zhaojin |
| ZK1-7   | 626498.548 | 9608979.541 | 227.28    | 241         | -82     | <b>453.18</b> | Shandong Zhaojin |
| ZK1-8   | 626501.094 | 9608980.929 | 227.208   | 61          | -85     | <b>556.00</b> | Shandong Zhaojin |
| ZK1-9   | 626416.4   | 9609040.6   | 202.416   | 203         | -23     | <b>220.00</b> | Lee Mining       |
| ZK2-1   | 626329.859 | 9609005.863 | 213.226   | 221         | -90     | <b>395.50</b> | Shandong Zhaojin |
| ZK3-1   | 628295.833 | 9608947.769 | 309.987   | 279         | -38     | <b>372.48</b> |                  |
| ZK3-1-A | 626416.4   | 9609040.6   | 202.416   | 179         | -29     | <b>295.52</b> | Lee Mining       |
| ZK3-2   | 628295.833 | 9608947.769 | 309.987   | 205         | -30     | <b>364.80</b> |                  |
| ZK3-4   | 628295.833 | 9608947.769 | 309.987   | 170         | -30     | <b>322.96</b> |                  |
| ZK4-1   | 626281.066 | 9609038.75  | 224.176   | 221         | -90     | <b>434.00</b> | Shandong Zhaojin |

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Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary |             |             |         |     |     |               |                  |
|----------|-----------------------|------------|-------------|-------------|---------|-----|-----|---------------|------------------|
|          |                       | ZK4-2      | 626281.066  | 9609038.75  | 224.176 | 221 | -70 | <b>390.50</b> | Shandong Zhaojin |
|          |                       | ZK4-3      | 626386.498  | 9609186.951 | 225.517 | 221 | -70 | <b>650.66</b> | Shandong Zhaojin |
|          |                       | ZK4-4      | 626287.7817 | 9609031.298 | 215     | 215 | -05 | <b>285.00</b> |                  |
|          |                       | ZK5-1      | 626377.846  | 9608790.388 | 273.43  | 221 | -78 | <b>321.90</b> | Shandong Zhaojin |
|          |                       | ZK5-2      | 626377.539  | 9608793.769 | 273.542 | 41  | -78 | <b>319.00</b> | Shandong Zhaojin |
|          |                       | ZK5-3      | 626383.556  | 9608800.999 | 273.622 | 330 | -70 | <b>446.50</b> | Shandong Zhaojin |
|          |                       | ZK5-4      | 626383.556  | 9608800.999 | 273.622 | 330 | -78 | <b>508.00</b> | Shandong Zhaojin |
|          |                       | ZK5-5      | 626432.795  | 9608847.735 | 242.572 | 61  | -70 | <b>532.00</b> | Shandong Zhaojin |
|          |                       | ZK6-1      | 626230.28   | 9609020.202 | 260.652 | 221 | -70 | <b>552.60</b> | Shandong Zhaojin |
|          |                       | ZK6-2      | 626165.623  | 9608991.594 | 271.928 | 221 | -70 | <b>531.00</b> | Shandong Zhaojin |
|          |                       | ZK10-1     | 626700.8538 | 9609675.002 | 126.617 | 221 | -53 | <b>454.00</b> | Lee Mining       |
|          |                       | ZK10-2     | 626744.7    | 9609711     | 110.817 | 310 | -30 | <b>318.82</b> |                  |
|          |                       | ZK10-3     | 626744.7    | 9609711     | 110.817 | 310 | -60 | <b>331.52</b> |                  |
|          |                       | ZK11-1     | 626446.263  | 9608705.238 | 290.028 | 221 | -78 | <b>237.50</b> | Shandong Zhaojin |
|          |                       | ZK12-1     | 626088.326  | 9609034.197 | 314.552 | 221 | -70 | <b>531.50</b> | Shandong Zhaojin |
|          |                       | ZK12-2     | 626019.538  | 9608961.409 | 294.649 | 221 | -70 | <b>510.60</b> | Shandong Zhaojin |
|          |                       | ZK13-1     | 627763.877  | 9609906.484 | 197.899 | 180 | -70 | <b>394.00</b> | Shandong Zhaojin |
|          |                       | ZK13-2     | 627757.925  | 9609713.788 | 234.34  | 0   | -70 | <b>194.00</b> | Shandong Zhaojin |
|          |                       | ZK16-1     | 626432.95   | 9609539.705 | 207.288 | 153 | -45 | <b>330.00</b> |                  |
|          |                       | ZK16-2     | 626432.95   | 9609539.705 | 207.288 | 183 | -45 | <b>394.00</b> |                  |
|          |                       | ZK18-1     | 627123.327  | 9609846.268 | 142.465 | 180 | -70 | <b>410.50</b> | Shandong Zhaojin |
|          |                       | ZK19-1     | 626753.271  | 9608802.634 | 386.627 | 221 | -70 | <b>548.60</b> | Shandong Zhaojin |
|          |                       | ZK100-1    | 626170.882  | 9608923.778 | 251.177 | 131 | -70 | <b>415.00</b> | Shandong Zhaojin |
|          |                       | ZK103-1    | 628203.1453 | 9607944.85  | 535.324 | 215 | -53 | <b>524.21</b> | Lee Mining       |
|          |                       | ZK105-1    | 628172.5923 | 9607826.055 | 541.244 | 183 | -54 | <b>404.57</b> | Lee Mining       |
|          |                       | ZK205-1    | 626257.123  | 9608795.904 | 243.297 | 160 | -70 | <b>347.00</b> | Shandong Zhaojin |
|          |                       | SAZK0-1A   | 627477.062  | 9609865.618 | 217.992 | 180 | -70 | <b>569.10</b> | Shandong Zhaojin |
|          |                       | SAZK0-2A   | 627468.807  | 9609805.054 | 213.63  | 180 | -70 | <b>407.50</b> | Shandong Zhaojin |
|          |                       | SAZK2-1    | 627330.0126 | 9609556.466 | 201.145 | 76  | -05 | <b>430.89</b> | Lee Mining       |
|          |                       | SAZK2-2    | 627330.0126 | 9609556.466 | 201.145 | 62  | -05 | <b>354.47</b> | Lee Mining       |
|          |                       | CK2-1      | 626328.573  | 9609000.856 | 216.798 | 221 | -45 | <b>121.64</b> | Shandong Zhaojin |
|          |                       | CK2-2      | 626328.573  | 9609000.856 | 216.798 | 251 | -45 | <b>171.85</b> | Shandong Zhaojin |
|          |                       | CK2-3      | 626328.573  | 9609000.856 | 216.798 | 191 | -45 | <b>116.40</b> | Shandong Zhaojin |
|          |                       | CK2-4      | 626328.573  | 9609000.856 | 216.798 | 221 | -70 | <b>146.12</b> | Shandong Zhaojin |
|          |                       | CK2-5      | 626254.4315 | 9608931.693 | 190.593 | 342 | -05 | <b>357.56</b> | Lee Mining       |
|          |                       | CK2-6      | 626298.1066 | 9608961.819 | 203.231 | 332 | -18 | <b>392.56</b> | Lee Mining       |
|          |                       | CK3-1      | 626359.641  | 9608859.373 | 205.96  | 20  | -15 | <b>185.09</b> | Shandong Zhaojin |
|          |                       | CK3-2      | 626359.641  | 9608859.373 | 205.96  | 163 | 00  | <b>21.75</b>  | Shandong Zhaojin |

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Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotonado, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
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|----------|-----------------------|---|-------------|--------------|-----------|----------------|------------|-------------|------------------|
|          |                       | CK3-3   | 626359.641  | 9608859.373  | 205.96    | 50             | -15        | 138.02      | Shandong Zhaojin |
|          |                       | CK5-1   | 626460.1233 | 9608906.592  | 202.124   | 194            | -74        | 273.56      | Lee Mining       |
|          |                       | CK5-2   | 626457.0999 | 96089.8.4999 | 202.126   | 251            | -69        | 273.11      | Lee Mining       |
|          |                       | CK13-1  | 626610.0642 | 9608838.445  | 202.556   | 41             | -05        | 227.10      | Lee Mining       |
|          |                       | CK13-2  | 626610.0642 | 9608838.445  | 202.556   | 41             | -40        | 231.16      | Lee Mining       |
|          |                       | CK13-3  | 626605.2307 | 9608833.471  | 202.556   | 221            | -59        | 197.06      | Lee Mining       |
|          |                       | CK13-4  | 626604.0848 | 9608836.544  | 203.013   | 209            | -45        | 176.57      | Lee Mining       |
|          |                       | CK13-5  | 626607.5245 | 9608832.296  | 203.013   | 136            | -45        | 184.70      | Lee Mining       |
|          |                       | CK21-1  | 626693.536  | 9608691.062  | 204.927   | 41             | 00         | 143.47      | Lee Mining       |
|          |                       | CEL: El Guayabo Project (Guayabo Concession), Camp #1, Phase #1, Drill Hole Information |             |              |           |                |            |             |                  |
|          |                       | Hole ID   | East (m)    | North (m)    | Elevation | Azimuth<br>(°) | Dip<br>(°) | Final depth | Driller          |
|          |                       | GYDD-21-001   | 628893.56   | 9606473.61   | 1074.98   | 330            | -60        | 800.46      | CEL              |
|          |                       | GYDD-21-002   | 629648.12   | 9606889.41   | 913.03    | 330            | -60        | 291.70      | CEL              |
|          |                       | GYDD-21-002A  | 629648.91   | 9606888.00   | 913.71    | 330            | -60        | 650.58      | CEL              |
|          |                       | GYDD-21-003   | 628613.31   | 9606603.66   | 1031.61   | 149            | -60        | 723.15      | CEL              |
|          |                       | GYDD-21-004   | 628612.169  | 9606605.66   | 1031.91   | 330            | -60        | 696.11      | CEL              |
|          |                       | GYDD-21-005   | 628433.90   | 9606380.35   | 962.07    | 329            | -60        | 632.05      | CEL              |
|          |                       | GYDD-21-006   | 628435.80   | 9606380.46   | 962.58    | 100            | -60        | 365.26      | CEL              |
|          |                       | GYDD-21-007   | 628087.05   | 9606555.24   | 840.093   | 150            | -60        | 651.80      | CEL              |
|          |                       | GYDD-21-008   | 628435.62   | 9606377.74   | 962.24    | 150            | -60        | 283.68      | CEL              |
|          |                       | GYDD-21-009   | 628932.60   | 9606035.43   | 987.81    | 100            | -60        | 692.67      | CEL              |
|          |                       | GYDD-21-010   | 628088.44   | 9606552.79   | 839.92    | 180            | -60        | 888.60      | CEL              |
|          |                       | GYDD-21-011   | 628987.88   | 9606169.64   | 1018.56   | 330            | -60        | 314.46      | CEL              |
|          |                       | GYDD-21-012   | 628844.64   | 9605438.73   | 870.24    | 129            | -60        | 797.65      | CEL              |
|          |                       | GYDD-21-013   | 628967.42   | 9605725.52   | 901.76    | 190            | -60        | 517.45      | CEL              |
|          |                       | GYDD-22-014   | 628741.17   | 9605761.53   | 955.53    | 100            | -60        | 783.60      | CEL              |
|          |                       | GYDD-22-015   | 628436.64   | 9606377.19   | 961.88    | 150            | -72        | 368.26      | CEL              |
|          |                       | GYDD-22-016   | 628267.60   | 9606450.31   | 872.25    | 150            | -62        | 469.75      | CEL              |
|          |                       | CEL: El Guayabo Project (Guayabo Concession), Camp #1, Phase #2 Drill Hole Information  |             |              |           |                |            |             |                  |
|          |                       | Hole ID   | East (m)    | North (m)    | Elevation | Azimuth<br>(°) | Dip<br>(°) | Final depth | Driller          |
|          |                       | GYDD-22-017   | 627096.13   | 9605850.15   | 885.89    | 225            | -60        | 860.75      | CEL              |
|          |                       | GYDD-22-018   | 627408.50   | 9606259.17   | 961.10    | 150            | -60        | 734.05      | CEL              |

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Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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|----------|--|--------------|------------|--------------------|-------------------|--------------------|--------------------|-----------------|------------------|-----------------|
|          |  | GYDD-22-019  | 627018.22  | 9606591.53         | 860.80            | 075                | -60                | 861.05          | CEL              |                 |
|          |  | GYDD-22-020  | 627410.33  | 9606261.79         | 961.50            | 225                | -60                | 750.00          | CEL              |                 |
|          |  | GY2DD-22-001 | 627271.92  | 9604368.13         | 496.50            | 100                | -60                | 776.40          | CEL              |                 |
|          |  | GYDD-22-021  | 629039.50  | 9605861.33         | 893.20            | 330                | -60                | 812.85          | CEL              |                 |
|          |  | GYDD-22-022  | 628988.58  | 9606167.81         | 1017.10           | 150                | -60                | 702.85          | CEL              |                 |
|          |  | GYDD-22-023  | 629058.43  | 9606272.80         | 1045.70           | 150                | -60                | 795.55          | CEL              |                 |
|          |  | GYDD-22-024  | 628971.40  | 9606104.67         | 1003.00           | 150                | -60                | 650.00          | CEL              |                 |
|          |  | GYDD-22-025  | 629055.83  | 9606277.30         | 1045.50           | 330                | -60                | 1194.05         | CEL              |                 |
|          |  | GYDD-22-026  | 628949.34  | 9606571.90         | 1062.60           | 345                | -60                | 1082.45         | CEL              |                 |
|          |  | GYDD-22-027  | 628725.86  | 9606619.12         | 1047.88           | 150                | -60                | 875.35          | CEL              |                 |
|          |  | GYDD-22-028  | 628488.59  | 9606449.24         | 961.82            | 150                | -75                | 521.20          | CEL              |                 |
|          |  | GYDD-22-029  | 628391.57  | 9606502.21         | 904.05            | 150                | -65                | 528.95          | CEL              |                 |
|          |  | GYDD-22-030  | 628723.89  | 9606622.50         | 1047.60           | 330                | -60                | 691.20          | CEL              |                 |
|          |  | GYDD-23-031  | 628552.90  | 9606591.85         | 988.40            | 150                | -60                | 696.40          | CEL              |                 |
|          |  | GYDD-23-032  | 628669.96  | 9606599.34         | 1030.39           | 150                | -60                | 781.45          | CEL              |                 |
|          |  | GYDD-23-033  | 628307.35  | 9606457.68         | 891.75            | 150                | -70                | 565.85          | CEL              |                 |
|          |  | GYDD-23-034  | 628544.67  | 9606432.20         | 987.21            | 150                | -70                | 413.65          | CEL              |                 |
|          |  | GYDD-23-035  | 628235.55  | 9606391.22         | 879.35            | 150                | -60                | 381.85          | CEL              |                 |
|          |  | GYDD-23-036  | 628588.16  | 9606460.88         | 975.68            | 330                | -70                | 767.45          | CEL              |                 |
|          |  | GYDD-23-037  | 628958.10  | 9605809.79         | 900.54            | 330                | -60                | 823.10          | CEL              |                 |
|          |  | GYDD-23-038  | 628191.89  | 9606645.00         | 753.18            | 150                | -55                | 651.80          | CEL              |                 |
|          |  | GYDD-23-039  | 628752.96  | 9605770.05         | 954.41            | 150                | -60                | 812.40          | CEL              |                 |
|          |  | GYDD-23-040  | 628702.92  | 9606813.34         | 1040.18           | 150                | -60                | 352.40          | CEL              |                 |
|          |  | GYDD-23-041  | 628788.051 | 9605899.887        | 955.430           | 150                | -60                | 779.00          | CEL              |                 |
|          |  | GYDD-23-042  | 628960.507 | 9605803.955        | 898.063           | 150                | -60                | 746.40          | CEL              |                 |
|          |  | GYDD-23-043  | 628544.25  | 9606848.97         | 898.569           | 150                | -60                | 742.15          | CEL              |                 |
|          | CEL: El Guayabo Project (Guayabo Concession), Camp #1, Phase #1 & #2 Channel Information |              |            |                    |                   |                    |                    |                 |                  |                 |
|          | CEL Channels taken within MRE limits and with ≥3 samples in length                       |              |            |                    |                   |                    |                    |                 |                  |                 |
|          |  |              | Channel_ID | Location<br>Target | Start<br>East (m) | Start<br>North (m) | Start<br>Elev. (m) | End<br>East (m) | End<br>North (m) | End<br>Elev (m) |
|          |  |              | CSADRI-001 | GYB                | 629097.60         | 9605892.67         | 903.12             | 629181.25       | 9606057.67       | 901.51          |
|          |  |              | CSADRI-002 | GY-B               | 629168.77         | 9606038.20         | 904.26             | 628712.25       | 9606253.44       | 909.94          |
|          |  |              | CSADRI-003 | GY-B               | 628530.10         | 9606353.27         | 912.15             | 628599.15       | 9606318.08       | 911.16          |
|          |  |              | CSADRI-004 | GY-B               | 628555.19         | 9606336.81         | 912.18             | 628542.18       | 9606318.23       | 911.88          |
|          |  |              | CSBARR-001 | GY-C               | 628865.19         | 9605519.64         | 854.70             | 628846.18       | 9605528.57       | 856.14          |
|          |  |              | CSBARR-004 | GY-C               | 628835.51         | 9605533.39         | 856.63             | 628833.43       | 9605557.20       | 856.61          |

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|----------|-----------------------|-------------|------|-----------|------------|---------|-----------|------------|---------|
|          |                       | CSBARR-005  | GY-C | 628832.16 | 9605532.92 | 856.91  | 628825.05 | 9605525.92 | 857.30  |
|          |                       | CSBQCU1-001 | GY-A | 628564.61 | 9606364.46 | 1049.49 | 628555.37 | 9606328.29 | 1049.49 |
|          |                       | CSBQCU1-002 | GY-A | 628552.80 | 9606332.35 | 1050.46 | 628548.87 | 9606324.18 | 1046.30 |
|          |                       | CSBQCU1-003 | GY-A | 628561.98 | 9606365.72 | 1049.34 | 628554.31 | 9606367.91 | 1049.28 |
|          |                       | CSBQCU1-005 | GY-A | 628551.58 | 9606368.66 | 1049.47 | 628545.99 | 9606360.99 | 1049.52 |
|          |                       | CSBQCU1-006 | GY-A | 628544.56 | 9606363.81 | 1049.49 | 628534.71 | 9606365.51 | 1049.49 |
|          |                       | CSBQLB1-001 | GY-A | 628398.56 | 9606395.53 | 935.10  | 628409.97 | 9606378.08 | 935.62  |
|          |                       | CSBQLB1-003 | GY-A | 628411.32 | 9606375.14 | 936.55  | 628427.64 | 9606332.55 | 938.55  |
|          |                       | CSBQLB1-004 | GY-A | 628408.71 | 9606350.56 | 937.75  | 628408.64 | 9606338.95 | 937.75  |
|          |                       | CSBQLB1-005 | GY-A | 628409.45 | 9606371.16 | 936.23  | 628399.49 | 9606359.55 | 936.23  |
|          |                       | CSBQLB2-001 | GY-A | 628382.51 | 9606385.53 | 932.07  | 628405.02 | 9606347.10 | 932.47  |
|          |                       | CSBQLB2-002 | GY-A | 628381.30 | 9606380.33 | 932.37  | 628379.97 | 9606376.57 | 932.37  |
|          |                       | CSBQLB3-001 | GY-A | 628313.38 | 9606349.71 | 938.80  | 628332.64 | 9606305.96 | 940.42  |
|          |                       | CSBQLB3-002 | GY-A | 628331.99 | 9606305.98 | 938.32  | 628330.44 | 9606303.38 | 938.40  |
|          |                       | CSBQLB3-003 | GY-A | 628330.98 | 9606301.14 | 938.32  | 628327.57 | 9606286.57 | 938.73  |
|          |                       | CSBQLB3-004 | GY-A | 628337.64 | 9606329.71 | 938.05  | 628331.74 | 9606329.82 | 938.19  |
|          |                       | CSBQLB4-001 | GY-A | 628422.11 | 9606586.27 | 870.15  | 628451.59 | 9606526.64 | 871.71  |
|          |                       | CSBQLB4-002 | GY-A | 628451.08 | 9606524.96 | 873.05  | 628451.39 | 9606501.29 | 873.54  |
|          |                       | CSBQLB5-001 | GY-A | 628428.63 | 9606546.08 | 881.50  | 628433.71 | 9606519.76 | 881.69  |
|          |                       | CSBQLB5-002 | GY-A | 628436.61 | 9606517.10 | 883.53  | 628452.93 | 9606508.75 | 883.98  |
|          |                       | CSBQLB5-003 | GY-A | 628455.26 | 9606508.65 | 885.18  | 628455.20 | 9606505.13 | 885.27  |
|          |                       | CSBQLB6-001 | GY-A | 628447.83 | 9606540.96 | 896.64  | 628458.78 | 9606525.44 | 896.72  |
|          |                       | CSBQLB6-002 | GY-A | 628465.44 | 9606521.09 | 896.71  | 628466.74 | 9606510.56 | 895.83  |
|          |                       | CSBQLB7-001 | GY-A | 628386.49 | 9606612.65 | 846.41  | 628458.70 | 9606503.47 | 849.30  |
|          |                       | CSBQNW1-001 | GY-A | 628399.20 | 9606316.75 | 988.08  | 628404.71 | 9606303.52 | 989.23  |
|          |                       | CSBQNW1-002 | GY-A | 628403.16 | 9606310.69 | 990.37  | 628410.63 | 9606314.06 | 995.21  |
|          |                       | CSBQNW2-001 | GY-A | 628428.50 | 9606259.40 | 1010.13 | 628435.75 | 9606258.32 | 1010.87 |
|          |                       | CSBQNW2-002 | GY-A | 628433.37 | 9606249.96 | 1002.97 | 628440.28 | 9606273.91 | 1003.40 |
|          |                       | CSBQNW3-001 | GY-A | 628414.95 | 9606318.02 | 1002.80 | 628424.22 | 9606318.24 | 1003.12 |
|          |                       | CSBQSU1-001 | GY-A | 628565.84 | 9606365.44 | 1049.16 | 628582.34 | 9606368.81 | 1047.18 |
|          |                       | CSBQSU2-001 | GY-A | 628408.04 | 9606355.42 | 975.92  | 628396.24 | 9606327.32 | 980.84  |
|          |                       | CSBQSU2-002 | GY-A | 628396.98 | 9606325.26 | 982.04  | 628397.54 | 9606318.52 | 985.20  |
|          |                       | CSBQSU3-001 | GY-A | 628560.54 | 9606332.95 | 1083.39 | 628556.62 | 9606332.24 | 1079.28 |
|          |                       | CSBQSU4-001 | GY-A | 628558.11 | 9606345.78 | 1074.65 | 628541.63 | 9606343.34 | 1077.32 |
|          |                       | CSBQSU5-001 | GY-A | 628541.03 | 9606341.08 | 1079.20 | 628538.01 | 9606338.92 | 1080.95 |

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|----------|-----------------------|--------------|------|-----------|------------|---------|-----------|------------|---------|
|          |                       | CSBQSU6-001  | GY-A | 628534.31 | 9606336.20 | 1081.68 | 628527.14 | 9606329.21 | 1076.71 |
|          |                       | CSBQSU7-001  | GY-A | 628358.48 | 9606388.92 | 929.74  | 628381.26 | 9606387.28 | 932.54  |
|          |                       | CSBQSU7-002  | GY-A | 628383.26 | 9606387.28 | 932.55  | 628387.70 | 9606390.76 | 933.46  |
|          |                       | CSCARE1-001  | GY-B | 628956.41 | 9606217.05 | 1006.45 | 628940.83 | 9606237.35 | 1006.57 |
|          |                       | CSCARE1-002  | GY-B | 628938.74 | 9606238.51 | 1006.49 | 628939.27 | 9606259.47 | 1006.59 |
|          |                       | CSCARE1-003  | GY-B | 628939.49 | 9606261.21 | 1006.62 | 628915.78 | 9606345.10 | 1006.95 |
|          |                       | CSCARE1-004  | GY-B | 628914.42 | 9606346.93 | 1007.88 | 628910.31 | 9606351.80 | 1007.88 |
|          |                       | CSCARE1-005  | GY-B | 628916.02 | 9606346.93 | 1007.18 | 628915.79 | 9606385.70 | 1007.39 |
|          |                       | CSCAYA1-001  | GY-C | 628983.70 | 9605271.31 | 734.41  | 629024.77 | 9605325.90 | 737.75  |
|          |                       | CSCAYA1-002  | GY-C | 629027.04 | 9605328.41 | 737.28  | 629005.63 | 9605347.74 | 737.24  |
|          |                       | CSCAYA1-003  | GY-C | 629003.19 | 9605348.90 | 737.42  | 628971.71 | 9605386.76 | 738.51  |
|          |                       | CSCHON-001   | GY-C | 628931.52 | 9605592.50 | 843.93  | 628922.57 | 9605615.45 | 844.66  |
|          |                       | CSCHOR-001   | GY-C | 628971.99 | 9605585.96 | 808.18  | 628967.66 | 9605599.28 | 808.18  |
|          |                       | CSCHOR-002   | GY-C | 628963.93 | 9605607.64 | 808.78  | 628957.03 | 9605640.25 | 809.01  |
|          |                       | CSCHOR-003   | GY-C | 628965.92 | 9605595.69 | 808.30  | 628954.73 | 9605585.23 | 809.85  |
|          |                       | CSDURA-001   | GY-A | 628227.90 | 9606366.15 | 870.94  | 628233.65 | 9606367.67 | 871.03  |
|          |                       | CSDURA-002   | GY-A | 628237.73 | 9606367.79 | 871.76  | 628278.47 | 9606372.36 | 872.70  |
|          |                       | CSDURA-003   | GY-A | 628280.86 | 9606371.10 | 872.76  | 628305.14 | 9606377.74 | 873.18  |
|          |                       | CSDURA-004   | GY-A | 628305.96 | 9606377.17 | 875.03  | 628306.13 | 9606377.16 | 876.52  |
|          |                       | CSDURA-005   | GY-A | 628305.70 | 9606375.49 | 875.08  | 628305.91 | 9606375.48 | 876.26  |
|          |                       | CSDURA-006   | GY-A | 628304.83 | 9606371.55 | 874.71  | 628298.41 | 9606328.41 | 875.37  |
|          |                       | CSDURA-007   | GY-A | 628300.06 | 9606326.34 | 876.77  | 628296.81 | 9606306.71 | 877.07  |
|          |                       | CSDURA-008   | GY-A | 628305.06 | 9606379.60 | 875.23  | 628305.17 | 9606379.54 | 876.47  |
|          |                       | CSDURA-009   | GY-A | 628306.80 | 9606381.81 | 875.00  | 628306.92 | 9606381.75 | 876.09  |
|          |                       | CSDURA-010   | GY-A | 628307.66 | 9606383.85 | 875.60  | 628307.65 | 9606383.78 | 876.82  |
|          |                       | CSDURA-021   | GY-A | 628306.04 | 9606409.45 | 875.49  | 628281.99 | 9606414.99 | 875.88  |
|          |                       | CSFIGR1-001  | GY-A | 628568.54 | 9606315.41 | 1065.39 | 628568.60 | 9606329.94 | 1066.71 |
|          |                       | CSFIGR2-001  | GY-A | 628533.86 | 9606298.18 | 1047.65 | 628547.66 | 9606319.06 | 1049.81 |
|          |                       | CSFIGR2-002  | GY-A | 628546.11 | 9606315.43 | 1051.72 | 628543.82 | 9606317.34 | 1053.67 |
|          |                       | CSL10085-001 | GY-A | 628924.38 | 9606395.12 | 128.14  | 628918.80 | 9606398.91 | 126.65  |
|          |                       | CSL10085-003 | GY-A | 628910.03 | 9606407.35 | 119.40  | 628907.59 | 9606408.57 | 117.91  |
|          |                       | CSL10085-005 | GY-A | 628786.96 | 9606621.50 | 1083.67 | 628786.16 | 9606622.66 | 1080.21 |
|          |                       | CSL10085-MN1 | GY-A | 628823.95 | 9606562.44 | 1129.24 | 628801.53 | 9606546.52 | 1130.94 |
|          |                       | CSL9535-001  | GY-A | 628388.50 | 9606197.56 | 966.61  | 628419.90 | 9606167.91 | 993.72  |
|          |                       | CSL9535-002  | GY-A | 628421.91 | 9606168.51 | 994.28  | 628436.20 | 9606159.54 | 1005.07 |

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Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

**Contact**  
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|----------|-----------------------|-------------|------|-----------|------------|---------|-----------|------------|---------|
|          |                       | CSL9535-003 | GY-A | 628435.86 | 9606152.93 | 1008.82 | 628441.86 | 9606146.64 | 1015.07 |
|          |                       | CSL9535-004 | GY-A | 628444.51 | 9606145.38 | 1015.92 | 628448.52 | 9606136.99 | 1023.19 |
|          |                       | CSL9535-005 | GY-A | 628449.94 | 9606134.61 | 1025.30 | 628454.36 | 9606125.46 | 1033.88 |
|          |                       | CSL9535-MN1 | GY-A | 628401.26 | 9606190.25 | 972.52  | 628466.82 | 9606150.77 | 975.65  |
|          |                       | CSL9635-001 | GY-A | 628620.51 | 9606012.31 | 1104.81 | 628615.82 | 9606019.52 | 1115.40 |
|          |                       | CSL9635-002 | GY-A | 628526.97 | 9606151.03 | 1079.13 | 628534.14 | 9606159.13 | 1079.56 |
|          |                       | CSL9635-004 | GY-A | 628525.73 | 9606232.56 | 1037.22 | 628523.80 | 9606241.00 | 1029.53 |
|          |                       | CSL9735-001 | GY-A | 628705.59 | 9606073.41 | 1091.45 | 628694.25 | 9606079.04 | 1102.79 |
|          |                       | CSL9735-003 | GY-A | 628622.83 | 9606221.70 | 1101.10 | 628624.15 | 9606219.05 | 1102.43 |
|          |                       | CSL9735-004 | GY-A | 628624.92 | 9606215.99 | 1102.80 | 628627.37 | 9606201.02 | 1109.00 |
|          |                       | CSL9870-001 | GY-A | 628593.17 | 9606538.97 | 1008.91 | 628626.52 | 9606425.27 | 1005.57 |
|          |                       | CSL9870-002 | GY-A | 628623.03 | 9606476.82 | 1015.56 | 628632.96 | 9606461.94 | 1017.51 |
|          |                       | CSL9870-004 | GY-A | 628635.18 | 9606459.58 | 1024.76 | 628638.45 | 9606459.48 | 1024.52 |
|          |                       | CSL9870-005 | GY-A | 628638.91 | 9606456.92 | 1024.96 | 628642.80 | 9606446.01 | 1025.96 |
|          |                       | CSL9870-006 | GY-A | 628643.94 | 9606445.83 | 1028.21 | 628650.33 | 9606433.99 | 1031.25 |
|          |                       | CSL9870-007 | GY-A | 628653.72 | 9606431.36 | 1032.67 | 628657.39 | 9606408.96 | 1052.20 |
|          |                       | CSL9870-008 | GY-A | 628656.18 | 9606407.94 | 1054.04 | 628657.81 | 9606401.96 | 1061.52 |
|          |                       | CSL9870-009 | GY-A | 628659.13 | 9606397.48 | 1067.50 | 628660.39 | 9606395.61 | 1070.62 |
|          |                       | CSL9870-010 | GY-A | 628662.78 | 9606394.96 | 1073.58 | 628663.53 | 9606390.03 | 1078.41 |
|          |                       | CSL9870-012 | GY-A | 628673.93 | 9606383.83 | 1095.35 | 628680.17 | 9606379.95 | 1104.49 |
|          |                       | CSL9870-014 | GY-A | 628683.02 | 9606377.25 | 1110.43 | 628692.34 | 9606371.68 | 1125.05 |
|          |                       | CSL9870-016 | GY-A | 628700.52 | 9606372.66 | 1131.44 | 628703.77 | 9606366.06 | 1142.13 |
|          |                       | CSL9870-017 | GY-A | 628706.01 | 9606363.64 | 1146.60 | 628711.57 | 9606361.22 | 1154.59 |
|          |                       | CSL9870-018 | GY-A | 628696.28 | 9606344.63 | 1150.57 | 628701.30 | 9606322.31 | 1172.39 |
|          |                       | CSL9970-001 | GY-A | 628685.08 | 9606600.30 | 1031.67 | 628696.64 | 9606576.19 | 1054.35 |
|          |                       | CSL9970-002 | GY-A | 628698.96 | 9606572.06 | 1059.20 | 628700.26 | 9606569.75 | 1061.64 |
|          |                       | CSL9970-003 | GY-A | 628702.13 | 9606565.81 | 1066.98 | 628705.71 | 9606562.16 | 1072.86 |
|          |                       | CSL9970-004 | GY-A | 628707.62 | 9606561.27 | 1075.29 | 628737.76 | 9606561.59 | 1094.24 |
|          |                       | CSL9970-005 | GY-A | 628738.79 | 9606560.57 | 1096.01 | 628741.18 | 9606547.27 | 1110.06 |
|          |                       | CSL9970-008 | GY-A | 628729.96 | 9606504.43 | 1144.07 | 628737.17 | 9606494.79 | 1149.86 |
|          |                       | CSL9970-009 | GY-A | 628750.90 | 9606478.28 | 1157.94 | 628755.74 | 9606471.35 | 1164.72 |
|          |                       | CSSALI-001  | GY-A | 629670.78 | 9607005.76 | 869.65  | 629675.67 | 9606990.81 | 870.19  |
|          |                       | CSSALI-003  | GY-A | 629679.90 | 9606979.99 | 870.86  | 629681.97 | 9606951.09 | 872.71  |
|          |                       | CSSALI-004  | GY-A | 629679.77 | 9606952.89 | 872.27  | 629676.74 | 9606948.38 | 872.56  |
|          |                       | CSSALI-005  | GY-A | 629673.30 | 9606950.55 | 872.35  | 629655.94 | 9606941.79 | 872.52  |

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Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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| Criteria | JORC Code explanation | Commentary   |            |             |            |             |           |             |         |
|----------|-----------------------|--|------------|-------------|------------|-------------|-----------|-------------|---------|
|          |                       | CSSALI-007   | GY-A       | 629651.46   | 9606938.95 | 872.57      | 629550.37 | 9606896.35  | 874.89  |
|          |                       | CSTINO-001   | GY-A       | 629119.86   | 9606777.84 | 946.21      | 629138.76 | 9606671.07  | 948.99  |
|          |                       | CSTINO-002   | GY-A       | 629136.64   | 9606668.16 | 949.01      | 629153.42 | 9606643.44  | 949.40  |
|          |                       | CSTINO-004   | GY-A       | 629155.57   | 9606640.24 | 949.47      | 629164.64 | 9606625.11  | 949.68  |
|          |                       | CSTINO-005   | GY-A       | 629135.08   | 9606670.05 | 948.29      | 629044.73 | 9606523.90  | 949.88  |
|          |                       | CSINDI1-001  | GY-A       | 628196.08   | 9606683.90 | 735.22      | 628239.76 | 9606704.20  | 736.09  |
|          |                       | CSINDI1-003  | GY-A       | 628243.79   | 9606704.06 | 736.22      | 628341.62 | 9606746.58  | 737.82  |
|          |                       | CSINDI1-004  | GY-A       | 628344.90   | 9606749.17 | 737.82      | 628361.73 | 9606763.00  | 737.95  |
|          |                       | CSINDI1-005  | GY-A       | 628364.80   | 9606763.28 | 737.91      | 628385.38 | 9606769.00  | 738.00  |
|          |                       | CSINDI1-006  | GY-A       | 628389.28   | 9606769.33 | 737.99      | 628598.03 | 9606692.87  | 741.47  |
|          |                       | CSINDI1-007  | GY-A       | 628599.47   | 9606691.89 | 741.22      | 628671.25 | 9606673.90  | 742.44  |
|          |                       | CSINDI2-001  | GY-A       | 628226.78   | 9606632.59 | 744.27      | 628235.83 | 9606625.31  | 744.32  |
|          |                       | CSINDI2-003  | GY-A       | 628235.38   | 9606620.79 | 744.29      | 628225.57 | 9606613.70  | 744.46  |
|          |                       | CEL: El Guayabo Project (Colorado V Concession), Camp #1, Drill Hole Information |            |             |            |             |           |             |         |
|          |                       | Hole ID  | East (m)   | North (m)   | Elevation  | Azimuth (°) | Dip (°)   | Final depth | Driller |
|          |                       | CVDD-22-001  | 626891.522 | 9609246.373 | 199.393    | 300         | -60       | 533.20      | CEL     |
|          |                       | CVDD-22-002  | 627198.352 | 9609719.449 | 198.970    | 120         | -60       | 575.00      | CEL     |
|          |                       | CVDD-22-003  | 626894.633 | 9609244.452 | 199.514    | 120         | -60       | 512.40      | CEL     |
|          |                       | CVDD-22-004  | 627209.772 | 9609873.677 | 203.018    | 120         | -60       | 658.95      | CEL     |
|          |                       | CVDD-22-005  | 626893.119 | 9609246.715 | 199.383    | 030         | -65       | 607.15      | CEL     |
|          |                       | CVDD-22-006  | 627698.461 | 9609900.275 | 180.879    | 300         | -60       | 600.70      | CEL     |
|          |                       | CVDD-22-007  | 626419.745 | 9609344.874 | 264.563    | 120         | -60       | 808.00      | CEL     |
|          |                       | CVDD-22-008  | 627444.177 | 9610249.652 | 191.069    | 120         | -60       | 535.70      | CEL     |
|          |                       | CVDD-22-009  | 626664.672 | 9609635.445 | 179.594    | 120         | -60       | 890.80      | CEL     |
|          |                       | CVDD-22-010  | 626436.552 | 9609542.080 | 244.110    | 120         | -60       | 890.20      | CEL     |
|          |                       | CVDD-22-011  | 628295.444 | 9610306.768 | 156.815    | 300         | -60       | 672.50      | CEL     |
|          |                       | CVDD-22-012  | 627329.632 | 9607382.048 | 524.050    | 315         | -60       | 756.70      | CEL     |
|          |                       | CVDD-22-013  | 626906.497 | 9609603.539 | 174.956    | 120         | -60       | 752.45      | CEL     |
|          |                       | CVDD-22-014  | 627294.523 | 9607344.459 | 518.531    | 115         | -60       | 863.40      | CEL     |
|          |                       | CVDD-22-015  | 625799.563 | 9605232.572 | 428.500    | 280         | -60       | 758.35      | CEL     |
|          |                       | CVDD-22-016  | 627053.570 | 9607990.935 | 377.253    | 140         | -60       | 558.45      | CEL     |
|          |                       | CVDD-22-017  | 625582.100 | 9605073.535 | 384.291    | 150         | -60       | 746.05      | CEL     |

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|--------------------------|---|---|-----------|-------------|-----------|-------------|-------------|---------|-------------|---------|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|-------------|------------|-------------|--------|-----|-----|--------|-----|
|                          |   | <div>CEL: El Guayabo Project (Colorado V Concession), Camp #2, Drill Hole Information</div> <table><thead><tr><th>Hole ID</th><th>East (m)</th><th>North (m)</th><th>Elevation</th><th>Azimuth (°)</th><th>Dip (°)</th><th>Final depth</th><th>Driller</th></tr></thead><tbody><tr><td>CVDD-24-018</td><td>626756.130</td><td>9609472.110</td><td>196.67</td><td>300</td><td>-60</td><td>451.16</td><td>CEL</td></tr><tr><td>CVDD-24-019</td><td>626759.590</td><td>9609470.050</td><td>196.70</td><td>120</td><td>-60</td><td>621.69</td><td>CEL</td></tr><tr><td>CVDD-24-020</td><td>626720.005</td><td>9609348.636</td><td>216.89</td><td>300</td><td>-60</td><td>591.85</td><td>CEL</td></tr><tr><td>CVDD-24-021</td><td>626418.830</td><td>9609341.020</td><td>266.50</td><td>300</td><td>-60</td><td>295.80</td><td>CEL</td></tr><tr><td>CVDD-24-022</td><td>626568.243</td><td>9609270.323</td><td>209.48</td><td>120</td><td>-60</td><td>600.37</td><td>CEL</td></tr><tr><td>CVDD-24-023</td><td>626267.424</td><td>9609454.167</td><td>307.80</td><td>120</td><td>-60</td><td>656.53</td><td>CEL</td></tr><tr><td>CVDD-24-024</td><td>626567.397</td><td>9609351.912</td><td>217.28</td><td>120</td><td>-60</td><td>711.60</td><td>CEL</td></tr><tr><td>CVDD-24-025</td><td>626308.828</td><td>9609246.264</td><td>321.08</td><td>120</td><td>-60</td><td>745.34</td><td>CEL</td></tr><tr><td>CVDD-24-026</td><td>626723.166</td><td>9609346.168</td><td>217.02</td><td>120</td><td>-60</td><td>668.22</td><td>CEL</td></tr><tr><td>CVDD-24-027</td><td>626258.227</td><td>9609164.892</td><td>321.72</td><td>120</td><td>-60</td><td>568.30</td><td>CEL</td></tr><tr><td>CVDD-24-028</td><td>626340.287</td><td>9609498.669</td><td>275.66</td><td>120</td><td>-60</td><td>754.04</td><td>CEL</td></tr><tr><td>CVDD-24-029</td><td>627079.855</td><td>9609627.040</td><td>197.34</td><td>120</td><td>-60</td><td>700.10</td><td>CEL</td></tr><tr><td>CVDD-24-030</td><td>627141.439</td><td>9609821.518</td><td>191.45</td><td>120</td><td>-60</td><td>700.99</td><td>CEL</td></tr><tr><td>CVDD-24-031</td><td>627390.602</td><td>9609683.495</td><td>230.02</td><td>120</td><td>-60</td><td>402.53</td><td>CEL</td></tr><tr><td>CVDD-24-032</td><td>626228.211</td><td>9609359.043</td><td>350.71</td><td>120</td><td>-60</td><td>731.51</td><td>CEL</td></tr></tbody></table> | Hole ID   | East (m)    | North (m) | Elevation   | Azimuth (°) | Dip (°) | Final depth | Driller | CVDD-24-018 | 626756.130 | 9609472.110 | 196.67 | 300 | -60 | 451.16 | CEL | CVDD-24-019 | 626759.590 | 9609470.050 | 196.70 | 120 | -60 | 621.69 | CEL | CVDD-24-020 | 626720.005 | 9609348.636 | 216.89 | 300 | -60 | 591.85 | CEL | CVDD-24-021 | 626418.830 | 9609341.020 | 266.50 | 300 | -60 | 295.80 | CEL | CVDD-24-022 | 626568.243 | 9609270.323 | 209.48 | 120 | -60 | 600.37 | CEL | CVDD-24-023 | 626267.424 | 9609454.167 | 307.80 | 120 | -60 | 656.53 | CEL | CVDD-24-024 | 626567.397 | 9609351.912 | 217.28 | 120 | -60 | 711.60 | CEL | CVDD-24-025 | 626308.828 | 9609246.264 | 321.08 | 120 | -60 | 745.34 | CEL | CVDD-24-026 | 626723.166 | 9609346.168 | 217.02 | 120 | -60 | 668.22 | CEL | CVDD-24-027 | 626258.227 | 9609164.892 | 321.72 | 120 | -60 | 568.30 | CEL | CVDD-24-028 | 626340.287 | 9609498.669 | 275.66 | 120 | -60 | 754.04 | CEL | CVDD-24-029 | 627079.855 | 9609627.040 | 197.34 | 120 | -60 | 700.10 | CEL | CVDD-24-030 | 627141.439 | 9609821.518 | 191.45 | 120 | -60 | 700.99 | CEL | CVDD-24-031 | 627390.602 | 9609683.495 | 230.02 | 120 | -60 | 402.53 | CEL | CVDD-24-032 | 626228.211 | 9609359.043 | 350.71 | 120 | -60 | 731.51 | CEL |
| Hole ID                  | East (m)  | North (m)   | Elevation | Azimuth (°) | Dip (°)   | Final depth | Driller     |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-018              | 626756.130  | 9609472.110   | 196.67    | 300         | -60       | 451.16      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-019              | 626759.590  | 9609470.050   | 196.70    | 120         | -60       | 621.69      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-020              | 626720.005  | 9609348.636   | 216.89    | 300         | -60       | 591.85      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-021              | 626418.830  | 9609341.020   | 266.50    | 300         | -60       | 295.80      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-022              | 626568.243  | 9609270.323   | 209.48    | 120         | -60       | 600.37      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-023              | 626267.424  | 9609454.167   | 307.80    | 120         | -60       | 656.53      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-024              | 626567.397  | 9609351.912   | 217.28    | 120         | -60       | 711.60      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-025              | 626308.828  | 9609246.264   | 321.08    | 120         | -60       | 745.34      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-026              | 626723.166  | 9609346.168   | 217.02    | 120         | -60       | 668.22      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-027              | 626258.227  | 9609164.892   | 321.72    | 120         | -60       | 568.30      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-028              | 626340.287  | 9609498.669   | 275.66    | 120         | -60       | 754.04      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-029              | 627079.855  | 9609627.040   | 197.34    | 120         | -60       | 700.10      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-030              | 627141.439  | 9609821.518   | 191.45    | 120         | -60       | 700.99      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-031              | 627390.602  | 9609683.495   | 230.02    | 120         | -60       | 402.53      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| CVDD-24-032              | 626228.211  | 9609359.043   | 350.71    | 120         | -60       | 731.51      | CEL         |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |
| Data aggregation methods | <ul style="list-style-type: none"><li>- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li><li>- Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li><li>- The assumptions used for any reporting of metal equivalent values should be clearly stated.</li></ul> | <ul style="list-style-type: none"><li>• No grade cutting has been used to derive the weighted average grades reported.</li><li>• Minimum cut of grade of 0.2 g/t Au Equivalent (AuEq) was used for determining intercepts.</li><li>• Aggregate intercepts have been reported with higher grade inclusions to demonstrate the impact of aggregation. A bottom cut of 0.5 g/t Au Equivalent has been used to determine the higher-grade inclusions. Given the generally consistent nature of the mineralisation the impact of the aggregation of high-grade results and longer lengths of low-grade results does not have a large impact. For example, in the intercept of 156m @ 2.6 g.t Au in hole GGY-02:<ul style="list-style-type: none"><li>• over half of the intercept comprises gold grades in excess of 1 g/t Au</li><li>• only 20% of the intercept includes grades between 0.2 and 0.5 g/t Au</li><li>• over one third includes gold grades in excess of 2 g/t Au.</li></ul></li><li>• Au Eq assumes a gold price of USD 1,780/oz, a silver price of USD 22 /oz, a copper price of USD 9,650 /t, and a Molybdenum price of US\$40,500/t</li><li>• Metallurgical recovery factors for gold, silver, copper, and Molybdenum are assumed to be equal. No metallurgical factors have been applied in calculating the AuEq at this early stage of the Project, hence the formula for calculating the Au Eq is: Au (g/t) + (Ag (g/t) x 22/1780) + (1.68604 x Cu (%) + (7.07612 x Mo (%))).</li><li>• CEL confirms that it is the company’s opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold</li></ul>   |           |             |           |             |             |         |             |         |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |             |            |             |        |     |     |        |     |

Challenger Gold Limited  
ACN 123 591 382  
ASX: **CEL**

Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotoondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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| Criteria | JORC Code explanation | Commentary  |
|----------|-----------------------|---|
|          |                       | <p><b>Guayabo:</b></p> <p>A cut-off grade of 0.1 g/t Au was used to report the assays of re-samples core and channel samples from underground development with up to 10 metres of internal dilution below cut-off allowable for the reporting of significant intercepts, consistent with a large low-grade mineralized system. Intersections that use a different cut-off are indicated.</p> <p><b>Significant Historic intersections from El Guayabo drilling are shown below:</b></p> |

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Mr Fletcher Quinn, Non-Exec. Director  
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| Criteria | JORC Code explanation | Commentary       |                             |        |              |               |                                      |             |                   |                  |               |           |
|----------|-----------------------|------------------|-----------------------------|--------|--------------|---------------|--------------------------------------|-------------|-------------------|------------------|---------------|-----------|
|          |                       | Drillhole<br>(#) | Mineralised Inte<br>From To |        | Total<br>(m) | Gold<br>(g/t) | Ag<br>(g/t)                          | Cu<br>(%)   | Au Equiv<br>(g/t) | Azimuth<br>(deg) | Incl<br>(deg) | TD<br>(m) |
|          |                       | JDH-001          | from                        | 183    | 190.6        | 7.6 m @       | 0.3 g/t Au +                         | not assayed | n/a               | 280              | -60           | 236.9     |
|          |                       | JDH-002          | from                        | 7.6    | 152.9        | 145.3 m @     | 0.4 g/t Au +                         | not assayed | n/a               | 280              | -45           | 257.5     |
|          |                       |                  | and                         | 199    | 243          | 44.0 m @      | 0.4 g/t Au +                         | not assayed | n/a               |                  |               |           |
|          |                       | JDH-003          | from                        | 35.95  | 71.6         | 35.7 m @      | 0.5 g/t Au +                         | not assayed | n/a               | 280              | -45           | 261       |
|          |                       |                  | and                         | 120.4  | 254.6        | 134.2 m @     | 0.4 g/t Au +                         | not assayed | n/a               |                  |               |           |
|          |                       |                  | inc                         | 146.81 | 224.08       | 77.3 m @      | 0.5 g/t Au +                         | not assayed | n/a               |                  |               |           |
|          |                       | JDH-004          | from                        | 3.96   | 21.95        | 18.0 m @      | 0.4 g/t Au +                         | not assayed | n/a               | 280              | -45           | 219       |
|          |                       |                  | and                         | 79.74  | 120.42       | 40.7 m @      | 0.4 g/t Au +                         | not assayed | n/a               |                  |               |           |
|          |                       |                  | and                         | 150.9  | 203.7        | 52.8 m @      | 0.7 g/t Au +                         | not assayed | n/a               |                  |               |           |
|          |                       | JDH-005          | from                        | 5.2    | 81.4         | 76.2 m @      | 0.4 g/t Au +                         | not assayed | n/a               | 280              | -45           | 210.4     |
|          |                       |                  | and                         | 169.7  | 208.5        | 38.8 m @      | 0.2 g/t Au +                         | not assayed | n/a               |                  |               |           |
|          |                       | JDH-006          | from                        | 17.99  | 89.6         | 71.6 m @      | 0.2 g/t Au + 2.0 g/t Ag + 0.10 % Cu  | 0.42        | 150               | -45              | 302.7         |           |
|          |                       |                  | and                         | 164.8  | 281          | 116.2 m @     | 0.6 g/t Au + 8.9 g/t Ag + 0.40 % Cu  | 1.37        |                   |                  |               |           |
|          |                       |                  | inc                         | 227.8  | 281.09       | 53.3 m @      | 1.2 g/t Au + 13.2 g/t Ag + 0.62 % Cu | 2.39        |                   |                  |               |           |
|          |                       | JDH-007          | from                        | 39.7   | 84.45        | 44.8 m @      | 0.3 g/t Au + 1.4 g/t Ag + 0.04 % Cu  | 0.38        | 150               | -75              | 105.8         |           |
|          |                       | JDH-008          | from                        | 104.7  | 136.7        | 32.0 m @      | 0.1 g/t Au + 3.6 g/t Ag + 0.13 % Cu  | 0.41        | 150               | -60              | 352.7         |           |
|          |                       |                  | and                         | 249.08 | 316.15       | 67.1 m @      | 0.2 g/t Au + 5.7 g/t Ag + 0.21 % Cu  | 0.62        |                   |                  |               |           |
|          |                       |                  | and                         | 291.76 | 316.15       | 24.4 m @      | 0.5 g/t Au + 9.2 g/t Ag + 0.34 % Cu  | 1.13        |                   |                  |               |           |
|          |                       | JDH-009          | from                        | 10.3   | 122.03       | 111.7 m @     | 0.7 g/t Au + 14.6 g/t Ag + 0.58 % Cu | 1.85        | 150               | -45              | 256.7         |           |
|          |                       |                  | inc                         | 34.6   | 91.54        | 56.9 m @      | 0.2 g/t Au + 19.1 g/t Ag + 0.82 % Cu | 1.80        |                   |                  |               |           |
|          |                       |                  | and                         | 201.4  | 205.4        | 4.0 m @       | 11.4 g/t Au + 9.7 g/t Ag + 0.01 % Cu | 11.54       |                   |                  |               |           |
|          |                       |                  | and                         | 255.1  | eah          | 1.5 m @       | 0.7 g/t Au + 1.5 g/t Ag + 0.02 % Cu  | 0.75        |                   |                  |               |           |
|          |                       | JDH-10           | from                        | 1.5    | 50.9         | 49.4 m @      | 0.5 g/t Au + 2.5 g/t Ag + 0.09 % Cu  | 0.68        | 270               | -45              | 221.6         |           |
|          |                       |                  | and                         | 90.54  | 119          | 28.5 m @      | 0.2 g/t Au + 3.0 g/t Ag + 0.10 % Cu  | 0.40        |                   |                  |               |           |
|          |                       |                  | and                         | 140    | 203          | 81.6 m @      | 0.4 g/t Au + 1.3 g/t Ag + 0.07 % Cu  | 0.53        |                   |                  |               |           |
|          |                       | JDH-011          | from                        | 100.7  | 218          | 117.3 m @     | 0.4 g/t Au + 4.6 g/t Ag + 0.10 % Cu  | 0.62        | 270               | -45              | 218.0         |           |
|          |                       | JDH-012          | from                        | 12.2   | 53.96        | 41.8 m @      | 0.6 g/t Au + 6.5 g/t Ag + 0.02 % Cu  | 0.67        | 150               | -60              | 124.1         |           |
|          |                       | JDH-013          | from                        | 53.35  | 69.6         | 16.3 m @      | 0.5 g/t Au + 1.2 g/t Ag + 0.01 % Cu  | 0.48        | 150               | -60              | 239.3         |           |
|          |                       |                  | and                         | 89.9   | 154.9        | 65.0 m @      | 1.4 g/t Au + 2.8 g/t Ag + 0.06 % Cu  | 1.53        |                   |                  |               |           |
|          |                       |                  | inc                         | 114.32 | 142.76       | 28.4 m @      | 2.8 g/t Au + 4.9 g/t Ag + 0.10 % Cu  | 3.03        |                   |                  |               |           |
|          |                       | JDH-014          | from                        | 26.96  | 75.69        | 48.7 m @      | 0.4 g/t Au + 5.2 g/t Ag + 0.10 % Cu  | 0.63        | 90                | -60              | 239.4         |           |
|          |                       |                  | and                         | 85.84  | 116.32       | 30.5 m @      | 0.2 g/t Au + 4.2 g/t Ag + 0.1 % Cu   | 0.42        |                   |                  |               |           |
|          |                       |                  | and                         | 128.52 | 175.3        | 46.8 m @      | 0.5 g/t Au + 3.3 g/t Ag + 0.08 % Cu  | 0.63        |                   |                  |               |           |
|          |                       |                  | and                         | 179.35 | 217.98       | 38.6 m @      | 0.1 g/t Au + 2.5 g/t Ag + 0.08 % Cu  | 0.26        |                   |                  |               |           |

Significant intersections from Historic and Re-assayed drill core from El Guayabo drill holes:

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| Criteria             | JORC Code explanation | Commentary           |       |        |           |          |          |        |             |
|----------------------|-----------------------|----------------------|-------|--------|-----------|----------|----------|--------|-------------|
|                      |                       | Drill hole (#)       | From  | To     | Total (m) | Au (g/t) | Ag (g/t) | Cu (%) | Au Eq (g/t) |
| GY-001               | historical intercept  | 139                  | 249.2 | 110.2m | 0.4       | 1.1      | 0.06     | 0.5    |             |
|                      | (re-assayed section)  | 141                  | 177   | 36.0m  | 0.54      | 2.30     | 0.08     | 0.7    |             |
|                      | (original assays)     | ‘                    | ‘     | 36.0m  | 0.56      | 1.51     | 0.08     | 0.7    |             |
|                      | (re-assayed section)  | 205                  | 236   | 31.0m  | 0.19      | 0.89     | 0.03     | 0.3    |             |
|                      | (original assays)     | ‘                    | ‘     | 31.0m  | 0.21      | 0.13     | 0.03     | 0.3    |             |
| GY-002               | historical intercept  | 9.7                  | 166   | 156.3m | 2.6       | 9.7      | 0.16     | 3.0    |             |
|                      | (re-assayed section)  | 40                   | 102   | 62.0m  | 5.22      | 21.33    | 0.25     | 5.9    |             |
|                      | (original assays)     | ‘                    | ‘     | 62.0m  | 4.83      | 19.96    | 0.23     | 5.5    |             |
|                      | historical intercept  | 114                  | 166   | 52.0m  | 1.3       | 3.3      | 0.18     | 1.6    |             |
|                      | (re-assayed section)  | 114                  | 171   | 57.0m  | 1.20      | 3.44     | 0.18     | 1.5    |             |
|                      | (original assays)     | ‘                    | ‘     | 57.0m  | 1.24      | 3.53     | 0.17     | 1.6    |             |
| GY-005               | historical intercept  | 12                   | 162   | 150.0m | 0.4       | 11.0     | 0.30     | 1.0    |             |
|                      | (re-assayed section)  | 10                   | 60    | 50.0m  | 0.45      | 19.23    | 0.33     | 1.2    |             |
|                      | (original assays)     | ‘                    | ‘     | 50.0m  | 0.51      | 21.74    | 0.44     | 1.5    |             |
|                      | (re-assayed section)  | 64                   | 98    | 34.0m  | 0.10      | 5.25     | 0.16     | 0.4    |             |
|                      | (original assays)     | ‘                    | ‘     | 34.0m  | 0.84      | 6.22     | 0.16     | 1.2    |             |
|                      | (re-assayed section)  | 132                  | 162   | 30.0m  | 0.10      | 6.35     | 0.33     | 0.7    |             |
|                      | (original assays)     | ‘                    | ‘     | 30.0m  | 0.07      | 6.18     | 0.31     | 0.7    |             |
|                      | GY-011                | historical intercept | 14    | 229    | 215.0m    | 0.2      | 9.6      | 0.36   | 0.9         |
|                      |                       | (re-assayed section) | 14    | 126    | 112.0m    | 0.17     | 10.89    | 0.30   | 0.8         |
|                      |                       | (original assays)    | ‘     | ‘      | 112.0m    | 0.18     | 11.73    | 0.36   | 0.9         |
| (re-assayed section) |                       | 166                  | 206   | 40.0m  | 0.09      | 5.08     | 0.22     | 0.5    |             |
| (original assays)    |                       | ‘                    | ‘     | 40.0m  | 0.09      | 4.90     | 0.22     | 0.5    |             |
|                      | (re-assayed section)  | 218                  | 231   | 13.0m  | 0.22      | 8.52     | 0.41     | 1.0    |             |
|                      | (original assays)     | ‘                    | ‘     | 13.0m  | 0.34      | 19.48    | 0.96     | 2.2    |             |
|                      | GY-017                | historical intercept | 69    | 184    | 115.0m    | 0.5      | 2.1      | 0.03   | 0.5         |
| (re-assayed section) |                       | 94                   | 129   | 35.0m  | 0.45      | 2.76     | 0.04     | 0.6    |             |
| (original assays)    |                       | ‘                    | ‘     | 35.0m  | 0.30      | 4.01     | 0.03     | 0.4    |             |
| (re-assayed section) |                       | 206                  | 258   | 52.0m  | 0.37      | 2.00     | 0.06     | 0.5    |             |
|                      | (original assays)     | ‘                    | ‘     | 52.0m  | 0.26      | 1.42     | 0.06     | 0.4    |             |
| JDH-006              | historical intercept  | 17.99                | 89.6  | 71.6m  | 0.2       | 2.0      | 0.10     | 0.4    |             |
|                      | (re-assayed section)  | 10.3                 | 81.3  | 71.0m  | 0.18      | 1.38     | 0.03     | 0.2    |             |
|                      | (original assays)     | ‘                    | ‘     | 71.0m  | 0.20      | 1.59     | 0.07     | 0.3    |             |

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|----------|-----------------------|----------------------|--------|-------|--------|------|-------|------|-----|
|          |                       | historical intercept | 164.8  | 281   | 116.2m | 0.6  | 8.9   | 0.40 | 1.4 |
|          |                       | (re-assayed section) | 150.6  | 281.1 | 130.5m | 0.26 | 7.21  | 0.26 | 0.8 |
|          |                       | (original assays)    | ‘      | ‘     | 130.5m | 0.42 | 8.02  | 0.36 | 1.1 |
|          | JDH-009               | historical intercept | 10.3   | 122   | 111.7m | 0.7  | 14.6  | 0.58 | 1.8 |
|          |                       | (re-assayed section) | 6.7    | 107.8 | 101.1m | 0.21 | 13.80 | 0.36 | 1.0 |
|          |                       | (original assays)    | ‘      | ‘     | 101.1m | 0.22 | 15.08 | 0.59 | 1.4 |
|          | JDH-10                | historical intercept | 1.5    | 50.9  | 49.4m  | 0.5  | 2.5   | 0.09 | 0.7 |
|          |                       | (re-assayed section) | 15.2   | 50.9  | 35.7m  | 0.44 | 2.88  | 0.10 | 0.6 |
|          |                       | (original assays)    | ‘      | ‘     | 35.7m  | 0.41 | 2.96  | 0.10 | 0.6 |
|          |                       | historical intercept | 140    | 203   | 81.6m  | 0.4  | 1.3   | 0.07 | 0.5 |
|          |                       | (re-assayed section) | 150.5  | 203.4 | 52.9m  | 0.36 | 1.34  | 0.07 | 0.5 |
|          |                       | (original assays)    | ‘      | ‘     | 52.9m  | 0.39 | 1.24  | 0.06 | 0.5 |
|          | JDH-012               | historical intercept | 12.2   | 53.96 | 41.8m  | 0.6  | 6.5   | 0.02 | 0.7 |
|          |                       | (re-assayed section) | 18.3   | 54    | 35.7m  | 0.68 | 7.62  | 0.02 | 0.8 |
|          |                       | (original assays)    | ‘      | ‘     | 35.7m  | 0.69 | 7.36  | 0.02 | 0.8 |
|          | JDH-013               | historical intercept | 89.9   | 154.9 | 65.0m  | 1.4  | 2.8   | 0.06 | 1.5 |
|          |                       | (re-assayed section) | 112.3  | 155   | 42.7m  | 2.11 | 2.84  | 0.05 | 2.2 |
|          |                       | (original assays)    | ‘      | ‘     | 42.7m  | 2.00 | 3.70  | 0.08 | 2.2 |
|          | JDH-014               | historical intercept | 26.96  | 75.69 | 48.7m  | 0.4  | 5.2   | 0.10 | 0.6 |
|          |                       | (re-assayed section) | 27     | 61.5  | 34.5m  | 0.64 | 5.99  | 0.13 | 0.9 |
|          |                       | (original assays)    | ‘      | ‘     | 34.5m  | 0.52 | 6.25  | 0.13 | 0.8 |
|          |                       | historical intercept | 128.52 | 175.3 | 46.8m  | 0.46 | 3.3   | 0.08 | 0.6 |
|          |                       | (re-assayed section) | 140.7  | 167.2 | 26.5m  | 0.26 | 2.24  | 0.07 | 0.4 |
|          |                       | (original assays)    | ‘      | ‘     | 26.5m  | 0.65 | 2.91  | 0.08 | 0.8 |

**Colorado V:**

A cut-off grade of 0.1 g/t Au was used to report the assays of re-samples core and channel samples from underground development with up to 10 metres of internal dilution below cut-off allowable for the reporting of significant intercepts, consistent with a large low-grade mineralized system. Intersections that use a different cut-off are indicated.

#### Colorado V:

A cut-off grade of 0.1 g/t Au was used to report the assays of re-samples core and channel samples from underground development with up to 10 metres of internal dilution below cut-off allowable for the reporting of significant intercepts, consistent with a large low-grade mineralized system. Intersections that use a different cut-off are indicated.

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| Criteria   | JORC Code explanation | Commentary |        |              |          |          |          |          |                  |
|--|-----------------------|------------|--------|--------------|----------|----------|----------|----------|------------------|
| Historic: Significant intersections from Colorado V drill hole results from re-sampling of available core: |                       |            |        |              |          |          |          |          |                  |
|  | Hole_id               | From (m)   | To (m) | Interval (m) | Au (g/t) | Ag (g/t) | Cu (ppm) | Mo (ppm) | Comment          |
|  | ZK0-1                 | 9.4        | 37.5   | 28.1         | 0.4      | 1.0      |          |          |                  |
|  | and                   | 66.5       | 89.5   | 23.0         | 0.9      | 4.7      |          |          |                  |
|  | and                   | 105.7      | 129.7  | 24.0         | 0.3      | 1.0      |          |          |                  |
|  | and                   | 167.5      | 214.0  | 46.5         | 0.4      | 7.1      |          |          |                  |
|  | ZK1-3                 | 46.0       | 103.7  | 57.7         | 0.5      | 1.9      |          |          |                  |
|  | inc                   | 56.0       | 85.7   | 29.7         | 0.8      | 3.1      |          |          |                  |
|  | from                  | 127.0      | 163.0  | 36.0         | 0.5      | 3.5      |          |          |                  |
|  | and                   | 290.5      | 421.0  | 130.5        | 0.5      | 3.1      |          |          |                  |
|  | inc                   | 302.5      | 380.5  | 78.0         | 0.7      | 3.5      |          |          |                  |
|  | ZK1-5                 | 211.4      | 355.0  | 145.6        | 1.5      | 1.7      |          |          |                  |
|  | inc                   | 253.0      | 340.0  | 87.0         | 2.1      | 1.9      |          |          |                  |
|  | ZK0-2                 | 13.3       | 108.2  | 94.9         | 0.3      | 1.7      |          |          |                  |
|  | inc                   | 75.7       | 108.2  | 32.5         | 0.4      | 2.6      |          |          |                  |
|  | and                   | 172.7      | 193.1  | 20.4         | 0.3      | 2.1      |          |          |                  |
|  | and                   | 225.0      | 376.4  | 151.4        | 0.9      | 3.8      |          |          |                  |
|  | inc                   | 227.0      | 361.0  | 134.0        | 1.0      | 4.1      |          |          |                  |
|  | inc                   | 227.0      | 290.0  | 63.0         | 1.6      | 5.1      |          |          |                  |
|  | ZK3-4                 | 26         | 38     | 12           | 0.3      | 1.5      | 513      | 5        |                  |
|  | and                   | 50         | 114    | 64           | 0.2      | 1.5      | 549      | 5        |                  |
|  | inc                   | 86         | 88     | 2            | 1.5      | 1.4      | 458      | 3        | 1 g/t Au cut off |
|  | and                   | 180        | 250    | 70           | 0.2      | 1.6      | 777      | 3        |                  |
|  | ZK3-1                 | 49.5       | 112.5  | 63           | 0.1      | 1.7      | 654      | 5        |                  |
|  | inc                   | 94.5       | 96     | 1.5          | 1.5      | 1.4      | 3126     | 7        | 1 g/t Au cut off |
|  | and                   | 94.5       | 174    | 79.5         | 0.1      | 2        | 662      | 4        |                  |
|  | inc                   | 171        | 172.5  | 1.5          | 1.4      | 2.6      | 771      | 7        | 1 g/t Au cut off |
|  | SAZK0-1               | 31.2       | 90.8   | 59.6         | 0.2      | 1.4      | 392      | 3        |                  |
|  | and                   | 131.5      | 179.5  | 48           | 0.1      | 4.3      | 824      | 6        |                  |
|  | and                   | 229.8      | 292.8  | 63           | 0.2      | 1        | 325      | 8        |                  |
|  | and                   | 319        | 490.8  | 171.8        | 0.2      | 1.5      | 616      | 12       |                  |
|  | inc                   | 352        | 446.5  | 94.5         | 0.3      | 2.4      | 996      | 15       | 1 g/t Au cut off |
|  | SAK2-1                | 66.5       | 275    | 208.5        | 0.3      | 1.5      | 626      | 5        |                  |
|  | inc                   | 122        | 185    | 63           | 0.6      | 2.1      | 825      | 3        | 1 g/t Au cut off |

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|----------|-----------------------|------------|--------|--------|---------|------|------|------|------|-----------------------------|----------------------|
|          |                       | and        | 225.5  | 227    | 1.5     | 1.6  | 1.4  | 638  | 2    | 1 g/t Au cut off            |                      |
|          |                       | and        | 288.5  | 330.5  | 42      | 0.2  | 2    | 454  | 1    |                             |                      |
|          |                       | inc        | 288.5  | 291.5  | 3       | 1.3  | 5.6  | 1136 | 1    | 1 g/t Au cut off            |                      |
|          |                       | SAZK0-2    | 0      | 80.7   | 80.7    | 0.4  | 1.9  | 478  | 3    |                             |                      |
|          |                       | inc        | 30.7   | 51.2   | 20.5    | 1    | 2.5  | 460  | 5    | 1 g/t Au cut off            |                      |
|          |                       | and        | 136    | 148    | 12      | 0.6  | 0.4  | 61   | 14   |                             |                      |
|          |                       | inc        | 137.5  | 140.5  | 3       | 1.4  | 0.3  | 10   | 4    | 1 g/t Au cut off            |                      |
|          |                       | and        | 200.5  | 403.8  | 203.3   | 0.3  | 1.3  | 588  | 15   | Hole ends in mineralisation |                      |
|          |                       | inc        | 293.5  | 399.3  | 105.8   | 0.5  | 1.3  | 635  | 16   |                             |                      |
|          |                       | inc        | 214    | 215.5  | 1.5     | 1.8  | 2.1  | 681  | 12   | 1 g/t Au cut off            |                      |
|          |                       | inc        | 344.5  | 399.3  | 54.8    | 0.7  | 1.5  | 767  | 12   |                             |                      |
|          |                       | inc        | 361.8  | 366.3  | 4.5     | 5.5  | 0.8  | 502  | 61   | 1 g/t Au cut off            |                      |
|          |                       | and        | 397.8  | 399.3  | 1.5     | 1.3  | 2.3  | 770  | 2    | 1 g/t Au cut off            |                      |
|          |                       | ZK1-13     | 46.2   | 73.2   | 27      | 0.1  | 0.8  | 306  | 1    |                             |                      |
|          |                       | and        | 140    | 141.5  | 1.5     | 1.9  | 0.7  | 236  | 1    | 1 g/t Au cut off            |                      |
|          |                       | and        | 161    | 196    | 35      | 0.1  | 1.4  | 391  | 2    |                             |                      |
|          |                       | ZK0-5      | 6.1    | 19.8   | 13.7    | 0.2  | 1.3  | 313  | 10   |                             |                      |
|          |                       |            | 46.3   | 130.1  | 83.8    | 0.5  | 1.2  | 356  | 7    |                             |                      |
|          |                       | inc        | 67     | 118    | 51      | 0.7  | 1.4  | 409  | 5    | 0.5 g/t Au cut off          |                      |
|          |                       | inc        | 75.7   | 76.8   | 1.1     | 1.2  | 1.4  | 483  | 2    | 1 g/t Au cut off            |                      |
|          |                       | and        | 80.7   | 81.7   | 1       | 1.8  | 2.2  | 549  | 4    | 1 g/t Au cut off            |                      |
|          |                       | and        | 93.7   | 94.7   | 1       | 13.9 | 3.4  | 354  | 7    | 1 g/t Au cut off            |                      |
|          |                       | and        | 146.5  | 296.5  | 150     | 0.2  | 1    | 310  | 3    |                             |                      |
|          |                       | and        | 370    | 371.5  | 1.5     | 0.9  | 5.2  | 1812 | 3    |                             |                      |
|          |                       | and        | 414.3  | 415.8  | 1.5     | 1.2  | 0.3  | 127  | 1    |                             |                      |
|          |                       | and        | 560.5  | 562    | 1.5     | 2.3  | 0.6  | 189  | 2    |                             |                      |
|          |                       | and        | 596    | 598.2  | 2.2     | 1.7  | 2.1  | 391  | 4    |                             |                      |
|          |                       | and        | 607    | 608.5  | 1.5     | 2    | 0.8  | 190  | 2    |                             |                      |
|          |                       | ZK18-1     | NSI    |        |         |      |      |      |      |                             |                      |
|          |                       | ZK0-4      | 3.70   | 458.00 | 454.30* | 0.20 | 1.3  | 0.04 | 5.9  |                             |                      |
|          |                       | inc        | 42.60  | 154.25 | 111.65  | 0.39 | 1.9  | 0.05 | 7.6  |                             | 0.5 g/t AuEq cut off |
|          |                       | inc        | 69.70  | 97.20  | 27.50   | 0.66 | 1.7  | 0.05 | 8.6  |                             | 1.0 g/t AuEq cut off |
|          |                       | ZK10-1     | 25.02  | 151.00 | 125.98  | 0.16 | 1.1  | 0.06 | 17.9 |                             | 0.1 g/t AuEq cut off |
|          | and                   | 309.00     | 326.00 | 17.00  | 0.16    | 0.91 | 0.07 | 6.1  |      | 0.1 g/t AuEq cut off        |                      |

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|----------|-----------------------|--|----------|--------------|--------------|------------|----------|--------|----------|----------------------|-----------------|-------------------------------|
|          |                       | and  | 354.02   | 451.00       | 96.98*       | 0.17       | 1.2      | 0.06   | 15.8     |                      |                 |                               |
|          |                       | inc  | 435.02   | 451.00       | 15.98*       | 0.32       | 1.8      | 0.07   | 2.6      |                      |                 |                               |
|          |                       | ZK16-2   | 19.00    | 267.31       | 248.31       | 0.33       | 2.7      | 0.07   | 2.6      |                      |                 |                               |
|          |                       | inc  | 140.00   | 254.00       | 114.00       | 0.53       | 2.9      | 0.09   | 3.3      |                      |                 |                               |
|          |                       | inc  | 224.00   | 254.00       | 30.00        | 0.85       | 3.6      | 0.12   | 3.4      |                      |                 |                               |
|          |                       | * Mineralisation to end of hole  |          |              |              |            |          |        |          |                      |                 |                               |
|          |                       | <b>Historic: Significant intersections from Colorado V channel sample results from underground exposure</b>  |          |              |              |            |          |        |          |                      |                 |                               |
|          |                       | Channel_id   | From (m) | Interval (m) | AuEq (g/t)   | Au (g/t)   | Ag (g/t) | Cu (%) | Mo (ppm) | Comment              |                 |                               |
|          |                       | Main Adit  | 0.0      | 264.0        | 0.42         | 0.30       | 2.1      | 0.05   | 9.4      | 0.1 g/t AuEq cut off |                 |                               |
|          |                       | inc  | 0.0      | 150.0        | 0.60         | 0.46       | 2.4      | 0.07   | 9.8      | 0.5 g/t AuEq cut off |                 |                               |
|          |                       | inc  | 0.0      | 112.0        | 0.71         | 0.55       | 2.7      | 0.08   | 9.3      | 1 g/t AuEq cut off   |                 |                               |
|          |                       | and  | 276.0    | 32.0         | 0.29         | 0.21       | 1.4      | 0.04   | 5.1      | 0.1 g/t AuEq cut off |                 |                               |
|          |                       | Main Adit (west drive)   | 20.0     | 39.1         | 0.30         | 0.28       | 2.3      | 0.03   | 4.5      | 0.1 g/t AuEq cut off |                 |                               |
|          |                       | and  | 74.0     | 56.0         | 0.69         | 0.64       | 1.8      | 0.01   | 2.8      | 0.5 g/t AuEq cut off |                 |                               |
|          |                       | inc  | 84.0     | 46.0         | 0.81         | 0.76       | 2.1      | 0.01   | 3.0      | 1.0 g/t AuEq cut off |                 |                               |
|          |                       | <b>CEL: Guayabo and Colorado V Concessions Camp 1, Phase #1 &amp; Phase #2 Drilling Intercepts:</b>  |          |              |              |            |          |        |          |                      |                 |                               |
|          |                       | A cut-off grade of 0.1 g/t Au was used to report the assays of core samples with up to 10 metres of internal dilution below cut-off allowable for the reporting of significant intercepts, consistent with a large low-grade mineralized system. Intersections that use a different cut-off are indicated (e.g. 0.2g/t Au Eq, 0.5g/t AuEq, 1.0g/t AuEq, 10.0g/t AuEq). |          |              |              |            |          |        |          |                      |                 |                               |
|          |                       | <b>CEL: Significant intersections from El Guayabo Project (Guayabo Concession)_Camp #1, Phase #1 Drilling completed</b>  |          |              |              |            |          |        |          |                      |                 |                               |
|          |                       | Drill Hole (#)   | From (m) | To (m)       | Interval (m) | Gold (g/t) | Ag (g/t) | Cu (%) | Mo (ppm) | AuEq (g/t)           | Comments        | Total intercept (gram metres) |
|          |                       | GYDD-21-001  | 16.2     | 800.5        | 784.3        | 0.2        | 1.6      | 0.1    | 12.0     | 0.4                  | 0.1 g/t cut-off | 282.4                         |
|          |                       | inc  | 167.5    | 548.0        | 380.5        | 0.3        | 2.0      | 0.1    | 18.4     | 0.5                  | 1.0 g/t cut-off | 178.8                         |
|          |                       | inc  | 359.5    | 548.0        | 188.5        | 0.4        | 2.4      | 0.1    | 29.5     | 0.6                  | 1.0 g/t cut-off | 115.0                         |
|          |                       | inc  | 403.0    | 431.0        | 28.0         | 0.5        | 6.9      | 0.2    | 104.4    | 1.0                  | 1.0 g/t cut-off | 26.6                          |
|          |                       | inc  | 403.0    | 424.0        | 21.0         | 0.8        | 3.0      | 0.2    | 138.9    | 1.1                  | 1.0 g/t cut-off | 22.9                          |
|          |                       | and  | 468.5    | 498.5        | 30.0         | 0.8        | 2.6      | 0.2    | 24.8     | 1.1                  | 1.0 g/t cut-off | 31.8                          |

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Mr Sergio Rotonondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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| Criteria | JORC Code explanation | Commentary |        |       |       |       |      |      |      |                          |       |
|----------|-----------------------|------------|--------|-------|-------|-------|------|------|------|--------------------------|-------|
|          | GYDD-21-002           | 85         | 131.5  | 46.5  | 0.32  | 3.99  | 0.04 | 5.72 | 0.4  | 0.1 g/t cut-off          | 20.0  |
|          | incl.                 | 112        | 114.3  | 2.3   | 1.33  | 33.17 | 0.12 | 5.1  | 2.0  | 1.0 g/t cut-off          | 4.5   |
|          | incl.                 | 129.75     | 131.5  | 1.75  | 2.05  | 7.36  | 0.01 | 1.29 | 2.2  | 1.0 g/t cut-off          | 3.8   |
|          | and                   | 279.45     | 306.5  | 27.05 | 1.49  | 0.82  | 0.02 | 2.21 | 1.5  | 0.1 g/t cut-off          | 41.4  |
|          | incl.                 | 305        | 306.5  | 1.5   | 19.16 | 1.89  | 0.03 | 3.21 | 19.2 | 10.0 g/t cut-off         | 28.8  |
|          | and                   | 378.5      | 392    | 13.5  | 0.44  | 0.21  | 0.01 | 1.45 | 0.5  | 0.1 g/t cut-off          | 6.2   |
|          | and                   | 447.9      | 448.8  | 0.9   | 0.74  | 4.85  | 0.06 | 1.92 | 0.9  | 0.1 g/t cut-off          | 0.8   |
|          | and                   | 499.8      | 557.8  | 58    | 0.14  | 0.3   | 0.01 | 1.53 | 0.2  | 0.1 g/t cut-off          | 9.3   |
|          | incl.                 | 547.8      | 554.8  | 7     | 0.39  | 0.21  | 0.01 | 1.74 | 0.4  | 0.5 g/t cut-off          | 2.9   |
|          | incl.                 | 554.1      | 554.8  | 0.7   | 1.06  | 0.2   | 0.01 | 1.08 | 1.1  | 1.0 g/t cut-off          | 0.8   |
|          | GYDD-21-003           | 71.85      | 191.06 | 119.2 | 0.4   | 0.8   | 0.0  | 2.2  | 0.5  | 0.1 g/t cut-off          | 53.9  |
|          | inc                   | 76.35      | 153.56 | 77.2  | 0.5   | 0.5   | 0.0  | 1.1  | 0.6  | 1.0 g/t cut-off          | 45.6  |
|          | inc                   | 76.35      | 102.56 | 26.2  | 1.1   | 0.9   | 0.0  | 1.7  | 1.1  | 1.0 g/t cut-off          | 29.3  |
|          | inc                   | 101.80     | 102.56 | 0.8   | 20.6  | 4.9   | 0.0  | 0.6  | 20.7 | 10.0 g/t cut             | 15.7  |
|          | and                   | 356.50     | 371.50 | 15.0  | 0.3   | 0.4   | 0.0  | 5.0  | 0.4  | 0.1 g/t cut-off          | 5.3   |
|          | inc                   | 361.00     | 362.50 | 1.5   | 1.0   | 0.5   | 0.0  | 3.9  | 1.1  | 1.0 g/t cut-off          | 1.6   |
|          | and                   | 575.80     | 597.20 | 21.4  | 0.1   | 2.6   | 0.1  | 57.7 | 0.3  | 0.1 g/t cut-off          | 6.7   |
|          | and                   | 662.20     | 723.15 | 61.0  | 0.1   | 0.9   | 0.0  | 24.5 | 0.2  | 0.1 g/t cut-off          | 12.3  |
|          | GYDD-21-004           | 37.10      | 375.75 | 338.7 | 0.2   | 1.0   | 0.0  | 6.5  | 0.3  | 0.1 g/t cut-off          | 84.7  |
|          | inc                   | 223.46     | 375.75 | 152.3 | 0.2   | 1.3   | 0.0  | 7.3  | 0.3  | 0.1 g/t cut-off          | 50.0  |
|          | inc                   | 348.75     | 375.75 | 27.0  | 0.5   | 1.8   | 0.0  | 7.3  | 0.6  | 1.0 g/t cut-off          | 16.9  |
|          | and                   | 613.50     | 646.50 | 33.0  | 0.2   | 0.6   | 0.1  | 18.7 | 0.3  | 0.1 g/t cut-off          | 8.6   |
|          | inc                   | 639.00     | 646.50 | 7.5   | 0.5   | 0.5   | 0.0  | 10.7 | 0.5  | 1.0 g/t cut-off          | 4.1   |
|          | GYDD-21-005           | 16.10      | 597.75 | 581.7 | 0.3   | 0.9   | 0.0  | 2.5  | 0.3  | 0.1 g/t cut-off          | 194.3 |
|          | inc                   | 389.80     | 478.15 | 88.4  | 0.6   | 1.8   | 0.1  | 1.5  | 0.8  | 1.0 g/t cut-off          | 66.7  |
|          | inc                   | 476.50     | 478.15 | 1.7   | 25.1  | 1.8   | 0.0  | 4.0  | 25.2 | 10.0 g/t cut             | 41.5  |
|          | and                   | 567.34     | 597.75 | 30.4  | 1.4   | 0.9   | 0.0  | 5.1  | 1.5  | 1.0 g/t cut-off          | 45.6  |
|          | inc                   | 592.59     | 597.75 | 5.2   | 7.1   | 2.0   | 0.0  | 3.9  | 7.2  | 1.0 g/t cut-off          | 36.9  |
|          | inc                   | 596.15     | 597.15 | 1.0   | 22.0  | 3.9   | 0.0  | 10.9 | 22.2 | 10 g/t cut-off           | 22.2  |
|          | GYDD-21-006           | 3.30       | 313.10 | 309.8 | 0.2   | 6.3   | 0.2  | 3.0  | 0.7  | 0.1 g/t cut-off          | 207.1 |
|          | inc                   | 17.40      | 276.50 | 259.1 | 0.2   | 7.3   | 0.2  | 3.3  | 0.8  | 0.1 g/t cut-off based on | 195.9 |
|          | inc                   | 74.40      | 276.50 | 202.1 | 0.3   | 6.5   | 0.3  | 3.6  | 0.8  | lithology                | 165.7 |
|          | inc                   | 74.40      | 107.40 | 33.0  | 0.3   | 15.5  | 0.5  | 3.7  | 1.3  | 1.0 g/t cut-off          | 43.4  |

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Mr Brett Hackett Non Exec Director

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|----------|-----------------------|------------|--------|-------|------|------|-----|------|------|-----------------|-------|--|
|          | and                   | 231.90     | 285.50 | 53.6  | 0.7  | 8.8  | 0.4 | 1.1  | 1.5  | 1.0 g/t cut-off | 81.7  |  |
|          | GYDD-21-007           | 85.30      | 94.00  | 8.7   | 0.4  | 3.6  | 0.1 | 4.6  | 0.6  | 1.0 g/t cut-off | 5.5   |  |
|          | and                   | 149.50     | 509.60 | 360.1 | 0.1  | 0.9  | 0.1 | 9.6  | 0.3  | 0.2 g/t cut off | 95.1  |  |
|          | inc                   | 253.50     | 265.50 | 12.0  | 0.4  | 2.0  | 0.1 | 10.3 | 0.5  | 1.0 g/t cut-off | 6.1   |  |
|          | and                   | 309.50     | 316.70 | 7.2   | 0.4  | 2.6  | 0.2 | 16.6 | 0.8  | 0.5 g/t cut-off | 5.7   |  |
|          | and                   | 450.20     | 493.20 | 43.0  | 0.4  | 1.0  | 0.1 | 21.3 | 0.6  | 0.5 g/t cut-off | 24.1  |  |
|          | and                   | 628.77     | 651.80 | 23.0  | 0.1  | 0.7  | 0.4 | 5.5  | 0.2  | 0.2 g/t cut-off | 4.6   |  |
|          | inc                   | 649.25     | 651.80 | 2.6   | 0.6  | 2.4  | 0.1 | 2.1  | 0.8  | EOH             | 1.9   |  |
|          | GYDD-21-008           | 5.30       | 263.10 | 257.8 | 0.8  | 7.9  | 0.3 | 1.5  | 1.4  | 0.1 g/t cut-off | 361.0 |  |
|          | inc                   | 184.10     | 263.10 | 79.0  | 2.4  | 17.5 | 0.7 | 1.6  | 3.8  | 1.0 g/t cut-off | 298.6 |  |
|          | inc                   | 209.40     | 263.10 | 53.7  | 3.5  | 23.9 | 0.9 | 1.7  | 5.3  | 5.0 g/t cut-off | 285.7 |  |
|          | inc                   | 248.80     | 255.60 | 6.8   | 16.9 | 50.1 | 1.9 | 1.6  | 20.6 | 10 g/t cut-off  | 104.2 |  |
|          | GYDD-21-009           | 0.00       | 692.70 | 692.7 | 0.2  | 2.0  | 0.1 | 7.7  | 0.3  | EOH             | 191.9 |  |
|          | inc                   | 220.50     | 441.00 | 220.5 | 0.3  | 4.3  | 0.1 | 8.7  | 0.6  | 0.5 g/t cut-off | 128.3 |  |
|          | inc                   | 282.80     | 303.50 | 20.7  | 0.3  | 16.5 | 0.3 | 5.5  | 1.0  | 0.5 g/t cut-off | 20.5  |  |
|          | inc                   | 359.00     | 439.50 | 80.5  | 0.5  | 1.3  | 0.2 | 5.8  | 0.9  | 1.0 g/t cut-off | 68.8  |  |
|          | inc                   | 359.00     | 371.00 | 12.0  | 1.4  | 3.1  | 0.2 | 6.3  | 1.7  | 1.0 g/t cut-off | 20.1  |  |
|          | and                   | 398.00     | 439.50 | 41.5  | 0.5  | 7.2  | 0.2 | 5.7  | 1.0  | 1.0 g/t cut-off | 41.0  |  |
|          | inc                   | 421.20     | 439.50 | 18.3  | 0.9  | 14.4 | 0.5 | 5.3  | 1.8  | 1.0 g/t cut-off | 33.4  |  |
|          | GYDD-21-010           | 70.20      | 880.10 | 809.9 | 0.2  | 1.1  | 0.1 | 11.9 | 0.3  | 0.2 g/t cut-off | 227.6 |  |
|          | inc                   | 124.10     | 536.30 | 412.1 | 0.2  | 1.2  | 0.1 | 14.0 | 0.4  | 0.2 g/t cut-off | 153.7 |  |
|          | inc                   | 318.70     | 536.30 | 217.6 | 0.3  | 1.6  | 0.1 | 19.9 | 0.5  | 0.5 g/t cut-off | 102.9 |  |
|          | inc                   | 319.70     | 358.40 | 38.7  | 0.5  | 1.8  | 0.1 | 8.4  | 0.7  | 1.0 g/t cut-off | 28.6  |  |
|          | and                   | 468.10     | 536.30 | 68.2  | 0.4  | 2.2  | 0.1 | 31.8 | 0.7  | 1.0 g/t cut-off | 45.4  |  |
|          | and                   | 581.60     | 880.10 | 298.5 | 0.1  | 1.0  | 0.0 | 10.3 | 0.2  | 0.2 g/t cut-off | 61.8  |  |
|          | inc                   | 650.00     | 660.50 | 10.5  | 0.5  | 3.3  | 0.1 | 16.9 | 0.7  | 1.0 g/t cut-off | 6.9   |  |
|          | GYDD-21-011           | 3.00       | 310.90 | 307.9 | 0.5  | 2.4  | 0.0 | 13.6 | 0.6  | 0.2 g/t cut-off | 191.5 |  |
|          | inc                   | 13.00      | 21.00  | 8.0   | 0.7  | 12.4 | 0.1 | 2.0  | 0.9  | 0.5 g/t cut-off | 7.3   |  |
|          | and                   | 156.05     | 258.90 | 102.9 | 1.1  | 2.7  | 0.0 | 19.1 | 1.2  | 0.5 g/t cut-off | 122.7 |  |
|          | inc                   | 156.05     | 213.05 | 57.0  | 1.7  | 3.6  | 0.0 | 9.0  | 1.8  | 1.0 g/t cut-off | 104.3 |  |
|          | GYDD-21-012           | 2.00       | 226.84 | 224.8 | 0.3  | 2.4  | 0.0 | 2.7  | 0.4  | 0.2 g/t cut-off | 83.6  |  |
|          | inc                   | 2.00       | 44.50  | 42.5  | 0.6  | 2.3  | 0.0 | 1.9  | 0.7  | 1.0 g/t cut-off | 31.1  |  |
|          | inc                   | 2.00       | 6.50   | 4.5   | 1.8  | 0.8  | 0.0 | 1.8  | 1.9  | 1.0 g/t cut-off | 8.4   |  |

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|--|-----------------------|-------------|--------|--------|----------|-------|-------|------|-------|-------|----------------------|-------------------------------|
|  |                       | and         | 31.00  | 38.50  | 7.5      | 0.9   | 6.5   | 0.0  | 1.8   | 1.1   | 1.0 g/t cut-off      | 8.1                           |
|  |                       | and         | 339.94 | 365.60 | 25.7     | 0.1   | 2.2   | 0.0  | 2.3   | 0.2   | 0.2 g/t cut-off      | 4.6                           |
|  |                       | and         | 464.20 | 491.90 | 27.7     | 0.1   | 2.6   | 0.0  | 2.6   | 0.2   | 0.2 g/t cut-off      | 6.4                           |
|  |                       | and         | 669.60 | 741.60 | 72.0     | 0.3   | 0.8   | 0.0  | 3.2   | 0.3   | 0.2 g/t cut-off      | 23.1                          |
|  |                       | inc         | 677.10 | 732.60 | 55.5     | 0.3   | 0.7   | 0.0  | 3.6   | 0.4   | 1.0 g/t cut-off      | 20.4                          |
|  |                       | GYDD-21-013 | 33.60  | 164.50 | 130.9    | 0.2   | 4.2   | 0.1  | 5.7   | 0.4   | 0.2 g/t cut-off      | 51.4                          |
|  |                       | inc         | 33.60  | 95.75  | 62.2     | 0.3   | 5.2   | 0.1  | 8.5   | 0.5   | 1.0 g/t cut-off      | 32.4                          |
|  |                       | inc         | 61.25  | 74.75  | 13.5     | 0.8   | 8.3   | 0.1  | 6.0   | 1.0   | 1.0 g/t cut-off      | 13.8                          |
|  |                       | and         | 189.15 | 517.45 | 328.3    | 0.2   | 2.2   | 0.1  | 23.3  | 0.4   | EOH                  | 114.9                         |
|  |                       | inc         | 341.04 | 432.00 | 91.0     | 0.4   | 1.7   | 0.1  | 32.3  | 0.6   | 0.5 g/t cut-off      | 55.3                          |
|  |                       | inc         | 341.04 | 350.00 | 9.0      | 0.9   | 1.7   | 0.0  | 7.9   | 1.0   | 1.0 g/t cut-off      | 8.9                           |
|  |                       | and         | 412.14 | 430.14 | 18.0     | 0.7   | 2.2   | 0.1  | 35.7  | 0.9   | 1.0 g/t cut-off      | 17.0                          |
|  |                       | GYDD-22-014 | 15.30  | 609.80 | 594.50   | 0.16  | 2.22  | 0.05 | 7.34  | 0.28  | 0.1 g/t cut off      | 164.7                         |
|  |                       | inc         | 538.50 | 609.80 | 71.30    | 0.50  | 2.67  | 0.07 | 14.28 | 0.66  | 1.0 g/t cut off      | 46.9                          |
|  |                       | inc         | 556.50 | 584.30 | 27.80    | 1.14  | 4.43  | 0.12 | 27.61 | 1.43  | 1.0 g/t cut off      | 39.6                          |
|  |                       | GYDD-22-015 | 3.00   | 308.70 | 305.70   | 0.15  | 4.65  | 0.15 | 1.54  | 0.46  | 0.1 g/t cut off      | 141.7                         |
|  |                       | incl.       | 87.10  | 146.90 | 59.80    | 0.19  | 7.06  | 0.25 | 1.48  | 0.69  | 1.0 g/t cut off      | 41.2                          |
|  |                       | and         | 257.65 | 304.90 | 47.25    | 0.38  | 6.74  | 0.25 | 1.30  | 0.89  | 1.0 g/t cut off      | 42.1                          |
|  |                       | inc         | 257.65 | 275.65 | 18.00    | 0.40  | 9.81  | 0.35 | 1.37  | 1.11  | 1.0 g/t cut off      | 20.0                          |
|  |                       | and         | 289.90 | 304.90 | 15.00    | 0.57  | 7.73  | 0.31 | 1.20  | 1.19  | 1.0 g/t cut off      | 17.8                          |
|  |                       | GYDD-22-016 | 68.00  | 333.42 | 265.42   | 0.29  | 2.90  | 0.08 | 2.93  | 0.47  | 0.1 g/t cut off      | 123.5                         |
|  |                       | inc         | 225.80 | 333.42 | 107.62   | 0.51  | 5.65  | 0.16 | 2.09  | 0.86  | 1.0 g/t cut off      | 92.0                          |
|  |                       | inc         | 294.30 | 333.42 | 39.12    | 0.61  | 8.45  | 0.25 | 1.86  | 1.13  | 1.0 g/t cut off      | 33.9                          |
|  |                       | and         | 225.80 | 256.80 | 31.00    | 0.73  | 6.10  | 0.17 | 2.05  | 1.09  | 1.0 g/t cut off      | 44.1                          |
| CEL: Significant intersections from El Guayabo Project (Guayabo Concession)_Camp #1, Phase #2 Drilling completed |                       |             |        |        |          |       |       |      |       |       |                      |                               |
|  |                       | Drill Hole  | From   | To     | Interval | Gold  | Ag    | Cu   | Mo    | AuEq  | Comments             | Total intercept (gram metres) |
|  |                       | (#)         | (m)    | (m)    | (m)      | (g/t) | (g/t) | (%)  | (ppm) | (g/t) |                      |                               |
|  |                       | GYDD-22-017 | 8.00   | 110.12 | 102.12   | 0.22  | 1.13  | 0.01 | 1.30  | 0.26  | 0.1 g/t AuEq cut off | 26.1                          |
|  |                       | incl.       | 8.00   | 70.40  | 62.40    | 0.30  | 1.57  | 0.02 | 1.30  | 0.36  | 0.1 g/t AuEq cut off | 22.2                          |
|  |                       | incl.       | 9.50   | 24.50  | 15.00    | 0.71  | 3.65  | 0.04 | 2.43  | 0.82  | 1.0 g/t AuEq cut off | 12.4                          |

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| Criteria | JORC Code explanation | Commentary  |        |        |        |      |       |      |      |      |                      |       |
|----------|-----------------------|-------------|--------|--------|--------|------|-------|------|------|------|----------------------|-------|
|          |                       | and         | 153.96 | 172.03 | 18.07  | 0.47 | 2.63  | 0.02 | 1.82 | 0.53 | 1.0 g/t AuEq cut off | 9.6   |
|          |                       | and         | 380.75 | 382.75 | 2.00   | 1.21 | 0.46  | 0.02 | 1.30 | 1.25 | 1.0 g/t AuEq cut off | 2.5   |
|          |                       | and         | 406.06 | 443.82 | 37.76  | 0.25 | 0.54  | 0.02 | 1.26 | 0.29 | 1.0 g/t AuEq cut off | 10.9  |
|          |                       | and         | 521.25 | 686.65 | 165.40 | 0.21 | 0.73  | 0.04 | 2.85 | 0.28 | 0.1 g/t AuEq cut off | 45.7  |
|          |                       | incl.       | 544.50 | 552.00 | 7.50   | 0.43 | 1.26  | 0.54 | 1.61 | 0.54 | 0.5 g/t AuEq cut off | 4.0   |
|          |                       | and         | 591.00 | 621.25 | 30.25  | 0.45 | 0.86  | 0.03 | 1.22 | 0.52 | 0.5 g/t AuEq cut off | 15.6  |
|          |                       | and         | 644.65 | 652.15 | 7.50   | 0.49 | 1.43  | 0.10 | 1.87 | 0.68 | 0.5 g/t AuEq cut off | 5.1   |
|          |                       | and         | 667.15 | 668.65 | 1.50   | 1.18 | 0.41  | 0.01 | 0.70 | 1.21 | 1.0 g/t AuEq cut off | 1.8   |
|          |                       | and         | 818.50 | 821.00 | 2.50   | 0.43 | 2.84  | 0.91 | 0.58 | 0.62 | 0.5 g/t AuEq cut off | 1.5   |
|          |                       | GYDD-22-018 | 4.00   | 734.05 | 730.05 | 0.14 | 0.67  | 0.03 | 5.85 | 0.21 | 0.1 g/t AuEq cut off | 151.3 |
|          |                       | incl.       | 4.00   | 315.71 | 311.71 | 0.20 | 0.73  | 0.03 | 7.37 | 0.25 | 0.1 g/t AuEq cut off | 79.0  |
|          |                       | incl.       | 4.00   | 60.00  | 56.00  | 0.53 | 0.66  | 0.02 | 5.67 | 0.57 | 1.0 g/t AuEq cut off | 31.8  |
|          |                       | incl.       | 32.00  | 60.00  | 28.00  | 0.82 | 0.78  | 0.02 | 5.83 | 0.86 | 1.0 g/t AuEq cut off | 24.1  |
|          |                       | and         | 129.00 | 130.50 | 1.50   | 1.96 | 0.26  | 0.01 | 2.50 | 1.98 | 1.0 g/t AuEq cut off | 3.0   |
|          |                       | and         | 177.30 | 178.80 | 1.50   | 1.12 | 1.11  | 0.05 | 5.60 | 1.20 | 1.0 g/t AuEq cut off | 1.8   |
|          |                       | and         | 243.30 | 244.80 | 1.50   | 1.05 | 1.28  | 0.04 | 4.50 | 1.13 | 1.0 g/t AuEq cut off | 1.7   |
|          |                       | and         | 383.25 | 388.65 | 5.40   | 0.14 | 1.45  | 0.09 | 3.20 | 0.32 | 0.1 g/t AuEq cut off | 1.7   |
|          |                       | and         | 423.15 | 434.40 | 11.25  | 0.24 | 0.84  | 0.03 | 6.58 | 0.31 | 0.1 g/t AuEq cut off | 3.5   |
|          |                       | and         | 583.90 | 626.50 | 42.60  | 0.44 | 0.95  | 0.06 | 5.43 | 0.55 | 1.0 g/t AuEq cut off | 23.3  |
|          |                       | and         | 698.30 | 701.30 | 3.00   | 0.51 | 0.54  | 0.04 | 1.68 | 0.59 | 0.5 g/t AuEq cut off | 1.8   |
|          |                       | GYDD-22-019 | 77.30  | 855.50 | 778.20 | 0.23 | 0.58  | 0.01 | 0.79 | 0.26 | 0.1 g/t AuEq cut off | 202.3 |
|          |                       | incl.       | 77.30  | 92.10  | 14.80  | 0.30 | 3.75  | 0.02 | 3.30 | 0.38 | 0.1 g/t AuEq cut off | 5.6   |
|          |                       | and         | 292.30 | 570.00 | 277.70 | 0.33 | 0.75  | 0.01 | 2.59 | 0.36 | 0.1 g/t AuEq cut off | 100.0 |
|          |                       | incl.       | 328.13 | 499.47 | 171.34 | 0.46 | 0.89  | 0.01 | 2.13 | 0.49 | 1.0 g/t AuEq cut off | 84.0  |
|          |                       | incl.       | 328.13 | 426.50 | 98.37  | 0.63 | 0.64  | 0.01 | 2.34 | 0.66 | 1.0 g/t AuEq cut off | 64.7  |
|          |                       | incl.       | 328.13 | 334.92 | 6.79   | 1.87 | 4.70  | 0.07 | 1.28 | 2.05 | 1.0 g/t AuEq cut off | 13.9  |
|          |                       | and         | 384.47 | 426.50 | 42.03  | 0.85 | 0.36  | 0.01 | 3.08 | 0.87 | 1.0 g/t AuEq cut off | 36.6  |
|          |                       | incl.       | 384.47 | 408.50 | 24.03  | 1.30 | 0.46  | 0.02 | 3.54 | 1.34 | 1.0 g/t AuEq cut off | 32.1  |
|          |                       | and         | 463.50 | 465.00 | 1.50   | 1.51 | 4.49  | 0.02 | 1.90 | 1.60 | 1.0 g/t AuEq cut off | 2.4   |
|          |                       | and         | 497.04 | 499.47 | 2.43   | 3.13 | 24.21 | 0.16 | 2.51 | 3.70 | 1.0 g/t AuEq cut off | 9.0   |
|          |                       | and         | 538.50 | 540.00 | 1.50   | 2.13 | 5.89  | 0.13 | 2.30 | 2.42 | 1.0 g/t AuEq cut off | 3.6   |
|          |                       | and         | 688.20 | 855.50 | 167.30 | 0.40 | 0.53  | 0.02 | 3.67 | 0.45 | 0.5 g/t AuEq cut off | 74.4  |
|          |                       | incl.       | 688.20 | 839.00 | 150.80 | 0.43 | 0.56  | 0.02 | 3.09 | 0.48 | 0.5g/t AuEq cut off  | 71.8  |
|          |                       | incl.       | 796.50 | 839.00 | 42.50  | 1.31 | 1.20  | 0.05 | 2.35 | 1.42 | 1.0 g/t AuEq cut off | 60.4  |
|          |                       | incl.       | 796.50 | 819.00 | 22.50  | 2.26 | 1.94  | 0.08 | 2.36 | 2.42 | 1.0 g/t AuEq cut off | 54.5  |
|          |                       | GYDD-22-020 | 0.00   | 12.00  | 12.00  | 0.31 | 0.53  | 0.02 | 4.55 | 0.35 | 0.1 g/t AuEq cut off | 4.2   |
|          |                       | and         | 69.72  | 75.72  | 6.00   | 0.69 | 0.69  | 0.02 | 3.47 | 0.74 | 1.0 g/t AuEq cut off | 4.4   |

Challenger Gold Limited  
ACN 123 591 382  
ASX: **CEL**

Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotonado, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary  |        |        |        |      |       |      |       |      |                      |       |
|----------|-----------------------|-------------|--------|--------|--------|------|-------|------|-------|------|----------------------|-------|
|          |                       | and         | 95.17  | 242.80 | 147.63 | 0.18 | 1.02  | 0.02 | 5.45  | 0.23 | 0.5g/t AuEq cut off  | 33.4  |
|          |                       | incl.       | 119.17 | 200.79 | 81.62  | 0.20 | 1.09  | 0.03 | 6.24  | 0.26 | 1.0 g/t AuEq cut off | 21.0  |
|          |                       | and         | 290.50 | 445.50 | 155.00 | 0.13 | 1.70  | 0.05 | 3.65  | 0.24 | 0.1 g/t AuEq cut off | 37.4  |
|          |                       | incl.       | 292.00 | 299.50 | 7.50   | 0.46 | 3.75  | 0.16 | 4.06  | 0.78 | 0.5g/t AuEq cut off  | 5.9   |
|          |                       | and         | 385.00 | 433.50 | 48.50  | 0.19 | 2.59  | 0.08 | 4.59  | 0.35 | 0.1g/t AuEq cut off  | 16.9  |
|          |                       | incl.       | 385.00 | 409.50 | 24.50  | 0.22 | 2.83  | 0.08 | 5.55  | 0.39 | 0.5g/t AuEq cut off  | 9.5   |
|          |                       | and         | 623.50 | 750.00 | 126.50 | 0.28 | 0.98  | 0.04 | 5.73  | 0.37 | 0.1g/t AuEq cut off  | 47.2  |
|          |                       | incl.       | 635.50 | 661.00 | 25.50  | 0.75 | 1.81  | 0.09 | 2.88  | 0.92 | 0.5g/t AuEq cut off  | 23.5  |
|          |                       | incl.       | 637.00 | 652.00 | 15.00  | 1.03 | 2.24  | 0.12 | 3.54  | 1.27 | 1.0 g/t AuEq cut off | 19.0  |
|          |                       | incl.       | 729.00 | 731.00 | 2.00   | 0.94 | 1.24  | 0.08 | 3.50  | 1.10 | 1.0 g/t AuEq cut off | 2.2   |
|          |                       | GYDD-22-021 | 5.20   | 646.00 | 640.80 | 0.11 | 1.88  | 0.06 | 9.45  | 0.25 | 0.1g/t AuEq cut off  | 158.3 |
|          |                       | incl.       | 56.13  | 339.70 | 283.57 | 0.14 | 2.04  | 0.07 | 6.22  | 0.29 | 0.5g/t AuEq cut off  | 83.2  |
|          |                       | incl.       | 56.13  | 129.30 | 73.17  | 0.19 | 2.14  | 0.09 | 8.30  | 0.38 | 0.5g/t AuEq cut off  | 27.4  |
|          |                       | and         | 703.00 | 760.00 | 57.00  | 0.11 | 0.96  | 0.04 | 14.35 | 0.20 | 0.1g/t AuEq cut off  | 11.4  |
|          |                       | GYDD-22-022 | 0.00   | 702.85 | 702.85 | 0.16 | 2.75  | 0.05 | 6.65  | 0.29 | 0.1g/t AuEq cut off  | 204.4 |
|          |                       | incl.       | 23.90  | 52.00  | 28.10  | 0.18 | 30.43 | 0.04 | 1.44  | 0.63 | 1.0 g/t AuEq cut off | 17.6  |
|          |                       | and         | 278.20 | 395.80 | 117.60 | 0.22 | 3.16  | 0.09 | 5.67  | 0.42 | 0.1 g/t AuEq cut off | 49.7  |
|          |                       | incl.       | 292.40 | 307.75 | 15.35  | 0.43 | 4.27  | 0.09 | 5.95  | 0.65 | 0.5g/t AuEq cut off  | 9.9   |
|          |                       | incl.       | 352.00 | 365.70 | 13.70  | 0.29 | 4.60  | 0.16 | 3.29  | 0.62 | 0.5g/t AuEq cut off  | 8.5   |
|          |                       | incl.       | 378.18 | 385.30 | 7.12   | 0.59 | 2.50  | 0.11 | 8.98  | 0.82 | 0.5g/t AuEq cut off  | 5.8   |
|          |                       | and         | 446.50 | 523.60 | 77.10  | 0.42 | 2.74  | 0.12 | 5.68  | 0.67 | 1.0 g/t AuEq cut off | 51.3  |
|          |                       | incl.       | 446.50 | 450.53 | 4.03   | 2.14 | 5.01  | 0.19 | 7.16  | 2.52 | 1.0 g/t AuEq cut off | 10.2  |
|          |                       | and         | 492.20 | 520.60 | 28.40  | 0.63 | 3.59  | 0.18 | 9.96  | 0.99 | 1.0 g/t AuEq cut off | 28.0  |
|          |                       | GYDD-22-023 | 15.50  | 795.55 | 780.05 | 0.18 | 2.07  | 0.04 | 6.36  | 0.31 | 0.1 g/t AuEq cut off | 240.0 |
|          |                       | incl.       | 15.50  | 305.70 | 290.20 | 0.34 | 2.70  | 0.04 | 5.11  | 0.45 | 0.1 g/t AuEq cut off | 130.9 |
|          |                       | incl.       | 35.00  | 44.00  | 9.00   | 0.95 | 1.20  | 0.03 | 0.76  | 1.02 | 1.0 g/t AuEq cut off | 9.2   |
|          |                       | incl.       | 144.70 | 161.20 | 16.50  | 0.73 | 3.21  | 0.06 | 7.09  | 0.87 | 1.0 g/t AuEq cut off | 14.4  |
|          |                       | and         | 195.30 | 196.80 | 1.50   | 0.79 | 56.00 | 0.03 | 1.80  | 1.53 | 1.0 g/t AuEq cut off | 2.3   |
|          |                       | and         | 222.80 | 277.00 | 54.20  | 0.73 | 4.72  | 0.07 | 10.75 | 0.91 | 0.5g/t AuEq cut off  | 49.5  |
|          |                       | incl.       | 224.30 | 252.70 | 28.40  | 1.05 | 3.45  | 0.05 | 7.54  | 1.17 | 1.0 g/t AuEq cut off | 33.3  |
|          |                       | and         | 441.50 | 557.85 | 116.35 | 0.35 | 3.97  | 0.08 | 4.39  | 0.54 | 0.1 g/t AuEq cut off | 62.4  |
|          |                       | incl.       | 461.00 | 462.50 | 1.50   | 0.99 | 13.40 | 0.22 | 4.50  | 1.53 | 1.0 g/t AuEq cut off | 2.3   |
|          |                       | incl.       | 510.60 | 545.85 | 35.25  | 0.74 | 6.76  | 0.14 | 6.64  | 1.06 | 1.0 g/t AuEq cut off | 37.4  |
|          |                       | GYDD-22-024 | 10.10  | 648.25 | 638.15 | 0.30 | 2.07  | 0.13 | 10.53 | 0.55 | 0.1 g/t AuEq cut off | 351.2 |
|          |                       | incl.       | 10.10  | 53.70  | 43.60  | 0.19 | 3.17  | 0.02 | 3.16  | 0.26 | 0.1 g/t AuEq cut off | 11.5  |
|          |                       | and         | 94.80  | 118.80 | 24.00  | 0.17 | 0.39  | 0.03 | 11.41 | 0.23 | 0.1 g/t AuEq cut off | 5.5   |

Challenger Gold Limited  
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Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotoondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary   |        |        |        |       |        |      |       |       |                      |       |
|----------|-----------------------|--------------|--------|--------|--------|-------|--------|------|-------|-------|----------------------|-------|
|          |                       | and          | 144.80 | 146.30 | 1.50   | 7.89  | 2.85   | 0.02 | 2.10  | 7.96  | 1.0 g/t AuEq cut off | 11.9  |
|          |                       | and          | 332.16 | 648.25 | 316.09 | 0.49  | 3.31   | 0.24 | 14.53 | 0.95  | 0.1 g/t AuEq cut off | 298.8 |
|          |                       | OR           | 344.00 | 648.25 | 304.25 | 0.50  | 3.37   | 0.25 | 14.46 | 0.98  | 0.1 g/t AuEq cut off | 296.9 |
|          |                       | incl.        | 332.16 | 487.00 | 154.84 | 0.92  | 5.72   | 0.45 | 18.96 | 1.76  | 0.1 g/t AuEq cut off | 272.5 |
|          |                       | incl.        | 344.00 | 452.50 | 108.50 | 1.28  | 7.78   | 0.62 | 20.00 | 2.44  | 1.0 g/t AuEq cut off | 264.3 |
|          |                       | incl.        | 369.25 | 418.75 | 49.50  | 2.36  | 13.96  | 1.13 | 26.35 | 4.45  | 1.0 g/t AuEq cut off | 220.4 |
|          |                       | OR           | 369.25 | 423.43 | 54.18  | 2.20  | 12.91  | 1.04 | 24.70 | 4.14  | 1.0 g/t AuEq cut off | 224.1 |
|          |                       | GY2DD-22-001 | 191.00 | 202.20 | 11.20  | 0.74  | 14.46  | 0.01 | 2.26  | 0.94  | 0.5 g/t AuEq cut off | 10.5  |
|          |                       | and          | 290.40 | 291.30 | 0.90   | 1.26  | 2.56   | 0.00 | 1.20  | 1.30  | 1.0 g/t AuEq cut off | 1.2   |
|          |                       | and          | 403.10 | 492.50 | 89.40  | 0.13  | 6.71   | 0.01 | 3.13  | 0.22  | 0.5 g/t AuEq cut off | 19.9  |
|          |                       | incl.        | 403.10 | 412.80 | 9.70   | 0.41  | 15.24  | 0.01 | 1.84  | 6.06  | 0.5 g/t AuEq cut off | 58.8  |
|          |                       | and          | 592.60 | 596.68 | 4.08   | 0.85  | 120.96 | 0.01 | 4.05  | 2.37  | 0.1 g/t AuEq cut off | 9.7   |
|          |                       | GYDD-22-025  | 4.0    | EOH    | 1190.0 | 0.2   | 1.3    | 0.1  | 12.6  | 0.3   | 0.1 g/t AuEq cut off | 357.0 |
|          |                       | Incl.        | 4.0    | 515.1  | 511.1  | 0.3   | 2.1    | 0.1  | 11.9  | 0.4   | 0.1 g/t AuEq cut off | 204.4 |
|          |                       | Incl.        | 65.0   | 434.5  | 369.5  | 0.3   | 2.2    | 0.1  | 13.3  | 0.5   | 0.1 g/t AuEq cut off | 184.8 |
|          |                       | Incl.        | 65.0   | 243.3  | 178.8  | 0.5   | 2.4    | 0.1  | 8.8   | 0.6   | 0.3 g/t AuEq cut off | 107.3 |
|          |                       | Incl.        | 65.0   | 166.0  | 101.0  | 0.6   | 2.8    | 0.1  | 5.9   | 0.8   | 1.0 g/t AuEq cut off | 80.8  |
|          |                       | Incl.        | 65.0   | 101.0  | 36.0   | 0.8   | 2.5    | 0.1  | 5.1   | 0.9   | 1.0 g/t AuEq cut off | 32.9  |
|          |                       | GYDD-22-026  | 93.3   | 94.5   | 1.3    | 231.3 | 10.7   | 0.0  | 1.8   | 231.5 | 1 g/t AuEq cut off   | 301.0 |
|          |                       | and          | 94.5   | 1045.1 | 960.0  | 0.1   | 1.4    | 0.1  | 14.7  | 0.3   | 0.1 g/t AuEq cut off | 212.7 |
|          |                       | Incl.        | 208.5  | 563.6  | 355.1  | 0.2   | 1.9    | 0.1  | 24.3  | 0.4   | 0.1 g/t AuEq cut off | 142.0 |
|          |                       | and          | 208.5  | 239.0  | 30.5   | 0.4   | 5.3    | 0.1  | 26.6  | 0.6   | 1.0 g/t AuEq cut off | 18.3  |
|          |                       | Incl.        | 377.5  | 416.0  | 38.5   | 0.4   | 1.4    | 0.1  | 32.4  | 0.6   | 1.0 g/t AuEq cut off | 23.1  |
|          |                       | GYDD-22-027  | 0.0    | eoh    | 871.9  | 0.2   | 1.3    | 0.0  | 14.2  | 0.3   | 0.1 g/t AuEq cut off | 261.6 |
|          |                       | Incl.        | 92.6   | 367.9  | 275.3  | 0.3   | 1.8    | 0.0  | 8.3   | 0.4   | 0.1 g/t AuEq cut off | 110.1 |
|          |                       | Incl.        | 92.6   | 106.0  | 13.4   | 0.6   | 3.0    | 0.1  | 31.8  | 0.8   | 1.0 g/t AuEq cut off | 10.2  |
|          |                       | and          | 202.6  | 270.5  | 67.9   | 0.5   | 3.2    | 0.1  | 7.7   | 0.6   | 1.0 g/t AuEq cut off | 40.7  |
|          |                       | and          | 302.0  | 317.8  | 15.8   | 0.6   | 0.5    | 1.4  | 0.0   | 0.6   | 1.0 g/t AuEq cut off | 40.8  |
|          |                       | and          | 360.0  | 367.9  | 7.9    | 0.8   | 5.3    | 0.0  | 2.8   | 0.9   | 1.0 g/t AuEq cut off | 6.8   |
|          |                       | GYDD-22-028  | 4.5    | 379.7  | 375.2  | 0.2   | 2.5    | 0.1  | 1.6   | 0.4   | 0.1 g/t AuEq cut off | 150.1 |
|          |                       | Incl.        | 4.5    | 23.3   | 18.8   | 0.7   | 1.2    | 0.0  | 4.7   | 0.7   | 1.0 g/t AuEq cut off | 14.1  |
|          |                       | and          | 172.3  | 366.6  | 194.3  | 0.2   | 3.4    | 0.1  | 1.3   | 0.5   | 0.1 g/t AuEq cut off | 87.8  |
|          |                       | and          | 318.0  | 366.6  | 48.6   | 0.5   | 6.4    | 0.3  | 1.1   | 1.0   | 1.0 g/t AuEq cut off | 48.6  |
|          |                       | GYDD-22-029  | 7.0    | 389.2  | 382.2  | 0.2   | 2.7    | 0.1  | 2.0   | 0.3   | 0.1 g/t AuEq cut off | 114.7 |

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Mr Kris Knauer, MD and CEO  
Mr Sergio Rotonado, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary |       |       |     |      |     |      |     |                      |       |  |
|----------|-----------------------|------------|-------|-------|-----|------|-----|------|-----|----------------------|-------|--|
|          | Incl.                 | 153.3      | 360.5 | 207.3 | 0.2 | 3.8  | 0.1 | 2.2  | 0.5 | 0.1 g/t AuEq cut off | 103.7 |  |
|          | Incl.                 | 192.3      | 226.8 | 34.5  | 0.2 | 8.3  | 0.2 | 3.5  | 0.7 | 1.0 g/t AuEq cut off | 24.2  |  |
|          | and                   | 342.2      | 360.5 | 18.3  | 0.6 | 4.4  | 0.2 | 1.6  | 1.0 | 1.0 g/t AuEq cut off | 18.3  |  |
|          | GYDD-22-030           | 0.0        | eoH   | 689.5 | 0.2 | 1.4  | 0.1 | 9.0  | 0.3 | 0.1 g/t AuEq cut off | 234.4 |  |
|          | Incl.                 | 75.4       | 393.0 | 317.7 | 0.4 | 1.2  | 0.1 | 15.0 | 0.5 | 0.1 g/t AuEq cut off | 158.9 |  |
|          | Incl.                 | 76.9       | 80.6  | 6.0   | 1.5 | 1.7  | 0.0 | 7.3  | 1.6 | 1.0 g/t AuEq cut off | 9.8   |  |
|          | and                   | 280.5      | 334.5 | 54.0  | 0.9 | 1.7  | 0.1 | 13.6 | 1.0 | 1.0 g/t AuEq cut off | 54.0  |  |
|          | and                   | 370.5      | 393.0 | 22.5  | 1.1 | 1.7  | 0.1 | 9.1  | 1.3 | 1.0 g/t AuEq cut off | 29.3  |  |
|          | GYDD-23-031           | 1.0        | 532.0 | 531.0 | 0.2 | 0.5  | 0.0 | 1.2  | 0.3 | 0.1 g/t AuEq cut     | 159.3 |  |
|          | Incl.                 | 1.0        | 24.9  | 23.9  | 0.9 | 0.5  | 0.1 | 0.8  | 0.9 | 1 g/t AuEq cut       | 21.6  |  |
|          | and                   | 152.6      | 185.7 | 33.1  | 0.5 | 1.5  | 0.0 | 1.7  | 0.6 | 1 g/t AuEq cut       | 19.9  |  |
|          | and                   | 292.1      | 308.1 | 16.0  | 0.6 | 0.5  | 0.0 | 1.5  | 0.6 | 1 g/t AuEq cut       | 9.6   |  |
|          | GYDD-23-032           | 0.0        | 781.5 | 781.5 | 0.2 | 1.3  | 0.0 | 8.6  | 0.3 |                      | 212.6 |  |
|          | Incl.                 | 120.3      | 377.2 | 257.0 | 0.4 | 1.8  | 0.0 | 6.5  | 0.5 |                      | 122.6 |  |
|          | Incl.                 | 120.3      | 270.7 | 150.5 | 0.6 | 2.4  | 0.0 | 7.9  | 0.7 |                      | 100.4 |  |
|          | Incl.                 | 120.3      | 188.3 | 68.1  | 1.0 | 3.6  | 0.1 | 9.3  | 1.1 |                      | 77.6  |  |
|          | and                   | 162.7      | 188.3 | 25.7  | 1.7 | 5.3  | 0.1 | 13.9 | 1.9 |                      | 48.9  |  |
|          | GYDD-23-033           | 7.0        | 449.2 | 442.2 | 0.2 | 2.1  | 0.1 | 3.7  | 0.3 |                      | 125.1 |  |
|          | Incl.                 | 164.3      | 411.9 | 247.6 | 0.2 | 3.0  | 0.1 | 4.6  | 0.4 |                      | 99.5  |  |
|          | Incl.                 | 216.2      | 367.6 | 151.4 | 0.2 | 4.0  | 0.1 | 4.1  | 0.5 |                      | 70.8  |  |
|          | Incl.                 | 216.8      | 225.0 | 8.2   | 0.5 | 11.8 | 0.1 | 1.6  | 0.7 |                      | 6.1   |  |
|          | and                   | 264.3      | 290.0 | 25.8  | 0.4 | 4.9  | 0.2 | 7.8  | 0.7 |                      | 18.3  |  |
|          | and                   | 335.0      | 364.6 | 29.6  | 0.3 | 5.8  | 0.2 | 1.8  | 0.6 |                      | 18.5  |  |
|          | GYDD-23-034           | 108.9      | 273.5 | 164.6 | 0.2 | 3.8  | 0.2 | 1.3  | 0.6 |                      | 94.4  |  |
|          | Incl.                 | 161.6      | 182.6 | 21.0  | 0.5 | 3.5  | 0.2 | 1.1  | 0.9 |                      | 18.3  |  |
|          | and                   | 224.2      | 250.9 | 26.7  | 0.3 | 7.0  | 0.3 | 1.4  | 1.0 |                      | 26.3  |  |
|          | and                   | 375.2      | 411.2 | 36.0  | 0.5 | 0.8  | 0.0 | 1.1  | 0.5 |                      | 19.3  |  |
|          | GYDD-23-035           | 0.0        | 268.7 | 268.7 | 0.1 | 0.7  | 0.0 | 4.6  | 0.2 |                      | 55.9  |  |
|          | Incl.                 | 55.8       | 84.0  | 28.2  | 0.4 | 1.0  | 0.0 | 1.4  | 0.4 |                      | 12.3  |  |
|          | and                   | 240.5      | 255.2 | 14.7  | 0.4 | 1.1  | 0.1 | 6.0  | 0.5 |                      | 7.7   |  |
|          | GYDD-23-036           | 65.9       | 67.4  | 1.5   | 2.9 | 1.7  | 0.0 | 0.8  | 2.9 |                      | 4.4   |  |
|          | and                   | 80.9       | 99.8  | 19.0  | 0.7 | 1.7  | 0.0 | 1.5  | 0.7 |                      | 13.5  |  |
|          | and                   | 189.9      | 767.5 | 577.6 | 0.1 | 1.0  | 0.0 | 4.5  | 0.2 |                      | 123.1 |  |

Challenger Gold Limited  
ACN 123 591 382  
ASX: **CEL**

Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotonido, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria  | JORC Code explanation | Commentary         |          |        |              |            |          |        |          |             |                               |
|---|-----------------------|--------------------|----------|--------|--------------|------------|----------|--------|----------|-------------|-------------------------------|
|   |                       | Incl.              | 189.9    | 353.2  | <b>163.3</b> | 0.3        | 0.8      | 0.0    | 2.4      | <b>0.4</b>  | <b>63.7</b>                   |
|   |                       | Incl.              | 189.9    | 253.3  | <b>63.4</b>  | 0.6        | 0.7      | 0.0    | 1.2      | <b>0.7</b>  | <b>42.6</b>                   |
|   |                       | <b>GYDD-23-037</b> | 0.0      | 767.2  | <b>767.2</b> | 0.1        | 1.4      | 0.0    | 12.7     | <b>0.2</b>  | <b>149.5</b>                  |
|   |                       | Incl.              | 81.9     | 183.7  | 101.8        | 0.2        | 1.9      | 0.0    | 4.3      | 0.3         | 32.4                          |
|   |                       | Incl.              | 150.7    | 173.2  | 22.5         | 0.3        | 2.1      | 0.1    | 3.4      | 0.5         | 11.3                          |
|   |                       | and                | 390.5    | 438.8  | 48.3         | 0.1        | 2.5      | 0.1    | 16.4     | 0.3         | 14.5                          |
|   |                       | <b>GYDD-23-038</b> | 157.7    | 235.3  | 77.6         | 0.1        | 2.0      | 0.1    | 1.1      | 0.3         | 20.9                          |
|   |                       | Incl.              | 212.2    | 235.3  | 23.1         | 0.2        | 2.0      | 0.1    | 1.1      | 0.4         | 9.8                           |
|   |                       | and                | 321.9    | 483.3  | 161.4        | 0.1        | 2.1      | 0.1    | 2.7      | 0.3         | 40.7                          |
|   |                       | Incl.              | 321.9    | 376.5  | 54.7         | 0.2        | 3.4      | 0.1    | 3.3      | 0.4         | 21.9                          |
|   |                       | Incl.              | 360.3    | 376.5  | 16.2         | 0.5        | 4.5      | 0.1    | 4.0      | 0.8         | 12.2                          |
|   |                       | <b>GYDD-23-039</b> | 4.6      | 809.9  | 805.3        | 0.5        | 1.6      | 0.0    | 4.2      | 0.6         | 470.3                         |
|   |                       | Incl.              | 4.6      | 551.3  | 546.7        | 0.7        | 2.0      | 0.1    | 3.5      | 0.8         | 429.4                         |
|   |                       | Incl.              | 4.6      | 235.8  | 231.2        | 1.4        | 2.5      | 0.1    | 3.7      | 1.5         | 351.6                         |
|   |                       | Incl.              | 108.0    | 117.9  | 9.9          | 1.0        | 3.3      | 0.0    | 2.5      | 1.1         | 10.6                          |
|   |                       | and                | 190.5    | 202.8  | 12.3         | 21.4       | 1.5      | 0.0    | 1.9      | 21.5        | 263.9                         |
|   |                       | Incl.              | 190.5    | 192.0  | 1.5          | 172.3      | 8.0      | 0.0    | 1.3      | 172.4       | 258.7                         |
|   |                       | <b>GYDD-23-040</b> |          |        |              |            |          |        |          |             |                               |
|   |                       | <b>GYDD-23-041</b> |          |        |              |            |          |        |          |             |                               |
|   |                       | <b>GYDD-23-042</b> |          |        |              |            |          |        |          |             |                               |
|   |                       | <b>GYDD-23-043</b> |          |        |              |            |          |        |          |             |                               |
| <b>CEL: Significant intersections from El Guayabo Project (Guayabo Concession)_Phase #1-#2 Channels completed</b> |                       |                    |          |        |              |            |          |        |          |             |                               |
|   |                       | Channel ID         | From (m) | To (m) | Interval (m) | Gold (g/t) | Ag (g/t) | Cu (%) | Mo (ppm) | AuE q (g/t) | Total intercept (gram meters) |
|   |                       | <b>CSADRI-001</b>  | 0.00     | 187.00 | 187.0        | 0.357      | 1.983    | 0.063  | 4.502    | 0.5         | 91.8                          |
|   |                       | inc                | 2.00     | 62.00  | 60.0         | 0.355      | 2.912    | 0.127  | 5.945    | 0.6         | 36.6                          |
|   |                       | inc                | 22.00    | 36.00  | 14.0         | 0.524      | 2.847    | 0.150  | 10.909   | 0.8         | 11.5                          |

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Mr Sergio Rotondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
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E: admin@challengergold.com

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|----------|-----------------------|-------------------|--------|--------|-------|-------|--------|-------|--------|------|------------------|-------|
|          |                       | inc               | 102.00 | 108.00 | 6.0   | 0.693 | 2.573  | 0.078 | 2.693  | 0.9  | 0.5 g/t cut off  | 5.1   |
|          |                       | inc               | 154.00 | 183.00 | 29.0  | 0.861 | 3.635  | 0.063 | 7.062  | 1.0  | 1.0 g/t cut off  | 29.5  |
|          |                       | inc               | 154.00 | 167.00 | 13.0  | 1.439 | 6.688  | 0.106 | 10.254 | 1.7  | 1.0 g/t cut off  | 22.2  |
|          |                       | inc               | 173.00 | 181.00 | 8.0   | 0.608 | 1.700  | 0.043 | 4.445  | 0.7  | 0.5 g/t cut off  | 5.6   |
|          |                       | <b>CSADRI-002</b> | 0.00   | 136.00 | 136.0 | 0.434 | 1.533  | 0.033 | 3.277  | 0.5  | 0.5 g/t cut off  | 69.4  |
|          |                       | inc               | 10.00  | 16.00  | 6.0   | 0.744 | 2.420  | 0.050 | 3.853  | 0.9  | 0.5 g/t cut off  | 5.2   |
|          |                       | inc               | 40.00  | 54.00  | 14.0  | 0.651 | 2.196  | 0.052 | 3.011  | 0.8  | 0.5 g/t cut off  | 10.8  |
|          |                       | inc               | 84.00  | 112.00 | 28.0  | 1.060 | 1.552  | 0.038 | 4.386  | 1.1  | 1.0 g/t cut off  | 32.1  |
|          |                       | and               | 186.00 | 310.00 | 124.0 | 0.171 | 0.882  | 0.025 | 5.863  | 0.2  | 0.1 g/t cut off  | 28.4  |
|          |                       | and               | 497.20 | 513.20 | 16.0  | 0.610 | 0.440  | 0.021 | 1.878  | 0.7  | 0.5 g/t cut off  | 10.4  |
|          |                       | <b>CSADRI-003</b> | 0.00   | 73.50  | 73.5  | 0.270 | 3.002  | 0.087 | 2.108  | 0.5  | 0.5 g/t cut off  | 33.5  |
|          |                       | inc               | 22.00  | 27.60  | 5.6   | 0.169 | 10.711 | 0.480 | 2.085  | 1.1  | 1.0 g/t cut off  | 6.2   |
|          |                       | inc               | 65.50  | 71.50  | 6.0   | 1.122 | 2.937  | 0.043 | 2.953  | 1.2  | 1.0 g/t cut off  | 7.4   |
|          |                       | <b>CSADRI-004</b> | 0.00   | 25.00  | 25.0  | 0.344 | 6.334  | 0.143 | 2.202  | 0.7  | 0.5 g/t cut off  | 16.6  |
|          |                       | inc               | 0.00   | 6.00   | 6.0   | 0.922 | 6.087  | 0.135 | 1.937  | 1.2  | 1.0 g/t cut off  | 7.4   |
|          |                       | inc               | 20.50  | 23.50  | 3.0   | 0.432 | 22.255 | 0.465 | 2.040  | 1.5  | 1.0 g/t cut off  | 4.5   |
|          |                       | <b>CSTINO-001</b> | 0.00   | 111.30 | 111.3 | 0.278 | 1.055  | 0.018 | 4.962  | 0.3  | 0.1 g/t cut off  | 36.2  |
|          |                       | <b>CSTINO-002</b> | 2.82   | 25.67  | 22.8  | 0.360 | 1.907  | 0.029 | 4.937  | 0.4  | 0.1 g/t cut off  | 10.0  |
|          |                       | inc               | 2.82   | 7.01   | 4.2   | 1.605 | 3.023  | 0.056 | 3.384  | 1.7  | 1.0 g/t cut off  | 7.3   |
|          |                       | <b>CSTINO-004</b> | 0.00   | 19.37  | 19.4  | 0.042 | 1.272  | 0.042 | 3.892  | 0.1  | 0.1 g/t cut off  | 2.5   |
|          |                       | <b>CSTINO-005</b> | 0.00   | 174.40 | 174.4 | 1.093 | 1.889  | 0.038 | 4.774  | 1.2  | 1.0 g/t cut off  | 206.4 |
|          |                       | inc               | 2.12   | 8.18   | 6.1   | 13.43 | 7.846  | 0.059 | 2.872  | 13.6 | 10.0 g/t cut off | 82.5  |
|          |                       | inc               | 30.13  | 36.12  | 6.0   | 4.139 | 5.592  | 0.081 | 2.506  | 4.3  | 1.0 g/t cut off  | 26.0  |
|          |                       | inc               | 68.03  | 74.27  | 6.2   | 1.277 | 2.550  | 0.035 | 4.128  | 1.4  | 1.0 g/t cut off  | 8.6   |
|          |                       | inc               | 148.49 | 156.58 | 8.1   | 5.939 | 3.354  | 0.059 | 5.072  | 6.1  | 5.0 g/t cut off  | 49.2  |
|          |                       | <b>CSSALI-001</b> | 0.00   | 16.73  | 16.7  | 0.194 | 3.346  | 0.014 | 2.584  | 0.3  | 0.1 g/t cut off  | 4.4   |
|          |                       | <b>CSSALI-007</b> | 9.92   | 79.28  | 69.4  | 0.153 | 7.948  | 0.047 | 3.794  | 0.3  | 0.1 g/t cut off  | 23.1  |
|          |                       | inc               | 31.76  | 63.35  | 31.6  | 0.256 | 14.174 | 0.068 | 5.363  | 0.5  | 0.5 g/t cut off  | 17.4  |
|          |                       | inc               | 51.70  | 61.42  | 9.7   | 0.202 | 35.702 | 0.153 | 4.352  | 0.9  | 0.5 g/t cut off  | 8.8   |

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Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
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|----------|-----------------------|--------------------|-------|-------|------|-------|--------|-------|--------|------|------------------|-------|
|          |                       | <b>CSCAYA1-001</b> | 30.00 | 78.30 | 48.3 | 0.235 | 0.964  | 0.020 | 3.401  | 0.3  | 0.1 g/t cut off  | 13.7  |
|          |                       | <b>CSCAYA1-002</b> | 0.00  | 32.00 | 32.0 | 0.989 | 2.676  | 0.030 | 3.471  | 1.1  | 1.0 g/t cut off  | 34.4  |
|          |                       | <b>CSCAYA1-003</b> | 0.00  | 56.30 | 56.3 | 0.272 | 1.582  | 0.042 | 9.314  | 0.4  | 0.1 g/t cut off  | 20.8  |
|          |                       | inc                | 28.00 | 48.00 | 20.0 | 0.352 | 1.993  | 0.048 | 13.609 | 0.5  | 0.5 g/t cut off  | 9.3   |
|          |                       | <b>CSCHON-001</b>  | 0.00  | 26.67 | 26.7 | 0.278 | 3.026  | 0.027 | 5.517  | 0.4  | 0.1 g/t cut off  | 9.8   |
|          |                       | <b>CSCHORR-001</b> | 0.00  | 15.87 | 15.9 | 0.138 | 3.068  | 0.037 | 4.758  | 0.2  | 0.1 g/t cut off  | 3.8   |
|          |                       | <b>CSCHORR-002</b> | 9.95  | 35.12 | 25.2 | 0.215 | 4.541  | 0.048 | 2.040  | 0.4  | 0.1 g/t cut off  | 8.9   |
|          |                       | inc                | 9.95  | 13.97 | 4.0  | 0.929 | 14.603 | 0.153 | 1.396  | 1.4  | 1.0 g/t cut off  | 5.5   |
|          |                       | <b>CSCHORR-003</b> | 0.00  | 17.99 | 18.0 | 1.026 | 8.422  | 0.037 | 6.311  | 1.2  | 1.0 g/t cut off  | 21.5  |
|          |                       | inc                | 8.02  | 15.96 | 7.9  | 2.007 | 13.955 | 0.048 | 2.957  | 2.3  | 1.0 g/t cut off  | 18.0  |
|          |                       | <b>CSBARR-001</b>  | 0.00  | 23.10 | 23.1 | 0.363 | 0.964  | 0.036 | 3.136  | 0.4  | 0.1 g/t cut off  | 10.1  |
|          |                       | <b>CSBARR-004</b>  | 0.00  | 26.40 | 26.4 | 0.263 | 2.908  | 0.040 | 6.480  | 0.4  | 0.1 g/t cut off  | 9.8   |
|          |                       | inc                | 13.80 | 24.90 | 11.1 | 0.451 | 3.917  | 0.042 | 2.370  | 0.6  | 0.5 g/t cut off  | 6.4   |
|          |                       | <b>CSBARR-005</b>  | 0.00  | 12.00 | 12.0 | 0.188 | 1.532  | 0.025 | 9.233  | 0.3  | 0.1 g/t cut off  | 3.1   |
|          |                       | <b>CSBQCU1-001</b> | 0.00  | 39.10 | 39.1 | 0.220 | 14.129 | 0.037 | 1.042  | 0.5  | 0.5 g/t cut off  | 17.9  |
|          |                       | inc                | 0.00  | 8.00  | 8.0  | 0.340 | 15.700 | 0.038 | 0.928  | 0.6  | 0.5 g/t cut off  | 4.8   |
|          |                       | inc                | 34.00 | 38.00 | 4.0  | 0.253 | 33.725 | 0.072 | 1.294  | 0.8  | 0.5 g/t cut off  | 3.2   |
|          |                       | <b>CSBQCU1-002</b> | 0.00  | 12.00 | 12.0 | 0.423 | 17.840 | 0.108 | 1.448  | 0.8  | 0.5 g/t cut off  | 9.9   |
|          |                       | <b>CSBQCU1-003</b> | 0.00  | 10.00 | 10.0 | 0.295 | 16.046 | 0.038 | 1.022  | 0.6  | 0.5 g/t cut off  | 5.6   |
|          |                       | <b>CSBQCU1-004</b> | 0.00  | 4.00  | 4.0  | 0.120 | 4.830  | 0.015 | 0.780  | 0.2  | 0.2 g/t cut off  | 0.8   |
|          |                       | <b>CSBQCU1-005</b> | 0.00  | 11.20 | 11.2 | 0.594 | 12.531 | 0.062 | 0.906  | 0.9  | 0.5 g/t cut off  | 9.6   |
|          |                       | <b>CSBQCU1-006</b> | 0.00  | 12.00 | 12.0 | 0.315 | 16.168 | 0.062 | 1.170  | 0.6  | 0.5 g/t cut off  | 7.4   |
|          |                       | <b>CSBQSU1-001</b> | 0.00  | 19.00 | 19.0 | 0.298 | 1.572  | 0.026 | 1.373  | 0.4  | 0.2 g/t cut off  | 6.9   |
|          |                       | <b>CSBQSU2-001</b> | 12.00 | 38.00 | 26.0 | 0.785 | 1.961  | 0.009 | 1.657  | 0.8  | 0.5 g/t cut off  | 21.5  |
|          |                       | <b>CSBQSU2-002</b> | 0.00  | 9.00  | 9.0  | 12.44 | 11.057 | 0.019 | 1.250  | 12.6 | 10.0 g/t cut off | 113.5 |
|          |                       | <b>CSBQSU3-001</b> | 0.00  | 7.50  | 7.5  | 6.980 | 6.423  | 0.017 | 1.033  | 7.1  | 5.0 g/t cut off  | 53.2  |
|          |                       | <b>CSBQNW1-002</b> | 0.00  | 17.40 | 17.4 | 3.164 | 6.031  | 0.024 | 2.587  | 3.3  | 1.0 g/t cut off  | 57.1  |
|          |                       | inc                | 0.00  | 12.00 | 12.0 | 0.661 | 1.685  | 0.009 | 1.537  | 0.7  | 0.5 g/t cut off  | 8.4   |
|          |                       | <b>CSBQNW2-001</b> | 0.00  | 12.65 | 12.7 | 0.977 | 20.993 | 0.100 | 1.742  | 1.4  | 1.0 g/t cut off  | 17.8  |
|          |                       | <b>CSBQNW2-002</b> | 0.00  | 26.73 | 26.7 | 0.202 | 6.268  | 0.064 | 1.090  | 0.4  | 0.2 g/t cut off  | 10.4  |
|          |                       | <b>CSFIGR1-001</b> | 0.00  | 17.39 | 17.4 | 0.881 | 4.933  | 0.066 | 1.220  | 1.1  | 1.0 g/t cut off  | 18.3  |
|          |                       | inc                | 10.21 | 15.60 | 5.4  | 2.169 | 5.654  | 0.064 | 1.361  | 2.3  | 1.0 g/t cut off  | 12.7  |
|          |                       | <b>CSFIGR2-001</b> | 0.00  | 29.48 | 29.5 | 0.674 | 30.075 | 0.243 | 1.889  | 1.5  | 1.0 g/t cut off  | 43.0  |
|          |                       | inc                | 18.17 | 27.65 | 9.5  | 1.585 | 79.153 | 0.525 | 2.420  | 3.5  | 1.0 g/t cut off  | 32.7  |
|          |                       | <b>CSFIGR2-002</b> | 0.00  | 5.23  | 5.2  | 1.805 | 85.161 | 1.986 | 2.357  | 6.2  | 5.0 g/t cut off  | 32.4  |
|          |                       | <b>CSCARE1-001</b> | 0.00  | 24.00 | 24.0 | 0.083 | 0.345  | 0.032 | 10.317 | 0.1  | 0.1 g/t cut off  | 3.6   |
|          |                       | <b>CSCARE1-002</b> | 0.00  | 25.20 | 25.2 | 0.144 | 1.401  | 0.038 | 12.310 | 0.2  | 0.2 g/t cut off  | 5.9   |

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126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotonado, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary  |       |       |      |       |        |       |        |      |                  |      |
|----------|-----------------------|-------------|-------|-------|------|-------|--------|-------|--------|------|------------------|------|
|          |                       | CSCARE1-003 | 0.00  | 94.40 | 94.4 | 0.137 | 4.255  | 0.079 | 15.214 | 0.3  | 0.2 g/t cut off  | 31.4 |
|          |                       | CSCARE1-005 | 29.70 | 46.90 | 17.2 | 0.178 | 1.694  | 0.022 | 22.333 | 0.3  | 0.2 g/t cut off  | 4.3  |
|          |                       |             |       |       |      |       |        |       |        |      |                  |      |
|          |                       | CSBQLB1-001 | 0.00  | 23.00 | 23.0 | 0.091 | 0.707  | 0.064 | 5.033  | 0.2  | 0.2 g/t cut off  | 4.9  |
|          |                       | CSBQLB1-004 | 0.00  | 13.51 | 13.5 | 0.166 | 5.356  | 0.068 | 1.599  | 0.3  | 0.2 g/t cut off  | 4.7  |
|          |                       | CSBQLB1-005 | 0.00  | 17.54 | 17.5 | 0.625 | 3.237  | 0.018 | 3.453  | 0.7  | 0.5 g/t cut off  | 12.3 |
|          |                       | inc         | 5.98  | 11.99 | 6.0  | 1.287 | 3.814  | 0.024 | 2.395  | 1.4  | 1.0 g/t cut off  | 8.3  |
|          |                       | CSBQLB2-001 | 0.00  | 35.32 | 35.3 | 0.312 | 2.390  | 0.031 | 8.106  | 0.4  | 0.2 g/t cut off  | 14.1 |
|          |                       | CSBQLB2-002 | 0.00  | 5.97  | 6.0  | 0.859 | 0.792  | 0.044 | 5.197  | 0.9  | 0.5 g/t cut off  | 5.6  |
|          |                       | inc         | 0.00  | 3.97  | 4.0  | 1.200 | 0.678  | 0.043 | 4.514  | 1.3  | 1.0 g/t cut off  | 5.1  |
|          |                       | CSBQSU7-001 | 0.00  | 25.41 | 25.4 | 0.418 | 0.362  | 0.021 | 10.423 | 0.5  | 0.5 g/t cut off  | 11.8 |
|          |                       | inc         | 6.15  | 10.27 | 4.1  | 1.914 | 0.255  | 0.032 | 4.097  | 2.0  | 1.0 g/t cut off  | 8.1  |
|          |                       | CSBQSU7-002 | 0.00  | 7.97  | 8.0  | 0.175 | 0.486  | 0.029 | 3.196  | 0.2  | 0.2 g/t cut off  | 1.8  |
|          |                       | CSDURA-001  | 0.00  | 7.90  | 7.9  | 0.073 | 0.299  | 0.039 | 2.503  | 0.1  | 0.1 g/t cut off  | 1.1  |
|          |                       | CSDURA-002  | 0.00  | 43.20 | 43.2 | 0.225 | 0.942  | 0.026 | 1.996  | 0.3  | 0.2 g/t cut off  | 12.2 |
|          |                       | CSDURA-003  | 0.00  | 27.30 | 27.3 | 0.226 | 2.378  | 0.035 | 3.109  | 0.3  | 0.2 g/t cut off  | 8.7  |
|          |                       | CSDURA-004  | 0.00  | 2.20  | 2.2  | 0.433 | 12.748 | 0.098 | 1.565  | 0.8  | 0.5 g/t cut off  | 1.7  |
|          |                       | CSDURA-005  | 0.00  | 1.90  | 1.9  | 1.284 | 46.937 | 0.666 | 1.342  | 3.0  | 1.0 g/t cut off  | 5.7  |
|          |                       | CSDURA-006  | 0.00  | 45.80 | 45.8 | 1.268 | 4.751  | 0.030 | 5.324  | 1.4  | 1.0 g/t cut off  | 63.3 |
|          |                       | inc         | 2.00  | 19.80 | 17.8 | 2.499 | 7.144  | 0.038 | 7.507  | 2.7  | 1.0 g/t cut off  | 47.3 |
|          |                       | CSDURA-007  | 0.00  | 22.20 | 22.2 | 0.553 | 3.227  | 0.015 | 2.636  | 0.6  | 0.5 g/t cut off  | 13.8 |
|          |                       | CSDURA-008  | 0.00  | 2.20  | 2.2  | 0.328 | 4.038  | 0.019 | 1.245  | 0.4  | 0.2 g/t cut off  | 0.9  |
|          |                       | CSDURA-009  | 0.00  | 1.90  | 1.9  | 4.859 | 38.324 | 0.312 | 1.096  | 5.9  | 5.0 g/t cut off  | 11.1 |
|          |                       | CSDURA-010  | 0.00  | 2.20  | 2.2  | 4.835 | 10.733 | 0.197 | 0.907  | 5.3  | 5.0 g/t cut off  | 11.7 |
|          |                       | CSDURA-011  | 0.00  | 1.60  | 1.6  | 1.625 | 50.569 | 0.284 | 1.173  | 2.7  | 1.0 g/t cut off  | 4.4  |
|          |                       | CSDURA-012  | 0.00  | 1.00  | 1.0  | 0.477 | 7.270  | 0.054 | 1.160  | 0.7  | 0.5 g/t cut off  | 0.7  |
|          |                       | CSDURA-013  | 0.00  | 1.30  | 1.3  | 0.146 | 6.860  | 0.076 | 1.750  | 0.4  | 0.2 g/t cut off  | 0.5  |
|          |                       | CSDURA-014  | 0.00  | 1.00  | 1.0  | 1.090 | 3.110  | 0.017 | 1.370  | 1.2  | 1.0 g/t cut off  | 1.2  |
|          |                       | CSDURA-015  | 0.00  | 1.30  | 1.3  | 0.995 | 6.510  | 0.008 | 1.280  | 1.1  | 1.0 g/t cut off  | 1.4  |
|          |                       | CSDURA-016  | 0.00  | 1.10  | 1.1  | 1.188 | 8.130  | 0.019 | 1.610  | 1.3  | 1.0 g/t cut off  | 1.5  |
|          |                       | CSDURA-017  | 0.00  | 1.10  | 1.1  | 1.286 | 16.500 | 0.062 | 1.610  | 1.6  | 1.0 g/t cut off  | 1.8  |
|          |                       | CSDURA-018  | 0.00  | 1.10  | 1.1  | 0.719 | 14.700 | 0.101 | 2.160  | 1.1  | 1.0 g/t cut off  | 1.2  |
|          |                       | CSDURA-019  | 0.00  | 1.10  | 1.1  | 18.65 | 49.100 | 0.447 | 0.850  | 20.0 | 10.0 g/t cut off | 22.0 |
|          |                       | CSDURA-020  | 0.00  | 1.20  | 1.2  | 0.416 | 4.950  | 0.037 | 0.950  | 0.5  | 0.5 g/t cut off  | 0.6  |
|          |                       | CSDURA-021  | 0.00  | 26.70 | 26.7 | 0.333 | 1.294  | 0.041 | 1.175  | 0.4  | 0.2 g/t cut off  | 11.2 |
|          |                       | CSBQLB3-001 | 0.00  | 63.90 | 63.9 | 0.321 | 2.029  | 0.034 | 5.873  | 0.4  | 0.2 g/t cut off  | 26.1 |
|          |                       | CSBQLB3-004 | 0.00  | 7.80  | 7.8  | 0.199 | 1.094  | 0.018 | 6.632  | 0.2  | 0.2 g/t cut off  | 1.9  |
|          |                       | CSBQLB4-001 | 3.70  | 78.80 | 75.1 | 0.169 | 0.920  | 0.016 | 1.475  | 0.2  | 0.2 g/t cut off  | 15.7 |
|          |                       | CSBQLB4-002 | 0.00  | 25.80 | 25.8 | 0.328 | 2.596  | 0.038 | 2.135  | 0.4  | 0.2 g/t cut off  | 11.0 |

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Mr Brett Hackett Non Exec Director

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|---|-----------------------|-------------|--------|--------|----------|-------|-------|-------|--------|----------|----------------------|--|
|   |                       | CSBQLB5-002 | 1.90   | 22.90  | 21.0     | 0.638 | 0.874 | 0.013 | 2.037  | 0.7      | 0.5 g/t cut off      | 14.1                                   |
|   |                       | CSBQLB5-003 | 0.00   | 5.30   | 5.3      | 1.057 | 1.378 | 0.019 | 2.315  | 1.1      | 1.0 g/t cut off      | 5.9                                    |
|   |                       | CSBQLB6-001 | 1.52   | 23.56  | 22.0     | 2.625 | 1.998 | 0.023 | 1.193  | 2.7      | 1.0 g/t cut off      | 59.3                                   |
|   |                       | CSBQLB6-002 | 0.00   | 13.37  | 13.4     | 5.267 | 5.282 | 0.098 | 1.732  | 5.5      | 5.0 g/t cut off      | 73.5                                   |
|   |                       | CSBQLB7-001 | 58.84  | 156.82 | 98.0     | 0.365 | 2.315 | 0.017 | 1.142  | 0.4      | 0.2 g/t cut off      | 41.4                                   |
|   | inc                   |             | 85.70  | 103.68 | 18.0     | 0.926 | 5.884 | 0.020 | 1.300  | 1.0      | 1.0 g/t cut off      | 18.6                                   |
|   |                       | CSL9870-001 | 8.07   | 131.82 | 123.7    | 0.295 | 0.609 | 0.012 | 1.351  | 0.3      | 0.2 g/t cut off      | 40.1                                   |
|   | inc                   |             | 84.35  | 124.81 | 40.5     | 0.587 | 0.874 | 0.010 | 1.638  | 0.6      | 0.5 g/t cut off      | 24.9                                   |
|   |                       | CSL9870-002 | 0.00   | 18.37  | 18.4     | 0.337 | 0.252 | 0.008 | 1.191  | 0.4      | 0.2 g/t cut off      | 6.5                                    |
|   |                       | CSL9870-005 | 0.00   | 15.74  | 15.7     | 0.837 | 0.555 | 0.006 | 1.744  | 0.9      | 0.5 g/t cut off      | 13.5                                   |
|   |                       | CSL9970-002 | 0.00   | 3.57   | 3.6      | 1.445 | 2.065 | 0.012 | 1.504  | 1.5      | 1.0 g/t cut off      | 5.3                                    |
|   |                       | CSL9970-004 | 16.09  | 38.62  | 22.5     | 0.243 | 0.627 | 0.018 | 4.345  | 0.3      | 0.2 g/t cut off      | 6.4                                    |
|   |                       | CSL9970-005 | 0.00   | 22.93  | 22.9     | 0.941 | 1.881 | 0.019 | 47.204 | 1.0      | 1.0 g/t cut off      | 23.6                                   |
|   |                       | CSL9970-008 | 0.00   | 16.27  | 16.3     | 0.289 | 0.216 | 0.017 | 10.883 | 0.3      | 0.2 g/t cut off      | 5.3                                    |
|   |                       | CSL9970-009 | 0.00   | 12.57  | 12.6     | 0.209 | 0.176 | 0.027 | 5.386  | 0.3      | 0.2 g/t cut off      | 3.3                                    |
|   |                       | CSL9735-002 | 0.00   | 3.56   | 3.6      | 0.512 | 0.074 | 0.011 | 0.885  | 0.5      | 0.5 g/t cut off      | 1.9                                    |
|   |                       | CSL9635-001 | 0.00   | 15.86  | 15.9     | 0.749 | 1.378 | 0.005 | 0.917  | 0.8      | 0.5 g/t cut off      | 12.3                                   |
|   |                       | CSL9635-002 | 0.00   | 15.69  | 15.7     | 1.736 | 4.938 | 0.018 | 1.446  | 1.8      | 1.0 g/t cut off      | 28.7                                   |
| CEL: Significant intersections from El Guayabo Project (Colorado V Concession)_Camp #1, Phase #1 drilling completed |                       |             |        |        |          |       |       |       |        |          |                      |  |
|   |                       | Drill Hole  | From   | To     | Interval | Gold  | Ag    | Cu    | Mo     | AuE<br>q | Comments             | Total<br>intercept<br>(gram<br>metres) |
|   |                       | (#)         | (m)    | (m)    | (m)      | (g/t) | (g/t) | (%)   | (ppm)  | (g/t)    |                      |  |
|   |                       | CVDD-22-001 | 4.50   | 533.20 | 528.70   | 0.30  | 2.30  | 0.09  | 13.22  | 0.49     | 1.0 g/t cut off      | 260.8                                  |
|   |                       | incl.       | 4.50   | 401.60 | 397.10   | 0.34  | 2.76  | 0.11  | 14.31  | 0.56     | 1.0 g/t cut off      | 222.4                                  |
|   |                       | incl.       | 6.00   | 114.00 | 108.00   | 0.42  | 2.83  | 0.13  | 15.75  | 0.68     | 1.0 g/t cut off      | 73.8                                   |
|   |                       | and         | 166.60 | 296.80 | 130.20   | 0.42  | 3.33  | 0.12  | 15.55  | 0.67     | 1.0 g/t cut off      | 87.8                                   |
|   |                       | incl.       | 273.50 | 284.30 | 10.80    | 2.51  | 14.93 | 0.35  | 9.16   | 3.29     | 1.0 g/t cut off      | 35.6                                   |
|   |                       | CVDD-22-002 | 5.00   | 575.00 | 570.00   | 0.21  | 1.99  | 0.08  | 11.43  | 0.38     | 0.1 g/t cut off      | 218.6                                  |
|   |                       | incl.       | 14.00  | 320.70 | 306.70   | 0.22  | 2.27  | 0.12  | 13.59  | 0.45     | 0.5 g/t cut off      | 138.2                                  |
|   |                       |             |        |        |          |       |       |       |        |          | 1.0 g/t AuEq cut off |  |
|   |                       | incl.       | 174.65 | 199.50 | 24.85    | 0.40  | 4.54  | 0.25  | 53.36  | 0.91     |                      | 22.7                                   |
|   |                       |             |        |        |          |       |       |       |        |          | 1.0 g/t AuEq cut off |  |
|   |                       | incl.       | 309.30 | 319.20 | 9.90     | 0.97  | 6.14  | 0.26  | 15.83  | 1.50     |                      | 14.8                                   |
|   |                       |             |        |        |          |       |       |       |        |          | 1.0 g/t AuEq cut off |  |
|   |                       | and         | 387.10 | 396.20 | 9.10     | 0.75  | 6.91  | 0.14  | 8.93   | 1.08     |                      | 9.8                                    |
|   |                       |             |        |        |          |       |       |       |        |          | 1.0 g/t AuEq cut off |  |
|   |                       | incl.       | 490.20 | 504.20 | 14.00    | 0.77  | 1.29  | 0.03  | 24.72  | 0.85     |                      | 11.9                                   |

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|----------|-----------------------|--------------------|-------|-------|---------------|------|------|------|--------|------|----------------------|---------------|
|          |                       | <b>CVDD-22-003</b> | 2.5   | eoh   | <b>509.90</b> | 0.24 | 1.41 | 0.07 | 31.30  | 0.4  | 0.1 g/t AuEq cut off | <b>203.96</b> |
|          |                       | incl.              | 2.5   | 246.5 | <b>244.00</b> | 0.36 | 1.76 | 0.09 | 44.80  | 0.6  | 0.5 g/t AuEq cut off | <b>146.4</b>  |
|          |                       | incl.              | 2.5   | 159.4 | <b>156.90</b> | 0.44 | 1.76 | 0.10 | 54.70  | 0.7  | 1.0 g/t AuEq cut off | <b>109.83</b> |
|          |                       | incl.              | 2.5   | 75.8  | <b>73.30</b>  | 0.55 | 1.81 | 0.11 | 59.10  | 0.8  | 1.0 g/t AuEq cut off | <b>58.64</b>  |
|          |                       | incl.              | 66.3  | 75.8  | <b>9.50</b>   | 0.85 | 1.40 | 0.13 | 146.00 | 1.2  | 1.0 g/t AuEq cut off | <b>11.4</b>   |
|          |                       | <b>CVDD-22-004</b> | 203   | eoh   | <b>456.20</b> | 0.13 | 0.91 | 0.05 | 10.90  | 0.25 | 0.1 g/t AuEq cut off | <b>114.05</b> |
|          |                       | incl.              | 443.9 | 649.3 | <b>205.40</b> | 0.19 | 1.00 | 0.06 | 11.10  | 0.3  | 0.5 g/t AuEq cut off | <b>61.62</b>  |
|          |                       | incl.              | 448.4 | 504.5 | <b>56.10</b>  | 0.23 | 1.13 | 0.07 | 8.30   | 0.4  | 1.0 g/t AuEq cut off | <b>22.44</b>  |
|          |                       | incl.              | 593   | 602   | <b>9.00</b>   | 0.58 | 0.87 | 0.04 | 6.70   | 0.7  | 1.0 g/t AuEq cut off | <b>6.3</b>    |
|          |                       | <b>CVDD-22-005</b> | 8.1   | 572.2 | <b>564.10</b> | 0.21 | 2.30 | 0.09 | 44.10  | 0.4  | 0.1 g/t AuEq cut off | <b>225.64</b> |
|          |                       | incl.              | 8.1   | 286.1 | <b>278.00</b> | 0.30 | 3.21 | 0.11 | 68.20  | 0.6  | 0.5 g/t AuEq cut off | <b>166.8</b>  |
|          |                       | incl.              | 25.8  | 154.5 | <b>128.70</b> | 0.39 | 3.36 | 0.11 | 112.10 | 0.7  | 1.0 g/t AuEq cut off | <b>90.09</b>  |
|          |                       | <b>CVDD-22-006</b> | 96.4  | 600.7 | <b>504.3</b>  | 0.31 | 1.43 | 0.07 | 1.8    | 0.3  | 0.1 g/t AuEq cut off | <b>151.29</b> |
|          |                       | incl.              | 97.9  | 374.0 | <b>276.1</b>  | 0.25 | 1.54 | 0.07 | 1.9    | 0.4  | 1.0 g/t AuEq cutoff  | <b>110.44</b> |
|          |                       | incl.              | 200.2 | 209.1 | <b>8.9</b>    | 0.63 | 1.24 | 0.07 | 1.1    | 0.8  | 1.0 g/t AuEq cutoff  | <b>7.12</b>   |
|          |                       | and                | 257.9 | 374.0 | <b>116.1</b>  | 0.39 | 2.56 | 0.14 | 2.0    | 0.5  | 1.0 g/t AuEq cutoff  | <b>58.05</b>  |
|          |                       | incl.              | 257.9 | 288.9 | <b>31.0</b>   | 0.32 | 3.99 | 0.16 | 1.4    | 0.6  | 1.0 g/t AuEq cutoff  | <b>18.60</b>  |
|          |                       | and                | 365.0 | 374.0 | <b>9.0</b>    | 1.51 | 1.98 | 0.22 | 1.7    | 1.9  | 1.0 g/t AuEq cutoff  | <b>17.10</b>  |
|          |                       | <b>CVDD-22-007</b> | 73.9  | 806.1 | <b>732.2</b>  | 0.20 | 1.16 | 0.04 | 8.1    | 0.3  | 0.1 g/t AuEq cut off | <b>219.66</b> |
|          |                       | incl.              | 251.0 | 589.3 | <b>338.3</b>  | 0.30 | 1.49 | 0.06 | 6.8    | 0.4  | 1.0 g/t AuEq cutoff  | <b>135.32</b> |
|          |                       | incl.              | 251.0 | 498.2 | <b>247.2</b>  | 0.37 | 1.72 | 0.06 | 5.8    | 0.5  | 1.0 g/t AuEq cutoff  | <b>123.60</b> |
|          |                       | incl.              | 251.0 | 301.7 | <b>50.7</b>   | 0.78 | 1.79 | 0.06 | 5.1    | 0.9  | 1.0 g/t AuEq cutff   | <b>45.63</b>  |
|          |                       | and                | 422.5 | 438.3 | <b>15.8</b>   | 0.62 | 1.59 | 0.06 | 4.0    | 0.7  | 1.0 g/t AuEq cutoff  | <b>11.06</b>  |
|          |                       | <b>CVDD-22-008</b> | 129.8 | 179.2 | <b>49.5</b>   | 0.20 | 0.66 | 0.02 | 1.3    | 0.25 | 0.1 g/t AuEq cut off | <b>12.37</b>  |

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|          |                       | and        | 431.1  | 448.8  | 17.7  | 0.15 | 1.18 | 0.05  | 4.0   | 0.25                 | 0.1 g/t AuEq cut off | 4.42   |
|          | CVDD-22-009           | 1.0        | 195.4  | 194.4  | 0.12  | 1.22 | 0.04 | 11.1  | 0.2   | 0.1 g/t AuEq cut off | 38.88                |        |
|          |                       | and        | 259.3  | 397.8  | 136.5 | 0.08 | 1.15 | 0.06  | 12.4  | 0.2                  | 0.1 g/t AuEq cut off | 27.30  |
|          |                       | and        | 812.5  | 886.5  | 74.3  | 0.10 | 0.56 | 0.04  | 13.0  | 0.2                  | 0.1 g/t AuEq cut off | 14.86  |
|          | CVDD-22-010           | 114.5      | 888.4  | 773.9  | 0.27  | 1.30 | 0.06 | 11.8  | 0.4   | 0.1 g/t AuEq cut off | 309.56               |        |
|          |                       | incl.      | 182.3  | 585.1  | 402.8 | 0.40 | 1.65 | 0.08  | 10.9  | 0.6                  | 1.0 g/t AuEq cut off | 241.68 |
|          |                       | incl.      | 182.3  | 482.1  | 299.8 | 0.50 | 1.83 | 0.09  | 11.7  | 0.7                  | 1.0 g/t AuEq cut off | 209.86 |
|          |                       | incl.      | 182.3  | 363.2  | 180.9 | 0.73 | 2.43 | 0.11  | 9.5   | 1.0                  | 1.0 g/t AuEq cut off | 180.90 |
|          |                       | incl.      | 182.3  | 244.7  | 62.4  | 1.53 | 2.70 | 0.12  | 7.0   | 1.8                  | 1.0 g/t AuEq cut off | 112.32 |
|          | CVDD-22-011           | 168.25     | 174.25 | 6.00   | 0.07  | 0.77 | 0.07 | 15.18 | 0.21  | 0.1 g/t AuEq cut off | 1.24                 |        |
|          |                       | and        | 194.45 | 201.95 | 7.50  | 0.06 | 0.70 | 0.06  | 11.53 | 0.17                 | 0.1 g/t AuEq cut off | 1.30   |
|          |                       | and        | 363.20 | 455.00 | 91.80 | 0.13 | 0.56 | 0.04  | 4.03  | 0.20                 | 0.1 g/t AuEq cut off | 18.18  |
|          |                       | incl.      | 363.20 | 367.70 | 4.50  | 0.33 | 0.62 | 0.05  | 11.91 | 0.42                 | 0.1 g/t AuEq cut off | 1.90   |
|          |                       | and        | 397.70 | 433.70 | 36.00 | 0.24 | 0.61 | 0.04  | 3.03  | 0.32                 | 0.1 g/t AuEq cut off | 11.66  |
|          | CVDD-22-012           | 46.12      | 48.75  | 2.63   | 0.63  | 1.89 | 0.02 | 1.92  | 0.68  | 0.1 g/t AuEq cut off | 1.78                 |        |
|          |                       | and        | 123.85 | 153.85 | 30.00 | 0.17 | 1.03 | 0.01  | 1.78  | 0.20                 | 0.1 g/t AuEq cut off | 5.93   |
|          |                       | and        | 215.44 | 239.44 | 24.00 | 0.19 | 4.70 | 0.01  | 1.86  | 0.26                 | 0.1 g/t AuEq cut off | 6.28   |
|          |                       | and        | 413.87 | 429.69 | 15.82 | 0.23 | 0.58 | 0.00  | 1.54  | 0.24                 | 0.1 g/t AuEq cut off | 3.79   |
|          | CVDD-22-013           | 227.00     | 472.75 | 245.75 | 0.16  | 1.37 | 0.01 | 2.65  | 0.20  | 0.1 g/t AuEq cut off | 48.07                |        |
|          |                       | incl.      | 265.00 | 291.00 | 26.00 | 0.20 | 2.50 | 0.01  | 1.32  | 0.25                 | 0.1 g/t AuEq cut off | 6.49   |

Challenger Gold Limited  
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Issued Capital  
1,532m shares  
126.7m options  
52.1m perf rights

Australian Registered Office  
Level 1  
100 Havelock Street  
West Perth WA 6005

Directors  
Mr Kris Knauer, MD and CEO  
Mr Sergio Rotoondo, Chairman  
Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
T: +61 8 6385 2743  
E: admin@challengergold.com

| Criteria | JORC Code explanation | Commentary         |        |        |               |       |       |      |        |      |                      |               |
|----------|-----------------------|--------------------|--------|--------|---------------|-------|-------|------|--------|------|----------------------|---------------|
|          |                       | and                | 319.00 | 333.00 | <b>14.00</b>  | 0.23  | 4.16  | 0.02 | 2.91   | 0.31 | 0.1 g/t AuEq cut off | <b>4.37</b>   |
|          |                       | and                | 366.40 | 367.40 | <b>1.00</b>   | 1.56  | 1.19  | 0.01 | 1.80   | 1.59 | 1.0 g/t AuEq cut off | <b>1.59</b>   |
|          |                       | and                | 396.00 | 449.90 | <b>53.90</b>  | 0.27  | 2.02  | 0.01 | 2.47   | 0.28 | 0.1 g/t AuEq cut off | <b>15.08</b>  |
|          |                       | incl.              | 434.50 | 435.90 | <b>1.40</b>   | 1.72  | 11.00 | 0.08 | 0.90   | 1.99 | 1.0 g/t AuEq cut off | <b>2.79</b>   |
|          |                       | and                | 731.70 | 733.20 | <b>1.50</b>   | 0.30  | 0.39  | 0.01 | 1425.6 | 1.32 | 1.0 g/t AuEq cut off | <b>1.98</b>   |
|          |                       | <b>CVDD-22-014</b> | 59.65  | 65.85  | <b>6.20</b>   | 1.13  | 1.30  | 0.01 | 1.80   | 1.15 | 0.1 g/t AuEq cut off | <b>7.16</b>   |
|          |                       | and                | 171.20 | 172.10 | <b>0.90</b>   | 11.63 | 16.10 | 0.03 | 1.60   | 11.9 | 1.0 g/t AuEq cut off | <b>10.70</b>  |
|          |                       | and                | 198.20 | 216.00 | <b>17.80</b>  | 0.44  | 1.18  | 0.01 | 1.94   | 0.48 | 0.1 g/t AuEq cut off | <b>8.48</b>   |
|          |                       | incl.              | 210.20 | 215.25 | <b>5.05</b>   | 0.90  | 1.33  | 0.01 | 1.83   | 0.94 | 1.0 g/t AuEq cut off | <b>4.76</b>   |
|          |                       | and                | 256.80 | 271.15 | <b>14.35</b>  | 1.17  | 4.73  | 0.03 | 2.22   | 1.28 | 1.0 g/t AuEq cut off | <b>18.31</b>  |
|          |                       | and                | 344.65 | 346.15 | <b>1.50</b>   | 1.46  | 0.39  | 0.01 | 1.60   | 1.48 | 1.0 g/t AuEq cut off | <b>2.21</b>   |
|          |                       | and                | 401.10 | 405.60 | <b>4.50</b>   | 4.58  | 9.62  | 0.02 | 1.76   | 4.73 | 1.0 g/t AuEq cut off | <b>21.30</b>  |
|          |                       | and                | 486.70 | 506.20 | <b>19.50</b>  | 0.39  | 0.71  | 0.01 | 2.79   | 0.41 | 0.1 g/t AuEq cut off | <b>8.02</b>   |
|          |                       | incl.              | 504.70 | 506.20 | <b>1.50</b>   | 3.04  | 4.11  | 0.03 | 1.70   | 3.14 | 1.0 g/t AuEq cut off | <b>4.71</b>   |
|          |                       | and                | 605.10 | 606.60 | <b>1.50</b>   | 1.11  | 2.53  | 0.01 | 1.40   | 1.16 | 1.0 g/t AuEq cut off | <b>1.73</b>   |
|          |                       | and                | 687.60 | 693.60 | <b>6.00</b>   | 0.71  | 3.66  | 0.01 | 1.56   | 0.77 | 1.0 g/t AuEq cut off | <b>4.63</b>   |
|          |                       | and                | 845.60 | 846.33 | <b>0.73</b>   | 8.59  | 4.57  | 0.00 | 1.80   | 8.65 | 1.0 g/t AuEq cut off | <b>6.32</b>   |
|          |                       | <b>CVDD-22-015</b> | 9.10   | 757.57 | <b>748.47</b> | 0.10  | 0.42  | 0.04 | 9.15   | 0.17 | 0.1 g/t AuEq cut off | <b>127.96</b> |
|          |                       | incl.              | 23.20  | 23.80  | <b>0.60</b>   | 2.24  | 6.04  | 0.22 | 16.30  | 2.70 | 1.0 g/t AuEq cut off | <b>1.62</b>   |
|          |                       | and                | 77.40  | 233.69 | <b>156.29</b> | 0.13  | 0.75  | 0.06 | 17.80  | 0.25 | 0.5 g/t AuEq cut off | <b>39.23</b>  |

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Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

Contact  
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|----------|-----------------------|--------------------|--------------|---------------|---------------|-------------|-------------|-------------|--------------|-------------|-----------------------------|--------------|
|          |                       | <b>OR</b>          | <b>77.40</b> | <b>291.75</b> | <b>214.35</b> | <b>0.13</b> | <b>0.68</b> | <b>0.06</b> | <b>18.05</b> | <b>0.24</b> | <b>0.1 g/t AuEq cut off</b> | <b>51.23</b> |
|          |                       | incl.              | 169.62       | 171.12        | <b>1.50</b>   | 0.97        | 0.64        | 0.06        | 8.40         | 1.09        | 1.0 g/t AuEq cut off        | <b>1.64</b>  |
|          |                       | and                | 364.20       | 365.70        | <b>1.50</b>   | 0.88        | 1.11        | 0.15        | 8.40         | 1.15        | 1.0 g/t AuEq cut off        | <b>1.73</b>  |
|          |                       | and                | 440.70       | 442.20        | <b>1.50</b>   | 1.25        | 0.71        | 0.05        | 0.80         | 1.35        | 1.0 g/t AuEq cut off        | <b>2.02</b>  |
|          |                       | and                | 646.57       | 648.07        | <b>1.50</b>   | 5.96        | 0.22        | 0.02        | 1.50         | 6.00        | 1.0 g/t AuEq cut off        | <b>8.99</b>  |
|          |                       | <b>CVDD-22-016</b> | 10.80        | 81.00         | <b>70.20</b>  | 0.42        | 7.15        | 0.01        | 4.08         | 0.53        | 0.5 g/t AuEq cut off        | <b>37.49</b> |
|          |                       | incl.              | 10.80        | 22.80         | <b>12.00</b>  | 0.58        | 5.86        | 0.02        | 2.14         | 0.68        | 1.0 g/t AuEq cut off        | <b>8.18</b>  |
|          |                       | and                | 36.30        | 48.70         | <b>12.40</b>  | 1.48        | 18.52       | 0.01        | 14.33        | 1.74        | 1.0 g/t AuEq cut off        | <b>21.55</b> |
|          |                       | and                | 275.00       | 515.90        | <b>240.90</b> | 0.11        | 2.26        | 0.02        | 3.34         | 0.16        | 0.1 g/t AuEq cut off        | <b>39.06</b> |
|          |                       | incl.              | 312.50       | 326.00        | <b>13.50</b>  | 0.14        | 5.42        | 0.04        | 5.66         | 0.27        | 0.1 g/t AuEq cut off        | <b>3.64</b>  |
|          |                       | and                | 397.50       | 436.50        | <b>39.00</b>  | 0.20        | 2.60        | 0.01        | 2.44         | 0.26        | 0.1 g/t AuEq cut off        | <b>9.99</b>  |
|          |                       | <b>CVDD-22-017</b> | 20.30        | 301.50        | <b>281.20</b> | 0.08        | 0.62        | 0.05        | 4.56         | 0.17        | 0.1 g/t AuEq cut off        | <b>47.06</b> |
|          |                       | incl.              | 53.20        | 54.70         | <b>1.50</b>   | 0.33        | 4.75        | 0.43        | 2.90         | 1.13        | 1.0 g/t AuEq cut off        | <b>1.69</b>  |
|          |                       | and                | 167.95       | 221.50        | <b>53.55</b>  | 0.14        | 0.88        | 0.06        | 8.94         | 0.25        | 0.1 g/t AuEq cut off        | <b>13.39</b> |
|          |                       | and                | 388.50       | 445.50        | <b>57.00</b>  | 0.10        | 0.36        | 0.03        | 3.01         | 0.16        | 0.1 g/t AuEq cut off        | <b>8.93</b>  |
|          |                       | incl.              | 388.50       | 390.00        | <b>1.50</b>   | 1.17        | 0.20        | 0.01        | 1.00         | 1.19        | 1.0 g/t AuEq cut off        | <b>1.78</b>  |
|          |                       | and                | 648.10       | 664.60        | <b>16.50</b>  | 0.02        | 1.19        | 0.10        | 1.32         | 0.21        | 0.1 g/t AuEq cut off        | <b>3.43</b>  |

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|-------------|-----------------------|--|----------|-------|-------|------|-------|-------|----------------------|----------------|
|             |                       | CEL: Significant intersections from El Guayabo Project (Colorado V Concession)_Camp #2, drilling completed |          |       |       |      |       |       |                      |                |
| Drill Hole  | From                  | To   | Interval | Au    | Ag    | Cu   | Mo    | AuEq  | Comments             | Total Intercep |
| (#)         | (m)                   | (m)  | (m)      | (g/t) | (g/t) | (%)  | (ppm) | (g/t) |                      | Gram Metres    |
| CVDD-24-018 | 386.3                 | 438.3  | 52.0     | 0.24  | 0.85  | 0.08 | 2.3   | 0.39  | 0.1 g/t AuEq cutoff  | 20.1           |
| inc         | 394.3                 | 405.0  | 10.7     | 0.45  | 0.87  | 0.08 | 2.2   | 0.59  | 0.5 g/t AuEq cutoff  | 6.4            |
| and         | 429.0                 | 438.3  | 9.3      | 0.31  | 1.25  | 0.15 | 2.3   | 0.59  | 0.5 g/t AuEq cutoff  | 5.5            |
| CVDD-24-019 | 122.6                 | 619.5  | 496.9    | 0.16  | 1.68  | 0.08 | 19.1  | 0.32  | 0.1 g/t AuEq cutoff  | 159.5          |
| incl.       | 145.9                 | 154.0  | 8.0      | 0.30  | 9.14  | 0.23 | 19.2  | 0.81  | 1.0 g/t AuEq cutoff  | 6.6            |
| and         | 299.0                 | 512.8  | 213.8    | 0.23  | 1.79  | 0.09 | 13.9  | 0.42  | 0.5 g/t AuEq cutoff  | 88.8           |
| inc         | 299.0                 | 351.0  | 52.0     | 0.41  | 2.49  | 0.12 | 9.3   | 0.65  | 0.5 g/t AuEq cutodd  | 33.6           |
| inc         | 325.0                 | 345.0  | 20.0     | 0.63  | 2.89  | 0.15 | 7.8   | 0.93  | 1.0 g/t AuEq cutoff  | 18.6           |
| and         | 510.8                 | 512.8  | 2.0      | 3.11  | 3.93  | 0.16 | 6.9   | 3.44  | 1.0 g/t AuEq cutoff  | 6.9            |
| CVDD-24-020 | 0.0                   | 573.7  | 573.7    | 0.24  | 1.92  | 0.08 | 10.8  | 0.40  | 0.1 g/t AuEq cutoff  | 227.3          |
| inc         | 0.0                   | 339.3  | 339.3    | 0.29  | 2.50  | 0.10 | 14.4  | 0.49  | 0.5 g/t AuEq cutoff  | 165.7          |
| inc         | 15.9                  | 49.7   | 33.8     | 0.30  | 6.17  | 0.13 | 14.4  | 0.61  | 1.0 g/t AuEq cutoff  | 20.7           |
| inc         | 70.1                  | 83.9   | 13.8     | 0.42  | 2.63  | 0.11 | 16.8  | 0.66  | 0.5 g/t AuEq cutoff  | 9.0            |
| and         | 119.6                 | 218.2  | 98.6     | 0.40  | 2.26  | 0.10 | 19.1  | 0.61  | 0.5 g/t AuEq cutoff  | 60.1           |
| inc         | 162.8                 | 218.2  | 55.4     | 0.45  | 2.21  | 0.11 | 12.1  | 0.67  | 0.5 g/t AuEq cutoff  | 37.0           |
| and         | 260.6                 | 269.4  | 8.8      | 0.30  | 2.03  | 0.18 | 11.2  | 0.63  | 0.5 g/t AuEq cutoff  | 5.6            |
| and         | 546.9                 | 561.7  | 14.8     | 0.46  | 1.75  | 0.05 | 2.6   | 0.57  | 0.5 g/t AuEq cutoff  | 10.2           |
| CVDD-24-021 | 118.5                 | 126.5  | 8.0      | 0.24  | 0.66  | 0.02 | 1.7   | 0.27  | 0.1 g/t AuEq cutoff  | 2.2            |
| and         | 199.1                 | 219.1  | 20.0     | 0.27  | 0.91  | 0.01 | 1.4   | 0.31  | 0.1 g/t AuEq cutoff  | 6.2            |
| and         | 247.9                 | 271.2  | 23.3     | 0.29  | 0.76  | 0.01 | 1.4   | 0.31  | 0.1 g/t AuEq cutoff  | 7.3            |
| CVDD-24-022 | 0.0                   | 599.1  | 599.1    | 0.23  | 1.43  | 0.06 | 17.7  | 0.36  | 0.1 g/t AuEq cutoff  | 213.3          |
| inc         | 128.7                 | 143.0  | 14.3     | 0.35  | 1.80  | 0.06 | 3.9   | 0.48  | 0.5 g/t AuEq cutoff  | 6.9            |
| and         | 170.8                 | 230.5  | 59.7     | 0.38  | 1.35  | 0.06 | 5.8   | 0.51  | 0.5 g/t AuEq cutoff  | 30.4           |
| inc         | 170.8                 | 212.3  | 41.4     | 0.43  | 1.66  | 0.07 | 5.3   | 0.58  | 0.5 g/t AuEq cutoff  | 24.0           |
| and         | 284.8                 | 294.8  | 10.0     | 0.49  | 2.12  | 0.07 | 12.2  | 0.65  | 0.5 g/t AuEq cutoff  | 6.5            |
| and         | 387.2                 | 509.2  | 122.0    | 0.28  | 1.73  | 0.10 | 37.7  | 0.50  | 0.5 g/t AuEq cutoff  | 60.5           |
| inc         | 387.2                 | 398.0  | 10.8     | 0.54  | 3.30  | 0.11 | 51.0  | 0.81  | 0.5 g/t AuEq cutoff  | 8.8            |
| inc         | 433.9                 | 450.3  | 16.5     | 0.37  | 1.77  | 0.11 | 31.9  | 0.59  | 0.5 g/t AuEq cutoff  | 9.8            |
| inc         | 477.3                 | 509.2  | 31.9     | 0.32  | 2.23  | 0.15 | 60.2  | 0.64  | 0.5 g/t AuEq cutoff  | 20.4           |
| and         | 549.6                 | 565.3  | 15.7     | 0.56  | 3.22  | 0.13 | 23.3  | 0.83  | 0.5 g/t AuEq cutoff  | 13.0           |
| CVDD-24-023 | 52.3                  | 56.3   | 4.0      | 1.59  | 2.44  | 0.05 | 0.7   | 1.7   | 0.1 g/t AuEq cut off | 6.8            |
|             | 247.3                 | 400.3  | 152.9    | 0.28  | 1.34  | 0.04 | 1.1   | 0.4   | 0.1 g/t AuEq cut off | 55.8           |
| inc         | 260.5                 | 268.5  | 8.0      | 0.74  | 0.94  | 0.01 | 0.6   | 0.8   | 0.5 g/t AuEq cut off | 6.2            |
| and         | 292.8                 | 342.0  | 49.2     | 0.40  | 1.87  | 0.06 | 1.2   | 0.5   | 0.5 g/t AuEq cut off | 25.9           |

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|----------|-----------------------|--------------------|-------|-------|--------------|------|-------|------|------|------------|----------------------|--------------|
|          |                       | inc                | 300.8 | 308.8 | <b>8.0</b>   | 0.63 | 2.64  | 0.07 | 1.6  | <b>0.8</b> | 0.5 g/t AuEq cut off | <b>6.2</b>   |
|          |                       | and                | 318.8 | 324.8 | <b>6.0</b>   | 0.66 | 2.02  | 0.07 | 1.1  | <b>0.8</b> | 0.5 g/t AuEq cut off | <b>4.8</b>   |
|          |                       | and                | 385.9 | 395.1 | <b>9.2</b>   | 0.52 | 2.69  | 0.11 | 1.5  | <b>0.7</b> | 0.5 g/t AuEq cut off | <b>6.7</b>   |
|          |                       |                    | 462.2 | 655.0 | <b>192.8</b> | 0.22 | 1.61  | 0.07 | 5.0  | <b>0.4</b> | 0.1 g/t AuEq cut off | <b>68.6</b>  |
|          |                       | inc                | 478.2 | 530.2 | <b>52.0</b>  | 0.38 | 1.47  | 0.06 | 2.3  | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>26.1</b>  |
|          |                       | and                | 613.8 | 645.2 | <b>31.5</b>  | 0.27 | 2.81  | 0.12 | 6.2  | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>16.3</b>  |
|          |                       | <b>CVDD-24-024</b> | 0.0   | 711.6 | <b>711.6</b> | 0.25 | 1.77  | 0.07 | 16.5 | <b>0.4</b> | 0.1 g/t AuEq cut off | <b>279.8</b> |
|          |                       | inc                | 0.0   | 401.1 | <b>401.1</b> | 0.32 | 2.13  | 0.07 | 12.5 | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>192.1</b> |
|          |                       | inc                | 0.0   | 210.9 | <b>210.9</b> | 0.41 | 2.85  | 0.08 | 13.9 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>125.5</b> |
|          |                       | inc                | 4.0   | 53.5  | <b>49.5</b>  | 0.52 | 2.35  | 0.07 | 8.3  | <b>0.7</b> | 0.5 g/t AuEq cut off | <b>33.3</b>  |
|          |                       | and                | 120.6 | 210.9 | <b>90.4</b>  | 0.46 | 4.10  | 0.12 | 18.4 | <b>0.7</b> | 0.5 g/t AuEq cut off | <b>65.3</b>  |
|          |                       | inc                | 138.6 | 167.8 | <b>29.3</b>  | 0.80 | 6.81  | 0.19 | 17.0 | <b>1.2</b> | 1.0 g/t AuEq cut off | <b>35.5</b>  |
|          |                       | and                | 274.4 | 313.9 | <b>39.5</b>  | 0.47 | 2.01  | 0.09 | 10.3 | <b>0.7</b> | 0.5 g/t AuEq cut off | <b>25.9</b>  |
|          |                       | <b>CVDD-24-025</b> | 176.3 | 406.7 | <b>230.4</b> | 0.19 | 1.00  | 0.03 | 3.7  | <b>0.3</b> | 0.1 g/t AuEq cut off | <b>59.2</b>  |
|          |                       | inc                | 176.3 | 187.7 | <b>11.4</b>  | 0.42 | 0.47  | 0.02 | 3.3  | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>5.2</b>   |
|          |                       | and                | 245.8 | 254.1 | <b>8.2</b>   | 0.33 | 0.94  | 0.03 | 3.5  | <b>0.4</b> | 0.5 g/t AuEq cut off | <b>3.3</b>   |
|          |                       | and                | 328.4 | 344.7 | <b>16.3</b>  | 0.40 | 1.70  | 0.04 | 5.4  | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>8.2</b>   |
|          |                       |                    | 565.9 | 587.8 | <b>21.9</b>  | 0.24 | 0.86  | 0.04 | 13.2 | <b>0.3</b> | 0.1 g/t AuEq cut off | <b>7.0</b>   |
|          |                       |                    | 613.8 | 667.4 | <b>53.6</b>  | 0.20 | 1.69  | 0.06 | 4.8  | <b>0.3</b> | 0.1 g/t AuEq cut off | <b>17.8</b>  |
|          |                       | <b>CVDD-24-026</b> | 0.0   | 657.3 | <b>657.3</b> | 0.23 | 2.31  | 0.10 | 23.8 | <b>0.4</b> | 0.1 g/t AuEq cut off | <b>292.6</b> |
|          |                       | inc                | 0.0   | 537.6 | <b>537.6</b> | 0.25 | 2.60  | 0.11 | 19.2 | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>257.6</b> |
|          |                       | inc                | 42.1  | 103.0 | <b>60.9</b>  | 0.29 | 4.54  | 0.13 | 8.8  | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>35.1</b>  |
|          |                       | inc                | 69.0  | 96.5  | <b>27.5</b>  | 0.41 | 4.80  | 0.15 | 8.7  | <b>0.7</b> | 0.5 g/t AuEq cut off | <b>20.1</b>  |
|          |                       | and                | 149.8 | 203.5 | <b>53.7</b>  | 0.31 | 2.98  | 0.12 | 10.3 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>30.0</b>  |
|          |                       | and                | 243.7 | 298.1 | <b>54.4</b>  | 0.31 | 2.39  | 0.12 | 18.5 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>30.3</b>  |
|          |                       | and                | 348.4 | 408.4 | <b>60.0</b>  | 0.28 | 2.72  | 0.15 | 30.0 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>34.8</b>  |
|          |                       | and                | 430.6 | 457.5 | <b>26.9</b>  | 0.36 | 2.01  | 0.12 | 34.0 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>16.5</b>  |
|          |                       | and                | 610.7 | 620.7 | <b>10.0</b>  | 0.35 | 1.30  | 0.11 | 32.2 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>5.8</b>   |
|          |                       | <b>CVDD-24-027</b> | 250.3 | 552.9 | <b>302.6</b> | 0.21 | 1.36  | 0.05 | 4.4  | <b>0.3</b> | 0.1 g/t AuEq cut off | <b>94.0</b>  |
|          |                       | inc                | 250.3 | 448.6 | <b>198.3</b> | 0.27 | 1.58  | 0.05 | 5.7  | <b>0.4</b> | 0.5 g/t AuEq cut off | <b>76.1</b>  |
|          |                       | inc                | 263.3 | 397.5 | <b>134.2</b> | 0.33 | 2.05  | 0.07 | 7.2  | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>64.7</b>  |
|          |                       | inc                | 263.3 | 287.2 | <b>23.9</b>  | 0.48 | 3.46  | 0.15 | 8.3  | <b>0.8</b> | 0.5 g/t AuEq cut off | <b>18.5</b>  |
|          |                       | inc                | 263.3 | 269.3 | <b>6.0</b>   | 1.44 | 11.10 | 0.44 | 14.8 | <b>2.3</b> | 1.0 g/t AuEq cut off | <b>14.0</b>  |
|          |                       | and                | 317.5 | 323.8 | <b>6.3</b>   | 0.55 | 1.12  | 0.04 | 1.8  | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>3.9</b>   |
|          |                       | and                | 346.0 | 372.7 | <b>26.8</b>  | 0.49 | 3.31  | 0.09 | 13.3 | <b>0.7</b> | 0.5 g/t AuEq cut off | <b>18.4</b>  |
|          |                       | <b>CVDD-24-028</b> | 52.3  | 754.0 | <b>701.7</b> | 0.29 | 1.74  | 0.05 | 6.8  | <b>0.4</b> | 0.1 g/t AuEq cut off | <b>283.7</b> |

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Dr Sonia Delgado, Exec. Director  
Mr Fletcher Quinn, Non-Exec. Director  
Mr Pini Althaus, Non Exec Director  
Mr Brett Hackett Non Exec Director

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| Criteria   | JORC Code explanation   | Commentary  |              |      |       |              |      |            |                      |              |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
|--|---|---|--------------|------|-------|--------------|------|------------|----------------------|--------------|------------|----------------------|--------------|-----|------|-------|--------------|------|------|------|-----|------------|----------------------|--------------|-----|-------|-------|--------------|------|------|------|-----|------------|----------------------|-------------|-----|-------|-------|-------------|------|------|------|-----|------------|----------------------|-------------|-----|-------|-------|-------------|------|------|------|-----|------------|----------------------|-------------|-----|-------|-------|-------------|------|------|------|-----|------------|----------------------|-------------|-----|-------|-------|------------|------|------|------|------|------------|----------------------|------------|-----|-------|-------|------------|------|------|------|------|------------|----------------------|------------|-----|-------|-------|------------|------|------|------|------|------------|----------------------|------------|
|  |   | <table><tr><td>inc</td><td>52.3</td><td>513.3</td><td><b>461.0</b></td><td>0.35</td><td>2.08</td><td>0.06</td><td>3.1</td><td><b>0.5</b></td><td>0.5 g/t AuEq cut off</td><td><b>221.1</b></td></tr><tr><td>inc</td><td>52.3</td><td>297.1</td><td><b>244.8</b></td><td>0.42</td><td>2.62</td><td>0.06</td><td>2.0</td><td><b>0.6</b></td><td>0.5 g/t AuEq cut off</td><td><b>138.1</b></td></tr><tr><td>inc</td><td>137.6</td><td>241.2</td><td><b>103.6</b></td><td>0.66</td><td>2.92</td><td>0.07</td><td>2.1</td><td><b>0.8</b></td><td>0.5 g/t AuEq cut off</td><td><b>84.4</b></td></tr><tr><td>inc</td><td>137.6</td><td>162.0</td><td><b>24.4</b></td><td>1.02</td><td>2.54</td><td>0.06</td><td>2.0</td><td><b>1.1</b></td><td>1.0 g/t AuEq cut off</td><td><b>27.9</b></td></tr><tr><td>and</td><td>174.0</td><td>188.6</td><td><b>14.6</b></td><td>0.88</td><td>3.02</td><td>0.07</td><td>1.9</td><td><b>1.0</b></td><td>0.5 g/t AuEq cut off</td><td><b>15.3</b></td></tr><tr><td>and</td><td>205.6</td><td>241.2</td><td><b>35.6</b></td><td>0.76</td><td>3.92</td><td>0.09</td><td>2.5</td><td><b>1.0</b></td><td>0.5 g/t AuEq cut off</td><td><b>34.2</b></td></tr><tr><td>and</td><td>588.3</td><td>596.6</td><td><b>8.3</b></td><td>0.70</td><td>5.38</td><td>0.12</td><td>16.3</td><td><b>1.0</b></td><td>0.5 g/t AuEq cut off</td><td><b>8.1</b></td></tr><tr><td>and</td><td>617.8</td><td>625.0</td><td><b>7.2</b></td><td>0.32</td><td>2.64</td><td>0.09</td><td>18.8</td><td><b>0.5</b></td><td>0.5 g/t AuEq cut off</td><td><b>3.8</b></td></tr><tr><td>and</td><td>740.4</td><td>748.9</td><td><b>8.5</b></td><td>0.91</td><td>1.10</td><td>0.05</td><td>11.6</td><td><b>1.0</b></td><td>0.5 g/t AuEq cut off</td><td><b>8.8</b></td></tr></table> | inc          | 52.3 | 513.3 | <b>461.0</b> | 0.35 | 2.08       | 0.06                 | 3.1          | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>221.1</b> | inc | 52.3 | 297.1 | <b>244.8</b> | 0.42 | 2.62 | 0.06 | 2.0 | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>138.1</b> | inc | 137.6 | 241.2 | <b>103.6</b> | 0.66 | 2.92 | 0.07 | 2.1 | <b>0.8</b> | 0.5 g/t AuEq cut off | <b>84.4</b> | inc | 137.6 | 162.0 | <b>24.4</b> | 1.02 | 2.54 | 0.06 | 2.0 | <b>1.1</b> | 1.0 g/t AuEq cut off | <b>27.9</b> | and | 174.0 | 188.6 | <b>14.6</b> | 0.88 | 3.02 | 0.07 | 1.9 | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>15.3</b> | and | 205.6 | 241.2 | <b>35.6</b> | 0.76 | 3.92 | 0.09 | 2.5 | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>34.2</b> | and | 588.3 | 596.6 | <b>8.3</b> | 0.70 | 5.38 | 0.12 | 16.3 | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>8.1</b> | and | 617.8 | 625.0 | <b>7.2</b> | 0.32 | 2.64 | 0.09 | 18.8 | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>3.8</b> | and | 740.4 | 748.9 | <b>8.5</b> | 0.91 | 1.10 | 0.05 | 11.6 | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>8.8</b> |
| inc  | 52.3  | 513.3   | <b>461.0</b> | 0.35 | 2.08  | 0.06         | 3.1  | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>221.1</b> |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| inc  | 52.3  | 297.1   | <b>244.8</b> | 0.42 | 2.62  | 0.06         | 2.0  | <b>0.6</b> | 0.5 g/t AuEq cut off | <b>138.1</b> |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| inc  | 137.6   | 241.2   | <b>103.6</b> | 0.66 | 2.92  | 0.07         | 2.1  | <b>0.8</b> | 0.5 g/t AuEq cut off | <b>84.4</b>  |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| inc  | 137.6   | 162.0   | <b>24.4</b>  | 1.02 | 2.54  | 0.06         | 2.0  | <b>1.1</b> | 1.0 g/t AuEq cut off | <b>27.9</b>  |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| and  | 174.0   | 188.6   | <b>14.6</b>  | 0.88 | 3.02  | 0.07         | 1.9  | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>15.3</b>  |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| and  | 205.6   | 241.2   | <b>35.6</b>  | 0.76 | 3.92  | 0.09         | 2.5  | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>34.2</b>  |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| and  | 588.3   | 596.6   | <b>8.3</b>   | 0.70 | 5.38  | 0.12         | 16.3 | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>8.1</b>   |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| and  | 617.8   | 625.0   | <b>7.2</b>   | 0.32 | 2.64  | 0.09         | 18.8 | <b>0.5</b> | 0.5 g/t AuEq cut off | <b>3.8</b>   |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| and  | 740.4   | 748.9   | <b>8.5</b>   | 0.91 | 1.10  | 0.05         | 11.6 | <b>1.0</b> | 0.5 g/t AuEq cut off | <b>8.8</b>   |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| ASSAYS PENDING ON HOLES CVDD-24-029 to CVDD-24-032               |   |   |              |      |       |              |      |            |                      |              |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |
| Relationship between mineralisation widths and intercept lengths | <ul style="list-style-type: none"><li>- These relationships are particularly important in the reporting of Exploration Results.</li><li>- If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li><li>- If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li></ul> | <ul style="list-style-type: none"><li>- The geometry of the breccia hosted mineralisation appears to be predominantly near-vertical pipes while the geometry of the intrusive hosted mineralisation is sub-vertical.</li><li>- The preliminary interpretation is that the breccia hosted mineralisation occurs in near vertical breccia pipes. Thus, intersections in steeply inclined holes may not be representative of the true width of this breccia hosted mineralisation. The relationship between the drilling orientation and some of the key mineralised structures and possible reporting bias in terms of true width is illustrated in the figure below.</li></ul>   |              |      |       |              |      |            |                      |              |            |                      |              |     |      |       |              |      |      |      |     |            |                      |              |     |       |       |              |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |             |      |      |      |     |            |                      |             |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |     |       |       |            |      |      |      |      |            |                      |            |

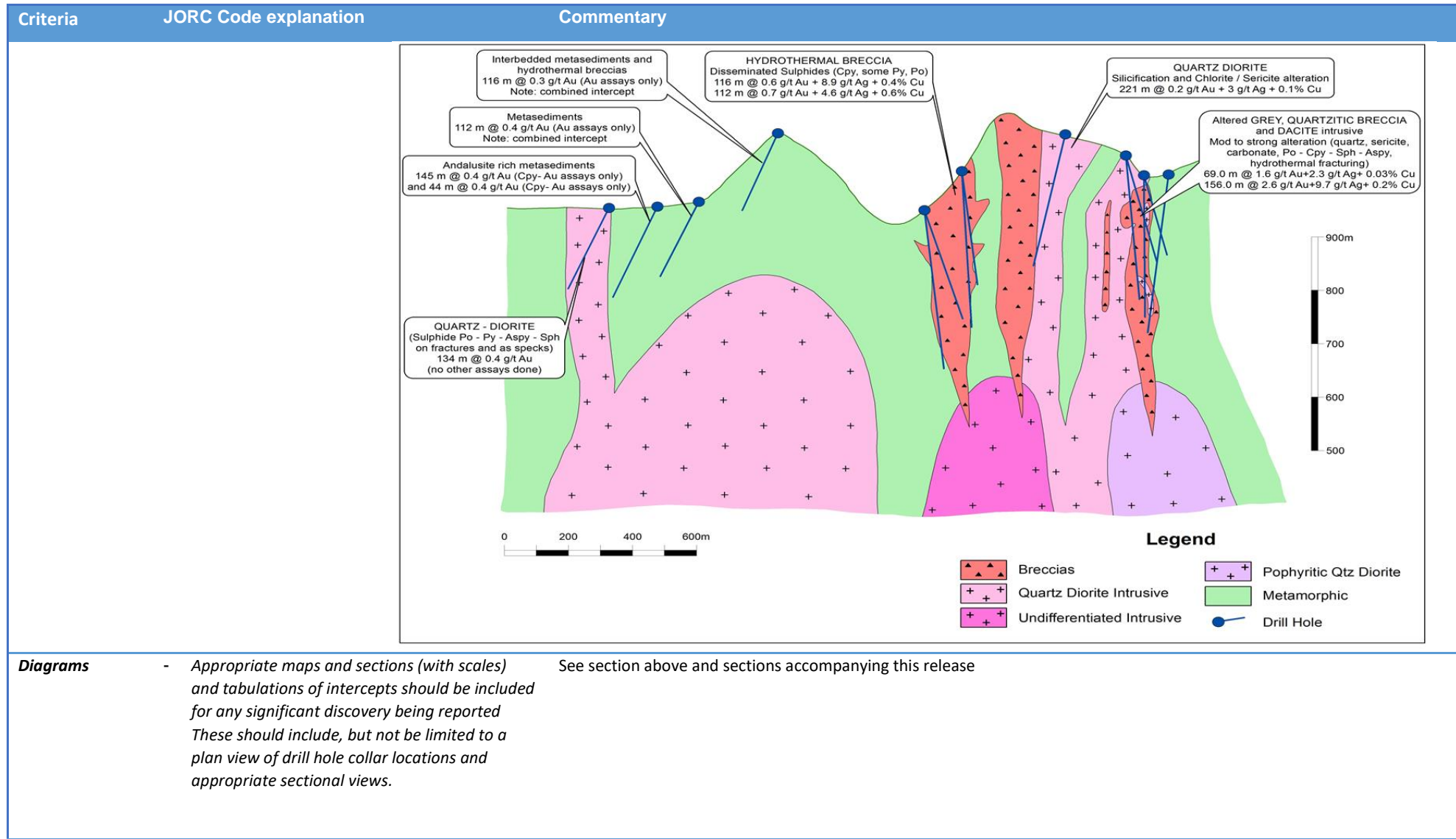
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| Criteria                                  | JORC Code explanation   | Commentary   |
|---|---|--|
| <b>Balanced reporting</b>                 | - Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.   | - The reporting is fair and representative of what is currently understood to be the geology and controls on mineralisation at the project.  |
| <b>Other substantive exploration data</b> | - Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | <p><b>El Guayabo:</b><br/> Quantec Geophysical services conducted a SPARTAN Broadband Magnetotelluric and TITAN IP/EMAP surveys completed February 3rd to April 1st, 2019 over the El Guayabo property by Quantec Geoscience Ltd. on behalf of AAR Resources. The survey covered 16 square kilometers with data collected on 300m 3D spacing on a grid oriented at 10 degrees and 100 degrees. The grid was moved 10 degrees so the survey could be oriented perpendicular to the main geological structures. The survey involved a total of 205 Magnetotelluric (MT) sites and 2 test TITAN IP/EMAP profiles were surveyed. The final survey results to which will be delivered will consist of :</p> <ul style="list-style-type: none"> <li>• Inversion 2D products <ul style="list-style-type: none"> <li>• 2D model sections (for each line) of the:</li> <li>• DC resistivity model;</li> <li>• IP chargeability model using the DC resistivity model as a reference;</li> <li>• IP chargeability model using a half-space resistivity model as a reference;</li> <li>• MT(EMAP) resistivity model;</li> <li>• Joint MT+DC resistivity model; IP chargeability model using the MT+DC resistivity model;</li> </ul> </li> <li>• Inversion 3D products <ul style="list-style-type: none"> <li>• 3D MT model;</li> <li>• Cross-sections and Elevation Plan maps of the 3D MT models;</li> </ul> </li> </ul> <p>Figures showing Survey Locations and Results are included in the body of this release</p> <p><b>DCIP INVERSION PROCEDURES</b><br/> DCIP is an electrical method that uses the injection of current and the measurement of voltage difference along with its rate of decay to determine subsurface resistivity and chargeability respectively. Depth of investigation is mainly controlled by the array geometry but may also be limited by the received signal (dependent on transmitted current) and ground resistivity. Chargeability is particularly susceptible to data with a low signal-to-noise ratio. The differences in penetration depth between DC resistivity and chargeability are a function of relative property contrasts and relative signal-to-noise levels between the two measurements. A detailed introduction to DCIP is given in Telford, et al. (1976). The primary tool for evaluating data is through the inversion of the data in two or three dimensions. An inversion model depends not only on the data collected, but also on the associated data errors in the reading and the “model norm”. Inversion models are not unique and may contain “artefacts” from the inversion process. The inversion model may not accurately reflect all the information apparent in the</p> |

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|----------|-----------------------|--|
|          |                       | <p>actual data. Inversion models must be reviewed in context with the observed data, model fit, and with an understanding of the model norm used.</p> <p>The DC and IP inversions use the same mesh. The horizontal mesh is set as 2 cells between electrodes. The vertical mesh is designed with a cell thickness starting from 20 m for the first hundred metres to accommodate the topographic variation along the profiles, and then increases logarithmically with depth. The inversions were generally run for a maximum of 50 iterations. The DC data is inverted using an unconstrained 2D inversion with a homogenous half-space of average input data as starting model. For IP inversions, the apparent chargeability <math>\rho</math> is computed by carrying out two DC resistivity forward models with conductivity distributions <math>\sigma(\mathbf{x}, \mathbf{z})</math> and <math>(1-\eta)\sigma(\mathbf{x}, \mathbf{z})</math> (Oldenburg and Li, 1994), where <math>(\mathbf{x}, \mathbf{z})</math> specifies the location in a 2D mesh. The conductivity distributions used in IP inversions can be the inverted DC model or a half space of uniform conductivity. Two IP inversions are then calculated from the same data set and parameters using different reference models. The first inversion of the IP data uses the previously calculated DC model as the reference model and is labelled the IP dcref model. The second IP inversion uses a homogeneous half-space resistivity model as the reference model and is labelled IP hsfref model. This model is included to test the validity of chargeability anomalies, and to limit the possibility of inversion artefacts in the IP model due to the use of the DC model as a reference. The results of this second IP inversion are presented on the digital archived attached to this report.</p> <p><b>MAGNETOTELLURIC INVERSIONS</b></p> <p>The Magnetotelluric (MT) method is a natural source EM method that measures the variation of both the electric (E) and magnetic (H) field on the surface of the earth to determine the distribution at depth of the resistivity of the underlying rocks. A complete review of the method is presented in Vozoff (1972) and Orange (1989).</p> <p>The measured MT impedance Z, defined by the ratio between the E and H fields, is a tensor of complex numbers. This tensor is generally represented by an apparent resistivity (a parameter proportional to the modulus of Z) and a phase (argument of Z). The variation of those parameters with frequency relates the variations of the resistivity with depth, the high frequencies sampling the sub-surface and the low frequencies the deeper part of the earth. However, the apparent resistivity and the phase have an opposite behaviour. An increase of the phase indicates a more conductive zone than the host rocks and is associated with a decrease in apparent resistivity. The objective of the inversion of MT data is to compute a distribution of the resistivity of the surface that explains the variations of the MT parameters, i.e. the response of the model that fits the observed data. The solution however is not unique and different inversions must be performed (different programs, different conditions) to test and compare solutions for artefacts versus a target anomaly.</p> <p>An additional parameter acquired during MT survey is the Tipper. Tipper parameters Tzx and Tzy (complex numbers) represent the transfer function between the vertical magnetic field and the horizontal X (Tzx), and Y (Tzy) magnetic fields respectively (as the impedance Z represent the transfer function between the electric and magnetic fields). This tipper is a 'local' effect, mainly defined by the lateral contrast of the resistivity. Consequently, the tipper can be used to estimate the geological strike direction. Another important use of the tipper is to display its components as vectors, named induction vectors. The induction vectors (defined by the real components of Tzx and Tzy) plotted following the Parkinson-Real-Reverse-Angle convention will point to conductive zones. The tipper is then a good mapping tool to delineate more conductive zones.</p> |

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|---|-----------------------|--|------------------------------|------|--------------|---------------|---|----------------|--------|--------|-------|---|-----|-----|--------------|-------------------|------|------|
|   |                       | <p>The depth of investigation is determined primarily by the frequency content of the measurement. Depth estimates from any individual sounding may easily exceed 20 km. However, the data can only be confidently interpreted when the aperture of the array is comparable to the depth of investigation.</p> <p>The inversion model is dependent on the data, but also on the associated data errors and the model norm. The inversion models are not unique, may contain artefacts of the inversion process and may not therefore accurately reflect all the information apparent in the actual data. Inversion models need to be reviewed in context with the observed data, model fit. The user must understand the model norm used and evaluate whether the model is geologically plausible.</p> <p>For this project, 2D inversions were performed on the TITAN/EMAP profiles data. For each profile, we assume the strike direction is perpendicular to the profile for all sites: the TM mode is then defined by the inline E-field (and cross line H-field); no TE mode (cross line E-field) were used in the 2D inversions.</p> <p>The 2D inversions were performed using the TM-mode resistivity and phase data interpolated at 6 frequencies per decade, assuming 10% and 5% error for the resistivity and phase respectively, which is equivalent to 5% error on the impedance component Z. No static shift of the data has been applied on the data.</p> <p>The 3D inversion was carried out using the CGG RLM-3D inversion code. The 3D inversions of the MT data were completed over an area of approximately 5km x 3.5km. All MT sites from this current survey were used for the 3D inversion.</p> <p>The 3D inversion was completed using a sub sample of the MT data with a maximum of 24 frequencies at each site covering the measured data from 10 kHz to 0.01 Hz with a nominal 4 frequencies per decade. At each site, the complete MT complex impedance tensors (Zxx, Zxy, Zyx, and Zyy) were used as input data with an associated error set to 5% on each parameter. The measured tipper data (Tzx, Tzy) were also used as input data with an associated error set to 0.02 on each parameter. A homogenous half space with resistivity of 100 Ohm-m was used as the starting model for this 3D MT inversion. A uniform mesh with 75 m x 75 m cell size was used in horizontal directions in the resistivity model. The vertical mesh was defined to cover the first 4 km. Padding cells were added in each direction to accommodate the inversion for boundary conditions. The 3D inversion was run for a maximum of 50 iterations.</p> <p>In addition a total of 129 samples distributed along 12 holes were analysed to measure the resistivity (Rho (Ohm*m) and chargeability properties (Chargeability M and Susceptibility (SCPT 0.001 SI) . The equipment used for the analyses was the Sample Core IP Tester, manufactured by Instrumentation GDD Inc. It should be noted that these measures should be taken only as first order estimate, and not as “absolute” (true) value as readings by the field crew were not repeated and potentially subject to some errors (i.e. wrong size of the core entered in the equipment).</p> <p><b>Colorado V:</b></p> <p>Exploration Target:</p> <p>An Exploration Target for two mineralized zones on the Colorado V mining concession has been made using surface gold in soil anomalies, drill hole geological and assay information and panel sampling from an adit at one of the targets.</p> <table><tr><th>Exploration Target Anomaly A</th><th>Unit</th><th>Low estimate</th><th>High Estimate</th></tr><tr><td>Surface area (100 ppb Au in soil envelope):</td><td>m<sup>2</sup></td><td>250000</td><td>250000</td></tr><tr><td>Depth</td><td>m</td><td>400</td><td>400</td></tr><tr><td>Bulk Density</td><td>kg/m<sup>3</sup></td><td>2600</td><td>2750</td></tr></table> | Exploration Target Anomaly A | Unit | Low estimate | High Estimate | Surface area (100 ppb Au in soil envelope): | m <sup>2</sup> | 250000 | 250000 | Depth | m | 400 | 400 | Bulk Density | kg/m <sup>3</sup> | 2600 | 2750 |
| Exploration Target Anomaly A                | Unit                  | Low estimate   | High Estimate                |      |              |               |   |                |        |        |       |   |     |     |              |                   |      |      |
| Surface area (100 ppb Au in soil envelope): | m <sup>2</sup>        | 250000   | 250000                       |      |              |               |   |                |        |        |       |   |     |     |              |                   |      |      |
| Depth                                       | m                     | 400  | 400                          |      |              |               |   |                |        |        |       |   |     |     |              |                   |      |      |
| Bulk Density                                | kg/m <sup>3</sup>     | 2600   | 2750                         |      |              |               |   |                |        |        |       |   |     |     |              |                   |      |      |

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| Criteria | JORC Code explanation | Commentary  |                   |                     |                      |
|----------|-----------------------|---|-------------------|---------------------|----------------------|
|          |                       | Tonnage   | Mt                | 260                 | 275                  |
|          |                       | Grade Au  | g/t               | 0.4                 | 0.7                  |
|          |                       | Grade Ag  | g/t               | 1.5                 | 2.5                  |
|          |                       | tonnage above cut-off   | %                 | 70%                 | 90%                  |
|          |                       | Contained Au  | Moz               | 2.3                 | 5.6                  |
|          |                       | Contained Ag  | Moz               | 8.8                 | 19.9                 |
|          |                       | <b>Exploration Target Anomaly B</b>   | <b>Unit</b>       | <b>Low estimate</b> | <b>High Estimate</b> |
|          |                       | Surface area (100 ppb Au in soil envelope):   | m <sup>2</sup>    | 175000              | 175000               |
|          |                       | Depth   | m                 | 400                 | 400                  |
|          |                       | Bulk Density  | kg/m <sup>3</sup> | 2600                | 2750                 |
|          |                       | Tonnage   | Mt                | 182                 | 193                  |
|          |                       | Grade Au  | g/t               | 0.4                 | 0.7                  |
|          |                       | Grade Ag  | g/t               | 1.5                 | 2.5                  |
|          |                       | % Tonnage above cut-off   | %                 | 70%                 | 90%                  |
|          |                       | Contained Au  | Moz               | 1.6                 | 3.9                  |
|          |                       | Contained Ag  | Moz               | 6.1                 | 13.9                 |
|          |                       | <b>Total of Target A &amp; B</b>  | <b>Unit</b>       | <b>Low estimate</b> | <b>High Estimate</b> |
|          |                       | Tonnage   | Mt                | 442                 | 468                  |
|          |                       | Contained Au  | Moz               | 4.0                 | 9.5                  |
|          |                       | Contained Ag  | Moz               | 14.9                | 33.8                 |
|          |                       | <p>The potential quantity and grade of the Colorado V Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.</p> <p>The following is an explanation of the inputs used in formulating the Exploration Target.</p> <ul style="list-style-type: none"> <li>• Surface Area: The surface area of the target has been estimated by projecting drill hole gold significant intersections vertically to the surface. The surface projection of the intersections in the drill holes coincides with the 100 ppb Au gold-in-soil anomaly contour. This area has been used to estimate the horizontal extent of the mineralization.</li> <li>• Depth: A depth of 400 metres from surface has been used as an estimate of the depth that an open pit and underground bulk tonnage mining project would be expected to extend. The mineralization at Colorado V is controlled by steeply plunging / dipping intrusions and breccia which is expected to extend to at least 400m depth from surface.</li> <li>• Bulk Density: The bulk density is based on geological observations of the rocks that host the mineralization. Typical bulk densities for these rock types are in the range used.</li> </ul> |                   |                     |                      |

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|---------------------|---|---|
|                     |   | <ul style="list-style-type: none"> <li>Gold and Silver grades: The gold and silver grade range has been estimated from the weighted average and median sample grades and deviations from mean from drill core and underground panel sampling.</li> <li>Proportion of tonnage above cut-off grade: These values are estimates based on drill hole intersection grade continuity down-hole assuming that not all of the Target volume, if sampled would be above the economic cut-off grade.</li> </ul>   |
| <b>Further work</b> | <ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul> | <ul style="list-style-type: none"> <li>Drill test priority targets identified through exploration reported previously on both the EL Guayabo and Colorado V targets, centered on surface soil and rock chip sampling, underground channel sampling and previously completed drilling which has been relogged and resampled.</li> <li>Interpretation of magnetic survey data following calibration with drilling.</li> <li>Undertake additional IP and/or EM surveys subject to a review of the appropriateness of the techniques and calibration with drill hole data.</li> </ul> |

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### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in the preceding section also apply to this section.)

| Criteria                         | JORC Code explanation   | Commentary  |
|----------------------------------|---|---|
| <b>Database integrity</b>        | <ul style="list-style-type: none"> <li>- Measures taken to ensure that data has not been corrupted by for example transcription or keying errors between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>- Data validation procedures used.</li> </ul>  | <p>The database includes both drilling completed by previous explorers, drill holes recently completed by the Company and underground channel samples completed by the Company.</p> <p>Drill core from historic drilling has been recently re-logged and re-sampled. These data are transcribed by the database / GIS team into a database held on site at EMSA offices in Totara, Ecuador. Only the drill hole collar and down-hole survey from the historic data has been directly transcribed from the historic data. All other data is newly generated.</p> <p>Logging data from channel samples and drill holes completed by the Company (Phase 1 and Phase 2) are transcribed into the same database as the historic data. Drill hole collar, survey, logging is captured directly into MS Excel and peer reviewed before being given to the database team. Final assay data received from the labs is reviewed (blanks, duplicates and standards) and then added to the database. Backup copies of all data are retained in separate files.</p> <p>The drill hole data is backed up and is updated periodically.</p> |
| <b>Site visits</b>               | <ul style="list-style-type: none"> <li>- Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>- If no site visits have been undertaken indicate why this is the case.</li> </ul>   | <p>CEL representatives have visited from 2019, during early-stage exploration and drilling. Early site visits were undertaken to review the progress of exploration prior to drilling and to review historic drill core. The most recent site visit was in June 2022 to review the geology, drilling program, collection of data, sampling procedures, sample submission and exploration program. Competent Persons that completed the NI-43-101 report for presentation to the TSX completed site visits in early 2024 in preparation for completing that report and undertaking the Foreign Resource Estimate according to Canadian NI43-101 reporting standards.</p>   |
| <b>Geological interpretation</b> | <ul style="list-style-type: none"> <li>- Confidence in (or conversely the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>- Nature of the data used and of any assumptions made.</li> <li>- The effect if any of alternative interpretations on Mineral Resource estimation.</li> <li>- The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>- The factors affecting continuity both of grade and geology.</li> </ul> | <p>The geological interpretation and understanding of the controls on mineralisation has been used to model the geometry of the mineralised system. El Guayabo is a high-level porphyry intrusive and intrusive-related breccia complex with mineralisation controlled by regional scale and local scale fault-fracture zones and lithology contacts. Multiple pulses of mineralisation are evident in the alteration and vein overprinting relationships.</p> <p>Given the available data and understanding of the geological controls on mineralisation, the Competent Person has confidence in the geological model that has been used to constrain the high grade and low grade mineralised domains.</p> <p>At the El Guayabo deposits, continuity of grade between drill holes is determined by the intensity of fracturing, the host rock contacts (particularly intrusive – metamorphic sediment</p>   |

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|-------------------------------------|---|--|--------|----------|----------|--------|----------|-------------------|------|----|------|----|-------------------------|------|----|------|----|-------------------|------|---|------|----|------------------------|------|---|------|----|
|                                     |   | contacts). The high-grade mineralised domains have been built using explicit wireframe techniques using a nominal cut-off grade over a 2.0 metre interval of 0.7 – 1.0 g/t AuEq mineralised intersections, joined between holes using the AuEq grade, geology and controlling structure. The Low-grade domain surrounding the high-grade has been generated using Leapfrog to build a 0.2 g/t AuEq isosurface, following the main NE to ENE strike, dipping steeply NW with a nominal range of 200m.<br>No alternative interpretations have been generated that form the basis for a Mineral Resource Estimate.  |        |          |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |
| Dimensions                          | <ul style="list-style-type: none"><li>- The extent and variability of the Mineral Resource expressed as length (along strike or otherwise) plan width and depth below surface to the upper and lower limits of the Mineral Resource.</li></ul>  | <p>The Foreign Mineral Resource consists of 3 sub-parallel mineralisation domains.</p> <ul style="list-style-type: none"><li>- GY-A has a NE strike of 0.9 kilometres dipping NW at 80 degrees, width of 0.4 kilometres and is estimated to a depth of 650 metres below surface.</li><li>- GY-B has a NE strike of 0.5 kilometres, dipping NW at 80 degrees, width of 0.2 kilometres and is estimated to a depth of 400 metres below surface.</li><li>- GY-C has a ENE strike of 0.8 kilometres, dipping NNW at 80 degrees, width of 0.2 kilometres and is estimated to a depth of 450 metres below surface.</li></ul> <p>All 3 domains remain open in all directions.</p>   |        |          |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |
| Estimation and modelling techniques | <ul style="list-style-type: none"><li>- The nature and appropriateness of the estimation technique(s) applied and key assumptions including treatment of extreme grade values domaining interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li><li>- The availability of check estimates previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li><li>- The assumptions made regarding recovery of by-products.</li><li>- Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li><li>- In the case of block model interpolation the block size in relation to the average sample spacing and the search employed.</li><li>- Any assumptions behind modelling of selective mining units.</li><li>- Any assumptions about correlation between variables.</li></ul> | <p>The Foreign Resource Estimate was made for Au Ag, Cu and Mo being the elements of economic interest.</p> <p>A 2 metre composite length in the high-grade domain and a 3 metre composite length in the low-grade domain was selected after reviewing the composite statistics.</p> <p>A statistical analysis was undertaken on the sample composites top cuts for Au, Ag, Cu and Mo composites for each domain. The top-cut values were chosen by assessing the high-end distribution of the grade population within each domain and selecting the value above which the distribution became erratic. The following table shows the top cuts applied to each group.</p> <table><tr><th>Domain</th><th>Au (ppm)</th><th>Ag (ppm)</th><th>Cu (%)</th><th>Mo (ppm)</th></tr><tr><td>High-grade (GY-A)</td><td>4.00</td><td>25</td><td>1.25</td><td>40</td></tr><tr><td>High-grade (GY-B, GY-C)</td><td>4.00</td><td>15</td><td>1.00</td><td>40</td></tr><tr><td>Low-grade (GY-A,)</td><td>1.50</td><td>8</td><td>0.70</td><td>30</td></tr><tr><td>Low-grade (GY-B, GY-C)</td><td>1.25</td><td>5</td><td>0.15</td><td>30</td></tr></table> | Domain | Au (ppm) | Ag (ppm) | Cu (%) | Mo (ppm) | High-grade (GY-A) | 4.00 | 25 | 1.25 | 40 | High-grade (GY-B, GY-C) | 4.00 | 15 | 1.00 | 40 | Low-grade (GY-A,) | 1.50 | 8 | 0.70 | 30 | Low-grade (GY-B, GY-C) | 1.25 | 5 | 0.15 | 30 |
| Domain                              | Au (ppm)  | Ag (ppm)   | Cu (%) | Mo (ppm) |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |
| High-grade (GY-A)                   | 4.00  | 25   | 1.25   | 40       |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |
| High-grade (GY-B, GY-C)             | 4.00  | 15   | 1.00   | 40       |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |
| Low-grade (GY-A,)                   | 1.50  | 8  | 0.70   | 30       |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |
| Low-grade (GY-B, GY-C)              | 1.25  | 5  | 0.15   | 30       |          |        |          |                   |      |    |      |    |                         |      |    |      |    |                   |      |   |      |    |                        |      |   |      |    |

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|---------------------------|--|--|
|                           | <ul style="list-style-type: none"> <li>- <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>- <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>- <i>The process of validation the checking process used the comparison of model data to drill hole data and use of reconciliation data if available</i></li> </ul> | <p>Geostatistical modelling and variography for each domain and each variable were completed in Leapfrog Edge v5.1.2 and block modelling was undertaken in Leapfrog Geo software.</p> <p>A block model was set up with a parent cell size of 10m (E) x 10m (N) x 10m (RL).</p> <p>Variables in each domain were estimated using Ordinary Kriging. The orientation of the search ellipse and variogram model was controlled using surfaces designed to reflect the local orientation of the mineralized structures.</p> <p>An oriented “ellipsoid” search for each domain was used to select data for interpolation.</p> <p>Estimation search ellipse ranges were adjusted for each element in each domain based on the variogram ranges.</p> <p>Validation checks included statistical comparison between drill sample grades and Ordinary Kriging block estimate results for each domain. Visual validation of grade trends for each element along the drill sections was also completed in addition to swath plots comparing drill sample grades and model grades on a range of northings. These checks show good correlation between estimated block grades and drill sample grades.</p> <p>CEL completed a Mineral Resource Estimation that was reported to the ASX on 14 June 2024. No production records are available to provide comparisons.</p> |
| <b>Moisture</b>           | <ul style="list-style-type: none"> <li>- <i>Whether the tonnages are estimated on a dry basis or with natural moisture and the method of determination of the moisture content.</i></li> </ul>   | Tonnage is estimated on a dry basis.   |
| <b>Cut-off parameters</b> | <ul style="list-style-type: none"> <li>- <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>  | <p>The following metals and metal prices have been used to report gold grade equivalent (AuEq) for the Foreign Mineral Resource: Au US\$ 1600/ oz, Ag US\$19.50/oz, Cu 3.00 US\$/ lb (US\$ 6,614/ t) and Mo US\$ 53,000/ t.</p> <p>No metallurgical test work has been completed on the mineralisation at El Guayabo. The Foreign Resource Estimate assumes all metals will have equivalent recovery. Accordingly, the formula used for Au Equivalent in the Foreign Resource Estimate is:<br/> <math display="block">\text{AuEq g/t} = \text{Au g/t} + (\text{Ag g/t} \times 0.012188) + (\text{Cu \%} \times 1.29) + (\text{Mo \%} \times 10.3).</math></p> <p>The Foreign Resource Estimate is reported to a cut-off grade of 0.30 ppm AuEq. Under this scenario, blocks with a grade above the 0.30 g/t Au Eq cut off are considered to have reasonable prospects of mining by open pit methods.</p>   |

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52.1m perf rights

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| Criteria                                    | JORC Code explanation   | Commentary  |
|---|---|---|
| <b>Mining factors or assumptions</b>        | <ul style="list-style-type: none"> <li>- Assumptions made regarding possible mining methods minimum mining dimensions and internal (or if applicable external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>   | The Foreign Resource Estimate has assumed that near surface mineralisation would be amenable to open pit mining given that the mineralisation is exposed at surface. No assumptions have been made regarding mining widths or dilution.   |
| <b>Metallurgical factors or assumptions</b> | <ul style="list-style-type: none"> <li>- The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>  | No metallurgical test work has been completed on the El Guayabo mineralisation. The Foreign Mineral Resource assumes all metals will have equivalent recoveries.  |
| <b>Environmental factors or assumptions</b> | <ul style="list-style-type: none"> <li>- Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts particularly for a greenfields project may not always be well advanced the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul> | <p>It is considered that there are no significant environmental factors which would prevent mining.</p> <p>Mining is assumed to be crush, grind and sequential flotation with appropriate waste dump and tailings disposal. No detailed environmental impact studies have been completed.</p>   |
| <b>Bulk density</b>                         | <ul style="list-style-type: none"> <li>- Whether assumed or determined. If assumed the basis for the assumptions. If determined the method used whether wet or dry the frequency of the measurements the nature size and representativeness of the samples.</li> <li>- The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs porosity etc) moisture and differences between rock and alteration zones within</li> </ul>   | <p>The Company has collected 379 specific gravity (SG) measurements from drill core, which have been used to estimate block densities for the Resource Estimate.</p> <p>Measurements we determined on a dry basis by measuring the difference in sample weight in water and weight in air.</p> <p>The SG values across the different rock types and mineralisation styles are stable and so an average SG was applied for the whole block model to estimate the density.</p> <p>Of the SG values measure the range is 1.83 to 3.63 g/cc. The average value is 2.74 g/cc and the</p> |

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| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
|  | <p><i>the deposit.</i></p> <ul style="list-style-type: none"> <li>- <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>   | <p>median value is 2.73 g/cc.</p> <p>A bulk density value of 2.73 g/cc (2,730 kg/m3) was applied to the blocks to estimate tonnage.</p>  |
| <b>Classification</b>                              | <ul style="list-style-type: none"> <li>- <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>- <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations reliability of input data confidence in continuity of geology and metal values quality quantity and distribution of the data).</i></li> <li>- <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>   | <p>The Foreign Mineral Resource has been classified based on the guidelines specified according to NI-43-101 which has resource categories that are similar to the JORC categories. The classification level is based upon semi-qualitative assessment of the geological understanding of the deposit, geological and mineralisation continuity, drill hole spacing, QC results, search and interpolation parameters and an analysis of available density information.</p> <p>The estimation search strategy was undertaken in one pass with classification of the Foreign Mineral Resource as Inferred.</p> |
| <b>Audits or reviews</b>                           | <ul style="list-style-type: none"> <li>- <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>  | <p>The Foreign Mineral Resource estimate has not been independently audited or reviewed. CEL intends to review the Foreign Mineral Resource Estimate and update it to JORC reporting standards.</p>  |
| <b>Discussion of relative accuracy/ confidence</b> | <ul style="list-style-type: none"> <li>- <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits or if such an approach is not deemed appropriate a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>- <i>The statement should specify whether it relates to global or local estimates and if local state the relevant tonnages which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>- <i>These statements of relative accuracy and confidence of the estimate should be compared with production data where available.</i></li> </ul> | <p>There is sufficient confidence in the data quality, drilling methods and analytical results that they can be relied upon for resource estimation.</p> <p>No production data is available for comparison with block grades.</p>  |

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