Saracen

SARACEN MINERAL HOLDINGS LIMITED

ACN: 009 215 347

High grade drill results point to increases in mine life at Carosue Dam

Saracen on track to establish +10 year mine life, leveraging existing plant while creating value through exploration

Corporate Details:

15th February 2018

ASX code: SAR

Corporate Structure:

Ordinary shares on issue: 812.9m

Unvested employee performance rights: 14.2m

Market Capitalisation: A\$1.2b (share price A\$1.50)

Cash, bullion and investments (31 December): A\$82.9m

Debt: Nil

Directors:

Mr Geoff Clifford Non-Executive Chairman

Mr Raleigh Finlayson Managing Director

Mr Martin Reed Non-Executive

Dr Roric Smith Non-Executive

Ms Samantha Tough Non-Executive

Substantial Shareholders

Van Eck Global 12.1%

Wroxby 6.0%

Paradice 5.1%

Registered Office:

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Key Points

Carosue Dam

- At Karari, drilling has returned multiple thick high grade extensional results including:
 - 44.7m @ 4.4g/t
 - 17.3m @ 8.3q/t
 - 12.2m @ 9.3q/t
 - 19.0m @ 5.3g/t
 - 12.5m @ 6.1g/t
- New results located up to ~60m below the Ore Reserve, indicating further growth in mine life (annual vertical advance of mining ~60m)
- Third jumbo at Karari will expedite the development of a new drill platform facilitating further extensional and infill drilling
- At Whirling Dervish, southern extensional drilling up to 65m south of Ore Reserve has returned further thick high grade mineralisation including 10.4m @ 5.9g/t and 9.4m @ 8.1g/t
- Whirling Dervish remains open to the north, recent extensional results include 9.4m @ 7.2g/t and 12.9m @ 4.9g/t
- At Deep South, infill drilling highlights include 4.8m @ 10.8g/t, 2.2m @ 22.0g/t and 5.8m @ 6.7g/t
- All deposits remain open along strike and at depth
- Gravity work continues to highlight the prospectivity of the relatively untested 12km strike of the Carosue Dam corridor, with surface RC drilling planned in the June quarter 2018

Butcher Well (AngloGold earning up to 70%)

- Discovery at Old Camp, results include 49m @ 5.2g/t and 29m @ 12.9g/t
- Intersections define Old Camp as a strongly mineralised body below 300m and open at depth, and suggest an offset mineralised lode to the south (Old Camp Zone South, also open at depth)

Saracen Managing Director Raleigh Finlayson said the latest results provide further confirmation of the organic growth opportunities immediately adjacent to the Carouse Dam mill. "With Whirling Dervish showing early promise, and Karari's outstanding form continuing, Saracen is well positioned to continue mining at Carosue Dam for at least the next 10 years," he said.

Carosue Dam Operations - Drilling Update

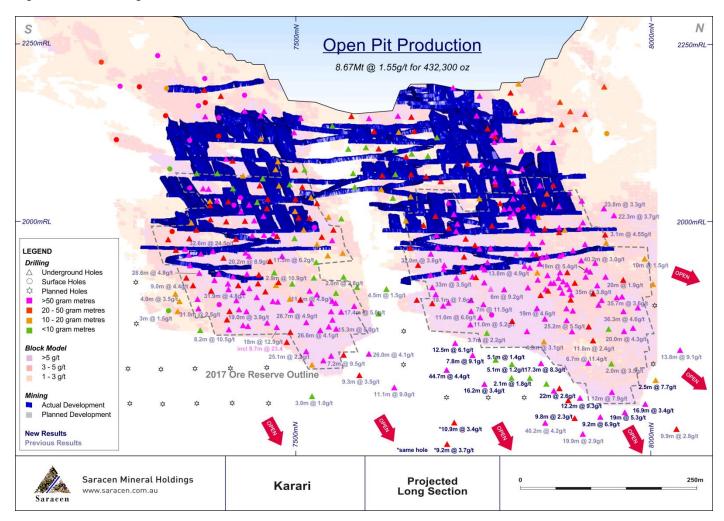
Drilling at Carosue Dam has continued with three diamond rigs operating across the three underground mines – Karari, Whirling Dervish, and Deep South.

Karari Underground

Drilling has continued to define the northern mineralisation outside of the current Ore Reserve.

A number of outstanding results have been returned including 17.3m @ 8.3g/t and 44.7m @ 4.4g/t.

Figure 1 - Karari Long Section, New Drill Results



Significant drill results include:										
KRRD236	17.3m @ 8.3g/t									
KRRD228	44.7m @ 4.4g/t									
KRRD240	12.2m @ 9.3g/t									
KRRD244	19.0m @ 5.3g/t									
KRRD224	12.5m @ 6.1g/t									
KRRD241A	9.2m @ 6.9g/t									

The addition of a third jumbo at Karari has expedited the development of a new drill position in the north, 150m below the existing platform. Completion is anticipated late in the March quarter 2018, enabling the deeper holes (up to 900m below surface) to be drilled from underground. The new platform will also be very well positioned to complete infill drilling in the north, further defining the area identified by recent drilling.

Whirling Dervish Underground

Drilling at Whirling Dervish has focused on extensional drilling to the south of the Ore Reserve aiming to define the mineralisation up to the Osman Fault, as well as infill and extensional drilling to the north.

A program of three holes was drilled directly into the Osman Fault aiming to locally understand the orientation and nature of the large regional fault. This definition highlighted the potential for additional strike to the south. This has now been confirmed with up to 65m of additional mineralisation identified to the south of the Ore Reserve.

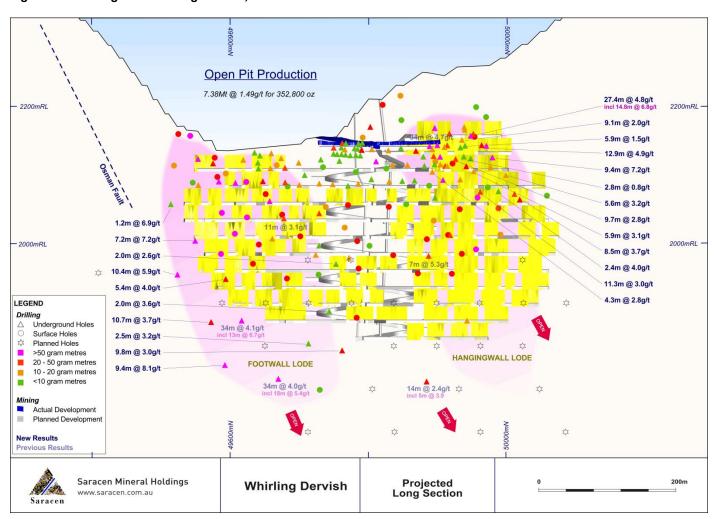


Figure 2 - Whirling Dervish Long Section, New Drill Results

Drilling in the north has confirmed the thick high grade mineralisation of the hangingwall lode, which remains open and will be subject to further extensional drilling from underground. Should the mineralisation continue further north, surface drilling may be required to define the lode extension.

Below is a table of significant Whirling Dervish extensional intercepts.

Significant drill res	ults include:	
WDEX010	9.4m @ 8.1g/t	FW
WDEX013	10.4m @ 5.9g/t	FW
WDGC038	7.2m @ 7.2g/t	FW
WDEX009	10.7m @ 3.7g/t	FW
WDRD055	9.8m @ 3.0g/t	FW
WDRD047	17.3m @ 2.1g/t	FW
WDGC029	9.4m @ 7.2g/t	HW
WDGC026	12.9m @ 4.9g/t	HW
WDEX003	8.5m @ 3.7g/t	HW

Below is a table of significant Whirling Dervish infill intercepts.

Significant drill res	sults include:	
WDRD048	27.4m @ 4.8g/t	HW
WDGC025	7.1m @ 2.8g/t	FW
WDGC069	5.4m @ 4.0g/t	FW
WDRD053	13.3m @ 2.0g/t	FW
WDRD054	11.3m @ 3.0g/t	HW
WDGC027	9.7m @ 2.8g/t	HW

Deep South Underground

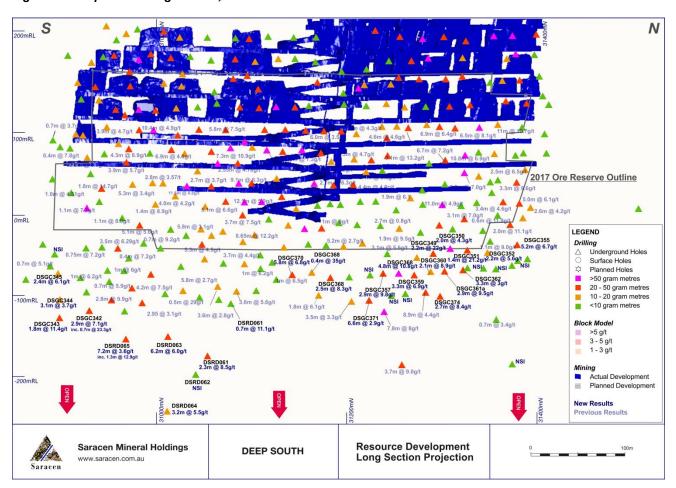
Drilling has continued at Deep South, focusing on the infill grade control in the north below the current Ore Reserve. This drilling has confirmed the high grade plunge indicated by previous drilling in this area.

With up to 100m below the Ore Reserve now fully grade controlled, attention turns to extensions below the well tested areas. The deeper drilling recently followed up in the south indicates the mineralisation persists with further drilling required.

Below is a table of significant Deep South intercepts.

Significant drill results	include:
DSGC358	4.8m @ 10.8g/t
DSRD061	2.2m @ 22.0g/t
DSGC371	6.2m @ 5.9g/t
DSGC370	5.8m @ 6.7g/t
DSGC348	3.8m @ 9.0g/t
DSGC351	1.4m @ 21.2g/t
DSGC362	2.9m @ 9.8g/t

Figure 3 - Deep South Long Section, New Drill Results



Butcher Well (AngloGold Ashanti earning up to 70%)

AngloGold Ashanti Australia Ltd (AGAA – ASX:AGG) has identified the Butcher Well orebody as a potential additional feed of ore to its Sunrise Dam Gold Mine, about 20km to the east, near Laverton. AGAA recently completed a diamond drilling program at Butcher Well, focused on the mineralisation identified by the initial AGAA drill programs at Enigmatic and Old Camp. AGAA is exploring Butcher Well under a Farm-in Agreement with Saracen (see press release dated 17 October 2016).

A number of significant intercepts were returned from the Old Camp drilling confirming the significance of this new discovery. The best results include 49m @ 5.2g/t from 589m downhole, 29m @ 12.9g/t from 562m downhole and 5m @ 31.0g/t from 416m downhole. This new discovery is deep and has underground potential. The new drilling has delineated two distinct zones (Old Camp North and South).

Eight new diamond holes were also drilled into the Enigmatic zone. This drilling has enabled better definition of the size and geometry of this zone. Results from this drilling include **5m** @ **10.6g/t** and **7m** @ **5.1g/t**.

Early stage metallurgical test work has been completed across the Enigmatic and Old Camp zones, highlighting metallurgical recoveries are variable (averaging between 40% and 80% through conventional processing circuits). This confirms previous analysis completed and further work is required to understand the distribution and geological factors influencing the recoveries.

Below is a table of significant Butcher Well intercepts.

Significant drill results include:										
BWD031	49m @ 5.2g/t	Old Camp								
BWD052	29m @ 12.9g/t	Old Camp								
BWD037	5m @ 31.0g/t	Old Camp South								
BWD041	5m @ 10.6g/t	Enigmatic								

Figures 4-7 below are sourced from AngloGold Ashanti.

Figure 4 - Enigmatic / Old Camp Plan View, Drilling

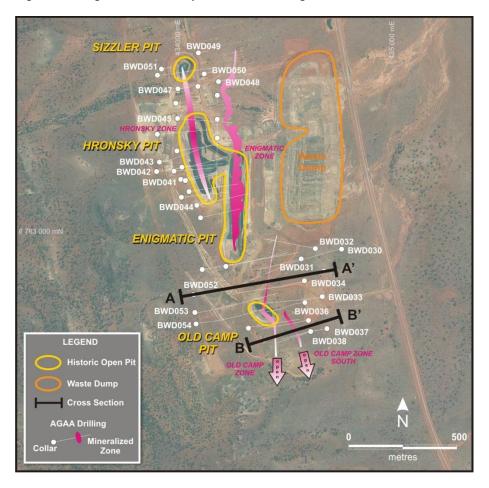


Figure 5 – Old Camp Cross Section, Drilling

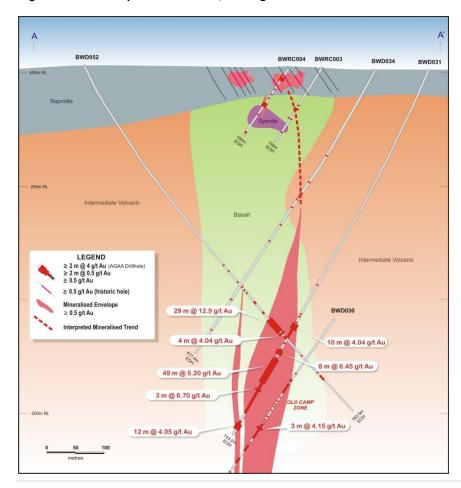


Figure 6 - Old Camp South Cross Section, Drilling

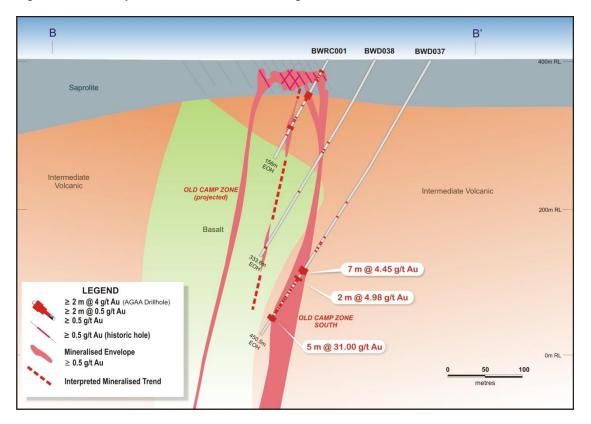
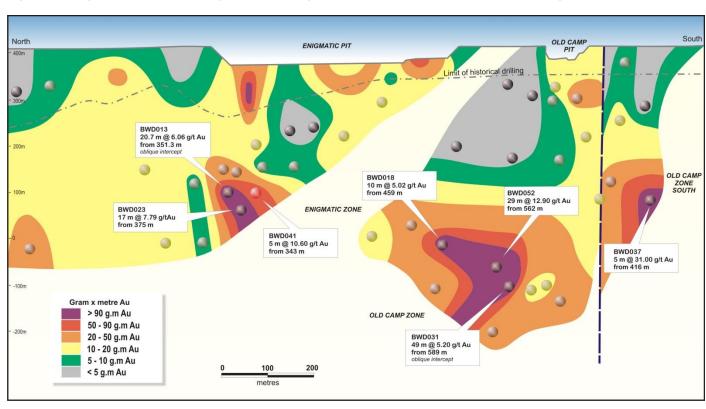


Figure 7 – Enigmatic / Old Camp Long Section (facing east), Gram-metre Plot Projected Onto Single Plane

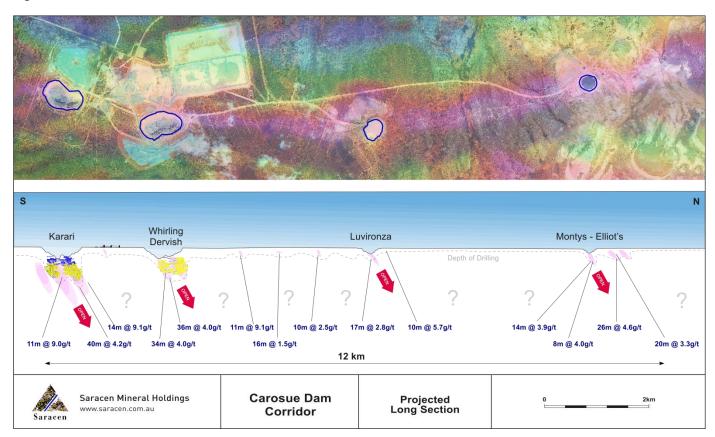


Regional Exploration – Update

Carosue Dam corridor

Recent detailed geological investigations at Karari and Whirling Dervish have shed new light on the outstanding prospectivity of the Carosue Dam corridor. The key stratigraphy host to the district's largest deposits is mapped in the coarse gravity data shown below.

Figure 8 – Carosue Dam Corridor



A gravity crew is currently improving the data spacing to more accurately refine the stratigraphy and controlling structures along the corridor. Shallow historical drilling highlights the potential of the system with multiple ore grade intercepts over the 12km strike not adequately followed up.

Target generation is currently in progress, with surface RC drilling planned to commence in the June quarter 2018.

Figure 9 - Target Attributes - Carosue Dam corridor

Target attributes:	
Shallow	Average depth of SAR underground mines ~350m (v peers ~700m)
Consistent geology	Mapping the prospective corridor
Persistent geology	All deposits open along strike and at depth
Under-explored	Deposits discovered within last 30 years (v ~100 years W.A. Goldfields)
Readily monetised	Near existing mill / infrastructure, high IRR / low risk opportunities

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Competent Person Statements

The information in the report to which this statement is attached that relates to Exploration Results and Mineral Resources related to Gold is based upon information compiled by Mr Daniel Howe, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Daniel Howe is a full-time employee of the company. Daniel Howe has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Daniel Howe consents to the inclusion in the report of matters based on his information in the form and context in which it appears

Table 1 – Karari Drill Results

KARARI DRIL	LING FEBRU	ARY 2018								Downhole	•
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m	Grade g/t
KRGC534	438620.3	6663213	-32.3	74.8	180.7	-20.	26	39.8	40.46	0.66	3.01
							and	41.52	42.24	0.72	3.35
							and	45.96	54.52	8.56	8.27
							and	61.5	62.7	1.2	3.20
							and	69	72	3	2.67
KRGC535	438620	6663214	-32.249	45	234.1	-22.	29	4	5	1	6.67
							and	19.3	21.29	1.99	10.96
							and	26.35	27.48	1.13	3.65
							and	34.28	34.86	0.58	5.76
							and	35.98	38.49	2.51	8.94
KRRD224	438616.9	6663641	71.565	293.6	181.99	-61.	88	251		0.5	
							and	267.5		12.5	
KRRD225	438617	6663641	71.536	311.7	172	-55.		nificant interce			
KRRD226	438616.9	6663641		308.9	195.8			245	1	0.65	8.10
_							and	267.5		0.5	
							and	272.9		5.1	
KRRD227	438616.9	6663641	71.549	318	176.1	-68.		277.35	285.15	7.8	
KRRD228	438616.8	6663641		357				283		44.7	
KRRD229	438616.8	6663640		341.72		-80.		274		5.1	
KRRD230	438616.9	6663641		350.5	164.55	-73.		287.8		1.6	
KKKB250	430010.3	00030-11	71.007	330.3	104.55	, , , ,	and	296.45		1.15	
							and	305.05	321.25	16.2	
KRRD231	438617.1	6663641	71.565	438	154.7	-68.		375.12		10.88	
KKKDZ51	430017.1	0003041	71.505	730	154.7	00.	and	408.9	418.05	9.15	
KRRD232	438603.6	6663646	71.497	300	212.5	-79.		192.1		7.75	
KKKB232	430003.0	0003040	71.437	300	212.3	, , , ,	and	205.9		1.95	
							and	215.1	215.95	0.85	
							and	266.1	266.8	0.7	
KRRD233	438603.7	6663646	71.483	338.7	202.8	-85.		225.25	230.4	5.15	
KRRD234	438606.8	6663647	71.37	366				239.55	240.4	0.85	
KKKDZ54	+30000.0	0003047	71.57	300	200.4	05.	and	271.85	272.6	0.75	
							and	299.9		3.1	
KRRD235	438606.8	6663647	71.37	423	70.8	-86.		276		2.9	
KIKIDZSS	430000.0	0003047	71.57	723	70.0	00.	and	297.95		20.05	
							and	326.2	327	0.8	
							and	335.3		0.7	
KRRD236	438606.8	6663695	67.761	306	213.8	-74.		209.9		3.1	
KKKD230	430000.0	0003033	07.701	300	213.0	-74.	and	218.7		0.7	
KDDD3374	420000 7	cccacoc	C7 C12	220	210.2	01	and	272		17.25	
KRRD237A	438606.7	6663696	67.612	336	218.3	-81.		240		1	
KDDD330	420000	CCCCCC	C7 F07	204	220.047	05	and	304		5	
KRRD238	438606.8	6663695	67.597	381	230.947	-85.		241.7		1.2	
							and	257.7		3.5	
							and	266.2	266.5	0.3	
							and	271	273	2	
							and	317.3		6.7	
							and	337.05	338	0.95	3.02

KARARI DRIL	LING FEBRU	JARY 2018								Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
KRRD239	438607.5	6663696	67.644	394.7	130.8	-87.46		146	146.45	0.45	3.38
							and	294.85	297.95	3.1	5.17
							and	307	308.83	1.83	4.23
							and	312.4	312.7	0.3	3.99
							and	324	324.9	0.9	2.89
							and	330	330.7	0.7	6.75
							and	335.5	335.9	0.4	3.22
							and	338.2	348	9.8	2.33
							and	352	353	1	2.85
KRRD240	438606.6	6663696	67.62	351.1	272	-81.96		249.1	249.6	0.5	2.98
							and	262	265.9	3.9	3.55
							and	274	274.3	0.3	2.85
							and	311.85	324	12.15	9.28
KRRD241A	438606.4	6663696	67.603	387.1	309.97	-82.37		282.1	285.1	3	2.84
							and	288.5	290	1.5	3.09
							and	337.85	347	9.15	6.93
KRRD242	438598.9	6663709	67.52	372	310	-70.22		334	350.9	16.9	3.39
							and	357.35	358.2	0.85	3.10
							and	364.05	364.35	0.3	7.16
KRRD243	438598.9	6663709	67.52	368.92	312.1	-64.02		319.85	322.3	2.45	7.70
KRRD244	438598.9	6663709	67.52	378.12	318.1	-77.79		298.06	298.42	0.36	7.28
							and	333.03	352	18.97	5.32
KRRD245	438607.5	6663696	67.644	335.82	296.6	-68.44		295.9	296.4	0.5	4.34
							and	296.65	297.15	0.5	4.46

Table 2 – Whirling Dervish Drill Results

WHIRLING D	ERVISH DRIL	LING FEBR	UARY 2018	3						Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
WDEX001	438260.9	6665624	142.264	304.92	277.77	-16.64		125.32	125.96	0.64	7.08
							and	137.77	143.4	5.63	3.19
							and	160.18	160.85	0.67	2.76
							and	288	290.84	2.84	5.47
WDEX002	438260.9	6665624	142.488	288	280.50	-30.16		132	133	1	2.87
							and	136.9	139.3	2.4	4.04
							and	255.65	256.55	0.9	4.79
							and	269.1	271	1.9	4.10
							and	274.05	275	0.95	2.54
WDEX003	438260.9	6665624	142.7	318	286.30	-27.17		138.2	139	0.8	2.99
							and	145.3	153.75	8.45	3.73
							and	297.6	298.4	0.8	3.00
WDEX004	438379.3	6665510	141.188	633	103.90	-73.58	no signif	icant interce	epts		
WDEX006	438383.6	6665508	142.666	237.1	117.40	-30.98	no significant intercepts				
WDEX007	438382.8	6665507	142.693	177.02	148.00	-3.33	no signif	icant interce	epts		
WDEX008	438379.8	6665509	141.254	414	207.70	-71.65	results p	ending			
WDEX009	438382.1	6665507	141.246	357	164.60	-55.55		233.25	234.25	1	2.64
							and	243.1	244.1	1	3.06
							and	258.1	266	7.9	2.78
							and	304	314.7	10.7	3.71
WDEX010	438381.9	6665507	141.238	442.6	153.60	-65.80		267.6	269	1.4	5.071
							and	320.8	321.1	0.3	4.85
							and	344	353.4	9.4	8.099
WDEX011	438380.5	6665508	141.381	1	160.30	-48.90	results p	ending			

WDEXO12A 438382.2 6665507 141.243 344.8 168.00 -42.09 154.7 155 0.3	WHIRLING DE	RVISH DRIL	LING FEBR	UARY 2018	3				Downhole			
March Marc	Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
MDEXO13	WDEX012A	438382.2	6665507	141.243	344.8	168.00	-42.09		154.7	155	0.3	4.19
MOEXO13								and	155.95	157.2	1.25	3.67
WDEX013								and	175	176	1	2.51
WDEX013								and	224.8	225.15	0.35	7.30
WDEX013 438382.3 6665507 141.273 450.4 161.40 -38.02 146 147.15 1.15 ABAREL STATE								and	252.5	261.1	8.6	3.32
March Marc								and	265.75	272	6.25	5.02
Marco Marc	WDEX013	438382.3	6665507	141.273	450.4	161.40	-38.02		146	147.15	1.15	4.05
MDEX014 438382.9 6665508 141.377 420 151.40 -45.25 no significant intercepts 101.4 10.4								and	155.8	157.1	1.3	4.00
WDEX014								and	231.3	232	0.7	2.88
WDEXO14								and	235	235.55	0.55	3.91
WDEX014 438382.9 6665508 141.377 420 151.40 -45.25 no significant intercepts 74 0.5 WDGC025 438262.2 6665623 143.795 292.6 239.7 1.18 73.50 74 0.5 Local Control 438262.2 6665623 143.795 292.6 239.7 1.18 73.50 74 0.5 Local Control 438262.4 6665623 143.795 292.6 239.7 1.36 and 79.00 81.2 2 Local Control 438262.4 6665623 143.854 295 247.89 1.4 95.60 99.2 3.6 Local Control 438262.4 6665623 143.854 295 247.89 1.4 95.60 99.2 3.6 WDGC027 438262.4 6665623 143.854 295 247.89 -2.3 155.91 165.65 9.74 WDGC027 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5								and	284.65	285	0.35	9.53
WDGC025 438262.2 6665623 143.795 292.6 239.7 1.18 73.50 74 0.5 and 79.00 81 2 and 79.00 81 2 and 92.55 93.5 0.95 3.0 5.9 3.6 0.3 and 267.00 172.1 120 0.3 3.6 0.3 3.6 0.3 WDGC026 438262.4 6665623 143.854 295 247.89 1.4 95.60 99.2 3.6 and 176.52 182.02 5.5 3.6 3.6 3.3 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.6 0.96 3.2 3.2 3.2 3.2 3.2 3.2 3.2 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>and</td> <td>291</td> <td>301.4</td> <td>10.4</td> <td>5.86</td>								and	291	301.4	10.4	5.86
Marco Marc	WDEX014	438382.9	6665508	141.377	420	151.40	-45.25	no signific	ant interc	epts		
Marco Marc	WDGC025	438262.2	6665623	143.795	292.6	239.7	1.18		73.50	74	0.5	7.03
MDGC026								and	79.00	81	2	3.366
Marco Marc								and	92.55	93.5	0.95	4.653
MDGC026								and	116.15	118	1.85	4.581
MDGC026 438262.4 6665623 143.854 295 247.89 1.4 95.60 99.2 3.6								and	173.00	178.9	5.9	1.5
WDGC026								and	201.70	202	0.3	
WDGC026 438262.4 6665623 143.854 295 247.89 1.4 95.60 99.2 3.6 WDGC026 438262.4 6665623 143.854 295 247.89 1.4 95.60 99.2 3.6 WDGC027 438262.4 6665623 143.854 295 247.89 -2.3 155.91 165.65 9.74 WDGC027 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 and 92.65 93 0.35 and 119.9 0.9 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 WDGC037 438382.4 6665507 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>and</td><td>263.30</td><td>263.6</td><td>0.3</td><td>6.23</td></t<>								and	263.30	263.6	0.3	6.23
Second S								and	267.00	274.1	7.1	2.84
Marcology Marc	WDGC026	438262.4	6665623	143.854	295	247.89	1.4		95.60	99.2	3.6	3.635
MDGC027								and	112.30	113.26	0.96	2.69
MDGC027								and	176.52	182.02	5.5	4.949
WDGC027 438262.4 6665623 143.854 295 247.89 -2.3 155.91 165.65 9.74 WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 and 92.65 93 0.35 and 119 119.9 0.9 and 176.4 177 0.6 and 180.8 190.2 9.4 and 259 261 2 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 WDGC030 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 277 278 1 and 277 278 1 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.								and	185.12			4.87
WDGC027 438262.4 6665623 143.854 295 247.89 -2.3 155.91 165.65 9.74 WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 and 119 119.9 0.9 and 119 119.9 0.9 and 176.4 177 0.6 and 180.8 190.2 9.4 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 WDGC030 438382.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 WDGC037 438382.4 6665507 141.281 365								and	203.00	210.71	7.71	4.152
WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 and 92.65 93 0.35 and 119 119.9 0.9 and 176.4 177 0.6 and 180.8 190.2 9.4 and 259 261 2 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 and 99 103.25 4.25 and 139 140 1 and 210 212.8 2.8 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 277 278 1 and 277 278 1 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438								and	274.33	276.94	2.61	1.2
WDGC029 438262.4 6665623 143.623 276 251.80 -5.89 75.7 76.5 0.8 and 92.65 93 0.35 and 119 119.9 0.9 and 176.4 177 0.6 and 180.8 190.2 9.4 and 259 261 2 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 and 99 103.25 4.25 and 139 140 1 and 210 212.8 2.8 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 277 278 1 and 277 278 1 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438	WDGC027	438262.4	6665623	143.854	295	247.89	-2.3		155.91	165.65	9.74	2.83
Marco Marc								and	237.90	249.1	11.3	1.77
Marco Marc	WDGC029	438262.4	6665623	143.623	276	251.80	-5.89		75.7	76.5	0.8	5.67
And 176.4 177 0.6 180.8 190.2 9.4 180.8 190.2 9.4 180.8 190.2 9.4 180.8 190.2 9.4 180.8 190.2 9.4 180.8 190.2 9.4 180.8 190.2 180.8 190.2 180.8 180.8 190.2 180.8								and	92.65	93	0.35	2.97
WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 and 99 103.25 4.25 and 139 140 1 and 210 212.8 2.8 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 wDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 1 wDGC063								and	119	119.9	0.9	8.34
WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 and 99 103.25 4.25 and 139 140 1 and 210 212.8 2.8 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 141 142 1 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 wDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 200.03 200.03 214.00								and	176.4	177	0.6	8.30
WDGC030 438262.4 6665623 143.623 222.5 240.98 -12.74 84.7 86.6 1.9 and 99 103.25 4.25 and 139 140 1 and 210 212.8 2.8 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC063 43834.5 6665503 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	180.8	190.2	9.4	7.18
and 99 103.25 4.25 and 139 140 1 and 210 212.8 2.8 WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 141 142 1 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 212.2 213.05 0.85 and 223.1 223.55 0.45 and 262.3 269.5 7.2 WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	259	261	2	3.98
WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 141 142 1 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 and 2212.2 213.05 0.85 and 223.1 223.55 0.45 wDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1	WDGC030	438262.4	6665623	143.623	222.5	240.98	-12.74		84.7	86.6	1.9	2.85
WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 141 142 1 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 and 223.1 223.05 0.85 and 223.1 223.55 0.45 wDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	99	103.25	4.25	2.78
WDGC037 438382.4 6665507 141.281 353.2 173.80 -16.07 21 21.3 0.3 and 141 142 1 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 and 221.2 213.05 0.85 0.85 and 223.1 223.55 0.45 and 262.3 269.5 7.2 WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	139	140	1	3.25
and 141 142 1 and 277 278 1 and 287.85 289 1.15 and 310.8 311.3 0.5 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 and 2212.2 213.05 0.85 and 223.1 223.55 0.45 and 262.3 269.5 7.2 WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	210	212.8	2.8	2.24
WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC063 438384.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1	WDGC037	438382.4	6665507	141.281	353.2	173.80	-16.07		21	21.3	0.3	17.00
WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 308 311.3 308 311.3 308 311.3 308 311.3 30.5 30.5 30.5 30.5 30.5 30.5 30.5 30.5 30.5 30.5 30.85								and	141	142	1	1.03
WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 and 221.2 213.05 0.85 and 223.1 223.55 0.45 and 262.3 269.5 7.2 WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	277	278	1	2.71
WDGC038 438382.4 6665507 141.281 365 173.41 -31.21 151 152 1 212.2 213.05 0.85 and 223.1 223.55 0.45 and 262.3 269.5 7.2 WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	287.85	289	1.15	6.88
212.2 213.05 0.85								and	310.8	311.3	0.5	5.92
WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1	WDGC038	438382.4	6665507	141.281	365	173.41	-31.21					
WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1									212.2	213.05	0.85	3.63
WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	223.1	223.55	0.45	5.39
WDGC063 438334.5 6665533 140.449 306 214.00 -57.78 63 64 1 and 107 108 1								and	262.3	269.5	7.2	
and 107 108 1	NDGC063	438334.5	6665533	140.449	306	214.00	-57.78		63	64	1	3.67
\parallel								and	144.55			
and 147 148 1												
and 158 158.35 0.35												
and 161 161.5 0.5												
and 171 173.5 2.5												
and 203.2 205.25 2.05												

WHIRLING D	ERVISH DRIL	LING FEBR	UARY 2018							Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
WDGC064	438334.8	6665534	140.293	323.7	201.10	-71.19		187.75	188.9	1.15	5.34
							and	234.45	235.35	0.9	3.40
							and	251.45	253.15	2	3.56
WDGC068	438379	6665509	141.318	308.8	206.50	-68.69	results p				
WDGC069	438382	6665507	141.253	327.8		-46.96		183	188.2	5.2	1.52
							and	227.8	230		2.91
							and	248.9	249.5		2.77
							and	259.65	265.05		4.04
							and	270.05	273.95	3.9	3.47
WDRD044	438380.3	6665509	141.21	465.07	162.81	-60.50		174	177		1.39
WDRD047	438262.4	6665623	143.623	332.9	250.40	5.74		87	87.75	0.75	4.38
							and	92.5	101.55	9.05	1.99
							and	119.05	120	0.95	2.86
							and	130.8	131.8	1	3.27
							and	192.6	193.9	1.3	7.31
							and	212	221.4	9.4	3.33
							and	289.7	307	17.3	2.06
WDRD048	438262.4	6665623	143.623	341.8	260.13	4.51		89.55	117	27.45	4.79
							incl	100.5	115.35	14.85	6.83
							and	159.4	160	0.6	3.22
							and	173.3	174.1	0.8	2.82
							and	221.5	224	2.5	5.74
							and	236.8	238.9	2.1	4.01
							and	243	243.85	0.85	4.95
							and	329.65	330.5	0.85	17.80
WDRD050	438262.4	6665623	143.623	272.5	254.50	-11.28		90.1	92.9	2.8	0.75
							and	176.75	178	1.25	3.83
							and	231.45	232.3	0.85	5.25
							and	238.4	241	2.6	3.05
WDRD053	438262.4	6665623	143.623	261	261.70	-19.23		105.95	111.85	5.9	3.10
							and	110.7	111.85	1.15	8.15
							and	168.85	171	2.15	8.50
							and	224.65	225.6	0.95	3.08
							and	230.75	244	13.25	2.00
WDRD054	438261.6	6665624	142.518	261	268.40	-33.35		112.35	123.65	11.3	2.98
							and	121.1	122.7	1.6	8.15
							and	145.1	145.55	0.45	3.01
							and	214	215		2.86
							and	217			3.99
WDRD055	438334.7	6665534	140.291	318.1	205.30	-83.79		157.4	161.8	4.4	2.65
							and	260.8	263.45		3.42
							and	288.35	289		4.92
							and	293.15	302.9		3.00
WDRD059	438379.5	6665509	141.254	358.3	214.5	-79.43		158.25	161.55		3.05
							and	167	167.65		4.91
							and	223.9	227.8	3.9	5.54
							and	253.06	253.38	0.32	5.39
							and	290.92	291.96	1.04	5.33

Table 3 – Deep South Drill Results

DEEP SOUTH										Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
DSGC342	456104.7	6731147	85.66	272.7	116.03	-52.97		230.4	230.9	0.5	4.17
							and	236.9	237.55	0.65	23.29
							and	238.44	239.8	1.36	3.80
							and	257.5	258	0.5	3.39
DSGC343	456104.8	6731147	85.641	305.7	121.98	-50.45		254.1	255.9	1.8	11.42
DSGC344	456105.2	6731144	86.052	293.7	118.60	-47.11		238.65	240	1.35	4.97
							and	241.4	244.5	3.1	3.65
							and	247.76	248.1	0.34	3.87
							and	282.25	282.75	0.5	2.85
DSGC345	456105.3	6731144	86.11	284.8	117.51	-41.21		226.55	228.9		
							and	231.33	231.75		
DSGC346A	456105.2	6731144	86.22	275.9	116.73	-35.24		223.95	224.73		
DSGC347	456105.3	6731144	86.303			-23.42		166.6	167.1		
DSGC348	456058.8	6731381	42.915			-42.80		115.6	119.45		
DSGC349	456024.4	6731434	43.972			-40.29		129.83			
5566515	13002 11 1	0,31,31	13.372	117.07	02.03	10.23	and	134	136.22		
DSGC350	456024.4	6731434	43.988	135	72.21	-30.16		121.86	123.89		
D3GC330	130021.1	0731434	43.300	155	72.21	30.10	and	125.43	127.2		
DSGC351	456024.1	6731434	44.022	147	62.25	-39.01	anu	128.9	130.3		
D3GC331	430024.1	0/31434	44.022	147	02.23	-39.01	and	133.5	130.3		
DCCCSES	456024.1	6721424	44.012	152	F2 01	27.26					
DSGC352	456024.1	6731434	44.012					138.9	141.05	2.15	5.61
DSGC353	456024	6731435	43.965					ficant interce	•		
DSGC354	456022.7	6731438	44.117				no signi	ficant interce	•		
DSGC355	456022.6	6731438	44.149					132.1	137.25	5.15	6.66
DSGC356	456059	6731381	42.763				no signi	ficant interce			
DSGC357	456058.9	6731381	42.859	149.9	79.76	-51.77		119.85	120.8		
							and	134.7	137.6		
DSGC358	456058.8	6731381	42.903	147	67.67	-52.81		128.3	133.1	4.8	10.83
DSGC359	456058.8	6731381	43.048	150	54.97	-52.07		119.95	120.5	0.55	3.61
							and	130.75	131.2	0.45	15.20
							and	132.5	134.05	1.55	10.46
DSGC360	456024.4	6731433	44.021	155.5	83.79	-47.85		131.25	131.6	0.35	22.00
							and	140.1	141	0.9	2.87
							and	144.25	146.3	2.05	8.88
DSGC361A	456024.5	6731434	43.903	156	73.70	-48.88		139	141.85	2.85	9.45
DSGC362	456024.1	6731434	44.122	156	62.00	-47.17		141.7	145	3.3	6.34
DSGC363	456024.1	6731434	43.915					147.21			
							and	150.12			
DSGC364	456024	6731434	43.983	173.8	42.36	-44.07	no signi	ficant interce			
DSGC365	456022.6	6731438	44.215				_	ficant interce	•		
DSGC366	456022.5	6731438	44.172					148.6	•	0.5	2.95
200000	.55522.5	0,02.00	/_	256		.2.00	and	149.6			
DSGC367	456099	6731173	219.621	234	93.21	7.13		194	194.35		
2330307	730033	0/311/3	213.021	234	23.21	7.13	and	207.5	210		
							and	220.15			
DSCC360	456101 O	6731344	10 204	122	02.50	E2 04					
DSGC368	456101.9	0/31344	19.204	123	93.56	-52.91		99.7 105.0			
DCCCCC	4EC101.0	6724242	10 175	422	100.00	40.00	and	105.9			
DSGC369	456101.9	6731343	19.175	123	108.68	-48.00		106.6			
DCCC370	456404.0	6724242	40.40	407	140.00	42.62	and	110.2			
DSGC370	456101.9	6731343	19.18					121.6	127.4		
DSGC371	456058.6	6731380	42.636	177	88.63	-58.09		153.5	160.14		
							and	172.03		0.97	3.83
DSGC372	456058.5	6731380	42.632				_	ficant interce	•		
DSGC373	456058.4	6731381	42.642	171	59.23	-60.02		147.09	147.43		
DSGC374	456024.5	6731433	43.845	177	76.65	-56.45		141.2	141.5	0.3	3.24
							and	149.05	151.75	2.7	8.39

DEEP SOUTI	H DRILLING	FEBRUARY	2018							Downhole	
Hole	Easting	Northing	RL	Depth	Azimuth	Dip		From (m)	To (m)	Width (m)	Grade g/t
DSGC376	456023.8	6731434	43.686	179.7	24.42	-53.89	results pe	ending			
DSGC378	456023.5	6731434	43.673	179.7	24.42	-51.17	results pe	ending			
DSGC379	456022.5	6731438	44.278	170.9	18.63	-32.35	results pe	ending			
DSRD060	456097.6	6731175	85.181	281.3	47.92	-64.40		203.45	204.17	0.72	11.08
							and	239.17	239.5	0.33	3.23
DSRD061	456097.6	6731175	85.178	269.7	71.36	-67.41		259.28	261.58	2.3	8.51
DSRD062	456097.6	6731175	85.143	311.79	72.05	-75.16		263.37	263.9	0.53	3.42
							and	278.8	279.28	0.48	2.84
DSRD063	456101.7	6731158	85.455	281.3	86.02	-67.22		230	230.4	0.4	3.25
							and	233.3	239.45	6.15	5.98
							and	249.7	250.15	0.45	4.36
							and	254.5	255	0.5	3.30
DSRD064	456101.6	6731159	85.463	332.6	88.45	-72.91		244	244.45	0.45	3.24
							and	273.4	273.9	0.5	6.19
							and	276.9	277.4	0.5	3.62
							and	283.1	283.9	0.8	3.32
							and	286.98	287.65	0.67	6.84
							and	311.45	314.65	3.2	5.51
DSRD065	456104.7	6731147	85.858	288	100.39	-63.54		228.8	229.8	1	4.83
							and	238.9	240.2	1.3	12.89
							and	241.75	246.1	4.35	2.84
							and	248.9	249.75	0.85	3.16

Table 4 – Butcher Well Drill Results (2m @ 4g/t, deeper than 175m downhole)

BUTCHERS W	ELL DRILLING	FEBRUARY	2018						Downhole	
lole	Easting	Northing	RL	Dip	Azimuth	Depth	From (m)	To (m)	Width (m)	Grade g/
BWD019	434090	6762845	411.0	-62.5	77.0	774.1	601	606	5	7.20
(re-entry)										
BWD030	434744	6762939	407.4	-61.8	257.8	905.1	761	764	3	4.15
BWD031	434661	6762834	410.4	-63.4	260.5	743.2	517	527	10	4.04
							571	579	8	6.45
							589	638	49	5.20
							650	653	3	6.70
							720	732	12	4.05
BWD032	434618	6762942	407.5	-63.3	281.3	550.0	389	391	2	5.90
BWD033	434651	6762710	409.7	-62.0	260.1	705.6	No Signifi	cant Inte	rcept	
BWD034	434567	6762787	409.5	-60.2	259.2	611.4	No Signifi	cant Inte	rcept	
BWD035	434567	6762687	409.9	-60.3	259.1	381.5	No Significant Intercept			
BWD036	434585	6762600	410.0	-60.6	259.2	432.4	174	177	3	4.58
							180	182	2	10.20
							371	374	3	10.20
BWD037	434670	6762560	410.8	-60.3	258.9	450.5	338	345	7	4.45
							353	355	2	4.98
							416	421	5	31.00
BWD038	434594	6762546	410.5	-60.4	258.7	333.6	No Signifi	cant Inte	rcept	
BWD039	433980	6763320	407.0	-50.4	74.3	379.3	185	188	3	7.46
							322	325	3	6.24
BWD040	434004	6763267	407.0	-50.5	78.8	318.5	No Signifi	cant Inte	rcept	
BWD041	433979	6763271	407.0	-63.9	77.7	399.6	343	348	5	10.60
BWD042	433866	6763310	409.0	-64.1	73.3	96.0	No Signifi	cant Inte	rcept	
BWD043	433879	6763355	408.7	-63.8	74.3	687.5	No Signifi	cant Inte	rcept	
BWD044	434055	6763150	410.0	-50.2	78.4	399.1	116	122	6	4.56
BWD045	433966	6763561	409.6	-50.1	95.3	408.4	No Signifi	cant Inte	rcept	
BWD046	434066	6763714	408.8	-60.0	77.0	96.0	No Significant Intercept			
BWD047	433973	6763702	408.9	-60.0	77.0	96.0	39	44	5	6.39

BUTCHERS W	ELL DRILLING	FEBRUARY	2018						Downhole	
Hole	Easting	Northing	RL	Dip	Azimuth	Depth	From (m)	To (m)	Width (m)	Grade g/
BWD048	434164	6763736	407.9	-60.0	77.0	96.0	No Signifi	icant Inter	cept	
BWD049	434066	6763873	409.2	-60.0	77.0	96.0	No Signifi	icant Inter	cept	
BWD050	434095	6763771	408.8	-60.0	77.0	96.0	No Signifi	icant Inter	cept	
BWD051	433891	6763796	409.2	-60.0	77.0	96.0	No Signifi	icant Inter	cept	
BWD052	434039	6762725	414.0	-60.4	78.4	783.5	562	591	29	12.90
							594	598	4	4.04
BWD053	434046	6762641	415.0	-61.3	82.0	735.1	561	566	5	13.00
							572	574	2	9.21
BWD054	434049	6762587	418.0	-63.5	84.7	759.3	No Signifi	icant Inter	cept	
BWRC001	434440	6762870	408.0	-59.5	258.0	150.0	No Significant Intercept			
BWRC002	434380	6762860	411.0	-60.9	258.8	156.0	No Significant Intercept			
BWRC003	434467	6762775	410.0	-60.6	257.7	150.0	No Significant Intercept			
BWRC004	434410	6762760	410.0	-59.7	258.3	150.0	No Significant Intercept			
BWRC005	434480	6762725	411.0	-60.0	257.9	162.0	No Signifi	No Significant Intercept		
BWRC006	434500	6762680	411.0	-60.2	257.2	156.0	No Signifi	icant Inter	cept	
BWRC007	434466	6762669	411.0	-60.5	258.5	150.0	No Signifi	icant Inter	cept	
BWRC008	434490	6762625	410.0	-60.2	259.8	156.0	95	97	2	5.44
							107	111	4	4.72
							144	149	5	4.59
BWRC009	434520	6762580	410.0	-59.8	258.7	156.0	No Signifi	icant Inter	cept	
BWRC010	434420	6762910	410.0	-60.6	259.6	156.0	141	143	2	4.17
BWRC011	434420	6762960	410.0	-60.6	257.5	150.0	No Signifi	icant Inter	cept	
BWRC012	434364	6762949	409.7	-60.4	260.7	150.0	No Signifi			
BWRC013	434364	6763101	408.5	-60.0	258.5	150.0	No Signifi	icant Inter	cept	
BWRC014D	434147	6763021	410.0	-60.0	77.0	526.8	129	133	4	4.89
BWRC015	434175	6763800	410.0	-60.3	78.4	150.0	No Signifi	icant Inter	cept	

Table 5 – Butcher Well Drill Results (2m @ 0.5g/t, shallower than 175m downhole)

BUTCHERS W	ELL DRILLING	G FEBRUARY	2018						Downhole	
Hole	Easting	Northing	RL	Dip	Azimuth	Depth	From (m)	To (m)	Width (m)	Grade g/
BWD019	434090	6762845	411.0	-62.5	77.0	774.1	200	204	4	1.15
(re-entry)							291	297	6	1.02
							333	335	2	1.15
							491	493	2	1.33
							585	589	4	1.09
							593	597	4	2.05
							600	607	7	5.49
BWD030	434744	6762939	407.4	-61.8	257.8	905.1	666	687	21	1.11
							752	784	32	2.16
							793	795	2	1.25
							826	838	12	1.04
BWD031	434661	6762834	410.4	-63.4	260.5	743.2	512	547	35	2.82
							566	580	14	4.2
							584	702	118	2.95
							714	734	20	2.81
BWD032	434618	6762942	407.5	-63.3	281.3	550.0	385	393	8	1.82
							399	424	25	1.06
							427	438	11	1.14
							441	450	9	1.06
							458	461	3	1.32
BWD033	434651	6762710	409.7	-62.0	260.1	705.6	527	532	5	1.11
							539	543	4	3.88
							579	596	17	1.88
							625	644	19	1.69
							664	667	3	1.54
BWD034	434567	6762787	409.5	-60.2	259.2	611.4	No Signifi	cant Inte	rcept	
BWD035	434567	6762687	409.9	-60.3	259.1	381.5	No Signifi		•	

ole	Easting	Northing	RL	Dip	Azimuth	Depth	From (m)	To (m)	Width (m)	Grade g
BWD036	434585	6762600	410.0	-60.6	259.20	432.40	105	107	2	1.63
2.1.2.000	10 1000	0,02000	12010	00.0	255.25	.520	137	141	4	1.01
							174	182	8	4.57
							371	374	3	10.2
BWD037	434670	6762560	410.8	-60.3	258.9	450.5	336	347	11	3.05
DWDOS7	434070	0702300	410.0	00.5	250.5	430.3	352	364	12	1.76
							383	411	28	1.04
							414	422	8	19.8
BWD038	434594	6762546	410.5	-60.4	258.7	333.6	300	303	3	1.4
BWD039	433980	6763320	410.3	-50.4	74.3	379.3	184	191	7	3.63
DVVD033	455560	0703320	407.0	-30.4	74.3	3/3.3	315	325	10	2.61
DVA/DO40	424004	6762267	407.0	F0 F	70.0	240 5	329	336	7	1.51
BWD040	434004	6763267	407.0	-50.5	78.8	318.5	82	86	4	1.05
							110	112	2	1.8
							120	124	4	1.13
							140	150	10	1.43
							158	166	8	1.09
							267	275	8	1.49
BWD041	433979	6763271	407.0	-63.9	77.7	399.6	240	248	8	1.33
							342	352	10	5.85
BWD042	433866	6763310	409.0	-64.1	73.3	96	No Signifi			
BWD043	433879	6763355	408.7	-63.8	74.3	687.5	461	464	3	2.01
BWD044	434055	6763150	410.0	-50.2	78.4	399.1	115	122	7	4
							182	184	2	1.22
							266	268	2	2.78
							271	273	2	1.43
BWD045	433966	6763561	409.6	-50.1	95.3	408.4	113	131	18	1.99
							175	177	2	1.02
							212	218	6	2.09
							336	348	12	1.21
BWD046	434066	6763714	408.8	-60.0	77	96	No Signifi	cant Inter	cept	
BWD047	433973	6763702	408.9	-60.0	77	96	12	14	2	1.93
							38	45	7	5.07
							93	96	3	2.12
BWD048	434164	6763736	407.9	-60.0	77	96	90	96	6	1.53
BWD049	434066	6763873	409.2	-60.0	77	96	No Signifi			
BWD050	434095	6763771	408.8	-60.0	77	96	No Signifi			
BWD051	433891	6763796	409.2	-60.0	77	96	No Signifi			
BWD052	434039	6762725	414.0	-60.4	78.4	783.5	475	477	2	1.48
DWD032	434033	0702723	717.0	00.4	70.4	765.5	482	484	2	1.14
							500	502	2	1.14
							544	546	2	1.11
							562	612	50	8.22
							689	691		2.25
DIMIDOES	124040	6762644	415.0	64.3	02	725.4			2	
BWD053	434046	6762641	415.0	-61.3	82	735.1	555	578 616	23	4.3
							614	616	2	1.14
DIA/DOF 4	424040	6762507	440.0	63.5	04.7	750.0	623	632	9	1.54
BWD054	434049	6762587	418.0	-63.5	84.7	759.3	616	623	7	2.28
							640	644	4	2.57
							648	653	5	1.66
							696	703	7	1.73
							709	715	6	1.48
							732	736	4	2.18
BWRC001	434440	6762870	408.0	-59.5	258	150	60	67	7	1.04
BWRC002	434380	6762860	411.0	-60.9	258.8	156	40	42	2	1.01
BWRC003	434467	6762775	410.0	-60.6	257.7	150	86	89	3	1.29
							107	109	2	5.7
BWRC004	434410	6762760	410.0	-59.7	258.3	150	20	22	2	1.02

BUTCHERS W	ELL DRILLING	FEBRUARY	2018						Downhole	
Hole	Easting	Northing	RL	Dip	Azimuth	Depth	From (m)	To (m)	Width (m)	Grade g/t
							24	32	8	1.1
							78	87	9	1.07
BWRC005	434480	6762725	411.0	-60.0	257.9	162	No Signifi	cant Inter	cept	
BWRC006	434500	6762680	411.0	-60.2	257.2	156	No Signifi	cant Inter	cept	
BWRC007	434466	6762669	411.0	-60.5	258.5	150	91	97	6	2.2
							106	108	2	1.04
							144	146	2	1.06
BWRC008	434490	6762625	410.0	-60.2	259.8	156	56	58	2	1.45
							86	116	30	1.72
							141	155	14	2.29
BWRC009	434520	6762580	410.0	-59.8	258.7	156	22	25	3	2.15
							37	39	2	1.85
							56	66	10	1.01
							108	113	5	1.29
BWRC010	434420	6762910	410.0	-60.6	259.6	156	7	10	3	1.6
							39	49	10	1.57
							85	90	5	1.16
							115	117	2	1.44
							128	132	4	1.09
							136	150	14	1.18
BWRC011	434420	6762960	410.0	-60.6	257.5	150	99	103	4	1.25
							108	110	2	1.11
							145	148	3	1.48
BWRC012	434364	6762949	409.7	-60.4	260.7	150	53	58	5	2.5
BWRC013	434364	6763101	408.5	-60.0	258.5	150	No Signifi	cant Inter	rcept	
BWRC014D	434147	6763021	410.0	-60.0	77	526.8	129	138	9	2.69
							242	244	2	1.83
							252	259	7	1.28
							286	290	4	1.46
							312	322	10	1.14
							470	473	3	1.63
							493	503	10	1.2
BWRC015	434175	6763800	410.0	-60.3	78.4	150	11	21	10	1.12
							103	106	3	1.09

Karari 2012 JORC Table 1

Section 1: Sampli	ng Techniques and Data	
Criteria	JORC Code Explanation	Commentary
Sampling Techniques	Nature and quality of sampling (e.g. 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.	Sampling methods undertaken by Saracen at Karari have included reverse circulation drillholes (RC), diamond drillholes (DD) and RC grade control drilling within the pit, and diamond drilling and face chip sampling underground. Historic sampling methods conducted since 1991 have included aircore (AC), rotary air blast (RAB), reverse circulation and diamond drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for diamond and RC drilling and face chip sampling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC chips and diamond core provide high quality representative samples for analysis. RC, RAB, AC and DD core drilling was completed by previous holders to industry standard at that time (1991- 2004).
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of	RC chips are cone or riffle split and sampled into 1m intervals, diamond core is NQ or HQ sized, sampled to 1m intervals or geological boundaries where necessary and cut into half core and underground faces are chip sampled to geological boundaries (0.2-1m). All methods are used to produce representative sample of less than 3 kg. Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g or 50 g sub sample for analysis by FA/AAS. Some grade control RC chips were analysed in the Saracen on site laboratory using a PAL (pulverise and leach) method. Visible gold is sometimes encountered in underground drillcore and face samples. Historical AC, RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis
Drilling Techniques	detailed information Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	methods include fire assay and unspecified methods. The deposit was initially sampled by 11 AC holes, 452 RAB holes, 496 RC holes (assumed standard 5 ¼ "bit size) and 25 surface unknown diameter diamond core holes. Saracen has completed 13 surface RC precollars with HQ and NQ diamond tail drill holes (precollars averaging 287m, diamond tails averaging 168m), 73 RC holes from both surface and within the pit (recent drilling utilised a 143mm diameter bit with a face sampling hammer and an external auxiliary booster) and 3052 grade control RC holes within the pit. 649 NQ diamond holes have been drilled underground. 1231 underground faces and walls have been chip sampled. Diamond tails were oriented using an Ezi-mark tool. Some historic surface diamond drill core appears to have been oriented by unknown methods.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed	RC sampling recoveries are recorded in the database as a percentage based on a visual weight estimate; no historic recoveries have been recorded. Diamond core recovery percentages calculated from measured core versus drilled intervals are logged and recorded in the database. Recoveries average >90%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	RC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks.

Section 1: Samplin	g Techniques and Data	
Criteria	JORC Code Explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of	UG faces are sampled from left to right across the face at the same height from the floor. During GC campaigns the sample bags weight versus bulk reject weight are compared to ensure adequate and even sample recovery. Historical AC, RAB, RC and diamond drilling to industry standard at that time. There is no known relationship between sample recovery and grade for RC drilling. Diamond drilling has high recoveries due to the competent nature of the ground meaning loss of material is minimal.
Logging	fine/coarse material. 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Any historical relationship is not known. Logging of RC chips and diamond drill core records lithology, mineralogy, texture, mineralisation, weathering, alteration and veining. Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. All faces are photographed and mapped. Chips from all RC holes (exploration and GC) are stored in chip trays for future reference while remaining core is stored in core trays and archived on site. Core is photographed in both dry and wet state. Qualitative and quantitative logging of historic data varies in its completeness.
	The total length and percentage of the relevant intersections logged	All RC and diamond drillholes holes are logged in full and all faces are mapped. Every second drill line is logged in grade control programs with infill logging carried out as deemed necessary. Historical logging is approximately 95% complete.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All drill core is cut in half onsite using an automatic core saw. Samples are always collected from the same side. All exploration and grade control RC samples are cone or riffle split. Occasional wet samples are encountered. Underground faces are chip sampled using a hammer. AC, RAB and RC drilling has been sampled using riffle and unknown methods.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core and RC and underground face chips adhere to industry best practice. It is conducted by a commercial laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.
	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.	RC field duplicate samples are carried out at a rate of 1:20 and are sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. No duplicates have been taken of underground core or face samples. Sampling by previous holders assumed to be industry standard at the time.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes of 3kg are considered to be appropriate given the grain size (90% passing 75 microns) of the material sampled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and	RC chip samples, grade control chip samples, underground face chip samples and diamond core are analysed by external laboratories using a 40g or 50g fire assay with AAS finish. These methods are

Section 1: Samplin	ng Techniques and Data	
Criteria	JORC Code Explanation	Commentary
	whether the technique is considered partial or total.	considered suitable for determining gold concentrations in rock and are total digest methods. Some GC samples were analysed in the Saracen onsite laboratory using pulverise and leach method. This method is a partial digest. Historic sampling includes fire assay and unknown methods.
	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.	No geophysical tools have been utilised for reporting gold mineralisation.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC and DD, and 1:40 for GC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intercepts are verified by the Geology Manager and corporate personnel.
	The use of twinned holes.	No specific twinned holes have been drilled at Karari but grade control drilling and underground diamond drilling has confirmed the width and grade of previous exploration drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database.
Location of data points	Discuss any adjustment to assay data. Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	No adjustments have been made to assay data. First gold assay is utilised for resource estimation. Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Drillhole collars within the pit and immediate surrounds are picked up by company surveyors using a Trimble R8 GNSS (GPS) with an expected accuracy of +/-8mm. All underground drillhole collars are picked up by company surveyors using a Leica TS15i (total station) with an expected accuracy of +/-2mm. Underground faces are located using a Leica D5 disto with and accuracy of +/- 1mm from a known survey point. Downhole surveys are carried out using the DeviFlex RAPID continuous inrod survey instrument taking readings every 5 seconds, In and Out runs and reported in 3m intervals, survey accuracy +-3:1000. A number of drillholes have also been gyroscopically surveyed. Previous holders' survey accuracy and quality is unknown
	Specification of the grid system used.	A local grid system (Karari) is used. The two point conversion to MGA_GDA94 zone 51 is KAREast KARNorth RL MGAEast MGANorth RL

Section 1: Sampli	ing Techniques and Data	
Criteria	JORC Code Explanation	Commentary
		Point 1 4000 8000 0 439359.94 6663787.79 0 Point 2 3000 7400 0 438359.84 6663187.72 0 Historic data is converted to the Karari local grid upon export from the database.
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution. Pre mining, new and more detailed topography has since been captured and will be used in future updates and for subsequent planning purposes.
Data spacing and	Data spacing for reporting of Exploration Results.	The nominal spacing for drilling is 25m x 25m.
distribution	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.
Orientation of data in relation to geological structure	Whether sample compositing has been applied.	Sample compositing is not applied until the estimation stage. Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable. Underground diamond drilling is designed to intersect the orebody in the best possible orientation given the constraints of underground drill locations. UG faces are sampled left to right across the face allowing a representative sample to be taken.
	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.	No significant sampling bias has been recognised due to orientation of drilling in regards to mineralised structures.
Sample security	The measures taken to ensure sample security.	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures. No external audits or reviews have been conducted.

Section 2: Reporting	Section 2: Reporting of Exploration Results						
Criteria	JORC Code Explanation	Commentary					
Mineral tenement and land tenure status	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.	The Karari pit is located on M28/166 and M28/167 Mining Leases M28/166 and M28/167 are held 100% by Saracen Gold Mines Pty Ltd a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Leases M28/166 and M28/167 have a 21 year life (held until 2020) and are renewable for a further 21 years on a continuing basis. There are no registered Aboriginal Heritage sites within Mining Leases M28/166 and M28/167. M28/166 and M28/167 are the subject of the Maduwongga native title claim (WC2017/001).					

Section 2: Reporting	ng of Exploration Results	
Criteria	JORC Code Explanation	Commentary
		Mining Leases M28/166 and M28/167 are subject to two third party royalties payable on the tenements, a bank mortgage (Mortgage 499142) and two caveats (Caveat 51H/067 and 52H/067, respectively). All production is subject to a Western Australian state government NSR royalty of 2.5%. The tenements are subject to the Pinjin Pastoral Compensation Agreement. The Mining Rehabilitation Fund applies to the tenements.
	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.	The tenements are in good standing and the licence to operate already exists
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Carosue Dam project area in which the Karari deposit is located has been subjected to extensive gold exploration by numerous companies since 1991. Karari was highlighted as an area of interest following an aeromagnetic survey conducted by CRA Exploration. Auger sampling of the target defined a widespread gold anomaly with follow up RAB drilling intersecting significant gold mineralisation. RC and DD drilling further defined the mineralisation before Aberfoyle entered into a joint venture agreement with CRA. Further drilling by Aberfoyle defined mineralisation over a 600m strike length. Aberfoyle were subject to a hostile takeover by Western Metals with PacMin then purchasing the Carosue Dam project. An intensive resource definition program consisting of both RC and DD drilling was carried out before mining of Karari commenced in 2000.
Geology	Deposit type, geological setting and style of mineralisation.	The Karari deposit sits along the regional NNW-trending Keith-Kilkenny fault zone within the eastern edge of the Norseman-Wiluna greenstone belt. The deposit itself is lithologically and structurally controlled and sits within an altered volcaniclastic sandstone unit that has been offset along a series of major faults running NE-SW and NW-SE, as well as intruded by large lamprophyre units post mineralization. Mineralization is dominated by pyrite and hosted in broad hematite altered sandstone units with a central high grade siliceous core light-moderately dipping to the North.
Drillhole information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation • above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. • 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.	All material data is periodically released on the ASX: 26/09/2017, 13/07/2017, 01/05/2017, 21/02/2017, 13/04/2016, 23/02/2016, 10/12/2015, 03/07/2015, 25/05/2015, 05/05/2015, 11/03/2015, 16/01/2014, 14/10/2013, 25/01/2013, 28/07/2011, 03/06/2011, 21/04/2011, 09/02/2011, 03/11/2008
Data aggregation	In reporting Exploration Results, weighting averaging	All underground diamond drillhole significant intercepts have been length weighted with a minimum Au

Section 2: Reporting	ng of Exploration Results	
Criteria	JORC Code Explanation	Commentary
methods	techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	grade of 2.5ppm. No high grade cut off has been applied.
	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.	Intercepts are aggregated with minimum width of 0.5m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	Previous announcements included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No Diagrams are referenced in this release.
Balanced Reporting	Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results from previous campaigns have been reported, irrespective of success or not.
Other substantive exploration data	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.	No substantive data acquisition has been completed in recent times.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological	Exploration drilling below the current Ore Reserve will be conducted later in FY18.

Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary
	interpretations and future drilling areas, provided this	
	information is not commercially sensitive	

Whirling Dervish 2012 JORC Table 1

Section 1: Sampli	Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary	
Sampling Techniques	Nature and quality of sampling (e.g. 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.	Sampling methods undertaken by Saracen at Whirling Dervish have included reverse circulation (RC), surface and underground diamond drillholes (DD) and RC grade control drilling within the pit. Historic methods conducted since 1993 have included aircore (AC), rotary air blast (RAB), reverse circulation and diamond drillholes.	
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for diamond and RC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC chips and diamond core provide high quality representative samples for analysis. RC, RAB, AC and DD core drilling was completed by previous holders to industry standard at that time (1993- 2002).	
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	Diamond core is NQ sized, sampled to 1m intervals and geological boundaries where necessary and cut into half core to give sample weights under 3 kg. Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. RC chips are riffle or cone split and sampled into 1m intervals with total sample weights under 3kg Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g or 50 g sub sample for analysis by FA/AAS. Historical AC, RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis methods include fire assay, aqua regia, B/ETA and unspecified methods.	
Drilling Techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	The deposit was initially sampled by 35 AC holes, 159 RAB holes, 407 RC holes (assumed standard 5 ¼ "bit size) and 53 surface diamond HQ core and unknown diameter holes. Saracen has completed 50 surface RC precollar with NQ diamond tail drill holes (precollars averaging 193m, diamond tails averaging 200m), 12 diamond geotechnical holes, 72 RC holes from both surface and within the pit,4039 grade control RC holes within the pit and 64 NQ underground diamond drillholes. Diamond tails were oriented using an Ezy-mark tool. Some historic surface diamond drill core appears to have been oriented by unknown methods.	

Section 1: Samplin	Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary	
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Diamond core recovery percentages calculated from measured core versus drilled intervals are logged and recorded in the database. Recoveries average >90%. RC sampling recoveries are recorded as a percentage based on a visual weight estimate; no historic recoveries have been recorded.	
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks. During GC campaigns daily rig inspections are carried out to check splitter condition, general site and address general issues. The sample bags weight versus bulk reject weight is compared to ensure adequate and even sample recovery. Historical AC, RAB, RC and diamond drilling to industry standard at that time.	
	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.	Diamond drilling has high recoveries meaning loss of material is minimal. There is no known relationship between sample recovery and grade for RC drilling. Any historical relationship is not known.	
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of diamond drill core and RC chips records lithology, mineralogy, texture, mineralisation, weathering, alteration, veining and other features. Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. Chips from all RC holes (exploration and GC) are stored in chip trays for future reference. Core is photographed in both dry and wet state. Qualitative and quantitative logging of historic data varies in its completeness.	
	The total length and percentage of the relevant intersections logged	All diamond drillholes and exploration RC holes are logged in full. Every drill line is logged in grade control programs. Historical logging is approximately 95% complete.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	All drill core is cut in half onsite using an automatic core saw. Samples are always collected from the same side. Historic diamond drilling has been half core sampled.	
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All exploration and GC RC samples are cone or riffle split. Occasional wet samples are encountered; increased air capacity is routinely used to aid in keeping the sample dry when water is encountered. Historic AC, RAB and RC drilling was sampled using spear, grab, riffle and unknown methods.	
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core and RC chips adhere to industry best practice. It is conducted by a commercial laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling.	
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.	
	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.	Duplicate sampling is carried out at a rate of 1:10 for exploration drilling and 1:20 for GC drilling and is sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. Sampling by previous holders assumed to be industry standard at the time.	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate.	

Section 1: Samplin	Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary	
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	RC chip samples, grade control chip samples and diamond core are analysed by external laboratories using a 40g or 50g fire assay with AAS finish. These methods are considered suitable for determining gold concentrations in rock and are total digest methods. Historic sampling includes fire assay, aqua regia, B/ETA and unknown methods.	
	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.	No geophysical tools have been utilised for reporting gold mineralisation at Whirling Dervish.	
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC and DD, and 1:40 for GC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.	
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intercepts are verified by the Geology Manager and corporate personnel.	
	The use of twinned holes.	No specific twinned holes have been drilled at Whirling Dervish but grade control drilling has confirmed the width and grade of previous exploration drilling.	
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols Discuss any adjustment to assay data.	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database. No adjustments have been made to assay data. First gold assay is utilised for resource estimation.	
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Drillhole collars within the pit and immediate surrounds are picked up by company surveyors using a Trimble R8 GNSS (GPS) with an expected accuracy of +/-8mm. All underground drillhole collars are picked up by company surveyors using a Leica TS15i (total station) with an expected accuracy of +/-2mm. Downhole surveys are carried out using the DeviFlex RAPID continuous inrod survey instrument taking readings every 5 seconds, In and Out runs and reported in 3m intervals, survey accuracy +-3:1000. A number of drillholes have also been gyroscopically surveyed. Previous holders' survey accuracy and quality is unknown	
	Specification of the grid system used.	A local grid system (Whirling Dervish) is used. It is rotated 45 degrees west of MGA_GDA94. The one point conversion to MGA_GDA94 zone 51 is WDEast WDNorth RL MGAEast MGANorth RL Point 1 20003.8190 50277.5540 0 437865.3740 6665770.2100 0 Historic data is converted to Whirling Dervish local grid upon export from the database.	

Section 1: Sample	Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary	
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution. Pre mining, new and more detailed topography has since been captured and will be used in future updates and for subsequent planning purposes.	
Data spacing and	Data spacing for reporting of Exploration Results.	The nominal spacing for exploration drilling is 25m x 25m	
distribution	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.	
Orientation of data in relation to geological structure	Whether sample compositing has been applied.	Sample compositing is not applied until the estimation stage. Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.	
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable.	
	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.	No significant sampling bias is thought to occur due to orientation of drilling in regards to mineralised structures.	
Sample security	The measures taken to ensure sample security.	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email.	
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures.	

Section 2: Reportir	Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary	
Mineral tenement and land tenure status	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.	The Whirling Dervish pit is located on M28/166 and M31/220, while near mine exploration has been carried out on M28/245. The tenements are held 100% by Saracen Gold Mines Pty Ltd, a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Leases M28/166 and M31/220 have a 21 year life (held until 2020) and are renewable for a further 21 years on a continuing basis. Mining Lease M28/245 has a 21 year life (held until 2029) and is renewable for a further 21 years on a continuing basis. Mining Lease M28/166 is subject to two third party royalties and one caveat (Caveat 51H/067). Mining	

Section 2: Reporting	Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary	
		Lease M31/220 is subject to two third party royalties and one caveat (Caveat 64H/067) and Mining Lease M28/245 is subject to one third party royalty. There are no caveats associated with Mining Lease M28/245. Mining Leases M28/166, M28/245 and M31/220 are subject to a bank mortgage (Mortgage 499142). All production is subject to a Western Australian state government NSR royalty of 2.5%. Mining Leases M28/166, M31/220 and M28/245 are subject to the Pinjin Pastoral Compensation Agreement. Mining Lease M31/220 is subject to the Pinjin and Gindalbie Pastoral Compensation Agreements. M28/166, M31/220 and M28/245 are the subject of the Maduwongga native title claim (WC2017/001). The Mining Rehabilitation Fund applies to the tenements.	
	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.	The tenements are in good standing and the licence to operate already exists.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Carosue Dam project area in which the Whirling Dervish deposit is located has been subjected to extensive gold exploration by numerous companies since 1991. Airborne geophysics conducted by Aberfoyle Resources in 1997 highlighted numerous targets in the project area with subsequent RAB drilling intersecting the Whirling Dervish mineralisation and an extensive RC campaign confirming it. Oriole Resources obtained the project in 1998 and, through wholly owned subsidiary company PacMin, completed closely spaced RC drilling to develop the resource through to reserve status. Sons of Gwalia carried out minor drilling before their collapse and takeover of the project by St Barbara.	
Geology	Deposit type, geological setting and style of mineralisation.	Whirling Dervish is situated along the Kilkenny-Yilgangi fault zone on the boundary of the Steeple Hill and Mulgabbie domains. The lithology comprises primarily intermediate felsic volcaniclastic sandstones, intermediate tuffs and intermediate porphyry units intruded by granites of varying composition, with stratigraphy dipping generally to the east at approx. 60 degrees. Mineralization has a combined lithological and structurally control dipping parallel to the stratigraphy. Mineralization is continuous along strike in the footwall but is very discontinuous and patchy in the hanging wall structures and overall controlled by the general NW trending ductile faulting and is characterized by weak Hematite banding on the margins to intense hematite-silica alteration hosted in breccia zones adjacent to the faulting with high grade cores typically sericite-silica breccia. Pyrite is the dominant sulphide. The mineralization is terminated to the west by the by a NW trending shear zone dipping 60 degrees to the east.	
Drillhole information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation • above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth	All material data is periodically released on the ASX: 15/10/2015, 14/10/2013, 23/07/2013, 03/12/2012, 10/10/2012, 31/07/2012, 27/04/2012, 06/03/2012, 27/01/2012, 06/01/2012, 26/10/2011, 01/08/2011, 28/07/2011, 03/06/2011, 21/04/2011, 09/02/2011	

Section 2: Reporting	Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary	
	 hole length. 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. 		
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All significant intercepts have been length weighted with a minimum Au grade of 1ppm. No high grade cut off has been applied.	
	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.	Intercepts are aggregated with minimum width of 1m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	Previous announcements included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths.	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No Diagrams are referenced in this release.	
Balanced Reporting	Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results from previous campaigns have been reported, irrespective of success or not.	
Other substantive exploration data	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	No substantive data acquisition has been completed in recent times.	

Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary
	density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Deeper exploration drilling will be conducted later in FY18.

Deep South 2012 JORC Table 1

Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
Sampling Techniques	Nature and quality of sampling (e.g. 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.	Sampling methods undertaken by Saracen at Deep South have included reverse circulation drillholes (RC), surface and underground diamond drillholes (DD), underground face chip sampling and RC grade control drilling within the pit. Historic sampling methods conducted since 1983 have included rotary air blast (RAB), reverse circulation and diamond drillholes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling for diamond, face chip and RC drilling is carried out as specified within Saracen sampling and QAQC procedures as per industry standard. RC and UG face chips and diamond core provide high quality representative samples for analysis. RC, RAB and DD core drilling was completed by previous holders to industry standard at that time (1983-2004).
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g.	RC chips are cone or riffle split and sampled into 1m intervals with total sample weights under 3kg Diamond core is NQ sized, sampled to 1m intervals or geological boundaries where necessary and cut into half core to give sample weights under 3 kg. UG faces are chip sampled to geological intervals (0.2 to 1m). Samples are selected to weigh less than 3 kg to ensure total sample inclusion at the pulverisation stage. Saracen core and chip samples are crushed, dried and pulverised to a nominal 90% passing 75µm to produce a 40g or 50 g sub sample for analysis by FA/AAS. Some grade control RC chips were analysed in the Saracen on site laboratory using a PAL (pulverise and leach) method. Historical RAB, RC and diamond sampling was carried out to industry standard at that time. Analysis

Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
	submarine nodules) may warrant disclosure of detailed information	methods include fire assay, aqua regia, atomic absorption spectroscopy and unspecified methods.
Drilling Techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Saracen has completed 12 surface RC precollars with NQ diamond tail drill holes (precollars averaging 185m, diamond tails averaging 140m), 3 geotechnical surface diamond NQ drillholes, 57 RC holes from surface and 107 grade control RC holes within the pit. Underground sampling activities have included 566 NQ diamond drillholes and 1198 faces. Diamond tails were oriented using an Ezi-mark tool. A limited amount of historic surface diamond drill core appears to have been oriented by unknown methods.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed	RC sampling recoveries are recorded in the database as a percentage based on a visual weight estimate; limited historic recoveries have been recorded. Diamond core recovery percentages calculated from measured core versus drilled intervals are logged and recorded in the database. Recoveries average >98%. Limited historic diamond recoveries have been recorded.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	During RC drilling daily rig inspections are carried out to check splitter condition, general site and address general issues. Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against depth given on the core blocks. UG faces are sampled left to right across the face allowing a representative sample to be taken due to the vertical nature of the orebody. During GC campaigns the sample bags weight versus bulk reject weight are compared to ensure adequate and even sample recovery. Historical RAB, RC and diamond drilling to industry standard at that time.
	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.	There is no known relationship between sample recovery and grade for RC drilling. Diamond drilling has high recoveries meaning loss of material is minimal. Any historical relationship is not known.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of RC chips and diamond drill core records lithology, mineralogy, texture, mineralisation, weathering, alteration and veining. Geotechnical and structural logging is carried out on all diamond holes to record recovery, RQD, defect number, type, fill material, shape and roughness and alpha and beta angles. Chips from all RC holes (exploration and GC) are stored in chip trays for future reference while remaining core is stored in core trays and archived on site. All faces are photographed and mapped. Core is photographed in both dry and wet state. Qualitative and quantitative logging of historic data varies in its completeness.
	The total length and percentage of the relevant intersections logged	All RC and diamond drillholes and grade control holes are logged in full. Historical logging is complete.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	All drill core is cut in half onsite using an automatic core saw. Some grade control diamond holes have been full core sampled. Samples are always collected from the same side. Some historic drillcore was half core sampled, or sampled via unknown methods.

Criteria	g Techniques and Data JORC Code Explanation	Commentary
O.H.O.H.O.	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All exploration and grade control RC samples are cone or riffle split. Occasional wet samples are encountered; increased air capacity is routinely used to aid in keeping the sample dry when water is encountered. UG faces are chip sampled using a hammer. Historic RAB and RC drilling was sampled using riffle and unknown methods.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core, UG face chips and RC chips adhere to industry best practice. It is conducted by a commercial laboratory or onsite laboratory and involves oven drying, coarse crushing then total grinding to a size of 90% passing 75 microns. Best practice is assumed at the time of historic sampling.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	All subsampling activities are carried out by commercial laboratory or onsite laboratory and are considered to be satisfactory. Sampling by previous holders assumed to be industry standard at the time.
	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.	RC field duplicate samples are carried out at a rate of 1:20 and are sampled directly from the on-board splitter on the rig. These are submitted for the same assay process as the original samples and the laboratory are unaware of such submissions. Sampling by previous holders assumed to be industry standard at the time.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes of 3kg are considered to be appropriate given the grain size (90% passing 75 microns) of the material sampled.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	RC and UG chip samples and diamond core are analysed by external laboratories using a 50g fire assay with AAS finish. This method is considered suitable for determining gold concentrations in rock and is a total digest method. GC samples were analysed in the Saracen onsite laboratory using a pulverise and leach method. This method is a partial digest. Historic sampling includes fire assay, aqua regia, atomic absorption spectroscopy and unspecified methods.
	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.	No geophysical tools have been utilised for reporting gold mineralisation.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference material (standards and blanks) with a wide range of values are inserted into every drillhole at a rate of 1:25 for exploration RC and DD, and 1:40 for GC drilling. These are not identifiable to the laboratory. QAQC data returned are checked against pass/fail limits with the SQL database and are passed or failed on import. A report is generated and reviewed by the geologist as necessary upon failure to determine further action. QAQC data is reported monthly. Sample preparation checks for fineness are carried out to ensure a grindsize of 90% passing 75 microns. The laboratory performs a number of internal processes including standards, blanks, repeats and checks. QAQC data analysis demonstrates sufficient accuracy and precision. Industry best practice is assumed for previous holders.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intercepts are verified by the Geology Manager and corporate personnel.

Section 1: Sampli	Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary	
	The use of twinned holes.	No specific twinned holes have been drilled at Deep South but grade control drilling has confirmed the width and grade of previous exploration drilling.	
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols	Primary data is collated in a set of excel templates utilising lookup codes. This data is forwarded to the Database Administrator for entry into a secure acQuire database with inbuilt validation functions. Data from previous owners was taken from a database compilation and validated as much as practicable before entry into the Saracen acQuire database.	
	Discuss any adjustment to assay data.	No adjustments have been made to assay data. First gold assay is utilised for resource estimation.	
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Exploration drillholes are located using a Leica 1200 GPS with an accuracy of +/- 10mm. Drillhole collars within the pit and immediate surrounds are picked up by company surveyors using a Trimble R8 GNSS (GPS) with an expected accuracy of +/-8mm. All underground drillhole collars are picked up by company surveyors using a Leica TS15i (total station) with an expected accuracy of +/-2mm. Underground faces are located using a Leica D5 disto with and accuracy of +/- 1mm from a known survey point. Downhole surveys are carried out using the DeviFlex RAPID continuous inrod survey instrument taking readings every 5 seconds, In and Out runs and reported in 3m intervals, survey accuracy +-3:1000. A number of drillholes have also been gyroscopically surveyed. Previous holders' survey accuracy and quality is unknown	
	Specification of the grid system used.	A local grid system (Safari Bore) is used at Deep South. The two point conversion to MGA_GDA94 zone 51 is: SBEast SBNorth RL MGAEast MGANorth RL Point 1 51000 34000 0 451137.753 6734157.921 0 Point 2 51000 30000 0 451137.896 6730157.896 0 Historic data is converted to the Safari Bore local grid upon export from the database.	
	Quality and adequacy of topographic control.	Topographic control originally used site based survey pickups in addition to Kevron aerial photogrammetric surveys with +/- 5m resolution. Pre mining, new and more detailed topography has since been captured and will be used in future updates and for subsequent planning purposes.	
Data spacing and	Data spacing for reporting of Exploration Results.	The nominal spacing for drilling is 20m x 40m and 40m x 40m	
distribution	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.	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for JORC classifications applied.	
Orientation of data in relation to geological structure	Whether sample compositing has been applied.	Sample compositing is not applied until the estimation stage. Some historic RAB and RC sampling was composited into 3-4m samples with areas of interest re-sampled to 1m intervals. It is unknown at what threshold this occurred.	
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of drillholes are positioned to achieve optimum intersection angles to the ore zone as are practicable.	
	If the relationship between the drilling orientation and	No significant sampling bias has been recognised due to orientation of drilling in regards to mineralised	

Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
	the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	structures.
Sample security	The measures taken to ensure sample security.	Samples are prepared on site under supervision of Saracen geological staff. Samples are selected, bagged into tied numbered calico bags then grouped into secured cages and collected by the laboratory personnel. Sample submissions are documented via laboratory tracking systems and assays are returned via email
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An internal review of companywide sampling methodologies was conducted to create the current sampling and QAQC procedures. No external audits or reviews have been conducted.

Section 2: Reportir	Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary	
Mineral tenement and land tenure status	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.	The Deep South pit is located on M39/740. The tenement is held 100% by Saracen Gold Mines Pty Ltd, a wholly owned subsidiary of Saracen Mineral Holdings Limited. Mining Lease M39/740 has a 21 year life (held until 2024) and is renewable for a further 21 years on a continuing basis. Mining Lease M39/740 is subject to one royalty agreement, one caveat (151H/067) and a bank mortgage (499142). All production is subject to a Western Australian state government NSR royalty of 2.5%. Mining Lease M39/740 is subject to the Edjudina Pastoral Compensation Agreement. There are no registered Aboriginal Heritage sites within Mining Lease M39/740. The Mining Rehabilitation Fund applies to Mining Lease 39/740.	
	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.	The tenement is in good standing and the licence to operate already exists	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration in the vicinity of Deep South commenced in the 1980's with drilling around the historic Deep Well workings 500m north of Deep South, as well as regional RC drilling carried out by Western Mining Corporation. Initial auger sampling carried out over Deep South by Pancontinental Mining in 1994 failed to detect mineralisation due to the transported material overlying the deposit. Wide spaced east angled RAB drilling carried out by Goldfields in 1999 intersected mineralisation, but results were not repeated in further drilling and the project area was sold to Sons of Gwalia. Sons of Gwalia completed extensive RC and diamond drilling to define the Deep South resource, with mining operations undertaken in 2004 before their collapse and takeover by St Barbara.	
Geology	Deposit type, geological setting and style of mineralisation.	Deep South lies on the eastern margin of the Norseman – Wiluna greenstone belt. This belt is differentiated into numerous structural-stratigraphic domains separated by major regional structures, with Deep South located within the narrow NNW trending Linden Domain. The lithology comprises metasedimentary and felsic volcaniclastic rocks with an ultramafic and high magnesium basalt layer. Mineralisation occurs in two loads concordant to geology, the Butler and Scarlett lodes, and is confined between layered metasedimentary and felsic volcaniclastic units on both the hangingwall and footwall. The two lodes are separated by a high magnesium basalt and an ultramafic unit. The Butler lode is located in the hangingwall and is strongly silica and pyrrhotite-pyrite altered, and well	

Section 2: Reporting	Section 2: Reporting of Exploration Results		
Criteria	JORC Code Explanation	Commentary	
		laminated (appearing like a BIF within the oxidise portion). The contrasting physical properties of this unit to the surrounding unit have created fluid pathways and traps, as well as the high iron content of the unit providing a chemical trap, for gold deposition The Scarlett lode is strongly weathered in the upper oxide portion to a gossanous material comprising hematite, goethite and quartz fragments. Weathering at Deep South has been preferential along Scarlett lode due to its high carbonate content. Where fresh, the lode is a fine grained banded carbonate unit with variable pyrrhotite, pyrite and magnetite. It is weakly foliated in line with the regional foliation.	
Drillhole information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation • above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. • 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.	All material data is periodically released on the ASX: 26/09/2017, 01/05/2017, 21/02/2017, 17/12/2016, 07/09/2016, 11/05/2016, 23/02/2016, 23/07/2013, 10/10/2012, 31/07/2012, 03/06/2011, 29/07/2010 Future drill hole data will be periodically released or when a results materially change the economic value of the project. Exclusion of the drilling information will not detract from the reader's view of the report.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All significant intercepts have been length weighted with a minimum Au grade of 1ppm. No high grade cut off has been applied.	
	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.	Intercepts are aggregated with minimum width of 1m and maximum width of 3m for internal dilution. Where stand out higher grade zone exist with in the broader mineralised zone, the higher grade interval is reported also.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no metal equivalents reported in this release.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this	Previous announcement included sufficient detail to clearly illustrate the geometry of the mineralisation and the recent drilling. All results are reported as downhole lengths. This remains consistent with other announcements.	

Criteria	JORC Code Explanation	Commentary
	effect (eg 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	All significant exploration results released by Saracen are accompanied by the appropriate diagrams and maps at the time of the release.
Balanced Reporting	Where comprehensive reporting of all Exploration Results are not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results from the recent campaign have been reported, irrespective of success or not.
Other substantive exploration data	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.	A small geochemical program was undertaken in 2013 to determine the key features associated with mineralisation. The program gave some insight into the local characteristics of the Scarlett and Butler lodes. More work is needed to fully appreciate the geochemical signature associated with the mineralisation. A detailed gravity survey was recently completed at Deep South on a 400m x 100m grid to assist in the interpretation of the basement geology. The data is currently being processed and interpreted. Saracen has recently completed a biogeochemical sampling program at Deep South involving the sampling of new leaf growth on established <i>Acacia</i> trees on a 100m x 800m spacing. Samples were collected from trees of a consistent species and height. The biogeochemical program was an orientation survey only and results will not be used in any calculation of mineralisation. The leaves were washed, dried and pulverised followed by an aqua regia digest for multielement determination.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	The initial results from the biogeochemical sampling were encouraging and further expansion of the survey area is currently being planned. The exploration effort continues at Deep South. The focus remains in the near mine scale areas to extend and build the resource base. Extensional exploration drilling will be conducted in H2 FY18.

Butcher Well 2012 JORC Table 1 (Source: AngloGold Ashanti News Release 13th July 2017)

Criteria	Commentary
Sampling techniques	AGA has undertaken all sampling at the Butcher Well project since commencement of the Farm-in-Agreement with Saracen Mineral Holdings. Sampling has comprised reverse circulation drilling (RC), diamond drilling (DD) and rock-chips. Drilling sub-samples of 1 m or less were analysed for gold via 25 g fire assay. Rock chip samples were analysed for gold via 25 g fire assay. All samples were also analysed for a multielement suite.
Drilling techniques	All drilling was from surface, commencing with an RC precollar of 140 mm or 143 mm diameter to fresh rock (between 30-100 m), and thereon by HQ size diamond tails. Holes were collared at a dip of between -55° & -67° at an orientation considered optimal to intersect mineralisation as close to perpendicular as possible.
	Drill hole surveys for both RC and DD holes were carried out using the Reflex Ezy-Shot tool at 30 m intervals. Selected holes were also surveyed using an open-hole gyro. The drill core was oriented using the Reflex Ace Core Tool.
	RC holes were sampled using a face-sampling hammer and were collected via a cyclone, dust-suppression system and cone splitter. The cone splitter was levelled before commencement of each hole.
	HQ core was chosen to limit deviation and to provide enough volume for metallurgical test work on quarter-core. Diamond drill core was drilled in 3 m runs and placed in plastic core trays for processing and sub-sampling.
	All drill core was oriented as best as possible by reassembling the core between runs, and marked with a bottom-of-hole orientation line. A cut-line was then added 60° to the left hand side of the orientation line.
Drill sample recovery	Initially, RC and sample recovery was based on visual estimates. Mid-way through the drilling program recovery was quantified on 1 m interval every 25 m by recording the weights of lab sample, archive sample and reject. These weights were combined and then compared to a theoretical recovery of the interval based on the regolith and rock type of the interval being assessed. RC recovery was generally good.
	Diamond core recovery including core-loss was measured and recorded across core runs during the core mark-up process. Core was reassembled for mark-up and was measured with metre marks and down-hole depths placed on the core. Depths were checked

misrepresentation of drilled material.

against driller's core blocks and any discrepancies corrected after discussion with drillers. Diamond recovery was generally very good.

At this stage in the project, there is no obvious relationship between recovery and grade, nor any indications of sample bias owing to

Section 1: Sampling Techniques and Data		
Criteria	Commentary	
Logging	Logging was completed on the total length of all holes using standard logging digital data entry software and the AGA logging system, and was both qualitative and semi-quantitative. Data recorded for all RC chips and DD included lithology, regolith, alteration, veining, magnetic susceptibility, deformation, and colour.	
	Additionally all drill core underwent geotechnical (RQD, rock strength and defect characterisation) and structural logging, specific gravity determination, and was photographed with the orientation line and cut line on top.	
	The logging detail is comprehensive and sufficient for future Mineral Resource estimation.	
Sub-sampling techniques and sample preparation	Both RC and DD holes were sampled in entirety at a maximum interval of 1 m, considered an appropriate resolution for future Mineral Resource estimation of orogenic gold deposits.	
	During RC drilling, a lab sample and archive sample, each weighing about 3 kg, were taken at each 1 m interval using a cone splitter. Most samples were dry, with RC drilling stopped if samples became inundated with groundwater.	
	Lab samples were dispatched for analysis. Archive samples were stored onsite for future reference and check work, or selected as field duplicates within expected mineralised zones (approximately one duplicate per 5 m) and submitted for analysis.	
	HQ drill core was cut in half using an automated saw along the cut line. The half with the orientation line was retained in the core tray for check work or further analysis (by quarter core), whereas the other half was divided into 1m samples, or narrower niche samples based on geological observations. Crush duplicates of intervals selected by geologists within expected mineralised zones (approximately 1 duplicate per 5 m) were prepared at the lab.	
	Unmarked blanks (unmineralised basalt) were inserted at the beginning of RC precollars and DD tails, and also in selected mineralised intervals. Certified gold standards were inserted at rate of approximately one in 20 samples before dispatch for assay.	
	All lab samples, blanks and standards were placed into pre-numbered calico bags. Sample numbers and additional metadata were digitally captured in the logging platform.	

Section 1: S	Sampling	Techniques	and Data
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Criteria	Commentary
Quality of assay data and laboratory tests	All samples were analysed at Intertek-Genalysis Laboratory Services in Perth. Samples were oven dried at 105°C and then crushed in a two-stage process to ~2 mm. Owing to a 3 kg upper limit requirement, overweight HQ half-core samples (up to 6 kg) were split at this stage to 3 kg sample with reject retained. Crush duplicates of pre-selected half-core intervals were also taken at this stage.
	Samples were then pulverised and to a nominal 85% passing 75 µm. Pulverised samples underwent near-infrared spectroscopy using the TerraSpec 4 Hi Res instrument.
	Gold, platinum and palladium were analysed by 25 g lead-collection fire assay with ICP-MS finish (Intertek-Genalysis method FA25/MS). Fire assay is considered a total extraction method for gold as industry standard.
	A suite of 46 additional elements, including gold-pathfinder elements, was determined via four-acid digest with ICP-MS detection (method 4A/MS937).
	Quartz washes were inserted between samples in some expected higher-grade mineralised zones to limit contamination between samples (on instruction by AGAA).
	QA/QC results were reviewed on a batch-by-batch and monthly basis. Any deviations from acceptable precision or indications of bias were acted on with repeat and check assays.
Verification of sampling and assaying	Assay data was received from the laboratory as digital files. Once QA/QC was verified by the database geologist, the data was imported into AGA's master database in Perth and merged with sample metadata. This SQL database was backed up daily.
	Significant gold intercepts were calculated by semi-automated scripts within the database. These intercepts were then qualitatively verified by geologist in comparison with logged geology.
Location of data points	All proposed drillhole locations were pegged with RTK GPS. Once drilled, collar locations were surveyed with RTK GPS. The RTK GPS was referenced to existing survey control points within the historic mining area.
Data spacing and distribution	Drill holes were planned by AGA to demonstrate continuity at depth of mineralised zones modelled principally below historic open pits; thus intersection spacing varies between 60-600 m along strike and 15-100 m across strike.
	This drillhole spacing and distribution is not sufficient to establish geological and grade continuity for Mineral Resource estimation.
	Data within each drillhole are sufficient resolution (assay interval 1 m or less) to be included in future Mineral Resource estimations.

Section 1: Sampling	Techniques	and	Data

Criteria	Commentary
	No compositing has been applied to the data.
Orientation of data in relation to geological structure	The majority of drilling was orientated to intersect modelled mineralisation as close to normal as practically possible.
Sample security	Samples were put into pre-numbered calico bags, and placed into large poly-weave bulka-bags for transport. Filled bulka-bags were secured on wooden crates and transported directly via road freight to the laboratory with a corresponding submission form and consignment note.
	On receipt of the bulka-bags, Intertek-Genalysis checked the samples received against the submission form and notified AGAA of any missing or additional samples.
	On completion of assays and check work, the pulp packets, pulp residues and coarse rejects were placed in storage at the laboratory's secure warehouse.
	Routinely the pulp packets are returned to the AGAA warehouse on secure pallets where they are documented for long term storage and retrieval.
Audits or reviews	QA/QC has been assessed on a daily, monthly and quarterly basis.

Section 2: Reporting of Exploration Results	
Criteria	Commentary
Mineral tenement and land tenure status	AGA entered into a Farm-in-Agreement dated 17 October 2016 with Saracen Mineral Holdings, which solely holds the mineral tenements of the Butcher Well Project. There are no known heritage or environmental impediments over tenements. Tenure is secure at the time of reporting and no known impediments exist to obtain a licence to operate in the area.

Section 2: Reporting of Exploration Results		
Criteria	Commentary	
Exploration done by other parties	AGAA has carried out all the drilling and surface sampling at the Butcher Well project since the inception of the Farm-In-Agreement. All previous exploration data pursuant to the project is recorded in public access WAMEX reports.	
Geology	The host rocks to mineralisation at Butcher Well are basalt, syenite and sedimentary rocks of greenstone affiliation typical of the Eastern Goldfields of Western Australia.	
Drill hole Information	Information purporting to drillhole tables included into this report includes: Easting and northing in metres MGA51 (GDA94) RL (Reduced Level elevation above sea level) in metres Dip in degrees from horizontal (negative is down) Azimuth in degrees from grid north MGA51 (GDA94) Downhole length in metres Intercepts reportable to the 2 m @ 4.0 g/t Au scheme Intercept from depth downhole in metres Intercept width in metres (downhole length, not true width)	
Data aggregation methods	Intercepts were calculated using length-weighting above a 4.0 g/t Au cut-off with a minimum downhole length of 2 m and maximum of 2 m of internal dilution. No top-cuts have been applied.	
Relationship between mineralisation widths and intercept lengths	Intercept lengths reported are downhole lengths, true widths are unknown.	
Diagrams	A plan view of the drilling at Butcher Well is provided. Two cross sections (50 m slices) parallel to the preferred drilling azimuth (77° or 257°) looking northward are presented across the Hronsky and Enigmatic pits (A-A'), and southern end of the Enigmatic Pit (B-B'). Section A-A' includes holes oriented normal to the cross section and considered highly oblique to mineralisation.	
Balanced reporting	All intercepts provided report to the 2 m @ 4.0 g/t Au scheme. This was chosen to be the most appropriate metric for the depth, width and tenor of the results, favouring an underground mining scenario.	
Other substantive exploration data	Rock chips were taken within the historical pits. Grades are consistent with historical reporting of drill assays within the oxide zone.	
Further work	Follow up drilling is planned in the coming quarters to prove the continuity of the higher-grade mineralised zones, and to extend mineralisation at depth.	