



4 February 2021

Companies Announcement Office
Via Electronic Lodgement

**PENINSULA ENERGY ATTENDING SHAW AND PARTNERS
URANIUM CONFERENCE**

Peninsula Energy Limited (**Peninsula or Company**) is pleased to advise that the Company will be attending the Shaw and Partners Uranium Conference on Thursday 4th February 2021 and Managing Director / CEO Mr Wayne Heili will be providing a Company overview as part of the virtual conference program.

Shaw and Partners is one of Australia's preeminent investment and wealth management firms and initiated research on Peninsula in November 2020. The virtual conference is by invite only and is closed to the public.

A copy of the Company Presentation is attached and it will be made available on Peninsula's website www.pel.net.au.

Yours sincerely

A handwritten signature in blue ink that reads "Wayne Heili".

Wayne Heili
Managing Director / CEO

This release has been approved by the Managing Director / CEO.

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A US Focus with a Clear Pathway to Resume Uranium Production

Shaw and Partners Uranium Conference
4 February, 2021



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The Presentation contains “forward-looking statements”. All statements other than those of historical facts included in the Presentation are forward-looking statements including estimates of resources, timing of permit and license amendments, and rates of uranium extraction and recovery. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, uranium price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. The Company does not undertake any obligation to release publicly any revisions to any “forward-looking statement” to reflect events or circumstances after the date of the Presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws. All persons should consider seeking appropriate professional advice in reviewing the Presentation and all other information with respect to the Company and evaluating the business, financial performance and operations of the Company. Neither the provision of the Presentation nor any information contained in the Presentation or subsequently communicated to any person in connection with the Presentation is, or should be taken as, constituting the giving of investment advice to any person.

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Please note that Production Targets within this presentation are based on a proportion of inferred resources. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resource or that the production target itself will be realised.

Competent Person Statement

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves at the Lance Projects is based on information compiled by Mr Benjamin Schiffer. Mr Schiffer is a Registered Professional Member of the Society of Mining, Metallurgy and Exploration (Member ID #04170811). Mr Schiffer is a professional geologist employed by independent consultant WWC Engineering. Mr Schiffer has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr. Schiffer consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

This presentation was approved by the Managing Director/CEO

Cautionary & Inferred Resources Notice



The Feasibility Study completed for the Lance Projects includes measured and indicated resources and an assumed resource conversion of 60% (inferred to indicated or greater). The purpose of the Feasibility Study is to demonstrate the Lance Projects economic viability and the robustness of the planned low pH operations over an extended mine life beyond the existing Ross production area.

The Feasibility Study itself is based on various assumptions, including homogeneity of the delineated ore body contained within the Lance Projects. This is considered reasonable by the Company's technical consultants, competent persons and independent external consultants. The Company believes that it has a reasonable basis upon which to prepare and release these Feasibility Study results, particularly given that the Lance Projects have been in operation since December 2015. Whilst the Company considers that all the material assumptions underpinning the Feasibility Study are based on reasonable grounds, there is no certainty that they will prove to be correct or that the outcomes indicated by the Feasibility Study will be achieved.

The Company believes it has a reasonable basis for providing the forward-looking statements and production targets included in this announcement. The material assumptions are included in Appendix 1 of this announcement and in the JORC table disclosures appended. The detailed assumptions regarding the resources are outlined in the ASX announcement released on 14 November 2018.

Investors should also note that there is no certainty that the Company will be able to raise the amount of funding for the Lance Projects when it is required or on terms that are not overly dilutive or that are favourable to the value of the Company's existing shares.

This presentation has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration and delineation work will result in the determination of indicated mineral resources or that the production target itself will be realised. Financial information contained in this announcement is preliminary in nature and is in-part based on low-level technical and economic assessments and is insufficient to support the estimation of reserves or to provide assurance of economic development.

Under the Feasibility Study mine plan, the first 5 years production can be sourced almost entirely from Measured and Indicated Resources. If the Inferred Resources are excluded from the Feasibility Study, the economic analysis still forecasts a positive financial performance. Therefore, the Company is satisfied that the use of Inferred Resources is not a determining factor in overall Project viability and that it is reasonable to include Inferred Resources in the Feasibility Study, particularly given that the Lance Projects were recently operating and produced uranium for over three years.

In accordance with the relevant regulations governing the disclosure of mineral projects, readers are cautioned that mineable resources based on inferred resource material are considered too speculative geologically to enable them to be classified as reserves.



Compelling Sector Catalysts



Strong, long term demand fundamentals for nuclear energy



Continuing under production of uranium



Long lead times to restart mines, much longer for new mines



Utilities returning to contracting after prolonged hiatus



Renewed US Government emphasis on domestic mining to meet the raw materials needs for a clean energy economy

A Restart Ready Uranium Producer



- Peninsula is led by a highly experienced and technically sound Board and Management Team
- A six month pathway to production following a Final Investment Decision
- Funded for future activities with an established uranium contract book generating significant long-term revenue
- Flagship Lance Project, located in Wyoming, is the **only** US-based uranium project authorised to use the industry leading, low-cost, low pH ISR process
- Extremely low capital requirement for restart of the Lance Project
- Field demonstration currently underway with ongoing optimisation testing
- US producer-specific market opportunities





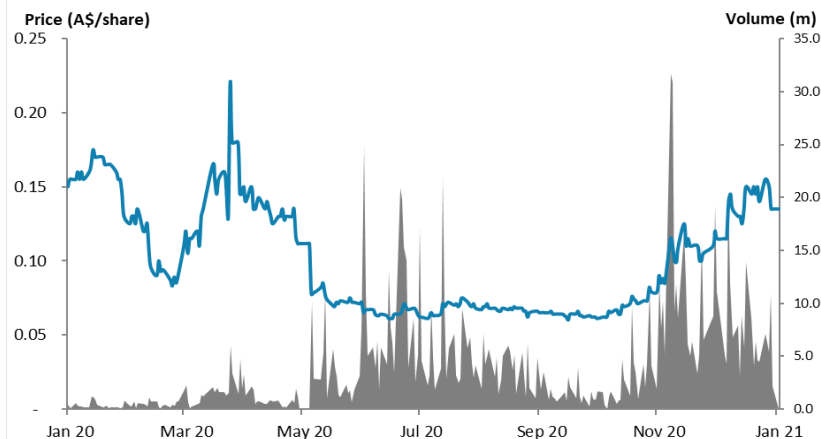
Key Details

Shares on Issue	893.4m
Share Price (29 Jan 21)	A\$0.13
Market Capitalisation	A\$116m
Term Debt	Nil
Cash (as of 31 Dec 2020)	US\$8.4m

Board of Directors

Mr John Harrison	Non-Executive Chairman
Mr Wayne Heili	Managing Director Chief Executive Officer
Mr Harrison Barker	Non-Executive Director
Mr Mark Wheatley	Non-Executive Director
Mr David Coyne	Non-Executive Director

Share Price Chart



Management Team

Combined 150-plus years of uranium mining experience

- Wayne Heili
- Ron Chamberlain
- Ralph Knode
- Mike Griffin
- Mike Brost
- Jay Douthit
- David Hofeling

Share Trading Liquidity Enhancements



Inclusion in the Global X Uranium ETF Index (URA)

- Peninsula was added to the Global X Uranium ETF (URA) Index composition with effect from 1-Feb-2021
 - Global X URA has net assets of USD 270 million
 - Global X is currently accumulating shares of PEN

Now Trading on the US OTC Markets under symbol PKC:PENMF

OTC Markets

- Up-graded tier from Grey List to Pink Markets in January-2021
 - Average daily volume since up-list: 726,000 shares
- Meet criteria for up-list to OTCQB Venture Market
 - Companies on the OTCQB meet more stringent reporting requirements
 - OTCQB is a more transparent market tier with greater investor participation and higher trading volumes
- Application for OTCQB is under review with OTC Markets

Lance Uranium In-Situ Recovery (ISR) Project *Wyoming, USA*



A Modern, Large Scale and Long-Life Asset



☞ Lance is one of the largest US uranium projects in size and scale

- ☞ 53.6M lbs U3O8 JORC (2012) compliant resource base¹
- ☞ Current market capitalisation undervalues the resource base when compared to peer group

☞ Lance is licensed to produce up to 3M lbs U3O8 per annum

- ☞ Current (Stage-1) plant capacity of 1.15M lbs U3O8 per annum

☞ Modern processing and wellfield production facilities

- ☞ Lance production is currently paused awaiting a transition to low pH ISR

☞ Estimated 6-month lead time to return to production (post re-start decision)

- ☞ Re-start decision depends on sustained improvement in market conditions and satisfactory progression of current low pH optimisation activities

1) See Appendix 1



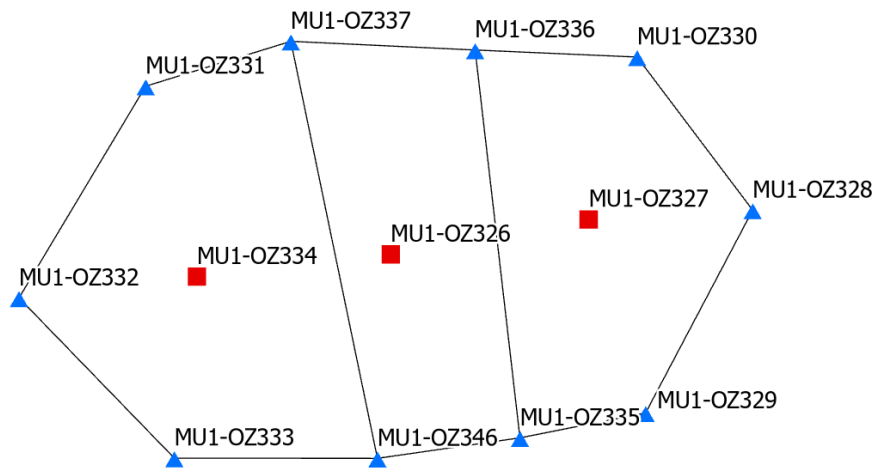
Low pH ISR is the leading method of uranium production globally

- 57% of global uranium produced in 2019 was via low pH ISR
 - Lowest quartile cash cost uranium mines are all low pH ISR
- Lance is **the only** US-based uranium project authorised to use the industry leading low pH ISR method

The Lance Low pH ISR Feasibility Study¹

- Low pH ISR transition and re-start
 - CAPEX US\$6 million
- Stage 1 ramp up to capacity of 1.15 million lbs p.a.
 - AISC of \$41/lb
 - Working capital ~US\$15 million (includes mine unit 3)
- Stage 2 expansion to capacity of 2.3 million lbs p.a.
 - AISC of \$31/lb
 - CAPEX US\$43 million

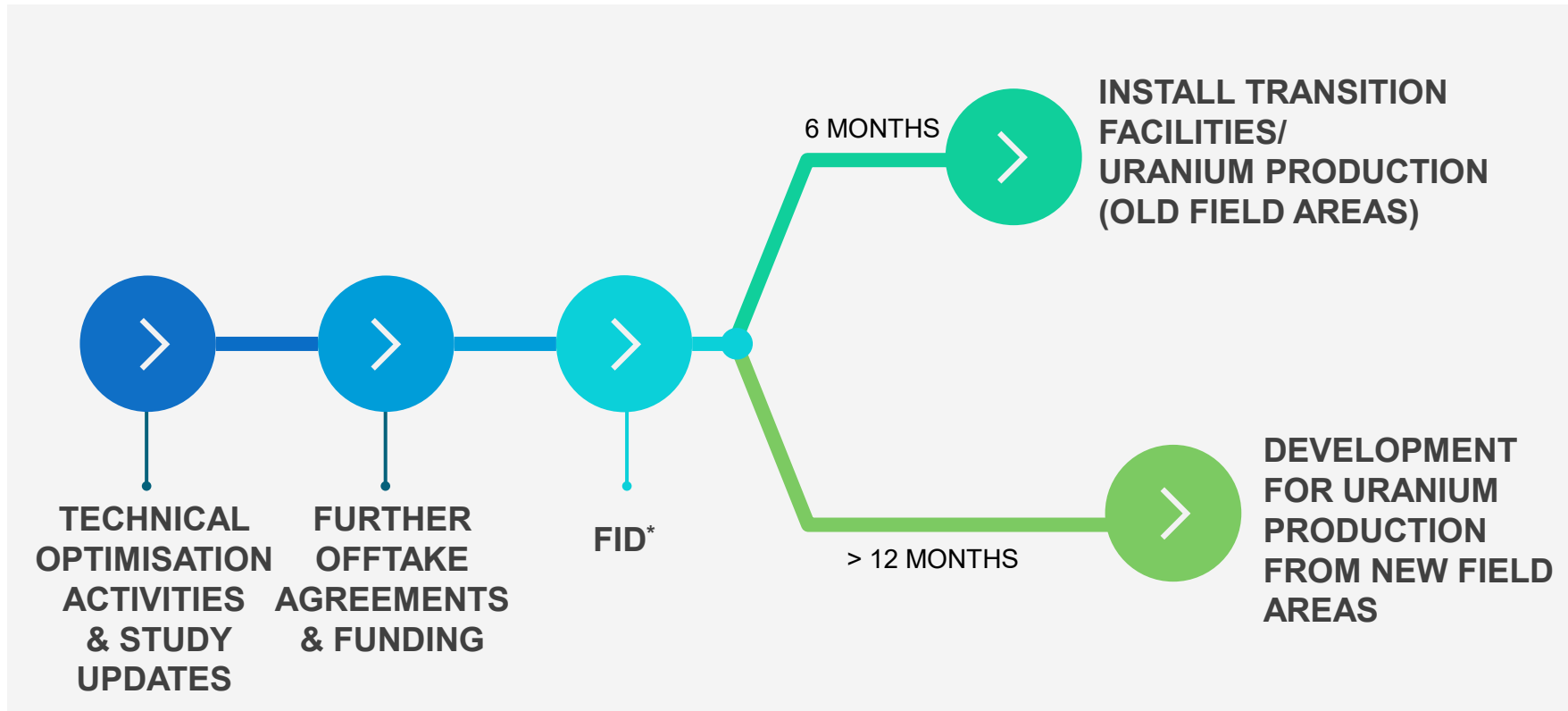
1) There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration and delineation work will result in the determination of indicated mineral resources or that the production target itself will be realised.



MU-1A

- 12 to 18 month duration started in August 2020
- Three full scale production patterns in a newly developed area within Mine Unit 1
- Maintaining design flow rate of 75 GPM
- Acidification approaching completion
- Testing alternatives for oxidants
- Solids management systems performing to expectations
- Pilot recovery plant with scaled ion-exchange units will be activated upon reaching target production stream chemistry

A Well-Defined Pathway to Production



* Low pH implementation FID decision could be made concurrent to optimisation activities

Uranium Sales and Marketing





- ④ **The only junior uranium producer with long-term sales contracts extending to 2030**
 - ④ Representing ~15% of projected Lance FS LOM production

- ④ **Current contracts in place for up to 5.5M lbs at US\$51-\$53 / lb U3O8, with major utilities in both the US and Europe**
 - ④ 75,000 lbs U3O8 of deliveries in 4Q20 generated a net cash margin of \$US1.4 million
 - ④ 450,000lbs to be delivered in each of CY2021 and CY2022

- ④ **CY2021 Uranium sales Net Cash Margin of US\$6-8 million secured**
 - ④ Matching binding contract sales with market purchase agreements

- ④ **Strong existing relationships with preferred customers will serve as a base for future business opportunities**

Nuclear Energy Market Drivers





🌀 US Domestic Uranium Reserve

- 🌀 Bipartisan support for a long-term buying program from US uranium mines
- 🌀 US\$75 million approved in US FY21 Budget to purchase US produced U_3O_8
- 🌀 Legislation advancing in the US Senate to support Advanced Nuclear Energy Initiatives, including the Strategic Uranium Reserve purchases

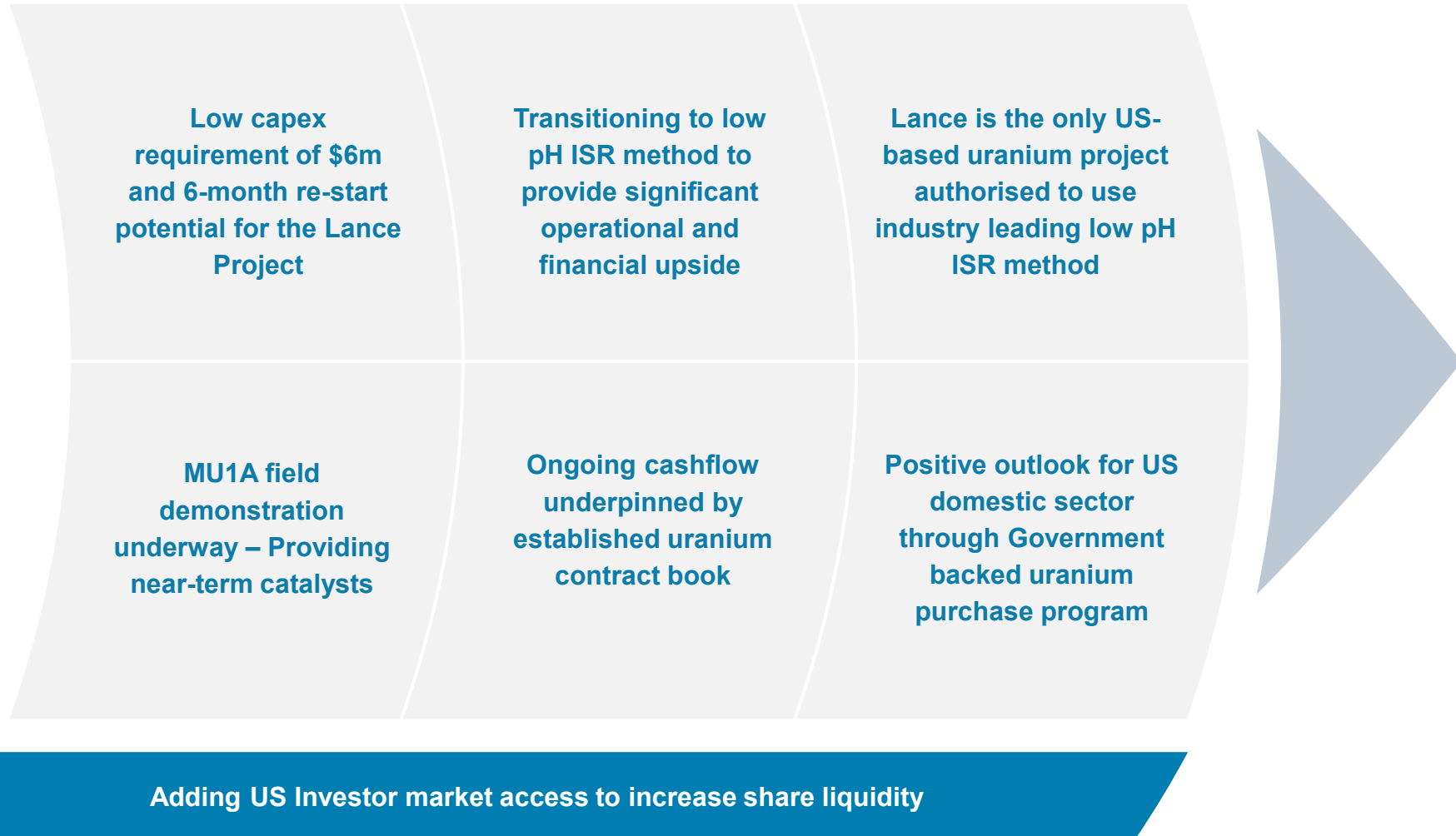
🌀 Extended/Amended Russian Suspension Agreement (RSA)

- 🌀 20-year extension of Amended RSA – signed 5 October 2020
- 🌀 Limits Russian origin uranium and opens market opportunities for US Uranium Producers

🌀 What does this mean for Peninsula?

- 🌀 **Peninsula is the only ASX-listed uranium company that has the immediate ability to take advantage of these US government programs that support US uranium mines**

A Compelling Proposition



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FURTHER INFORMATION

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Lance Projects Resource Estimate as at 31 December 2019				
Classification	Tonnes (million)	U3O8(kg)	Grade (ppm U3O8)	U3O8(lbs)
Measured	3.4	1.7	489	3.7
Indicated	11.1	5.5	496	12.1
Inferred	36.2	17.2	474	37.8
Total	50.7	24.4	480	53.6

1) JORC Table 1 included in an announcement to the ASX released on 14 November 2018: “Revised Lance Projects Resource Tables”. Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.