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PENINSULA ACQUIRES ADDITIONAL GROUND AT THE LANCE PROJECT, WYOMING USA CONTAINING KEY HISTORIC URANIUM MINERALISATION

Highlights

- **The Mineral Rights acquisition programme secures additional ground containing key historic uranium mineralisation at the Lance Project in Wyoming, USA**
- **Total land holding now 12,905 acres**
- **The newly acquired ground contains the site of the NuBeth ISR Pilot Plant which operated successfully in 1978 and 1979**
- **The newly acquired ground also hosts 737 historic drill holes, 329 of which were mineralised and intersected multiple vertically stacked roll fronts**
- **Best historic mineralisation in the newly acquired areas is SP-5V which intersected 2.7m (9ft) @ 0.248% eU_3O_8 with mineralised holes averaging 3.7m (12ft) @ 0.06% eU_3O_8**
- **Historic reports and testing shows that these mineralised sand units are of ideal thickness for and highly amenable to extraction using ISL methods**

Summary

Peninsula Minerals Limited **("Peninsula")** is pleased to announce that the Mineral Rights acquisition program which commenced in November 2007 has secured further mineral title at the Lance Project in Wyoming, USA **("Lance Project")** covering 18.45km^2 (4,560 acres). This ground is highly mineralised, containing 737 historic drill holes. The total land area now controlled by Peninsula is 52.22km^2 (12,905 acres) and includes 2295 of the 5036 historic drill holes at the Lance Project. Peninsula is continuing to acquire title over additional land with negotiations being intensified with the start of the field season.

The Lance Project is located on the North-East side of the Powder River Basin in Wyoming. The historic drilling data acquired by Peninsula has defined a new uranium district previously unknown due to this drilling data and other project related data being held by one related entity since its discovery in 1970. The historic drilling defined 13 prospects in total; Peninsula now holds title over 7 of these 13 mineralised areas. As previously announced to the market, Peninsula is in the process of actively acquiring mineral title over the remaining prospect areas. Title controlled by Peninsula is depicted in Figure 1.

The quality of the mineralisation within the Lance project area is highlighted by the identification of 22 mineralised sands with more than 204 km (127 miles) of roll fronts. Each prospect area contains from one to eight vertically stacked mineralised roll fronts giving multiples of resource potential over the 37 km strike length of the Lance Project area.

The newly acquired land includes the site of the historic In-situ recovery pilot plant **("ISR Pilot Plant")** operated by the NuBeth JV (refer project background section below), where four mineralised vertically stacked roll fronts have been identified by the historic drilling. The ISR Pilot Plant was designed to produce 40,000 lb of U_3O_8 per year and ran successfully for ten months. The ISR Pilot Plant was closed due to the Three Mile Island Incident in March 1979 and the site was fully rehabilitated with all bonds returned in 1984. However the historic assay results, metallurgical tests, environmental baseline studies, and proven aquifer restoration should prove invaluable to Peninsula in reducing the time required for state and federal permitting for a planned new ISR mining operation.

The 737 historic holes that were drilled in the newly acquired areas contain many highly mineralised intersections at grades comparable to those mined in ISL operations on the South-West side of the Powder River Basin. These mineralised holes complement the other mineralised holes covering adjacent areas already held by Peninsula. The newly acquired title from the Ross, Houx and Lucas prospects contain holes that average 3.70m (12ft) @ 0.06% eU_3O_8 (using a cut of >0.03% eU_3O_8 and a grade thickness >0.3 ft % with a minimum thickness of 0.5m (1.5 ft)).

The Ross prospect (see Figures 1, 2 and 3), where the ISR Pilot Plant was located contains a best drill intercept of 4m (13 ft) @ 0.28% eU_3O_8 and averages 4m (13 ft) @ 0.05% eU_3O_8. The Ross prospect is the most densely historically drilled prospect at the Lance Project and mineralisation defined by historic drilling gives a projected exploration target size at the Ross prospect alone of 6–8m lb U_3O_8 at target grades of 0.05-0.06% U_3O_8[1]. A plan showing the best eU_3O_8 grades returned in historic drilling from each prospect is shown in Figure 2, and the average grades for each prospect are shown in Figure 3.

Over the other 12 prospects plus adjacent areas, the exploration target size potential is 33-53m lb at an expected grade of 0.05-0.08% U_3O_8[1]. This significant potential is largely a result of the vertical stacking of the roll fronts which multiplies the chances of mineralisation per km of strike length. The drill density between the prospects is very low, and many of the holes that were drilled did not go deep enough to test the deeper roll front positions. Even so, there are also many widely spaced holes which intersected mineralisation in areas with minimal follow-up drilling. Further drilling around these areas was planned however the cessation of exploration activity following the decision to shut the pilot plant means that this potential is very open.

A listing of top 50 mineralised holes from the newly acquired areas is given in Table 1 overleaf.

Table 1: Top 50 mineralised areas at newly acquired ground at Lance Project

Hole ID	Local E (m)	Local N (m)	Depth From (ft)	Depth To (ft)	Thickness (ft)	Thickness (m)	Grade %eU3O8
4V	15236	90149	530	535	5	1.5	0.074
670M	15472	90202	510	514.5	4.5	1.4	0.127
701R	14826	91563	607	624	17	5.2	0.053
728M	15314	90675	487	490.5	3.5	1.1	0.25
SP-1063R	15294	90150	520	521	1.5	0.3	0.863
SP-1067R	15292	90179	510	533.5	23.5	7.2	0.08
SP-1069R	15265	90149	514	521.5	7.5	2.3	0.051
SP-1095R	15294	90164	513	517.5	4.5	1.4	0.197
SP-1096R	15279	90148	516	517.5	1.5	0.5	0.249
SP-127R	14763	91505	661	667	6	1.8	0.071
SP-227V	15238	90197	506	517.5	11.5	3.5	0.051
SP-286R	14968	90975	536	545.5	9.5	2.9	0.083
SP-293V	14895	92809	578	587.5	9.5	2.9	0.074
SP-305R	14810	90885	528	559	31	9.4	0.054
SP-374V	14978	92872	529.5	537.5	8	2.4	0.054
SP-38V	15247	91294	492	494	2	0.6	0.157
SP-397V	15065	90469	466	467.5	1.5	0.5	0.211
SP-3V	15265	90173	504.5	507	2.5	0.8	0.2
			515.5	522.5	7	2.1	0.06
SP-3X	15475	90134	532	537.5	5.5	1.7	0.069
SP-401V	15003	91162	512.6	519.1	6.5	2.0	0.067
SP-520V	15326	90455	529.8	532.3	2.5	0.8	0.121
SP-525V	15325	90480	451.4	458.9	7.5	2.3	0.085
SP-54R	15242	90091	529	531	2	0.61	0.153
SP-557R	14731	91505	644	665.5	21.5	6.6	0.063
SP-559R	14790	91504	625	644.5	19.5	5.9	0.058
SP-562V	15365	90517	497.2	509.7	12.5	3.8	0.067
SP-563V	15295	90494	476	486	10	3.0	0.097
SP-5V	15239	90173	508.4	517.4	9	2.7	0.248
SP-74R	15302	90088	499	502	3	0.9	0.107
SP-783R	15347	91381	594	596	2	0.6	0.283
SP-791V	15298	90183	500.5	502	1.5	0.5	0.265
SP-905R	15304	91201	396	405.5	9.5	2.9	0.076
SP-906R	15216	91077	463	471	8	2.4	0.072
			546	549.5	3.5	1.1	0.107
SPD-577M	15359	90719	411	425.5	14.5	4.4	0.101
SPD-611M	15452	90135	524	536.5	12.5	3.8	0.079
SPD-742M	15331	90647	433	435.5	2.5	0.8	0.127

All assays are reported as eU_3O_8 which is equivalent U_3O_8 grade based on down-hole gamma logging, disequilibrium does exist within the system but is generally restricted to the zone above the water table.

A least one drill intersection down-hole must meet the cut-off based on grade- thickness interval of greater than 0.20% eU_3O_8 metres (0.65% eU_3O_8 feet), with minimum down-hole interval of (0.5 metres) 1.5 feet. Only the best 50 holes of 128 mineralised holes shown above. All holes are vertical, mineralisation is sub-horizontal and true widths of mineralisation are estimated to be close to stated intersection intervals. Grid is local Sundance grid in metres, hole locations have not yet been verified in the field however sufficient topographic and map reference details exist to provide satisfactory evidence of drill hole locations. Data source original drill logs and Report Raymundo J. Chico, Inc., 1978 Report on "Total Uranium Resources in Pounds of eU_3O_8 as of July 31, 1978".

Disequilibrium Explanatory Statement: eU3O8 refers to the equivalent U3O8 grade. This is estimated from gross-gamma downhole measurements corrected for water and drilling mud in each hole. These results are provisional upon the application of calibration correction factors which are determined from geochemical analysis. Geochemical analysis may show higher or lower amounts of actual U3O8, the difference being referred to as disequilibrium. All eU_3O_8 results above are affected by issues pertaining to possible disequilibrium and uranium mobility which should be taken into account when interpreting those pending confirmatory chemical analyses.

Lance Project Background

The Lance Project area hosts 13 areas of uranium mineralisation covering an extensive area (37 kilometres by 8 kilometres). The original NuBeth Joint Venture, a joint venture between Nuclear Dynamics Inc, Bethlehem Steel Corporation and later Pacific Power and Hyrdo **("NuBeth JV"),** discovered thirteen substantial zones of uranium mineralisation associated with an extensive system of roll fronts.

As part of this exploration program, the NuBeth JV drilled more than 5,000 exploration and development holes, totalling in excess of 912,000 metres in the Sundance district. Peninsula purchased the historic data of the Lance Project area in the second half of 2007 and is now the dominant mineral rights holder in this re-discovered uranium district, giving it a distinct competitive advantage.

Conclusions

The continued acquisition of land title and the integration of the large amount of historic drill, engineering and baseline data is steadily progressing Peninsula towards development of the Lance project.

Yours Sincerely

John (Gus) Simpson
Chairman

For further information, please contact our office on (08)9420 9333 during normal business hours.

[1]Please note that the potential quantity and grade of the Exploration Targets in this announcement are conceptual in nature, that there has been insufficient exploration to define a Mineral Resource and that it is uncertain if further exploration will result in the determination of a Mineral Resource.

Competent Person

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Jim Guilinger, Principal of independent consultants World Industrial Minerals who 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Guilinger consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

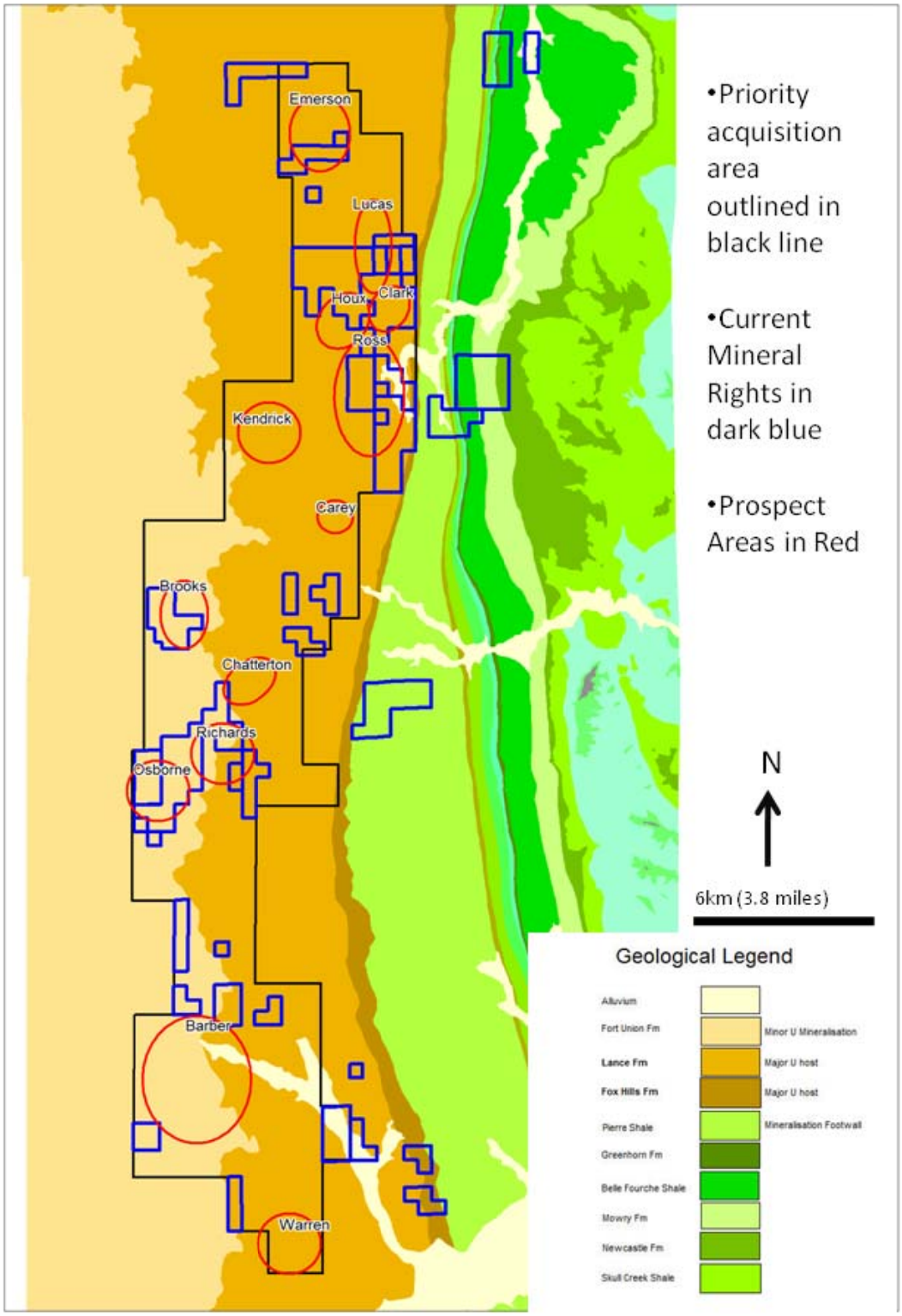

Figure 1: Lance Project Title Holdings shown in blue, land planned for acquisition in black and prospects outlined in red.

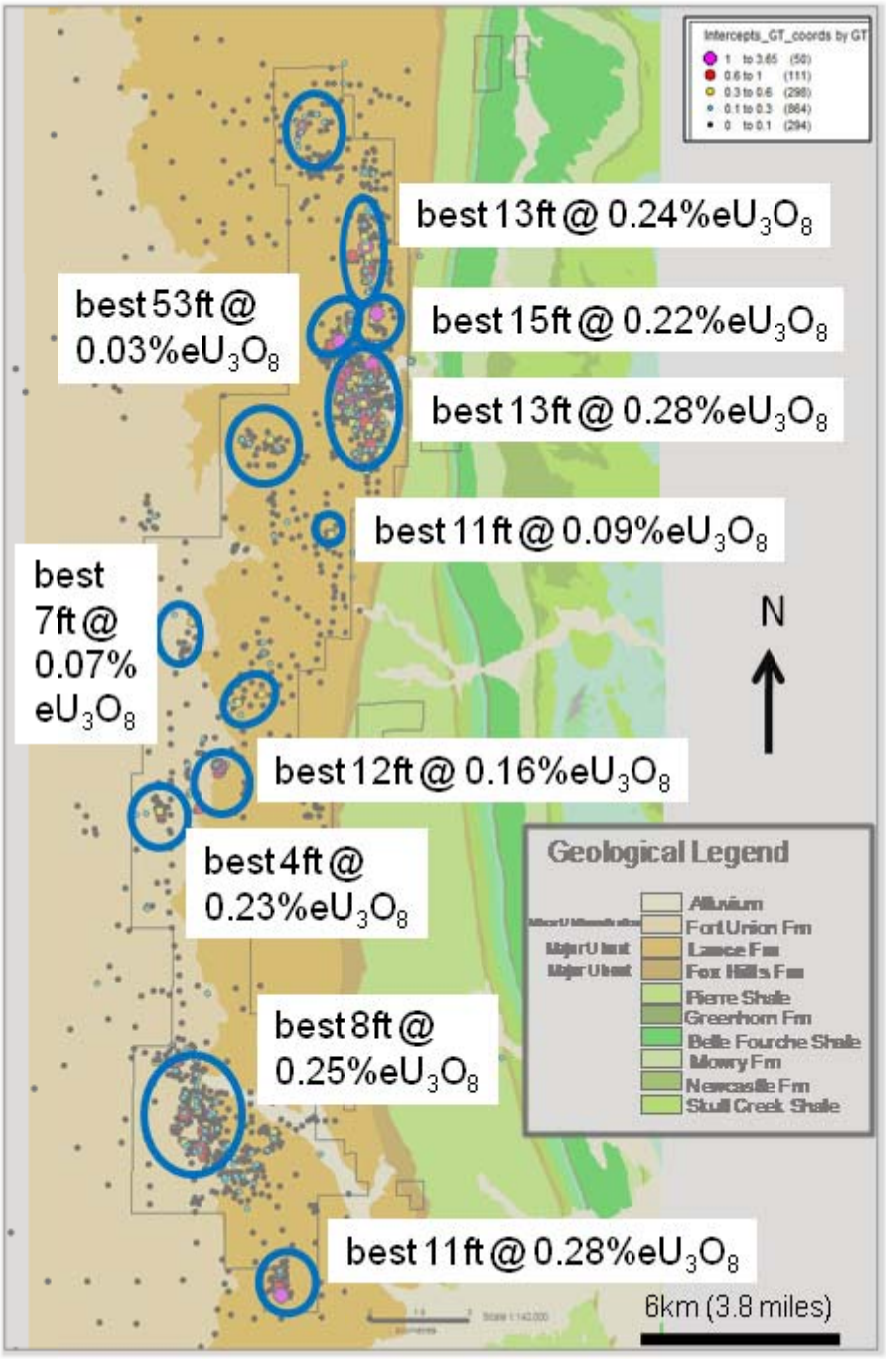

Figure 2: Lance Project best intercepts per prospect

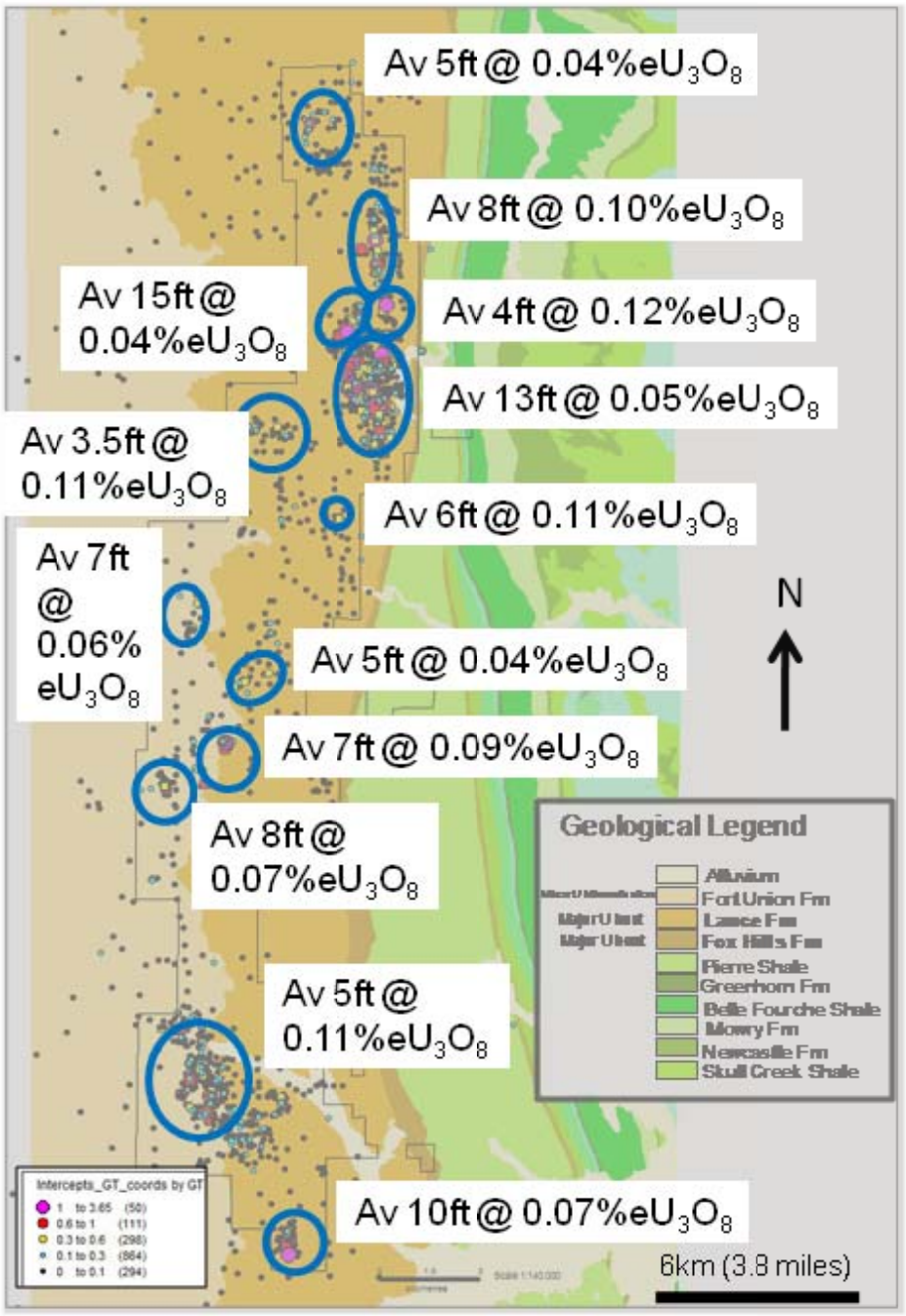

Figure 3: Lance Project Average intersections per prospect (using 0.02% cut and a minimum grade thickness of 0.3ft%)