
Assay Batch 4: Further Excellent Assay Results at Highland Plains Including New Low Contaminant Assays

1.0 Highlights

- Latest assay results include **13 metres at 22.5% P₂O₅** (refer to Table 1) from aircore hole HAC055, located in the centre of the project area. This result included **5 metres at 28.9% P₂O₅**. This hole ends in mineralised material.
- **Low levels of contaminants:** New follow up assay results indicate low levels of contaminants and deleterious material within the mineralisation at Highland Plains.
- **Potential for Premium Product:** Low level contaminant assays compare favorably with phosphate mining operations around the world. This is a crucial point as it potentially makes the Highland Plains rock phosphate a product which could be in particular demand for blending with inferior material from elsewhere.

2.0 Assay Results – Batch #4

Phosphate Australia Limited (POZ) reports its Batch 4 drilling results from the Company's 100% owned Highland Plains Phosphate Project in the Northern Territory.

Batch 4 assays contain results from the more central area of Highland Plains. The Board continues to be encouraged by the quantity and quality of thick, persistent mineralisation throughout the project area. The results from holes in the centre of the project area confirm that thick intersections of phosphate at good grade persist at depth at Highland Plains and further confirm the historical drilling results.

This central area was drilled towards the end of the field season and did pose more challenging drilling conditions. A number of holes need to be re-drilled to greater depths as these appear too shallow. This was due to issues related to mechanical problems with the rig and ground conditions.

Table 1: Aircore/RC Drilling Results – Batch 4

Drillhole	From (m)	To (m)	Width (m)	P ₂ O ₅ %	Fe ₂ O ₃ %	Al ₂ O ₃ %	CaO %	MgO %	SiO ₂ %	CaO:P ₂ O ₅ Ratio
HRC040	20	31	11	13.5	8.2	4.5	17.9	0.3	48.7	1.32
Includes										
HRC040	26	31	5	15.2	17.0	4.4	20.2	0.4	32.1	1.33
HRC041	19	32	13	15.1	4.6	4.6	19.8	0.3	48.6	1.31
Includes										
HRC041	21	22	1	30.4	1.1	2.5	41.7	0.1	20.5	1.37
HRC042	18	19	1	12.0	1.9	5.1	16.1	0.3	61.5	1.34
HRC042	22	24	2	13.7	17.0	3.1	18.4	0.2	39.7	1.34
HRC049	24	25	1	12.6	0.8	4.0	16.9	0.3	59.4	1.34
HRC049	29	41	12	16.1	7.9	3.5	21.0	0.2	44.0	1.28
Includes										
HRC049	29	33	4	21.0	7.4	3.3	27.5	0.1	33.6	1.31
HRC050	20	22	2	19.7	16.4	3.2	26.4	0.3	27.3	1.34
HAC053	36	38	2	14.3	2.3	3.7	18.4	0.2	54.3	1.29
HAC053	Hole ends in mineralisation at 45 m (7.5% P ₂ O ₅). Requires deeper drilling.									
HAC055	10	11	1	17.7	1.2	6.6	23.1	0.5	43.5	1.31
HAC055	20	23	3	10.7	0.9	6.7	14.3	0.4	58.9	1.34
HAC055	34	47	13	22.5	5.3	3.0	31.1	0.9	29.4	1.38
Includes										
HAC055	41	46	5	28.9	5.3	2.4	39.0	0.2	19.3	1.35
HAC055	Hole ends in mineralisation at 49 m (8.0% P ₂ O ₅). Requires deeper drilling.									
Holes HRC043 (16 m*), HRC 046 (25 m), HRC048 (40 m), HAC054 (18 m), HAC 057 (27 m) and HAC058 (10m) contained no significant mineralisation. These holes appear to have not been deep enough to intersect the phosphorite horizon(s). Most of these holes were ended due to mechanical problems with the rig or poor drilling conditions. Lack of time and wet weather precluded the re-drilling of these holes last field season. However, re-drilling these holes to a greater depth is a priority for this year.										

* denotes hole depth

NB: All assays by XRF; assays are uncut. All holes were vertical aircore or RC. All holes for which assay results have been received are included.

Batch 4 is the final batch of aircore/RC results from the 2008 field season. All results (other than for diamond core) have now been released.

Hole locations are shown in Figure 3 of this report. A full collar file with hole depths was included in POZ ASX release dated 16 December 2008.

3.0 Impurities: First Assay Results – Favorable Low Levels of Contaminants

Higher grade phosphatic material at Highland Plains was further assayed for contaminants and deleterious elements. The results are reported below for Batches 1 and 2.

Table 2: Impurities Assay Results – Batches 1 & 2

Hole	From (m)	To (m)	Width (m)	P ₂ O ₅ %	C %	S %	F %	Cl ppm	Cd ppm	U ppm
HAC001	1	10	9	27.1	0.15	0.03	2.21	153	5	18
Includes										
HAC001	2	7	5	30.5	0.15	0.02	2.43	Note 1	5	17
HAC002	4	6	2	14.8	0.12	0.03	1.44	Note 2	2	27
HAC012	3	10	7	15.2	0.17	0.06	1.52	Note 3	5	37
HAC020	4	15	11	27.2	0.16	0.06	2.14	Note 4	5	33
Includes										
HAC020	5	11	6	30.2	0.17	0.03	2.47	<100	5	22
HAC021	11	12	1	16.0	0.13	0.07	1.34	100	9	63
HAC024	6	12	6	21.7	0.17	0.06	1.88	Note 5	6	45
HAC031	20	22	2	15.1	0.15	0.14	1.34	Note 6	8	20
T1-35	16	20	4	13.2	0.33	0.04	1.28	<100	2	-
T1-35	31	32	1	11.1	0.24	0.02	1.05	<100	2	-
<i>Notes on Chlorine Assays</i>										
<i>Note 1: 1-7m <100ppm, 13-14m=100ppm, 9-10m=260ppm</i>										
<i>Note 2: 4-5m <100ppm, 5-6m=100ppm</i>										
<i>Note 3: 3-6m <100ppm, 6-10m Avg=155ppm</i>										
<i>Note 4: 4-12m & 13-14m<100ppm, 12-13m + 100ppm, 14-15m=400ppm</i>										
<i>Note 5: 6-10m <100ppm, 10-12m = 100ppm</i>										
<i>Note 6: 20-21m <100ppm, 21-22m = 360ppm</i>										

Carbon and Sulphur assays by sample ignition and detection by infra-red Carbon/Sulfur analyser. Fluorine assay by selective ion electrode. Chlorine assay by ammonium thiocyanate / silver nitrate titration. Cadmium assay by ICP. Uranium assay by XRF.

As seen in Table 2, the Highland Plains rock phosphate material assayed is favorable with respect to contaminants. Below is a list of some of the desirable target ranges and published numbers for contaminants for commercial rock phosphate (beneficiated product):

- **Organic Carbon:** less than 1% is preferred, less than 0.2% is ideal. ¹
- **Sulphur:** less than 1.2% is preferred, less than 0.4% is ideal. ¹
- **Fluorine:** normally should not exceed 3 or 4%. ²
- **Chlorine:** normally should not exceed 200 to 300 ppm. High levels of chlorine can cause corrosion problems in phosphoric acid plants. Moroccan rock phosphate averages around 200 to 300 ppm. ³
- **Cadmium:** Based on the initial data above Highland Plains contains around 5.4 ppm Cd for the intersections > 15% P₂O₅ or 54 mg Cd/kg P. This is very low by world standards. Moroccan rock phosphate averages around 200 mg Cd/kg P. Imported fertilizer (MAP) contains around 90 mg Cd/kg P. ⁴
- **Uranium:** A Queensland rock phosphate deposit currently being mined averages around 100 ppm. ⁵

¹ *Carbon and Sulphur: based on POZ research*

² *Notholt, A.J.G., 1994. Phosphate Rock: Factors in economic and technical evaluation. Geol Soc, London, Special Publications 1994; v.79; p. 54-65.*

³ *Handbook on Fertiliser Technology. 2001, FAI, New Delhi.*

⁴ *Syers, J.K., 2001. Progress in the development of decadmiation of phosphorous fertilizers. In Fertilizer Industry Federation of Australia Inc., Conference "Fertilizers in Focus", 28-29 May 2001, p. 101-106.*

⁵ *McKay, A.D. & Mieзитis, Y., 2001. Australia's uranium resources, geology and development of deposits. AGSO. Geoscience Australia, Mineral Resource Report 1.*

The POZ results in Table 2 compare most favorably with many rock phosphate mining operations around the world and open up the potential for POZ to supply a highly sought after, low contaminant product that could be used for blending with inferior material from other operations.

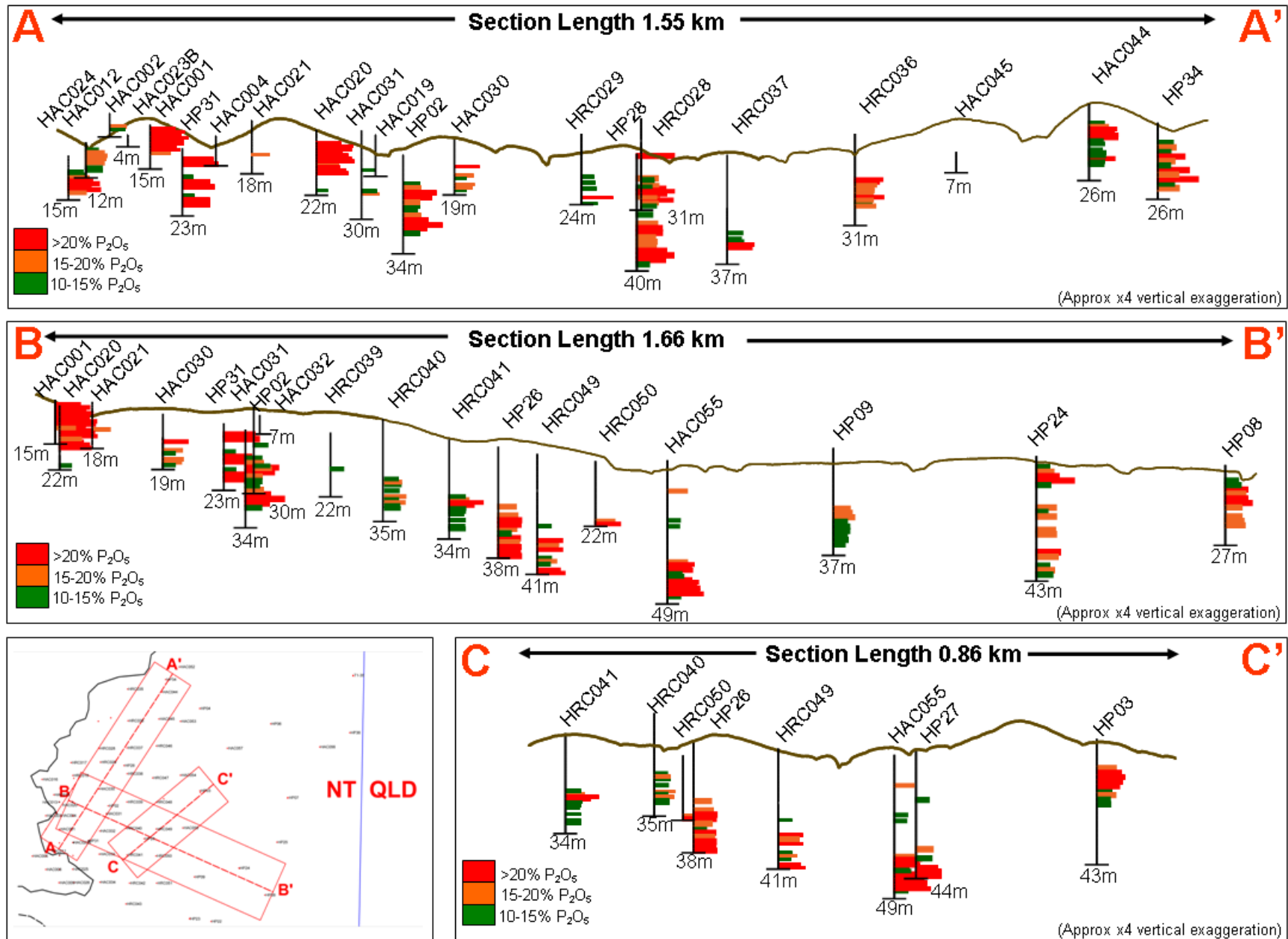
4.0 Geology and Sections

Results from the Phase 1 drilling program are highly encouraging. Historic results and the POZ assay data indicates Highland Plains has high grade phosphate mineralisation over significant intersections, close to surface and with continuation to the east still at relatively shallow depths when considering the ratio of overburden to mineralisation.

Figure 1 shows three sections across the Highland Plains Project. Of particular interest are the thick high grade intersections at surface and relatively shallow depths. It is important to note that the scale of these sections is large, with the sections being 1.55 km, 1.66 km and 0.86 km long respectively.

This gives an indication of the significant footprint of the mineralisation and confirms that further considerable drilling this field season is required.

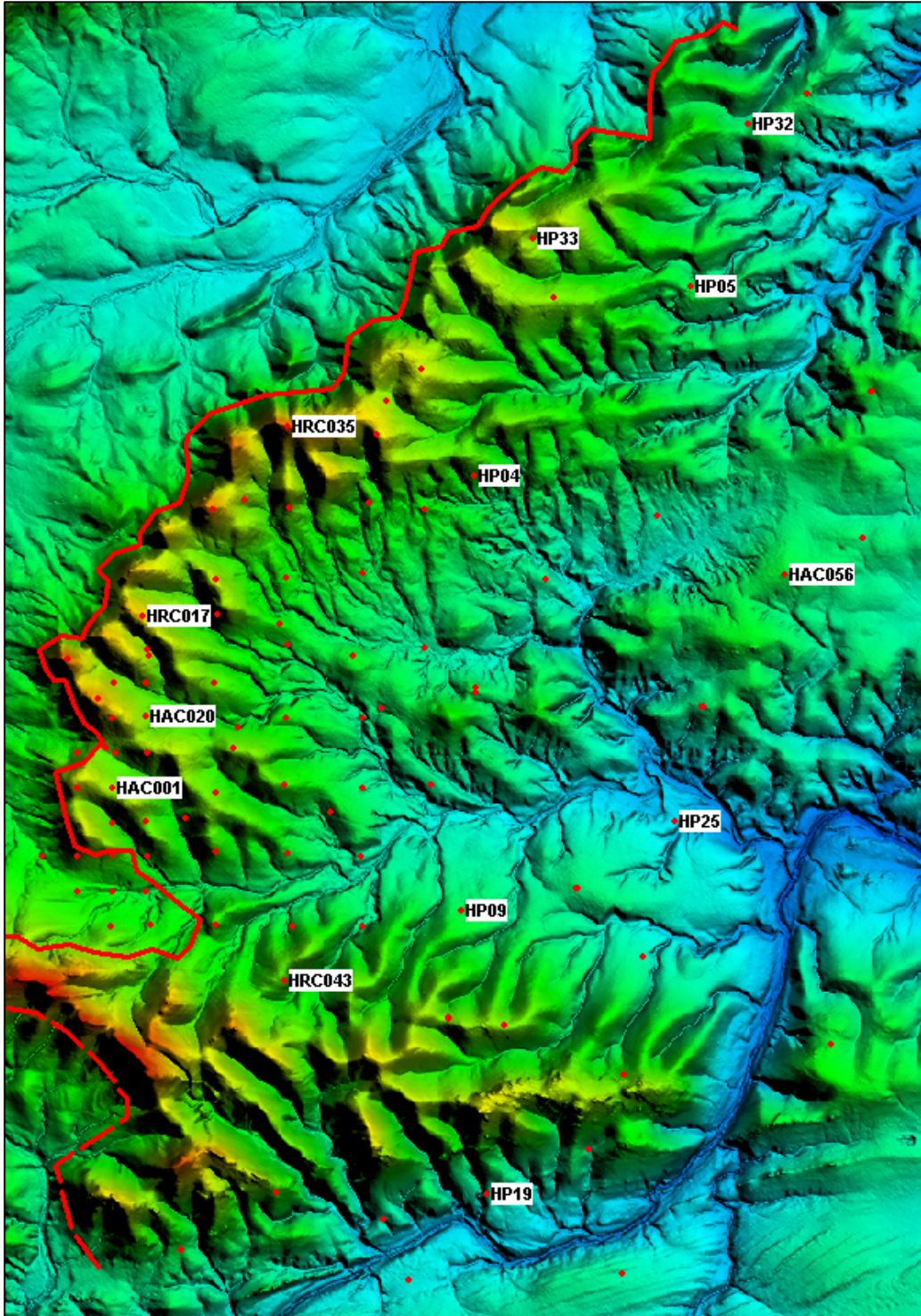
Figure 1: Highland Plains geological cross sections.



5.0 LIDAR Data: Spatial Mapping

POZ earlier in the year flew an airborne LIDAR mapping survey which maps the height of the ground using a laser scanner. This data has now been received after processing and is proving to be a very useful tool. Extremely accurate topographic maps are now able to be produced over the entire project area (Figure 2) and this data is now being used for ore modeling, mapping, planning and other purposes, all assisting POZ in advancing the Project more efficiently and swiftly.

Figure 2: LIDAR mapping data showing Highland Plains project topography.



Vertical relief exaggerated. Selected drill holes as annotated, remaining drill hole collars as red dots.

6.0 JORC Resource and Drilling

Now that all of the aircore/RC drilling results are in, these data will be assessed by our resource consultants over the coming quarter with the aim of arriving at a JORC compliant resource. However, it must be made clear that this does depend on how well the geological model fits the available data and how consistent the POZ data is with the historic data.

POZ are planning to aggressively re-commence drilling operations as soon as logistical planning and weather in the area permits. This is currently expected to be in early April.

7.0 Summary and Look Ahead

This is an exciting time for the Company. Excellent phosphate grades have been confirmed over multiple areas at very shallow depths at Highland Plains. Cross sections (Figure 1) indicate there is potential for a large area of mineralised material to be outlined.

Importantly, new assay results indicate that the levels of key potential contaminants (carbon, sulphur, chlorine, fluorine, cadmium and uranium) in the phosphate are low and compare favorably to various rock phosphate mining operations around the world. This potentially makes the Highland Plains rock phosphate an ore which could be in demand for blending.

The Project is advancing quickly and well, the LIDAR mapping data has enabled POZ to get a very good picture of how to target further drilling and to model current results. The data will prove invaluable as we move onto future planning phases.

The year ahead is shaping up as a busy one. The early excellent results from Highland Plains have now given the Board enough confidence to advance the project as swiftly as is possible. It is planned for two drill rigs to start drilling at Highland Plains as soon as possible. Logistics studies have commenced on various rock phosphate transport possibilities and the various port options are also being assessed.

The Company is well resourced to pursue this years work with \$6.6 million cash on hand as at the end of the December quarter.

ANDREW JAMES
Managing Director

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Jim Richards and Ms Lisa Wells, who are both Members of The Australasian Institute of Mining and Metallurgy. Mr. Richards and Ms Wells are both Directors of POZ and Ms Wells is also a full time employee. Both Mr. Richards and Ms Wells have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Richards and Ms Wells both consent to the inclusion in the report of the matters based on the information in the form and context in which it appears

Figure 3: Drillhole Collar Plan of Highland Plains Project

