14 MINERAL RESOURCE ESTIMATES

This PEA is based on a NI 43-101 compliant uranium-vanadium resource estímate undertaken for U3O8 Corp. by Coffey Mining with an effective date of April 6, 2011 and reported in a NI 43-101 technical report dated May 20, 2011 (Coffey Mining, 2011). The resource estímate at Laguna Salada comprised two distinct mineralized areas, the Guanaco and Lago Seco sectors, of which Guanaco contains approximately 88% of the resource (Figure 14-1).

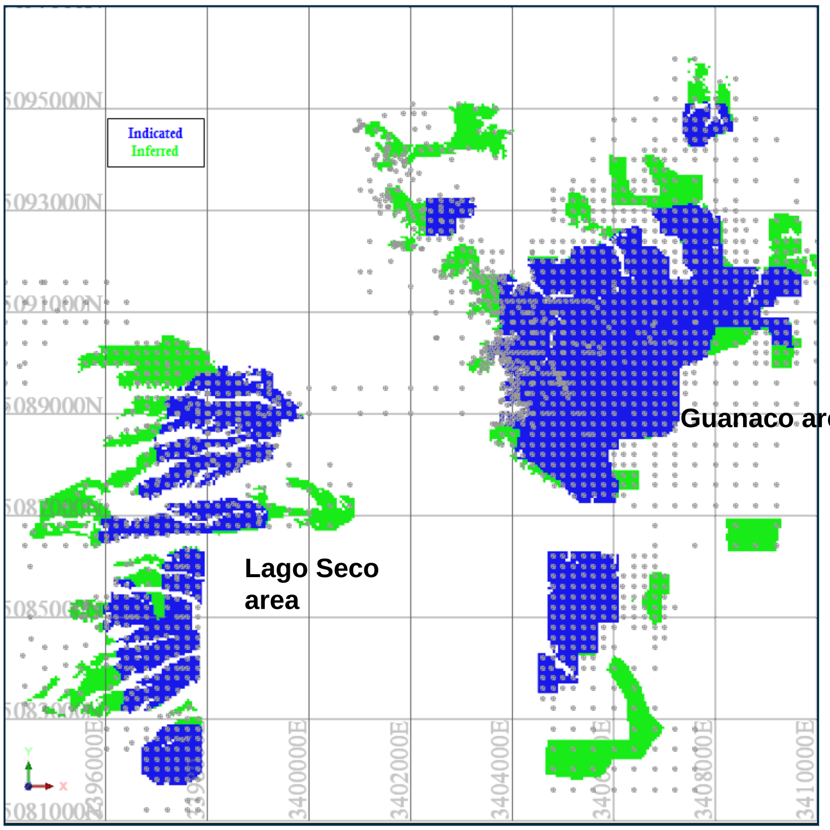


Figure 14-1: Map shows the distribution of Indicated and Inferred Resources estimated at Laguna Salada

Grey dots show the distribution of trenches and the grey squares measure 2km by 2km.

14.1 Uranium-Vanadium Mineral Resource Estimate

A summary of the resource estimates for uranium and vanadium in the Laguna Salada Project is shown at various U_3O_8 cut-off grades in Table 14-1. The recommended cut-off grades for the two mineralised areas, taking into account their distinct beneficiation characteristics, are: 25ppm U_3O_8 for Guanaco and 100ppm U_3O_8 for Lago Seco.

Table 14-1: Tabulation of Tonnage, Grade and Contained U_3O_8 and V_2O_5 for the Guanaco and Lago Seco areas of the Laguna Salada Deposit
(Coffey Mining, 2011)

Guanaco Ordinary Kriging Estimate Using 100m x 100m x 1m Parent Cell. Density of 1.9 t/m^3						
Category of Resource	Lower cut-off (ppm U_3O_8)	Tonnes (millions)	Average Grade		Contained Metal	
			Average Grade U_3O_8 (ppm)	V_2O_5 (ppm)	U_3O_8 (millions of lbs)	V_2O_5 (millions of lbs)
Indicated	**25**	**44.6**	**55**	**530**	**5.5**	**52.0**
	50	17.6	85	585	3.3	22.7
	75	6.5	125	615	1.8	8.8
	100	3.9	155	630	1.3	5.4
Inferred	**25**	**19.4**	**80**	**555**	**3.4**	**23.7**
	50	11.6	110	600	2.8	15.3
	75	6.8	140	700	2.1	10.5
	100	4.6	170	780	1.7	7.9
Lago Seco Ordinary Kriging Estimate Using 100m x 100m x 1m Parent Cell. Density of 1.7 t/m^3						
Category of Resource	Lower cut-off (ppm U_3O_8)	Tonnes (millions)	Average Grade		Contained Metal	
			Average Grade U_3O_8 (ppm)	V_2O_5 (ppm)	U_3O_8 (millions of lbs)	V_2O_5 (millions of lbs)
Indicated	25	17.3	75	580	2.8	22.1
	50	12.6	85	610	2.3	16.9
	75	5.6	115	715	1.4	8.8
	100	**2.7**	**145**	**840**	**0.9**	**5.0**
Inferred	25	8.6	65	715	1.3	13.5
	50	5.0	85	835	0.9	9.2
	75	2.5	110	985	0.6	5.3
	100	**1.3**	**130**	**1,065**	**0.4**	**3.1**
Summary of Resource for the Laguna Salada Project using recommended cut-off grades for the Guanaco and Lago Seco areas						
Category of Resource	Lower cut-off (ppm U_3O_8)	Tonnes (millions)	Average Grade		Contained Metal	
			Average Grade U_3O_8 (ppm)	V_2O_5 (ppm)	U_3O_8 (millions of lbs)	V_2O_5 (millions of lbs)
Indicated Resources						
Guanaco	25	44.6	55	530	5.5	52.0
Lago Seco	100	2.7	145	840	0.9	5.0
Total Indicated		47.3	60	550	6.3	57.1
Inferred Resources						
Guanaco	25	19.4	80	555	3.4	23.7
Lago Seco	100	1.3	130	1,065	0.4	3.1
Total Inferred		20.8	85	590	3.8	26.9

Note: Resource figures have been rounded

14.2 Methodology and Assumptions

Of the 2,146 pits excavated in the Project area, 2,089 (totalling 5,820m) were selected, based on trench spacing, for incorporation in the Laguna Salada mineral resource estimate (Coffey Mining, 2011).

Trench spacing over the principal part of the resource are is on 200m by 200m centres, reduced to 100m and 50m spacing over specific areas to demonstrate continuity of the mineralised layer inferred from the 200m wide trench spacing. The resource area lies in an area of trenching that covers about 40km^2 at Guanaco and 25 km^2 at Lago Seco. The trenches have been dug up to 6m in rare instances, and average 2.8m deep. The mineralisation has an average vertical thickness of 0.94m in the resource areas.

Density data was based upon nine test pits in which the volume was measured by lining the pit with plastic and measuring the volume of water required to completely fill the pit, with the mass of the gravel excavated from the pit being measured on a scale. The quantum of the nine test pits density values was supported by some 268 density values obtained by measuring the mass of the gravel within drums of known volume. The drum density values are thought to underestimate the density due to expansion of the gravel when it is excavated.

A nominal 25ppm U_3O_8 lower cut-off was used to define the mineralised zone boundaries from each of the prospects. The resulting mineralisation interpretations showed very good geological continuity.

14.3 Summary

The initial uranium-vanadium resource estimate on the Laguna Salada Deposit comprised the Guanaco and Lago Seco areas, of which Guanaco contains about 88% of the contained resources. The mineral resource estímates, at a cut-off grade of 25ppm U_3O_8 for Guanaco and 100ppm U_3O_8 for Lago Seco, are as follows:

Uranium:

- Indicated Resource: 6.3Mlb U_3O_8 (47Mt at a grade of 60ppm U_3O_8);
- Inferred Resource: 3.8Mlb U_3O_8 (21Mt at a grade of 85ppm U_3O_8);

Vanadium:

- Indicated Resource: 57Mlb V_2O_5 (47Mt at a grade of 550ppm V_2O_5); and
- Inferred Resource: 27Mlb V_2O_5 (21Mt at a grade of 590ppm V_2O_5).

14.4 Further Work

The following further work was recommended by Coffey Mining (2011):

- Mineralisation remains open in both the Guanaco and Lago Seco sectors, which comprise the Laguna Salada Deposit and therefore further exploration is warranted;
- Infill trenching of extensions of the deposit area on which very wide space trenching was undertaken in 2011, but not incorporated in the current NI 43-101 resource;
- Further work is required to appropriately define the unconformity-hosted mineralisation in the Buried Lake area;
- Additional density measurements are required from throughout the resource area using a more robust measurement technique as described above; and
- The use of vibrosonic drilling techniques, or radiometric downhole assaying may be appropriate for use in the Deposit and allow for efficient exploration.

15 MINERAL RESERVE ESTIMATES

No mineral reserve estimates have been undertaken on the Laguna Salada Project as of the Effective Date.

16 MINING METHODS

16.1 Introduction

The mining study that was undertaken for this PEA included a review of the following factors:

- Geotechnical and hydrological assessment;
- Strip mining based on performance of continuous mining excavators;
- Mining with conventional truck and shovel or FEL combination;
- Open pit bench height and dilution;
- Equipment selection;
- Mine planning including strip design, strip staging, waste material handling and mine production scheduling;
- Location and design of a TMF; and
- Mine Opex and Capex estimation to an accuracy of ±35%.

The PEA was based on:

- The initial resource estimate prepared by Coffey Mining (2011);
- Preliminary geotechnical assessment and surface mapping;
- The Laguna Salada Project Conceptual Process Flow Sheet described in Chapter 17 of this report;
- Pre-concentration near the mining front with wet scrub-screen plants designed to retain the >75µm material that constitutes over 90% of the run-of-mine ("ROM"), and that would be returned to the excavation once the mining face had advanced, concentrating the majority of the uranium into the fine fraction that constitutes only approximately 10% of the ROM;
- Q3 2014 reference prices for:
  - Pre-concentration plant feeding equipment and installation including ROM silo, apron feeder, scrubber conveyor and ancillary equipment;
  - Pre-concentration wet scrubbers and ancillary equipment;
  - Pumps and pipelines for pre-concentrate and water;
  - Electrical equipment and power lines;
  - Fuel, mobile equipment and earthmoving tyres for earthmoving equipment;
  - Vendor-provided services for mobile maintenance and fuel management;
  - Continuous miners;
  - Conventional truck and backhoe operation; and
  - Auxiliary equipment.

16.2 Characteristics of Laguna Salada Pertinent to Mining Methods

Uranium-vanadium mineralisation at Laguna Salada is contained in flat-topped mesas of unconsolidated gravel that are approximately 10m higher than the surrounding plain. Mineralisation is concentrated in a flat to gently undulating layer that ranges between 0.2m and 1.5 m thick, averaging 0.9 m thick (Figures 9-3 and 9-5 in Chapter 9). Parts of the mineralised body lie at surface and elsewhere it reaches a maximum depth of 3m under a layer of barren gravel and soil up to 2m thick. Gravels and mineralisation in the Guanaco and Lago Seco sectors of the deposit (Figure 16-1) have somewhat different characteristics as discussed in Sections 7, 9, 13 and 14.

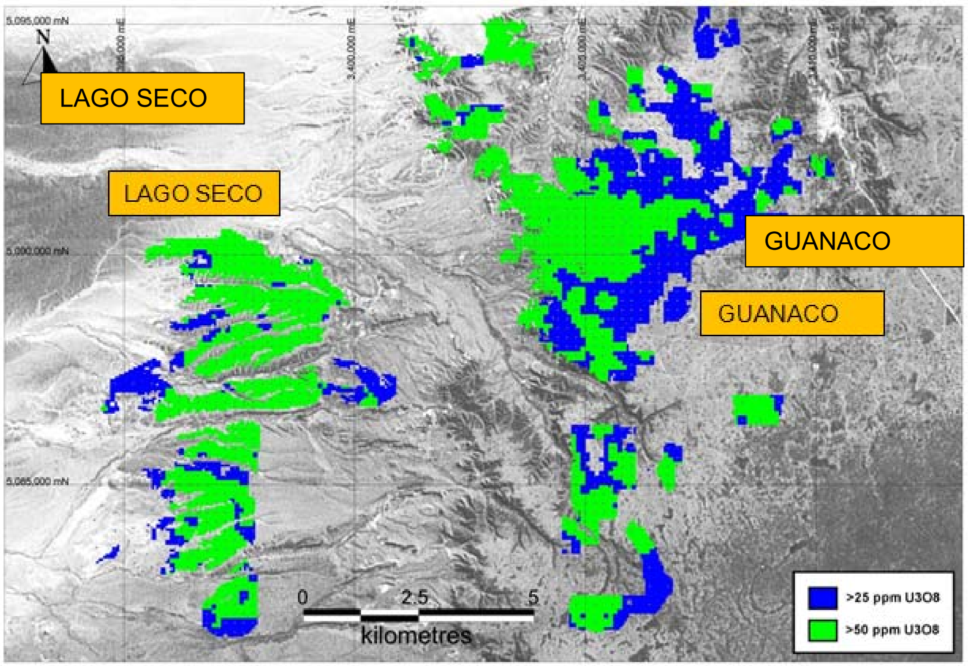


Figure 16-1: Distribution of grade shells of gravels that have a cut-off grade of 25 ppm and 50 ppm U_3O_8, excluding blocks that have a high gypsum content

Exploration pitting at Guanaco was undertaken over 40km^2, whereas coherent mineralisation at a mining cut-off grade of 40ppm U_3O_8 covers an area of 8.3km^2. The dimensions of the block model for mining are 14km north-south by 4km average width, with a maximum width of 8.5km in the northern part of the deposit (Figure 16-1). Similarly, exploration pitting at Lago Seco covered an area of 25 km^2, while coherent mineralisation at a cut-off grade of 40ppm U_3O_8, covers an area of 4.2 km^2. Lago Seco is 10km long in a north-south direction and 4.5km wide. The Lago Seco sector is separated from Guanaco by a 2.5km wide shallow valley that slopes to the west and northwest (Figure 16-2).

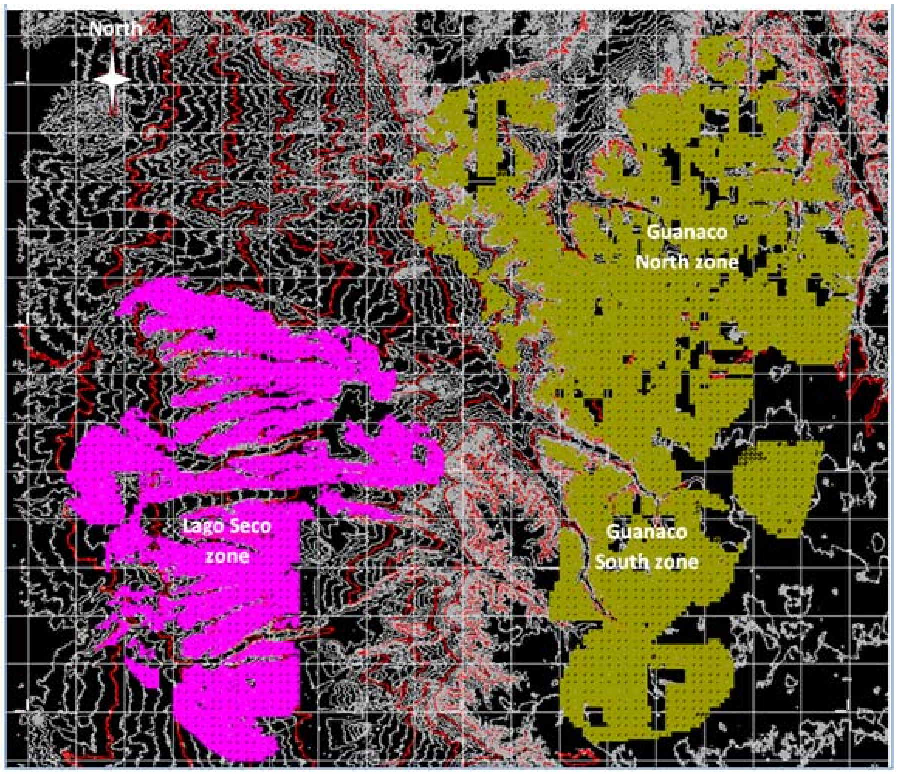


Figure 16-2: Footprint of mineralised areas at Laguna Salada shown with topographic contours

16.3 Geotechnical Factors and Hydrogeology

A preliminary geotechnical assessment was done for basic strip design and to determine bench constraints during a site visit, and on data collected during pitting in the exploration programs reported by Coffey Mining (2011).

16.3.1 Site Conditions

Land in the Project area is used for sparse sheep farming; the carrying capacity of the land is approximately 10Ha per animal. Development associated with sheep farming includes tracks over the gravel plain, wire fences, windmills associated with wells, and farm dwellings with associated sheds and sheep-handling facilities. No highways or other regional infrastructure crosses the Project area that need special attention or that would affect the construction of the Project.

16.3.2 Surface Drainage

The gravel mesa in which the Guanaco area is located slopes northwest from an altitude of 330m to 340m amsl in the east to 310m to 320m amsl in the west (Figure 16-2). The mesa that contains the Lago Seco area lies at slightly lower elevation: the upper surface of the mineralised layer is at 300m amsl in the east and between 250m and 260m amsl in the west.

Steep-sided ephemeral streams dissect the gravel mesas and the principal streams drain to the north and northwest into the topographic depression in which the Lago Seco Lake is located. The majority of the 200mm annual precipitation falls in the period between March and July and relatively heavy rain (up to an average 50mm in a day) can lead to considerable run-off concentrated in a short time, with the creeks briefly flooding before reverting to their normal dry stream-bed conditions. Any construction considered near creeks and streams needs to take flash floods into account to avoid periodic flooding. Such construction may require protection with ponds or retention embankments. The gravels on the mesas drain extremely well to the extent that standing water seldom accumulates after heavy rain, and if it does, it drains away within hours.

This gentle slope of the topography is taken into account in the mine plan to ensure that, wherever possible, material is transported downhill towards the north and northwest, whether by truck or pipeline.

16.3.3 Seismicity and Faulting

Seismic risk is classified as low in the Project area. A compilation of seismic events over the last 50 years has been used by the US Geological Survey ("USGS") as a means of estimating seismic risk. The resulting seismic risk zones in the southern part of South America are shown in Figure 16-3. Laguna Salada is located in a region in which the average energy expected from a seismic wave is approximately $0.8 m/s^2$ with a low level of risk of structural damage to ponds, tailings facilities or to the mining strip.

16.3.4 Characteristics of the Overburden

The gravel mesas are covered by a layer of carbonate-rich soil that is typically 20cm to 40cm thick. At Guanaco, the unconsolidated, matrix-supported gravel is arranged in crude, planar beds occasionally interlayered with sandy beds. The matrix consists of sand with some interstitial silt and powdery calcareous minerals partially and patchily cemented with gypsum.

Gravels in the Lago Seco sector average 4m thick and contain a higher proportion of fine-grained matrix than the Guanaco gravels. Gravels in both areas overlie impermeable mudstones in part of the area and sandstones and gravels over the remainder of the Project area.

The overburden and underlying gravel were examined in context of suitability as bearing material. Grain size distribution in dry scrubbing tests undertaken on composite sample G1 from Guanaco for beneficiation and metallurgical test work reported in Chapter 13 of this study and from Coffey Mining (2011) show that, in the classification system of AASHTO (American Association of State Highway and Transportation Officials, 19% of the mass is classified as fine sand, silty and clay and the rest of the material is classified as fine to coarse gravel (Figure 16-4). Data from Laguna Salada composite sample LS1 shows that 31% of the material is fine sand, silt and clay, with 69% classified as fine to coarse gravel (Tables 13-4-1 and 13-5-2 in Chapter 13). Typical Lago Seco gravel is shown *in situ* in Figure 16-5a and excavated in Figure 16-5b.

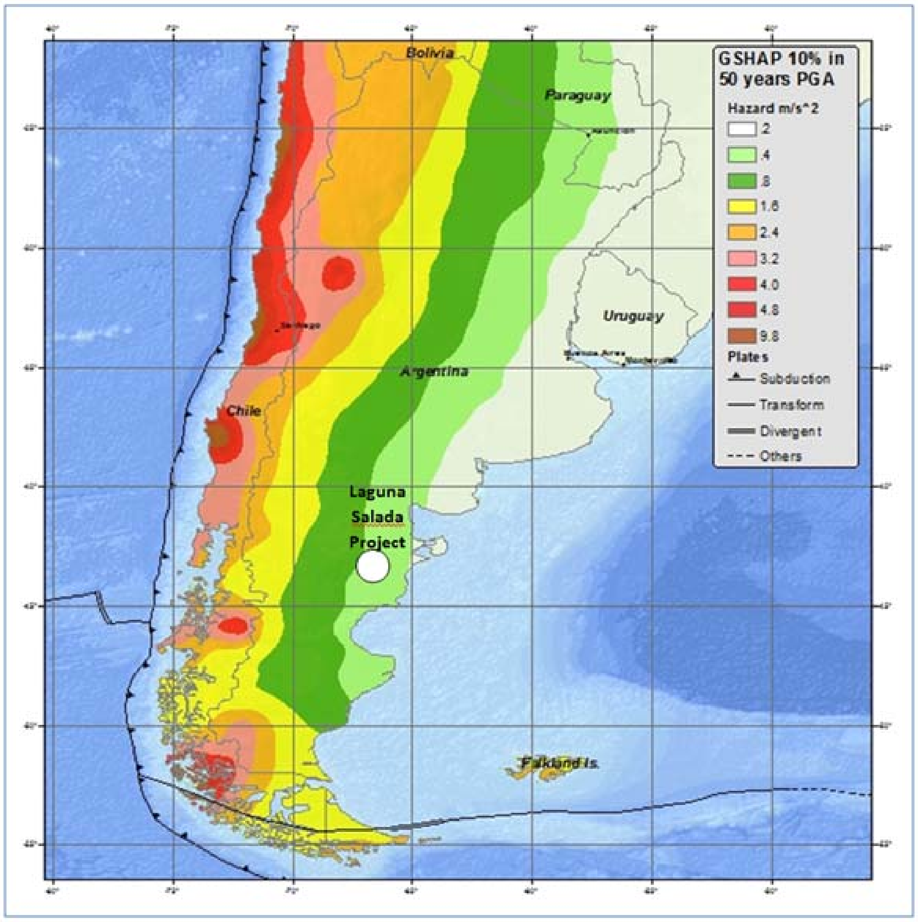


Figure 16-3: Seismic hazard map for southern South America

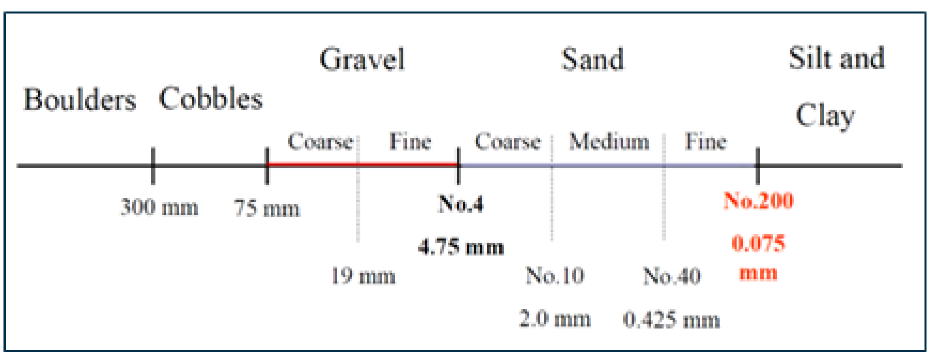


Figure 16-4: AASHTO classification of soil and gravel

The conclusion drawn from this preliminary analysis is that gravel material distributed throughout the Laguna Salada Project area is suitable for engineering applications for road construction, for the construction of embankments and for foundations (Table 16-1). Guanaco gravels are slightly more suited to the applications listed above than the Lago Seco gravels due to the higher proportion of fine-grained sand, silt and clay in the latter. The gravels in both areas were found to be suitable to support heavy equipment such as continuous miners, semi-mobile scrub-screen trains and loaded haul trucks.

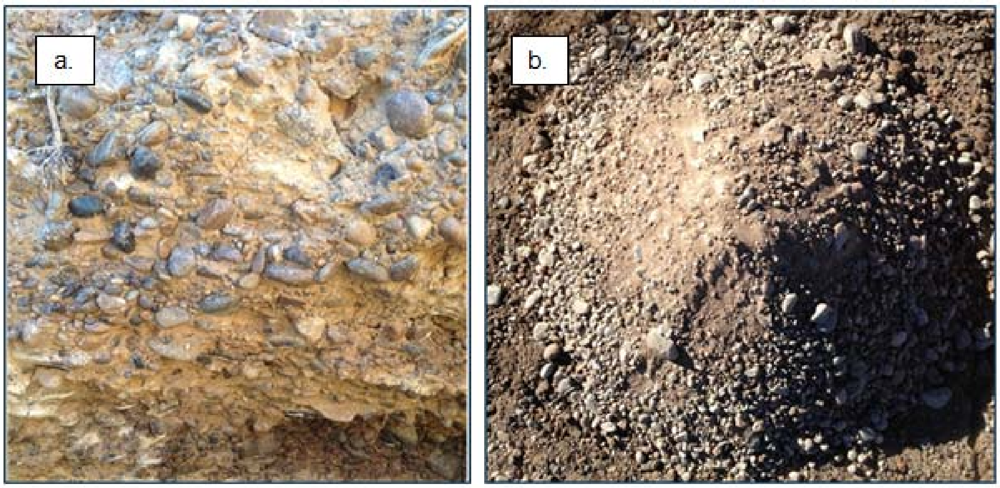


Figure 16-5: a. Typical *in situ* soil and sandy gravel in the Lago Seco area, and b. loose material after hand excavation of the gravel

Table 16-1: Table of geotechnical aptitude of different materials based on particle size and relative position of the Laguna Salada for engineering applications (NAVFAC, 1982)

Group Symbol		Soil Type (* if gravelly; ** erosion critical; *** volume change critical; x not appropriate for this type of use)	Relative Desirability for Various Uses (1=best, 14 = least desirable)									
			Rolled Earth Dill Dams			Canal Sections		Foundations		Roadways		
										Fills		
			Homogeneous Embankment	Core	Shell	Erosion Resistance	Compacted Earth Lining	Seepage Important	Seepage Not Important	Frost Heave Not Possible	Frost Heave Possible	Surfacing
Gravels	GW	Well-graded gravels, gravel/sand mixtures, little or no fines	x	x	1	1	x	x	1	1	1	3
	GP	Poorly-graded gravels, gravel/sand mixtures, little or no fines	x	x	2	2	x	x	3	3	3	x
	GM	Silty gravels, poorly-graded gravel/ sand/silt mixtures	2	4	x	4	4	1	4	4	9	5
	GC	Clay-like gravels, poorly graded gravel/sand/clay mixtures	1	1	x	3	1	2	6	5	5	1

16.3.5 Slope stability

Notwithstanding the fact that most mining excavations are unlikely to exceed 3m in depth, the maximum depth of mineralisation below surface, the properties of the soil, gravel and mineralisation require a preliminary assessment to ensure the safe operation of heavy equipment, such as haul trucks and continuous miners, that would operate in dry and occasionally saturated conditions on these materials. Slope stability is therefore required to have a safety factor (SF) > 1.5.

Preliminary stability models were created in Slide 5.0 software (by Rocscience Inc) using literature study reference data for alluvial soils and gravels modified slightly on the basis of the author's experience in similar terrain (Table 16-2). The analysis used the methods of Bishop and GLE/Morgenstern-Price with an inter-slice force function of half sine. The average slope angle assumed for a single bench at the edge of the excavation was 45° based in field observations (Figure 16-6).

Table 16-2: Table of material properties used for preliminary slope stability analysis for the Laguna Salada Project

Material	Conglomerate & Soil	Mineralisation	Conglomerate	Conglom. Unconformity
Strength Type	Mohr-Coulomb	Mohr-Coulomb	Mohr-Coulomb	Mohr-Coulomb
Unit Weight	17 kN/m^3	17 kN/m^3	17 kN/m^3	17 kN/m^3
Cohesion	10 kPa	10 kPa	15 kPa	15 kPa
Fraction Angle	15°	20°	22°	25°

Figure 16-6: Approximately 45° slope angle observed in overburden soil and gravel in the Laguna Salada Project area

Three models were reviewed as follows:

- The first stability model assumed a typical naturally dry column of soil on barren gravel that is underlain by 1m of mineralised gravel lying on a footwall of unmineralised gravel;
- The second model assumed the same geometry as the first model with an additional load of 100kN/m^2 to represent the operation of heavy equipment during the mining stage;

- A third model considered a variation of models 1 and 2 in which the water table lay at the top of the mineralised layer with the overburden temporarily saturated, to represent conditions in an anomalously wet period during the rainy season.

These models are illustrated in Figure 16-7 and results are shown in Figure 16-8. This modelling showed that operations near the borders of the mineralised zones in the rainy season are risky because of saturation of the overburden which resulted in a relatively low Safety Factor of 1.047.

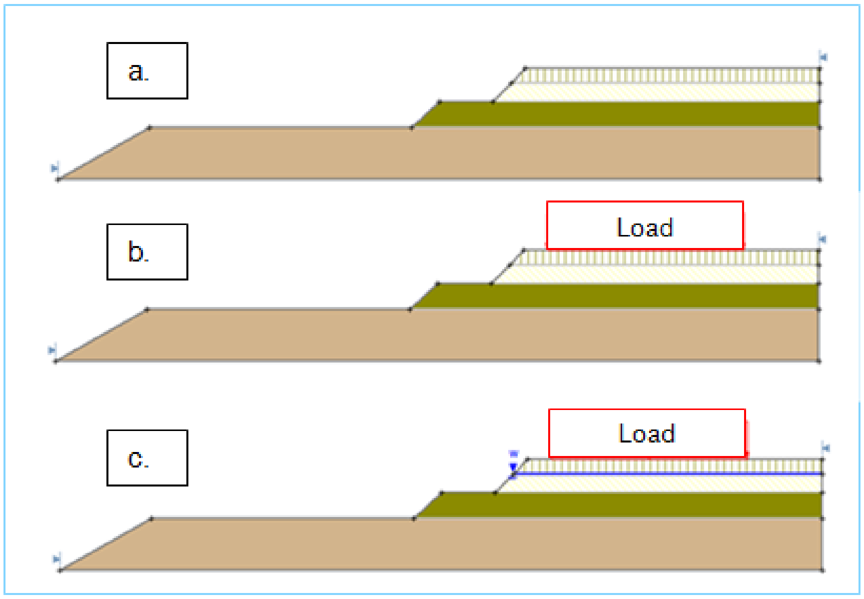


Figure 16-7: Preliminary slope stability analysis showing conditions modelled:

a. dry conditions;
b. dry conditions plus a load of 100kN/m^2;
c. load of 100kN/m^2 and overburden saturated.
Mineralised layer shown in green

16.3.6 Roads and embankments

The preliminary geotechnical assessment discussed above showed that soil-covered gravel would support heavy mining equipment. Scrubbed gravel, from which the fine material has been removed by screening, would be excellent for the construction of roads and paved areas. Compaction of scrubbed and screened gravel would retain its good permeability that would prevent pooling and mud accumulation; and therefore, would maintain low rolling resistance during the relatively wet season. Compacted scrubbed and screened gravel would also facilitate dust control.

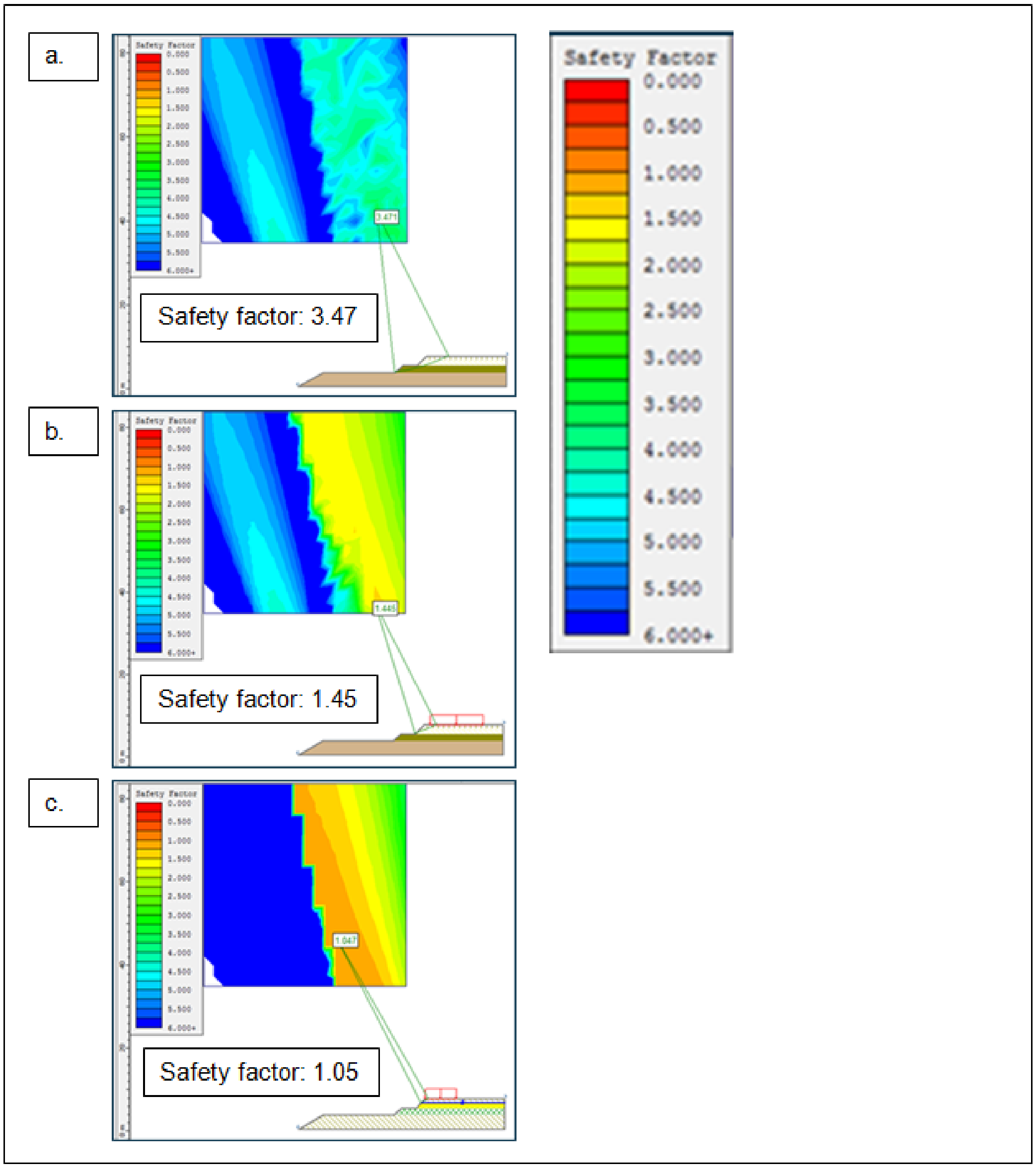


Figure 16-8: Preliminary slope stability analysis for Laguna Salada Project

a. dry conditions;
b. dry conditions plus a load of 100kN/m^2;
c. load of 100kN/m^2 and saturated overburden

16.3.7 Cut Slope Angles

The typically dry, unconsolidated soil layer is observed in the field to have an operational slope angle of approximately 45°. An operational slope angle of 45° is appropriate for gravel, whether barren overburden or mineralised. Bench walls generated in the gravel by a continuous surface miner would be near-vertical (85-90°) while the single bench slope should be 60°-75° in areas in which mining is by shovel and bulldozer (Figure 16-9). Since the thickness of the overburden is only 30cm to 1.3m (average 0.8m), it would represent a single bench, while removal of the mineralised material would generate a second bench.

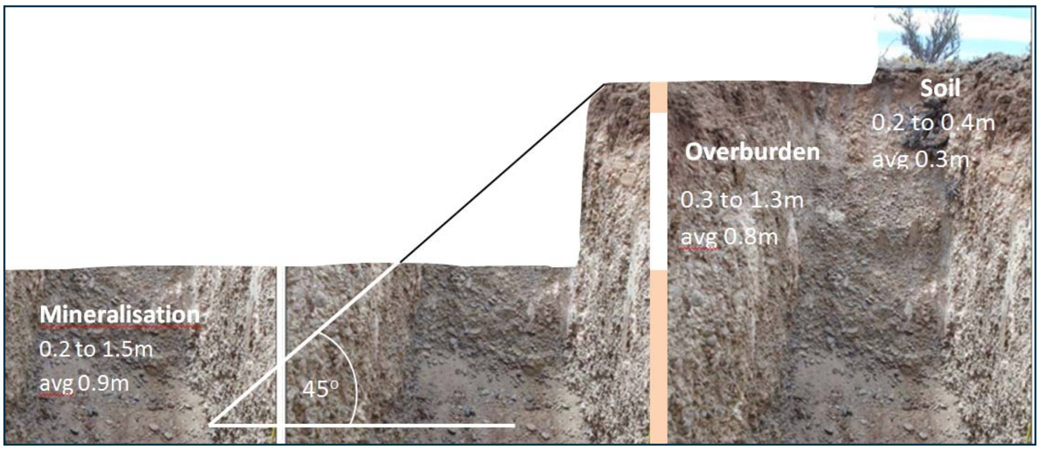


Figure 16-9: Photos of a typical profile illustrating soil removal followed by overburden extraction to provide access to the mineralised layer

16.3.8 Fill Placement

It is assumed that the overburden would be dry or nearly dry throughout most of the year. In the relatively wet season, however, the soil is assumed to be saturated. Soil stripped ahead of mining would be temporarily piled adjacent to the trailing edge of the trench ready for application as the top layer of the backfilled area.

The underlying barren gravel would contain 1-2% moisture in the relatively wet season. The angle of repose for overburden soil and gravel was observed in the field to vary between 30° and 35°, averaging 32° (Figure 16-10).

The oversize fraction (>75µm) from wet scrubbing and screening of the mineralised gravel would contain 3-4% water and is expected to have an angle of repose of approximately 30°. Approximately 92% by mass of the gravel from the Guanaco area and 89% from the Lago Seco area would be returned from the beneficiation trains to backfill the excavation.

Figure 16-10: Observed angle of repose of dry gravel excavated at Laguna Salada

16.3.9 Fill Swelling

Swell factors (“S_w”), estimated on the basis of literature review and field experience, are defined as:

- Soil: 25%;
- Overburden: 30%; and
- Rejected fraction form the scrub and screen trains: 25%.

The effect on elevation of the mined areas related to the S_w of excavated soils in a 1Ha area with an average soil thickness of 30cm is an increase of 3cm based on the following calculation:

- 0.30m x 10,000m^2 = 3,000m^3 + (3000 x S_w20/100) = 3,000 + 600 = 3,600m^3 over an area of 1Ha (10,000m^2).

For the overburden, the S_w would result in a 12cm increase in elevation according to the following calculation for the average overburden thickness of 80cm:

- 0.80m x 10,000m^2 = 8,000m^3 + (8,000 x S_w30/100) = 8,000 + 2,400 = 12,400m^3 over 1Ha (10,000m^2).

In case of ROM mineralised material, assuming that 91% of the gravel is returned to the mined trench after scrubbing and screening, and assuming a mineralised thickness of 0.9m, the S_w would result in an increase in altitude of the top of the gravel layer by 9cm. The calculation is as follows:

- 0.90m x 10,000m^2 = 8,000m^3 x 1.95t/m^3 = 15,600t x 91.2/100 = 14,227t/1.95t/m^3 = 7,296m^3 x S_w25/100) = 7,200 + 1,824 = 9,024m^3 over 1Ha (10,000m^2).

Based on the calculations shown above, swell for the overburden and mineralised gravel is calculated to result in the topography of the backfilled area rising approximately 24cm higher than the pre-mined topography.

16.3.10 Fill Compaction

The moist oversize material rejected in the beneficiation trains would have excellent compaction characteristics (Proctor test factor: 80-90%) after a single smoothing by a bulldozer. This compaction would minimise wind erosion from the filled area prior to rehabilitation.

16.4 Mining

16.4.1 Selection of Mining Technique

Surface mining, which includes strip mining, open-pit mining and mountain-top removal mining, is a broad category of mining in which the overburden is removed. In most forms of surface mining, heavy equipment, such as earthmovers, first remove the overburden prior to extraction of the mineralised material by bulk mining methods such as draglines, for example.

"Strip mining" is the practice of mining in which a long strip of overburden is removed to provide access to bulk mining of the underlying ore layer. Strip mining is only practical where the deposit is relatively near the surface and is a flat-lying sheet. This type of mining typically utilises large equipment in continuous operation to maximise efficiencies.

A common method of strip mining is "area stripping", which is used for extensive, tabular deposits in fairly flat terrain. An initial long strip is excavated and mining takes place at one edge – the leading edge – while fill is placed in the back side of the trench against its trailing edge. This results in the mine excavation being a long, narrow trench that progresses sideways across the deposit, allowing continuous reclamation of the backfill.

The topography of the Laguna Salada Project demands the use of two different mining techniques as follows:

- The flat, mesa-like topography beneath which mineralisation occurs in an extensive sheet at shallow depth, characterises approximately 80% of the Guanaco and Lago Seco deposits. Strip mining is ideal for these areas; and
- Approximately 20% of the Laguna Salada resource lies on the margins of the mesas or where small streams have eroded into the mesas creating relatively steep slopes and irregular topography that is not conducive to the use of large continuous mining equipment. Contour stripping with conventional truck and shovel (or truck and FEL), would be a more appropriate mining method for these areas of greater slope.

16.4.2 Mining Method

16.4.2.1 Continuous surface mining

The mining operation contemplates the use of two Wirtgen SM 2200 (400tph capacity) continuous surface miners as the primary production equipment (Figure 16-11). This model of surface miner has a cutting width of 2.2m and a variable cutting depth to a maximum of 30cm.

Figure 16-11: Typical operation of a SM 2200 feeding material into a truck via conveyor belt. Source: Wirtgen, 2014

The mining operation is contemplated to follow the procedure outlined below (Figure 16-12):

- Removal of the overlying soil by grader with FELs filling truck-trailers that would transport the soil for immediate spreading by bulldozer and grader over backfill at the trailing edge of the mining strip, or for temporary stockpiling adjacent to the trailing edge;
- Barren overburden gravel cut by the surface miner would be fed up a conveyor belt system and either discharged directly back into the strip in the trench from which mineralised gravel had previously been completely removed, or into 50t truck-trailers for backfill at the trailing edge of the mining excavation. Any excess backfill would be temporarily stored in piles adjacent to the trailing edge of the excavation;
- Once the overburden had been removed, excavation of the exposed mineralised layer would commence with the surface miner making multiple passes along the trench, the number of passes being dictated by the thickness of the mineralised unit and the constraint of the 30cm maximum cutting depth. 50t truck-trailer units loaded by the continuous miner would transport the mineralised material to the semi-mobile scrub-screen trains for beneficiation; and
- Mineralised material would be discharged from the truck-trailers directly into the primary hopper at the beneficiation unit or stockpiled on a patio adjacent to the hopper. Oversized gravel from the beneficiation units would be trucked to the trailing edge of the mining strip where reclamation would be ongoing.

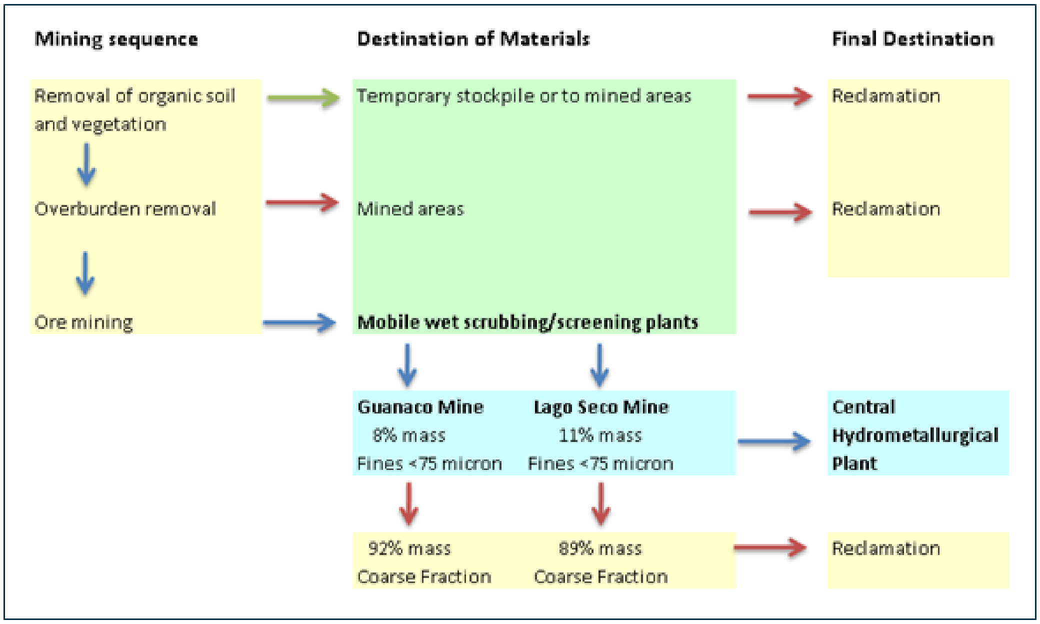


Figure 16-12: Flow sheet of the integrated mining operation contemplated for Laguna Salada

16.4.2.2 Conventional Mining

Areas of irregular topography on the margins of the gravel mesas would be mined with shovels or bulldozers, with the gravel being lifted into truck-trailer units with FELs. There is typically no soil cover in these areas of irregular topography, and hence there is no necessity for stripping this component of the overburden prior to mining. Barren gravel overburden would be stockpiled adjacent to the excavation while the mineralised layer is removed and beneficiated.

16.5 Beneficiation – Scrubbing and Screening Units

Scrub-screen units are designed to be semi-mobile and would be located in favourable topography to minimise the lift required to feed the beneficiation units. Platforms constructed from compacted waste gravel would be located adjacent to the primary hopper that feeds mineralised gravel into the scrub-screen unit (Figure 16-13). Haul truck-trailers would access the platform by means of compacted gravel ramps. Mineralised gravel would be discharged directly into the 30m^3 primary hopper or piled for temporary storage adjacent to the hopper on the compacted gravel patio. Mineralised gravel from these storage piles would be fed into the hoppers with a bulldozer or FEL as required.

From the 30m^3 hopper, mineralised material would be transferred through a vibrating 400tph feeder to a 12m long conveyor (1m width), then to a 15m long second conveyor that would discharge into a primary flow transfer box that would feed two 6m long conveyors (800mm width) that would discharge into the first component of the beneficiation process (Figure 16-14).

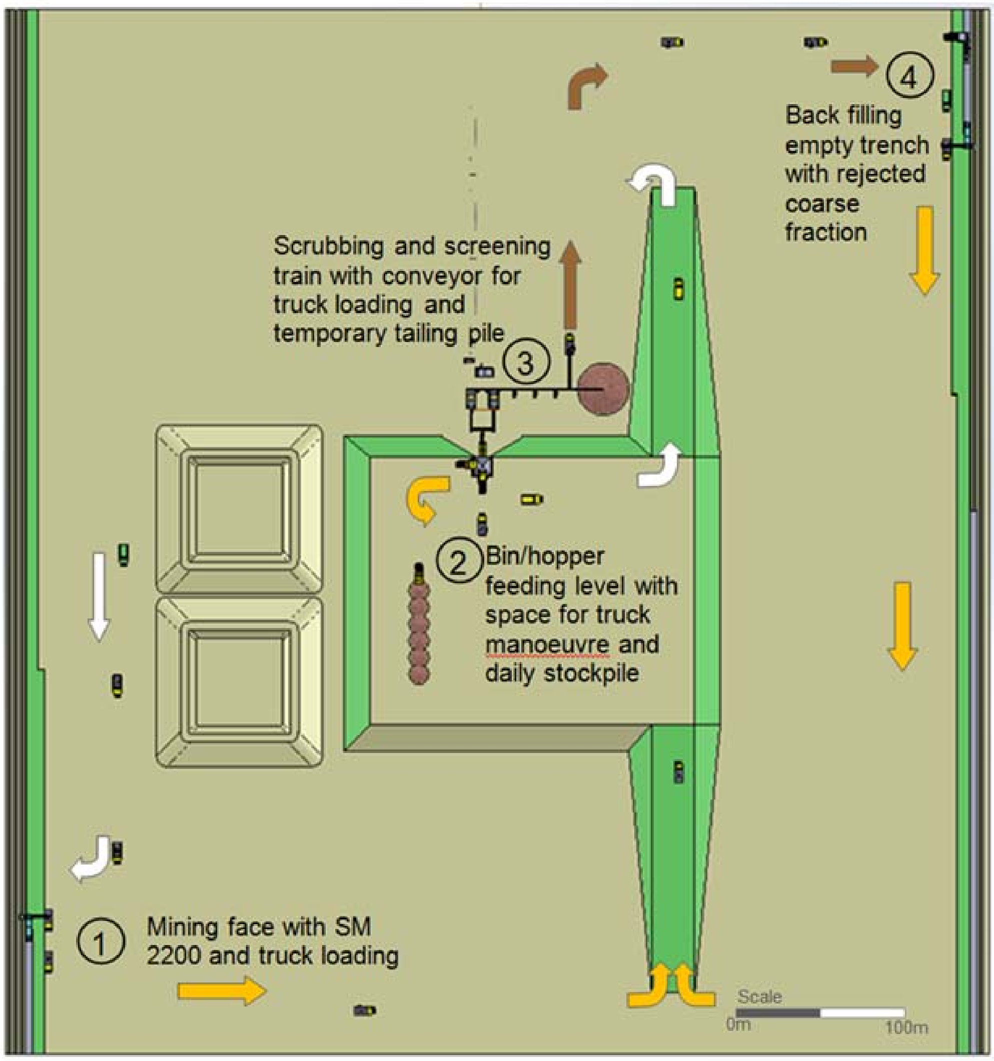


Figure 16-13: Typical layout of a beneficiation plant adjacent to a compacted gravel platform with access ramps

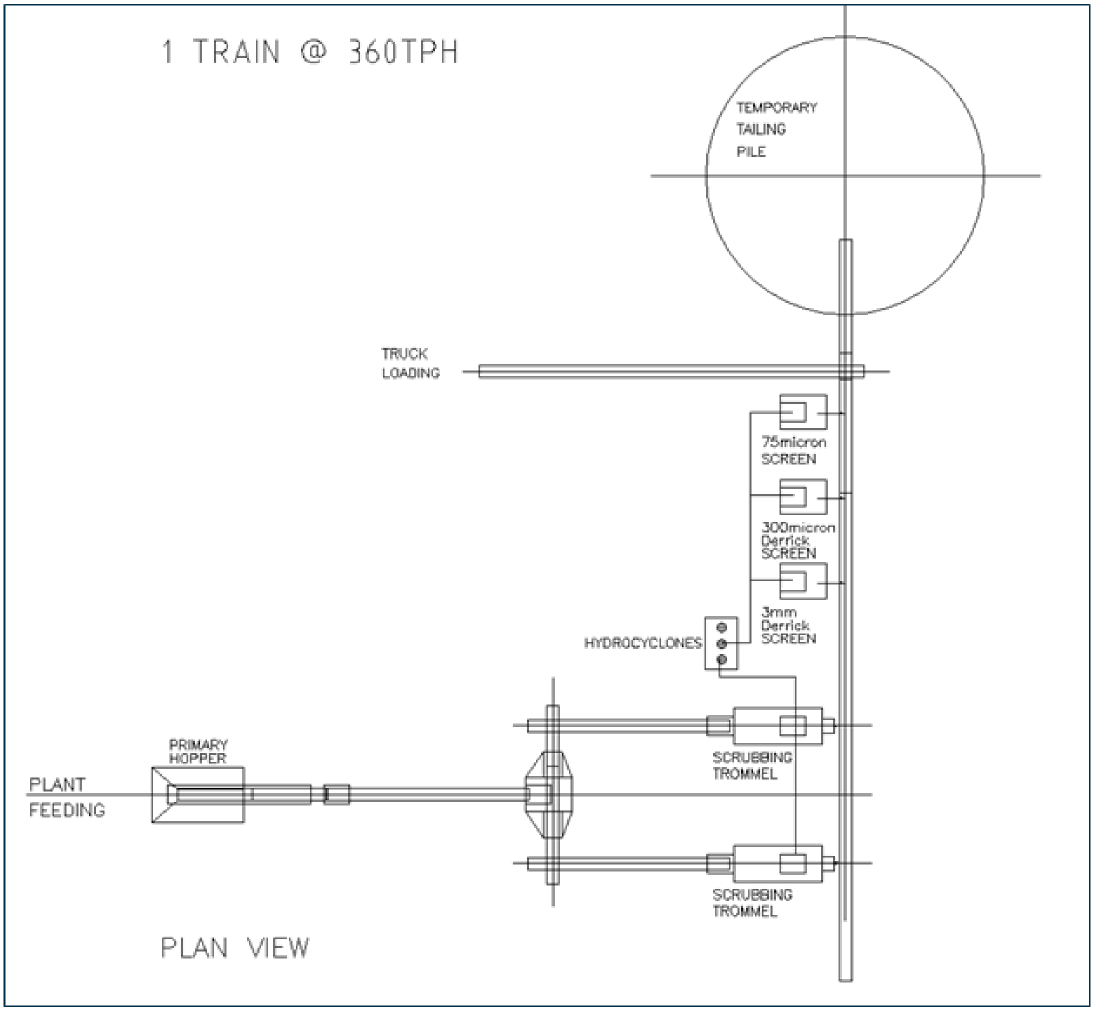


Figure 16-14: Typical layout of the scrubbing and screening plant.
Source: RCR Mining Technologies and IMIC

Mineralised gravel from Guanaco would be fed by the two 6m long conveyors into two scrubbing trommels of 180tph capacity each (185kW each). The scrubbers would operate at 50%-75% solids with a retention time of 15 minutes. Scrubbed gravel from the trommels would be fed to a Derrick (or similar) Stacker Sizer for screening at 3mm, followed by a number of classification steps to ultimately isolate the <75μm fraction. The <75μm fines would be discharged into a conditioning tank at 35% solids to be pumped to the central processing facility.

Mineralised gravel from Lago Seco would be dry screened at 15mm and the oversize fed into one trommel for wet scrubbing with a residence time of one minute, while the undersize would be fed into the other trommel for separate wet scrubbing for five minutes at 75% solids. The scrubbed gravel would be fed to a Stacker Sizer for screening to 75μm as described for Guanaco material above. The <75μm fines would flow into a hydrocyclone battery, the overflow from which would be discharged into a conditioning tank to be pumped to the Hydromet Plant at 35% solids. The design for the Lago Seco scrubbing and screening unit is shown in Figure 16-15.

The oversize from the scrubbing and screening steps, as well as the underflow from the hydrocyclone, would be discharged by 35m conveyor belt (1m width) to a stacker for loading into trucks that had just unloaded mineralised material for transport back to the trailing edge of the mining excavation for backfill (Figure 16-16).

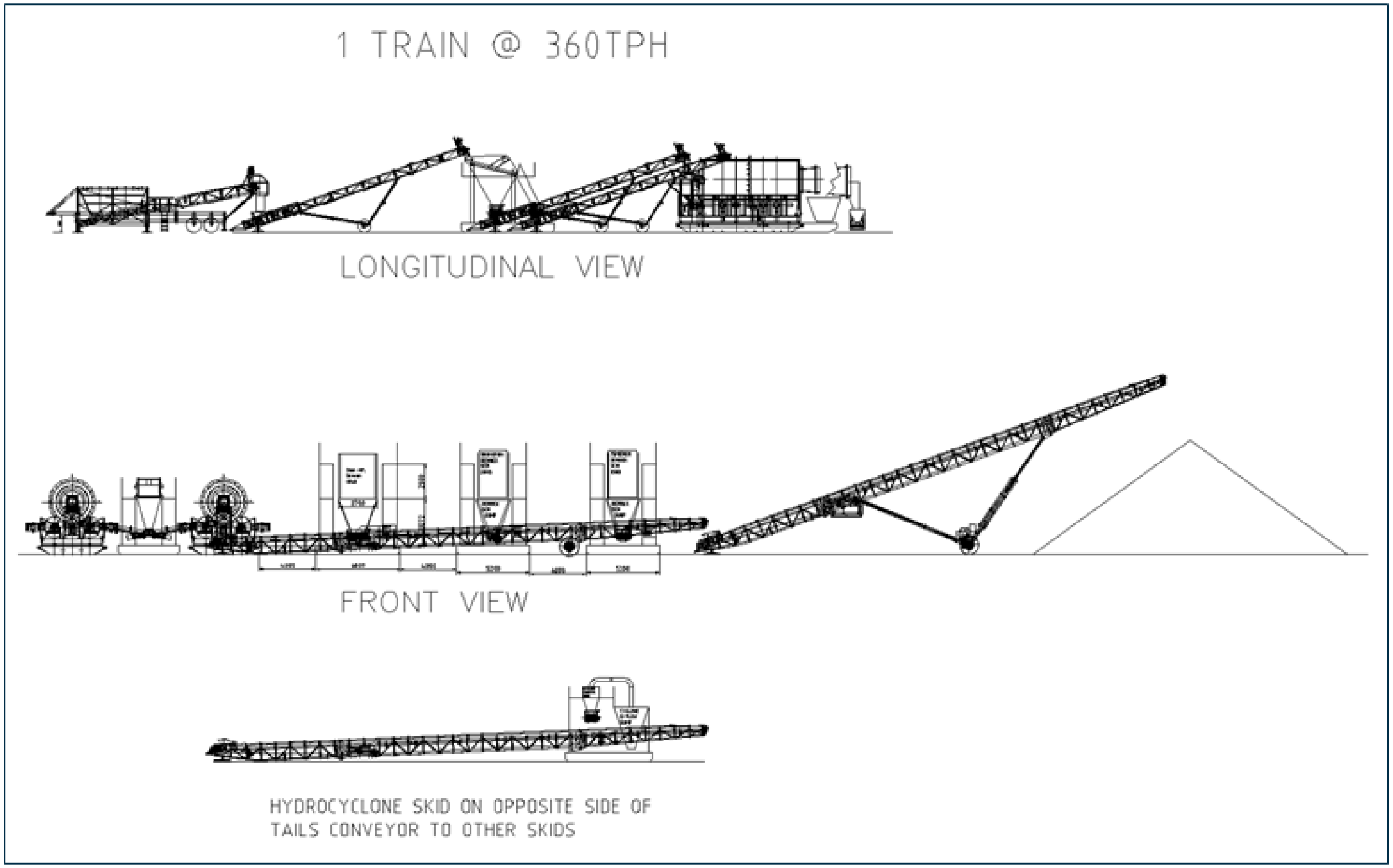


Figure 16-15: Design of scrub-screen beneficiation train for Lago Seco

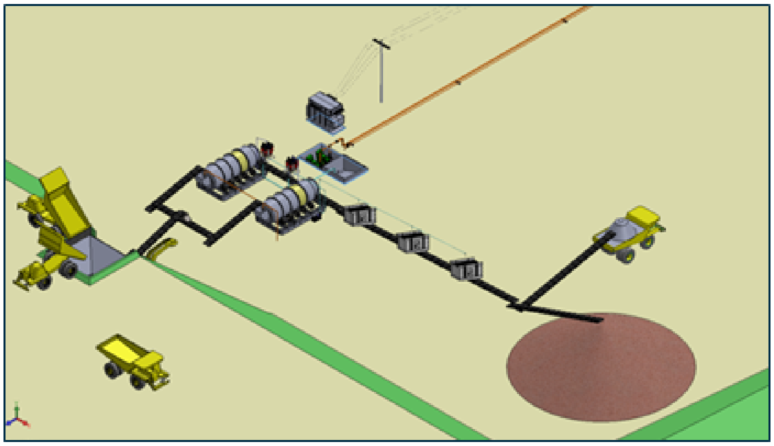


Figure 16-16: Typical layout in the feeding plant area. This figure shows the feeding bin/hopper, the two scrubbing trommels, the screens and the two points for reject loading. The conveyor belt may load trucks directly or feed a stockpile for later transport for backfill

16.6 Reclamation

The reclamation of the mined strips would be undertaken continuously and at the approximate rate of mining which ensures that the mining excavation is kept to a relatively narrow trench of 10m to 20m wide at any one time. Reclamation is an integral part of mining, and hence reclamation costs form part of the mining cost. A typical mining strip would consist of parallel cuts that have a step-like cross section in which the upper step is the strip from which the soil has been removed, the second step is the strip from which the overburden has been removed, and the third is the strip from which the mineralised material has been removed (Figure 16-17). Reclamation would be as follows:

- Trucks carrying, oversized (>75µm) material from the scrub-screen trains, would dump this material into the barren gravel footwall in the open strip. Alternatively, barren overburden gravel being extracted by the surface miner would be dumped directly via the continuous miner's conveyor, into the adjacent strip from which the mineralised material had already been removed. The mixture of barren overburden gravel and oversized material from the beneficiation train would be levelled with a bulldozer;
- The thin soil layer that would have been removed in preparation of each strip for the removal of the overburden gravel and mineralised material, would be trucked to the trailing edge of the mining strip where it would be spread over the backfill gravel and smoothed with a grader. Shrubs removed from the leading edge of the strip prior to mining would be continuously transplanted in the refill area and the soil seeded with indigenous species described in Chapter 20.

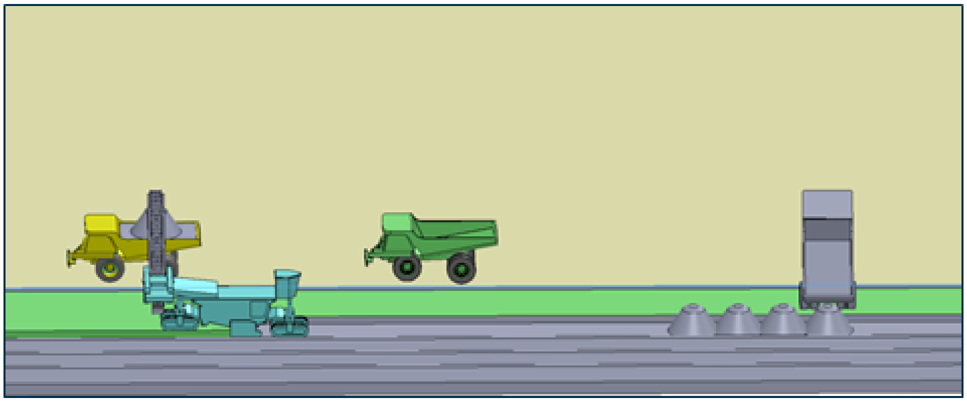


Figure 16-17: Schematic of a continuous surface miner extracting the mineralised zone (green) and exposing the barren footwall gravel (grey), loading trucks with mineralised material while oversize material from the beneficiation units are returned as backfill on the trailing edge of the mining excavation

16.7 Slurry Pipeline for Mineralised Fine Material

Mineralised fines from the beneficiation plant would be fed to two 50m^3 capacity tanks excavated below the terrain level, where water would be added to achieve 35% solids density. Agitators would condition the slurry to be pumped to the Hydromet Plant by 30kW positive displacement pumps. The capacity of the conditioning tanks is designed to hold mineralised fines generated by one hour's operation of each beneficiation train. Guanaco would require slurry flow of 93.4m^3/h and Lago Seco, 74.25m^3/h.

Mineralised fines would be pumped through one pipeline from Guanaco and another from Lago Seco to an intermediate pump station and then on to the Hydromet Plant in a single pipeline. The total pump distance would vary from 5km to 8km depending on the location of mining relative to the Hydromet Plant.

The initial pipeline layout would cover production in years 1 to 3 and would be as follows:

- The pipeline from Guanaco to the intermediate pump station would consist of 2.15km long, five inch diameter steel API 5L grade B, rubber coated piping;
- The pipeline from Lago Seco to the intermediate pump station would consist of 2.75km long, four inch diameter steel API 5L grade B rubber coated piping;
- The pipeline from the intermediate pump station to the Hydromet Plant would be through 5km of eight inch diameter steel API 5L grade B rubber coated piping; and
- The slurry would be pumped from Guanaco and Lago Sector with 30kW positive displacement pumps, and from the intermediate pump station with a 50kW positive displacement pump.

The pipeline route and periodic pipeline relocation would be undertaken as required by the mining plan. The mesa-like topography, with its slight inclination to the north and northwest, provides significant flexibility in the location of the pipeline as mining progresses. The slurry pipeline provides an energy efficient means of transport of the mineralised material and contributes to safer operating conditions by eliminating dust and reducing the number of haul trucks operating in the Project area.

Maintenance of the pipeline is limited to the pumping stations and eventual replacement of anomalously worn pipes. All material to be transported is inert and very fine-grained, which allows for the slurry to have a low flow velocity that reduces wear on the pipes. Under these conditions, the pipeline is expected to last the planned 10-year mine life.

16.8 Tailings Management

16.8.1 Design Basis

Approximately 3.2Mt (on a dry basis) of tailings would be generated in the Hydromet Plant over the LOM (approximately 0.32Mt per year). For redundancy, the facility is designed for 3.7Mt. Tailings would have the following characteristics or would contain the following:

- Fine material (<75μm) at 66-67% solids (33-34% moisture);
- Gypsum extracted from the mineralised fines in the gypsum leach circuit;
- 4% of the uranium and 29% of the vanadium not recovered by alkaline leach of mineralised fines from the Guanaco area;
- 1% of the uranium and 29% of the vanadium not recovered by alkaline leach of mineralised fines from the Lago Seco area;
- Residual sodium carbonate and sodium bicarbonate from the alkaline leach circuit and minor flocculant and associated chemicals used in the Hydromet Plant; and
- Saline water after filtration as process water.

Prior to disposal, tailings would be neutralised to a pH of approximately 7.

Assuming that after some 10 years the tailings will consolidate to an average void ratio of 1.15 (which corresponds to an average density 1.61t/m^3), the required storage volume would be 1.9 million cubic meters. The tailings from the Hydromet Plant at 60% solids would be repulped with water to achieve a slurry at 40% solids that would be pumped to the tailings facility. The slurry pump would be rated at 150m^3/h, and second slurry pump would be installed as a reserve unit.

16.8.2 Site Selection

The TMF would be located in a relatively flat area in a re-entrant eroded into the gravel plain at approximately 18m lower elevation than, and 2.5km northeast of the Hydromet Plant for ease of access and monitoring as shown in Chapter 18. The facility would ultimately consist of four tailings cells that would be constructed sequentially. The cell-like design allows each containment dam to undergo rehabilitation immediately upon reaching capacity instead remediation having to wait until the end of the mine life.

16.8.3 Tailing Facility Footprint

Each tailings dam would be square in plan view with a footprint of 330m by 330m covering an area of 10Ha at the base and 6.9Ha at the crest (Figure 16-18).

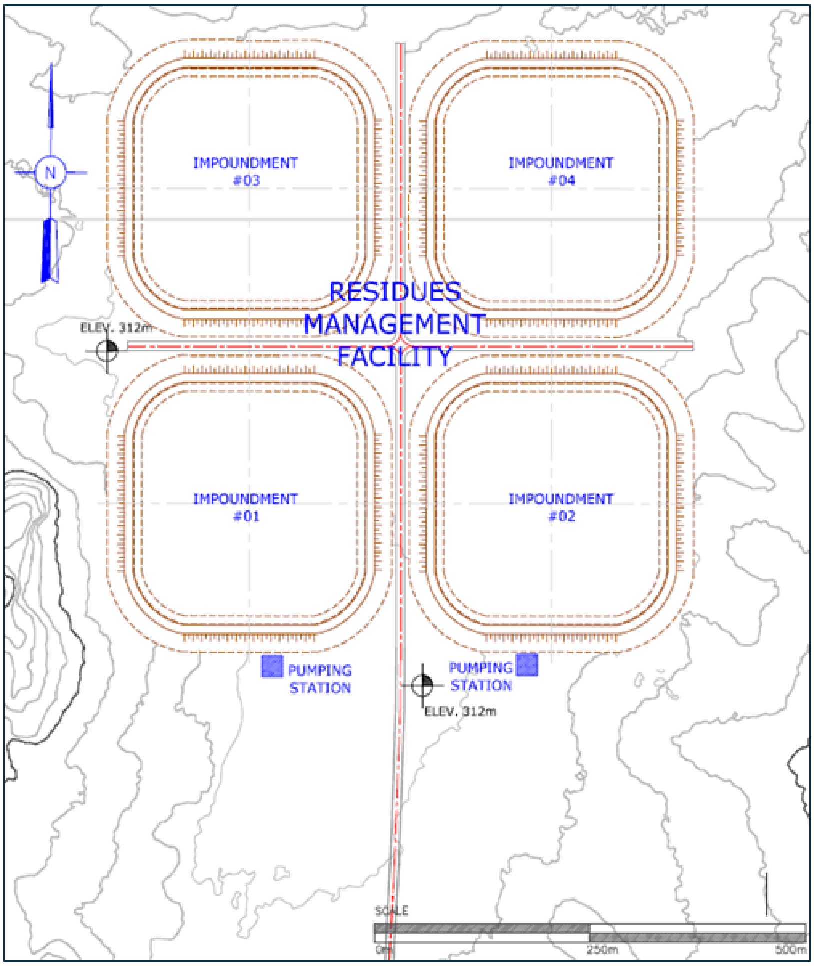


Figure 16-18: Plan view of the Proposed Tailings Facility

16.8.4 Construction Method

Each dam would be built in two stages and the first stage would consist of two elements as follows:

- The excavation of a perimeter trench 30m wide and 1.5m deep in which a 23m wide and 4.5m high clay bund would be located and compacted at Proctor test factor >95% at a slope angled of 2:1 (horizontal : vertical); and
- The clay core of the dam would be enclosed with compacted gravel. The dam wall would be 30m wide at the base, 5m wide at the crest and 6.5m high, with the crest being 5m above surface elevation (Figure 16-19). The gravel would be compacted to Proctor test factor >95% with internal slope of 1:1 and external slope of 2:1. The internal surface would be lined with a 0.5m thick compacted clay layer.

The first phase dams would have a capacity of 0.4Mt of tailings with a freeboard of 1m to ensure that there is no slop from wind-generated waves and as a precaution against extraordinary storm events. The facility would be managed such that the tailings are always submerged in shallow water as a dust control measure.

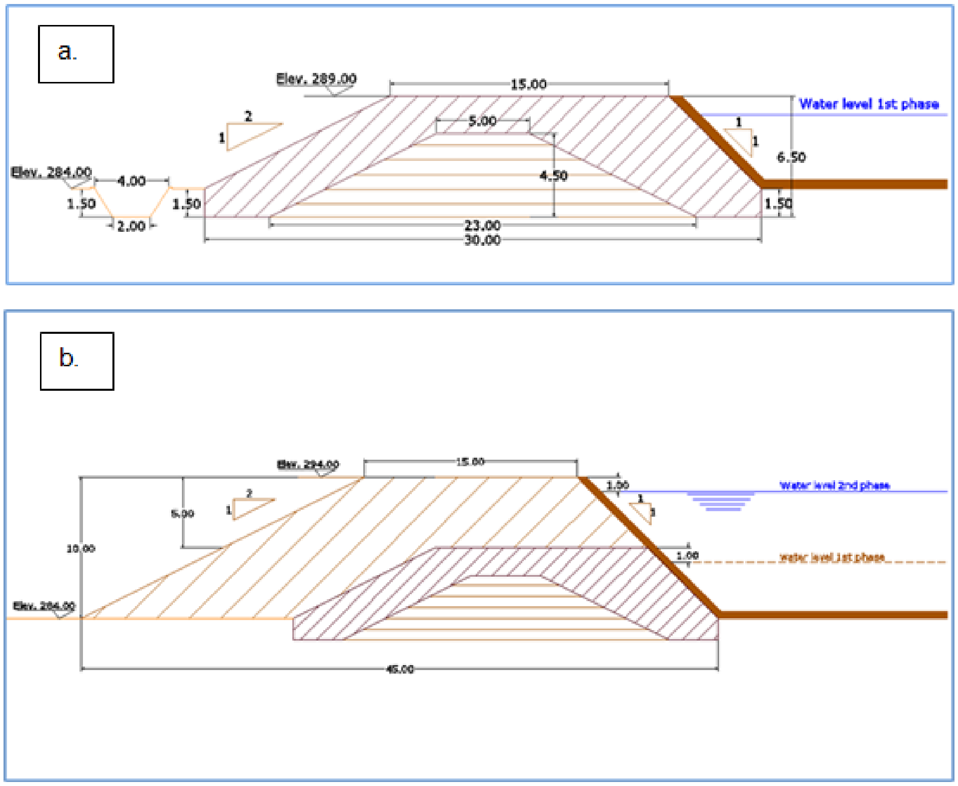


Figure 16-19: Cross section of the dam wall of the tailings facility showing construction elements and sequence of construction. A. Step 1 in which the wall is constructed to a height of 6.5m and b. Step 2 in which the dam is raised to a height of 10m

The second phase would be the elevation of the dam walls to a final height of 10m using the downstream construction method. The base of each wall would be 45m, and the crest 15m, wide. The gravel would be compacted to a Proctor test factor >95% with internal slope 1:1 and external slope 2:1 and the 0.5m clay liner would extend as one continuous layer from the first phase wall up the second (Figure 16-19). The increase in wall height achieved with the second phase would increase the capacity of each dam by 0.5Mt to 0.9Mt. The 1m freeboard established in the first phase would be maintained in the second. At the end of the mine life, the storage capacity would be 15% above the calculated required capacity

16.8.5 Dam Construction Materials

All of the materials required for the TMF would be sourced from site with the dam walls constructed from waste gravel or oversized gravel from the beneficiation trains. Clay that would constitute the core of the wall and line the dam would be obtained from mudstone in the Salamanca Formation that underlies the gravel mesas.

The initial 6.5m high stage of each tailings cell would require 62,685m^3 of compacted clay for the core of the wall and 35,326m^3 for the clay lining for a total of 98,011m^3. 93,530m^3 of compacted gravel would be required. The second phase in which the dam walls are increased to a total height of 10m requires 192,375m^3 of gravel and 3,350m^3 of clay for the lining.

Full geotechnical and characterisation tests of the clay from the Salamanca Formation and gravel, for use in the TMF, would be required.

16.8.6 Construction Schedule

Construction of the first tailings dam would start while the Hydromet Plant is being constructed in year 1 (Table 16-3). Four individual dams would be constructed sequentially over the LOM, with construction of each taking place at roughly 2.5 year intervals.

Table 16-3: Comparison of Residue Capacity and Generation along the mine life

Residue Generation and Storage Capacity													
Description	**Unit**	**Year 1**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Total**
Residue Generation	t x1000	0	253	338	337	337	337	337	337	342	294	294	3208
Cumulative	t x1000	0	253	591	928	1265	1603	1940	2278	2620	2914	3208	
Residue Storage													
Phase 1 - Dam #01	t x1000	396											
Phase 2 - Dam #01	t x1000		528										
Phase 1 - Dam #02	t x1000				396								
Phase 2 - Dam #02	t x1000					528							
Phase 1 - Dam #03	t x1000							396					
Phase 2 - Dam #03	t x1000								528				
Phase 1 - Dam #04	t x1000									396			
Phase 2 - Dam #04	t x1000										528		
Cumulative Disposal	t x1000	396	924	924	1319	1847	1847	2243	2771	3166	3695	3695	
RMA vs Residue Generation			365%	156%	142%	146%	115%	116%	122%	121%	127%	115%	

16.9 Operation and Management

Spigots spaced at 50m intervals along the dam walls would discharge the tailings into the dam. This system ensures that the tailings are adequately distributed over the surface of the impoundment and contributes to adequate settlement and compaction.

The management and operation of the tailings facility would be in accordance with the regulations of CNEA and PMD, and would include radiation monitoring, water level management especially related to eliminating dust generation, groundwater monitoring, safety and preparation for remediation.

16.10 Closure, Remediation and Monitoring

Evaporation rates measured on site (Chapter 5) suggest the moisture content of the tailings would fall to below 60% in one month in summer and two months in winter. It is estimated that each tailings cell would be sufficiently dry and have sufficient strength to accommodate placement of the cover layers for rehabilitation after two months in summer and up to three months in winter.

The cover layers would consist of three elements:

- A lower 1m thick clay layer, derived from the Salamanca Formation, as the principal radiation control. This layer would be placed in a single pass with low-pressure bulldozers and would not require compaction. It is expected, and this is to be confirmed with appropriate test work, that placement of the clay layer could be done while the moisture content of the tailings is at 60%. The top surface of the radiation layer would be proof rolled to provide a firm smooth surface for the placement of the cover;
- An upper 2m thick layer of compacted, non-mineralised waste gravel; and
- Soil.

This TMF closure process would be undertaken for each of the cells as it reached full capacity. If the operation were to be forced to shut down for more than three months, the tailings cell in use at that time would be closed as per the procedure described above.

Radiation, with specific attention to radon gas emissions, would be monitored at the TMF during operations and post-closure. Seepage would also be monitored in wells located at the periphery of the TMF.

16.11 Mining-Related Support Services

16.11.1 Water supply

The water required to operate the beneficiation plant and to dilute the mineralised fines for pumping to the central Hydromet Plant would be drawn from shallow wells in the Laguna Salada saline lake area. It is estimated that the Project would require approximately 350 million litres per year ("MLpy") of saline water: 285MLpy for the beneficiation units, 65MLpy of desalinated water of which 20MLpy will be treated further to meet potable water requirements. Saline water would be delivered to the Guanaco area in five inch pipes and to the Lago Seco area in four inch pipes. Approximately 90% of the saline water would be recycled with a top-up from the wells of approximately 10%. Approximately 70% of the recycled water would be generated by dewatering of the slurry that is pumped to the Hydromet Plant. This water would be pumped back and reused in the beneficiation process. An additional 20% of the saline water would be recovered from scrubbing and screening facilities.

Water for the beneficiation units would be stored in two temporary 6,250m^3 net capacity dams (50m x 50m x 3m height) constructed with the waste from the mine and lined with ultraviolet resistant High Density Polyethylene ("HDPE") membranes. The storage capacity of the tanks would allow for operation of the beneficiation trains for 12 hours in case of interruption of the water supply.

The fresh water requirement to operate the Hydromet Plant is estimated at 255MLpy (35 m^3/h).

The water would be supplied through HDPE pipelines with a diameter similar to the slurry pipelines, and installed alongside them.

16.11.2 Power Supply

The estimated demand of power to operate each beneficiation train, including associated pump stations, mobile workshops, offices and lighting is 600kWh. The power to each beneficiation plant would be supplied from a moveable, aerial 13.2 kilovolt ("kV") power line from the transformer station located near the Hydromet Plant. In addition, each beneficiation unit would have a diesel-powered 750 kilovolt-amperes ("kVA"), 50 Hertz ("Hz") Portable Power Centre as a standby unit available in case of an interruption of grid power.

16.12 Composition of the Mining Fleet

The mine plan is based on all non-core functions being contracted to service companies. Core components of the proposed mining operation are: management, engineering, planning, surveying, grade control, operation of the surface miners and the beneficiation plants. Hence, the two SM2200 continuous surface miners, the two scrub-screen beneficiation units and ancillary equipment related to the pumping of slurry and water, the power supply and personnel vehicles, are included in the Capex estimate. The remainder of the earthmoving equipment is to be contracted out, and therefore, no capital allowance is made for this earthmoving equipment – costs are incorporated in Opex.

Mining at Guanaco would be at a rate of 360tph and at Lago Seco at 160tph, approximately 80% of which would be by continuous surface miner and 20% by bulldozers and FELs. The continuous miners are rated at 400tph, so the above production rate is conservative. The average production of the 50t haul truck-trailers is estimated to be 88tph, so six are required for the continuous miner that operates at full capacity while six are shared by the second continuous miner and the bulldozer-FEL production unit (Table 16-4). The support equipment, owned and operated by contractor, includes bulldozers, excavators, graders, wheeled loaders, a crane, water and fuel bowsers, light vehicles and emergency generators (Table 16-5).

Table 16-4: Mine equipment fleet for the Laguna Salada operation

Haulage Cycle Time		
Description	**Unit**	**Value**
Base Data		
Truck capacity	t	50
SM 2200 capacity	t/h	400
Loads / hour	loads	8.0
Circuit-SM 2200 to benefic. plant	m	1500
Circuit-Plant to mined area	m	1000
Circuit-Mined area to SM 2200	m	1600
Average travel speed	km/h	20
Average travel speed	m/sec	5.6
Variable Time		
Time to Benefic. Plant	min	9.0
Time Plant to Mined area	min	6.0
Time Mined area to SM2200	min	9.6
Loading time	min	7.5
Discharge time	min	1.9
Subtotal	min	34.0
Hourly Production/truck	t/h	88.3
Required truck fleet/SM 2200	trucks	6.0
Fixed Time		
Shift Entry	min	15.0
Maintenance time	min	10.0
Meal time	min	30.0
Shift End	min	15.0
Total Time loss/shift	min	70.0

Table 16-5: Mine Equipment Fleet required for the Laguna Salada operation

Description	HP	Quantity
Mine Fleet - Own		
Wirtgen SM 2200 Surface Miner (708 kW) 400 t/h capacity	950	2
Mine Fleet - Leased		
Service/maintenance bowser Iveco FPT NEF4 (10,000 litres)	180	2
Emergency diesel generator 450 kVA 50 Hz (360 kWe) Stemac	548	2
Light vehicles Hilux SRV A/T (pickups)	171	4
Subtotal		8
Mine Fleet - Contractor for		
Dozer Cat D7R Serie	240	2
Grader Cat 140K	171	2
Excavator Cat 336D L (2.55 m3)	131	2
Wheel Loader Cat 980H (5 m3)	349	1
Trucks trailer type (50 t)	400	12
Mobile crane 20 t capacity	300	1
Service/maintenance bowser Iveco FPT NEF4 (10,000 litres)	180	1
Fuel bowser Iveco NEF 6 (20,000 litres)	250	2
Water bowser Iveco NEF 6 (20,000 litres)	250	2
Light vehicles Hilux SRV A/T (pickups)	171	4
Emergency diesel generator 330 kVA 50Hz (264 kWe) Stemac	548	2
Subtotal		31
Total Fleet		41

16.13 Mining Personnel

Salaried mine personnel include 21 people related to the management and operation of the project-owned equipment and functions outlined above. 64 contractor staff are estimated for the operation (Table 16-6), which is based on two daily shifts of eight hours for operations staff, while administration staff would work a single eight-hour shift. Mine site staff would be accommodated in an on-site camp with support in the local community of Las Plumas.

Table 16-6: Personnel Requirements for the Laguna Salada operation

Function	Shift/day	Working Hours	Persons/Shift	Total
Management and Staff				
Mine Manager	1	Adm.	1	1
Secretary	1	Adm.	1	1
Assistant to manager (Administrative)	1	Adm.	1	1
Geologist	1	Adm.	1	1
Planning Engineer	1	Adm.	1	1
Safety Technician	2	Rotating Shift	2	4
Environmental Technician	1	Adm.	1	1
Radiation Technician	1	Adm.	1	1
Surveyor	1	Adm.	1	1
Surveying crew	1	Adm.	2	2
Driver General Services	1	Adm.	1	1
Mine Workshop Foreman	1	Adm.	1	1
Maintenance Planning Technician	1	Adm.	1	1
Administrative Assistant	1	Adm.	4	4
Subtotal				21
Production Personnel				
Mine Foreman	1	1st Shift	1	1
Beneficiation Plant Foreman	1	1st Shift	1	1
Electrical Maintenance Foreman	1	1st Shift	1	1
Mechanical/fuel/lube Maintenance Foreman	1	1st Shift	1	1
Shift Supervisor Lago Seco	2	Rotating Shift	2	4
Shift Supervisor Guanaco	2	Rotating Shift	2	4
SM 2200 Operator - Guanaco	2	Rotating Shift	2	4
SM 2200 Operator - Lago Seco	2	Rotating Shift	2	4
SM 2200 Sr Electrician	2	Rotating Shift	2	4
SM 2200 Sr Mechanician	2	Rotating Shift	2	4
Fuel/Lube helper	2	Rotating Shift	2	4
Beneficiation plant Guanaco Operator	2	Rotating Shift	2	4
Beneficiation plant Lago Seco Operator	2	Rotating Shift	2	4
Helper to plant Operator	2	Rotating Shift	2	4
Pumping & Piping crew	2	Rotating Shift	2	4
Driver	2	Rotating Shift	2	4
Industrial Mechanician	1	1st Shift	2	2
Industrial Electrician	1	1st Shift	2	2
Helper	2	Rotating Shift	4	8
Subtotal				64
Total				85

16.14 Laguna Salada Production Requirements

Mine planning and scheduling was based principally on the need to blend the fine fraction from Lago Seco with those from Guanaco to minimise gypsum content and meet scheduled grade requirements for the Hydromet Plant to achieve the economic objectives of the Project.

The required blend of feed of fine mineralised material to the Hydromet Plant requires mining of the Guanaco deposit as follows:

- Year 1: 75% of design capacity of 360tph ROM material for 7,400 hours;
- Years 2 to 8: Full capacity of 360tph ROM material for 7,400 hours per annum resulting in the processing of 3.4Mtpy of mineralised material; and
- Years 9 and 10: Guanaco would operate at a rate of 4.3Mtpy with lower grade mineralised gravel being run through both beneficiation trains since Lago Seco's resource would have run out in year 8. Guanaco's current resource would be depleted in year 10.

The strip ratio of waste to mineralised material at Guanaco is 0.19 over the LOM.

Lago Seco would operate as follows:

- Year 1: 75% of design capacity; and
- Years 2 to 8: Full design capacity of 160tph for 7,400 hours per year for ROM production of 1.1Mtpy until the current resource is depleted.

The strip ratio of waste to mineralised material over the LOM at Lago Seco is 0.29.

The tonnage of mineralised fine material and water being pumped to the Hydromet Plant from Guanaco and Lago Seco is shown in Table 16-7.

Table 16-7: Guanaco and Lago Seco fines Production per hour after Beneficiation of Mineralised Material with a 40ppm U_3O_8 cut-off grade

Train 01 - Guanaco				Train 02 - Lago Salado		
Description	**Unit**	**Value**		**Description**	**Unit**	**Value**
ROM	t/h	360.00		ROM	t/h	160.00
Fines Recov.	%	7.70		Fines Recov.	%	11.10
Fines Flow (Q)	t/h	27.72		Fines Flow (Q)	t/h	17.76
Slurry Flow	t/h	106.92		Slurry Flow	t/h	68.50
Slurry Flow	m3/h	93.42		Slurry Flow	m3/h	61.19
Slurry density	m3/h	1.14		Slurry density	m3/h	1.12
Solids	%	35.00		Solids	%	35.00
Water	%	65.00		Water	%	65.00
Solids	t/m3	1.95		Solids	t/m3	1.70
Water	t/m3	1.00		Water	t/m3	1.00
Solids	m3/h	14.22		Solids	m3/h	10.45
Water	m3/h	79.20		Water	m3/h	50.74
Subtotal	m3/h	93.42		Subtotal	m3/h	61.19
Product	**Unit**	**Value**		**Product**	**Unit**	**Value**
Solids	t/h	27.72		Solids	t/h	17.76
Water	t/h	79.20		Water	t/h	50.74
Subtotal	t/h	106.92		Subtotal	t/h	68.50

16.15 Mine Design

Strip design was undertaken with Surpac 6.2 software based on the distribution of Indicated and Inferred resources estimated by Coffey Mining (2011). The footprint of the mine design is shown in Figure 17-2 and Figure 16-20 and Figure 16-21.

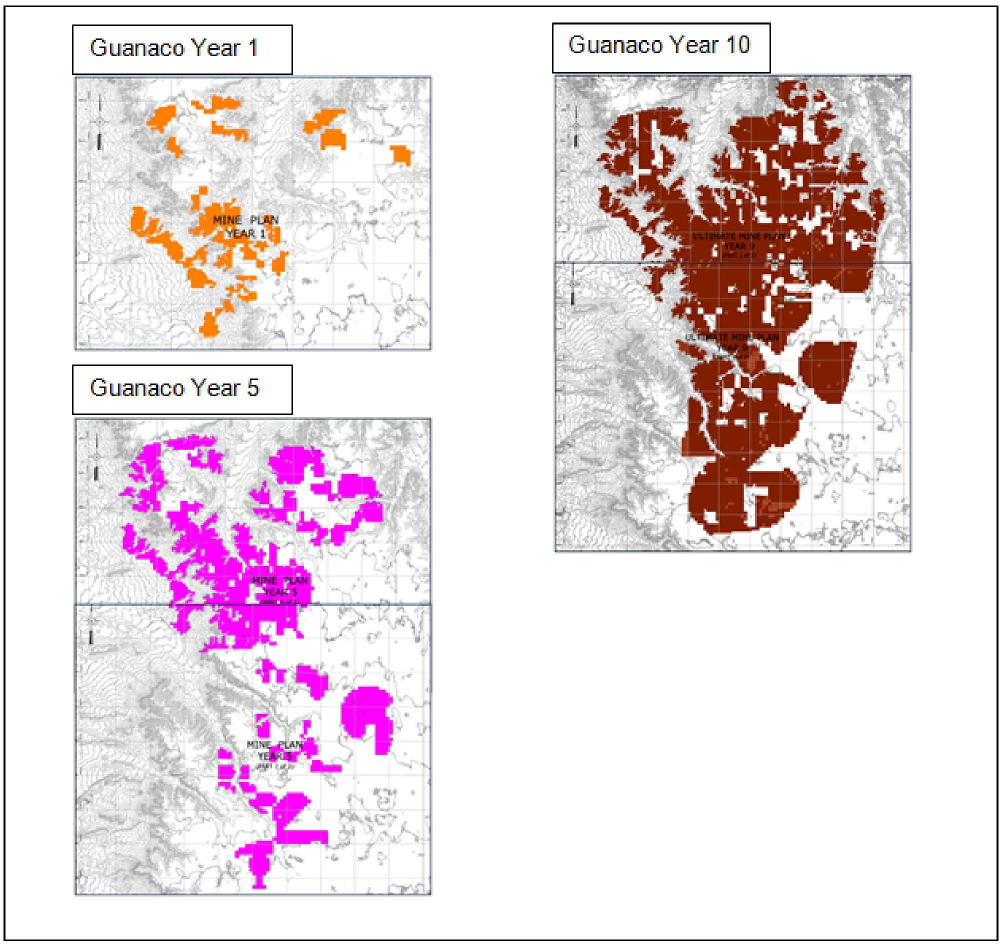


Figure 16-20: Footprint of Mine Development at Guanaco at Years 1, 5 and 10

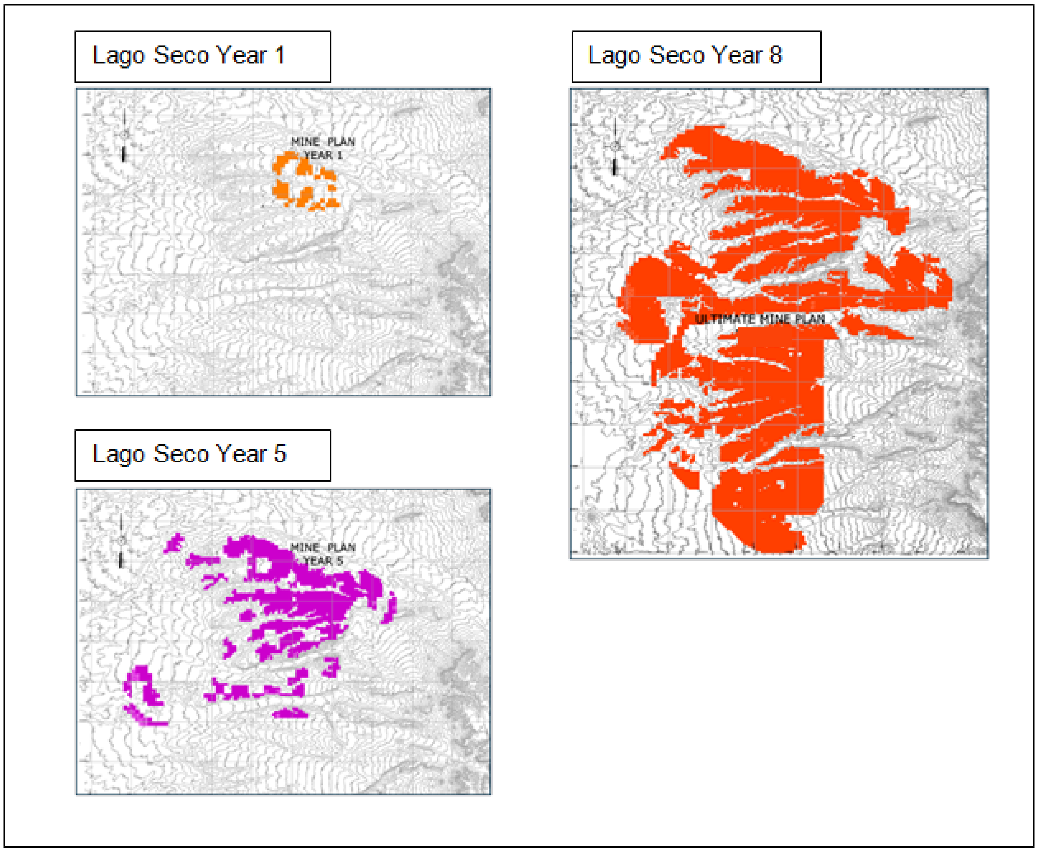


Figure 16-21: Footprint of Mine Development at Lago Seco at Years 1, 5 and 8

16.16 Production Schedule

The production schedule for Guanaco and Lago Seco are presented in Table 16-8 and Table 16-9 respectively. A total of 34.6Mt of mineralised gravel and 6.7Mt of waste would be mined from Guanaco for a strip ratio of 0.19. 9.2Mt of mineralised gravel and 2.7Mt of waste would be mined from Lago Seco for a strip ratio of 0.29.

Table 16-8: Guanaco – ROM Production Schedule – 40ppm U_3O_8 cut-off grade

Description	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	Total
MM- Indicated Resources (t)	836,063	1,734,281	1,534,406	1,535,625	1,917,094	2,088,938	2,463,094	2,543,531	3,401,531	3,577,031	**21,631,594**
MM- Inferred Resources (t)	1,661,156	1,596,563	1,796,438	1,794,000	1,412,531	1,240,688	867,750	787,313	988,406	806,813	**12,951,656**
Total tonnes	2,497,219	3,330,844	3,330,844	3,329,625	3,329,625	3,329,625	3,330,844	3,330,844	4,389,938	4,383,844	**34,583,250**
U_3O_8 from Indicated Resources (kg)	199,603	246,172	159,592	124,693	132,678	130,576	139,257	131,318	157,122	149,858	**1,570,868**
U_3O_8 from Inferred Resources (kg)	400,994	225,385	187,821	147,386	97,923	77,670	49,239	40,488	45,979	34,063	**1,306,949**
Total U_3O_8 (kg)	600,597	471,557	347,413	272,079	230,602	208,245	188,496	171,807	203,101	183,921	**2,877,817**
U_3O_8 grade in Indicated Resources (ppm)	239	142	104	81	69	63	57	52	46	42	**73**
U_3O_8 grade in Inferred Resources (ppm)	241	141	105	82	69	63	57	51	47	42	**101**
U_3O_8 average grade (ppm)	241	142	104	82	69	63	57	52	46	42	**83**
V_2O_5 from Indicated Resources (kg)	627,191	1,033,939	875,223	869,404	1,098,766	1,164,795	1,347,082	1,370,555	1,761,229	1,810,938	**11,959,123**
V_2O_5 from Inferred Resources (kg)	1,415,630	1,292,348	1,149,143	896,637	642,745	596,420	383,828	371,772	474,591	399,542	**7,622,656**
Total V_2O_5 (kg)	2,043,542	2,326,712	2,024,678	1,766,286	1,741,719	1,761,403	1,731,080	1,742,481	2,235,959	2,210,607	**19,584,466**
V_2O_5 grade in Indicated Resources (ppm)	750	596	570	566	573	558	547	539	518	506	**553**
V_2O_5 grade in Inferred Resources (ppm)	852	809	640	500	455	481	442	472	480	495	**589**
V_2O_5 average grade (ppm)	818	699	608	530	523	529	520	523	509	504	**566**
Waste Tonnes	595,777	591,586	580,347	633,493	681,114	668,415	645,525	630,604	821,439	818,613	**6,666,913**

Table 16-9: Lago Seco – Production Schedule – 40 ppm U_3O_8 cut-off grade

Description	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	Total
MM- Indicated Resources (t)	709,750	627,938	652,375	725,688	683,188	854,250	749,063	806,438	5,808,688
MM- Inferred Resources (t)	178,500	557,813	530,188	459,000	500,438	330,438	434,563	425,000	3,415,938
Total tonnes	888,250	1,185,750	1,182,563	1,184,688	1,183,625	1,184,688	1,183,625	1,231,438	9,224,625
U_3O_8 from Indicated Resources (kg)	142,001	87,924	72,379	67,116	54,768	60,324	46,852	41,453	572,817
U_3O_8 from Inferred Resources (kg)	29,853	75,854	61,266	42,676	39,897	23,411	27,451	21,355	321,763
Total U_3O_8 (kg)	171,853	163,778	133,646	109,793	94,665	83,735	74,303	62,807	894,580
U_3O_8 grade in Indicated Resources (ppm)	200	140	111	92	80	71	63	51	99
U_3O_8 grade in Inferred Resources (ppm)	167	136	116	93	80	71	63	50	94
U_3O_8 average grade (ppm)	193	138	113	93	80	71	63	51	97
V_2O_5 from Indicated Resources (kg)	661,418	565,653	546,596	493,401	411,762	447,352	394,371	414,480	3,935,033
V_2O_5 from Inferred Resources (kg)	193,444	594,278	562,468	433,298	482,567	305,513	374,737	311,013	3,257,318
Total V_2O_5 (kg)	854,862	1,159,931	1,109,064	926,699	894,329	752,865	769,108	725,493	7,192,351
V_2O_5 grade in Indicated Resources (ppm)	932	901	838	680	603	524	526	514	677
V_2O_5 grade in Inferred Resources (ppm)	1,084	1,065	1,061	944	964	925	862	732	954
V_2O_5 average grade (ppm)	962	978	938	782	756	635	650	589	780
Waste Tonnes	350,589	413,799	371,194	382,686	325,255	284,840	268,680	286,967	2,684,010

17 RECOVERY METHODS

17.1 Process Selection

The uranium-vanadium mineralisation at Laguna Salada is contained in flat-topped “mesas” that are approximately 10m higher than the surrounding plain.

The mineralised layer ranges between 0.2m and 1.5m thick, averaging 0.9m thick, and lies at surface to a maximum depth of 3m in unconsolidated sandy gravel. The mining process will involve soil removal, followed by overburden removal and finally excavation of the mineralised layer for ROM production.

Carnotite, the principal uranium-vanadium mineral at Laguna Salada, occurs as a powdery filling between the sand grains and as a partial rim on pebbles in the gravel. To upgrade the feed to the plant, the carnotite-bearing material would be separated from the gangue material in semi-mobile beneficiation units comprising of scrubbing and screening stages.

In the scrubbing stage, ROM material is slurried in saline water and passed through rotating scrubber units. Discharge from the scrubber units will pass through trommel screens to remove coarser +3mm particles, after which the -3mm material will pass through a number of classification steps to ultimately isolate only the <75µm fraction for further treatment in the Hydromet Plant. From the beneficiation plants, the upgraded and significantly reduced tonnage of fine uranium-bearing material is received in the Hydromet Plant concentrate thickener feed tank as slurry in saline water.

The Hydromet Plant is designed to leach and recover uranium and vanadium to produce separate, high grade uranium and vanadium products. The presence of gypsum (calcium sulphate) in the alkaline leach circuit would lead to excessive reagent consumption and gypsum is therefore rejected prior to reaching the leach circuit.

Residual gypsum in the upgraded fine uranium-bearing material is leached with saline groundwater from the property, resulting in a leach solution containing high levels of calcium sulphate.

Two different technologies are considered for removal of calcium sulphate from the leach solution, so that the saline solution can be re-used in the beneficiation plant. Both technologies will be tested and evaluated on actual gypsum leach solution to determine the most cost effective option. Once test work has been completed, a final selection will be made in the next stage of the project development. The two technologies are:

- Membrane technology, implementing nanofiltration to retain calcium sulphate to a low volume, high concentration waste stream to remove calcium sulphate from solution; and
- Ettringite precipitation using milk of lime, aluminium hydroxide and caustic soda to remove calcium sulphate from solution.

Extraction of uranium and vanadium is in an alkaline leach at a temperature of 80°C. After solid-liquid separation of the leach discharge slurry, the PLS is treated in a two-pass membrane plant. Pass one produces a low volume, high uranium tenor solution from which an intermediate uranium-vanadium product is precipitated. The second pass recovers leach reagents from solution for reuse, and a water stream is used as filter wash solution.

The refining circuit is designed to re-dissolve the intermediate uranium-vanadium product and separate the uranium and vanadium. Calcining of the uranium precipitate produces yellow cake as a high-grade uranium oxide, and calcining of the vanadium precipitate produces high-grade vanadium pentoxide.

The processing plant is divided into the Beneficiation area described in Section 16.5 and the Hydromet Plant areas. The Beneficiation areas are located at the mine sites, which are:

- Area 100 – Guanaco Beneficiation
- Area 150 – Lago Seco Beneficiation

The Hydromet Plant is divided into the following areas:

- Area 200 – Concentrate Dewatering
- Area 260 – Gypsum Leaching and Sulphate Removal
- Area 300 – Leach Feed Adjustment
- Area 400 – Leach Circuit
- Area 500 – Post Leach Solid/Liquid Separation
- Area 600 – PLS Membrane Plant and Lime Treatment
- Area 700 – SDU Precipitation and Refining Circuit
- Area 800 – Reagents, Power and Infrastructure
- Area 1000 – Water Management

In Figure 17-1, a high-level block flow diagram illustrates the Hydromet Plant processing facilities showing major processing stages and major process streams.

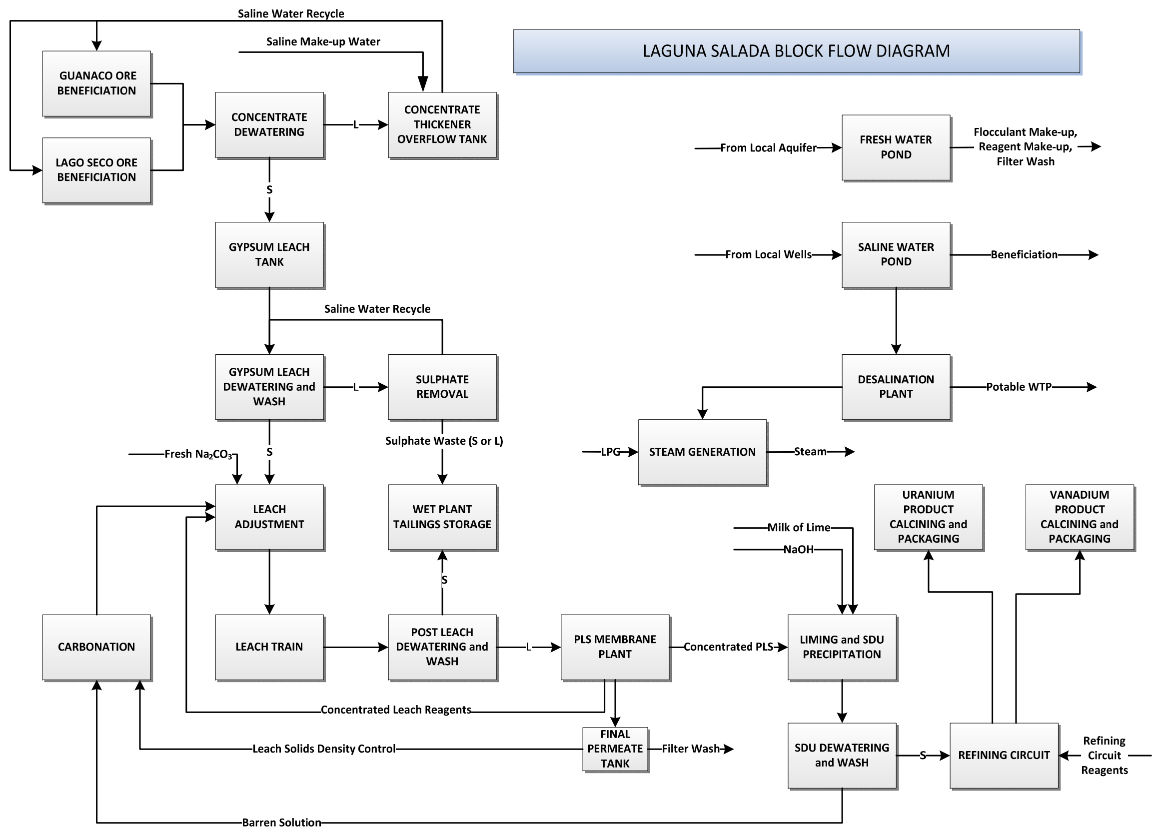


Figure 17-1: Laguna Salada Block Flow Diagram illustrating Hydromet Plant Processing Facilities with all major processing stages and major process streams

17.2 Plant Throughput and Recovery

The Full Capacity Plant was designed for a feed rate of dry mineralised material of 1,291tph, resulting in 112tph of concentrate to the Hydromet Plant. At an annual utilisation of 7,400 hours, the Full Capacity Plant would therefore have the capacity to treat approximately 9.6Mtpy dry mineralised material and produce, assuming a feed with the average grade of the resource, approximately 1.24Mlb U_3O_8 per annum.

At the request of U3O8 Corp., a reduced throughput of approximately 620tph dry mineralised material feed was evaluated, resulting in approximately 53tph concentrate going to the Hydromet Plant. The reduced throughput plant is referred to as the Base Case Plant, designed to treat up to 4.4Mtpy dry mineralised material and is the basis for this PEA report.

During the first two years of operation, high grade material would be selectively mined to maximise revenue. Production of U_3O_8 is expected to be in the order of 1.3Mlb in year 1 and 1.1Mlb in year 2, with an average of 0.64Mlb per year over the 10-year mine life. Average annual vanadium production would be 0.96Mlb over the LOM.

The final cost estimates in the PEA are based on the throughput of 4.4Mtpy mineralised material at an average ratio of Guanaco to Lago Seco of 2.8. Table 17-1 below lists the average values for parameters used in the plant design and cost estimates for the PEA.

Table 17-1: Average Values for Parameters used in the Plant Design and Cost Estimates for the PEA Study for Laguna Salada Project

Parameter	U_3O_8	V_2O_5
Guanaco grade (ppm)	83	566
Guanaco upgrade factor	10.99 x	3.81 x
Lago Seco grade (ppm)	97	780
Lago Seco upgrade factor	6.62 x	3.66 x
Blended head grade (ppm)	86	611
Recovery to concentrate	81.97 %	32.34 %
Concentrate grade (ppm)	839	2,348
Guanaco leach efficiency	96.0 %	71.0 %
Lago Seco leach efficiency	99.0 %	71.0 %
Recovery concentrate to final product	93.6 %	50.28 %
Overall recovery to final product	76.72 %	16.26 %
Production lb/y	638,030	959,717

17.3 Process Design Documents

In addition to the Laguna Salada Block Flow Diagram shown in Figure 17-1 and the Refining Circuit Block Flow Diagram shown in Section 17.4.7, a number of process design documents were generated to support the Capex and Opex estimates developed for the PEA.

These documents include:

- Process Design Criteria, which specifies the overall process basis of design and main sizing parameters for each processing area;
- Mass Balance tables listing stream data for major process, reagent and recycle streams within the Hydromet Plant. The proposed plant was modelled and simulated in Metsim; the Metsim Flow Sheets indicate the process flow and streams connecting major processing units, and the Mass Balance tables contain the stream data. For the PEA, Tenova developed:
  - Metsim Flow Sheets and Mass Balance for sulphate removal by Ettringite precipitation; and
  - Metsim Flow Sheets and Mass Balance for sulphate removal by membrane technology.
- Hydromet Plant Mechanical Equipment List where the mechanical equipment in each processing area is listed, together with motor size, where applicable, to generate a load list and an estimate of the power requirements for each processing area. The equipment list is used as a basis for the Capex estimate.

17.4 Hydromet Plant

17.4.1 Area 200 – Concentrate Dewatering

After beneficiation, the upgraded fines are received in the concentrate thickener feed tank where the Guanco and Lago Seco fines streams are blended together and flocculent is added.

Thickened underflow is filtered on a vacuum belt filter, with filtrate being returned to the thickener. Thickener overflow, together with low sulphate water from the gypsum leaching circuit, is collected in the concentrate thickener overflow tank and re-used in the beneficiation circuit. Water losses are made up with saline water, blended with brine from the reverse osmosis plant.

Dewatered concentrate filter cake is conveyed to the gypsum leach tank.

17.4.2 Area 260 – Gypsum Leaching and Sulphate Removal

At start-up of the plant, the dewatered concentrate filter cake is leached in saline water, thus utilising the high salinity levels to leach gypsum from the fines. Test work indicates that saline water leaches gypsum to a calcium sulphate tenor of more than nine grams per litre ("g/l"). In order to completely leach all the gypsum contained in the fines, saline water is required at a liquid to solids ratio of approximately 3.7, producing leach slurry containing 8.3g/l calcium sulphate in solution.

Gypsum free solids are dewatered in the gypsum leach thickener and gypsum leach vacuum belt filters, and high sulphate solution is collected in the gypsum leach thickener overflow tank ahead of the sulphate removal circuit.

To minimise calcium sulphate entering the leach circuit, final permeate from the PLS membrane concentration circuit is used as wash solution to displace entrained solution from the filter cake once formed on the vacuum filters. Wash solution is collected with filtrate and thickener overflow for treatment in the sulphate removal circuit.

The flowsheet proposed in this PEA considers gypsum removal from solution by membrane separation. Nanofiltration of the high sulphate solution is proposed to retain calcium and sulphate ions, thus producing a low volume, high concentration waste stream to remove calcium sulphate from solution. Monovalent ions are expected to pass through the membranes, and the permeate or low sulphate solution is returned to the gypsum leach tank.

Ettringite precipitation is considered as an alternative option for sulphate removal, and both technologies should be tested and evaluated using actual gypsum leach solution to determine the most cost effective option. The ettringite process involves the removal of sulphates by precipitation. Milk of lime is first used to precipitate gypsum, decreasing the calcium sulphate in solution to approximately 2g/l, after which aluminium hydroxide is used in combination with caustic soda and milk of lime to precipitate the remaining calcium sulphate as ettringite.

Precipitated slurries are dewatered and gypsum precipitate would be discarded to tailings, whilst the ettringite precipitate has the potential to be retreated with sulphuric acid to recover aluminium hydroxide for re-use. The low sulphate solution, still containing high chloride levels, is re-used to leach gypsum from the fines concentrate.

Excess low sulphate water, resulting mainly from the addition of fresh wash water on the gypsum leach vacuum filter, is re-used in the beneficiation circuit.

17.4.3 Area 300 – Leach Feed Adjustment

Dewatered, washed, gypsum free, fines filter cake is transferred by conveyor to the leach adjustment tank where fines solids are blended with lime precipitation solids and pinned bed clarifier solids from downstream circuits. Solids are re-pulped in a concentrated leach reagent stream emanating from the downstream PLS membrane concentration circuit. In addition, barren solution from SDU precipitation ultimately returns to the leach adjustment tank, once it has passed through the carbonation tower.

To minimise the demand for fresh sodium carbonate to maintain a level of 50g/l Na_2CO_3 in the leach feed, SDU barren solution is returned to the leach circuit. Barren solution contains in excess of 150g/l Na_2CO_3 but also sodium hydroxide in the order of 5g/l NaOH, which would inhibit the leaching of uranium.

In addition to the required 50g/l Na_2CO_3 in the leach feed, sodium bicarbonate in the leach feed is required at a concentration of 20g/l $NaHCO_3$.

In the carbonation tower, SDU barren solution is reacted with carbon dioxide off-gas, emanating from the LPG fired steam generation plant, to convert excess sodium hydroxide by conversion to sodium bicarbonate. The addition of CO_2 off-gas is controlled to allow a portion of the sodium carbonate in the SDU barren solution to also convert to sodium bicarbonate, ensuring that, once the carbonation tower discharge solution is blended with the other streams in the leach adjustment tank, the sodium bicarbonate is at the required level of 20g/l $NaHCO_3$.

Addition of fresh sodium carbonate to the leach adjustment tank is controlled to maintain 50g/l Na_2CO_3 in the leach feed.

The balancing of leach density with tailings wash volume to minimise reagent loss, fresh sodium carbonate addition, uranium and vanadium recovery, impurity build-up, resultant PLS volume, PLS uranium tenor, and size of the SDU precipitation circuit, are all interdependent and sensitive to change in one another.

For purposes of costing the Hydromet Plant for the PEA phase of the Project, the leach density is maintained at 35% solids (thus ensuring maximum uranium and vanadium recovery) by controlling the volume of final permeate from the PLS membrane concentration circuit returned to the leach circuit. An increase in leach density leads to an increase in tailings wash volume, which increases PLS volume and therefore the size of the PLS membrane concentration circuit, as well as the size of the SDU precipitation circuit. The bigger the volume of the SDU precipitation circuit, the more reagent is required to maintain the reagent tenors in that circuit.

From the leach adjustment tank, slurry is pumped through two stages of indirect heating: the first is in counter current mode with the hot leach discharge, and the second stage of heating utilises steam to raise the leach feed to the optimal leach temperature of 80°C.

17.4.4 Area 400 – Leach Circuit

The leach circuit comprises of four leach tanks in series, each providing one hour residence time to allow leaching of uranium and vanadium at elevated temperature of 80°C. Temperature in the leach tanks is maintained by direct steam injection. Tanks are closed with agitators and vents.

Test work indicates that, under the leach conditions described above, 96% of uranium contained in fines emanating from the Guanaco mineralised material can be expected to leach, and 99% of uranium contained in fines emanating from the Lago Seco mineralised material. Vanadium from both areas is expected to leach to an extent of 71%.

17.4.5 Area 500 – Post Leach Solid/Liquid Separation

Cooled leach discharge slurry is thickened and filtered, and filter solids are washed to recover uranium and vanadium in the entrained solution. Wash liquor is made up of excess final permeate from the PLS membrane concentration circuit, supplemented with fresh water to maintain the set wash ratio.

The wash process also recovers leach reagents to some extent. An increase in wash solution to increase vanadium and reagent recoveries has an adverse effect on PLS volume and downstream circuits.

17.4.6 Area 600 – PLS Membrane Plant

The PLS membrane plant consists of two passes, with the objective of the first pass to retain uranium to a concentrated retentate which becomes the feed to the SDU precipitation circuit, thereby minimising the size of and reagent demand in the SDU circuit.

The first pass retentate is expected to contain, together with uranium, the majority of the vanadium and sodium sulphate in the PLS, as well as high levels of leach reagents sodium carbonate and sodium bicarbonate. The sodium sulphate tenor may become limiting to the size of the SDU circuit.

The objective of the second pass is to recover the remaining leach reagents from the first stage permeate. The second pass retentate is expected to also contain the majority of the vanadium which remains in the first stage permeate.

The second pass permeate is returned to the leach adjustment tank as repulp solution, and thus decreasing the demand for fresh reagent.

Second pass permeate is expected to resemble high quality water containing little vanadium, as well as some sodium carbonate and bicarbonate. This final permeate from the PLS membrane concentration circuit is used as wash liquor on the gypsum leach vacuum filters and for leach density control. Excess permeate, supplemented with fresh water, is used as wash liquor on the post leach (fine tails) vacuum belt filters.

The concentrated PLS (first pass retentate) that is fed to the SDU plant requires a limited amount of sodium bicarbonate in solution to dissolve SDU precipitate, which is recycled as seeding material and to increase the uranium tenor ahead of SDU precipitation. Sodium bicarbonate in excess of this requirement will react with and consume caustic soda, the reagent added to precipitate the uranium as SDU.

In order to limit the $NaHCO_3$ tenor in the SDU feed, a liming process is implemented ahead of the SDU precipitation circuit.

Milk of lime is added to the first pass retentate at a controlled amount to convert most of the sodium bicarbonate to sodium carbonate, whilst precipitating calcium carbonate. The resultant precipitate is dewatered in a pinned bed clarifier and returned to the leach circuit to recover any co-precipitated uranium. Liquor going forward to SDU precipitation should contain in the order of 1g/l to 2g/l $NaHCO_3$, depending on other processing parameters in the SDU plant.

17.4.7 Area 700 – SDU Precipitation and Refining Circuit

From the pinned bed clarifier, SDU feed solution is collected in the SDU precipitation feed tank form where it is pumped through two stages of indirect heating: the first is in counter current mode with the hot SDU precipitation discharge slurry, and the second stage of heating utilises steam to raise the SDU feed liquor to the desired temperature of 80°C.

The SDU precipitation circuit comprises of two seeding tanks and four precipitation tanks in series. The process of seeding increases the uranium tenor in the SDU feed by partial dissolution of recycled SDU precipitate (seed) in the SDU that remains after liming. A core seed remains and acts as a substrate to facilitate growth of SDU crystals once caustic soda has been added. Recycled SDU is added to the first seeding tank and caustic soda is added to the second, controlled to maintain 6g/l of NaOH in the precipitation circuit.

The four precipitation tanks each provided one hour residence time to allow 98% of the uranium to precipitate as sodium di-uranate. It is expected that 10% of the vanadium in solution will co-precipitate with the uranium, forming an intermediate product.

Cooled precipitation slurry is thickened, the required portion of thickener underflow is recycled to seeding and the rest of the underflow is further dewatered in a cyclone before being filtered. Fines in the cyclone overflow are recovered by returning this stream to seeding.

Filter solids are washed to displace entrained solution with clean water, with filtrate and washate returned to the thickener overflow tank. Barren solution, containing high levels of sodium carbonate and excess sodium hydroxide, is pumped from the thickener overflow tank to the barren neutralisation tank, ahead of the carbonation tower and carbonate leach circuit.

In the refining circuit, the objective is to remove vanadium and other impurities from SDU and produce separate uranium and vanadium products, and include the following unit operations as illustrated in Figure 17-2:

- SDU re-dissolution;
- Redcake precipitation;
- Uranyl peroxide precipitation;
- Secondary SDU recipitation;
- Ammonium meta-vanadate precipitation;
- Uranium calcining and packaging plant; and
- Vanadium calcining and packaging plant.

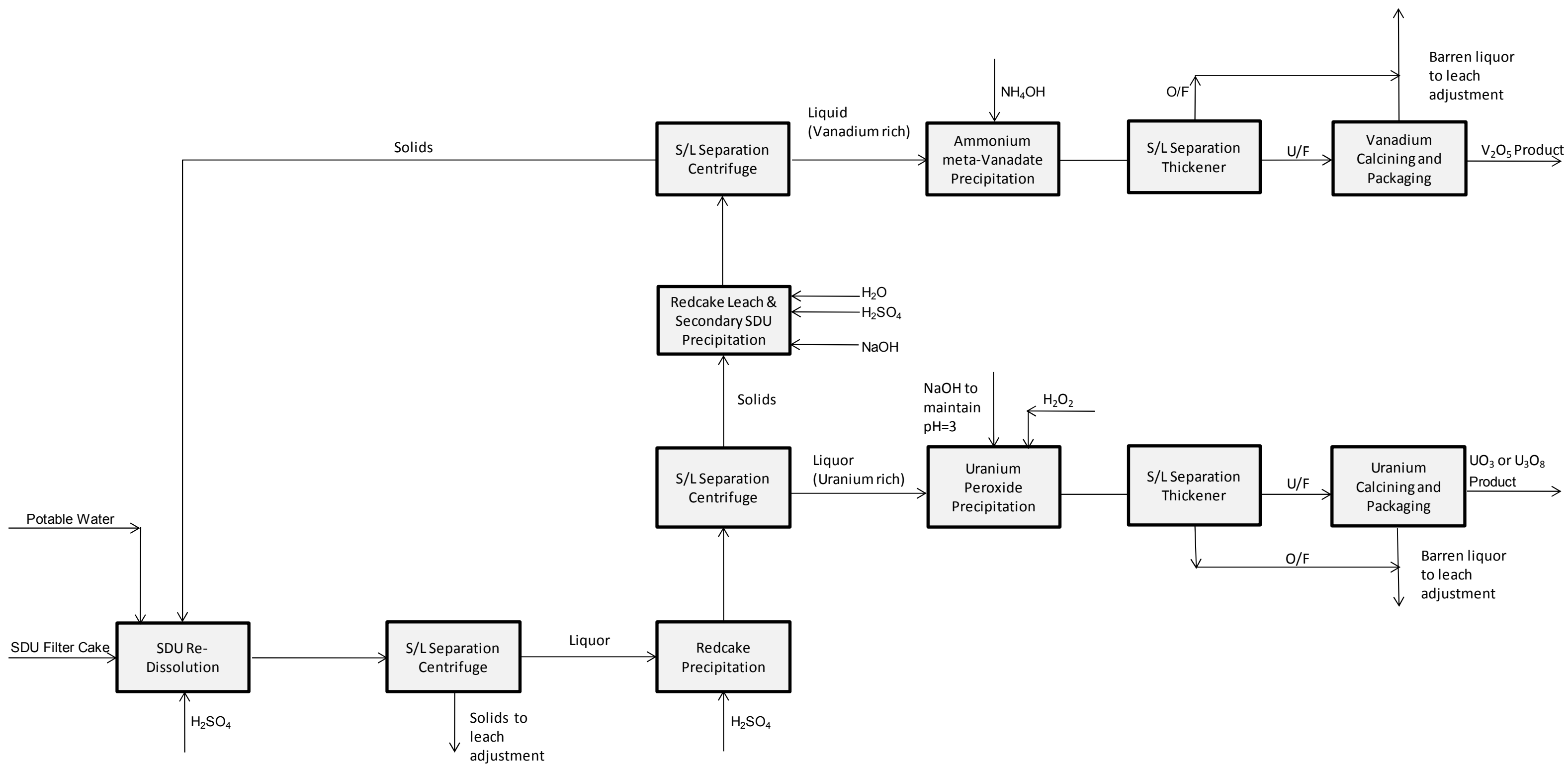


Figure 17-2: Uranium and Vanadium Refining Circuit Block Flow Diagram

Washed SDU filter cake is re-pulped in warm potable water to prevent impurities entering the refining circuit. Sulphuric acid is added at a controlled rate to maintain a pH of 3, allowing dissolution of uranium and vanadium and leaving a low grade residue which is dewatered in a centrifuge and recycled to the carbonate leach.

After solid-liquid separation, the remaining liquor is discharged to the redcake precipitation tank where the pH is reduced further by the addition of sulphuric acid. At a pH of 2, vanadium is selectively precipitated in preference to uranium, thereby purifying the liquor fed to uranium precipitation. Precipitated vanadium solids are separated from the liquor in a centrifuge.

Liquor from the redcake precipitation centrifuge is discharged to the uranyl peroxide precipitation tank where caustic soda is added to increase and maintain the pH at about 3, whilst hydrogen peroxide is added to precipitate the uranium as uranyl peroxide. This final uranium precipitate is thickened before being prepared for shipment in the uranium calcining and packaging plant.

Secondary SDU precipitation is carried out to minimise uranium losses in the vanadium product stream. Redcake contains an appreciable concentration of uranium which is recovered as a secondary SDU precipitate after the red cake is re-pulped in potable water and the pH is increased.

In order to precipitate the uranium in solution as SDU, caustic soda is added to increase the pH to 10.6, the secondary SDU precipitation solids are dewatered in a centrifuge and returned to the SDU re-dissolution tank. The resultant liquor contains the majority of the vanadium and is fed to the ammonium meta-vanadate precipitation tank.

Ammonium hydroxide is added at a controlled rate to precipitate the vanadium from solution as ammonium metavanadate. This final vanadium precipitation slurry is thickened before being prepared for shipment in the vanadium dewatering, calcining and packaging plant.

The uranium calcining and packaging facilities are designed to control yellowcake dust generated as part of the drying and drum packing. These include room ventilation, filtering of air in the contaminated room and the handling of yellowcake waste (wash down, etc.).

The role of the uranium calcining and packaging plant is to remove all moisture from the uranyl peroxide precipitate, upgrade the product into its most marketable state and finally package the product safely in drums for transport.

The facility comprises a centrifuge to remove excess moisture from the thickened uranyl peroxide product, a calciner that is capable of calcining the uranium concentrate to UO_3 and a drum packaging facility.

A vendor package from Adelaide Control Engineering ("ACE") for the packaging and drying of uranium has been incorporated in the Hydromet Plant design for this PEA. The drying and drum packing system offered by ACE is industry proven and designed to comply with world Uranium Standards, including the ALARA (as low as reasonably achievable) and ALATA (as low as technically achievable) principles.

These facilities are considered to be hazardous areas due to exposure to uranium oxide dust. Hence, these plants need to be contained in sealed rooms which are maintained under a slight negative pressure. This negative pressure is achieved by a dust extraction fan that is attached to the baghouse filter.

An exact replica of the uranium calcining and packaging plant is envisaged for treatment of the ammonium metavanadate to produce vanadium pentoxide as final product. Access to both plants is typically via a clean room/dirty room arrangement.

Closed-Circuit Television ("CCTV") cameras will be used to allow remote monitoring of critical operational areas of the plant from the local control room.

The two calcining and packaging plants will be pre-assembled in shipping containers to be located in a secure building within the main plant perimeter, with restricted personnel access.

17.4.8 Area 800 – Reagents, Power and Infrastructure

Reagents that will be used in the Hydromet Plant include:

- Flocculent and coagulant;
- Sodium carbonate;
- Milk of lime;
- Sodium hydroxide;
- Sulphuric acid;
- Hydrogen peroxide; and
- Ammonium hydroxide.

Flocculent is delivered to site as dry granular powder in bulk bags and made up in a vendor supplied Flocculent Make-up and Storage Packages Plant.

Bags of flocculent are emptied into a silo fitted with a bag breaker and chute. Powder is made up in fresh water to approximately 0.25% by weight ("w/w") in the mixing system and then stored in a separate tank. From the storage tank, three dosing pumps would deliver flocculent to the various addition points in the circuit where further dilution will take place.

Coagulant is delivered in drums and stored in the reagent storage area. Coagulant is dosed to the suction line of the pinned bed clarifier feed pump from a drum and dosing pump positioned nearby.

Sodium carbonate is delivered as a solid and stored in the sodium carbonate storage silo from where one of two screw feeders in a duty and standby arrangement transfers the solids to the leach adjustment tank.

Lime powder is delivered by truck and pneumatically transferred to the lime silo from where one of two a screw conveyors in a duty and standby arrangement transfers lime to a mixing tank. Two hydrated lime storage tanks are provided together with two sets of duty-standby hydrated lime delivery pumps.

Sodium hydroxide flakes are delivered in 25kg bags and made up to a 50% NaOH solution in the sodium hydroxide storage tank. The caustic delivery to the product precipitation and SDU precipitation section is performed by one of two metering pumps in a duty and standby arrangement.

Sulphuric acid (98% purity), hydrogen peroxide (70% purity) and ammonium hydroxide (99.8% purity) are delivered to the plant by truck, stored in tanks and pumped to the process sector.

The current Hydromet Plant design uses electricity from the national grid. Allowance is made for a 70km wooden post power line and a reduction station to feed power to site.

LPG will be used as heat source for steam generation and will be trucked to site with road tankers.

17.4.9 Area 1000 – Water Management

Saline water, sourced from shallow local wells, would be filtered and stored in the saline water pond from where it would be pumped for use in processing mineralised fine material in the gypsum leach circuit and as feed to the desalination plant. Desalinated water is used to feed the potable water treatment plant and for steam generation.

Fresh water, sourced from a shallow aquifer 30km from the project site, would be stored in the fresh water pond and delivered via pumps to be used as filter wash water where saline water cannot be used, and to make up reagents and flocculant.

18 PROJECT INFRASTRUCTURE

Senior personnel who are based outside of Chubut Province would fly via commercial airlines to one of the regional airports in Rawson, Puerto Madryn or Comodoro Rivadavia and would be transported the 230-270km to site by road. Deepwater ports are located at Puerto Madryn and at Comodoro Rivadavia (Figure 18-1).

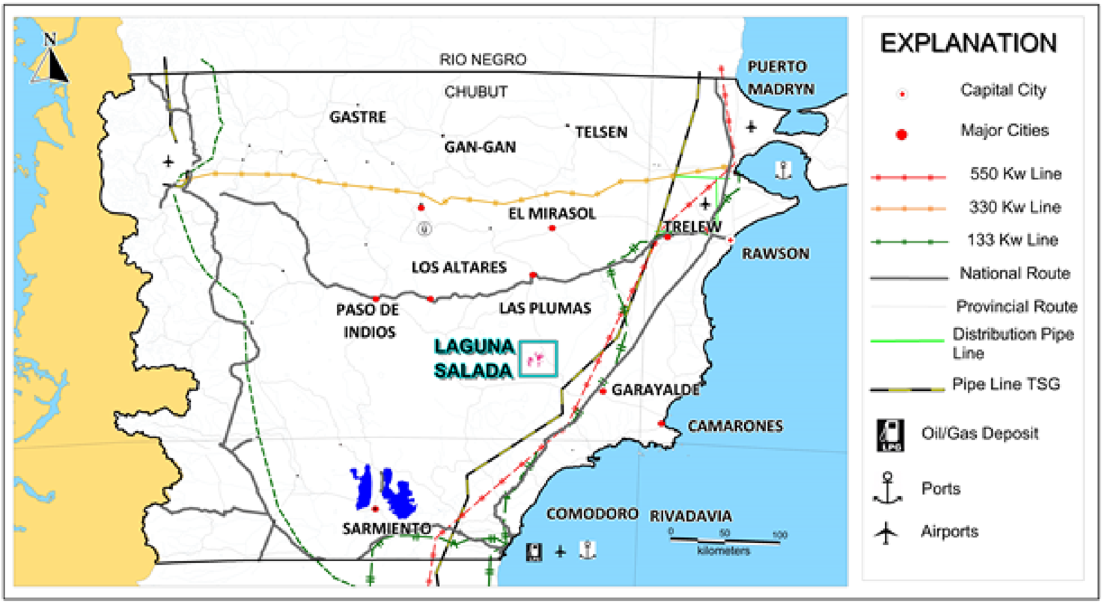


Figure 18-1: Location of the Laguna Salada Project in relation to Regional Infrastructure in Chubut Province

It is envisaged that the majority of the personnel compliment would be sourced from these major centres, while the goal would be to train and hire as many local people from surrounding farms and the town of Las Plumas, as possible. These personnel would all be bussed to site on a daily basis. The majority of work would be undertaken on a three week on – one week off rotation. Site infrastructure would be limited to mine administration offices, storage facilities and essential workshops (Figure 18-1). It is envisaged that Las Plumas would become the principal logistical centre for the Project and would be the principal base for the numerous service enterprises that would be required to support the proposed mine site.

The gravel at Laguna Salada provides excellent road base material and gravel roads would be cut and maintained by graders. It is envisaged that road construction, maintenance and road transport would be undertaken by companies and personnel under contract. Clay required for the core of the tailings dam walls and as a liner for the tailings cells would be derived from borrow-pits in the mudstone unit that is exposed at low elevation in many of the drainages in the Project area.

Electricity would be supplied to the Laguna Salada Project from the nearest point on the national grid at the town of Garayalde (Figure 18-2). The PEA includes the capital cost of a 70km long wooden-post 33kW power line from Garayalde to the proposed mine site. Local mine infrastructure would include a reduction station with associated transformers for the required voltage reduction. The main power consumption of approximately 29,000MW hours per year (“MWhpy”) or 4MW power draw would be by the Hydromet Plant.

The estimated demand of power to operate each beneficiation train, including associated pump stations, mobile workshops, offices and lighting is 600kWh. The power to each beneficiation plant would be supplied from a moveable, aerial 13.2kV power line from the transformer station located near the Hydromet Plant. In addition, each beneficiation unit would have a standby, diesel driven 750kVA mobile motor power centre.

An alternative to grid power is the use of natural gas turbines. This alternative was rejected in this PEA due to the relatively high capital cost ($10 million) of constructing a 40km gas pipeline from the nearest point at which a gas is available to the Project (Figure 18-2). This option remains open for consideration for a larger plant.

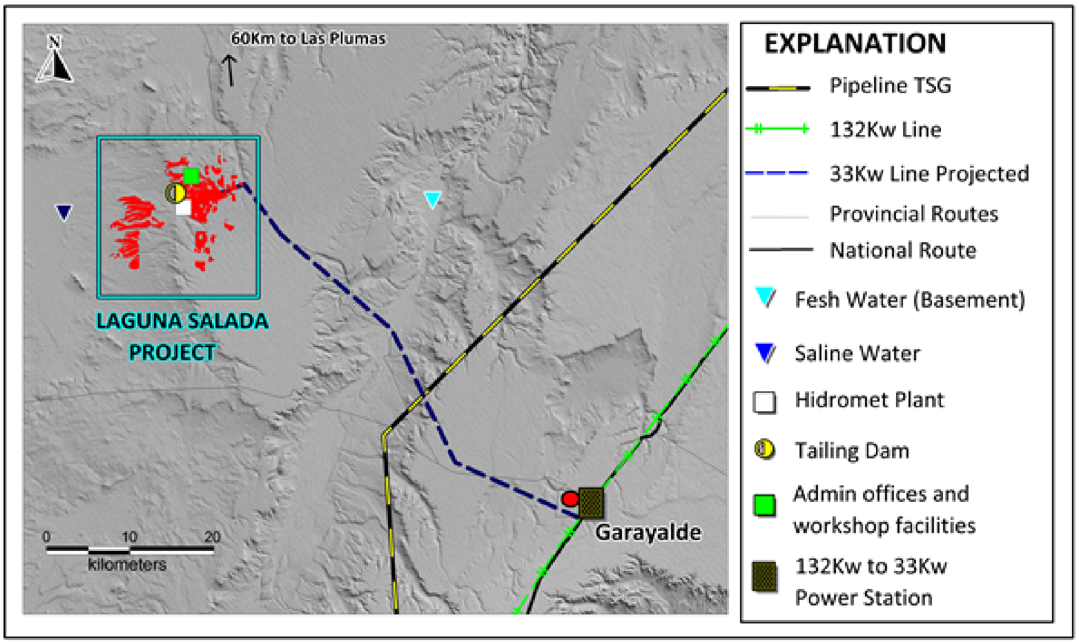


Figure 18-2: Proposed semi-Regional Infrastructure related to the Laguna Salada Project on a background image of a Digital Elevation Model

LPG that is used to generate steam for the leach circuit in the Hydromet Plant, would be required at approximately 1,000tpy and would be trucked 230km to site from a depot located at Comodoro Rivadavia.

Shallow subsurface saline water from the Laguna Salada basin located approximately 10km west of the resource area would be pumped through dedicated HDPE pipelines to the beneficiation trains and the Hydromet Plant (Figure 18-2). Saline water would be temporarily stored in compacted gravel dams lined with HDPE geomembranes, located near the beneficiation trains and Hydromet Plant, from which it would be fed to the plants as required. Bore holes in basement strata approximately 30km due east of the resource area would be the principal source of fresh water for the Project. Fresh water would be through a HDPE pipeline for temporary storage in compacted gravel reservoirs located near the Hydromet Plant. It is estimated that the Project would require approximately 350MLpy of saline water, catering for 65MLpy of desalinated of which 20MLpy would be treated further to meet potable water requirements. The fresh water requirement to operate the Hydromet Plant is estimated at 255MLpy.

The Hydromet Plant would have an adjacent recovered water pond of 60,000m^3 net capacity with a footprint of 150m^2 (2.25Ha) and a height of 5m. Run-off water from precipitation in the Hydromet Plant area would be collected in channels 4m wide and 1.5m deep located around the perimeter of the plant. The channels would feed into the settling pond prior to passive discharge to the natural drainage system. The run-off control channels and pond have been designed to handle 200 year precipitation events. Construction of the recovered water pond would require approximately 67,000m^3 of gravel.

The tailings facility is to be located at an elevation approximately 18m lower than, and approximately 2.5km to the northeast of, the Hydromet Plant. The site for the tailings disposal facility is on relatively flat, barren gravel that forms a stable base above impermeable mudstone in the underlying Salamanca Formation (Figure 18-3). Clay from borrow pits in the Salamanca would be used for the core of the walls of the tailings dams and also as a liner. Lightly compacted clay from the Salamanca Formation would also be used as a 1m thick cap that would be spread over each of the four tailings impoundment cells, as they reach capacity, as a radiation containment measure.

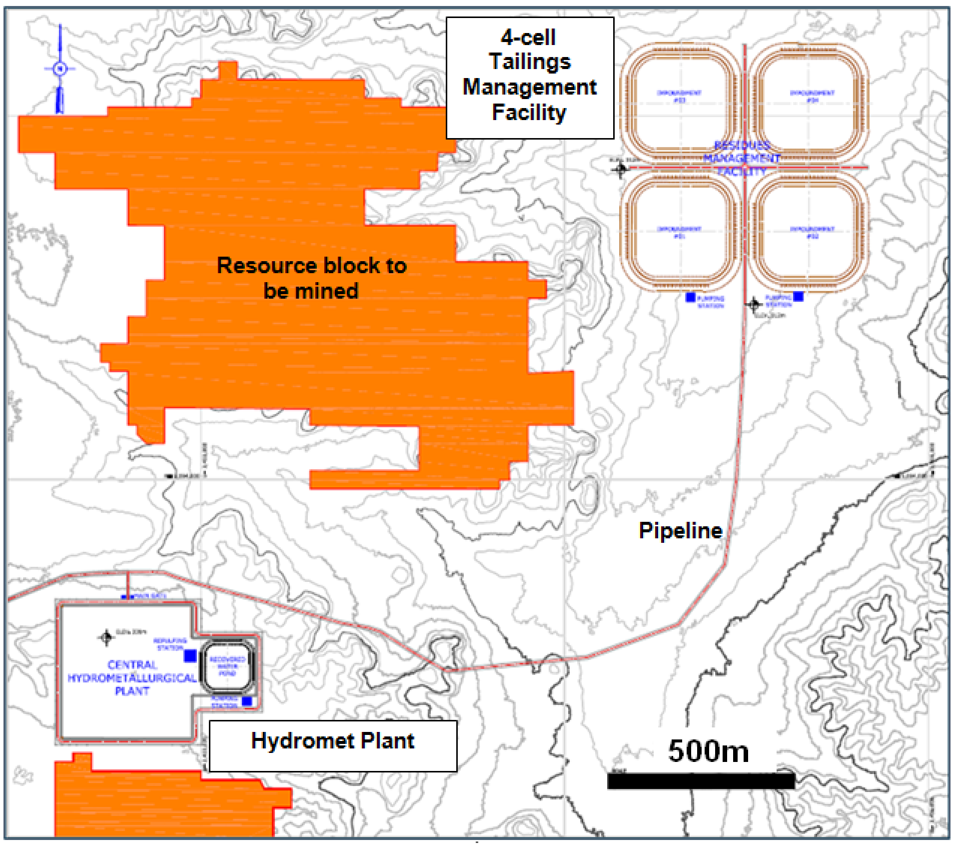


Figure 18-3: Topographic Contour Map showing the Proposed Location of the Tailings Management Facility relative to the Hydromet Plant

19 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

19.1.1 Uranium

Neither U3O8 Corp. nor Tenova have conducted a market study in relation to the uranium and vanadium which may be produced from the Laguna Salada Deposit.

Due to the volatility demonstrated by the uranium price, and the potential for security of supply issues related to growing nuclear energy programs worldwide, utilities typically contract at long-term prices, which are currently higher than the spot price. About 75% of uranium sales are in long-term, multi-year contracts. The Laguna Salada PEA is based on a uranium price of $60/lb, which is in line with the average uranium spot price of $60.75 forecast by analysts for 2017 in the year that Laguna Salada could come into production assuming access to adequate funding and permitting being undertaken at a reasonable pace (Table 19-1). The average uranium spot price for 2014 has been about $31.47/lb (source: Ux Consulting, TradeTech), which reflects discretionary buying for typically single deliveries within 12 months of the contract award.

Table 19-1: Analyst Forecasts of Uranium Prices

Spot Price Forecasts	2014	2015	2016	2017	2018	2019	2020	Long-Term Price
Bank of America-Merrill Lynch	$45.00	$63.75						$67.85
Canaccord Genuity	$38.00	$48.00	$55.00	$60.00				$70.00
Cantor Fitzgerald	$32.54	$36.25	$45.00	$60.00				$70.00
Dundee Capital Markets	$31.00	$40.00	$55.00					$65.00
Haywood Securities	$32.00	$39.50	$53.00	$63.75	$67.50	$70.00	$70.00	$75.00
JP Morgan	$40.30	$50.00						
Raymond James	$30.00	$35.00	$45.00	$60.00	$70.00			$70.00
RBC Capital	$31.50	$40.00	$40.00	$40.00	$45.00			
RFC Ambrian	$45.00	$50.00	$65.00					
Scotia Capital	$32.00	$38.00	$44.00	$60.00	$70.00	$70.00	$70.00	$78.00
TD Securities	$35.29	$43.50						$70.00
UBS	$39.00							$55.00
Average:	**$35.99**	**$44.00**	**$50.25**	**$60.75**	**$69.17**	**$70.00**	**$70.00**	**$68.98**

Sources: Analyst research reports

Uranium from Laguna Salada could be sold locally, regionally and to international markets. Argentina is a growing nuclear country with about 9% of its electricity generated from nuclear with its third reactor, Atucha II, having started up and due to reach full capacity by late 2014 (Figure 19-1). Argentina's Minister of Planning has reaffirmed the country's commitment to double its nuclear capacity to 18% of Argentina's energy mix. In July 2014, China was awarded the contract to build Argentina's fourth reactor with talks underway on construction of a fifth reactor.

Figure 19-1: Location of Nuclear Reactors in Argentina and Brazil relative to the Laguna Salada Project in Chubut Province, Argentina

Argentina's nuclear industry is near self-sufficient with its own enrichment, heavy water and fuel fabrication facilities, but the country relies 100% on imported uranium – therefore, there is a ready domestic market for uranium produced at Laguna Salada. Argentina's current requirement is approximately 0.45Mlb per year. Nuclear co-operation agreements with China, UAE, Saudi Arabia, India, South Korea, Russia and Brazil, also open up potential export markets for uranium from Argentina. Brazil has stated that it will need to import uranium for its third reactor, Angra 3, currently under construction and targeted for completion in 2015. Vanadium from Laguna Salada would be sold to markets outside of Argentina, primarily for the steel industry.

The Laguna Salada Project is located approximately 230km from Chubut's largest city, Comodoro Rivadavia, to the southeast and the coastal town of Puerto Madryn in the northeast. Comodoro Rivadavia is a commercial and transportation centre for the surrounding region, a major export point for Argentina's petroleum industry, and has the most efficient port in Patagonia. National Route 3 ("NR3") runs along the east coast and the National Road 26 connects Comodoro Rivadavia with Chile, to the west – making this a key ocean to ocean corridor, mainly of paved roads, and the principal transport route to local, regional and international markets. In less than 600km and eight hours of travelling, the corridor joins Chacabuco Port on the Pacific Ocean with the Comodoro Rivadavia Port on the Atlantic Ocean. NR3 is main access to the province's principal towns including Puerto Madryn, Trelew, Rawson and Comodoro Rivadavia. Puerto Madryn has a mid-size marine port where a 400,000tpy state-owned aluminum plant is based and offers another potential port facility for Laguna Salada. The principal access to Laguna Salada is along the paved Provincial Route 25 that links Trelew with the village of Las Plumas, which is 53km from the project area.

19.1.1 Vanadium

Over 90% of the world's vanadium production is consumed as ferrovanadium in the steel industry. It is the most commonly used alloy for the strengthening of steel. Vanadium-steel alloys generate the highest strength to weight ratio of any alloy; adding approximately 2kg of vanadium to 1t of steel doubles its strength (Vanitec, 2014).

Roskill (2013) estimates a 6.5% compounded annual growth rate ("CAGR") in vanadium largely due to requirements for higher building standards in emerging economies, especially China, that is mandating the use of higher tensile strength steel for construction in earthquake prone areas (Figure 19-2). Furthermore, this potential growth rate largely excludes the impact of vanadium use in batteries. Several battery designs, the principle ones being vanadium redox ("VBR") and some types of lithium-metal polymer ("LMP") batteries, use significant quantities of vanadium. VBRs are reported to have very good storage and discharge performance, which allows the batteries to be charged and discharged almost instantaneously for many thousands of cycles. VBRs are scalable, area available in stackable units, and there is evidence suggesting that they have one of the lowest ecological impacts of all batteries. Disadvantages of VBRs are that they are large and sensitive to vanadium prices; it is estimated that 50%-65% of the cost of the battery relates to the vanadium cost. Vanadium prices, therefore, have been a barrier to large-scale adoption of VBRs (Roskill, 2013). The potential use of vanadium in VBRs provides a strong floor for pricing – any decrease in price may create more demand in the battery industry.

Annual production of vanadium is approximately 127,000t, of which 55% is provided by China, 28% by South Africa and 11% by Russia (Roskill, 2013). Demand is estimated at 136,000tpy of vanadium.

Based on the price chart of vanadium pentoxide over a 10-year period, the Laguna Salada PEA uses a vanadium price of $5.50/lb (Figure 19-3).

19.2 Contracts

There are no sales contracts currently in place for the Laguna Salada Project.

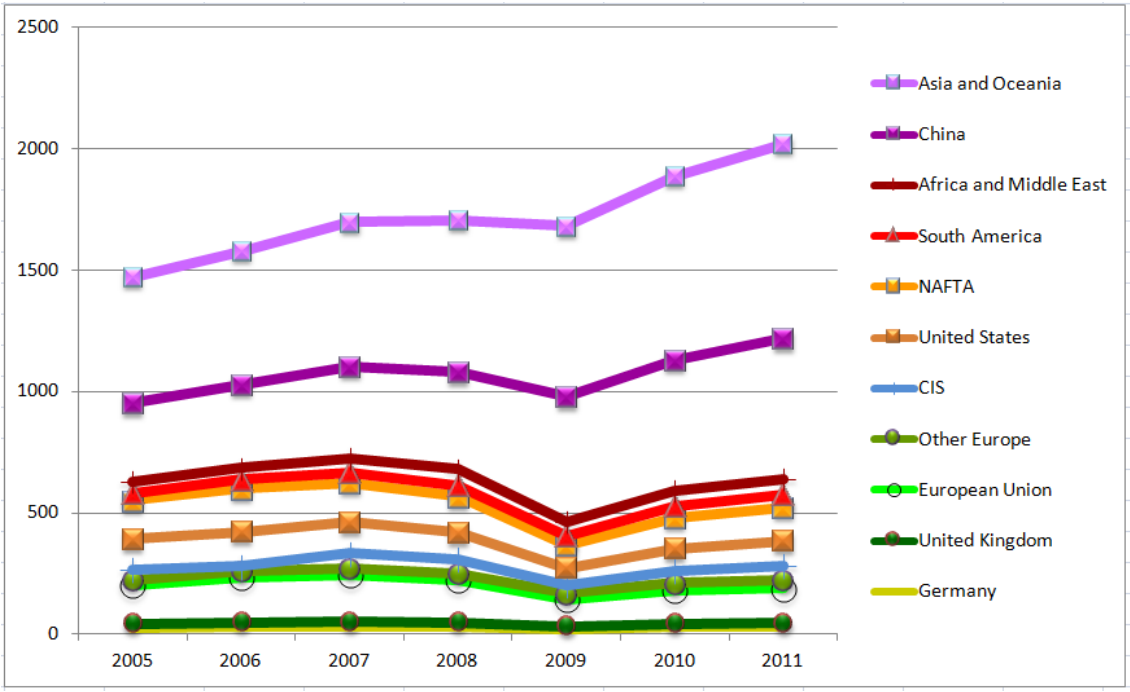


Figure 19-2: Consumption of Steel by Country or Region

Source: World Steel Association, World Steel in Figures, 2013

Figure 19-3: Vanadium Price per Pound over a 10-Year Period

Source: Largo Resources, 2014

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

Provisions of the Environmental Code of Chubut Province require studies to be carried out to provide early guidance on the impact that proposed exploration activities may have on the environmental and social components of a project area. These required studies include archaeological, socioeconomic, physical and biological components.

20.1 Socioeconomic Status

The township of Las Plumas is located in the department of Mártires. The town is located on the north bank of the Chubut River on the unpaved, all-weather Provincial Route 25, 190km from the city of Trelew and approximately 200km from Rawson, the legislative capital of Chubut Province (FigureTable 20-1). The data presented below is from a survey that was commissioned by U3O8 Corp. for the EIA report (*Actualizacion* 2012 *Impacto Ambienta Laguna Saladal* "IIA"), which is required to be updated and presented to the PMD every two years. This study is focused exclusively on the community of Las Plumas and farms in the Project area, and therefore, its results may differ from those of INDEC (National Institute of Statistics and Census) for Patagonia from a 2011 census that was based largely on the larger population centres in the broader Patagonian region.

A socioeconomic survey was undertaken of 100 homes in Las Plumas in February 2012. Las Plumas has a population of 605 inhabitants, of which 240 (40%) are male and 365 (60%) are women (Table 20-1). The local community is insular with most of the townspeople having been born in the province and many were born in the Las Plumas area. Migration away from Las Plumas is mainly motivated by employment possibilities, and in some cases, due to education needs.

Table 20-1: Age and Gender Composition of Las Plumas Town

	Description	Porcentage
Age of Respondent	Male	40%
	Female	60%
	From 18 to 20 years	1%
	From 21 to 30 years	10%
	From 31 to 40 years	15%
	From 41 to 50 years	28%
	From 51 to 60 Years	21%
	From 61 to 70 Years	16%
	Over 70 years old	9%

The local school at Las Plumas offers primary education and the first three years of secondary education. There is a zero dropout rate for children under 13 years of age. However, the overall educational level of the population is low. A total of 83% of the heads of household are certified to have completed primary education, while 17% never had a formal education.

About 90% of the heads of household are employed, mainly in low skill-level, unstable or informal jobs. Evidence of this reality is that only 54% of residents have health insurance or a healthcare plan. Economic activity in Las Plumas is dominated by sheep farming and associated support occupations, with relatively few people involved in public administration and even fewer in trade.

Employment type established in the socioeconomic survey in the 100 households shows 63% unemployment with the remainder of the surveyed population involved in a wide variety of activities (Table 20-2).

Table 20-2: Employment Type and Distribution encountered in a Socioeconomic Study of Las Plumas

Job	Number	% Distribution
Cook	4	2%
Mason	7	4%
Electrician	1	1%
Mecanic	3	2%
weaving	9	5%
Wire Fencing	5	3%
Seamstress	3	2%
welder	3	2%
Tire repair person	1	1%
Computer Technician	1	1%
Radio-announcer	2	1%
Carpinter	4	2%
Truck driver	2	1%
Merchant	3	2%
Rancher	8	5%
Cleaning	2	1%
Pulish gems	1	1%
potter	1	1%
hairdresser	1	1%
machinist	1	1%
None	105	63%
Total	**167**	**100%**

There is a hospital at Las Plumas that has a high satisfaction rating of 76% with the local population. Despite 50% of the residents having health insurance that allows them to be treated at other centres that have more specialists, most residents prefer to make use of the Las Plumas hospital.

Based on NBI (Unsatisfied Basic Needs) and income, over 45% of households in Las Plumas live in poverty. An additional 38% of surveyed households meet one condition of the NBI index – mostly related to poor access to services or overcrowding. 21% of households cannot satisfy their basic needs and 7% cannot satisfy their basic food needs. In addition to the difficult situation, Las Plumas was impacted by the eruption of the Caulle-Puyehue volcano in Chile from which prevailing winds dumped ash over much of Patagonia, causing respiratory problems among the residents and seriously affecting the sheep industry in 2011. These problems have been exacerbated by a drought that lasted from 2005 to 2013, and that is finally showing signs of abating in 2014.

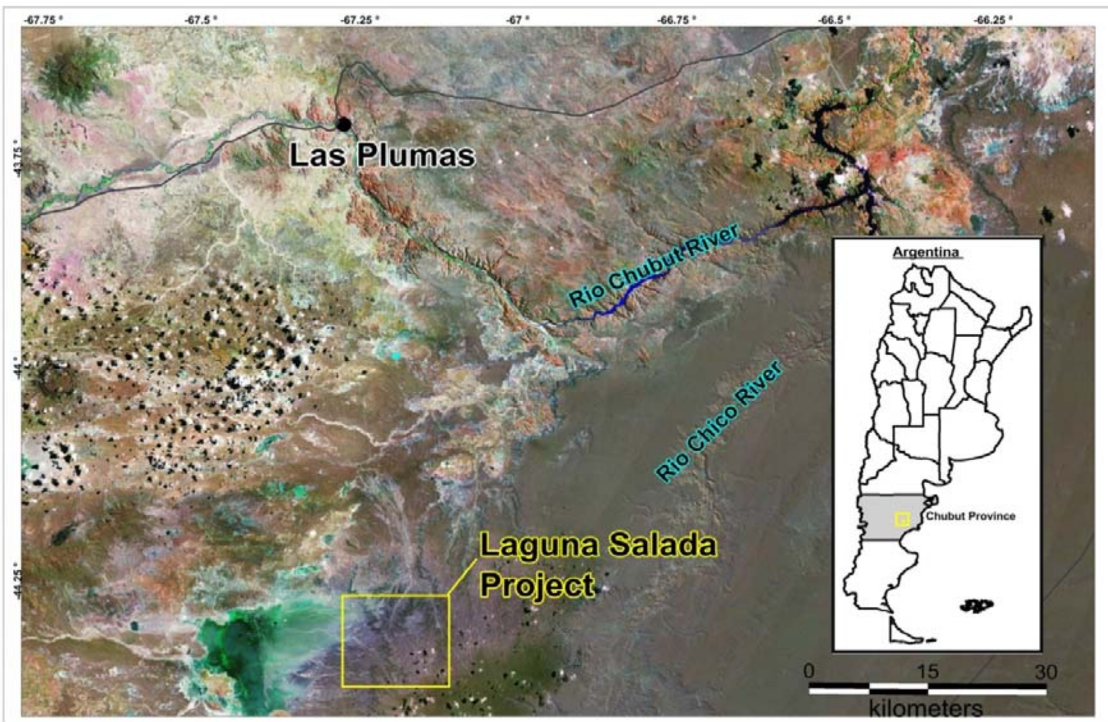
The survey showed that principal concerns of the residents are:

- The lack of work for the adult population;
- Employment prospects for the youth;
- The lack of full secondary school education;

* The need for natural gas to be distributed to all households;
* The shortage of adequate housing; and
* The lack of a local supplier of building materials; currently the closest building supplies are in Trelew, 190km from Las Plumas.

The survey revealed cautious acceptance of mining with 56% of adult residents considering that mining would be beneficial to the community. Mining was seen as a source of employment, but there was widespread skepticism that the town would benefit significantly from additional funding either from a mine or from royalties paid by the mine to the provincial government. 20% of the people surveyed expressed concern about the impacts of mining on health and the environment.

Figure 20-1: Location of the Laguna Salada Project area relative to the nearest town, Las Plumas



20.2 Archaeological Studies

The aim of the archaeological study undertaken within the Project area was to assess the archaeological resources in the immediate vicinity of the Project and, as appropriate, make recommendations as to prevention and mitigation measures that should be implemented in the exploration program and potential mining scenario.

The archaeological study undertaken at Laguna Salada was approved by the Ministry of Culture of Chubut Province, the entity responsible for the enforcement of National Law No. 25743 ("Law 25743") and Provincial Law No. 3559 ("Law 3559") and their corresponding regulatory decrees. Law 25743, which was enacted in 2004, establishes the principle of preservation, conservation and protection of archaeological and paleontological heritage as part of the cultural patrimony of the Nation. Law 3559 stipulates that ruins, archaeological, anthropological and paleontological sites form part of the public domain of the State and Provincial heritage of the people of the Province of Chubut.

The archaeological study of the Laguna Salada project area used the guidelines proposed by Borrero *et al*. (1992) that uses a classification system based on the number of artefacts found at each site as follows:

- Archaeological Site contains more than 25 artefacts;
- Concentration of Findings contains between five and 24 artefacts; and
- Isolated Findings contains one to four artefacts.

From observations made at survey stations throughout the west-central part of the Project area in which the current mineral resource is located (Figure 20-2), it was concluded that the potential for the gravel plain to contain significant archaeological sites is limited. The sites encountered were classified as Isolated Findings (heterogeneous and discontinuous). Among the lithic material found were cores, nodules and debitage. The raw materials are mainly represented by a wide variety of coloured silica (jasper, opal and agate), petrified wood (xilópalo), and less frequently, chalcedony and basalt.

Two known Archaeological Sites lie within the Laguna Salada Project area, one located in the north western, unexplored section of the concession block and the other located on the southeast margin of the Laguna Salada Lake (Figure 20-2; Schuster, 2012). These sites are associated with outcrops of chalcedonic silica, the quality and abundance of which resulted in extensive exploitation by different population groups over time for the production of stone-age implements (Schuster, 2012).

Due to the paucity of landmarks such as those provided by silica outcrops, such sites may have been used as burial grounds consisting of "chenque" type funerary structures. It is recommended that these outcrops be extensively investigated, not only to exclude the presence of graves, but also to examine the possible presence of caves that may have been occupied as shelters and/or contain rock paintings. If these sites were to contain graves and/or rock paintings, they would require protection through an area of influence within the Project.

The Sensitive Archaeological Area identified within the Project area is located on the southeast margin of the Laguna Salada Lake (Figure 20-2) where the principal drainage provides fresh water from runoff and pasture that was attractive to fauna that constituted the principal food source. High banks adjacent to the principal drainage would have provided shelter from the wind for habitation and day-to-day tasks such as the processing of hides. Plants from the relatively wet areas also provided a food source for the humans.

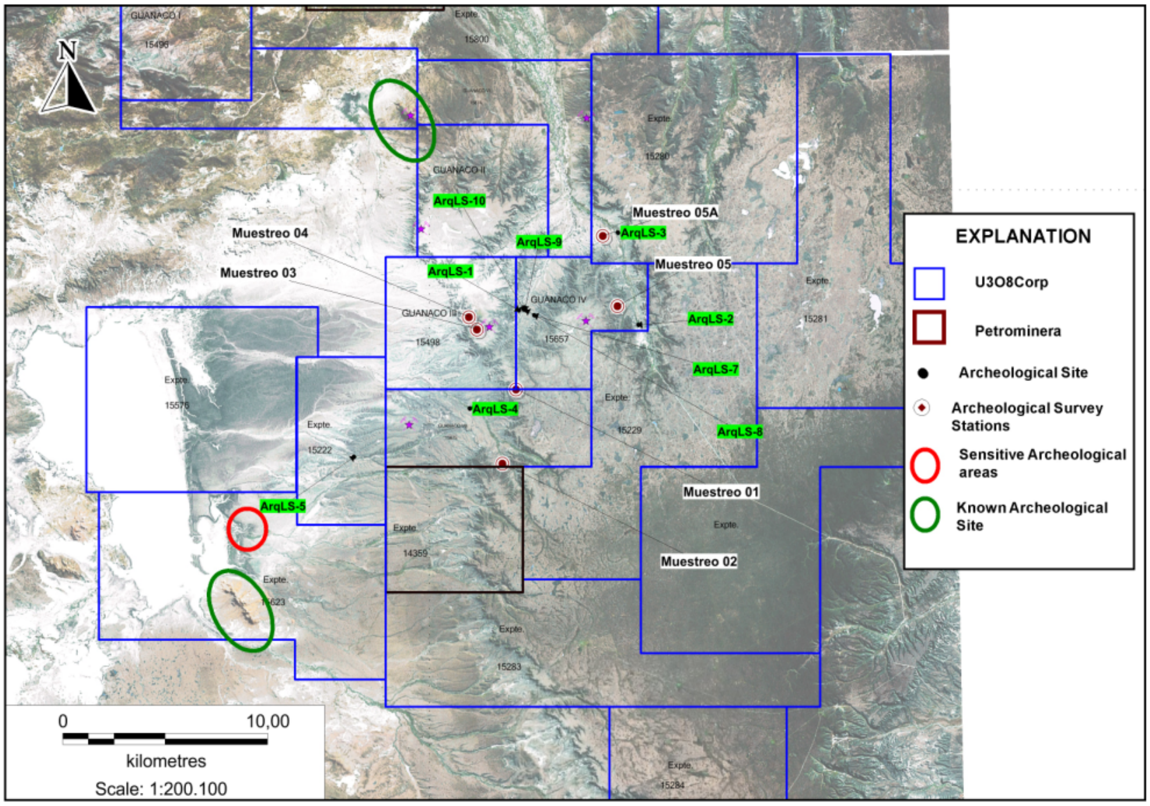


Figure 20-2: Location of Archaeological Survey Sites relative to Concession Boundaries in the Laguna Salada Project

20.3 Geomorphology and Soils

20.3.1 Environmental Monitoring

In order to monitor the impact of exploration activities on soils and geomorphology, aerial photographs of the Laguna Salada Project area were taken from an altitude of ~150m from a fixed-wing aircraft in March 2012. These photographs show dirt roads that existed before exploration commenced, tracks made during exploration, as well as the location of filled pits and trenches (Figure 20-3). In addition to the aerial views, photographs from the ground are used to monitor environmental restoration initiatives.

Environmental monitoring has shown that existing farm roads that were used to access the sampling sites have widened and deepened due to increased use during exploration (Figure 20-4).

After trenches and pits were sampled, they were refilled and the surface returned to its original grade and the surface scarified to enhance seed entrapment and natural moisture retention. An example of the scarified surface shown in Figure 20-5 and compared with a close-up of the typical vegetation located between shrubs in an area that has not been trenched shows comparable vegetation cover (Figure 20-6).

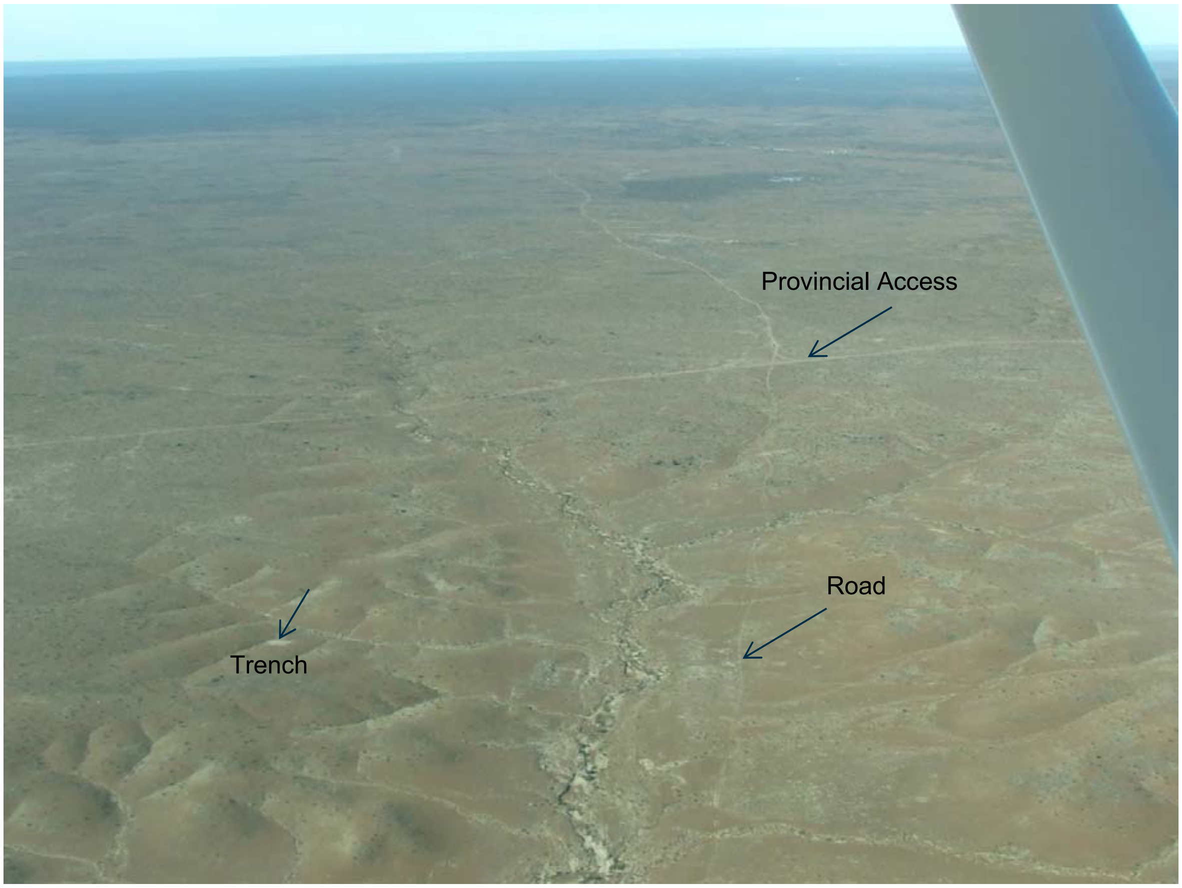


Figure 20-3: Aerial View of Access Roads and Trenches in the Laguna Salada Project area

Figure 20-4: a) Typical access to Exploration Trenches, minimum environmental impact. b) Typical local access roads to Laguna Salada Project site from the Main Provincial Route

Figure 20-5: Photograph of a filled trench on the margin of a mesa where the natural grade has been restored and the surface scarified and replanted with both indigenous and exotic plants (*Grindelia chilonensis* shown here)

Figure 20-6: Photograph of undisturbed terrace showing minimal vegetation located between shrubs in the natural environment

20.4 Further Initiatives to Limit Environmental Impact

The following are practical initiatives, a protocol for which has been signed by the Company and the landowners in the Project area, which would mitigate environmental impact of exploration and mining in the Laguna Salada Project:

- The Company has undertaken to mitigate disturbance to livestock by noise from machinery by giving adequate notice to the landowners of the date on which an area is to be explored or exploited so that livestock can be moved to unaffected areas;
- To minimise disturbance of the soil outside of the immediate exploration activities so as to avoid habitat interference and destruction for micro- and meso-fauna, such as burrowing insects, rodents and reptiles;
- To protect the indigenous flora and fauna. This initiative specifically involves prohibiting the:
  - Collection of eggs, nests, and young and adult fauna such as "choiques" (Darwin's rheas), guanacos, skunks and armadillos;
  - Introduction of and/or keeping pets in the Project area;
  - Introduction of alien species, that have not been approved by the provincial department of the environment, to the ecosystem;
  - Collection of firewood within the region; and
  - Carrying and using firearms in the Project area.

20.5 Biological Studies

20.5.1 Flora

The Project area is classified principally as shrub and sub-shrub steppes, and shrub and sub-shrub "peladales" in the system of Anchorena y Cingolani (2002). Principal exploration activities were carried out in two physiographic areas that contain clearly differentiated plant communities:

- The Lago Seco Erosional Complex, which coincides with the physiographic region "Chubut Erosional Landscape: Gran Laguna Salada" in the classification of Anchorena y Cingolani (2002) in which shrub and sub-shrub "peladales" dominate near the edge of Laguna Salada; and
- The Tableland and Gullies, which include the physiographic zone classified as Montemayor Pediment Tablelands and Laguna Colorada Flanking Pediment in the classification of Anchorena y Cingolani (2002) made up of shrub steppes located on the edges of the tableland bordering the "peladales".

A survey of plant communities identified the following as the principal species:

- Shrubs (*Atriplex, Frankenia, Lycium, Prosopis, Suaeda*);
- Sub-shrubs (*Nassauvia*);
- Sparse grass cover with *Stipa* and *Poa* species; and
- Herbs such as *Hoffmanssegia.*

Vegetation in the Project area is under stress due to the near decade-long drought that has affected the area.

Trials have been undertaken to test the extent to which indigenous vegetation can be removed and transplanted. The objective of this test work was to determine whether shrubs and sub-shrubs could be removed prior to mining and replanted in an area that had been mined and reshaped to its original landscape. Results from transplanting shrubs and sub-shrubs have been positive when re-plantation is done during the fall and winter season (April to September in the southern hemisphere). It is known that plants in the region are semi-dormant at low temperatures, and this is the best time for transplanting. The fact that the larger plant species can be transplanted is of fundamental importance to the restoration of the area after mining because these larger shrubs act as wind breaks for the smaller plants.

Transplantation and seeding of the re-contoured gravel is most successful where the riffles run northwest-southeast, semi-perpendicular to the prevailing wind direction. Seeding and transplantation test work has shown that indigenous grasses, shrubs and herbaceous species can withstand extreme conditions such as the current drought after being transplanted. Some species are best germinated in nurseries where the young plants are hardened-off with reduced watering before being planted on site.

Species that were most successfully transplanted or germinated from seed include:

- *Senecio filaginoides* (weed blackberry): A small, pioneer shrub that has an efficient mechanism for the dissemination of its seeds. Leaves provide good forage for livestock. Valuable for initial coverage of disturbed gravel;
- *Grindelia chiloensis* (Gold Pin): This is a pioneer shrub whose flowers provide a source of resin that can be used to compliment rosin produced by pines (Wassner & Ravetta, 2000). Its high rate of seed production and the fact that it is unpalatable to livestock are features that make this plant particularly valuable as a means of stabilising and protecting disturbed gravels;
- *Schinus poligamus*: A hardy evergreen shrub that may grow to over a metre, and as such provides shelter from the wind and helps prevent erosion. It is grown successfully from seed and has been transplanted successfully in field trials at Laguna Salada. It has a large root system that helps to stabilise the soil and it has proven medicinal properties;
- *Atriplex lampa* and *Atriplex sagittifolia*: These are hardy, dense-crowned shrubs that grow to about 1m in height. They are easily transplanted and proliferate in disturbed soils with a propensity to grown in saline areas;
- *Frankenia*;
- *Chuquiraga*: evergreen flowering shrub;
- *Acantholipium*: a dense shrub; and
- *Lycium*.

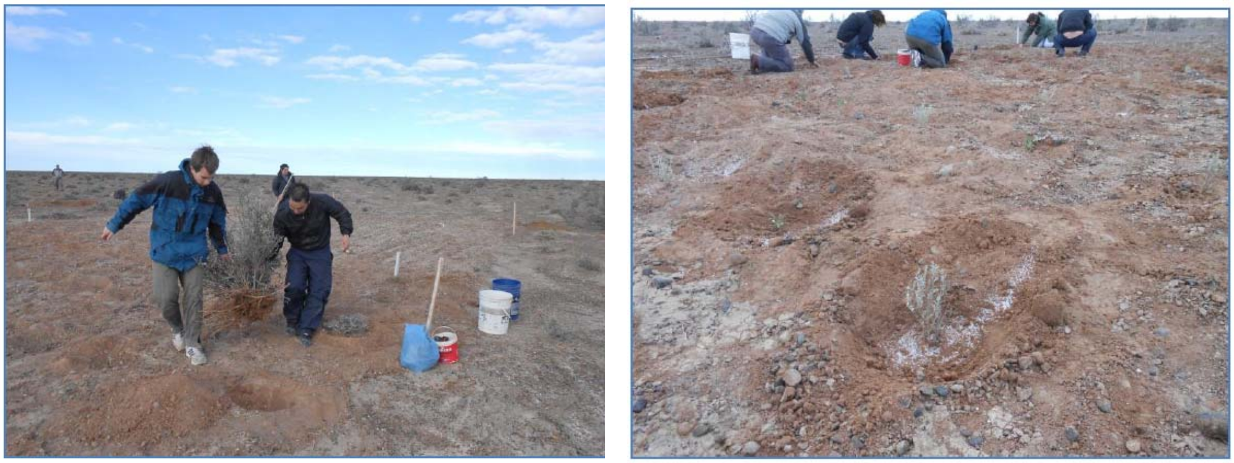


Figure 20-7: Photos showing Transplantation Trials on the Laguna Salada Project. Plants being transplanted are *Atriplex sagitifolia* (left) and *Atriplex lampa* (right)

Figure 20-8: *Grindelia chiloensis* seedling from a Nursery planted at a Trench Site at Laguna Salada

Results of the preliminary transplantation tests underline the fact that transplantation is most successful when:

- Undertaken in the fall and winter when the plants are semi-dormant (April to September);
- The restored areas are fenced so that the plants have an opportunity to become established before they are grazed or browsed by local fauna, especially sheep and guanaco;
- Nitrogen-rich fertilizer and a polymer that helps to maintain the humidity of the soil is applied to the disturbed area prior to planting; and
- Drip irrigation through the first two summers, to alleviate the driest period, is very likely to improve propagation success;
- Shrub genera *Acantholipium, Frankenia and Chuquiraga* proved to be particularly resilient to transplanting – more so than *Atriplex* and *Lycium*;
- Herbaceous species Grindelia was very successful as pioneer species; and
- Tuft grasses of the *Poa* and *Stipia* genera were successful as pioneer species for the process of re-vegetation. Control areas, in which the gravel was left to recover naturally, showed sparse coverage by seedlings. It is recommended that additional test work be done with deeper scarification of the surface of the disturbed gravel in an attempt to retain more moisture.

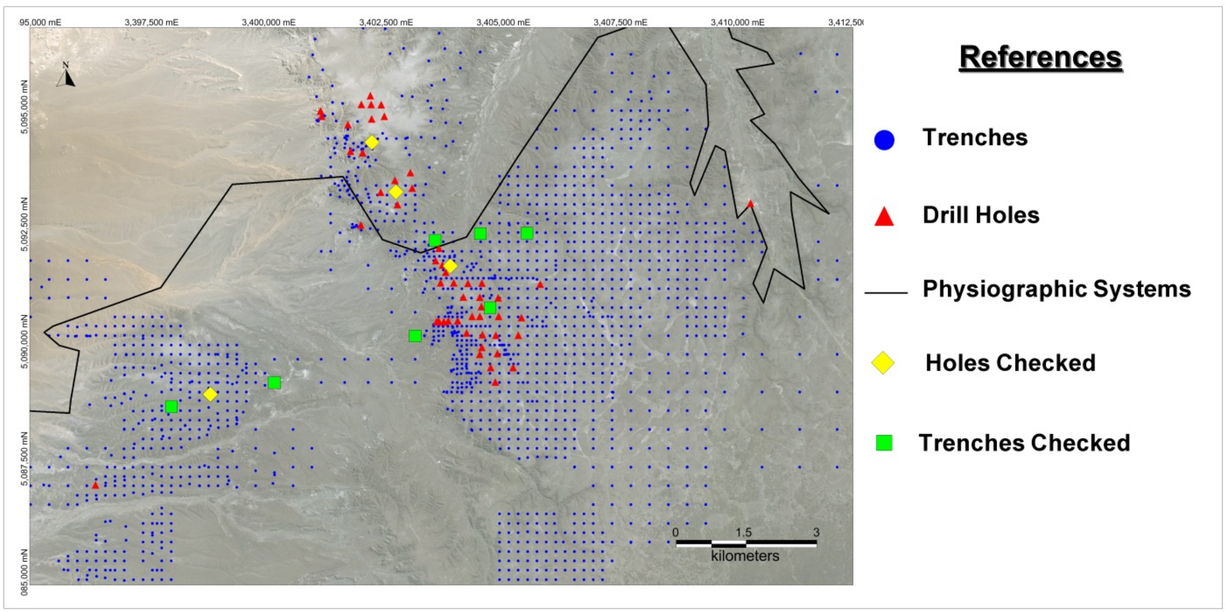


Figure 20-9: Location of Points at which Botanical Studies were undertaken relative the Location of Trenches and Bore Hole Collars

20.5.2 Fauna

The Project area is located in a transition between the Argentine Monte and Patagonian Steppe eco-regions. The latter is a cold desert scrub with almost constant wind during the day, cool nights and annual average rainfall 200mm. Soils are variable but generally pebbly and are poor in organic matter. There is little variation in landscape and topography and consequently, there is limited diversity in flora and fauna within the Project area. The area lacks permanent water bodies, although the large depression in which Lago Seco is located hosts temporarily aquatic communities during the winter and attracts a vast bird diversity especially during migrations.

Native mammals observed in the Laguna Salada Project area include:

- Mustelidae family: *Comadreja patagonica* – a member of the stoat, ferret and mink genus; Conepatus species (skunks);
- Dasypodidae family: *Chaetophractus villosus* – the hairy armadillo and *Zaedyus pichiy* – the dwarf armadillo;
- Rodents:
  - Cricetidae family: *Abrothrix olivaceus* – olive grass mouse, *Akodon iniscatus* – intelligent grass mouse; *Calomys musculinus* – drylands vesper mouse; *Eligmodontia species* (gerbil mice): *Euneomys chinchilloides* (Patagonian chinchilla mouse); *Graomys griseoflavus* (gery leaf-eared mouse); *Oligoryzomys longicaudatus* (long-tailed colilargo); *Phyllotis xanthopygus* (yellow-rumped leaf-eared mouse); Reithrodon auritus (bunny rat);
  - Caviidae Family: *Galea musteloides* (common yellow-toothed cavy); *Microcavia australis* (southern mountain cavy); *Dolichotis patagonum* (Patagonian mara);
  - Canidae family: *Pseudalopex griseus* (South American grey fox); *Pseudalopex culpaeus* (Andean fox); and
  - Camelidae family: *Lama guanicoe* (Guanaco).

Introduced mammals include:

- Leporidae family: *Lepus europaeus* (European hare); and
- Rodents: *Mus domesticus* (house mouse); *Rattus novegicus* (brown rat); *Rattus rattus* (black rat).

Common birds recorded in the Project area include:

- Rheidae family: *Rhea pennata* (Darwin's rhea or choique);
- Tinamidae family: *Eudromia elegans* (elegant crested tinamou);
- Phalacrocoracidae family: *Phalacrocorax olivaceus* (olivaceous cormorant);
- Ardeidae family: *Egretta alba* (great egret); and
- Phoenicopteridae family: *Phoenicopterus chilensis* (Chilean flamingo).

20.6 Water Quality

20.6.1 Procedure and Laboratory

Samples were taken from various water sources in order to provide preliminary insight into local water quality. Water samples were taken in sealable glass vials that were placed in coolers with frozen gel packs in the field, were refrigerated at the field camp and then transported in coolers with gel packs to Rawson and then flown to Buenos Aires, where they were submitted for analysis to DTP Laboratories SRL ("DTP"). DTP is a laboratory that is accredited for environmental work in Chubut Province.

20.6.2 Deep Groundwater

To date, no deep basement-groundwater samples have been taken in the Project area. However, the Company is planning to explore potential aquifers associated with fractures within the Jurassic basement in the Project area.

20.6.3 Shallow Groundwater

Groundwater samples were taken from wells from which water is drawn with windmills or from associated storage tanks within the vicinity of the Laguna Salada Project area. Groundwater analyses are listed in Table 20-3. Groundwater is classified as brackish or saline, except for sample LS 10/12 which was classified as freshwater (Actualizacion 2012 Impacto Ambienta Laguna Saladal "IIA", 2012); Figure 20-10). The reason that the water from LS10/12 is so different is that it is drawn from an aquifer within the Rio Chico Formation that is fed principally by rainwater from an elongate basin and is largely isolated from sulphate-rich strata such us the Salamanca Formation.

In terms of shallow groundwater quality:

- Sodium is the most abundant cation, followed by sulphate and chloride anions;
- Fluorine exceeds guideline levels for human and livestock consumption, as well as the limits for the protection of aquatic life for all, but one, of the samples sites. The fluorine content of sample LS10/12 is lower than the other samples, and falls just inside the recommended maximum for drinking water;
- Uranium:
  - Sample LS04/12 exceeds the recommended limit for human and livestock consumption;
  - Samples LS05/12 and LS23/12 exceed the tolerable recommended level for human consumption; and
  - All samples exceed recommended limits of uranium in water used for irrigation except sample LS10/12.
- Vanadium concentrations in all samples exceed the guideline level for irrigation, but are at acceptable levels for human and livestock consumption;
- Molybdenum concentrations for all samples except LS10/12 exceed guideline maxima for water used for irrigation purposes;
- Zinc exceeds the guideline level for livestock consumption in sample LS05/12; and
- Arsenic concentrations from all samples exceed recommended maxima for human and livestock consumption except for sample LS10/12 which falls just below the recommended maximum.

Table 20-3: Analysis of Saline Water from the Lago Seco Reservoir

	Type	Shallow groundwater				SAINE
	SGS Client ID	Sample C	Sample E	Sample F	Average shallow groundwater	LAGO SECO-01
	SGS ID	LI12-22101.0003	LI12-22101.0005	LI12-22101.0006		LI12-22809.0001
Conductivity	uS/cm	1,489	1,804	3,770	2,354	45,600
As	µg/L	0.005	0.003	0.002	0.003	0.07
B	µg/L	<0.1	<0.1	0.29	0.29	0.32
Ca	µg/L	63	119	135	106	469
Cu	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
K	µg/L	5.34	6.01	8.64	6.66	52.7
Na	µg/L	235	233	650	373	14,000
Pb	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Mg	µg/L	22.4	29	33.7	28.4	56.9
pH		7.75	7.23	7.18	7.4	7.37
Se	µg/L	<0.0006	0.0011	0.0019	0.0	<0.0002
Alkalinity	µg/L $CaCO_3$	181.3	161.4	135.5	159.4	230.3
Bicarbonates	µg/L $CaCO_3$	181.3	161.4	135.5	159.4	230.3
Carbonates	µg/L $CaCO_3$	<1	<1	<1	<1	<1
Cl	µg/L	245.5	304.4	675.1	408.3	14,531
Hardness	µg/L $CaCO_3$	240.7	411.9	538.8	397.1	1,702
F	µg/L	0.95	0.79	1.96	1.2	7.86
TDS	µg/L					38,828
Sulphates	µg/L	213.9	304.2	811.9	443.3	10,374
V	µg/L	<2	<2	<2	<2	
C (calculated)	µg/L	21.76	19.37	16.26	19.13	27.64
S (calculated)	µg/L	71	101	271	147.7	3,458

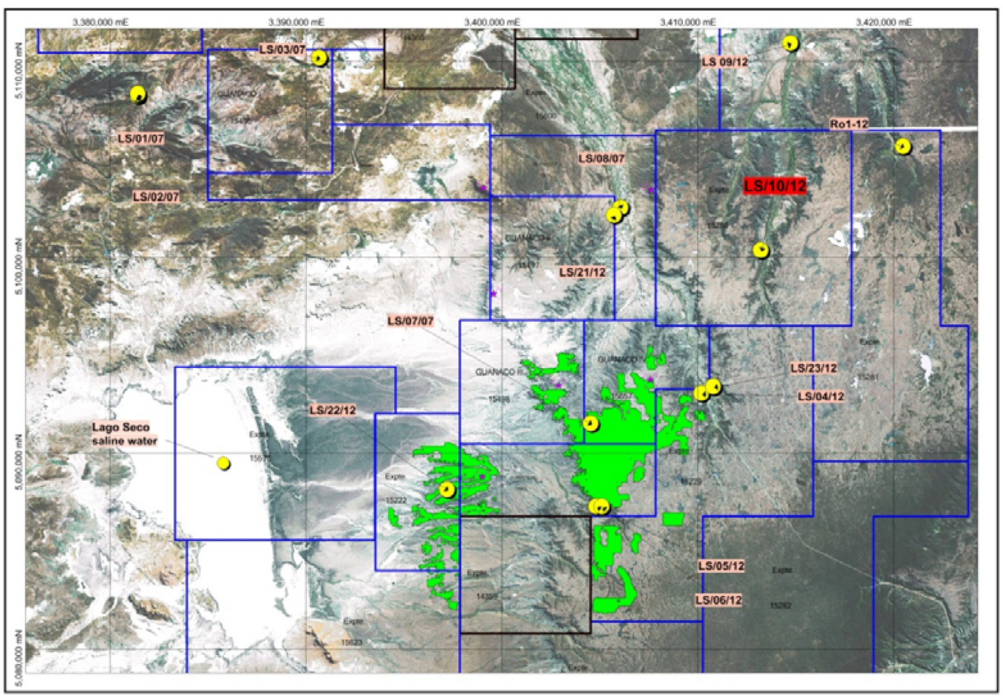


Figure 20-10: Location of Water Sample Points relative to the Resource Footprint at Laguna Salada

U3O8 Corp. properties have been shown as blue squares.

20.6.4 Laguna Salada Water (saline water)

Table 20-3 shows the location of a sample taken in a saline aquifer that was found through a geophysics survey undertaken by the Company (Prospeccion geoelectrica preliminary en la zona de Laguna Salada, TEOTOP, 2012-Chubut). The conclusion from the vertical electrical sounding survey is that the Lago Seco depression contains a reservoir of over 30Mt of saline water. Analysis of the water shows that it has a very high chlorine (Cl >14,000 µg/L), sodium (Na >14,000 µg/L) and sulphate (SO_4 >10,000 µg/Ll) content (Table 20-3), and is gypsum-saturated.

The current plan is that saline water would be used in beneficiation of the mineralised fines in the mineral processing circuit.

20.6.5 Fresh Surface Water

Surface water samples were taken from waterholes ("tajamares") that are fed by rainwater and associated runoff (samples LS 06/12 and LS 22/12).

The total dissolved solids measured at the laboratory were higher than levels inferred from the conductance measured in field since the taking of the water sample disturbed clayey material that had settled on the bottom of these ponds and introduced anomalously high turbidity in the water samples taken. The presence of colloidal solids in the samples is suspected to have led to anomalously high concentrations of aluminium, manganese and iron in the samples. Analytical results can be summarised as follows:

- Iron concentrations are higher than the maximum recommended for drinking water;
- Aluminium concentrations exceed the maximum recommended for human consumption and drinking water;
- Manganese concentrations are higher than recommended for human consumption, drinking water and for the support of aquatic life; and
- Levels of fluorine, uranium, vanadium, molybdenum, zinc and arsenic do not exceed levels recommended for potable water.

20.6.6 Transported Water

A sample of tap water taken from a tank at the Estancia "La Madreselva" was obtained from the municipal water supply at Las Plumas. The origin of the poor water quality listed below is something that is under investigation – as to whether it derives from the municipal water source or is somehow contaminated in the storage vessel at the farm. The following is evident from the analysis of sample LS 21/12:

- Fluorine levels are appropriate for drinking water;
- The aluminium concentration exceeds the maximum recommended for human consumption;
- Arsenic levels exceed those recommended for drinking water;
- Vanadium content exceeds recommended levels for human and livestock consumption as well as those for irrigation and for the protection of aquatic life;
- Zinc levels exceed guidelines for human and livestock consumption and for the protection of aquatic life; and
- Aluminium and copper levels are both higher than recommended for the protection of aquatic life.

20.7 Air Quality

Initiatives to minimise adverse effects on air quality that have been formalised in a protocol document are as follows:

- To ensure that combustion machinery is operated optimally and undergoes appropriate preventive maintenance;
- To minimise emissions from combustion engines by making staff members aware of the need to restrict the use of machinery and vehicles and to optimise their performance;
- To minimise particulate matter emissions, especially dust resulting from exploration and mining activities. Dust control proved to be particularly difficult when winds exceed 70km/h, and hence, this was set as the condition under which potentially dust-generating activities would be suspended. Wind generally dies down at night and hence there is a possibility of confining mining activities to night operations;
- Dust control is also important from the point of view of ash that has accumulated, forming a layer up to 2cm thick over the Project area, from the eruption of the Caulle-Puyehue volcano in Chile in 2011; and
- To respect a maximum speed limit of 30km/h in existing dirt roads and trails.

20.8 Summary

Las Plumas is a rural community in which economic activity and employment largely centres on livestock production, which is economically marginal at best. Other sources of employment are public administration, posts associated with primary school education and commerce. The majority of residents were born in the province, if not in Las Plumas itself. Due to the limited employment and education prospects available at Las Plumas, many people have moved away from the town.

Las Plumas has notable socioeconomic issues, many of which resulted from the negative impact that ash from the eruption of Puyehue volcano and a decade-long drought has had on the sheep industry and on public health. Very few of the affected families received significant State subsidies that allowed them to feed the livestock that survived.

A survey of Las Plumas showed that there is support for mining, based largely on the associated jobs that it would create. There are, however, some negative perceptions about the environmental and health effects of mining (expressed by 20% of the people surveyed).

Transplanting of existing indigenous flora plants, combined with planting of seeds, and seeds provide a practical means of restoring the gravel plains after they have been mined in the Laguna Salada Project. Based on the positive initial test work, the Company plans to undertake more systematic programs on larger tracts of land potentially expanding the number of species involved in the test work. Test areas will be fenced to provide additional protection of the newly replanted areas from sheep and guanaco.

Poor natural water quality represents a serious problem in the region in which the Laguna Salada Project is located.

21 CAPITAL AND OPERATING COSTS

21.1 Approach

Capex and Opex have been estimated in accordance with standard industry practices for a PEA level of study to provide U3O8 Corp. with an initial determination of the viability of the Laguna Salada Project. Capex and Opex estimates are considered to have a level of confidence or accuracy within +/-35%.

Capex was estimated on the basis of a specific mine design, modular beneficiation trains and a Hydromet Plant designed specifically for the Laguna Salada Project. Single source, budget quotes were obtained for the major equipment for the mine, beneficiation and Hydromet Plant, with the balance of equipment estimated from historical databases. Freight was allocated per equipment item and bulk commodities, concrete, structural steel, piping, electrical, and instrumentation factored by plant area. An estimate of installation hours per equipment item and an all-in gang rate was used to estimate installation costs. Site preparation, bulk earthworks, ponds, mobile fleet and permanent buildings were factored as a proportion of overall direct cost.

Opex estimates are based on experience with surface mining, information from the vendor companies, estimates of performance of the beneficiation units based on test work undertaken on the gravels and expected reagent consumption rates based on Metsim modelling, quoted reagent costs, and international and local transport cost estimates. Estimated mining costs are based on budget costs from contractors and suppliers as well as the mining consultant's experience from comparable mining projects elsewhere in South America.

Initial Capex and Opex were estimated for a Hydromet Plant to treat a total of 9.6Mt of mineralised material per year – referred to as the Full Capacity Plant as detailed in Chapter 22. From the Full Capacity Plant estimates, Capex and Opex were factored for 4.4Mt of mineralised material and 0.9Mt of waste mined annually, or 50% of the Full Capacity Plant throughput, to establish the base case for this initial PEA on the Laguna Salada Project (the "Base Case"). The methodology and assumptions applied to generate the Full Capacity Plant and Base Case cost estimates are described in Appendix D.

The Base Case Capex and Opex are based on beneficiation resulting in mineralised fine material that constitutes 7.7% of the original mass of gravel from Guanaco containing 84.6% of the gravel's uranium, 29.3% of its vanadium and 25.2% of its gypsum. Beneficiation of Lago Seco gravels results in a fines concentrate containing 11.1% of the original mass, 73.5% of the gravel's uranium, 40.6% of its vanadium and 8% of its gypsum.

Mineralised fine grained material from the Guanaco and Lago Seco areas would be pumped as a slurry via pipeline at an average rate of 368,700tpy (or 49.8tph) to a central Hydromet Plant for extraction and recovery of uranium and vanadium.

Assuming mineralised feed with the average grade of the resource, Laguna Salada would produce an average of 0.64Mlb of U_3O_8 per year for a total of 6.4Mlb of U_3O_8 over the 10-year mine life, with higher production rates in the initial years as higher grade material is processed earlier in the life of mine. Annual vanadium production as vanadium pentoxide (V_2O_5) would average 0.96Mlb.

21.2 Capital Cost Estimates – Base Case

21.2.1 Summary

The pre-production capital is estimated at $130.4 million with sustaining capital estimated at $5.3 million. Sustaining capital includes mine closure costs and mining equipment overhaul.

The LOM capital is estimated at $135.7 million including a contingency of $21.9 million (approximately 20% of total Capex) (Table 21-1).

Table 21-1: Capital Cost Estimate for the Laguna Salada Project ($ millions)

	Initial	Sustaining	Total
SUMMARY (Details below)			
Mining and beneficiation	$16.0	$3.3	$19.3
Hydromet Plant and infrastructure	79.1	-	79.1
Environmental and closure	-	2.0	2.0
Indirect costs (EPCM, insurance, temporary works, first fills, spares)	10.9	-	10.9
Working capital	2.5	-	2.5
Contingency (20%)	21.9	-	21.9
TOTAL	$130.4	$5.3	$135.7
Mining and Beneficiation			
Surface miners (2)	3.9	1.0	4.9
Beneficiation trains (2 of 360tph)	6.2	1.5	7.7
Slurry pipeline to Hydromet Plant (2)	2.4	0.6	3.0
Slurry and water pumps (8)	0.2	0.1	0.3
Dust collector / web scrubber	0.2	0.1	0.3
Portable power centre	0.2	-	0.2
Electric power line	0.3	-	0.3
Earthwork and civil to install wash plants	0.4	-	0.4
Office and field installations	0.1	-	0.1
Ancillaries mine development and tailings facility	1.9	-	1.9
Mine development / pre-production	0.2	-	0.2
SUB TOTAL	$16.0	$3.3	$19.3

	Initial	Sustaining	Total
Hydromet Plant and infrastructure			
Direct Costs			
Concentrate dewatering	5.6	-	5.6
Gypsum leaching and sulphate removal	19.3	-	19.3
Leach feed adjustment	2.2	-	2.2
Leach circuit	1.3	-	1.3
Post leach solid / liquid separation	8.7	-	8.7
PLS membrane plant and lime treatment	6.0	-	6.0
SDU precipitation	1.2	-	1.2
SDU redissolution	0.3	-	0.3
Redcake precipitation	0.3	-	0.3
Uranyl peroxide precipitation	8.5	-	8.5
Secondary SDU precipitation	0.2	-	0.2
Ammonium meta-vandate precipitation	8.5	-	8.5
Reagents, power generation and general infrastructure	15.5	-	15.5
Water management	1.5	-	1.5
SUB TOTAL	$79.1	-	$79.1
Mine dewatering, environmental and closure			
Mine closure	-	2.0	2.0
SUB TOTAL	-	$2.0	$2.0
Indirect costs			
EPCM	7.3	-	7.3
Insurances	0.1	-	0.1
Temporary works	0.8	-	0.8
First fill and reagents	1.2	-	1.2
Spares	1.6	-	1.6
SUB TOTAL	$10.9	-	$10.9
Working capital and contingency			
Working capital	2.5	-	2.5
Contingency (20%)	21.9	-	21.9
SUB TOTAL	$26.1	-	$26.1
TOTAL	**$130.4**	**$5.3**	**$135.7**

21.2.2 Mining Method and Facilities

21.2.2.1 Sustaining Capital Cost Estimate

Mining costs are estimated for an owner-operation with contractors undertaking all loading and transporting of gravel between the continuous miners/FEL and the beneficiation units. Sustaining capital is estimated at $5.3 million (Table 21-1) including mine closure costs and mining equipment overhaul based on repair or replacement of equipment after five years. Mine site reclamation and closure would be ongoing during the LOM and the majority of this cost is captured in Opex.

Plant repair costs have been included in Opex, under maintenance. Tenova and PEK practices have been applied to plant costs, which are:

- Hydromet Plant Equipment – 2% per annum of the Capital Equipment Costs commencing from the 5th year.
- Buildings – 1% per annum of the Building Costs every five years.
- Mobile Equipment – all light vehicles replaced at year 5, with all other mobile equipment after 10 years.
- Pipeline – 1% per annum of the Capital Pipeline Cost commencing from the 5th Year.

21.2.2.2 Direct Capital Cost of Mine

Direct initial Capex include all new equipment, new materials, and installation for all permanent facilities associated with:

- Continuous surface mining, mobile beneficiation, slurry to plant, tailings facility and Hydromet facilities;
- Process building and earthwork, civil and drainage;
- Infrastructure roads and site preparation;
- Power supply and distribution;
- Warehousing;
- Administration;
- Truck shop;
- Yard services and other utilities;
- Control and communications systems;
- Plant mobile equipment; and
- Fuel storage.

21.2.2.3 Mine Capital Cost Estimate

Since the mineralised layer at Laguna Salada lies within 3m of surface in soft, unconsolidated sandy gravel, minimal pre-production mining is required ($0.2 million). The total capital for the mine is estimated at $19.3 million with the surface miners, mobile beneficiation units and pipeline to the central Hydromet Plant accounting for the largest components at an aggregate cost estimate of $15.6 million including sustaining capital (Table 21-1).

The mining operation contemplates the use of two Wirtgen SM2200 (400tph capacity) continuous surface miners ($4.9 million) that cut up to 30cm of gravel with each pass. The gravel would be trucked a short distance by Inveco (Volvo) 50t truck-trailers to one of two mobile beneficiation units (360tph capacity) ($7.7 million) where the gravel would be washed over screens to separate the pebbles and coarse sand from the fine uranium-bearing material. Initial waste rock and unused screened material would report for use in the TMF ($1.9 million). Approximately 90% of the gravel would be returned to the trailing edge of the trench to be levelled to the land's original topography and replanted with indigenous flora. This reclamation would be continuous throughout the mine life and would ensure that no open excavation would be left on completion of mining. The remaining mineralised fines would be transported to the central Hydromet Plant via a slurry pipeline ($3.0 million).

21.2.3 Hydromet Facility

21.2.3.1 Capital Cost Estimate of the Hydromet Plant

Capex was developed from first principles with inputs based on budget consumables prices, feedback from contractors, experience and cost estimation services. From the detailed Capex for a Hydromet Plant treating 0.83Mtpy concentrate, an estimate was generated to appraise the Capex associated with a Hydromet Plant throughput for the Base Case of 0.37Mtpy concentrate (Table 21-1).

Each cost estimate itemised below includes associated concrete, structural steelwork, platework, piping and electrical costs as a percentage of the supply cost of mechanical equipment, exclusive of packaged plants. Sustaining capital is included in maintenance costs as an annual expense item.

- Concentrate dewatering costs of $5.6 million include civil, structural, mechanical equipment, tanks and platework, piping and electrical and instrumentation;
- Gypsum leaching and sulphate removal costs of $19.3 million include civil, structural, a membrane plant ($10.8 million), two belt filters with counter current washing ($4.4 million), tanks and platework, mechanical equipment, piping and electrical costs;
- Leach feed adjustment ($2.2 million) and leach circuit ($1.3 million) costs include civil, structural, mechanical equipment, tanks and platework, piping and electrical and instrumentation;
- Post leach solid / liquid separation costs of $8.7 million include two belt filters with counter current washing ($4.4 million), civil, structural, tanks and platework, mechanical equipment, piping and electrical and instrumentation;
- PLS membrane plant and lime treatment costs of $6.0 million include a membrane plant ($5.4 million), tanks and platework, civil, structural, mechanical equipment, piping and electrical and instrumentation;
- SDU precipitation ($1.2 million), SDU resolution ($0.3 million), redcake precipitation ($0.3 million) and secondary SDU precipitation ($0.2 million) include tanks and platework, mechanical equipment, civil, structural, piping and electrical and instrumentation;
- Uranyl peroxide precipitation costs of $8.5 million include a uranium oxide calcination and packaging plant ($8.3 million), civil, structural, tanks and platework, mechanical equipment, piping and electrical and instrumentation;
- Ammonium meta-vandate precipitation costs of $8.5 million include an ammonium meta-vandate drying and packaging plant ($8.3 million), civil, structural, tanks and platework, mechanical equipment, piping and electrical and instrumentation;

- Reagents, power generation and general infrastructure costs of $15.5 million include a power line ($2.1 million), reduction station ($5.0 million), steam generation plant ($0.3 million), lab equipment ($1.4 million), earthworks and ponds ($1.9 million), tanks and platework ($1.0 million), mechanical equipment ($3.0 million), civil, structural, piping and electrical and instrumentation; and
- Water management costs of $1.5 million include pumping and two pipelines from a well ($1.1 million) tanks and platework, civil, structural, mechanical equipment, piping and electrical and instrumentation.

21.2.4 Environmental and Closure

Environmental and closure costs for the end of the mine life are included in sustaining capital at a cost of $2.0 million. Much of the environmental work would be completed during the course of operations and is included in Opex.

21.2.5 Indirect Costs

The total indirect and owner's Capex are estimated at $10.9 million. Engineering, procurement and construction management ("EPCM") comprise $7.3 million, based on 18% of direct costs (exclusive of package plants, power supply and steam generation). First fills and reagents comprise $1.2 million while spares comprise $1.6 million. The balance of the costs relate to insurance and temporary works.

21.2.6 Working Capital

An allowance of $2.5 million for working capital not covered under first fills and spares has been included in the initial Capex.

21.2.7 Contingency

The contingency of $21.9 million is based on an approximate 20% of all Capex.

21.3 Operating Costs – Base Case

21.3.1 Summary

Mine Opex estimates and Beneficiation costs are based on 4.4Mt of mineralised material with 0.9Mt of waste mined annually. The average annual mining cost would be $4.3 million.

Hydromet Plant costs are based on an average of 368,700t of concentrate throughput annually. The average annual Hydromet Plant Opex would be $13.4 million, which includes $0.6 million annually for General and Administrative ("G&A") to allow for site administrative salaries.

The study was done on a pre-income tax basis. Argentine income taxes are 35% of taxable income. Revenue-based royalties assume compliance with contractual or legal agreements or statutes as outlined in Chapter 4.

Opex for the Laguna Salada Project are expected to average $4.34/t of mineralised material including royalties (Table 21-2). Costs per tonne are based on mineralised material mined.

Table 21-2: Summary of Annual Operating Costs on a per tonne of Mineralised Material Mined basis

Items	Cost in $ million	Cost per tonne ($/t)
Revenue-based royalties	1.3	0.30
Mining	4.3	0.99
Hydromet Plant (excl. G&A)	12.8	2.94
G&A	0.6	0.12
TOTAL	**$19.0**	**$4.34**

**Numbers may not add due to rounding*

Personnel Cost Estimate

Personnel for the Laguna Salada Project are budgeted at $3.7 million annually, divided between G&A ($0.6 million), Mining ($0.9 million) and Hydromet Plant ($1.8 million, including service and infrastructure) and Maintenance and Engineering ($0.4 million) (Table 21-3).

Table 21-3: Estimate of Personnel Costs

Description	Positions	Cost in $ million	Cost per tonne ($/t)
G&A	14	0.6	0.11
Mining	37	0.9	0.22
Plant	70	1.8	0.42
Maintenance and engineering	18	0.4	0.10
TOTAL	**139**	**$3.7**	**$0.85**

21.3.2 Mine

21.3.2.1 Mine Operating Cost Estimate

Mine Opex are estimated to be $0.99/t of mineralised material (Table 21-4).

Table 21-4: Estimate of Mine Operating Costs expressed on a per tonne of Mineralised Material basis for the Laguna Salada Project

Description	Cost in $ million	Cost per tonne ($/t)
Labour	0.9	0.21
Equipment (surface, scrubbing , pipeline)	2.4	0.56
Contractor cost (haulage, auxiliary services)	1.0	0.23
TOTAL	**$4.3**	**$0.99**

**Numbers may not add due to rounding*

21.3.3 Hydromet Facility

21.3.3.1 Hydromet Plant Operating Cost Estimate

Annual plant Opex of $12.8 million mostly comprise reagents ($2.7 million), personnel ($2.2 million), power ($2.0 million), membrane plants ($2.4 million), and maintenance ($1.5 million). Other annual processing costs include LPG gas (0.8 million), water ($0.1 million), consumable costs ($0.6 million) and mobile equipment ($0.5 million). Hydromet Plant costs are estimated to be $2.94/t of mineralised material (Table 21-5).

Table 21-5: Estimate of Annual Hydromet Plant Costs expressed on a per tonne of Mineralised Material basis for the Laguna Salada Project

Description	Cost in $ million	Cost per tonne ($/t)
Reagents	2.7	0.63
Consumables	0.6	0.13
Maintenance	1.5	0.34
Personnel	2.2	0.51
Power	2.0	0.46
LPG gas for steam generation	0.8	0.18
Water	0.1	0.03
Membrane plants	2.4	0.55
Mobile equipment	0.5	0.11
TOTAL	**$12.8**	**$2.94**

21.3.3.2 Reagents Cost Estimate

Annual reagent costs of $2.7 million are based on international prices, sourced internationally, with the exception of sulphuric acid which is assumed to be sourced in Argentina at international prices and lime, which would be sourced locally in Chubut Province (Table 21-6).

Table 21-6: List of Annual Reagent Costs used for the Operating Expense Model

Reagent	Cost in $ million
Concentrate dewatering flocculant	0.12
Gypsum leaching flocculant	0.12
NaCO3 to leaching	0.60
Leach tails flocculant	0.10
CaO to lime precipitation	0.11
NaOH to SDU precipitation	0.54
Sulphuric acid to refining circuit	0.38
NaOH to refining circuit	0.59
Hydrogen peroxide to refining circuit	0.03
Ammonium hydroxide to refining circuit	0.13
TOTAL	**$2.7**

21.3.3.3 Power Operating Cost Estimate

Power costs are based on the Project being powered from the national grid. At a grid power supply cost of $70/MWh, annual power costs are estimated at $2.0 million.

21.3.3.4 Membrane Plant Estimate

Membrane systems are considered to remove the gypsum (calcium sulphate) from the concentrate fines and to upgrade the uranium concentration in the PLS ahead of SDU precipitation. Labour, maintenance, power and potable water costs associated with the operation of the membrane plants are included in those specific Opex categories. The membrane plant Opex of $2.4 million is inclusive of chemicals, laboratory costs and membrane replacement for both installations.

21.3.4 General and Administration

G&A includes all salary and overhead costs associated with 14 administrative and management level staff. G&A costs are estimated at $0.6 million per annum, or $0.11/t of mineralised material.

21.4 Estimate of Revenue

The Base Case revenue projections for the Laguna Salada Project are expected to average approximately $10/t of mineralised material and to generate average annual revenue of $43.5 million with a bias toward early years as higher grade material is mined before lower grade material.

The Laguna Salada PEA is based on $60/lb uranium price, which is in line with the average uranium spot price forecast by analysts in 2017 – the timeframe when Laguna Salada could be advanced into production – and the lower end of analysts' long-term price outlook (Chapter 19).

The average uranium spot price for 2014 to date is about $31.47/lb (source: Ux Consulting, TradeTech), which reflects discretionary buying for typically single deliveries within 12 months of the contract award. The vanadium price was based on average prices over the past five years (Table 21-7).

Table 21-7: Commodity Prices used for the Revenue Estimates for the Laguna Salada Project

Compound	$/lb
U_3O_8	60.00
V_2O_5	5.50

Revenue is dependent on metal content and recovery rates. These values for the metals in the study are shown in Table 21-8:

Table 21-8: Grade and Recovery of Metals

	000's t of mineralised material	Contained metal (000 lb)	Recovered metal (000 lb)	% Recovery
U_3O_8	43,808	8,317	6,367	76.72
V_2O_5	43,808	59,026	9,578	16.26

22 ECONOMIC ANALYSIS

This study is preliminary in nature and it includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the results of the preliminary economic study will be realised. Mineral resources that are not mineral reserves have not demonstrated economic viability.

Tonnes and grades reported in Chapter 14 were used in the nominal discounted cash flow ("DCF") analysis. The breakdown of Indicated and Inferred material utilised in the analysis can be found in Chapter 14. Approximately 63% of the material in the DCF analysis is from the Indicated category while 37% of the material is from the Inferred category.

The study uses an average mining rate of 4.4Mt annually as this Base Case made the most economic sense for the available resource (Table 22-1). The contemplated Hydromet Plant, designed to process 368,700tpy of concentrate, and associated mine plan could easily be scaled up in the event that additional resources were defined.

This Base Case model generates revenue of $434.7 million against Opex (with contingency) of $190.3 million over the 10-year mine life (Table 22-1), which would result in $244.4 million in operating cash flow.

Table 22-1: Summary of Cash Flow Model

	P0	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	TOTAL
MINE PLAN (in 000's tonnes)												
Resource (open)	43,983	43,983	40,598	36,081	31,568	27,053	22,540	18,026	13,511	8,949	4,559	**43,983**
Mineralised material mined from Guanaco		2,497	3,331	3,331	3,330	3,330	3,330	3,331	3,331	4,390	4,384	**34,583**
Mineralised material mined from Lago Seco		888	1,186	1,183	1,185	1,184	1,185	1,184	1,231	0	0	**9,225**
Total mined		3,385	4,517	4,513	4,514	4,513	4,514	4,514	4,562	4,390	4,384	**43,808**
Resource (close)		40,598	36,081	31,568	27,053	22,540	18,026	13,511	8,949	4,559	175	**175**
METAL RECOVERED (Mlb)												
Uranium (U_3O_8)		1.306	1.070	0.808	0.641	0.546	0.490	0.441	0.395	0.351	0.318	**6.367**
Vanadium (V_2O_5)		1.046	1.275	1.154	0.989	0.966	0.909	0.907	0.891	0.725	0.716	**9.578**
Cash Cost per Pound of Uranium (U_3O_8)		**$11.66**	**$14.05**	**$17.39**	**$21.74**	**$24.67**	**$27.38**	**$29.74**	**$33.02**	**$37.71**	**$41.10**	**$21.62**
CASH FLOW (in $ millions)												
Revenue		$84.1	$71.2	$54.9	$43.9	$38.1	$34.4	$31.5	$28.6	$25.1	$23.0	$434.7
Opex:												
Revenue-based royalties		2.5	2.1	1.6	1.3	1.1	1.0	0.9	0.9	0.8	0.7	13.0
Mining		3.6	4.5	4.4	4.5	4.5	4.4	4.4	4.5	4.3	4.3	43.4
Milling		14.2	14.9	13.7	13.0	12.6	12.4	12.1	12.0	11.6	11.4	127.9
General and administrative		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	6.0
Subtotal Opex		20.9	22.1	20.3	19.0	18.8	18.3	18.0	18.0	17.3	17.0	190.3
Cash Flow		**63.1**	**49.2**	**34.5**	**24.5**	**19.3**	**16.0**	**13.4**	**10.6**	**7.8**	**6.0**	**244.4**
Capex	$130.4	-	-	-	-	3.3	-	-	-	-	2.0	135.7

22.1 Valuation

The DCF valuation method was used in valuing the Laguna Salada Project. The Cash Flow Approach relies on the "value in use" principle and requires determination of the present value of future cash flows over the useful life of the asset. The asset is valued using the free cash flow capitalisation, i.e. the DCF methodology.

The DCF model is aimed at assessing the economic feasibility of mining and processing the uranium and vanadium in the mineral resources.

The DCF was calculated based on a range of uranium prices from \$45 to \$70/lb. The DCF was calculated for each uranium price on various discount rates from 0% to 15%. The resulting DCF matrix (in \$ million) for each uranium price and discount rate is shown in Table 22-2.

Table 22-2: DCF Matrix for Various Uranium Prices and Discount Rates

Uranium Price (\$/lb)		\$45	\$50	\$60	\$70
Discount Rate (in \$ millions)	0%	16	47	109	170
	5%	(3)	22	70	118
	7.5%	(10)	12	55	98
	10%	(16)	4	43	82
	15%	(25)	(10)	23	55
IRR		4%	11%	24%	35%
Payback (years)		4.7	3.7	2.5	1.9

22.2 Sensitivity Analysis

In the Base Case scenario, uranium comprises 88% of the Laguna Salada Project revenue while vanadium comprises the remaining 12%.

A sensitivity analysis was performed on the Base Case numbers with variances of -20%, -10%, 0%, +10%, and +20% on each of revenue, Opex and Capex. The contingency in capital spending was included in the sensitivity analysis.

Revenue could change from the Base Case scenario from any combination of a change in payable metal produced (different grades or recoveries from base case assumptions) and/or a change in prices. Changes in revenue would affect Opex as royalties would be affected as shown in Table 22-3. The DCF sensitivity matrix to variable revenue assumptions is shown in Table 22-2.

Table 22-3: DCF for Changes in Revenue

DCF ($ million)	-20%	-10%	0%	+10%	+20%
0%	24	67	109	151	193
5%	4	37	70	103	136
7.5%	(3)	26	55	85	114
10%	(10)	16	43	69	95
15%	(20)	1	23	44	66
IRR	6%	16%	24%	31%	38%
Payback (years)	5.0	3.1	2.5	2.0	1.8

A change in Opex (revenue-based costs not affected for this analysis) would result in different cash flow streams to the project. Opex could change, for example, as a result of efficiencies in operating methods or metallurgical processes, or changed costs for labour, reagents and supplies. The DCF sensitivity matrix to variable Opex assumptions is shown in Table 22-4.

Table 22-4: DCF for Changes in Operating Costs

DCF ($ million)	+20%	+10%	0%	-10%	-20%
0%	73	91	109	126	144
5%	44	57	70	83	96
7.5%	32	44	55	67	78
10%	23	33	43	53	63
15%	7	15	23	31	39
IRR	18%	21%	24%	26%	29%
Payback (years)	2.7	2.6	2.5	2.3	2.2

The Base Case capital spending includes a $21.9 million contingency, being approximately 20% of the initial Capex. Capital spending could increase due to changes in commodity costs (labour, steel, concrete etc.), shortages in availability of materials or construction workers, increases in the project scope due to process changes, results of test work, and more detailed understanding of the project requirements. Capex could decrease as more economic alternatives than those in the study are used in the final construction of the plant and mine site, or the contingency might prove unnecessary. The DCF sensitivity matrix to changing the Capex assumptions is shown in Table 22-5.

Table 22-5: DCF for Changes in Capital Expenditures

DCF ($ million)	+20%	+10%	0%	-10%	-20%
0%	82	95	109	122	136
5%	45	57	70	83	95
7.5%	31	43	55	68	80
10%	19	31	43	55	67
15%	-	11	23	34	46
IRR	15%	19%	24%	29%	36%
Payback (years)	3.4	3.0	2.5	2.1	1.8

The Base Case economics on the Laguna Salada Project could improve on a higher uranium price and higher grade profile as shown in Figure 22-1.

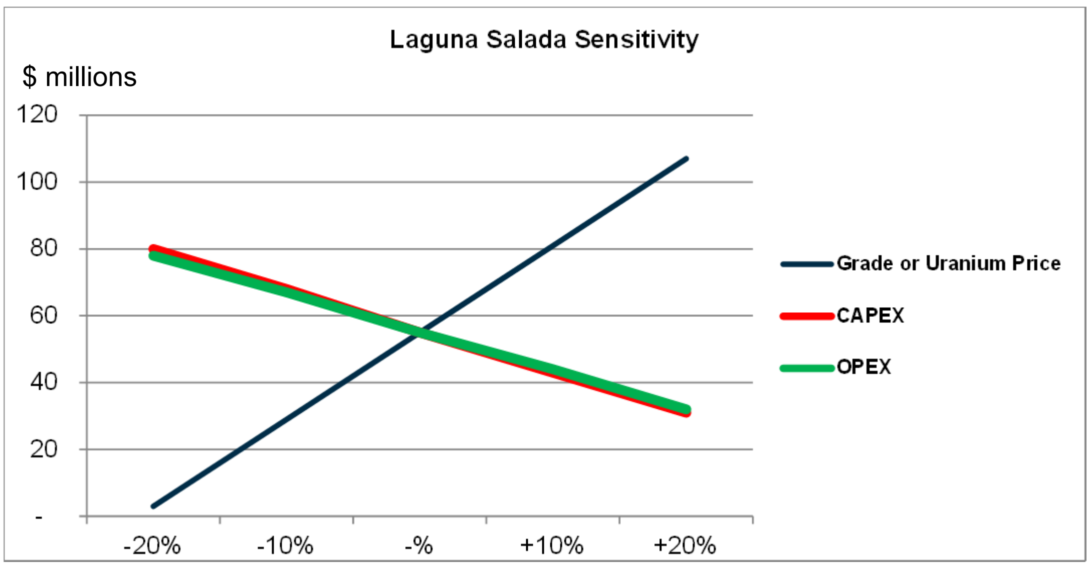


Figure 22-1: Sensitivity of the Laguna Salada Project to Changes in Capital and Operating Expenditures Relative to Changes in Uranium Grades and Prices

22.3 Full Capacity Plant

Initial Capex and Opex were estimated for a processing plant to treat a total of 9.6Mt of mineralised material per year – referred to as the Full Capacity Plant. To establish a Base Case economic model on the current deposit at Laguna Salada, Capex and Opex for this PEA were generated on the basis of 4.4Mt of mineralised material and 0.9Mt of waste mined annually, or 50% of the Full Capacity Plant throughput. The methodology and assumptions applied to generate the Full Capacity Plant and Base Case cost estimates are described in Appendix D.

This PEA was undertaken before the full extent of the deposit is known on the Laguna Salada Project. As both of the IRR and NPV are sensitive to deposit size, an increase in the resource should significantly improve both of these economic measures. For example, doubling the size of the Laguna Salada resource from mineralised areas that have a similar grade profile to the current resource and doubling the production rate, would result in the NPV (at a 7.5% discount) increasing to $180 million and the IRR to 44%.

22.1.1 Capital Cost Estimates

The Capex for the Full Capacity Plant to handle double the capacity would be approximately $25 million more than the current plant design in the Base Case scenario (or a total of $138.4 million including contingency) and would produce an average of 1.2Mlb of uranium and approximately 2Mlb of vanadium per year over a 10-year mine life (Table 22-6).

Table 22-6: Summary of Estimated Capital Costs for the Full Capacity Plant

Hydromet Plant and Infrastructure	Cost in $ million
Concentrate dewatering	$8.9
Gypsum leaching and sulphate removal	26.0
Leach feed adjustment	3.5
Leach circuit	2.1
Post leach solid / liquid separation	9.8
PLS membrane plant and lime treatment	8.9
SDU precipitation	1.9
SDU redissolution	0.5
Redcake precipitation	0.4
Uranyl peroxide precipitation	8.7
Secondary SDU precipitation	0.4
Ammonium meta-vandate precipitation	8.7
Reagents, power generation and general infrastructure	19.0
Water management	2.4
SUB TOTAL	$101.0
Indirect costs	
EPCM	9.7
Insurances	0.1
Temporary works	1.0
First fill and reagents	1.5
Spares	2.0
SUB TOTAL	$14.3
Contingency (20%)	$23.1
TOTAL	**$138.4**

22.1.2 Operating Cost Estimates

The annual Opex for the Full Capacity Plant would amount to $24.0 million, an increase of $11.0 million over the Base Case model (Table 22-7).

Table 22-7: Summary of estimated Operating Costs for the Full Capacity Plant

Description	Cost in $ million
Reagents	$5.3
Consumables	1.2
Maintenance	2.0
Personnel	2.8
Power	4.4
LPG gas for steam generation	1.7
Water	0.3
Membrane plant	5.2
Mobile equipment	1.0
TOTAL	**$23.9**

While the Opex in this PEA incorporates a membrane system, the ettringite process is under consideration as an alternate means of removing the gypsum (sulphate) from the mineralised fines. The ettringite technology shows slightly higher recoveries of the uranium (77.5% versus 76.3%) and vanadium (21.2% versus 18.2%), but may increase annual Opex by $1.9 million due largely to higher reagent consumption. Both the membrane and ettringite technologies will be tested and evaluated further in the next phase of the project.

22.4 Valuation Summary

The Laguna Salada Project DCF was $55 million at 7.5% discount rate for the base case model. The Project is economically sensitive to changes in revenue, Opex and Capex.

Results are preliminary and work continues in process optimisation, material cost decreases, and recovery improvement. Any increase in the mineral resource of the project at a similar grade profile would generate significant positive economic returns.

23 ADJACENT PROPERTIES

Petrominera, the provincial resource company, has one mineral concession that lies immediately adjacent to the Laguna Salada resource, and two concessions that adjoin U3O8 Corp's Laguna Salada concession block (Figure 23-1). These Petrominera concessions were covered in the airborne radiometric survey described in Chapter 6, and since then, to the author's knowledge, no work is reported to have been done on the concessions. U3O8 Corp. has signed a LOI to have the three Petrominera concessions become part of a larger Laguna Salada Project via a JV-type arrangement.

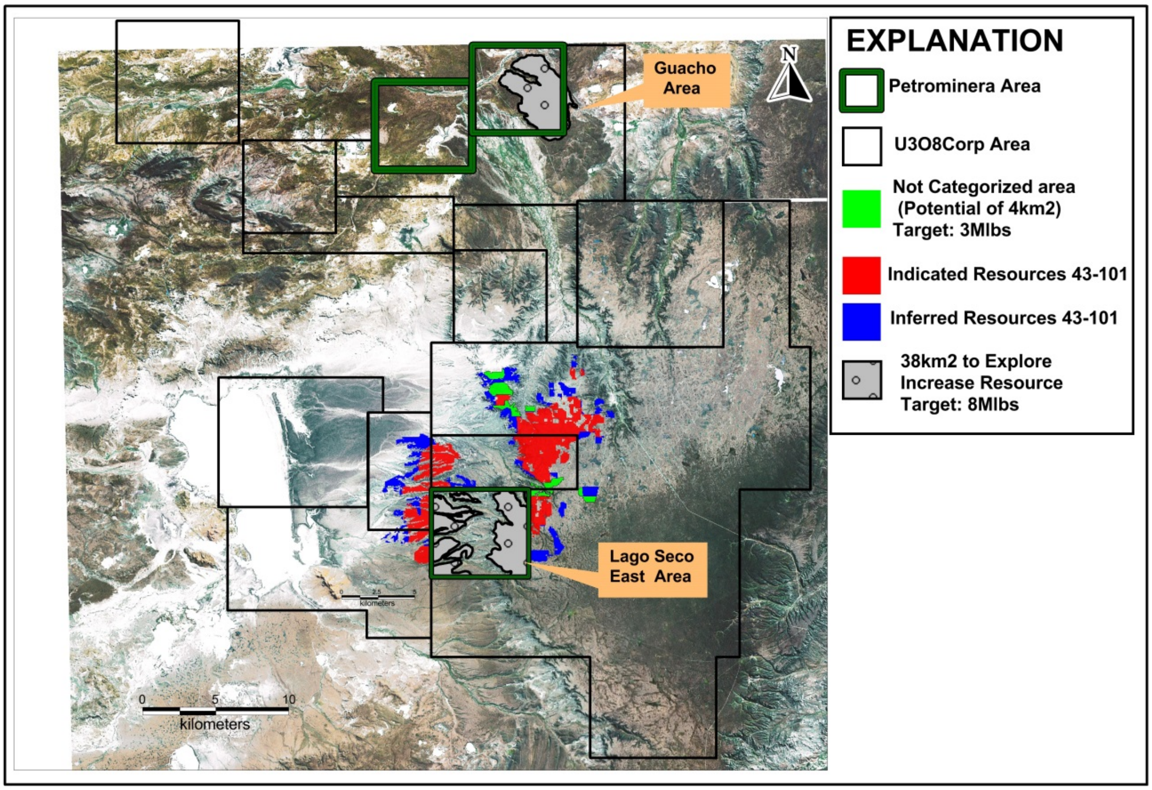


Figure 23-1: Map of the Laguna Salada area showing the location of the pits from which samples for metallurgical testing were taken relative to uranium grade-thickness

Approximately 200km northwest from Laguna Salada is the Cerro Solo Uranium Deposit in Chubut Province, which is state-owned through CNEA. Cerro Solo has a historical resource of 20Mlb at 0.20% U_3O_8 (source: CNEA) and is undergoing drilling by the CNEA towards its stated goal of advancing the deposit into production.

There are no other significant properties nearby.

24 OTHER RELEVANT DATA

There is no additional information.

25 INTERPRETATIONS AND CONCLUSIONS

The Effective Date of this report is 18th September, 2014.

With regard to the nuclear industry, the new Atucha II nuclear power station reaching criticality and expected to reach full power in late 2014, (at which time 9% of the country's energy mix will be provided by nuclear), and the signing of a construction contract for a fourth reactor with China, underlines Argentina's commitment to nuclear energy. Since Argentina currently imports all of its uranium requirements, there is strong interest from the federal government to foster a local uranium production industry. Hence, Argentina is considered a jurisdiction in which it makes sense to pursue uranium resources and their development.

The Laguna Salada Project is located in a harsh environment that is in economic decline. The Project is located in the central part of the Patagonian plain in Chubut Province of Argentina. This is a semi-desert environment that lies in the rain-shadow of the Andes Mountains, receiving approximately 200mm of annual rainfall. Rainfall is sporadic, but generally occurs in the winter months in March to August. Average temperatures range from 2°C to 10°C in winter and 13°C to 26°C in the summer. The Project is located in the "roaring forties" – a latitude in which winds are strong: average wind speeds in the Project area are 15km/h gusting to 100km/h. Prevailing winds are westerly with southerly winds more dominant in the southern hemisphere's summer months. Evaporation rates measured on site are almost 2.8m per year, peaking at 450mm per month in November and December. Weather conditions are such that mining-related operations could continue year-round.

Topography consists of a gravel plain that is dissected by dendritic, ephemeral gullies that are typically 10m deep. Soils are pebbly, of poor quality, and contain minimal organic matter – they are not suitable for agriculture. Vegetation is sparse, dominated by hardy, evergreen shrubs with sparse tuft-grass. Desertification of the Patagonian plains is a serious environmental problem brought about by several factors including overgrazing (Del Valle *et al*., 1998).

The Laguna Salada Project is located in a sparsely populated area that is severely economically stressed. Economic activity in the Laguna Salada Project area and the nearest town, Las Plumas, is dominated by sheep farming. A near decade-long drought and intermittent ash-fall since 2011 from the Puyehue volcano, has put extreme pressure on the sheep farming industry, and has contributed to economic hardship in the region. Other sources of employment are public administration, posts associated with primary and secondary school education and local commerce. A census undertaken by U3O8 Corp. in Las Plumas which, at 54km from the Project, is the closest population centre to the Project, shows that 60% of the town's population is female and that the demographic is heavily skewed towards older generations. 89% of the adult population is over 40 years in age. 83% of the population has secondary school education. 63% of the Las Plumas adult population is unemployed and 45% of households live in poverty. The census showed that the main concerns of residents are: unemployment, employment prospects for young adults, the level of education available at Las Plumas and a shortage of housing among other local issues. 56% of the population surveyed considered mining to be beneficial to the community through employment, although there was widespread skepticism that significant royalties paid to the provincial government would revert to the community. 20% of people surveyed expressed concern about the impacts of mining on health and the environment.

Preliminary archaeological surveys suggest that there is limited potential for the Laguna Salada Project area to contain significant archaeological sites.

Despite the relatively remote location of the Project, infrastructure is relatively good:

- The Project is located 270km and 230km from the administrative and commercial centres of Rawson and Comodoro Rivadavia respectively, on paved and unsealed, all-weather provincial and regional routes. The base camp is located only 1km from Regional Route 46, an all-weather, gravel road and 54km from the town of Las Plumas, a town of approximately 600 residents;
- The deepwater port of Puerto Madryn is located approximately 60km north of Trelew, or approximately 310km from the Project;
- The principal commercial centre and deep water port at Comodoro Rivadavia is 230km by road to the southeast of Laguna Salada;
- A 132kW power line that forms part of the national grid passes through the town of Garayalde, 70km from the Project;
- A natural gas pipeline runs roughly parallel with the coast and is 40km from site at its closest point, providing a alternative source of power-generation for consideration as the Project develops; and
- A medical clinic, fuel and basic supplies are available at Las Plumas.

Chubut Province has a large pool of trained personnel and service providers due to its integrated hydrocarbons industry that includes oil and gas production to refining. In addition, due to high levels of unemployment in Las Plumas, there is interest from residents in employment possibilities.

At the Effective Date of this report, U3O8 Corp. holds the mineral concessions that constitute the Laguna Salada Project through wholly-owned Ontario, Canadian subsidiaries, Gaia Energy and Maple. Maple's interest is held through Mexsa, a company constituted and registered in Chubut Province, Argentina. The authors relied on Argentine counsel, Saravia Frias Mazzinghi Abogados, in their understanding that the mineral concessions are in good standing at the Effective Date. The property package consists of 23 concessions totalling 174,315Ha. 15 of the properties are Cateos (exploration concessions) and eight are MDs (mining concessions). Certain obligations must be met in order to maintain the concessions in good standing with the PMD including: the payment of concession fees to the Chubut Province; appropriate reporting of work undertaken and expenditure made on the properties; and renewal every two years of EIAs for planned work. Failure to comply with any of these requirements may result in the suspension of exploration or mining rights.

The Laguna Salada area was first prospected for uranium in a field program that followed up radiometric anomalies identified in an airborne survey undertaken by CNEA in 1978. Mega applied for exploration rights over part of the project area in 2008 and drilled 57 bore holes for 1,561m in 2008. The Project was acquired by U3O8 Corp. in 2010 when it purchased Mega's South American properties.

The Laguna Salada Project is covered by 1:250,000 scale geological sheet 4566-1 Garayalde (SEGEMAR, 2003). The Project is located near the western edge of the Cretaceous San Jorge Basin, which lies on a basement of Palaeozoic, Triassic and Jurassic strata. The Jurassic contains a thick sequence of ignimbrites and rhyolitic lava flows. The basal part of the San Jorge Basin consists of conglomerates and sandstones of the Cretaceous Puesto Manuel Arce Formation overlain by the littoral marine sandstones and mudstones of the Early Tertiary Salamanca Formation that is interpreted to have accumulated during one of the last marine transgressions by the Atlantic Ocean.

In the Project area, the Puesto Manuel Arce and Salamanca Formations are unconformably overlain by Quaternary gravels of fluvial and alluvial origin that constitute the Pleistocene Pampa de Arroqui (or Montemayor) Formation and the Holocene Gran Laguna Salada Formation. The Pampa de Arroqui Formation contains the Guanaco sector of the deposit, which has a lower proportion of fine matrix and a lower average gypsum content (3.2%) than the Lago Seco gravels (12.7%) that are hosted by the Gran Laguna Salada Formation.

The Laguna Salada Project is interpreted to be a "Caliche"-type surficial uranium deposit in the classification of Toens *et al*., 1984. Such deposits contain approximately 4% of the world's uranium resources. Analogous deposits include Langer Heinrich, Tubas Red Sand and Trekkopjie in Namibia and Lake Maitland in Western Australia.

After initial drilling undertaken by Mega, all subsequent exploration of the unconsolidated gravel was undertaken by trenching and pitting. It was concluded that pitting provided a practical and relatively inexpensive means of avoiding serious issues related to drilling of unconsolidated gravels, such as negligible recovery with diamond drilling and air pressure used in RC drilling blowing the mineralised fine material out of the sample, leading to severe understatement of grades.

Reconnaissance pitting was done on a grid spacing of up to 1km and reduced to 400m, and subsequently 200m centres for resource estimation. Pitting at 400m centres occurred over an area of approximately 40km² at Guanaco and 25km² at Lago Seco. Infill pitting to 50m centres were excavated in some areas to confirm continuity of mineralisation that is interpreted as a gently undulating flat sheet located within 3m of surface, and covered in some areas by up to 2m of barren overburden gravel and soil.

The Metsim block model, at which a 40ppm U_3O_8 cut-off grade was used, covers an area of 8.3km$_2$ at Guanaco and 4.2km$_2$ at Lago Seco. Mineralisation in the Buried Lake area, which is contiguous with Guanaco, contains mineralisation that is concentrated near the unconformity between the Pampa de Arroqui gravels and mudstone of the underlying Salamanca Formation.

The resource in both the Guanaco and Lago Seco gravels is open – the current resource being limited by the extent of exploration pitting. Gravels at Guanaco contain 88% of the current resource and those at Lago Seco the remaining 12%. Subsequent to the estimation of the resource by Coffey Mining (2011), exploration has shown that a probable extension of mineralisation lies to the southeast in an area called La Susana. Initial sampling shows that the La Susana area has a similar grade profile to the Laguna Salada resource. A second area of high-grade mineralisation at La Rosada, in which initial exploration pits had an average grade of 1,500ppm U_3O_8 over a 0.7m thick layer located at an average depth of 0.3m below surface, lies some 45km to the northeast. These two discoveries constitute areas in which infill pitting could be undertaken with immediate potential to increase the current resource.

Sampling in the Laguna Salada resource area was done manually in mechanically excavated pits in which uranium-vanadium minerals could be observed as a yellow dusting in the gravel and/or detected through radioactivity measured with a scintillometer used to mark the continuity of the mineralised unit. Vertical panel samples were taken from the sides of the pit and either submitted for chemical analysis as a raw gravel sample, or screened in the field and the fine material only being sent for chemical analysis. In the latter case, the mass of the pebbles removed from the gravel sample was carefully weighed so that the grade of the gravel could be calculated from the mass and assay of the fine fraction. Coffey Mining (2011) undertook a review of the sampling method and concluded that sampling was done in a diligent manner and that results were apt for resource estimation purposes. Assay results and thickness of the mineralised layer recorded in 2,089 pits were used in the resource estimation undertaken by Coffey Mining (2011).

Sampling of unconsolidated gravel does involve risk of sample bias that can be mitigated by appropriately trained personnel employing diligent sampling methods. Inherent variability of grade within the gravel was quantified with the use of four types of control samples as described by Coffey Mining (2011). Coffey Mining noted that the results of the various types of duplicate samples indicated high levels of repeatability on duplicate pulp samples, to a higher level of heterogeneity on duplicate gravel samples taken from different areas of a pit, which is consistent with the nature of the deposit. Bulk samples of several tonnes each will be used in future work on the Project to more fully define variability of grade within the gravel.

Coffey Mining (2011) concluded that "*the sampling was undertaken in accordance with acceptable industry standards and best practices. Coffey Mining notes that the site personnel exhibited a high-level of diligence to their task during the 2010 site visit".* Coffey Mining (2011) recommended that whole gravel sampling (without screening to remove the pebbles in the field), be used as the standard sampling approach in future work.

Laguna Salada is a very low-grade deposit whose economic viability depends principally on the efficiency of beneficiation techniques. While screen tests can be performed at a "bench-scale," and those results reasonably, reliably scaled-up for plant design, the scale-up of scrub tests represents a much more challenging scenario. Scrub tests undertaken to date show that there is a delicate balance between agitating the gravel sufficiently to remove the uranium-vanadium – bearing rind from loosely-encrusted pebbles, while minimising the crushing effect that pebbles have on gypsum nodules and gypsum crystal masses. Variables include scrub time, solids density and the kinetic energy of the material that is influenced by rotation velocity, whether the scrub equipment provides lift to the material, or whether it is smooth, providing minimal lift. All of the scrub test work reported in this study was conducted in 25cm to 50cm diameter cement mixers or in smooth 20L plastic pales. Data on scrub time and solids density may change materially when larger-scale equipment is used for the tests, and this may change the sizing and characteristics of scrubbing equipment that has been selected in this PEA-level study as further test work is undertaken.

Although the uranium-vanadium mineralisation in gravels in Guanaco and Lago Seco is similar, their grain size distribution and gypsum content differ to the extent that distinct beneficiation procedures are required. The aim of beneficiation is to eliminate as much gypsum and other barren material as possible while minimising uranium-vanadium losses from the fine fraction.

- Optimal beneficiation of Guanaco gravels is through wet scrubbing for 15 minutes at a high solids density of 50-75%, followed by wet screening to 75µm. This wet processing of the gravel is preferably done with gypsum-saturated, saline water which has the effect of minimising dissolution of gypsum crystals which facilitates their removal by screening. This beneficiation process results in the following degrees of concentration:
  - Mass: the <75µm fraction represents 7.7% of the gravel's original mass;
  - Uranium: 85% of the gravel's original uranium content is concentrated into the <75µm fraction. This represents an upgrade factor of 12 times and implies that Guanaco gravel with an average grade of 55ppm U_3O_8 beneficiates to <75µm fines with a grade of 604ppm (1.3lb/t) U_3O_8;
  - Vanadium: 29% of the gravel's original vanadium content is concentrated in the <75µm fraction, implying an upgrade factor of 3.7 times. This implies that Guanaco gravel with an average grade of 530ppm V_2O_5 beneficiates to <75µm fines with a grade of 2,020ppm V_2O_5;

    - Gypsum: 25% of the gravel's original gypsum content is concentrated in the <75µm fraction with an enrichment factor of 2.7 times. Hence the scrubbing and screening process is relatively efficient at eliminating gypsum from the fines in comparison to the enrichment factors achieved with uranium and vanadium in the fine-grained fraction.

- The Lago Seco gravels contain 12% of the current resource and, at 16%, have a significantly higher gypsum content than Guanaco gravels. The wet processing of the gravel is preferably done with gypsum-saturated, saline water. Optimal beneficiation of Lago Seco gravels includes three steps:
    - Dry screening at 15mm. This is done to remove large clots of gypsum prior to scrubbing. Without this initial screening step, some of the large gypsum clots are crushed in the scrubbing process, resulting in the liberation of a greater proportion of gypsum to the fine fraction;
    - The >15mm pebble fraction is wet-scrubbed for one minute with the aim of removing uranium-bearing fines that may be adhered to the pebbles while minimising the crushing of gypsum clots. The <15mm fraction is scrubbed at a solids density of 75% solids for five minutes, and the fines from the two streams combined for wet screening to <75µm;
    - The <75µm fines are fed into a hydrocyclone for further beneficiation;
    - The ultrafine material from the hydrocyclone overflow represents 11.1% of the gravel's original mass with 74% of its uranium for an upgrade factor of seven times, 41% of its vanadium for an upgrade factor of four times and 8% of its gypsum content at an upgrade factor of 0.5 times.
    - These enrichment factors imply that the average uranium grade of 140ppm U_3O_8 beneficiates to 920ppm U_3O_8 in the ultrafine fraction. For vanadium, the original gravel's average grade of 530ppm V_2O_5 would beneficiate to 3,380ppm V_2O_5.

The Metsim modelling for the design of the Hydromet Plant, as well as the financial model, used more conservative upgrade factors than those obtained from the metallurgical test work in order to build in additional conservaticism. The factors used for uranium in these models were 11 times for Guanaco and seven times for fine material from Lago Seco. Upgrade factors of 3.7 and 3.8 were used for vanadium in the modelling of fine-grained material from Guanaco and Lago Seco respectively.

Alkaline leach provides an effective means of leaching uranium and vanadium from the fines at a temperature of 80°C, a pulp density of 25%-33%, and reagent concentrations of 50g/L Na_2CO_3 and 20g/L $NaHCO_3$. Extraction of uranium and vanadium peaks at a leach time of between two and six hours.

Metal extraction from a four hour leach of the <75µm fraction from Guanaco was 96% for uranium and 71% for vanadium. Extraction from ultrafine material from Lago Seco after four hours was 99% for uranium and 71% for vanadium.

Gypsum is detrimental to the economics of the Project because it consumes reagents used in the alkaline leach of the fine mineralised material. Removal of gypsum is effected by physical screening that rejects the larger crystals, and in the case of Lago Seco, with the use of a hydrocyclone system on the screened fines. Physical separation results in a reduction in gypsum contained in the fine material by 75% at Guanaco and 92% at Lago Seco. Gypsum that is too fine to be separated out by physical processing remains in the mineralised fines and is further removed at the Hydromet Plant.

Selective mining is required to maximise uranium grades while avoiding parts of the resource areas that have high gypsum grades (i.e. Guanaco, >2.5% gypsum and Lago Seco, >11% gypsum). It is concluded that area stripping is the most appropriate mining technique for Laguna Salada. Approximately 80% of the resource is located beneath flat-topped mesas that are conducive to continuous surface mining, while the remaining 20% of the resource is in less regular topography that is more efficiently mined with bulldozers and FELs. The PEA calls for two 400tph surface miners, one located at Guanaco and one at Lago Seco for the first eight years, and then both machines operating at Guanaco in years 9 and 10.

Strip mining provides a cost-effective and efficient means of extracting the extensive, tabular, mineralised layer, and minimises the area in which mining is being undertaken. With backfill taking place at approximately the same rate as mining, this mining method facilitates the environmental restoration of the mined area on an on-going basis and leaves no open excavation on conclusion of mining. Therefore, this mining method is considered by U3O8 Corp. to be in compliance with the current Chubut provincial mining law in which open pit mining is not allowed.

The mining plan includes 34.6Mt of mineralised gravel (9,475tpd and 6.7Mt of waste from Guanaco area over a 10 year mine-life. The strip ratio at Guanaco is 0.19. The mining rate is 2.5Mt in year 1, 3.3Mt from years 2 to 8, and 4.4Mt in years 9 and 10. 9.2Mt of mineralised gravel (3,159tpd) and 2.7Mt of waste would be mined from Lago Seco over a period of eight years. The strip ratio at Lago Seco is 0.29 and production rates of mineralised material are 0.9Mt in year 1 and 1.2Mt in years 2 to 8.

These mining rates equate to total production of 43.8Mt (12,000tpd) over the LOM: 3.4Mt in year 1, 4.5Mt in years 2 to 8, and 4.4Mt in years 9 and 10. 9.4Mt of waste is mined over the 10 year mine life for an overall strip ratio of 0.20.

Beneficiation plants are designed to be semi-mobile so that they can be moved periodically to minimise the transport distance from the mining face. The design capacity of the beneficiation units is 360tph. Mineralised gravel would be fed from an elevated ramp-platform into the intake hopper, from which the gravel would be fed to twin trommels and then to stacker-sizers for screening in successive steps to 75µm. Fines from Lago Seco would undergo a further beneficiation step through hydrocyclones. The <75µm fraction from Guanaco and the hydrocyclone overflow fines from Lago Seco would be re-pulped with saline water addition to 35% solids and pumped to the Hydromet Plant in rubber coated steel pipelines.

Test work shows that saline water of the approximate composition of shallow saline ground water at Laguna Salada leaches approximately 9g/l of calcium sulphate (gypsum), some four times more than fresh water. This characteristic provides a means of removing residual gypsum in the fines that are fed to the Hydromet Plant by leaching in a saline water leach circuit. The sulphate-bearing water is then processed for the removal of the sulphate to allow recirculation of the water to the gypsum leach step. Sulphate removal would be by membrane separation or chemical processes. Options for chemical removal of dissolved sulphate include patented processes by Outotec, and the SAVMIN process by Mintek. This PEA includes the use of membrane processes to control sulphate. Test work on these processes should be undertaken to confirm their efficiency as well as associated Capex and Opex.

Dewatering would be done by belt filters that, at a Capex of $10.9 million, constitute 14% of the direct capital cost for the Base Case Plant and power consumption to the filters represents a significant component of Opex. Test work on filtration rates of the gypsum-free fines may result in changes to the filter assemblage, which could have a significant effect on the Capex and Opex of the Project.

The gypsum-free fines would be leached at elevated temperature with a sodium carbonate/bicarbonate solution to dissolve the uranium and vanadium. The leached slurry is filtered. After solid-liquid separation of the leach discharge slurry, the PLS would be treated in a two-pass membrane plant: pass one would produce a low volume, high uranium tenor solution from which an intermediate uranium-vanadium product would be precipitated; and the second pass would recover leach reagents from solution for reuse.

The refining circuit is designed to re-dissolve the intermediate uranium-vanadium product and separate the uranium and vanadium. Calcining of the uranium precipitate would produce yellowcake as a high-grade uranium oxide, and calcining of the vanadium precipitate would produce high-grade vanadium pentoxide.

Approximately 3.2Mt of tailings, on a dry basis, would be generated in the Hydromet Plant over the LOM and a tailings facility with a capacity of 3.7Mt has been designed for the Project. The tailings facility site is located in a shallow re-entrant into the gravel plain, in which barren gravel footwall material overlies impermeable mudstone of the Salamanca Formation. This site is located at a topographic elevation approximately 18m lower than, and 2.5km from, the Hydromet Plant. The facility would consist of four cells, each with a footprint of 330m by 330m. The walls of each cell would be constructed from compacted gravel and would be 10m high. The cells would be constructed and filled sequentially so that each can be remediated on being filled to design capacity. Each cell would be lined with clay and a 1m thick clay cap would be placed over each cell, as a long-term radiation control measure, at the time that it reaches design capacity. Closure of each cell would involve the covering of the clay cap with at least 2m of compacted barren gravel that would be covered with soil and revegetated. Radiation monitoring and bore holes designed to detect seepage would be undertaken from the time that the tailings facility is constructed and would continue after mine closure. The capacity of the facility would be 3.7Mt.

The economics of vanadium production requires further study and refinement. Current estimates are that the Capex related to vanadium production is $8.8 million, or 11% of the direct capital cost of the Base Case Plant, against anestimated LOM revenue of $52 million (assuming a vanadium pentoxide price of $5.50/lb). Therefore, the PEA includes the recovery of vanadium.

Two Hydromet Plant capacities were evaluated; the first with a 1,291tph ROM feed rate resulting in 112tph of beneficiated fines being fed to the plant; and a Base Case Plant in which a ROM feed rate of 620tph delivered 50tph of concentrate. The smaller plant was found to be more economically favourable for the size of the current resource. Assuming the processing of material of average resource grade for the LOM, the Base Case Plant would produce, on average, 0.64Mlb of uranium and 0.96Mlb of vanadium per annum.

The mining plan is based on extraction commencing from the higher-grade areas first in order to maximise cash flow during the payback period. Hence, the uranium production profile is 1.3Mlb in year 1, 1.1Mlb in year 2, then decreasing gradually to 0.32Mlb in year 10. Vanadium production would peak at 1.3Mlb in year 2, decreasing gradually to 0.72Mlb in year 10.

Based on consensus uranium price projections of $70/lb for 2017, when the Laguna Salada Project could be brought into production, assuming successful permitting and acceptable financing options, a uranium price of $60/lb was used in the PEA. The vanadium pentoxide price used in the PEA was $5.50/lb, the average price over the last five years. The economic assessment shows an NPV, at a 7.5% discount rate, of $55 million. The Project's pre-tax IRR is 24% and an estimated post-tax IRR is 18%. At the consensus uranium price forecast of $70/lb, the Project's NPV (at a 7.5% discount rate) would increase to $98 million, the IRR would increase to 35% and the payback period would shorten to 1.9 years. As both of the IRR and NPV are sensitive to deposit size, the next step should be to increase the resource, which would significantly improve both of these economic measures.

For example, doubling the size of the resource with a similar grade profile as the existing resource is estimated to increase the NPV (7.5% discount rate) to $180 million and the IRR to 44%.

The Capex estimate for the Base Case Plant is $111.9 million (including a 20% contingency), and with the addition of the mining component for a total Capex of $135.7 million for the Project. The Capex estimate of the Full Capacity Plant to handle double the capacity would be $138.4 million.

This PEA shows robust economics that would benefit from a larger resource base that would allow for the mine life to potentially be extended. Exploration results from the district, and from immediately adjacent to the Laguna Salada Deposit, provide evidence that there is potential for the mineral resource to be significantly increased.

LPG would be used to generate steam required for the leach circuit that is designed to operate at 80°C, the optimal temperature for maximum uranium and vanadium extraction. LPG would be trucked from a depot located 230km from site.

After evaluation of a number of alternatives for on-site power generation, it was concluded that drawing power from the national grid is the most economic in terms of Opex and Capex for the Base Case Plant modelled in this PEA. However, various power supplies should be considered in future studies as the Project grows. Mobile power packs are used as standby units to power the beneficiation trains in case of interruption of grid power.

Saline water from shallow local wells would be used in the beneficiation plant, the gypsum leach plant, and in the desalination plant which would provide feed to the potable water treatment plant and for steam generation. Saline water consumption is approximately $47m^3$ per hour. This equates to 350MLpy: 285ML being used by the beneficiation units, 65ML in the desalination plant of which 20ML is treated to fulfil the potable water requirement. The Lago Seco depression contains a saline water resource that geophysical data suggests is 30 million cubic metres.

Fresh water consumption, from deep wells, is approximately $35m^3$ per hour which equates to 255MLpy. Fissures in the basement rocks represent a good target for underground fresh water sources.

Shallow ground water naturally contains high concentrations of undesirable elements in the Laguna Salada Project area and environs. The extent of elevated element content on a regional scale is unknown at this time. Observations on shallow ground water quality are as follows:

- Levels of fluorine and arsenic exceed guideline limits for human and livestock consumption in four of the five localities sampled;
- The level of uranium exceeds recommended limits for human consumption in three of the five localities sampled;
- Uranium, vanadium and molybdenum concentrations exceed those recommended for water for use in irrigation in four of the five sites tested.

The level of potential toxins in shallow groundwater – water derived from the gravels that contain the uranium-vanadium resource at Laguna Salada – constitutes an issue on which local farmers need guidance as to technology that could provide a cost-effective solution. The first step in the potential resolution of this problem is determination of the extent of the region that has poor quality water, followed by the installation of reverse osmosis, or alternative treatment systems, at well-sites throughout the affected area. A start to resolving this issue is the planned excess potable water production from the Hydromet Plant. The modelled Hydromet Plant includes nanofiltration and reverse osmosis systems. The reverse osmosis plant is specified to have an excess capacity of 37MLpy so that a supply of good quality potable water is available to farmers at the Hydromet Plant gate.

Field trials have been undertaken to determine the extent to which indigenous flora can be removed and transplanted once the gravel has been excavated. These tests were designed to simulate the removal of vegetation from the gravel prior to mining and replanting of the vegetation in the gravel once its fines had been washed out for metallurgical processing. Results show that transplantation of the majority of the shrub and brush species was successful. The best results are obtained when the transplantation is done in the winter months when the plants are near-dormant; with drip irrigation supplying modest amounts of water through the dry summer months; and when the re-established areas are fenced to allow the plants to recover without being browsed and grazed during the initial recovery period. Fauna have wide foraging or hunting ranges in the semi-desert environment of the Patagonian plain and consequently are unlikely to be significantly impacted by mining activities. Reseeding with grasses and herbs is most successful when the gravel is scarified in a northeast orientation that is more or less perpendicular to the prevailing wind direction. This reduces the proportion of seed being blown away by the wind and also maximises moisture retention.

26 RECOMMENDATIONS

On the basis of the positive results of this PEA, it is recommended that the Laguna Salada Project advance to a PFS level study.

The total budget for the work recommended for preparation of the Laguna Salada Project for PFS is $3.7 million (Table 26-1).

The estimated costs for a PFS or FS, based on the results of the work completed with the recommended $3.7 million budget, is $750,000 and $1.5 million respectively. Estimates should also be allocated for owner's costs during the development phase and for a range of approvals and financing costs that will be required. These costs are best estimated during the PFS phase of the Project when more precise information on the Project and associated risks are likely to be available.

Table 26-1: Budget Summary for Recommended Further Work at Laguna Salada

Item	Budget
Resource estimation	$1,817,000
Metallurgy	765,000
Pilot plant test work	500,000
Water resource studies	315,000
Social and environmental	300,000
Sub-total for recommended work	**$3,697,000**
PFS	750,000
FS	1,500,000
TOTAL	**$5,947,000**

Recommendations regarding resource upgrades and expansion at Laguna Salada are as follows (TableFigure 26-1):

- Since the PFS and FS must be based on Measured and Indicated resources, the infill pitting and limited vibrosonic drilling required to convert current Inferred resources to Indicted, is approximately $587,000. This would involve the excavation of approximately 260 exploration pits and approximately 2,500m of 10m to 15m deep bore holes with a vibrosonic rig. The approximate location of the planned pits and drill holes is shown in Figure 26-2;
- The budget for the conversion of mineralised areas that were uncategorised, and therefore excluded from the resource estimate undertaken by Coffey Mining (2011), to Indicated resources, is approximately $475,000. This work would involve the excavation of approximately 100 pits and 4,000m of vibrosonic drilling in 10m to 15m deep bore boles (Figure 26-1); and
- Pitting required to establish an initial Inferred resource in the La Susana and La Rosada areas, is estimated at $360,000 and $395,000 respectively. Approximately 300 pits are planned for resource estimation purposes at La Susana and approximately 400 at La Rosada (Figure 26-2).

- None of these four resource expansion programs are dependent on one another, although they are likely to be carried out sequentially. The aim of the $1,817,000 program outlined above is to double the resource at Laguna Salada to 20-25Mlb (the conceptual target is 150-225Mt at 50ppm to 60ppm U_3O_8).

Table 26-2: Budget related to Potential Resource Expansion at Laguna Salada

Item	Unit Cost	Infill to convert Inferred to Indicated resources (target 4.7Mlb)		Infill to convert uncategorised zones to Indicated resources (target 3Mlb)		Additional Inferred Resources - La Rosada (target 4Mlb)		Additional Inferred Resources - La Susana (target 7Mlb)	
		Number of units		Number of units		Number of units		Number of units	
Resource Estimation:									
Personnel costs			$50,000		$20,000		$60,000		$60,000
G&A			$25,000		$10,000		$30,000		$30,000
Field Costs:									
Travel, accommodation, field office, logistics			$50,000		$20,000		$60,000		$60,000
Pitting	$200	260	$52,000	100	$20,000	400	$80,000	300	$60,000
Vibrosonic drilling	$70	2,500	$210,000	4,000	$280,000		$0		$0
Assay			$50,000		$25,000		$60,000		$45,000
Geophysics - ground radiometric surveys			$0		$0		$5,000		$5,000
Sub-total field costs			**$362,000**		**$345,000**		**$205,000**		**$170,000**
Land holding & access			$20,000		$10,000		$10,000		$10,000
Permitting: environmental & mining			$30,000		$15,000		$15,000		$15,000
Consultants, NI43-101 reporting			$100,000		$75,000		$75,000		$75,000
Sub-Total			**$587,000**		**$475,000**		**$395,000**		**$360,000**
Total for resource expansion									**$1,817,000**

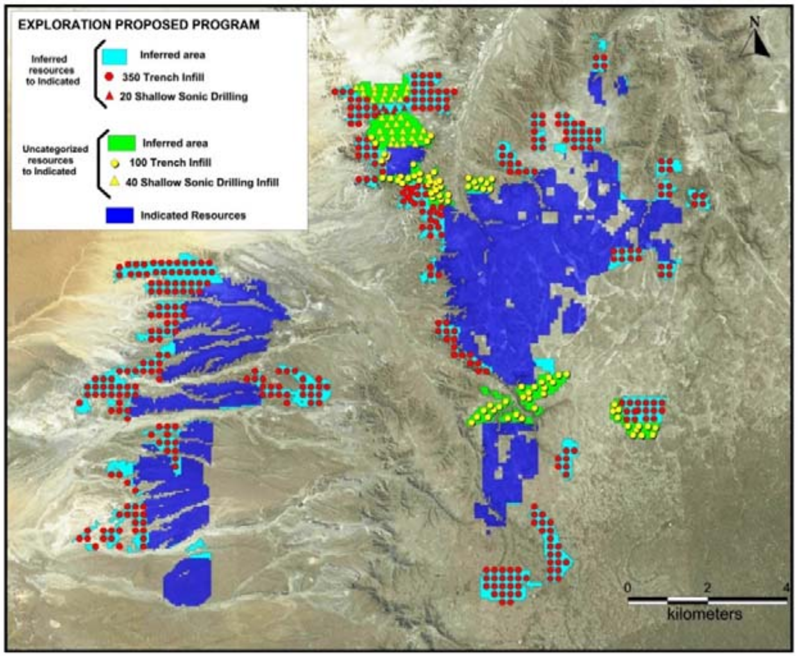


Figure 26-1: Map showing the Resource Categories of the Laguna Salada Project with the location of pitting required to Upgrade Inferred and uncategorised areas to the Indicated category

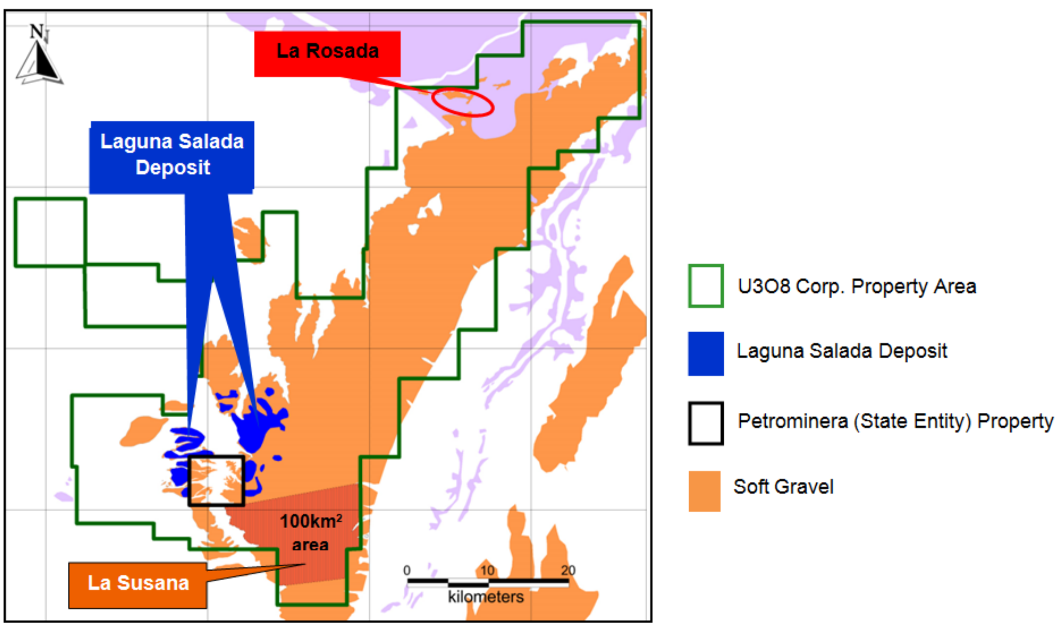


Figure 26-2: Map showing the Location of the La Susana and La Rosada areas in which Infill Trenching and Vibrosonic Drilling are required to generate an initial Inferred Resource

Recommended metallurgical test work is budgeted at $765,000 and includes (Table 26-3):

- Routine beneficiation and leach tests on the four areas of potential resource expansion outlined above ($125,000);
- Filtration test work on the beneficiated fine material from the four programs ($220,000). This would provide data that is crucial to the sizing of the filtration systems in the Hydromet Plant. In particular, the effect of leaching gypsum on the filtration characteristics should be determined. Filtration behaviour could have a significant impact on capital and operating costs;
- Tests on the ettringite processes for the control of gypsum ($50,000). Specifically with respect to the ettringite process, further test work should focus on saline water compositions from the Laguna Salada Project that would form the basis for optimisation of the process and the efficiency of ettringite precipitation from such saline water, as well as determining more precise reagent consumption data. These data would allow the sizing of the process equipment to be determined to PFS or FS standards;
- Test work on the efficiency of sulphate removal with membranes ($90,000), including the investigation of seeding requirements to manage gypsum crystal growth outside membrane modules, and membrane configuration for handling of solids.;
- Test work on the concentration of uranium and vanadium and reagent recovery with membranes ($80,000);
- Further leach test work to better determine optimum leach conditions and reagent consumption for the recovery of uranium and vanadium, and including limited ammonium carbonate/bicarbonate and acid leach tests ($100,000);
- Test work on the extraction of uranium and vanadium from the PLS ($50,000), which would include test work on the efficiency of using IX as a means of extracting uranium and subsequently vanadium from the PLS as an alternative to the SDU circuit contemplated in the current Hydromet Plant design; and
- Characterisation tests on beneficiation plant waste rock, gypsum removal wastes, carbonate leach tailings and other waste streams ($50,000).

Recommended pilot plant-related test work is budgeted at $500,000 (Table 26-3) and includes:

- Trial mining is contemplated with a continuous miner as well as a FEL to confirm effectiveness, efficiency and Opex ($75,000);
- On-site scrubbing is a critical component of further test work to optimise scrub time, percentage solids, scrub type (the extent to which lifters versus smooth roll affect uranium and vanadium recovery while maximising gypsum rejection), velocity of rotation, among other factors ($150,000);
- After scrubbing, the gravel would be subjected to screen tests designed to optimise efficiency of separation of the maximum proportion of uranium and vanadium into a small mass of fines with a minimum gypsum content; and
- The scrubbing and screening test work is required to be carried out on gravel from multiple trenches throughout the resource area to provide data on the extent of inherent variation of the gravel for incorporation in mine plans for PFS and FS. This beneficiation test work would generate a large mass of fines for gypsum dissolution tests, membrane and ettringite tests, alkaline leach work, further testing of membrane systems within the uranium-vanadium circuit, and optimisation of metal recovery methods ($275,000).

Table 26-3: Budget for Recommended Metallurgical and Pilot Plant Test Work on the Laguna Salada Project

	Source of Test Material			
Item	**Presently Inferred resources**	**Presently uncategorised zones**	**La Rosada**	**La Susana**
Metallurgy:				
Basic beneficiation and leach tests on gravels	$25,000	$25,000	$50,000	$25,000
Filtration test work on concentrate dewatering	$30,000	$30,000	$30,000	$30,000
Filtration test work on leach dewatering and washing	$12,500	$12,500	$12,500	$12,500
Filtration test work on tails dewatering and washing	$12,500	$12,500	$12,500	$12,500
Leach optimisation	$25,000	$25,000	$25,000	$25,000
Tests on sulphate removal by membranes	$90,000			
Tests on ettringite process	$50,000			
Tests on uranium, vanadium concentration by membranes	$80,000			
Tests on extraction of uranium, vanadium by IX	$50,000			
Waste characterisation	$50,000			
Sub-total	**$425,000**	**$105,000**	**$130,000**	**$105,000**
Total for metallurgy				**$765,000**
Pilot plant test work:				
Trial mining	$75,000			
Scrub and clean pilot plant	$150,000			
Leach, PLS treatment and metal extraction	$275,000			
Total for pilot plant test work	**$500,000**			

Water resource studies are recommended at a budget of $315,000 that includes drilling and associated pump tests for fresh water resources and pitting to better define the near-surface saline water resource (Table 26-4).

Work in the local farms and the community at Las Plumas should continue to build a platform from which the more critical issues continue to be identified and start to be addressed. The focus should be on the development of small business strategies and educational support that would dove-tail with the provincial government initiatives. An important initiative is to test water treatment systems for installation on the farms to improve the quality of the naturally contaminated shallow groundwater found in the gravels in the region. Social and environmental test work is budgeted at $240,000 (Table 26-4).

Developments in alternative energy systems such as solar and wind energy should continue to be monitored as a potential source of electricity to augment the power draw from the national grid. It is recommended that the existing weather station be upgraded with a small wind turbine that allows measurement of its efficiency under gusting wind conditions as well as measuring stress on the rotor blades. Measurements of efficiency of energy generation from solar panels is also recommended, involving various means of protecting the panels from abrasion by dust in the prevailing high winds. $60,000 is budgeted for this work.

Table 26-4: Budget for Recommended Water Resource Studies and Social and Environmental Studies for the Laguna Salada Project

	Study Area		
Item	**Presently Inferred resources**	**Presently uncategorised zones**	**La Rosada**
Water resource studies:			
Geophysics	$30,000		
Drilling for fresh water	$90,000		
Assay / chemistry	$20,000		
Pitting for saline water tests	$50,000		
Consultants	$75,000	$50,000	
Sub-total	**$265,000**	**$50,000**	
Total for water resource studies			**$315,000**
Social and environmental:			
Testing of potable water filtration systems	$25,000		
Social engagement and small business trial programs	$115,000		$50,000
Environmental test work	$50,000		
Weather station upgrade	$60,000		
Sub-total	**$250,000**		**$50,000**
Total for social and environmental			**$300,000**

27 REFERENCES

Actualización. 2012. Impacto Ambienta Laguna Salada "IIA", 2012: Update Environmental Impact Report Applicable To Environmental Impact Statement Disp. N°: 78/07 SGA and DS. Salt Lake Project Department Martyrs Province Chubut

Anchorena, J. & A. Cingolani. 2002 Identifying habitat types in a disturbed area of the forest-steppe ecotone of Patagonia. Plant Ecology 158: 97-112

Arakel, A.V. 1988. Carnotite mineralisation in inland drainage areas of Australia. Ore Geology Reviews, 3: 289-311.

Bock, E. 1961. On the solubility of anhydrous calcium sulphate and of gypsum in concentrated solutions of sodium chloride at 25°C, 30°C, 40°C and 50°C. Can. J. Chem., 39: 1746-50.

Borrero, LA, and BN Ventura Lanata JL (1992) Distribution of isolated findings in Piedra del Águila. Spatial analysis in archeology Patagonia editions. Ayllu. Buenos Aires

Coffey Mining Pvt Ltd. 2011. Laguna Salada Project, Chubut Province, Argentina: NI 43-101 Technical Report Laguna Salada Initial Resource Estimate. Coffey Mining Pty Ltd. (www.sedar.com): 121pp

Comisión Nacional de Energía Atómica. 1997. Cerro Solo, Paso de los Indios, Provincia del Chubut, Republica Argentina. A summary of the pre-feasibility study carried out by the CNEA on the Cerro Solo uranium deposit (unpublished).

Del Valle, H. et al., 1998. Status of desertification in the Patagonian Region: assessment and mapping from satellite imagery. Arid Soil Research and Rehabilitation, 12: 195-198.

Global Finance. 2014. Argentina Country Report. Retrieved from https://www.gfmag.com/global-data/country-data/argentina-gdp-country-report

Kyser, K. & Cuney, M, 2009. Other Types of Uranium Deposits in (Cuney, M & Kyser, K (eds): Recent and not-so-recent developments in uranium deposits and implications for exploration. Mineralogical Association of Canada, Short Course V39, 257pp.

Largo Resources. 2014. Largo Resources Corporate Presentation. Retrieved from http://www.largoresources.com/files/doc_presentations/2014/LGO-Corporate-Presentation-SEPT-2014_v001_i3bu79.pdf

Mann, A.W. & Deutscher, R.L. 1978. Genesis of and principles for the precipitation of carnotite in calcrete drainages in Western Australia: uranium geology in resource evaluation and exploration. Econ. Geol. 73:1724-1737.

Martikainen, M. 2014. U3O8 Corp.'s Laguna Salada Project: query regarding the technical feasibility of using Outotec's Ettringite Process for the removal of gypsum from gypsum-saturated water. Outotec unpublished memo, 7pp.

NAVFAC, 1982. NAVFAC Soils and Foundation Design Manuals 7.02 – Foundations and Earth Structures. US Naval Facilities Engineering Command, 200 Stoval Street, Alexandria, Virginia 22322-2300.NOMOS, 2013

Otto, J.K., 1984. Surficial uranium deposits: summary and conclusions. In Surficial Uranium Deposits, IAEA, Vienna, IAEA-TECDOC-322, 252pp.

Roskill. 2013. Vanadium: Global industry and markets outlook. Retrieved from http://www.roskill.com/reports/steel-alloys/vanadium/leaflet

Schuster, V. (2012) Technological Organization ceramic hunter-gatherer groups the coast north-central Patagonia (Chubut, Argentina)

SEGEMAR, 2003 Hoja Geológica. 4566-I Garayalde. Chubut. Edición 2003

SGS, 2011. Mineralogical and Chemical Characterisation of Samples from the Laguna Salada Project, Argentina. SGS Report Project 12297-001 MI5033: 9pp.

SGS, 2012. Mineralogical and Chemical Characterisation of Samples from the Laguna Salada Project, Argentina, to Determine the Occurrence of Uranium and Vanadium – Bearing Minerals. SGS Report Project 12297-001 MI5033: 9pp.

SGS, 2013. The Recovery of Uranium and Vanadium from the Laguna Salada Project, Argentina. SGS Report Project 12297-001/-003: 84pp.

Schuster, 2012. Archaeological Survey of Laguna Salada Project, Chubut Province. Unpubl. Report submitted to the Chubut Provincial Mining Authority.

SRK, 2007. Uranium Project Desktop Review, Chubut Province, Argentina. A report for Argentina Power Mining Corporation by G. Even, SRK Consulting (unpublished).

Salwyn, C.A. 2001. Geology of the Golfo San Jorge Basin, Argentina. Journal of Iberian Geology, Vol 27: 123-257.Thomas, D., Zaluski, G., Brisbin, D. & Drever, G. 2007. Uranium deposit types: within the context of 2007 North American Exploration activity. Mineral Deposit Division of the Geological Association of Canada 2007 Howard Street Robinson Lecture Tour. Geological Association of Canada, Mineral deposits Division. Unpublished.Toens et al., 1984

Spencer, R.M and Cleath, R. 2010. The Geology and Uranium Mineralization of the Laguna Salada Project, Chubut Province, and exploration strategies for exploration of earlier-stage properties in Argentina. NI 43-101 Technical Report (sedar.com): 95pp.

The Heritage Foundation. 2014. 2014 Index of Economic Freedom: Argentina. Retrieved from http://www.heritage.org/index/country/argentina

The Odora. (2013, December 17). Argentina Economy 2014. Retrieved from http://www.theodora.com/wfbcurrent/argentina/argentina_economy.html

TOENS, P.D., HAMBLETON-JONES, B.B. 1984. Definition and classification of surficial uranium deposits, SURFICIAL URANIUM DEPOSITS REPORT OF THE WORKING GROUP ON URANIUM GEOLOGY ORGANIZED BY THE INTERNATIONAL ATOMIC ENERGY AGENCY

Trade Tech. 2014. Uranium Prices - Daily U3O8 Spot Price Indicator. Retrieved from http://www.uranium.info/daily_u3o8_spot_price_indicator.php

Unpublished Doctoral Thesis. Faculty of Social Sciences, National University Center Province of Buenos Aires. FACSO-UNICEN. Olavarria, Buenos Aires

Usinowicz, P.J., Monzyk, B.F. and Carlton, L. 2006. Technical and economic evaluation and selection of sulphate ion removal technologies for recovery of water from mineral concentrate transport slurry. Water Environment Foundation. 139-153.

Ux Consulting Company. 2014. UxC Nuclear Fuel Price Indicators. Retrieved from http://www.uxc.com/review/UxCPrices.aspx

Vanitec. 2014. Vanadium. Retrieved from http://vanitec.org/vanadium/

Wang, D. 2014. Additional Tests on Uranium Samples. Saskatchewan Research Council publication 13651-2C14. 70pp.

Wassner, D. & Ravetta, D, 2000. Vegetative propagation of Grindelia chiloensis (Asteraceae). Journal of Industrial Crops and Products, 11: 7-10.

Wirtgen. 2014. Surface Miners. Retrieved from http://www.wirtgen.de/en/products/surface-miners/

World Nuclear Association, 2009. Uranium Deposit Types. www.world-nuclear.orgWorld Steel Association. www.worldsteel.org

World Steel Association. 2014. worldsteel Short Range Outlook. Retrieved from http://www.worldsteel.org/media-centre/press-releases/2009/april-sro.html

Yahoo Finance. 2014. Argentina Retrieved from https://sg.finance.yahoo.com/echarts?s=TVPY.BA

Zhang, J. 2013. Uranium Leaching Test. Saskatchewan Research Council publication 13363-9C13. 34pp.

Zhang, J. 2014. Uranium Leaching Test of CTLS and CCAL Samples. Saskatchewan Research Council publication 13651-1C14. 94pp.

28 SIGNATURE PAGE

This PEA was written by the QPs listed in Section 2. The effective date of this technical report is September 18, 2014.

Reviewed by

Louis de Klerk, Pr. Eng., BSc(Eng) (Chemcial), P Grad Dip in Advanced Process Design

All data used as source material plus text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

29 CERTIFICATES OF QUALIFIED PERSONS

- Louis de Klerk
- Johann van der Westhuysen
- John Goode
- Pedro Veliz

CERTIFICATE OF QUALIFIED PERSON

As a qualified person responsible for preparing or supervising the preparation of all or part of the technical report ("the Report"), I hereby state:

1. My name is Louis W illiam de Klerk and I have been until 31 July 2014 Manager: Process Engineering with the firm Tenova Mining and Minerals Australia (Tenova) of Suite 2, 93 Francisco Street, Belmont, W A 6104, Australia, and I am now an independent consultant.
2. This certificate applies to the technical report titled "Preliminary Economic Assessment of the Laguna Salada Uranium -Vanadium Deposit, Chubut Province, Argentina" dated 18 September 2014 prepared for U3O8 Corp. (the "Technical Report").
3. I am a member of the Engineering Council of South Afica and registered as a Professional Engineer. I graduated with a BSc (Eng) (Chemical) degree from the University of the Witwatersrand in 1978 and with a Post Graduat Diploma in Advanced Process Design from Monash University in 2012. I have been involved in m etallurgical and petrochemical processing since 1979 and have practiced my profession continuously since then. I have been involved in process operations, process engineering, project development and project finance covering a wide range of mineral commodities for projects in South Africa, Zambia, Nigeria and Australia. As a result of my experience and qualifications, I am a Qualified Person ("OP") as define in National Instrument 43 -101 Standards of Disclosure of Mineral Projects (NI 43 -101) (the "Instrument").
4. I have not visited the Laguna Salada Project.
5. I certify that I am responsible for supervision of preparation of the technical report including Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 and 27. I certify that I have prepared or contributed to sections 1, 2, 3, 17, 21, 22, 25, 26 and 27.
6. I am independent of U308 Corp. pursuant to section 1.5 of the Instrument.
7. I have had no prior involvement with the property that is the subject of the technical report. I do not have nor do I expect to receive a direct or indirect interest in the Laguna Salada Project of U308 Corp. and I do not beneficially own, directly or indi rectly, any securities of U308 Corp. or any associate or affiliate of such company.
8. I have read National Instrument 43 -101 and the part of the report I have read has bee prepared in compliance with that Instrument.
9. As of the date of this certificate, to t he best of my knowledge, information and belief, the abovem entioned chapters of the technical report contain all the scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: Perth, Western Australia, on 10 September 2014.

Louis de Klerk
Pr. Eng., BSc (Eng) (Chemical), P Grad Dip in Advanced Process Design

I, Johann van der Westhuysen, Managing Director of Synexus (Pty) Limited of 16 Kiewiet Street, Stellenbosch, Western Cape, South Africa, 7600, hereby confirm that:

1. I was responsible for review of Sections 13.3.3, 17.5.2, 17.5.6, 25 and 26 (sections 25 and 26 only as it pertains to membrane separation aspects) of the technical report titled “Preliminary Economic Assessment of the Laguna Salada Uranium-Vanadium Deposit, Chubut Province, Argentina” dated 18 September 2014 prepared for U3O8 Corp. (the "Technical Report").

2. I have read the abovementioned chapters and it fairly represents the information for which I am responsible.

3. I consent to the filing of the Technical Report by U3O8 Corp, or part(s) thereof, with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public.

Dated this 16th day of September 2014.

JPW van der Westhuysen
PrEng, CEng (Chemical), MEng, BEng, FIChemE

J.R. Goode
65 Spring Garden Avenue
Suite 1010
Toronto, Ontario, Canada
M2N 6H9

CONSENT of QUALIFIED PERSON

I, J.R. Goode, consent to the public filing of the technical report titled “Preliminary Economic Assessment of the Laguna Salada Uranium-Vanadium Deposit, Chubut Province, Argentina” dated 18 September 2014 (the “Technical Report”) by U3O8 Corp.

I certify that I have read relevant sections of the Technical Report being filed by U3O8 Corp. and that they fairly and accurately represents the information for which I am responsible.

Dated September 18, 2014.

Signature of Qualified Person

J.R. Goode

Certificate of Qualified Person

As an author of the report entitled "Preliminary Economic Assessment of the Laguna Salada Uranium-Vanadium Deposit, Chubut Province, Argentina" dated 18 September 2014" (the "Report"), I hereby state:

1. My name is Pedro S. P. Veliz and I am a Principal Consultant and President of the firm of PEK Teknep Overseas Engenharia Ltda, with head office at Avenida Rio Branco 277 – Conj. 1410 – Centro – Rio de Janeiro, RJ – 20040-009 - Brazil.

2. I am Professional Engineer (P.E.) in Brazil, a Member of the Society of Mining, Metallurgy & Exploration – SME (#4165319), member of the American Chemical Society (ACS (#30135187) and member of the Society of Petroleum Engineers – SPE (#3491269).

3. I hold the title of Mining Engineer granted by the Federal University of rio Grande do Sul, Brazil 1976. I graduated as a Civil Mining Engineer from the Technical University of the State, Chile in 1974.

4. I have practiced my profession continuously since 1976 working with companies involved in the mining and exploration of metal and industrial mineral deposits in South America. As a consultant, I have worked on projects involving base metals, iron ore, manganese, bauxite, coal, scheelite-Bi-Mo skarn gold, palladium, platinum, diamond, limestone, kaolin and uranium.

5. I am a "qualified person" as that term is defined in National Instrument 43-101 (Standards of Disclosure for Mineral Projects) (the "Instrument").

6. I visited the Laguna Salada Project between 12 to 14 August, 2013.

7. I contributed to and am responsible for parts of Sections 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 18, 21, 22, 25 and 26 of the Report.

8. As of the effective date of the Report, to the best of my knowledge, information and belief, the parts of the Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Report not misleading.

9. I am independent of U3O8 Corp. pursuant to section 1.5 of the Instrument.

10. I have read the National Instrument and Form 43-101F1 (the "Form") and the Report has been prepared in compliance with the Instrument and the Form.

11. I do not have nor do I expect to receive a direct or indirect interest in the Laguna Salada Project of U3O8 Corp., and I do not beneficially own, directly or indirectly, any securities of U3O8 Corp. or any associate or affiliate of such company.

Dated at Rio de Janeiro, Brazil, on September 18, 2014.

Pedro S. P. Veliz
President (Mining Consultant) - SME

30 APPENDICES

APPENDIX A:

Acronyms and Abbreviations

Abbreviation	Description
%	Percent
µm	Micrometre
AASHTO	American Association of State Highway Transportation Officials
ACE	Adelaide Control Engineering
ALARA	As low as reasonalbly achievable
ALATA	As low as technically achievable
amsl	Above mean sea level
AusIMM	Australasian Institute of Mining and Metallurgy
BSc	Bachelor of Science
Ca	Calcium
CAGR	Compounded annual growth rate
CAPEX	Capital cost estimate
CCD	Counter current decantation
CCTV	Closed circuit television
CESR	Cost effective sulphur removal
CIM	Canadian Institute of Mining, Metallurgy & Petroleum
cm	Centimetre
CMX	Cement mixer
CNEA	Comision Nacional de Energia Nuclear (Argentina's National Nuclear Authority)
CO_2	Carbon dioxide
Da	Measured in Dalton
DCF	Discounted cash flow
DTP	DTP Laboratories SRL
EIA	Environmental impact assessment
EPCM	Engineering, Procurement and Construction Management
eU_3O_8	Equivalent U_3O_8
FEL	Front-end loader
FS	Feasibility study
g	Gram
G&A	General and administration
g/L	Gram per litre
GPS	Geographical positioning system
Gy	Gypsum
Hz	Hertz
Ha	Hectare
H_2SO_4	Sulphuric acid
HC	Hydrocyclone
HDPE	High density polyethylene
HP	Horsepower

Abbreviation	Description
ICP	Inductively coupled plasma analysis
ICP-AES	Inductively coupled plasma atomic emission spectrometry
ICP-MS	Inductively coupled plasma mass spectroscopy
ICP-OES	Inductively coupled plasma optical emission spectrometry
IChemE	Institution of Chemical Engineers
INDEC	National Institute of Statistics and Census
IRR	Internal rate of return
ISO	International Standards Organisation
IX	Ion exchange
JV	Joint venture
$(K_2(UO_2)2(VO_4)_2.3H_2O)$	Carnotite
kg	Kilogram
kg/t	Kilogram per tonne
km	Kilometres
km^2	Square kilometre
km/h	Kilometre per hour
kV	Kilovolt
kVa	Kilovolt-amperes
kW	Kilowatt
kWh	Kilowatt hour
L	Litre
Leco	Leco Combustion Analysis
LOI	Letter of intent
LOM	Life of mine
LMP	Lithium-metal polymer
IAN	Instituto de Asuntos Nucleares (Colombia)
lb	Pounds
M Eng	Master of Engineering
m	Metres
m^3	Cubic metre
m^3/h	Cubic metre per hour
m/s	Metre per second
MD	Manifestación de Descubrimiento (notice of discovery)
Mlb	Million pounds
MLpy	Million litres per year
mm	Millimetre
Mt	Million tonnes
Mtpy	Million tonnes per year
MW	Megawatt

Abbreviation	Description
MWCO	Molecular weight cut off
Mwhpy	Million watts hours per year
Na_2CO_3	Sodium carbonate
$NaHCO_3$	Sodium bicarbonate
NaOH	Sodium hydroxide
NAA	Nuetron Activation Analysis
NBI	Necesidades Basicas Insatisfechas (Unsatisfied basic needs)
NI 43-101	National Instrument 43-101 (Canada)
NPV	Net present value
NSR	Net smelter return
°C	Degrees Centigrade/Celsius
OPEX	Operating cost estimate
PEA	Preliminary economic assessment
PEK	PEK Teknep Overseas Engenharia Ltda
PFS	Pre-feasibility study
pH	Measure of acidity or basicity of a solution
PLS	Pregnant liquor solution
ppm	Parts per million
PMD	Provincial Mining Directorate
psi	Pound per square inch
Pr Eng	Professional Engineer
QP	Qualified person
RC	Reverse circulation drilling
ROM	Run-of-mine
SDU	Sodium di-uranate
SEGEMAR	Institute of Geology and Mineral Resources of Argentina
SEM	Scanning electron microscope
SAVMIN	Patented process by MINTEC for the removal of gypsum from water
SF	Safety factor
SFM	Saravia Frias & Mazzinghi
SGS	SGS Lakefield Laboratories
SRC	Saskatchewan Research Council laboratory
S_w	Swell factors
t	Tonne (1,000kg)
t/m^3	Tonne per cubic metre
tpa	Tonne per annum
tpd	Tonne per day
TMF	Tailings management facility
tph	Tonne per hour
tpy	Tonne per year

Abbreviation	Description
TSX	Toronto Stock Exchange
U_3O_8	Tri uranium octoxide
UAE	United Arab of Emirates
UNSJ	University of San Juan, Argentina
UO_2	Uranium dioxide
$(UO_2)^{2}+$	Uranyl
V_2O_5	Vanadium pentoxide
VAT	Value-added tax
VBR	Vanadium redox
W/W	By weight
XRF	X-ray fluorescence analysis
<	Less than
>	Greater than
~	Approximately

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APPENDIX B:

Coordinates of the Laguna Salada Concessions

Cateos and MDs

Coordinates of the Laguna Salada Concessions – Cateos and MDs

Cateo	Corner Point	East_Posgar 94_GK	North_Posgar 94_GK
Gap 1	C1	3,426,795	5,112,353
Gap 1	C2	3,436,795	5,112,353
Gap 1	C3	3,436,795	5,102,353
Gap 1	C4	3,426,795	5,102,353
Gap 2	C1	3,420,894	5,112,353
Gap 2	C2	3,426,795	5,112,353
Gap 2	C3	3,426,795	5,102,353
Gap 2	C4	3,429,961	5,102,353
Gap 2	C5	3,429,961	5,096,279
Gap 2	C6	3,422,308	5,096,279
Gap 2	C7	3,422,308	5,106,279
Gap 2	C8	3,420,894	5,106,279
Hope 1	C1	3,407,781	5,106,279
Hope 1	C2	3,417,781	5,106,279
Hope 1	C3	3,417,781	5,096,279
Hope 1	C4	3,407,781	5,096,279
Hope 2	C1	3,417,781	5,106,279
Hope 2	C2	3,422,308	5,106,279
Hope 2	C3	3,422,308	5,096,279
Hope 2	C4	3,423,728	5,096,279
Hope 2	C5	3,423,728	5,089,377
Hope 2	C6	3,415,820	5,089,377
Hope 2	C7	3,415,820	5,096,279
Hope 2	C8	3,417,781	5,096,279
Hope 3	C1	3,415,820	5,089,377
Hope 3	C2	3,423,728	5,089,377
Hope 3	C3	3,423,728	5,086,556
Hope 3	C4	3,418,892	5,086,556
Hope 3	C5	3,418,892	5,077,654
Hope 3	C6	3,410,181	5,077,654
Hope 3	C7	3,410,181	5,086,556
Hope 3	C8	3,415,820	5,086,556

Coordinates of the Laguna Salada Concessions – Cateos and MDs (continued)

Cateo	Corner Point	East_Posgar 94_GK	North_Posgar 94_GK
Hope 4	C1	3,397,781	5,080,581
	C2	3,404,447	5,080,581
	C3	3,404,447	5,081,185
	C4	3,410,181	5,081,185
	C5	3,410,181	5,077,654
	C6	3,418,892	5,077,654
	C7	3,418,892	5,075,098
	C8	3,397,781	5,075,098
Hope 5	C1	3,408,651	5,075,098
	C2	3,417,272	5,075,098
	C3	3,417,272	5,068,213
	C4	3,408,651	5,068,213
Lago Seco 2	C1	3,410,521	5,096,277
	C2	3,415,820	5,096,277
	C3	3,415,820	5,086,581
	C4	3,410,181	5,086,581
	C5	3,410,181	5,081,185
	C6	3,404,462	5,081,185
	C7	3,404,462	5,086,581
	C8	3,407,781	5,086,581
	C9	3,407,781	5,093,055
	C10	3,410,521	5,093,055
Lago Seco Nuevo	C1	3,383,850	5,085,351
	C2	3,393,480	5,085,351
	C3	3,393,480	5,083,802
	C4	3,397,780	5,083,802
	C5	3,397,780	5,076,401
	C6	3,393,377	5,076,401
	C7	3,393,377	5,078,301
	C8	3,383,850	5,078,301

Coordinates of the Laguna Salada Concessions – Cateos and MDs (continued)

Cateo	Corner Point	East_Posgar 94_GK	North_Posgar 94_GK
Lago Seco	C1	3,393,480	5,083,802
	C2	3,397,781	5,083,802
	C3	3,397,781	5,091,806
	C4	3,393,480	5,091,806
Rosada 1	C1	3,423,439	5,132,306
	C2	3,443,373	5,132,306
	C3	3,443,373	5,125,884
	C4	3,429,658	5,125,884
	C5	3,429,658	5,130,569
	C6	3,423,439	5,130,569
Rosada 2	C1	3,424,448	5,125,884
	C2	3,443,373	5,125,884
	C3	3,443,373	5,122,352
	C4	3,439,735	5,122,352
	C5	3,439,735	5,120,883
	C6	3,424,448	5,120,883
Rosada 3	C1	3,428,146	5,120,883
	C2	3,438,146	5,120,883
	C3	3,438,146	5,110,883
	C4	3,436,795	5,110,883
	C5	3,436,795	5,112,352
	C6	3,428,146	5,112,352
Rosada 4	C1	3,416,507	5,120,883
	C2	3,428,146	5,120,883
	C3	3,428,146	5,112,352
	C4	3,416,507	5,112,352
Rosadita	C1	3,433,047	5,133,808
	C2	3,453,447	5,133,808
	C3	3,453,447	5,128,578
	C3	3,448,363	5,128,578
	C4	3,448,363	5,124,452
	C5	3,443,373	5,124,452
	C6	3,443,373	5,132,306
	C7	3,433,047	5,132,306

Coordinates of the Laguna Salada Concessions – Cateos and MDs (continued)

MDs	Corner Point	East_Posgar 94_GK	North_Posgar 94_GK
Guanaco	C1	3,376,256	5,118,590
	C2	3,384,622	5,118,590
	C3	3,384,622	5,110,224
	C4	3,376,256	5,110,224
Guanaco I	C1	3,384,920	5,110,406
	C2	3,391,263	5,110,406
	C3	3,391,263	5,104,085
	C4	3,384,920	5,104,085
Guanaco II	C1	3,399,331	5,102,902
	C2	3,405,674	5,102,902
	C3	3,405,674	5,096,581
	C4	3,399,331	5,096,581
Guanaco III	C1	3,397,781	5,096,581
	C2	3,404,124	5,096,581
	C3	3,404,124	5,090,260
	C4	3,397,781	5,090,260
Guanaco IV	C1	3,404,124	5,096,581
	C2	3,407,781	5,096,581
	C3	3,407,781	5,096,279
	C4	3,410,521	5,096,279
	C5	3,410,521	5,093,055
	C6	3,407,781	5,093,055
	C7	3,407,781	5,090,260
	C8	3,404,124	5,090,260
Guanaco V	C1	3,391,263	5,106,558
	C2	3,399,332	5,106,558
	C3	3,399,332	5,102,717
	C4	3,384,920	5,102,717
	C5	3,384,920	5,104,085
	C6	3,391,263	5,104,085

Coordinates of the Laguna Salada Concessions – Cateos and MDs (continued)

MDs	Corner Point	East_Posgar 94_GK	North_Posgar 94_GK
Guanaco VI	C1	3,399,332	5,106,000
	C2	3,407,781	5,106,000
	C3	3,407,781	5,096,581
	C4	3,405,674	5,096,581
	C5	3,405,674	5,102,902
	C6	3,399,332	5,102,902
Guanaco VII	C1	3,397,781	5,090,260
	C2	3,407,781	5,090,260
	C3	3,407,781	5,086,581
	C4	3,397,781	5,086,581

APPENDIX C:

Size of Distribution of Mass, Uranium, Vanadium and Gypsum in Gravels from Laguna Salada

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Size Distribution of Mass, Uranium, Vanadium and Gypsum in Gravels from Laguna Salada

Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^n in Each Fraction	Cumulative % Passing Each Fraction
Dry	G1	G1-1	SGS				25,400	806	13%	87%	8.0	2.1%	97.9%	373	9.7%	90.3%	0.0	99.1%	99.1%
							12,500	2,055	33%	54%	7.9	5.2%	92.8%	398	26.3%	64.1%	0.0	96.7%	96.7%
							6,700	1,264	20%	34%	8.6	3.5%	89.3%	378	15.4%	48.7%	0.2	88.6%	88.6%
							3,350	603	10%	24%	13.0	2.5%	86.8%	507	9.8%	38.9%	0.5	79.1%	79.1%
							1,700	209	3%	21%	32.1	2.1%	84.7%	494	3.3%	35.6%	1.4	69.2%	69.2%
							850	106	2%	19%	79.9	2.7%	82.0%	516	1.8%	33.8%	3.3	57.7%	57.7%
							150	946	15%	4%	153.3	46.1%	35.9%	715	21.7%	12.1%	1.3	17.4%	17.4%
							-150	246	4%	0%	457.5	35.9%	0.0%	1,525	12.1%	0.0%	2.2	0.0%	0.0%
		Total						6,236	100%			100.0%			100.0%			0.0%	
Wet	G1	G1-2	SGS	4 hrs	Pails on bottle-role table	20%-30%	25,400	952	16%	84%	4.2	1.2%	98.8%	293	9.4%	90.6%			
							12,500	1,787	30%	54%	5.1	2.8%	96.0%	384	23.1%	67.5%			
							6,700	1,210	20%	34%	4.1	1.5%	94.4%	450	18.3%	49.2%			
							3,350	586	10%	24%	4.4	0.8%	93.6%	487	9.6%	39.5%			
							1,700	182	3%	21%	5.1	0.3%	93.3%	426	2.6%	36.9%			
							850	88	1%	19%	6.2	0.2%	93.2%	298	0.9%	36.0%			
							150	676	11%	8%	7.5	1.6%	91.6%	243	5.5%	30.5%			
							-150	478	8%	0%	622.6	91.6%	0.0%	1,891	30.5%	0.0%			
		Total						5,960	100%			100.0%			100.0%				

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Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distributn in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distributn in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distributn in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distributn in Each Fraction	Cumulative % Passing Each Fraction
Wet	G1	G1-3	SGS	1 - 2hrs	Pails on bottle-role table	20%-30%	1,000	31,518	81%	19%	5.7	6.5%	93.5%	353	62.2%	37.8%	0.3	55%	93.1%
							500	591	2%	17%	7.5	0.2%	93.3%	186	0.6%	37.2%	2.7	66%	77.3%
							212	2,942	8%	10%	10.7	1.2%	92.1%	243	4.0%	33.2%	0.9	84%	63.8%
							150	604	2%	8%	16.6	0.4%	91.8%	401	1.4%	31.9%	0.7	87%	63.0%
							-150	3,170	8%	0%	788.8	91.8%	0.0%	1,802	31.9%	0.0%	0.6	100%	
		Total						38,825	100%			100.0%			100.0%			100.0%	
	G2	G2-N1	SGS	15 min	Cement Mixer	35%	25,400	4,123	17%	83%	5.5	1.7%	98.3%	291	9.5%	90.5%			
							1,180	13,802	57%	26%	6.1	6.4%	91.9%	376	41.3%	49.2%			
							500	345	1%	25%	12.9	0.3%	91.6%	325	0.9%	48.3%			
							212	1,701	7%	18%	8.8	1.1%	90.4%	269	3.6%	44.7%			
							150	872	4%	14%	11.9	0.8%	89.6%	535	3.7%	41.0%			
							75	521	2%	12%	23.6	0.9%	88.7%	1,103	4.6%	36.4%			
							38	237	1%	11%	47.2	0.8%	87.9%	1,229	2.3%	34.1%			
							-38	2,657	11%	0%	438.6	87.9%	0.0%	1,615	34.1%	0.0%			
		Total							100%			100.0%			100.0%				
		G2-N2	SGS	15 min	Cement Mixer	35%	25,400	2,641	11%	89%	4.0	1.1%	98.9%	309	6.8%	93.2%	0.1	0.6%	191.0%
							1,180	15,324	63%	26%	6.4	10.2%	88.7%	378	48.5%	44.6%	2.5	90.9%	60.0%
							500	629	3%	23%	8.0	0.5%	88.2%	260	1.4%	43.3%	2.8	95.1%	35.7%
							212	1,966	8%	15%	8.1	1.7%	86.5%	248	4.1%	39.2%	0.7	98.4%	17.5%
							150	878	4%	12%	10.4	1.0%	85.5%	546	4.0%	35.2%	0.2	98.8%	
		Total						24,280	100%			100.0%			100.0%			100.0%	

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Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distributn in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distributn in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distributn in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distributn in Each Fraction	Cumulative % Passing Each Fraction
		G3-1	USNJ/ SRC	1 hrs	Cement Mixer	1	15,000	5,845	26%	74%	2.5	2.1%	97.9%	347	19.3%	80.7%	0.0	0.8%	99.2%
							3,000	9,707	43%	32%	2.7	3.7%	94.2%	401	37.0%	43.7%	0.5	17.0%	82.2%
							840	1,093	5%	27%	5.6	0.9%	93.4%	360	3.7%	39.9%	2.2	8.9%	73.3%
							500	900	4%	23%	6.3	0.8%	92.6%	182	1.6%	38.4%	1.1	3.6%	69.8%
							150	3,240	14%	9%	8.2	3.7%	88.8%	247	7.6%	30.8%	1.5	18.1%	51.6%
							75	340	1%	7%	15.1	0.7%	88.1%	573	1.9%	28.9%	6.0	7.5%	44.1%
							26	180	1%	6%	33.2	0.8%	87.3%	644	1.1%	27.8%	9.7	6.5%	37.6%
							-26	1,440	6%	0%	430.1	87.3%	0.0%	2,031	27.8%	0.0%	7.0	37.6%	0.0%
	G3	Total						22,745	100%			100.0%			100.0%			100.0%	
HC		G3-2	USNJ/ SRC	1 hrs	Cement Mixer	75%	15,000	19,560	27%	73%	10.2	6.7%	93.3%	375	23.0%	77.0%	0.2	6.4%	93.6%
							3,000	36,380	50%	23%	5.0	6.1%	87.2%	376	42.9%	34.1%	0.4	32.0%	61.7%
							840	2,480	3%	20%	9.4	0.8%	86.4%	328	2.6%	31.5%	1.1	5.7%	55.9%
							500	2,695	4%	16%	11.5	1.0%	85.4%	158	1.3%	30.2%	0.4	2.4%	53.6%
							150	6,115	8%	7%	13.1	2.7%	82.7%	212	4.1%	26.1%	0.7	8.7%	44.8%
							U/F	2,420	3%	4%	242.1	19.7%	63.0%	1,007	7.6%	18.5%	2.0	9.9%	34.9%
							O/F	2,980	4%	0%	630.5	63.0%	0.0%	1,974	18.5%	0.0%	5.6	34.9%	0.0%
		Total						72,630	100%			100.0%			100.0%			100.0%	

Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribution in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distribution in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribution in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribution in Each Fraction	Cumulative % Passing Each Fraction
HC	G3	G3-3	USNJ/ SRC	1 hrs	Cement Mixer	75%	15,000	10,980	26%	74%	6.1	6.6%	93.4%	256	18.6%	81.4%	0.4	35.2%	64.8%
							3,000	20,780	49%	25%	2.0	4.1%	89.2%	367	50.4%	31.0%	0.1	8.1%	56.7%
							840	1,260	3%	22%	4.1	0.5%	88.7%	272	2.3%	28.8%	1.1	10.0%	46.7%
							500	840	2%	20%	3.6	0.3%	88.4%	114	0.6%	28.1%	0.3	1.9%	44.8%
							150	4,260	10%	10%	2.8	1.2%	87.2%	160	4.5%	23.6%	0.5	16.4%	28.4%
							O/F	2,247	5%	4%	357.8	79.8%	7.5%	1,250	18.6%	5.1%	1.6	26.7%	1.7%
							U/F	1,880	4%	0%	40.0	7.5%	0.0%	409	5.1%	0.0%	0.1	1.7%	0.0%
		Total						42,247	100%			100%			100%			100%	
Wet	G4	G4-1	USNJ/ SRC	1 hrs	Cement Mixer	75%	15,000	32,980	34%	66%	5.0	4.4%	95.6%	281	18.8%	81.2%	0.1	2.0%	98.0%
							3,000	34,800	36%	29%	4.2	3.9%	91.7%	393	27.8%	53.4%	0.2	4.3%	93.6%
							840	3,760	4%	25%	7.5	0.7%	91.0%	340	2.6%	50.8%	0.3	0.7%	92.9%
							500	914	1%	24%	7.1	0.2%	90.8%	171	0.3%	50.5%	0.6	0.3%	92.6%
							150	7,140	7%	17%	11.6	2.2%	88.6%	239	3.5%	47.1%	1.8	8.0%	84.6%
							75	3,680	4%	13%	17.2	1.7%	86.9%	562	4.2%	42.9%	6.4	14.6%	70.0%
							26	2,360	2%	11%	35.9	2.2%	84.7%	719	3.4%	39.4%	13.3	19.5%	50.5%
							-26	10,280	11%	0%	310.6	84.7%	0.0%	1,892	39.4%	0.0%	7.9	50.5%	0.0%
		Total						95,914	100%			100.0%			100.0%			100.0%	
		G4-2	USNJ/ SRC	1 hrs	Cement Mixer	75%	15,000	32,980	35%	65%	5.0	5.0%	95.0%	281	24.0%	76.0%	0.1	2.7%	97.3%
							3,000	34,800	37%	27%	4.2	4.4%	90.6%	393	35.5%	40.5%	0.2	8.6%	88.7%
							840	3,760	4%	23%	7.5	0.8%	89.7%	340	3.3%	37.2%	0.3	1.8%	86.9%
							500	914	1%	22%	7.1	0.2%	89.5%	171	0.4%	36.8%	0.6	0.9%	86.0%
							150	7,140	8%	14%	11.6	2.5%	87.0%	239	4.4%	32.4%	1.7	19.9%	66.1%
		Total						92,966	100%			100.0%			100.0%			100.0%	

Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^{n} in Each Fraction	Cumulative % Passing Each Fraction
Wet	G7	G7-1	USNJ/ SRC	5 min	Cement Mixer	50%	15,000	2,080	42%	58%	3.4	19.5%	80.5%	150	25.8%	74.2%	0.5	9.1%	90.9%
							3,000	1,940	39%	18%	6.1	32.7%	47.8%	393	63.3%	10.9%	1.1	17.0%	73.9%
							840	106	2%	16%	12.2	3.6%	44.2%	303	2.7%	8.3%	9.4	8.3%	65.6%
							500	45	1%	15%	9.8	1.2%	43.0%	176	0.7%	7.6%	8.9	3.4%	62.2%
							150	395	8%	7%	5.9	6.4%	36.6%	114	3.7%	3.9%	10.1	33.2%	29.0%
							75	110	2%	5%	3.3	1.0%	35.6%	39	0.4%	3.5%	18.3	16.8%	12.2%
							26	43	1%	4%	4.9	0.6%	35.0%	39	0.1%	3.4%	19.5	7.0%	5.2%
							13	206	4%	0%	61.4	35.0%	0.0%	199	3.4%	0.0%	3.0	5.2%	0.0%
		Total						4,925	100%			100.0%			100.0%			100.0%	
		G7-2	USNJ/ SRC	15 min	Cement Mixer	50%	15,000	1,276	25%	75%	2.8	2.1%	97.9%	91	7.8%	92.2%	0.4	2.6%	97.4%
							3,000	2,005	39%	36%	4.6	5.3%	92.7%	223	30.2%	62.0%	1.3	12.6%	84.8%
							840	203	4%	32%	11.9	1.4%	91.3%	304	4.2%	57.8%	6.8	6.6%	78.2%
							500	94	2%	30%	11.2	0.6%	90.7%	178	1.1%	56.7%	8.3	3.8%	74.5%
							150	768	15%	15%	11.8	5.2%	85.5%	267	13.9%	42.9%	10.2	37.6%	36.8%
							75	188	4%	11%	29.7	3.2%	82.3%	646	8.2%	34.6%	19.5	17.6%	19.3%
							26	88	2%	9%	60.0	3.0%	79.2%	696	4.1%	30.5%	23.5	9.9%	9.3%
							13	483	9%	0%	285.7	79.2%	0.0%	935	30.5%	0.0%	4.0	9.3%	0.0%
		Total						5,105	100%			100.0%			100.0%			100.0%	

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Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^n in Each Fraction	Cumulative % Passing Each Fraction
Wet	G7	G7-3	USNJ/SRC	30 min	Cement Mixer	50%	15,000	1,004	20%	80%	1.6	0.6%	99.4%	80	4.1%	95.9%	0.2	1.0%	99.0%
							3,000	2,090	42%	38%	6.4	5.2%	94.2%	313	33.6%	62.2%	0.5	5.2%	93.8%
							840	207	4%	34%	10.3	0.8%	93.4%	263	2.8%	59.4%	4.7	4.7%	89.1%
							500	96	2%	32%	5.1	0.2%	93.2%	169	0.8%	58.6%	4.4	2.0%	87.1%
							150	720	14%	18%	9.5	2.6%	90.5%	263	9.7%	48.9%	9.6	33.0%	54.1%
							75	206	4%	14%	24.9	2.0%	88.6%	532	5.6%	43.2%	23.1	22.7%	31.4%
							26	97	2%	12%	40.5	1.5%	87.0%	543	2.7%	40.5%	27.6	12.8%	18.6%
							13	603	12%	0%	374.5	87.0%	0.0%	1,308	40.5%	0.0%	6.5	18.6%	0.0%
		Total						5,023	100%			100.0%			100.0%			100.0%	
		G7-4	USNJ/SRC	45 min	Cement Mixer	50%	15,000	2,179	42%	58%	4.3	6.1%	93.9%	255	35.7%	64.3%	0.2	2.8%	97.2%
							3,000	1,803	35%	23%	3.0	3.5%	90.4%	135	15.7%	48.6%	0.7	10.6%	86.6%
							840	112	2%	21%	4.7	0.3%	90.1%	281	2.0%	46.5%	1.9	1.7%	84.9%
							500	34	1%	20%	3.9	0.1%	90.0%	160	0.4%	46.2%	1.1	0.3%	84.6%
							150	235	5%	15%	6.3	1.0%	89.0%	187	2.8%	43.3%	6.2	11.7%	72.9%
							75	195	4%	12%	14.6	1.8%	87.2%	342	4.3%	39.1%	14.2	22.2%	50.8%
							26	131	3%	9%	24.0	2.0%	85.2%	530	4.5%	34.6%	20.5	21.6%	29.2%
							13	466	9%	0%	284.0	85.2%	0.0%	1,152	34.6%	0.0%	7.8	29.2%	0.0%
		Total						5,155	100%			100.0%			100.0%			100.0%	

Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^{n} in Each Fraction	Cumulative % Passing Each Fraction
HC		G8-2	USNJ/ SRC	15 min	Cement Mixer	75%	15,000	13,740	37%	63%	7.4	4.4%	95.6%	214	21.4%	78.6%	0.4	10.7%	89.3%
							3,000	14,660	40%	23%	5.9	3.7%	91.9%	365	38.9%	39.7%	1.4	38.5%	50.8%
							840	1,320	4%	19%	7.6	0.4%	91.5%	260	2.5%	37.2%	1.6	4.0%	46.8%
							500	580	2%	18%	7.0	0.2%	91.3%	160	0.7%	36.6%	1.9	2.1%	44.7%
							150	3,520	10%	8%	22.9	3.5%	87.8%	260	6.7%	29.9%	3.3	21.2%	23.4%
							75	980	3%	5%	80.3	3.4%	84.4%	584	4.2%	25.7%	8.1	14.7%	8.7%
							O/F	1,180	3%	2%	1287.0	65.7%	18.7%	2,219	19.0%	6.7%	2.9	6.2%	2.5%
							U/F	780	2%	0%	553.8	18.7%	0.0%	1,180	6.7%	0.0%	2.9	2.5%	0.0%
		Total						36,760	100%			100.0%			100.0%			100.0%	
Wet		G8-3	USNJ/ SRC	15 min	Cement Mixer	75%	15,000	13,280	40%	60%	4.9	2.7%	97.3%	169	22.6%	77.4%	0.3	5.5%	94.5%
							3,000	12,980	39%	22%	5.7	3.1%	94.1%	272	35.6%	41.8%	1.5	30.2%	64.2%
							840	1,260	4%	18%	9.9	0.5%	93.6%	269	3.4%	38.4%	1.3	2.5%	61.7%
							500	420	1%	17%	10.2	0.2%	93.4%	153	0.6%	37.8%	1.7	1.1%	60.6%
							150	2,400	7%	9%	24.1	2.4%	91.0%	228	5.5%	32.3%	3.7	14.0%	46.6%
							75	780	2%	7%	50.8	1.7%	89.3%	417	3.3%	29.0%	7.9	9.8%	36.8%
							<75	2,380	7%	0%	894.1	89.3%	0.0%	1,210	29.0%	0.0%	9.8	36.8%	0.0%
		Total						33,500	100%		71.1	100.0%		297	100.0%		1.9	100.0%	

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Detail	Test #	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distributn in Each Fraction (%)	Cumulative % Passing Each Screen	Grade (ppm)	Distributn in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distributn in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distributn in Each Fraction	Cumulative % Passing Each Fraction
Wet	G9	G9	SRC	30 min in gypsum saturated water	Pails on bottle-role table		4,760	45,750	71%	29%	25.9	38.2%	61.8%	474	57.6%	42.4%	8.6	63.8%	36.2%
							1,000	4,800	7%	21%	13.0	2.0%	59.8%	625	8.0%	34.5%	14.2	11.1%	25.1%
							297	2,650	4%	17%	15.3	1.3%	58.5%	364	2.6%	31.9%	11.6	5.0%	20.1%
							106	6,500	10%	7%	20.0	4.2%	54.3%	623	10.7%	21.2%	7.7	8.2%	11.9%
							74	663	1%	6%	47.1	1.0%	53.3%	1,034	1.8%	19.4%	20.6	2.2%	9.7%
							Pan	4,011	6%		412.3	53.3%	0.0%	1,820	19.4%	0.0%	14.8	9.7%	0.0%
		Total						64,374	100%			100.0%			100.0%			100.0%	

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distributⁿ in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distributⁿ in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distributⁿ in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distributⁿ in Each Fraction	Cumulative % Passing Each Fraction
Dry	LS1	LS1-1	SGS				25,400	346	8%	92%	9.7	0.6%	99.4%	277	3.8%	96.2%	0.0	0.1%	99.9%
							12,500	937	21%	71%	11.1	1.9%	97.5%	376	13.9%	82.3%	0.1	0.3%	99.6%
							6,700	708	16%	56%	17.2	2.2%	95.3%	458	12.8%	69.6%	0.7	3.1%	96.5%
							3,350	354	8%	48%	29.1	1.9%	93.4%	596	8.3%	61.3%	1.7	3.9%	92.7%
							1,700	310	7%	41%	123.8	7.0%	86.5%	598	7.3%	54.0%	3.7	7.4%	85.2%
							850	455	10%	31%	191.0	15.8%	70.7%	717	12.8%	41.1%	2.6	7.8%	77.4%
							150	961	21%	9%	288.9	50.3%	20.4%	785	29.7%	11.5%	5.2	32.4%	45.0%
							-150	413	9%	0%	272.3	20.4%	0.0%	705	11.5%	0.0%	16.7	45.0%	0.0%
		Total						4,485	100%			100.0%			100.0%			100.0%	
Wet		LS1-2	SGS	4 hrs	Pails on bottle-table	20% - 30%	25,400	129	4%	96%	17.9	0.4%	99.6%	187	1.2%	98.8%			
							12,500	776	22%	75%	9.4	1.3%	98.3%	355	14.0%	84.7%			
							6,700	596	17%	58%	6.4	0.7%	97.7%	439	13.3%	71.4%			
							3,350	349	10%	48%	7.8	0.5%	97.2%	521	9.3%	62.2%			
							1,700	191	5%	43%	7.1	0.2%	97.0%	369	3.6%	58.6%			
							850	281	8%	35%	6.8	0.3%	96.6%	250	3.6%	55.0%			
							150	406	11%	23%	6.5	0.5%	96.2%	216	4.5%	50.5%			
							-150	827	23%	0%	667.6	96.2%	0.0%	1,201	50.5%	0.0%			
		Total						3,555	100%			100.0%			100.0%				

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut[n] in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut[n] in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut[n] in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut[n] in Each Fraction	Cumulative % Passing Each Fraction
Wet	LS1	LS1-3	SGS	4 hrs	Pails on bottle-table	20% - 30%	1,000	15,559	60%	40%	8.3	3.0%	97.0%	364	41.3%	58.7%			
							500	1,321	5%	34%	7.0	0.2%	96.8%	175	1.7%	57.0%			
							212	1,199	5%	30%	8.5	0.2%	96.5%	191	1.7%	55.3%			
							150	407	2%	28%	9.7	0.1%	96.4%	275	0.8%	54.5%			
							-150	7,242	28%	0%	567.1	96.4%	0.0%	1,031	54.5%	0.0%			
		Total						25,728				100.0%			100.0%				
SN	LS3	LS3-1	UNSJ				3,000	1,459	60%	40%	61.1	50.0%	50.0%						
							840	435	18%	22%	70.8	17.3%	32.8%						
							300	395	16%	5%	102.4	22.7%	10.1%						
							150	91	4%	2%	129.9	6.6%	3.4%						
							75	34	1%	0%	149.8	2.9%	0.6%						
							<75	5	0%	0%	210.0	0.6%	0.0%						
		Total						2,419	100%			100.0%							
		LS3-2	UNSJ				15,000	0	0%	100%	0.0	0.0%	100.0%	0	0.0%	100.0%	0.0	0.0%	100.0%
							3,000	0	0%	100%	0.0	0.0%	100.0%	0	0.0%	100.0%	0.0	0.0%	100.0%
							840	0	0%	51%	0.0	0.0%	100.0%	0	0.0%	100.0%	0.0	0.0%	100.0%
							500	2,058	51%	49%	81.0	44.2%	55.8%	789	50.0%	50.0%	18.8	50.0%	50.0%
							O/F_SN	1,949	49%	0%	108.2	55.8%	0.0%	833	50.0%	0.0%	19.8	50.0%	0.0%
							U/F_SN	0	0%	0%	0.0	0.0%	0.0%	0	0.0%	0.0%	0.0	0.0%	0.0%
		Total						4,007	100%			100.0%			100.0%			100.0%	

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				Scrub				Mass			U_3O_8			V_2O_5			Gypsum		
Detail	Test	Sub-Sample #	Lab	Time	Equipment	% Solids in Scrub	Size Fraction (µm)	Mass of Fraction (g)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^{n} in Each Fraction	Cumulative % Passing Each Fraction
Dry	LS4	LS3-3	UNSJ/ SRC	40 min	Cement Mixer	50%	3,000	13,120	44%	56%	9.0	6.9%	93.1%	399	28.5%	71.5%	0.3	1.4%	98.6%
Wet							840	8,170	27%	29%	20.0	9.5%	83.7%	331	14.7%	56.8%	9.1	26.9%	71.7%
							500	1,350	4%	25%	19.7	1.5%	82.1%	253	1.9%	54.9%	14.3	7.0%	64.7%
							150	2,565	9%	16%	28.4	4.2%	77.9%	401	5.6%	49.4%	27.5	25.5%	39.2%
							75	970	3%	13%	36.7	2.1%	75.8%	632	3.3%	46.0%	49.7	17.4%	21.7%
							26	435	1%	11%	56.3	1.4%	74.4%	563	1.3%	44.7%	60.4	9.5%	12.2%
							<26	3,440	11%	0%	372.9	74.4%	0.0%	2,387	44.7%	0.0%	9.8	12.2%	0.0%
		Total						30,050	100%			100.0%			100.0%			100.0%	
Dry		LS3-4	UNSJ/ SRC	1 hrs	Cement Mixer	50%	3,000	1,060	53%	47%	27.3	21.1%	78.9%	542	46.5%	53.5%	1.6	12.7%	87.3%
Wet							840	330	16%	31%	10.9	2.6%	76.3%	285	7.6%	45.9%	14.2	35.1%	52.2%
							500	226	11%	19%	10.6	1.8%	74.5%	185	3.4%	42.5%	14.3	24.2%	28.0%
							150	94	5%	15%	30.0	2.1%	72.5%	397	3.0%	39.5%	17.8	12.5%	15.5%
							75	47	2%	12%	130.9	4.5%	68.0%	922	3.5%	35.9%	17.0	6.0%	9.5%
							<26	244	12%	0%	381.9	68.0%	0.0%	1,819	35.9%	0.0%	5.2	9.5%	0.0%
		Total						2,001	100%			100.0%			100.0%			100.0%	
Dry		LS3-5	UNSJ/ SRC	1 hrs		50%	3,000	22,086	54%	46%	27.2	24.3%	75.7%	547	47.7%	52.3%	1.6	10.7%	89.3%
HC							150	13,180	32%	14%	16.8	9.0%	66.7%	317	16.5%	35.8%	13.4	53.5%	35.8%
							U/F THB	1,940	5%	9%	114.9	9.0%	57.7%	792	6.1%	29.8%	42.1	24.7%	11.1%
							O/F CHB	3,765	9%	0%	379.0	57.7%	0.0%	2,001	29.8%	0.0%	9.7	11.1%	0.0%
		Total						40,971	100%			100.0%			100.0%			100.0%	

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^{n} in Each Fraction	Cumulative % Passing Each Fraction
Dry	LS4	LS3-6	UNSJ/ SRC	1 hrs		50%	3,000	12,389	52%	48%	27.2	28.7%	71.3%	547	49.9%	50.1%	1.6	12.5%	87.5%
Des							D U/F	10,200	43%	5%	30.1	26.1%	45.2%	393	29.6%	20.5%	13.1	84.0%	3.6%
							D O/F	1,300	5%	0%	408.1	45.2%	0.0%	2,145	20.5%	0.0%	4.4	3.6%	0.0%
		Total						23,889	100%			100.0%			100.0%			100.0%	
Dry		LS3-7	UNSJ/ SRC	1 hrs			3,000	12,389	52%	48%	27.2	18.7%	81.3%	547	40.9%	59.1%	1.6	15.7%	84.3%
HC							Cyclone underflow	7,456	31%	17%	7.6	3.2%	78.1%	246	11.1%	48.0%	12.6	74.2%	10.2%
							Cyclone overflow	2,744	11%	5%	318.5	48.6%	29.5%	1,883	31.2%	16.8%	2.6	5.6%	4.5%
							Deslimer overflow	1,300	5%	0%	408.1	29.5%	0.0%	2,145	16.8%	0.0%	4.4	4.5%	0.0%
		Total						23,889	100%			100.0%			100.0%			100.0%	
HC		LS4-1	UNSJ/ SRC	1 hrs	Cement Mixer	75%	15,000	6,200	20%	80%	12.9	4.0%	96.0%	372	9.9%	90.1%	0.2	0.6%	99.4%
							3,000	9,180	30%	50%	8.2	3.7%	92.3%	650	25.5%	64.6%	0.8	3.4%	96.0%
							840	5,041	16%	33%	13.3	3.3%	89.0%	281	6.1%	58.5%	8.6	20.1%	75.9%
							500	2,235	7%	26%	12.3	1.4%	87.6%	237	2.3%	56.2%	12.3	12.8%	63.1%
							150	2,596	8%	17%	10.6	1.4%	86.2%	336	3.7%	52.5%	24.4	29.4%	33.7%
							75	713	2%	15%	11.1	0.4%	85.8%	550	1.7%	50.8%	55.0	18.2%	15.5%
							U/F	1,327	4%	11%	256.1	16.9%	69.0%	1,860	10.6%	40.2%	15.3	9.4%	6.1%
							O/F	3,308	11%	0%	420.4	10.8%	0.0%	2,839	40.2%	0.0%	4.0	6.1%	0.0%
		Total						30,600	100%			100.0%			100.0%			100.0%	

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^n in Each Fraction	Cumulative % Passing Each Fraction
HC	LS5	LS5-1	UNSJ/ SRC	1 hrs	Cement Mixer	75%	15,000	7,920	18%	82%	9.8	2.5%	97.5%	372	7.9%	92.1%	0.9	1.0%	99.0%
							3,000	13,760	31%	52%	9.8	4.4%	93.1%	650	24.1%	68.0%	1.7	3.2%	95.8%
							840	5,840	13%	39%	17.6	3.3%	89.7%	281	4.4%	63.6%	12.0	9.6%	86.2%
							500	1,980	4%	34%	19.1	1.2%	88.5%	237	1.3%	62.3%	31.3	8.5%	77.7%
							150	5,560	12%	22%	13.6	2.5%	86.0%	336	5.0%	57.3%	39.6	30.2%	47.6%
							75	2,260	5%	17%	20.0	1.5%	84.6%	550	3.3%	53.9%	64.7	20.0%	27.6%
							U/F	1,833	4%	13%	44.0	2.6%	81.9%	1,860	9.2%	44.7%	71.1	17.8%	9.7%
							O/F	5,715	13%	0%	440.4	81.9%	0.0%	2,908	44.7%	0.0%	12.4	9.7%	0.0%
		Total						44,868	100%			100.0%			100.0%			100.0%	
Wet	LS7	LS7-1	UNSJ/ SRC	5 min	Cemet Mixer	50%	15,000	628	13%	87%	11.6	3.4%	96.6%	217	8.6%	91.4%	6.7	7.5%	92.5%
							3,000	1,583	34%	53%	8.2	6.1%	90.4%	290	28.9%	62.5%	1.9	5.4%	87.1%
							840	824	17%	36%	9.8	3.8%	86.6%	146	7.6%	55.0%	16.9	25.0%	62.0%
							500	372	8%	28%	13.5	2.4%	84.2%	212	5.0%	50.0%	19.7	13.2%	48.8%
							150	750	16%	12%	18.6	6.6%	77.6%	295	13.9%	36.1%	17.9	24.1%	24.7%
							75	125	3%	9%	52.2	3.1%	74.6%	662	5.2%	30.9%	31.4	7.1%	17.6%
							26	65	1%	8%	109.5	3.4%	71.2%	408	1.7%	29.2%	56.6	6.6%	11.0%
							Pan	376	8%	0%	400.4	71.2%	0.0%	1,235	29.2%	0.0%	16.2	11.0%	0.0%
		Total						4,723	100%			100.0%			100.0%			100.0%	

Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^n in Each Fraction	Cumulative % Passing Each Fraction
Wet	LS7	LS7-2	UNSJ/ SRC	15 min	Cemet Mixer	50%	15,000	764	16%	84%	6.8	2.7%	97.3%	182	9.1%	90.9%	4.8	6.3%	93.7%
							3,000	1,511	31%	53%	7.8	6.2%	91.1%	292	29.0%	61.9%	2.3	5.9%	87.8%
							840	685	14%	39%	6.6	2.3%	88.8%	146	6.6%	55.3%	10.3	12.2%	75.6%
							500	512	10%	29%	9.7	2.6%	86.2%	198	6.6%	48.7%	20.1	17.7%	58.0%
							150	713	15%	14%	15.2	5.7%	80.5%	294	13.8%	35.0%	20.7	25.4%	32.6%
							75	145	3%	11%	37.3	2.8%	77.7%	502	4.8%	30.2%	39.1	9.7%	22.8%
							26	77	2%	10%	89.2	3.6%	74.1%	354	1.8%	28.4%	63.8	8.4%	14.4%
							Pan	475	10%	0%	299.5	74.1%	0.0%	910	28.4%	0.0%	17.6	14.4%	0.0%
		Total						4,882	100%			100.0%			100.0%			100.0%	
		LS7-3	UNSJ/ SRC	30 min	Cemet Mixer	50%	15,000	647	14%	86%	13.2	3.8%	96.2%	269	10.0%	90.0%	2.3	2.8%	97.2%
							3,000	1,643	35%	52%	7.3	5.2%	91.0%	292	27.6%	62.3%	1.6	5.2%	92.0%
							840	639	14%	38%	7.1	2.0%	89.0%	139	5.1%	57.2%	6.7	8.2%	83.8%
							500	344	7%	31%	8.9	1.3%	87.6%	135	2.7%	54.5%	16.5	11.0%	72.8%
							150	674	14%	16%	11.8	3.5%	84.1%	333	12.9%	41.6%	21.1	27.4%	45.3%
							75	206	4%	12%	22.0	2.0%	82.1%	666	7.9%	33.7%	42.2	16.8%	28.5%
							26	77	2%	10%	66.5	2.3%	79.9%	365	1.6%	32.1%	69.4	10.3%	18.2%
							Pan	494	10%	0%	367.5	79.9%	0.0%	1,127	32.1%	0.0%	19.1	18.2%	0.0%
		Total						4,724	100%			100.0%			100.0%			100.0%	

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^n in Each Fraction	Cumulative % Passing Each Fraction
Wet	LS7	LS7-4	UNSJ/ SRC	45 min	Cemet Mixer	50%	15,000	491	10%	90%	7.7	1.6%	98.4%	258	7.4%	92.6%	0.4	0.3%	99.7%
							3,000	1,688	35%	55%	9.2	6.5%	92.0%	306	30.3%	62.2%	1.5	4.4%	95.2%
							840	687	14%	41%	6.1	1.7%	90.2%	112	4.5%	57.7%	7.4	9.1%	86.1%
							500	472	10%	31%	8.1	1.6%	88.6%	199	5.5%	52.2%	18.0	15.2%	70.9%
							150	751	15%	16%	8.3	2.6%	86.1%	221	9.7%	42.4%	19.4	26.0%	44.9%
							75	144	3%	13%	31.7	1.9%	84.2%	586	5.0%	37.5%	43.5	11.2%	33.7%
							26	95	2%	11%	42.8	1.7%	82.5%	395	2.2%	35.3%	68.6	11.7%	22.0%
							Pan	541	11%	0%	367.6	82.5%	0.0%	1,111	35.3%	0.0%	22.7	22.0%	0.0%
		Total						4,869	100%			100.0%			100.0%			100.0%	
		LS7-5	UNSJ/ SRC	60 min	Cemet Mixer	50%	15,000	619	13%	87%	5.9	1.5%	98.5%	210	7.2%	92.8%	1.8	2.1%	97.2%
							3,000	1,615	34%	53%	8.1	5.3%	93.2%	312	27.7%	65.1%	1.5	4.3%	92.0%
							840	678	14%	39%	7.1	2.0%	91.2%	160	6.0%	59.1%	5.0	6.2%	83.8%
							500	218	5%	35%	7.3	0.6%	90.6%	107	1.3%	57.8%	13.2	5.2%	72.8%
							150	851	18%	17%	8.7	3.0%	87.6%	240	11.3%	46.5%	21.3	32.9%	45.3%
							75	168	4%	14%	13.8	0.9%	86.6%	678	6.3%	40.3%	37.0	11.3%	28.5%
							26	99	2%	12%	31.9	1.3%	85.3%	397	2.2%	38.1%	72.8	13.1%	18.2%
							Pan	552	12%	0%	378.1	85.3%	0.0%	1,251	38.1%	0.0%	24.7	24.8%	0.0%
		Total						4,800	100%			100.0%			100.0%			100.0%	

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^{n} in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^{n} in Each Fraction	Cumulative % Passing Each Fraction
HC	LS8	LS8-1	UNSJ/SRC	5 min	Cemet Mixer	75%	15,000	7,640	25%	75%	9.9	2.8%	97.2%	299	13.5%	86.5%	0.2	0.9%	99.1%
							3,000	11,400	37%	38%	8.0	3.4%	93.8%	411	27.8%	58.7%	0.6	3.6%	95.5%
							840	4,080	13%	25%	12.3	1.9%	91.9%	304	7.4%	51.3%	9.9	22.3%	73.2%
							500	1,360	4%	21%	15.3	0.8%	91.1%	263	2.1%	49.2%	16.0	12.0%	61.1%
							150	1,860	6%	15%	23.4	1.6%	89.5%	340	3.7%	45.5%	29.8	30.6%	30.5%
							75	600	2%	13%	25.4	0.6%	88.9%	399	1.4%	44.0%	51.0	16.9%	13.6%
							U/F	680	2%	11%	448.3	11.4%	77.5%	1,469	5.9%	38.1%	13.2	5.0%	8.6%
							O/F	3,260	11%	0%	635.5	77.5%	0.0%	1,974	38.1%	0.0%	4.8	8.6%	0.0%
		Total						30,880	100%			100.0%			100.0%			100.0%	
		LS8-2	UNSJ/SRC	5 min	Cemet Mixer	75%	15,000	7,100	23%	100%	9.6	2.3%	97.7%	239	9.7%	90.3%	0.4	1.4%	98.6%
							3,000	11,600	37%	40%	9.5	3.6%	94.1%	417	27.6%	62.8%	0.7	4.1%	94.5%
							840	4,480	14%	26%	15.8	2.3%	91.8%	319	8.1%	54.6%	10.5	24.6%	69.8%
							500	1,680	5%	21%	14.2	0.8%	91.0%	258	2.5%	52.2%	17.8	15.7%	54.2%
							150	1,700	5%	15%	17.3	1.0%	90.0%	383	3.7%	48.5%	30.2	26.9%	27.3%
							75	580	2%	14%	24.3	0.5%	89.5%	418	1.4%	47.1%	54.8	16.6%	10.7%
							U/F	720	2%	11%	482.9	11.5%	78.0%	1,485	6.1%	41.0%	8.5	3.2%	7.5%
							O/F	3,560	11%	0%	661.0	78.0%	0.0%	2,018	41.0%	0.0%	4.0	7.5%	0.0%
		Total						31,420	100%			100.0%			100.0%			100.0%	

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Detail	Test	Sub-Sample #	Lab	Scrub			Size Fraction (µm)	Mass			U_3O_8			V_2O_5			Gypsum		
				Time	Equipment	% Solids in Scrub		Mass of Fraction (g)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Screen Size	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (ppm)	Distribut^n in Each Fraction (%)	Cumulative % Passing Each Fraction	Grade (%)	Distribut^n in Each Fraction	Cumulative % Passing Each Fraction
Wet	LS9	LS9	SRC	5 min	Pails on bottle-table	?	16,000	8,222	17%	83%	35.3	7.3%	92.7%	282	10.1%	89.9%	3.0	6.2%	93.8%
							4,760	21,500	44%	39%	61.3	33.0%	59.7%	418	39.3%	50.5%	4.1	22.1%	71.7%
							1,000	6,750	14%	26%	69.5	11.8%	47.9%	299	8.8%	41.7%	10.2	17.1%	54.6%
							297	4,410	9%	17%	60.1	6.6%	41.3%	205	3.9%	37.8%	13.6	14.9%	39.7%
							106	3,520	7%	9%	64.8	5.7%	35.5%	499	7.7%	30.1%	16.7	14.6%	25.2%
							74	501	1%	8%	71.9	0.9%	34.6%	739	1.6%	28.5%	40.0	5.0%	20.2%
							Pan	4,099	8%	0%	336.9	34.6%	0.0%	1,587	28.5%	0.0%	19.8	20.2%	0.0%
		Total						49,002	100%			100.0%			100.0%			100.0%	

APPENDIX D:

Methodology and Assumptions in Estimation of Capex and Opex

Capital and Operating Cost Estimating Methodology and Inputs

Basis of Capital Cost Estimate

Capital Cost Estimate – Full Capacity Plant

The estimate has been defined as a Scoping Study class estimate (AACE Class 4 Mechanical Equipment Factored) and as such it is deemed to have a level of confidence or accuracy in the range of +/- 35%.

Initially the Capex was for a processing plant to treat a total of 9.6Mtpy of mineralised material – referred to as Full Capacity Plant. Mineralised material is upgraded in a Beneficiation Circuit, with concentrate processed in a Hydromet Plant to produce separate uranium and vanadium products.

The Beneficiation Circuit was costed separately by U3O8 Corp. with the Tenova Capex addressing the Hydromet Plant only.

Pricing Basis of Hydromet Plant

A "Price Basis" grouping table is provided to allow U3O8 Corp. to estimate the confidence level of the overall Direct Cost. Each cost element of the estimate is allocated a specific code representing the various cost sources. A summary of these sources by percentage of the total Direct Cost is shown in the following table.

Price Basis Table – Direct Cost of Hydromet Plant

Direct Cost Pricing Basis Profile	Amount	%
Fixed & Firm Quote / Tendered Price	-	-
Vendor Budget Quotation	50,194,250	49.7%
Data Base / Historical Price	24,652,894	24.4%
Derived Estimate - MTO x Unit Rates	4,971,740	4.9%
Factored	17,173,712	17.0%
Lump Sum Allowances	4,024,169	4.0%
TOTAL	**101,016,766**	**100.0%**

Estimate Currency

The estimate was prepared in USD dollars.

Escalation

No escalation has been included in the estimate.

Owners Cost

Tenova have made no provision for Owners Costs in the Capex.

Estimating Methodology

The estimate was developed in accordance with the following methodology:

- Align the estimate with the Scope of Work as defined;
- Structure the estimate in accordance with an assumed Work Breakdown Structure;
- Calculate labour man-hour rates for construction / installation work as per most recent historical South American site personnel rates, and agree with U3O8 Corp. on an all-in 'Gang-Rate';
- Determine applicable benchmarked factors for all bulk materials (commodities);
- Single sourced Vendor budgets and Historical data for all major and minor equipment;
- Estimate the installation hours for all plate work and equipment;
- Applicable foreign exchange rates for equipment were applied, if applicable;
- Undertake internal estimate reviews appropriate for this class of estimate; and
- Document any exclusions and qualifications.

The estimate was quantified from information provided by the Process engineering discipline only, and included:

- Scope of Work;
- Processing area coding structure;
- Metsim simulation model flow sheets; and
- Equipment list.

The estimate was categorised as follows:

- Equipment costs;
- Bulk material costs and factors;
- Installation unit hours;
- Installation unit rates;
- Productivity factors and;
- Freight.

Major equipment costs are based on budget quotes from single source suppliers. The balance of the remaining equipment is derived from Tenova's knowledge of similar projects and historical databases.

Freight costs are apportioned to each line item of the estimate as a percentage of the Equipment and Plate work cost. The percentage used is typically ten per cent (10%) of the Equipment and Plate work cost and has been applied to all items for freight to site allowance.

Concrete, Steelwork, Piping and Electrical / Instrumentation commodities are allowed as factored percentages per the cost of mechanical equipment, excluding the cost of Vendor Package plants, on an area by area basis. The power line in Area 800 is based on a rate per km.

Site Preparation and Bulk Earthworks, Ponds, Mobile Fleet and permanent Buildings costs were added as factored percentage per the overall direct cost (less the infrastructure cost associated with power supply and steam generation). Factored percentages are based on historical benchmarked averages.

Responsibilities

At the estimate completion, a review was undertaken by the Process Engineering discipline to ensure the estimate is aligned with the Scope of Work.

- The Estimating discipline assumed the following responsibilities:
- Development of an agreed WBS / processing are coding structure;
- Direct field labour rate calculations;
- Direct construction man hours;
- Productivity factor;
- Input all data into the estimate;
- Determination of Factors and Allowances;
- Foreign currency variations; and
- Preparation of the Basis of Estimate Report (this report).

Qualifications to the Estimate

The estimate has been prepared on the following basis:

- No allowance has been made for the following items:
  - Costs of finance or financial analysis;
  - Royalties and technology costs;
  - Additional Metallurgical test work;
  - Environmental studies, investigations, permits or liabilities;
  - Escalation;
  - Air freight;
  - Cost of decommissioning at end of project life;
  - Site closure or rehabilitation costs;

- Sunk costs – such as completed engineering studies;
- Costs of permits;
- Working capital;
- Legal fees;
- Resettlement Costs;
- Owners Costs;
- Land acquisition or rights of way; and
- Force majeure events including but not limited to civil unrest, riots, industrial disputes external to the project, acts of war, acts of terrorism, inclement weather and natural disasters; and
- Construction and Permanent Camp Infrastructure Facilities.

- No cost components of the estimate can be taken in isolation.

Detailed Capital Cost Estimate – Full Capacity Hydromet Plant

This estimate is based upon an assumed EPCM execution strategy. The EPCM contractor will place all orders for, and on behalf of U3O8 Corp., and all equipment items will be purchased new. Contracts will be structured in separate packages by major works disciplines such as earthworks; concrete construction; structural steelwork and plate work fabrication; mechanical and pipework erection; and electrical and instrumentation installation.

Mechanical equipment was sized and specified, and where single budget quotes were not obtained, prices were sourced from historical data. Historical prices include an allowance for the costs, including travel and accommodation, for vendor representation during commissioning and installation of the equipment. This allowance is required to satisfy vendor warranty conditions.

The Estimate includes costs such as:

- Contractor's mobilisation, demobilisation and site clean-up;
- Construction power reticulation (i.e. temporary switchboards, cables etc);
- Contractor's non-productive labour - time for inductions, training, toolbox meetings, clean up, mobile equipment operators and store persons; and
- Scaffolding and other access equipment.

Direct field labour is labour required to install the permanent equipment and bulk materials. Direct field installation man-hours have been derived predominantly from Tenova's knowledge of similar projects. For specialised equipment, these hours were built up from a task analysis, taking into account number of persons and duration.

The Productivity factor has been determined at 1.5, based on discussions with and direction from U3O8 Corp.

Construction unit rates were developed taking into consideration the statutory awards, on costs, site location and market conditions and include:

- Base rate;
- Statutory on costs;
- Site allowances;
- Contractor's overheads;
- Contractor's profit;
- Messing and accommodation (excluding Construction Camp);
- Consumables;
- Construction equipment; and
- Safety equipment.

These rates were then built into a notional gang rate which is made up of a blend of local personnel. An overall Gang-Rate of $80.00 per man-hour was used based on the most recent historical rates available. The Gang-Rate includes supervisors, foremen, trades persons and trades assistants.

An allowance has been made for contractor mobilisation and demobilisation costs within all rate build ups.

Indirect Costs Sourcing

All indirect costs, except for EPCM and Contingency, are factored as a percentage of the direct costs, based on benchmarked historical information.

EPCM cost is estimated at a percentage of Direct Costs, excluding the cost of Vendor Package plants and infrastructure cost associated with power supply and steam generation.

Contingency is based on 20% of the total Direct and Indirect costs.

Capital Cost Estimate – Reduced Capacity Hydromet Plant

From the detailed Full Capacity Plant Capex, an estimate was generated to appraise the Capex associated with a plant treating 4.4Mt of mineralised material, or in the order of 50% of the Full Capacity Plant throughput referred to as the Base Case Plant.

The summary below relates to the Hydromet Plant facilities for the Base Case Plant.

30.1.1 Summary by Facilities

Facility	Description	Total ($)	% per Direct cost
	Direct Cost excl. Beneficiation Circuit:	**79,052,371**	
100	Guanaco Beneficiation Plant	Excluded	
150	Lago Seco Beneficiation Plant	Excluded	
200	Concentrate Dewatering	5,576,475	7.1%
260	Gypsum Leaching & Sulphate Removal	19,263,486	24.4%
300	Leach Feed Adjustment	2,180,059	2.8%
400	Leach Circuit	1,294,990	1.6%
500	Post Leach Solid / Liquid Separation	8,682,274	11.0%
600	PLS Membrane Plant & Lime Treatment	5,953,503	7.5%
700	SDU Precipitation	1,179,565	1.5%
710	SDU Re-dissolution	284,203	0.4%
720	Redcake Precipitation	261,970	0.3%
730	Uranyl Peroxide Precipitation	8,544,032	10.8%
740	Secondary SDU Precipitation	242,621	0.3%
750	Ammonium Meta-Vanadate Precipitation	8,544,032	10.8%
800	Reagents, Power Generation and General Infrastructure	15,521,138	19.6%
1000	Water Management	1,524,024	1.9%
	Indirect Cost:	**28,914,208**	
1010	EPCM	7,283,369	9.2%
1020	Insurances	79,052	0.1%
1030	Temporary Facilities	790,524	1.0%
1040	First Fills & Reagents	1,185,786	1.5%
1050	Spares	1,581,047	2.0%
1060	Contingency	17,994,430	22.8%
	Total Estimate:	**107,966,578**	

Estimating Methodology – Base Case Plant

In generating a Capex for the Base Case Plant, the proportional "two-thirds rule" was primarily applied to the Full Capacity Plant Capex to arrive at an estimate for the reduced capacity plant.

The proportional two-thirds rule works on the basis that approximate costs can be obtained if the cost of a similar item, of different size or capacity, is known. The rule is formulated as follows:

> *If an item of equipment (A) with size S_A has a known cost of C_A, then a similar item of equipment (B) with size S_B will have a cost (C_B) approximated as follows:*
>
> $C_B = C_A * (S_B / S_A)^{(2/3)}$

Each processing area was evaluated separately, the two-thirds rule applied where applicable, and exceptions dealt with as outlined below:

a. It was agreed with U3O8 Corp. that the number of vacuum belt filters allowed in the Full Capacity Capex in area 260 and area 500 will be retained in the Base Case Plant Capex. In area 200 however, in-situ washing of filter cake is not required and the number of filters is halved, in line with the approximate 50% reduction in throughput.

b. In area 260:
   - number of filters retained, associated cost separated from rest of mechanical equipment;
   - membrane plant separated from rest of mechanical equipment, revised cost obtained from supplier;
   - two-thirds rule applied to Tanks and Platework and balance of Mechanical Equipment; and
   - all factored commodities (e.g. Concrete Work, Structural Work, Pipe Work, Electrical and Instrumentation) estimated as before, on reduced values.

c. In area 500:
   - number of filters retained, associated cost separated from rest of mechanical equipment;
   - two-thirds rule applied to Tanks and Platework and balance of Mechanical Equipment; and
   - all factored commodities estimated as before.

d. In area 600:
   - membrane plant separated from rest of mechanical equipment, revised cost obtained from supplier;
   - two-thirds rule applied to Tanks and Platework and balance of Mechanical Equipment; and
   - all factored commodities estimated as before.

e. In area 730 and area 750:
   - cost for product drying/calcination/packaging Vendor Unit retained, separated from rest of mechanical equipment;

- two-thirds rule applied to Tanks and Platework and balance of Mechanical Equipment; and
- all factored commodities estimated as before.

f. In area 800:

- cost for Laboratory Equipment, Power Line and Reduction Station retained;
- two-thirds rule applied to Ponds, Cooling Towers and Steam Generation;
- two-thirds rule applied to Tanks and Platework and general Mechanical Equipment;
- Site Preparation/Bulk Earthworks, Mobile Fleet and permanent Buildings costs factored as before; and
- all factored commodities estimated as before.

g. In all other processing areas, throughput was halved, with no requirement for retention of original units or additional capacity, and the two-thirds rule has therefore been applied to the total cost for each of those areas.

h. Indirect Costs estimated as before

i. The Base Case Plant Capex is subject to the qualifications stipulated in Section 1.3.

Basis of Operating Cost Estimate

Operating Cost Estimate – Full Capacity Plant

This operating cost estimate is in line with a Scoping Study class estimate and is considered to be accurate to +/- 35%.

Initially the Opex was for a Hydromet Plant to treat a total of 9.6Mtpy of mineralised material – referred to as Full Capacity Plant. Mineralised material is upgraded in a Beneficiation Circuit, with concentrate processed in a Hydromet Plant to ultimately produce separate uranium and vanadium products.

The Beneficiation Circuit and its operation is costed separately by U3O8 Corp. (out of Brazil), with the Tenova Opex addressing the cost associated with operating the Hydromet Plant only.

The summary below relates to the annual cost of operating the Hydromet Plant only, utilising membrane technology for sulphate removal and at the initial full capacity, producing in the order of 1.24Mlb of U_3O_8 and 2.4Mlb of V_2O_5.

30.1.2 Operating Cost Summary

Cost Category	Annual Cost ($)	Cost per ton ($/t)	Cost per lb U_3O_8 ($/lb)	Percentage of Annual Cost
Labour	2,783,534	0.29	2.25	11.6%
Power	4,392,463	0.46	3.55	18.3%
Mobile Equipment	1,008,689	0.11	0.82	4.2%
Reagents	5,323,263	0.56	4.30	22.2%
Membrane Plants	5,218,996	0.55	4.22	21.8%
LPG for Steam Generation	1,728,640	0.18	1.40	7.2%
Water	325,308	0.03	0.26	1.4%
Operating Consumables	1,196,857	0.13	0.97	5.0%
Maintenance Costs	1,977,448	0.21	1.60	8.3%
TOTAL	**23,955,198**	**2.51**	**19.37**	**100%**

Scope

This Opex covers the costs associated with the operation of the Hydromet Plant circuits only. No allowance is made for costs associated with:

- mining and ore haulage operations
- plant tailings disposal
- concentrate product haulage
- operation of port facilities
- administration other than Hydromet Plant administration
- sustaining capital

The Hydromet Plant operating costs can be categorised as follows:

- Fixed cost of labour associated with Management and Administration, Processing operations and Maintenance;
- Variable cost of electrical power to the Hydromet Plant, provided from the national grid;
- Variable cost of mobile equipment associated with operation and maintenance of the Hydromet Plant ;
- Variable cost of Hydromet Plant requirements for reagents, LPG gas for steam generation, fresh, saline and desalinated water;
- Variable cost associated with operation of the Membrane Plants within the Hydromet Plant;
- Variable cost of Hydromet Plant requirements LPG gas for steam generation, fresh, saline and desalinated water;
- Variable Hydromet Plant operating cost in terms of processing consumables (screen panels, filter cloths etc);
- Fixed cost allowance for maintenance of the Hydromet Plant processing facilities, including spares.

The circuits contained within the Hydromet Plant are:

Facility	Description
200	Concentrate Dewatering
260	Gypsum Leaching & Sulphate Removal
300	Leach Feed Adjustment
400	Leach Circuit
500	Post Leach Solid / Liquid Separation
600	PLS Membrane Plant & Lime Treatment
700	SDU Precipitation
710	SDU Re-dissolution
720	Redcake Precipitation
730	Uranyl Peroxide Precipitation
740	Secondary SDU Precipitation
750	Ammonium Meta-Vanadate Precipitation
800	Reagents, Power Generation and General Infrastructure
1000	Water Management

Plant Parameters

The Full Capacity Plant is based on plant throughput of approximately 9.6Mtpy of mineralised material, with Guanaco (G) mineralised material blended with Lago Seco (LS) mineralised material at a ratio of 2.6:1. At this ratio, 826,210tpy concentrate is treated in the Hydromet Plant.

The design of the Hydromet Plant is based on 7,400 operating hpy (hours per year), which relates to an overall availability of 84.5% and a nominal feed rate of 111.65tph concentrate.

Uranium and Vanadium parameters for the initial Full Capacity Plant design and Opex are tabled below:

Parameter	U_3O_8	V_2O_5
Guanaco Grade (ppm)	64	658
Guanaco Upgrade Factor	10.99 x	3.81 x
Lago Seco Grade (ppm)	114	729
Lago Seco Upgrade Factor	6.62 x	3.66 x
Blended Head Grade (ppm) at G:LS=2.6:1	78	678
Recovery Mineralised Material to Concentrate	80.07 %	32.69 %
Concentrate Grade (ppm)	722	2,562
Guanaco Leach efficiency	96.0 %	71.0 %
Lago Seco Leach efficiency	99.0 %	71.0 %
Recovery Concentrate to Final Product	94.06 %	50.28 %
Overall Recovery to Final Product	75.32 %	16.44 %
Production lbpy	1,236,842	2,346,456

Saline water, sourced from shallow local wells, will be filtered and sterilised and used for processing ore in the beneficiation plant and as feed to the desalination and potable water plants.

Fresh water, sourced from a shallow aquifer 30km from the project site, will be used as filter wash water where saline water cannot be used, and to make up reagents and flocculant.

Operating Cost Categories

Hydromet Plant Labour

The Hydromet Plant manning cost is based on the following organisational chart, developed in conjunction with U3O8 Corp., and on monthly salary rates as advised by them.

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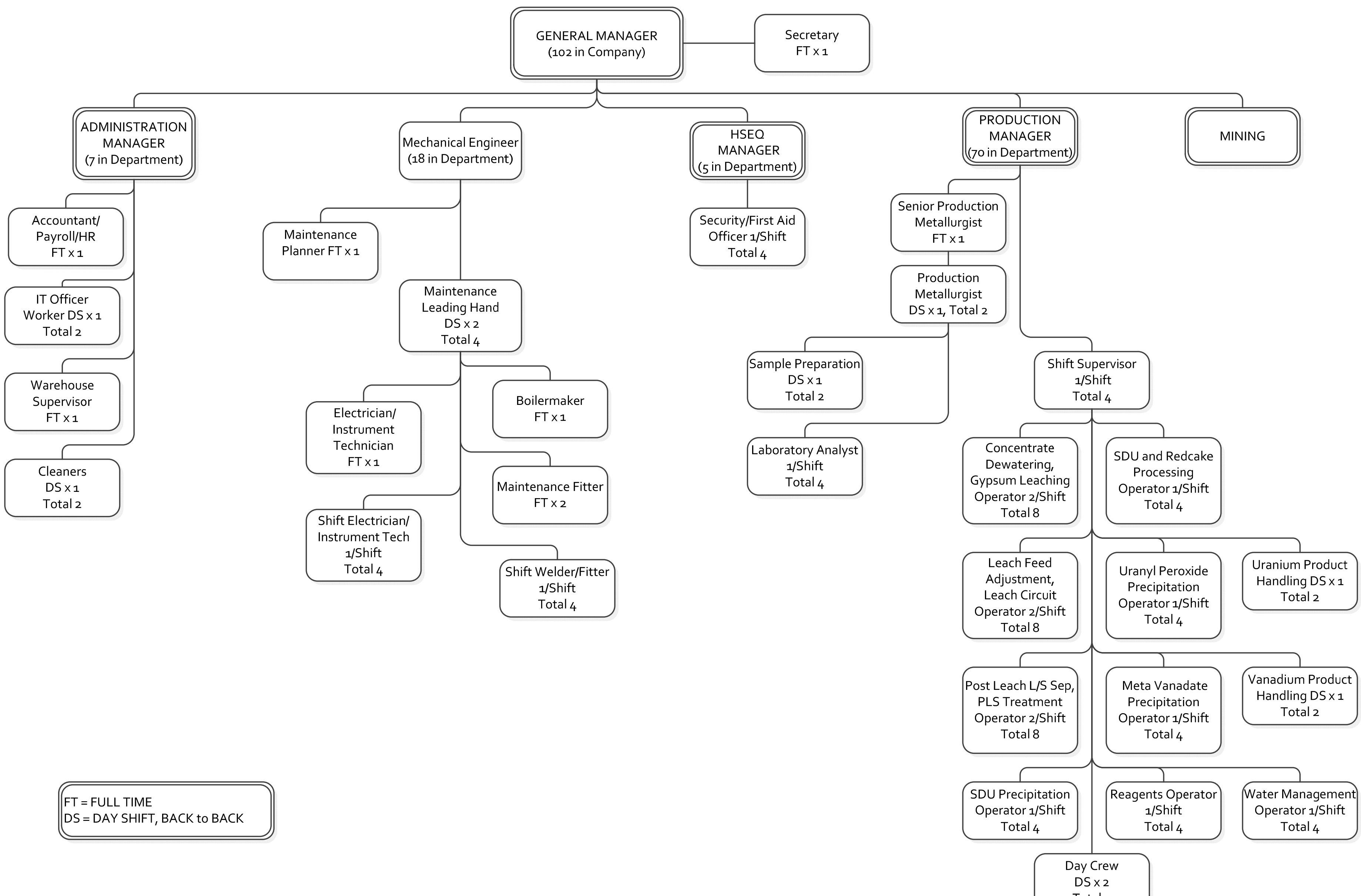
U3O8 CORPORATION LAGUNA SALADA ORGANOGRAM



Personnel contingent of 102 persons in total is divided in

- General/Administration duties – 14 positions;
- Processing/Production duties – 70 positions;
- Maintenance/Engineering duties – 18 positions.

Three different working rosters will be in place to cater for full time positions (five days on, two days off), back-to-back positions (total of 10 positions, eight days on, six days off) and a 24 hour, three panel roster for operational and maintenance personnel. Based on 42 hours per week on duty, these positions will require four persons on the payroll, with only one quarter of the three panel roster workforce on site at any given time.

Allowance is made for a passenger bus to provide transport to and from site, cost associated with this service is catered for under mobile equipment.

For each position the cost to company is based on total overheads of 27% and 13 salaries per year. Annual leave and sick leave are covered in the annual salary rates.

The annual cost to company for personnel required to manage, operate and maintain the Hydromet Plant amounts to $2,783,534.

Hydromet Plant Power

It has been established in conjunction with U3O8 Corp. that the most cost effective option will be to run the project on power from the national grid. The Capex Estimate makes allowance for a 70km wood power line to the project site, as well as an intermediate power reduction station.

The equipment list developed for the Full Capacity Plant incorporates a power list estimation of power requirements for the Hydromet Plant. Based on an average power factor of 0.82, and daily running times assumed for each item of equipment, it is estimated that approximately 62,750MWh of energy is required to process 826,210tpy of concentrate.

Total installed power for the Hydromet Plant is in the order of 11.63MW, of which 0.88MW accounts for essential standby items of equipment.

At grid power supply cost of $70/MWh, the power component of the Full Capacity Plant operating cost amounts to $4,392,463 per year.

Mobile Equipment

The allowance for mobile equipment caters for the bare minimum of vehicles and includes a flat tray truck with 10t crane for maintenance purposes, 2 x 4WD dual cab site utility vehicles also utilised as troop carriers, 5 x gators with trays for maintenance crews, 2 x forklifts for reagent and product handling, and a water truck. Allowance is made for one passenger bus to transport personnel to and from site, three round trips per day, and an ambulance to be on site.

Opex are based on $1.30/L for diesel, with added allowance for all running and maintenance (including tyre replacement) costs per vehicle. The annual allowance for running of mobile equipment is estimated at $1,008,689.

Reagents

- The membrane plant option to remove gypsum from the upgraded mineralised fines prior to leaching utilises sodium hydroxide, citric acid and proprietary chemicals for cleaning-in-place (CIP). These chemicals are included in the membrane plant operating cost.
- From the Metsim model developed to simulate the membrane option, the demand for fresh sodium carbonate in the leach adjustment circuit amounts to 3.40 kg/t concentrate, resulting in an annual cost of $1,181,040.
- Reagents required in other processing areas amount to $4,142,223 and include flocculant, calcium oxide in PLS lime treatment, caustic soda for SDU precipitation and refining circuit reagents. In the refining circuit, the SDU filter cake is leached in sulphuric acid, after which caustic soda and hydrogen peroxide are used to precipitate clean uranyl peroxide, and ammonium hydroxide to precipitate ammonium meta-vanadate.
- In total the allowance for reagents in the Full Capacity Plant, utilising membrane technology for sulphate removal, amounts to $5,323,263.

Membrane Plant Operating Costs

Labour, maintenance, power and potable water costs associated with operation of the membrane plants are included in those specific operating cost categories.

For the option where membrane technology is suggested for sulphate removal the cost of chemicals, laboratory cost and membrane replacement amounts to $1.058/m^3 of thickener overflow solution after gypsum leaching. For the Full Capacity Plant, this relates to an annual cost of $4,051,590.

The cost of running the PLS Concentration membrane plant is estimated at $0.707/m^3 of post leach thickener overflow and makes allowance for chemicals, laboratory costs and operational consumables in terms of membrane and cartridge filter replacement. For the Full Capacity Plant the annual cost amounts to $1,167,406.

Water

Filtered and sterilised saline water in the Full Capacity Plant is estimated at approximately 726 megalitre per year ("MLpy"), catering for desalinated and potable water requirements of 144MLpy and 20MLpy.

Fresh water is required at an estimated 555MLpy to operate the Full Capacity Plant.

The cost per ML for each of the different water qualities is as advised by U3O8 Corp.

It is assumed that saline water and fresh water will be supplied to the Hydromet Plant on a cost per unit basis of $130 and $200/ML. A portion of the saline water will be treated further to produce desalinated water at an estimate of $800/ML, and the 20MLpy of potable water will be produced on-site at an added cost of $225/ML.

Annual cost associated with water supply to the Full Capacity Plant amounts to $325,308.

Operating Consumables

Operating consumables allow for planned replacement of wear parts associated with the processing of plant feed material, as well as product drums (open top, sealable steel drums certified for shipment of uranium concentrate). Costs of wear parts are based on prices supplied by vendors and replacement frequencies predicted by suppliers.

Freight cost of 7.5% on average is allowed for delivery of consumables to site, amounting to a total allowance of $1,196,857.

Maintenance Cost

In addition to operating consumables (planned replacement), allowance is made for upkeep of mechanical and electrical equipment such as tanks, chutes, rubber lining, pumps, conveyors, motors, piping, valves and instruments, also for lubrication of moving parts. Maintenance cost further allows for mechanical and electrical replacement spares not considered as operating consumables.

Maintenance of plant infrastructure including civil works and structures, is deemed to be part of sustaining capital, which is not included in the Opex.

The PEA estimate for maintenance cost is factored from the supply price for mechanical equipment in each plant area, taking into account the capital value and the expected maintenance effort to arrive at an appropriate factor.

The annual allowance for maintenance costs amounts to $1,977,448 and relates to an average factor of 2.86 % of mechanical supply cost.

Alternative Technology for Sulphate Removal

- Two different technologies are considered for sulphate (gypsum) removal. The initial Opex is based on membrane technology and inclusive of chemicals, laboratory costs and membrane replacement the operating costs associated with this option amount to $\$1.058/m^3$ of thickener overflow solution after gypsum leaching.
- Another technology under consideration is the Ettringite process which involves the removal of sulphates by precipitation. Milk of lime and aluminium hydroxide are added to a solution already containing caustic soda to precipitate calcium sulphate as ettringite. The ettringite precipitate has the potential to be retreated with sulphuric acid to recover aluminium hydroxide for re-use.
- With no recovery of aluminium hydroxide, the total reagent consumption for ettringite precipitation amounts to $\$1.81/m^3$ of thickener overflow solution after gypsum leaching.
- From the Metsim models developed to simulate the two processing options it is evident that after ettringite precipitation, there is less calcium sulphate left in entrained solution going forward to the leach circuit than with membrane technology. In the membrane option more sodium carbonate is lost due to conversion of calcium sulphate to calcium carbonate in the leach adjustment tank, resulting in an increase in fresh sodium carbonate demand from the ettringite case of 0.89kg/t concentrate to the membrane option of 3.40kg/t concentrate.
- At similar PLS:concentrate ratios the model incorporating ettringite precipitation shows slightly higher recovery, from ore to intermediate SDU product, of uranium (77.9% vs 76.7%) and vanadium (18.9% vs 16.3%) than in the model incorporating membrane technology. This results in a slight increase in operating consumables in terms of product drums, based on 300kg product per drum.
- In comparison to the original Opex based on membrane technology for sulphate removal, it is envisaged that the ettringite precipitation option will
    - Cost in the order of $2 million less in terms of mechanical supply - $60,000 reduction in factored maintenance cost
    - Require one additional operator – $106,943 increase in labour cost
    - Motor drives will be smaller by a total of approximately 320kW – $186,322 reduction in cost of power
    - Consume ettringite precipitation reagents to the value of $\$1.81/m^3$, compared to membrane option operating cost of $\$1.058/m^3$ - $2,882,361 increase

- Consume 0.89kg/t sodium carbonate vs 3.4kg/t - $871,120 reduction
- Consume more saline and less fresh water - $21,408 reduction in cost of water
- Require in the order of 598 more product drums - $64,178 increase in consumables
-

- The table below compares the Full Capacity Plant operating cost associated with the ettringite technology to that of the membrane technology for sulphate removal.

Operating Cost Category	Unit	Membrane Technology	Ettringite Technology
FIXED COSTS			
Labour	$py	2,783,534	2,890,477
Maintenance	$py	1,977,448	1,917,448
VARIABLE COSTS			
Power	$py	4,392,463	4,206,141
Mobile Equipment	$py	1,008,689	1,008,689
Sulphate Removal by Ettringite Precipitation:			
Calcium oxide and aluminium hydroxide	$py	-	6,933,951
Sulphate Removal by Membrane Technology:			
Caustic soda, citric acid, CIP chemicals for membrane sulphate removal plant	$py	732,258	-
Membrane replacement plus laboratory costs	$py	3,319,332	-
Fresh sodium carbonate demand	$py	1,181,040	309,920
Other reagents (flocculant, caustic, liming, refining circuit)	$py	4,142,223	4,142,223
LPG for Steam Generation	$py	1,728,640	1,728,640
Water	$py	325,308	303,900
Operating Consumables	$py	614,422	614,422
Product Drums	$py	582,435	646,613
PLS Concentration Membrane Plant	$py	1,167,406	1,167,406
TOTAL		23,955,198	25,869,830

Utilisation of the ettringite technology for sulphate removal may increase the annual operating cost by $1.9 million, but at a potential increase in production of 18,655 lbpy U_3O_8 and 376,629 lbpy V_2O_5.

Both technologies will be tested and evaluated further in the next phase of the project.

Base Case Plant and Mine Plan

From the detailed Full Capacity Plant Capex and Opex, estimates were needed to assess the costs associated with a plant treating on average 4.4Mtpy, or in the order of 50% of the Full Capacity Plant throughput referred to as the Base Case Plant.

- Once the Base Case Plant Capex was established, a year-by-year operating cost projection in line with the mine plan was developed, taking into account both tonnage throughput and uranium grade variation for life of mine of 10 years - variation in vanadium grade was disregarded.
- For simplification the following methodology is applied:
  - Cost of reagents for ettringite precipitation are correlated to tonnage variation;
  - Cost of all other reagents are correlated to uranium grade variation and therefore production of U_3O_8;
  - All other variable costs (power, water, membrane plants, operating consumables, steam) are correlated to tonnage variation;
  - Labour costs are fixed, irrespective of tonnage and grade; and
  - Factored maintenance costs are fixed, but reduced pro-rata to reduction in direct capital costs for the Base Case Plant.
  -
  - The table below summarises the Full Capacity Plant Opex in terms of these parameters

Cost Category	Unit	Membrane Technology	Ettringite Technology
Full Capacity Plant Parameters			
Mineralised Material Tonnage Throughput	tpy	9,553,400	9,553,400
U_3O_8 produced	lbpy	1,236,842	1,255,497
V_2O_5 produced	lbpy	2,346,456	2,723,085
Variable Costs			
Reagents for Ettringite Precipitation	$py	-	6,933,951
Other Reagents	$py	5,323,263	4,452,143
Total for other operating cost categories	$py	13,870,953	9,675,811
Variable Costs per Unit			
Variable Cost correlated to ton mineralised material	$pt	1.452	1.739
Variable Cost correlated to lb U_3O_8 produced	$plb	4.304	3.546
Fixed Costs			
Labour	$py	2,783,534	2,890,477
Maintenance – pro rata to direct capital costs	$py	1,495,125	1,449,759

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The current (Base Case) mine plan for the first ten years of operation indicates an average ore throughput of approximately 4.4Mtpy. The table below lists the average parameters associated with the Base Case mine plan:

Parameter	U_3O_8	V_2O_5
Guanaco Grade (Average ppm)	83.2	566.2
Guanaco Upgrade Factor	10.99 x	3.81 x
Lago Seco Grade (Average ppm)	97.0	779.7
Lago Seco Upgrade Factor	6.62 x	3.66 x
Blended Head Grade (Average ppm at G:LS=2.8:1 for first 8 years, then Guanaco ore only)	90	617
Recovery of Mineralised Material to Concentrate - Average	81.97 %	32.34 %
Concentrate Grade (Average ppm)	864	2,360
Guanaco Leach efficiency	96.0 %	71.0 %
Lago Seco Leach efficiency	99.0 %	71.0 %
Recovery Concentrate to Final Product – Average*	93.6 %	50.28 %
Overall Recovery to Final Product – Average*	76.72 %	16.26 %
Production lbpy - Average	638,030	959,717

- *For processing option utilising membrane technology for sulphate removal

The average annual Opex associated with the Base Case mine plan, specifically for the processing option where membrane technology is utilised for sulphate removal, can be calculated as indicated below:

Cost Category	Unit	Rate	Annual Cost ($py)
Base Case Plant Parameters			
Mineralised Material Tonnage Throughput	tpy	4,380,788	
U_3O_8 produced	lbpy	638,030	
Variable Costs			
Variable Cost correlated to ton of mineralised material	$pt	1.452	6,360,904
Variable Cost correlated to lb U_3O_8 produced	$plb	4.304	2,746,081
Fixed Costs			
Labour	$		2,783,534
Maintenance – pro rata to direct capital costs	$		1,495,125
Total Operating Costs	$		13,385,644
Average Opex per lb U_3O_8 produced	$plb	20.98	

The following table shows the Opex per year expected for the first ten years of operation, based on the Base Case mine plan throughput and grades.

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		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL	AVERAGE
ANNUAL PRODUCTION													
Guanaco Ore													
Ore Tonnes	t	2,497,219	3,330,844	3,330,844	3,329,625	3,329,625	3,329,625	3,330,844	3,330,844	4,389,938	4,383,844	34,583,250	3,458,325
U_3O_8 grade	ppm	241	142	104	82	69	63	57	52	46	42	83.2	83.2
V_2O_5 grade	ppm	818	698	608	530	523	529	520	523	509	504	566.2	566.2
U_3O_8	kg	600,597	471,557	347,413	272,079	230,602	208,245	188,496	171,807	203,101	183,921	2,877,817	287,782
V_2O_5	kg	2,042,822	2,326,287	2,024,366	1,766,041	1,741,511	1,761,215	1,730,910	1,742,326	2,235,820	2,210,481	19,581,778	1,958,178
Mass Pull		7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%	
U_3O_8 recovery		84.60%	84.60%	84.60%	84.60%	84.60%	84.60%	84.60%	84.60%	84.60%	84.60%	84.60%	
V_2O_5 grade recovery		29.30%	29.30%	29.30%	29.30%	29.30%	29.30%	29.30%	29.30%	29.30%	29.30%	29.30%	
Guanaco Concentrate													
Tonnes	t	192,286	256,475	256,475	256,381	256,381	256,381	256,475	256,475	338,025	337,556	2,662,910	266,291
U_3O_8	kg	508,105	398,937	293,911	230,179	195,089	176,176	159,468	145,348	171,823	155,597	2,434,633	243,463
V_2O_5	kg	598,547	681,602	593,139	517,450	510,263	516,036	507,157	510,502	655,095	647,671	5,737,461	573,746
U_3O_8 grade	ppm	2,642	1,555	1,146	898	761	687	622	567	508	461	914	914
V_2O_5 grade	ppm	3,113	2,658	2,313	2,018	1,990	2,013	1,977	1,990	1,938	1,919	2,155	2,155
U_3O_8 UPgrade		10.99	10.99	10.99	10.99	10.99	10.99	10.99	10.99	10.99	10.99	10.99	
V_2O_5 UPgrade		3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81	
Guanaco Leaching													
U_3O_8		96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	
V_2O_5		71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	
Lago Seco Ore													
Ore Tonnes	t	888,250	1,185,750	1,182,563	1,184,688	1,183,625	1,184,688	1,183,625	1,231,438			9,224,625	1,153,078
U_3O_8 grade	ppm	193.5	138.1	113.0	92.7	80.0	70.7	62.8	51.0			97.0	97.0
V_2O_5 grade	ppm	962.4	978.2	937.8	782.2	755.6	635.5	649.8	589.1			779.7	779.7
U_3O_8	kg	171,853	163,778	133,646	109,793	94,665	83,735	74,303	62,807			894,580	111,823
V_2O_5	kg	854,862	1,159,931	1,109,064	926,699	894,329	752,865	769,108	725,493			7,192,351	899,044
Mass Pull		11.10%	11.10%	11.10%	11.10%	11.10%	11.10%	11.10%	11.10%			11.10%	
U_3O_8 recovery		73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%	73.50%			73.50%	
V_2O_5 grade recovery		40.60%	40.60%	40.60%	40.60%	40.60%	40.60%	40.60%	40.60%			40.60%	
Lago Seco Concentrate													
Tonnes	t	98,596	131,618	131,264	131,500	131,382	131,500	131,382	136,690			1,023,933	127,992
U_3O_8	kg	126,312	120,377	98,230	80,697	69,579	61,545	54,613	46,163			657,517	82,190
V_2O_5	kg	347,074	470,932	450,280	376,240	363,098	305,663	312,258	294,550			2,920,094	365,012
U_3O_8 grade	ppm	1,281	915	748	614	530	468	416	338			642	642
V_2O_5 grade	ppm	3,520	3,578	3,430	2,861	2,764	2,324	2,377	2,155			2,852	2,852
U_3O_8 UPgrade		6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62			6.62	
V_2O_5 UPgrade		3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66			3.66	
Lago Seco Leaching													
U_3O_8		99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%			99.00%	
V_2O_5		71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%	71.00%			71.00%	
Leach Product													
U_3O_8	kg	612,830	502,152	379,402	300,862	256,169	230,058	207,156	185,236	164,951	149,373	2,988,189	
V_2O_5	kg	671,391	818,299	740,828	634,520	620,086	583,406	581,784	571,587	465,118	459,846	6,146,864	
Recovery Leach Product to Final Product													
U_3O_8		96.85%	96.85%	96.85%	96.85%	96.85%	96.85%	96.85%	96.85%	96.85%	96.85%	96.85%	
V_2O_5		70.82%	70.82%	70.82%	70.82%	70.82%	70.82%	70.82%	70.82%	70.82%	70.82%	70.82%	
Final Product													
U_3O_8	kg	593,526	486,335	367,451	291,385	248,099	222,812	200,630	179,401	159,755	144,668	2,894,061	289,406
V_2O_5	kg	475,479	579,519	524,654	449,367	439,145	413,168	412,020	404,798	329,396	325,663	4,353,209	435,321
Recovery ORE to Final Produt													
U_3O_8		76.84%	76.55%	76.38%	76.30%	76.28%	76.31%	76.34%	76.47%	78.66%	78.66%	76.72%	
V_2O_5		16.41%	16.62%	16.74%	16.69%	16.66%	16.43%	16.48%	16.40%	14.73%	14.73%	16.26%	
Blended Ore Tonnage	t	3,385,469	4,516,594	4,513,406	4,514,313	4,513,250	4,514,313	4,514,469	4,562,281	4,389,938	4,383,844	43,807,875	4,380,788
Blended Ore U_3O_8 grade	ppm	228.2	140.7	106.6	84.6	72.1	64.7	58.2	51.4	46.3	42.0	86.1	89.5
Blended Ore V_2O_5 grade	ppm	855.9	771.9	694.2	596.5	584.0	556.9	553.8	540.9	509.3	504.2	611.2	616.8
Total Concentrate Tonnage	t	290,882	388,093	387,739	387,881	387,764	387,881	387,857	393,165	338,025	337,556	3,686,844	368,684
Concentrate U_3O_8 grade	%	2,181.01	1,338.12	1,011.35	801.47	682.55	612.87	551.96	487.10	508.32	460.95	838.70	863.6
U_3O_8 UPgrade	factor	9.56	9.51	9.49	9.47	9.47	9.48	9.48	9.47	10.99	10.99	9.74	9.8
Concentrate V_2O_5 grade	%	3,250.88	2,969.74	2,691.03	2,304.03	2,252.30	2,118.43	2,112.67	2,047.62	1,938.01	1,918.71	2,348.23	2,360.3
V_2O_5 UPgrade	factor	3.80	3.85	3.88	3.86	3.86	3.80	3.82	3.79	3.81	3.81	3.84	3.8
Total uranium product as lb U_3O_8	lb	1,308,499	1,072,183	810,090	642,393	546,965	491,215	442,314	395,512	352,198	318,937	6,380,305	638,030
Total vanadium product as lb V_2O_5	lb	1,048,250	1,277,620	1,156,663	990,683	968,148	910,879	908,347	892,425	726,194	717,963	9,597,172	959,717

ANNUAL OPERATING COST	Basis	Value	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL	AVERAGE
Labour	Fixed	2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$2,783,534	$27,835,338	$2,783,534
Power	$/t ore	0.46	$1,556,571	$2,076,640	$2,075,174	$2,075,591	$2,075,102	$2,075,591	$2,075,663	$2,097,646	$2,018,406	$2,015,604	$20,141,987	$2,014,199
Mobile Equipment	$/t ore	0.11	$357,452	$476,881	$476,545	$476,640	$476,528	$476,640	$476,657	$481,705	$463,508	$462,865	$4,625,423	$462,542
Reagents	$/kg$U_3O_8$	9.49	$5,631,668	$4,614,585	$3,486,557	$2,764,805	$2,354,091	$2,114,148	$1,903,681	$1,702,248	$1,515,831	$1,372,680	$27,460,294	$2,746,029
LPG for Steam Generation	$/t ore	0.18	$612,584	$817,255	$816,678	$816,842	$816,650	$816,842	$816,871	$825,522	$794,337	$793,235	$7,926,816	$792,682
Water	$/t ore	0.03	$115,280	$153,797	$153,688	$153,719	$153,683	$153,719	$153,724	$155,353	$149,484	$149,277	$1,491,724	$149,172
Maintenance	Fixed	1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$1,495,125	$14,951,247	$1,495,125
Operating Consumables	$/t ore	0.13	$424,134	$565,842	$565,443	$565,557	$565,423	$565,557	$565,576	$571,566	$549,975	$549,211	$5,488,284	$548,828
Membrane Plants	$/t ore	0.55	$1,849,472	$2,467,403	$2,465,661	$2,466,157	$2,465,576	$2,466,157	$2,466,242	$2,492,362	$2,398,211	$2,394,882	$23,932,122	$2,393,212
Total Operating Cost (No escalation)			$14,825,820	$15,451,061	$14,318,406	$13,597,969	$13,185,712	$12,947,312	$12,737,072	$12,605,060	$12,168,411	$12,016,411	$133,853,236	$13,385,324
Operating cost per lb U3O8 produced			11.33	14.41	17.68	21.17	24.11	26.36	28.80	31.87	34.55	37.68	20.98	20.98
Operating cost per t mineralised ore			4.38	3.42	3.17	3.01	2.92	2.87	2.82	2.76	2.77	2.74	3.06	3.06

Estimate Currency

The estimate was prepared in US dollars.

Escalation

No escalation has been included in the estimate.

Sustaining Capital

Tenova have made no provision for Sustaining Capital in the Opex Estimate.

Qualifications to the Estimate

The Estimate has been prepared on the following basis:

- No allowance has been made for the following items:
  - Contingency
  - Costs of finance or financial analysis;
  - Royalties and technology costs;
  - Environmental studies, investigations, permits or liabilities;
  - Escalation;
  - Air freight;
  - Cost of decommissioning at end of project life;
  - Site closure or rehabilitation costs;
  - Sunk costs – such as completed engineering studies;
  - Costs of permits;
  - Legal fees;
  - Resettlement Costs;
  - Owners Costs;
  - Land acquisition or rights of way;
  - Running cost associated with Construction and Permanent Camp Infrastructure Facilities; and
  - Safety equipment.