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Project Scope

E337697-PM407-50-128-0001

ANE Bulk Permanent Plant

Baffinland Iron Mines: Mary River Project

Bid No.: H337697-PM407

General Scope

Project Number	General – WBS TBC
Revision Number	04
Date	9/06/11

1 PROJECT DEFINITION

1.1 Project Requirement

1.1.1 Project Statement

The proposed project is to install a bulk Ammonium Nitrate Emulsion (ANE) plant for the Baffinland Island Mine (BIM) site consumption only. The product mix is based on annual product comsumption of 20 kTe/a with the ability to increase up to 35 k Te/a as required

The proposed plant production volumes are based on meeting the existing requirements through the operation of a single shift (12/7/335). The proposed plant will operate on a 14 days "in" / 14 days "out" manning schedule; however other operating schemes could be considered to meet the rotation schedule of the mine site. All planning should be based on an average daily production volume of 60 Te/day with the ability to increase production to 80 Te / day without impact on the overall operational or manning structure or modification to existing infrastructure. It is understood that in order to achieve this increased production rate that raw materials consumption may need to be adjusted.

1.1.2 Project Objectives

The deliverables at the end of this project will be an ANE plant capable of manufacturing 20 kTe/yr on a one shift per day, 7 days per week, 48 weeks per year basis. The plant will be capable of producing either a straight emulsion formulation or a 70/30 Blended product (an ANFO blend of 0 to 30%). The plant will be designed for a run rate of 60 Te/day, with a peak production rate of 80 Te/day for base emulsion not including additional AN for the 70:30 blend.

At the end of this project, the following main plant items will be installed and operational:

- Diesel Fuel Receiving Tank (40,000 liter capacity)
- DN20/DN14 Run Tanks (20 Te capacity)
  Based on heated IMO2 containers.
  Note: Drawing is based on an indoor 30Te Run Tank which could be supported via transfer from external IMO2 containers to support operations.
- ANS pH will be adjusted using Sulfamic acid
- Two ANS Make-Up Tanks with agitator and steam coils (30 Te capacity each)
- Fuel Phase Run Tank (6,000 liter capacity)
- Fuel Phase Metering Pump
- ELK mixer – 1,000 kg/min.
  Based on remote site location will have to store 1 year of ANP in bulk storage.
- Required storage area for up to 27.4M kg of AN Prill
- Gassing Solution Make-up Tank with mixer and transfer pump
- Water Lube Make-up Tank with mixer and transfer pump
- Utilities containers to operate the site e.g. steam, compressed air, electricity and water
    - (1) for the MMU Building
    - (2) for the Process Building
- Truck filling station capable of filling MMUs including weigh scale (drive through system)
- Boiler/steam capacity to operate plant (no boiling engineer needed) – packaged unit
- 40 hp air compressor package or enough to supply plant/MMU building
- All required safety equipment including fire extinguishers, safety showers, eye washes and first aid kits, working at height apparatus, etc.
- Appropriately Sized Production Process building (+/- 50' X 80')

- Maintenance Garage and Office (+/- 60' x 100')
- Truck parking for 3 MMU's
- (1) Wash Bay,
- (2) Maintenace bays
- (2) Offices, break room, wash room
- Locker and washroom sized for 14 men, 4 women (18 employees in total + spare capacity for contractors and visitors)

Drawing References:	40-D-11-726 sheet 1 of 3	Site General Arrangement
	40-D-11-726 sheet 2 of 3	Process Plant General Arrangement
	40-D-11-726 sheet 3 of 3	Garage/WashBay General Arrangement
	40-D-11-727 sheet 1 of 1	Process Flow – Process Plant
	30-D-11-725 sheet 1 of 1	Process Flow - Water Treatment

1.1.3 Project Constraints

Land must be secured (including zoning) prior to Orica's capital sanction request and project start.

Winter construction would significantly affect project costs and schedule. It is assumed the major outdoor activities will be completed before severe winter weather sets in.

The time frame to economically deliver process equipment and construction materials to the site by sea is restricted to a short three to five month period. As a result, unplanned delays related to project approvals and transport delays will create a major threat to successful implementation. Approvals to commence the design of the permanent plant should be obtained no later than the spring of 2015 to meet the 2016 delivery date.

This short time frame also applies to ship raw materials to the site. The amount of raw material storage must be sufficient to hold 365 days' supply plus 25%. Any deviations in the production forecast or abnormally high scrap rate will cause stock outs and delivery issues.
It is assumed the environmental assessments (Phase 1 & Phase 2) do not present any significant concerns. (If ground/soil is contamianted prior to project start, it will not be Orica's responsibility to clean. All we need to do is to baseline where we will be) (Item to be completed by operations team).

1.2 Site Data

BIM will provide transportation to and from Iqaluit and the Orica plant. BIM will also provide all accommodations and meals for Orica`s employees (including subcontractors during the construction and commissioning periods as well as during plant operation).

The proposed site location is located approximately 160km south of the community of Pond Inlet (Mittimatalik) and 1000km northwest of Iqaluit, the capital of Nunavut. Project facilities will be sited in the mine area at Mary River. Site conditions will play a significant role in the planning and execution of the project. The area experiences bitter cold in winter and 24-hour darkness from November to January. Summers bring 24-hour daylight from May to August but continued cool to cold conditions.

Expected climatic conditions include temperate extremes ranging from 25 C in the summer months to -54 C in the winter months (average monthly high of 10 C and average monthly low of -37 C).

Mean annual precipitation is 191 mm with the majority falling in the July to September months.

Snow fall peaks in October.

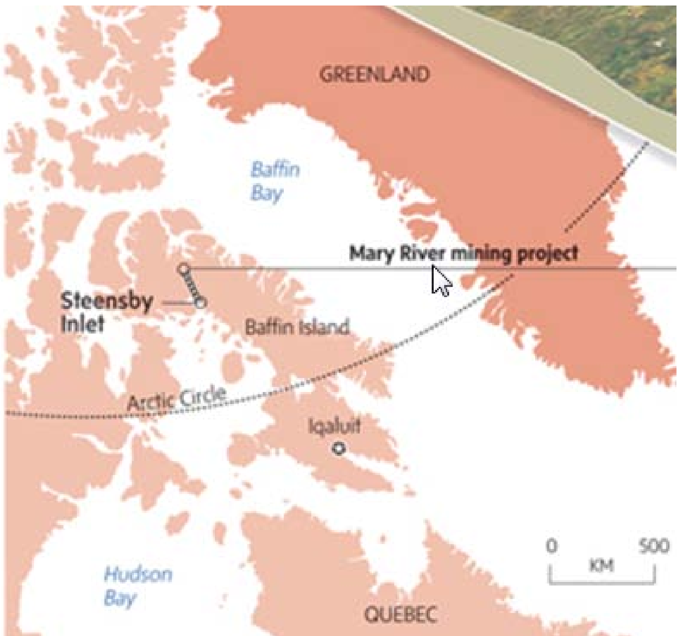
Wind should be considered as a potentil issue at this site.

The majority of snow clearing will be the responsibility of the mine. Minor snow removal equipment is in scope.

Buildings will be designed to meet all civil requirements and be approved by appropriate regulatory agencies.

Accomodations will be required on site.

Electricity, process water, potable water and sewage treatment will be provided by BIM.



1.3 Control Philosophy

The control philosophy for the plant will combine both PLC and programmable electronic systems technology, including critical safety trips meeting Orica's safety instrumented systems (SIS) model procedure MP-ET-011. All temperature controls, alarms and level indicators will be linked to the PLC and will be visible to the operators via a Human Machine Interface (HMI).

ANS temperatures will be limited by boiler pressure steam relief (pressure not to exceed Basis of Safety (BOS) temperatures, i.e. 45 psi steam and pump trips will meet Orica pump guidelines.

The ELK process controls will replicate those from Orica's existing manufacturing plant in northern Quebec. Minimal problems are expected since this PLC program will have been refined over a five year run period by the time of the BIM plant start-up.

The plant will be capable of manufacturing a 70:30 blend (emulsion/AN) or straight emulsion directly into the MMU. A truck scale will be used to account for product weights loaded onto trailers and MMU's. An overhead storage tank designed to store up to 20,000kg of finished product will be included to ensure product is available when required and facilitate non-forecasted operations.

The ANS for use in the process will be manufactured on site using an established process to melt AN Prill and blend with appropriate levels of water and other chemicals. The tanks will have level indicators, high/low level alarms, and overflow protection. The ANS make-up tanks will be heated with steam passing through coils in the bottom of the tanks. A control/relief system will ensure no overheating of the solution. The ANS pumps will have high temperature trips.

Sulfamic acid will be added manually to the make-up tank.

Human Machine Interface for the Process

The oil phase, surfactants and diluents oils will be transferred from the tank trailers to the storage tank using pumps. The transfer will be manually controlled and the levels watched by the operator through the HMI. The tanks will be equipped with high level alarms and overflow protection.

The process temperature for the oil phase is 40 - 50°C and is achieved using an in-line heater as in the design of previous plants. Steam condensate will be used as the heating medium. The temperature of the oil phase will be controlled by the PLC.

Waste water from the manufacturing building sumps will be collected and the water evaporated using the evaporator design in the global catalogue. High temperature will be protected by the steam pressure relief system.

1.4 Technology Selection

It is anticipated that the ANE manufacturing module will be based on the ELK system for the emulsion products. However, the manufacturing module will be re-evaluated following a detailed review of BIM's requirements.

The MMUs will be a blend type (i.e. QuarryMaster or BlendMaster) with in cab controls.

1.5 Financial Criteria

A financial criterion is being developed and will be available by request.

1.6 Time to Beneficial Operation

The start date of the ANE plant will depend on the mine site planning. However, BIM is expecting the plant will be commissioned and operational by 2016. Time to Beneficial Operation is estimated to be 12 – 18 months from construction commencement, depending on the time of year the project is started. (See Section 1.1.3)

Winter weather during construction is likely to impede progress and affect project costs.

A detailed project schedule (in Micro Soft Project) will be developed and agreed prior to project acceptance.

1.7 Plant Capacity/Capability/Availability

A total emulsion production capacity of 20 kTe/yr is planned based on 335 days per year operation.

The planned product mix is being confirmed however will be based on an emulsion product line (either straight gassed emulsion).

Normal plant maintenance will occur during off-shift periods. If longer term maintenance is required or planned production requirements will be shifted to an alternate manufacturing location.

Critical spare parts wil be available and a comprehensive preventive maintenance plan will be implemented to avoid equipment downtime for both the production equipment and the MMU's.

1.8 Product Requirements

The plant will be capable of manufacturing bulk emulsion product direct to delivery truck and MMU.

The plant will also be able to manufacture a 70:30 blend directly into MMUs.

Additional details will be provided following the final agreement for the supply of product to the mine.

1.9 Raw Materials Sourcing

- To be confirmed.

1.10 Statutory Requirements

A site permit will need to be obtained from Natural Resources Canada's Explosives Regulatory Division. Approval in principal will be obtained as part of the FEL3 phase of the project.

Local and provincial regulatory permits will be prepared as needed. This will be determined by the local construction contracting company.

It is expected that Environmental permits will be secured by the mine. The construction of an explosives manufacturing facility should be included in the overall mine site's federal application under the CEAA. A baseline Phase II assessment will be required by Orica and will be performed by a third party contractor supplied by the mine site. Completion will be required prior to sanction estimate.

The ANE plant will be designed and constructed according to the most recent version of NRCAN's Guidelines for Bulk Explosives Facilities, Orica's model procedures and Orica's Bases of Safety Standards. The building layouts and process equipment will be reviewed as part of Orica's internal risk assessment process (i.e.: Hazard Study #1, #2, #3, #4, #5). The risk assessments will review and ensure the following items are addressed:

- Occupational Health Plan and Safeguards
- Environmental Plan and Mitigation
- Quantity of Explosive and Distance Standard
- Economic viability of the new plant
- Bases of Safety Guidelines are built into the process
- Industrial Safety Aspects (CSA, OSHA) are respected and built as designed.

2 PROJECT SCOPE

2.1 Scope of Works

Site Preparation

It is expected BIM will perform the following activities for the permanent plant (construction is included in the RFP, design is being confirmed):

- Transportation of equipment and materials from the St. Lawrence Marshalling Yard to the Orica plant.
- Site clearing,
- All roadwork leading to and around the site (including parking areas),
- Excavation,
- Concrete work (footings, foundations, slabs),
- Electrical power to the site (including 575 Volt transformer),
- Process and potable water to the site,
- Means of sewage,
- Telecommunication,
- Data communication,
- Related civil and structural engineering design for the above noted items.

Orica will provide the necessary details to BIM to complete the required civil and structural engineering design.

All site preparation activities will be confirmed and fully delineated in the finalized contract.

This site will require three separate areas: a) ANE Plant, b) Garage/Wash Bay parking, and c) Magazines.

Site preparation will be required for the ANE manufacturing plant and the Garage/Wash Bay Buildings (including the personnel parking areas).

Site preparation will be required for the explosive storage magazines (boosters, detonators, packaged product), which shall include all the necessary berms.

Secondary containment of the all internal tanks be provided by the foundation knee walls extending up to the height needed to provide the necessary capacity inside the production building (as per previous plant designs). The foundation and concrete floor will have to be designed accordingly with an appropriate sealant to enable this secondary containment.

Site Services

Services will need to be brought to the site. This includes:

- Water – The site will require 20,000 litres/day of process water and approximately 350 litres/truck for one normal truck wash. Thorough decontamination requires 750 litres/truck (refer to the spreadsheet entitled “water rates.xls). The water for the ANE site is to be supplied from a well on the plant site or other supply arrangments. If insufficient water cannot be drawn from the site’s well, the mine site would be required to provide and install appropriately sized and engineered holding tanks. The well will be provided by the Mine. Water to process quality, specification available upon request. No storage or surge tank will be required.

- Potable water – Will be supplied by the mine either because the well is of sufficient quality or bottles.
- Electricity – The site electrical requirements will be confirmed during the detailed engineering phase of the project. The Mine will bring this power to a pole to be located 25 m away from any building licensed for explosives and will have its own isolation.
- Telephone and data services will be brought to a pole 15 meters.
- Sewerage – An appropriately sized septic system will be installed by the Mine. The sizing of such is part of the scope of this project.

Rail works

No rail works are planned to service this site.

Drainage / Storm water

Care not to upset the normal course of water by the changes will be taken into account. This will be confirmed against Provincial and Municipal requirements.

Warehouse Storage

There is no plan for a warehouse.

Miscellaneous spare parts will be stored in the MMU parking garage. Spare tires will be stored in a sea container away from the other plant buildings.

Effluent System

All liquid wastes at the plant/process building will be collected in a sump and transferred into an appropriate container.

The waste water from the Garage/Wash Bay will be collected in a sealed concrete trench in the floor of the building.

The waste water from both the Process building and Garage/Wash Bay will be pumped into a stainless steel holding tank located in the Wash Bay and the solids will be separated using the Evaporation System. No solution containing nitrates will be discharged into the environment.

The remaining solids from the evaporation process will be disposed of in shot bags for “down-the-blast hole” disposal, as per the agreement with the mine site.

The proposed Evaporation System is a proven design and will be copied for other Orica sites.

A septic system will be installed for handling human effluent.

Solid wastes will be disposed of using existing mine site practices. The solid waste generated from the process is negligible (limited to Sulfamic Acid paper bags) and most of the plastic tote containers will be recyclable.

Non-conforming product from the process will be reworked or placed into shot bags. Minimal product waste is expected to be generated by the process following “wet” commissioning.

Evaporator Tank

Security and Fencing

The site will be located on mine site property and as such will be secured as part of the mine plan. Access to the mine will be controlled by the mine. The plant area will be secured by a chain-link fenced and gated, as per regulatory and SSAN requirements. Plant fencing to be installed by the mine

Process Equipment

Orica will deliver the complete process equipment package as outlined in section 1.1.2 to deliver 20 kTe/a of ANE product.

The work performed by Orica includes:

- Engineering & design,
- Fabrication of components,
- On-site construction,
- On-site installation and assembly of components,
- Construction Management and Supervision,
- Commissioning,
- Plant Start-up.

All engineering drawings will be reviewed and approved by an accredited professional engineer for the region.

The materials of construction for the plant and equipment will meet or exceed CSA requirements and will be adapted to the northern location of the site.

The process equipment's electrical systems will meet NRCAN's Guidelines for Bulk Explosives Facilities (with respect to electrical area classifications).

Process Building and Garage/Wash Bay

Orica will be responsible for the acquisition and erection of the two main plant buildings (as well as the three utility containers).

The dimension of the Process Building is expected to be 50' x 80' with an eave height of 22' to 24'.

It is expected the Process Building will have a mezzanine to support the manufacturing module, transfer auger system and day fuel phase tanks.

The dimension of the Garage/Wash Bay Building will be 60' x 100' with an eave height of 22' to 24'.

The Garage/Wash Bay Building will have space for parking a total of three MMU's (with one in the Wash Bay). This building will also house the evaporation system as well as the gasser solution and water lube make-up stations.

The buildings will be either a pre-engineered steel structure or a "fold-away" type building. The type of building will be determined following a cost analysis for the region.

The building supplier will provide the necessary structural drawings for BIM to prepare the foundation design.

The buildings will be designed to meet the wind and snow loads for the area. The buildings will also be designed to meet the requirements of the National Building Code of Canada (ex: insulation R-value, number of emergency exits, number of washrooms, etc.).

All architectural drawings will be reviewed and approved by an accredited architect.

The materials of construction and the electrical systems will meet NRCAN's Guidelines for Bulk Explosives Facilities. The various mechanical and electrical rooms will have the appropriate fire rated walls and doors.

Office and Amenities Buildings

A site supervisor's office, change room, and lunch room facilities will be part of the MMU Garage/Wash Bay. The offices will accommodate up to 18 people.

Typical Garage/Wash Bay Building (includes offices/change room)

Storage Buildings

See Warehousing

Workshop Buildings

No workshop building will be installed. A work area including a bench will be part of the MMU Parking garage. An Open Flame permit will be secured for the area where hot work will take place.

The necessary tools to maintain the site's process and mobile equipment will be included in this project. The tools will include a welding machine, pressure washer, miscellaneous mechanics tools, an air compressor, and a diesel forklift which meets the area classification.

QC Facilities

QC testing will be done on lab bench in the manufacturing building. The QC equipment required includes the pH measurement, two thermometers, two bench scales and a viscometer. A small Hobart machine will be included for technical support troubleshooting. This equipment will be standardized with what is used at other sites.

Ammonium Nitrate Solution System

ANS will be made on site through a melting process. Two or three 30Te SS tanks will be required to support this operation. This is based on the forecasted volumes and the duration of time to effectively prepare ANS for use in the manufacturing process. The tanks will have steam heating coils to keep the solution at the desired temperature. The tanks will be insulated with closed cell "Rockwool" insulation (hydrocarbon free) and clad with aluminium. Mineral wool will be used in nozzle and instrument areas.

All ANS tanks will be equipped with agitation systems, will be properly vented and will have a sampling valve. Water addition to the tanks will be provided to allow for formulation adjustment.

The piping arrangement will allow the recirculation of ANS as protection against agitator failure. It will also enable the transfer of ANS between the run tanks.

All pipe lines connecting the tanks and the process will be steam traced and insulated with "Rockwool" insulation and clad with aluminium. Mineral wool will be used in nozzle and instrument areas.

Process Water System

The site will require approximately 20,000 litres/day of process water (largely due to the "prill melt" process (refer to the spreadsheet entitled "water rate.xls" for the detailed calculations). In addition, the truck wash requirements will be 350 litres/truck for a normal wash and 750 litres/truck for decontamination. The process water is to be supplied via a well to be drilled on site and piped throughout the site. A mechanical water meter will be installed to control water addition to any of the ANS tanks.

Sulfamic acid addition / storage

Sulfamic acid (SAc) will be received in pallets of 25 kg bags and stored in a suitable container. The SAc will be manually added to only one of the ANS Batch tanks.

Oil phase System

A double walled 40,000l DFO receiving tank will be installed 25m from any explosives licensed building, including transfer pump and piping to the plant building.

DN20 or DN14 will be received in 20,000kg UN Portable containers (IMO2) annually. These containers will be moved into location where they can be transferred into an indoor receiving tank. The DN20 or DN14 receiving tank will be made from painted carbon steel and will not be agitated. A gear pump will be used to transfer DN20 or DN14 to a 6000l carbon steel (or plastic) fuel phase run tank.

All the storage and run tanks will be properly vented and will have a sampling valve. Secondary containment for these tanks will result from the knee walls extending up to the height needed to provide the necessary capacity. The piping arrangement will allow the recirculation of all oil phase storage tanks back to themselves.

A fuel phase tank will be installed to allow for mixing fuel oil and surfactant for those fuel phases including more than one component. The fuel phase will be heated using steam condensate and an in-line heat exchanger to warm the oil phase to the correct temperature specification.

Emulsion Production System

It is anticipated that the bulk ANE will be produced by mixing the fuel phase with the solution phase using a proven ELK technology capable to deliver 950 kg to 1,000 kg of emulsion per minute.

1,000 kg per minute ELK module

Gassing and Water Lube Systems

There will be a gassing system and a water lube system provided. It is planned for this equipment to be located in the MMU Storage building.

ANE Storage System

There is no provision for ANE storage in this scope. Fall protection will be installed at the tanker/ MMU loading station.

MMUs

There will be three blend trucks included in scope. The timing of the trucks is as follows: two trucks at plant start-up, a third truck 12 months after start-up.

Site Vehicles

Forklift all terrain (1)

Site pickup trucks (2)

Plant Lighting

Lighting will be installed at the unload stations, office, inside and outside of the manufacturing plant, and inside and outside the garage/wash bay building. The type of lighting will be determined by area classification and location of installation.

Emergency Lighting / Alarms

An audible alarm and visual alarm will sound at the emulsification module. The audible and visual alarm will notify all personnel on site if an emergency situation has occurred. It will also serve as a warning to others approaching the site of the building in which the emergency has occurred. All alarms will be linked to the PLC. As well, in order to meet ERD's requirement for process vehicles parked/stored with ANE, there may be the requirement for CCTV linked directly to the mine's gatehouse for security.

Communication Systems

There will be a telephone system installed, consisting of a single telephone line. Telecommunications will be provided via the Mine. There will be the requirement for a data system to enable access to SAP and other IT services.

Snow Clearing

Snow Clearing during construction will be the responsibility of the Mine.

Thereafter, the majority of snow clearing will be the responsibility of the Mine. Included in Orica's scope will be a snow plow for the on-site pickup truck and a snow blower.

2.2 SHE Requirements

Emergency Shower / Eyewash stations

One station will be located near the tank storage area at a distance less than 25 ft from ANS make-up area. A second station will be located in the manufacturing building – near the Acetic Acid transfer station. A third station will be located at the mezzanine level above the tanks if normal operations are to be carried out. An additional station will be located in the Garage/Wash Bay. Water to the safety showers will be tempered. An eyewash station will be located in the garage.

Fire Suppression

Several 20lb ABC fire extinguishers will be located strategically inside the process building, offices, wash bay and at all truck loading / un-loading stations. There will be no other form of fire suppression.

CO_2 Detector

A CO_2 detector will be provided for the Garage/Wash Bay and office. This will control the building emergency ventilation equipment.

Spill Clean-up

Spill clean-up kits will be provided for the acetic acid and oil phases.

Spills will be reported to the appropriate authorities.

All spills will be reported to the site supervision/management and will be investigated accordingly.

Environmental Assessments

Phase 1 and Phase 2 environmental assessments conducted as part of final project approval.

Hazard Studies

Hazard Studies I, II, III will be completed prior to project sanction. Hazard Studies IV and V will be completed as the project progresses. (Refer to section 1.10 for additional details)

On-Site Construction Safety

Orica will follow and adhere to the Mine's Site SHE Policy and Procedures (including "On-Site Construction Safety").

An Orica representative will be on-site to manage, monitor and audit the construction activities to enforce both the Mine's and Orica's SHE procedures. Such as,

- Deliver site SHE inductions to all trades,
- Develop/implement the construction site emergency plan,
- Ensure site safety meetings/tool box talks are being done,
- Create the necessary Permit to Work (including, but not limited to, Hot Work and Work at Height),
- Lead Job Safety and Environment Risk Assessments (JSERA's),
- Ensure proper use of equipment and tools,
- Report and investigate all incidents,

- Report all hours of work.

2.3 Timescale/Limitations

Estimated to be 12-18 months from construction commencement, depending on the time of year the project is started. (See Section 1.1.3).

Detailed timelines will be confirmed during the preparation of FEL 3.

2.4 Design Life

The plant building and tanks will have a useable life of 20 years. Plant equipment is expected to last 7-10 years.

2.5 Plant flexibility / Expandability

The layout of the plant uses a standard design. As this plant is capable of manufacturing all expected market requirements no further expansion of capability is planned. Additional production could be accommodated by extending from a single shift per day to multiple shifts.

Personnel on site are not planned to exceed ten. This includes the site supervisor and the lab technician / administrative support.

2.6 Resources and Timing

<u>Steering Team</u>

BPO	Charles Major
Business Representative	Stephane Marineau
Account Manager	Scott King
BPM	Stephane Marineau
Operation Representative	Jay Harvey
REM	Matthew Santini
Finance Representative	Nick Lioutas
SHE Representative	Isabelle Goyer
Logistics Representative	Glenn Watt
EET Representative	Travis Hillaby
Product Manager	TBD
Product and Process Support	Chris Kelly

<u>Project Team</u>

Project Owner	Charles Major
Project Manager	TBD
Capital Project Manager	Del Delaney

Engineering Services Manager	Mark Strever
Electrical Engineer	Ken Kohnken
Mechanical Engineer	Jorge Abrego
Project Engineer	TBD
Operations	Jay Harvey
Supply Chain	Glenn Watt
Plant Manager	TBD
SH&E	Isabelle Goyer
Hazard Studies	Rick Jarvis
Human Resources	TBD

2.7 Known Risks and Threats

- Construction during winter months would significantly increase the capital outlay. The estimate assumes all outdoor activity is completed in non-winter weather.
- There are no known risks from an environmental point of view.

2.8 Documentation

- Engineering documentation will include all drawings, plans, and operating and maintenance manuals.

2.9 Project Critical Success Factors

- Plant is commissioned on time and to the agreed scope.
- The plant is operating to the agreed resource model within 6 months of the RFBO date.
- The business plan is delivering its objectives within 6 months of the RFBO date.
- The project is delivered on budget.
- Customer's expectations have been met within 3 months of start-up.