



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

APPENDIX 4-E  
Workshop Materials

# **Shore Gold Star-Orion South Diamond Project**



## **Environmental Interests Workshop Summary Report**



*October 26, 2010 — Prince Albert, Saskatchewan*

# Shore Gold Star-Orion South Diamond Project Environmental Interests Workshop Summary Report



---

## Introduction

### Workshop Objectives

Workshops are a core engagement activity for gathering input from key stakeholders about the Environmental Impact Assessment. This workshop provided a forum for detailed discussion with key stakeholders that could not be accommodated at open houses or presentations. The objectives of this workshop are to:

- provide an update on the Project to stakeholder groups,
- give participants information about potential environmental effects and mitigation/enhancement strategies for key valued ecosystem components that have been identified through open houses and stakeholder/Aboriginal group meetings, and
- create a forum for community stakeholders and Aboriginal groups to provide input, express interests, ask questions and hear other participant perspectives.

### Rationale

Visitors at the February 2009 and June 2010 Open Houses were generally very enthusiastic about the prospect of a diamond mine; they would like to see it go forward under the appropriate environmental standards. Frequently asked questions related to the impact diamond mining would have on the environment and, more specifically, the impact of mining on water in the area. What impact would mining have on the Saskatchewan River, creeks and ground water (neighbouring wells)?

In addition to discussing potential effects to and mitigations for surface and ground water impacts, the workshop provided an opportunity for stakeholders and Aboriginal groups to:

- engage with others in discussion about the project, hear their perspectives and contribute collaboratively to mitigation strategies and,
- learn more about potential effects, mitigation or enhancement strategies on other environmental disciplines including: wildlife and socio-economics.



*Shore Gold Environmental Interests Workshop, October 26, 2010.*

## **Workshop Process and Overview**

### **Participant Selection**

A broad cross-section of stakeholders including Diamond Development Advisory Committee members (representatives from neighbouring communities), First Nation and Métis groups (who indicate the proposed project is within their traditional territory), land owners neighbouring the proposed project site, non-governmental community-based environmental organizations, health districts, school divisions, educational institutions, economic development agencies plus government agency reviewers were invited to participate. In summary, those individuals and organizations in close geography proximity to the proposed project and potentially interested in the project were selected for the participant list.

A letter was mailed out to individuals and organizations in September extending an invitation to attend. The week before the workshop follow-up phone calls were made to some organizations to encourage engagement. For those individuals who did not have their expenses covered by their employers or associations an honorarium was offered for one representative per organization. The letter of invitation and list of invitees along with the number of participants in attendance are contained in Appendix A.

Unfortunately, on October 26, Prince Albert and area experienced the first winter storm of the season and driving conditions were poor. A number of individuals who planned to attend the workshop stated that because of weather conditions, they were unable to travel.

### **Workshop Process**

Prince Albert was selected as the workshop location as it is geographically central for stakeholders and has suitable facilities to accommodate 50 plus individuals comfortably for an all-day session. The workshop was seven hours long with breaks for beverages/snacks and lunch. A large room at the Rawlinson centre was set up with a screen and projector, flip charts, tables and chairs. There was sufficient room for breakout sessions. Additional display materials with project information, from the 2010 Open Houses, were set up around the room. Participants were encouraged to view the materials to learn more about the proposed project and ask questions of staff and consultants.

Upon arrival participants at the workshop were asked to sign in and presented with a kit of information containing the day’s agenda, an evaluation form, Star-Orion South Diamond Project proposal information from the 2010 Open Houses, two different maps of the site and the four slide presentations. Copies of the information contained in the kits are available in Appendix B.

The morning was an information session with four presentations on mining and processing activities, the Environmental Assessment process, water effects - mitigation and management and other environmental - effects and mitigation management. The morning concluded with a question and answer period. In the afternoon, workshop attendees were invited to participate in three round table discussions to share additional information and gather feedback about: ground/surface water; wildlife/biophysical; and socio-economics from stakeholders (see agenda in Appendix A).

## Workshop Outcomes

### Facilitated Question and Answer Session

Workshop participants were invited to comment and ask questions of the project team following the morning presentations (contained in Appendix C). Table 1 presents the questions or comments and the responses given.

**Table 1: Questions and Responses**

Question or Comment	Shore Gold Response
Representatives of James Smith Cree Nation (JSCN) stated that they were attending as observers only and wished to have the presenters bring the workshop to their community.	It was acknowledged that the workshop did not constitute consultation by the Crown and indicated that the presenters could bring the workshop to the community on request. (Certain maps and representations at the workshop were provided to Tracy Campbell as per her request.)
What is the location of Caution Creek?	The location was shown on a map to be NW of the overburden pile.
After the Star-Orion South pits are mined, will Shore Gold be finished mining in the area?	There are 70 kimberlites in Fort à la Corne (FALC). The Star and Orion South pits were most advanced in the exploration phase and therefore are the focus of the mine development. There are “inferred” mineral resources but there is not enough information available yet to know if these other resources are feasible to development. There are also “other” mineral resources with even less information about the feasibility of developing. We may find through our exploration activities that other kimberlites in FALC are feasible to develop after the 22 years of mining Star and Orion South. These would be mined in accordance with separate environmental assessments/conditions which would have to be

	outlined by the provincial and federal regulators as appropriate in each case, and any such future development was highly speculative at this juncture.
For the cumulative effects assessment are you looking at other leaseholders and additional exploration activities?	To assess the cumulative effects, we are only able to look at activities in the region that are proposed (and announced in the public domain) for the future. This will include known forestry activities, the power line, as well as our exploration activities. We are constrained by the 43-101 regulations about what can be stated about possible future development of other mine pits in this region. Any future mine development will be subject to its own environmental impact assessment.
What about underground mining at Orion-South?	We don't know the economics of the underground operations so we need to do further assessment to know if this is feasible. We believe that the conditions are not good for underground mining due to the amount of dewatering that would be required. In any case an underground operation, if feasible, would occur in the very distant future.
How do you mitigate ground water effects?	The impacts would be expected to appear gradually over a long period of, so we would monitor the effects and get better information for our ground water models. We completed a well water survey in 2009 and will use this information to inform our models. We will continue to discuss appropriate mitigation measures with landowners, which measures include various options. We would mitigate effects to landowners.
The loss of wildlife habitat was calculated as a proportion of what area?	This is a proportion of the elk, deer and moose management units which is defined as FALC.
Is wildlife habitat loss for each species cumulative or do these areas of loss overlap?	The areas overlap. The total direct loss of habitat would be 4% of FALC.
Is the total area lost (4400 hectares (ha)) going to be bermed?	Yes, the 4400 ha would be off limits to other users subject to project approvals.
Will the pollutant emissions to air (projected Green House Gases) be projected annually during operations?	Yes, this is an important part of the Environmental Impact Study (EIS). We do not have this information right now but the difference between the Star-Orion South project and other mining projects is that our power would be sourced from the electrical grid rather than from diesel power generators and therefore would have relatively fewer emissions. Sources of emission from the project would primarily be diesel trucks and other equipment. The project would require 2 diesel B-

	train trucks of fuel weekly throughout the operations phase. We would report pollutant releases to the National Pollutant Release Inventory (NPRI).
How close is the footprint from the Saskatchewan River and will access to the river be restricted?	The overburden pile would go over the existing Lars Road which provides access to the Saskatchewan River currently. This road would be re-aligned so that access to the north side of the River was maintained. The Star pit would be the closest mine facility to the river and the top of the pit slope would emerge 500 meters from the top of the riverbank. We acknowledge that this is close, which is one of the reasons why we would backfill this pit on the south end of the pit slope first to contribute to the stability of the bank. Clifton Associates are studying the stability of the overburden pile.
Will you be consulting with the JSCN about their proposed dam and the results of the dam on this project?	It is our understanding that the proposal for the dam project has not yet been filed with government agencies. We don't have enough information about the dam to include details in the cumulative effects assessment, except to discuss potential effects in a qualitative or very general way. We want to work with JSCN, their partners and SaskPower to try to agree to use power generated from a dam should it proceed, if this is helpful to their project so the end result could be mutually beneficial.
How does the pilot water quality compare with the Mannville aquifer water quality in the ecotoxicity estimates?	The exploration plant processed kimberlites in real conditions, including extraction of Mannville aquifer water. So the ecotoxicity testing is representative because it is based on real field data and conditions.
Will there be any thermal stratification of mixing the released water in the Saskatchewan River?	Yes, the Mannville aquifer water is warmer (12 <sup>0</sup> C) than surface water. There would be some low thermal effects, but minimal, as the amount of water released into the river would be less than 1% of the flows in the of river. We don't have specific information about the potential effects, but this will be considered in the EIS.
Will the Environmental Impact Assessment (EIA) at the national level be a comprehensive level assessment by the federal government?	Yes.
In light of the Red Chris decision, why is the power line being assessed separately?	We are addressing the power line as an ancillary development and will discuss it qualitatively in the cumulative effects assessment. The project description (for the power line) is expected to be

	submitted to the provincial government in December of this year. The power line was not included in the Star-Orion South project description and is considered a separate project.
Is back up power for the mine anticipated?	We believe the SaskPower system is robust and do not believe there would be a need for back up power. There would be a smaller ancillary power supply available in the event of power failure to keep security systems and emergency services running but not enough to maintain operations. This was accounted for in the feasibility studies.

### Break Out Sessions

Workshop attendees were invited to participate in three concurrent break out sessions in the afternoon to further discuss preliminary results of the environmental assessment and possible mitigation or enhancement measures. The break out sessions were organized to facilitate additional discussion about three key themes or interests that were identified through previous stakeholder involvement in the environmental assessment process (DDAC meetings, community open houses, etc.) and included:

- Ground/Surface water resource effects
- Wildlife and other biophysical effects
- Socio-economic effects

These three break out sessions were hosted at stations set up in different areas of the room. Each station had tables and chairs for participant seating, a station host and a recorder. The host provided an overview of the discipline area and facilitated the discussion. The recorder documented the key points of the discussion on a flip chart. During the three break out session periods, all three station discussions were running. Participants were able to visit all three stations or visit stations more than once, if they wished.

### Summary of Discussions

Discussions in the **Ground/Surface Water** session included:

- What water quality guidelines are expected?
- Will anything accumulate downstream?
- Ensure that all compounds added to the environment are considered.
- Consider mitigation of low flows in creeks.
- Wetlands and wetland inventory/compensation.
- Clarify that Orion South fines and process water is being placed in Star pit.
- Accurately describe the methods or plan to compensate well owners if effects are seen and outline how Shore Gold is going to determine if there is an impact to local water wells.
- Describe data going into the hydrogeological model.
- Detail plans for overflow of pit into the river.

- Details of groundwater monitoring network need to go into the EIS.

In the **Wildlife/ Biophysical** sessions, comments and concerns were focused on:

- Wetlands and wetland inventory/compensation?
- What will be the impact on wildlife; how much permanent loss of wildlife habitat; will there be improvements to wildlife habitat as a result of the project?
- What are the long term effects of the pit lake; will it support a fishery?
- How much effort was made to avoid creeks while planning?
- What will be the effect on wildlife/waterfowl that use the water in the holding ponds?
- Pipelines – are they going to be above or below ground?

**Socio-Economic** and land use discussion covered areas such as:

- Communities welcome development as there is lots of capacity in schools, hospitals, etc; an increase in population will preserve services.
- Boost in economic development activities to service industry, if it should come to region.
- Additional traffic will have an impact on road system; description of route upgrade into site.
- Minimal impact on hunting, fishing and bird watching in FALC with project.
- Car pooling and busing suggested to minimize additional traffic.
- Potential existing capacity for temporary accommodations and housing.
- What is the anticipated participation of local residents and Aboriginal people?
- Will the Diamond Development Advisory Committee still be utilized as community involvement mechanism?
- How will the effects of closure on the communities be mitigated?

## Ground/Surface Water Break Out Session



*Ian Judd-Henry, Senior Hydrogeologist, AMEC, leads discussion in ground/surface water session while Pat Springinotic, Saskatchewan Ministry of Environment, looks on.*

Tables 2 – 4 present the key discussions and questions from all three break out sessions.

**Table 2: Ground/Surface Water Break Out Session Summary**

Question or Comment	Response
What about putting tailings into the pit?	Shore is planning on placing fine processed kimberlite (PK) from Orion South (OS) in the Star pit.
Is there a chemical reaction of the kimberlite once it is brought to the surface?	The kimberlite weathers and can release metals; we are currently conducting long term leaching tests in the lab. Kimberlite neutralizes acid.
Have you looked at treatment of the water?	Yes. There is really only one option for reducing total dissolved solids (TDS), i.e. reverse osmosis. The cost of this is high, \$1-1.5 per meter cubed of water plus capital, and is not economic. In addition, it does not solve any issues with TDS; it concentrates them into a smaller volume, which then needs special handling.
What is the OB (over burden) chemistry?	The till is high quality reclamation material. The shale is saline and has high sodium levels (sodic) due to its deposition in a marine environment. The shale would be buried in the middle of the OB pile.
Would the sodic shale bind up metals?	Not expected at this point. The shale would be in the middle of the OB pile, and not in contact with the processed kimberlite.
Please clarify the drawdown lines, unclear in presentations.	Larger figures were shown, and lines were clarified.
Suggest monitoring wells at about the 25 m drawdown in the lower part of the lower till. (Vince Harper/Ian JH)	Noted.
Pit infilling- need to make sure the overflow into the river is fully described in the EIS.	Noted.
Connectivity of the aquifer- is there a potential for poor quality water to get into the other aquifers?	Yes there is the potential for Mannville water to reach other aquifers once the pit is complete, however, backfilling would reduce this potential. There is a connection between the aquifers in the paleochannel in the central part of the FALC; the pits would create a connection similar to the one that naturally exists in the paleochannel.
Is groundwater flow gradient always downward?	No, the gradient can be any direction depending on flow and pressures in the aquifers. Mannville characteristics- confined, well connected within itself.
What streams of water are going into the Duke reservoir?	All site water would be managed through the reservoir- process water, dewatering water, and site run-off.

All streams getting mixed- is there any problem with that?	The water quality of the mixed streams is currently being worked out, as the ground water (GW) model is hot off the press. Ultimately, the answer to the question “is there a problem with that,” will be answered by regulators based on the information provided in the EIS.
There are no guidelines for mining of diamonds.	Noted that there are provisions for establishing site specific criteria for each project.
Does forestry have guidelines for effluent discharge that could be applicable? Is it OK to use direct discharge in the River?	Victor Diamond Mine in Ontario is discharging lower TDS water using a diffusion structure; model at Victor was completed by the same consultants as we are using- model shows very long time for lake levels to reach steady state.
Would you have to wait until Orion South (OS) is done to fill Star lake?	No, backfilling would start as soon as Star is done.
Would need a description of monitoring network for permits.	Noted.
Cluff Lake is pumping in fresh water into a pit to fill it up faster. Would we consider that?	At this time, we are not planning any withdrawals from the Saskatchewan River. If the Saskatchewan Ministry of Environment (MOE) requests, we will look at it.
What about layering in the pit lake?	Layering will be considered in the EIS (thermo or chemclines) based on the backfilling plan.
Could the pit be filled with overburden (OB) so that fish habitat is improved? Would the stacking in pit be in one spot?	Yes, placement of OB would start from the south side of the Star pit and move toward the centre.
Don't want a stratified saline lake.	Noted.
Are there blasting impacts on wells?	No- shock waves do not travel well through glacial materials.
Any monitoring of water quality on wells?	Yes, water quality is monitored on site as part of existing permit conditions, and Shore plans on selecting certain individual privately owned wells for sampling.
What about Mannville recharge rate? How long will it take to recover?	Mannville is highly transmissive, and recovery is rapid.
Need a draft monitoring program in the EIS.	Noted.
Can you put the fines in first (OS fines back where the Star Kimberlite was)?	The logistics are difficult to accommodate placement of OS fines at the bottom of the Star pit. Also, all OB from OS would then have to go to the external OB pile. We are certainly looking at all options.
What about supplemental flow (pumping) in creeks if the flows are less than XXX? Victor uses this at their headwaters.	We are certainly open to ideas for mitigation, as this is one of the objectives of the workshop.

What water quality criteria are we going to use?	No specific guidelines identified for diamond industry- expect similar to mineral industry effluent guidelines. Up to proponent to show that releases are not deleterious- site specific criteria may be appropriate. Use due diligence to ensure that it remains non-deleterious. Any enforcement would consider due diligence and policies if there was an effect.
Are all creeks fed by shallow groundwater system?	Yes, the worst case is presented in the EIS on these.
How will stream flow be affected?	Table in presentation show estimates.
How does this drop affect terrestrial habitat?	Effect is accounted for in EIS- would increase area of dry habitats at the tops of the hills, and reduce area of 'fresh' habitats in the upper slopes.
How will rare and endangered be impacted by changes in groundwater?	Effects still under consideration, however rare and endangered plants are dependent on specific microhabitats, no new habitat types will be created, and changes will be within the existing range of variability in the forest.
How many creeks with reduced flow may affect navigability?	Do not expect any significant changes in navigability. The diffuser is planned to be about 70 m from shore and only have a minor effect on navigability. If appropriate, we could mark the end of the pipe.
Will changes in runoff to the Sask River affect navigability?	No.
Would the diffuser structure create weird currents in the River?	No. The discharge pipe would only be expected to have a minor effect on flow. No modeling of the effect.
Is there an impact on private wells?	There is a potential impact on wells deeper than 100 m based on the modeling.
What is the mitigation plan if there is drawdown in wells?	There is a potential impact on a small number of wells deeper than 100 m based on the modeling. We would propose a monitoring network to confirm the model predictions. The effects would not be sudden, but would develop over a period of years, and the monitoring would allow time to discuss specific mitigation with the land owner. There are several options (new wells, improving old wells, storage, etc.) that may be selected depending on the use and discussions with the land owner.
Will Shore do testing or are the landowners on their own?	Shore conducted a well survey based on the SaskWater database, and would select locations for measurement and testing. The key is to have all information shared and available, so that there is no disagreement as to if a well is impacted. Shore would take care of all costs to gather baseline data and

	future monitoring.
Monitoring wells away from pits?	Yes, would need several locations to provide background information so seasonal and yearly variations can be considered.
What about water quality?	Water quality would be tested in selected wells as well.
Are you considering intake from the Sask River?	No, not at this time.
Is there the option to pump clean water from surficial dewatering to supplement flows?	We are certainly open to ideas for mitigation, as this is one of the objectives of the workshop
Need good inventory of wetlands, and minimize impacts to wetlands. Is there a wetland replacement plan/compensation ratio (similar to that used on Hwy 11 of 3 to 1)?	None planned, as there are not regulations for this in mining. Have a wetland proxy system on Nisbet forest.
How does TDS accumulate downstream? Other metals?	Detailed mixing model extends 6 km downstream. Effects will be considered in the EIS. If there is not a statistically significant change in water quality in the river, then there should be no change in downstream water quality.
Note that Environment Canada (EC) makes a determination whether a substance is deleterious where it enters fish bearing water.	Noted.
What options have been explored for treatment of process/Mannville water?	There is really only one option for reducing TDS, i.e. reverse osmosis. The cost of this is high, \$1-1.5 per meter cubed plus capital, and is not economic. In addition, it does not solve any issues with TDS; it concentrates them into a smaller volume, which then needs special handling.
What ways are there to compensate well owners if their wells drop, other than with money?	We would propose a monitoring network to confirm the model predictions. The effects would not be sudden, but develop over a period of years, and the monitoring would allow time to discuss specific mitigation with the land owner. There are several options (new wells, improving old wells etc.) that may be selected, depending on the use and discussions with the land owner.
What is your confidence level in the model predicting impacts?	Any model has uncertainties, as it estimates a complex geological system. The geological model incorporates site specific data from exploration (over 1500 observations), as well as regional data. There are series of pump tests, slug tests and packer tests on the various geological layers that feed into the model. Shore is 100% confident that this model is conservative and predicts the worst case impacts on groundwater.

Are there any points where the water quality standards, provincial or federal, are exceeded?	Yes, the Mannville water exceeds Saskatchewan surface water guidelines for some parameters, in the immediate area around the discharge point but not the Metal Mining Effluent regulations.
What form is the chloride in?	It is dissolved chloride (Cl <sup>-</sup> ); from NaCl, same as table salt.
Where does the mine get drinking water?	Potable water will be sourced from shallow groundwater wells, and treated for iron, then nanofiltration. We estimate about 50 m <sup>3</sup> /day of potable water would be required.
What about total metal loading to the river since there is such a high volume?	Noted and will be addressed in the EIS.
EIS should consider metals dropping out of water or precipitating out.	Noted.
Expect tracking of water quality and sediment sampling as monitoring.	Noted.
Will there be a spike in Cl concentrations due to extreme precipitation events?	Sudden increases in Cl concentrations are not expected during extreme precipitation events as the abundance of fresh water would act to dilute the chloride concentrations in the discharge water.
What about TDS?	TDS in itself is not an issue; the specific components of TDS may cause issues. In this case, Cl was selected as the parameter most likely to have a potential impact on Saskatchewan River quality.
What about total suspended solids (TSS)?	There is no problem with TSS for the Star Kimberlite but the mineralogy is slightly different for Orion South due to the presence of montmorillite (a swelling clay mineral). As a result there might be more TSS concerns during the mining of Orion South.
Changes from river system to lake system downstream- what are impacts on Codette Lake (stratification, sediment loading and accumulation)?	Noted, and will be addressed in the EIS.
Have leaching and spikes due to runoff/precipitation been considered?	Yes, the site is designed to handle appropriate runoff events.

## Wildlife/Biophysical Break Out Session



Wayne Bessie, Senior Terrestrial Ecologist, AMEC hosts wildlife/biophysical break out session.

**Table 3: Wildlife/Biophysical Break Out Session Summary**

Question or Comment	Response
How were wetlands assessed? Is there a plan for wetland compensation?	Wetlands were assessed as part of the landscape mapping. They were identified as part of this process. There are very few wetlands in the local study area (LSA) and limited habitat that will be lost. There will be new wetland habitat created with the settling ponds, reservoirs and eventually partially filled Star Pit.
Have the wetlands around the access road been assessed to make sure that the road doesn't have an impact on the flow systems (including underground)?	These were included in the landscape mapping and drainages will be included in road planning.
In general protection of wetlands and a commitment to future monitoring of wetlands is a concern.	Noted.
Is there potential for the road to act like a dam and 'dry out' downstream wetlands?	See comments above.
What is an "Island Forest"? What does that mean and how does the FALC being an Island Forest change how you would manage the wildlife and the Project's impact on the wildlife?	Island forest means it is surrounded by farmland. It also generally gets more use by people, both commercially and recreationally. It does not greatly change

	how wildlife are managed.
How much permanent loss of wildlife habitat would there be?	There will be changes of habitat, but permanent loss will be limited to the area of the pit lakes because of reclamation.
Any permanent loss is a major concern.	Noted
What would be the very long term effects of the pit lake? - What would the final pit lake look like? Would like to see a detailed plan on how the pits would look sooner and at incremental years afterwards? How long would it take to fill with water? Would the water quality after filling be conducive to using the lake? Would the lake support a fishery?	This level of detail is still being developed. Generally, the pits are roughly circular and roughly 300m deep from surface at their deepest points. Reclamation plans will include the pit lakes.
Some expressed an interest in seeing the lake be managed so it would support a usable recreational fishery. Also some concern about monitoring of the fish for any potential contaminants/toxicity in case of human consumption (tissue sampling should be done).	Noted the interest. Future monitoring of the lakes will be completed as required.
Concerns about if adequate money will be in place for reclamation?	Discussions on the regulations and financial assurances that will need to be in place. MOE provided clarification on some of the requirements. Shore currently estimates ~87 million for a reclamation bond posted as a financial assurance for the project.
What would the effects be on the wildlife/waterfowl that use the water in the holding ponds? Has the water been compared against drinking water standards since the wildlife would certainly be consuming this water? What would the acute and chronic effects of wildlife being exposed to/ consuming this water be over long periods of time?	There is a lot of water quality data available. We have not compared them to drinking water standards, but have compared them to the guidelines for protection of aquatic life. Some work has been done on acute and chronic effects on species such as trout, daphia, duckweed, etc.
Any ideas on improving wildlife habitat as a result of the project.	There will likely be an increase in riparian areas, wetlands, waterbodies as a result of the project. No specific ideas on improving habitat.
Would the entire site be fenced? Or bermed? Where exactly would the fencing/berming take place and how big would the buffer be between facilities and the berm. What exactly would the berm be like?	The entire site would likely be bermed using natural material pushed up into a large berm. This could then be used during reclamation as a seed source. The exact location of the berm and buffer has not been determined but would roughly follow the facility outlines.

Suggestions were made to have speed limits in place on the main access and site roads using Parks Canada policies as a guideline.	Noted
What is the expected change and impacts to wildlife populations? Would the increased access mean more hunting opportunities? Would this hurt populations and could quotas be changed to compensate for this? Interest expressed in creating a “road corridor game preserve” so there would be no hunting along the new road.	There may be some increased usage due to a better access road. However, there will also be a “no hunting” area around facilities. It would be up to the MOE to change quotas if required.
Concern expressed for amphibian populations which could be impacted during construction since amphibian populations are declining worldwide.	Noted
Questions about the timing of the baseline wildlife surveys and whether they were done at the correct time to get accurate results. Also questions about how many of the surveys were “desktop” surveys done in the office using modeling. Asked whether some surveys were redone or expanded because of the change in the project footprint.	The surveys were timed according to established standards and guidelines. For example, breeding bird surveys were done in spring/early summer. Aerial surveys were done in winter when visibility was highest. Waterfowl, small mammals, ungulate, amphibian, beaver, and raptor surveys were all completed in the field, among others.
What % of wildlife disturbance is within the LSA rather than the regional study area (RSA). Would like to see those numbers?	Noted
Concerns expressed over what impact the increased number of people will have in the forest, particularly the 700 person construction camp. What would all these people do when not working?	The people in camp are there to work. It will be similar to the exploration camp. There will be no hunting, fishing, or any destructive activities done by people staying at camp. There will be rules in place for this.
How many categories were considered in the habitat suitability model and why was only the primary category presented?	There were more categories, the primary categories are considered the most important, or limiting, factor. This critical category was the one used.
How will the traditional land use (TLU) studies, once complete, feed into the baseline surveys? Can they be incorporated later on? Can the results of the TLU studies be used in the determination of effect if they are completed after the submission of the EIS?	Efforts will be made to incorporate this information whenever possible. Results obtained after submission of the EIS can be incorporated as a supplemental information filing, and used throughout reclamation planning in the project to help re-establish vegetation communities that support traditional activities.
Is Shore open to doing more or new wildlife surveys in the future if new information comes up which requires it?	More surveys would be considered if it becomes apparent they are necessary.

A complete list of species should be included.	A complete list will be included.
What was the rationale for the LSA boundaries? Could it be expanded to include the power line?	The LSA includes all site facilities. The power line is subject to a separate process led by SaskPower, but will be discussed qualitatively in the EIS.
Were efforts made to look at pre-disturbance (pre-exploration) development and use that as a baseline? Concern was expressed that using 2009 as a baseline doesn't take into account all the impact of exploration activity and development.	All data sources were included including many from pre-exploration. For example, the information from the Sask. River Dam projects was included as well as historic data from the MOE wherever possible
Are hard targets in place to get back to baseline conditions at some point? Are there detailed plans for reclamation, included how it is going to be done, when and what the ultimate goal will be?	There are no hard targets in place at this time. The EIS contains a conceptual reclamation plan, which will be updated and submitted to the MOE on a regular basis.
What is the ability of the pile to revegetate? How do you know whether or not the piles would revegetate adequately? Will the EIS be able to predict how effectively the piles can be revegetated? Expectations were that information on the plant/wildlife communities that would exist after reclamation is completed will be included in the EIS along with a description of how to get there.	It is expected that the overburden pile will revegetate easily as it is mostly a mixture of glacial till. Shale will be buried. There is work ongoing in regards to reclaiming the processed kimberlite piles and this work will help to show which amendments and/or procedures will be used to effectively reclaim piles.
First Nations used the area before. Have they been included when completing all of the surveys?	Reputable consultants were used for all work. As a follow up to the question posed, note that the archeology and fisheries surveys included aboriginal crew members, and potentially others.
Were valued ecosystem components (VECs) the only factors that were looked at? Or is there an exhaustive list included along with results of what was found?	More detailed results will be included in the EIS
How much effort was made to avoid creek while planning? Specifically, could the 101 ravine have been avoided by making the OB pile smaller? Should explain why the creeks need to be taken out, if it is unavoidable.	The facilities were designed as compact as possible to minimize the footprint while still providing everything needed. The facilities as presented are a "worst case" footprint.
Was any invertebrate sampling completed? How about terrestrial as well as aquatic?	Aquatic invertebrate sampling was completed on many ravines. No terrestrial invertebrate sampling was completed.
Was any tissue of sampling of wildlife completed? How about tissue sampling in areas around exploration (kimberlite piles, ponds, etc.)?	There has not been any tissue sampling completed
Are pipelines going to be above ground or below ground?	Unsure at this time. As a follow up to this question, the plan is to have both above and below ground pipelines depending on

	maintenance requirements. Also, all pipelines will be removed at closure.
How are you going to minimize or prevent erosion during clearing and on the piles?	Progressive reclamation and engineered piles .
Why not make the OB pile half as big, rather than half as tall, or at least explain why not?	There is potential to do this based on feedback on the EIS. The footprint as presented represents the 'worst case' from an area perspective.
Should be an explanation of the stages/progression of the impact to wildlife over time rather than just a total.	Noted

### Socio-Economic Break Out Session



*Eric Cline, Vice President Corporate Affairs, Shore Gold, responds to participants' comments and questions during the socio-economic break out session.*

### Table 4: Socio-Economic Break Out Session Summary

Theme*	Comment, Question/Response
Community Services and Population Growth	Communities are anxious to expand services if required to accommodate additional demands for services including housing.
	The RM of Buckland is interested in developing more industrial property.
	Any new families in smaller communities would be very welcome.

	Municipalities wanted to know what they could do to attract people to their communities.
	Schools have lots of capacity. In the past schools and hospitals in the smaller communities have been closing from lack of enrollment/use.
	People will make their own choices about where they will live in the region. There was discussion about the assumptions made about percentages that would likely move to towns/cities versus rural areas and smaller villages.
	Young people could return to work in the region.
	The mining labour force is very mobile. Young workers are more likely to want more services and live in communities with services.
	Doctor shortages were mentioned as an issue for Nipawin and that this was a concern until recently, when new doctors were recruited into the community. It was stated that while there are now enough doctors, they don't tend to stay in small towns for long and that the regional health authority should continue with recruitment and retention strategies for long term service stability.
	It was asked if rural areas would be able to handle emergency response incidents. It was stated that there will be on-site emergency response equipment and a nurse at all times required by regulations.
	Schools need more students. Many schools and hospitals in the region have been closed.
	There should be recognition that there could be issues with training and lack of funds for emergency response crews as pressures are being felt in other regions in Western Canada.
Economic Development and Tourism	It was suggested that other agencies should be asked to help promote the region.
	A participant asked if other companies can look for kimberlites in the FALC and this was answered affirmatively. It was asked if Newmont was Shore Gold's partner. It was clarified that Newmont is a partner and is part of the Joint venture for the Orion South pit. Their focus in the last few years has been on their core business of gold mining.
	There was a discussion about using bussing for tourists (leaving from Prince Albert) who may want to visit a proposed interpretive centre at the mine site.
	It is anticipated that the local tax base will grow. Some businesses will grow in rural areas.
	The B&Bs in the region are seeing clientele who are coming to hunt and snowmobile in the area. The mine site itself will be a tourism attraction and will therefore stimulate tourism businesses in the area. There was discussion about the proposed viewing platform at the interpretive centre at the site as a tourism draw since this will be the largest open pit diamond mine in the world and more accessible than other diamond mines (located in remote regions in northern Canada).
	People will shop where they have to slow down. It is not likely that a

	person travelling on Highway 55 will slow down to buy services in smaller communities unless there are other reasons to stop.
	This is a very important project economically to the province.
	It was suggested that there could be development of ecotourism opportunities in the FALC.
Roads, Traffic and Access	The RM of Torch River has been involved in discussions with Shore Gold and the province about road access to the mine site.
	Highway bypassing smaller communities was considered negative by participants. There is more potential for people to stop for small business goods and services when roads go near or through towns.
	Increased traffic is welcome.
	Municipalities could develop “super grid” roads to handle heavy truck traffic such as the White Star Road that runs from Shellbrook to Highway 55 and then east.
	From Meath Park to Nipawin there are spring road bans in May and June.
	Traffic will be less of a negative effect on roads than it was during exploration when there were poorer road conditions to the mine site.
	Participants asked if Division Road would be used as access to the mine site. It was clarified that access to the mine site from Division Road would not be restricted, but that it will not be upgraded as the main access road to the mine site.
	Division Road could not be used as the main access road to the mine site is that there is a steep ravine at English Creek (Division Road East) that would need to have an upgraded bridge crossing to accommodate heavy truck traffic and would be many times more costly than the Shipman Trail option. The Shipman Trail option was also the shortest route which minimizes disturbance. Using the main (Shipman Trail) access only adds another 6 minutes in travel time for someone traveling from Melfort to the mine site than to travel to the mine site from Division Road (East), taking differing traveling speeds into account.
	There was a discussion about cost sharing the costs of constructing the road to the mine site. Shore Gold stated that cost sharing the road construction between the province, rural municipality and the company would be beneficial and that some arrangements could be made for any additional portion that Shore Gold might pay up front to be recouped with a tax arrangement/deferral with the RM. Overall the maintenance of the road from Highway 55 to the mine road will be the ongoing responsibility of the rural municipality which will be possible given the substantially increased industrial taxes paid to the local municipality.
	A participant asked how much money would be needed to pave the road from Highway 55? This would be approximately \$20 million.
	There was a suggestion that the province look at revenue sharing with other municipalities to handle road and other service infrastructure

	that could be needed as a result of the project. It was stated that Shore Gold will pay taxes as directed by provincial and local authorities, and a tax policy was a question for those authorities. It was stated that since some rural municipalities may have more residents as a result of new jobs and economic activities, they would benefit from the taxes paid by these new residents.
	Municipalities stated that this world wide attention (to the mine site interpretive centre) would be welcomed. The downside to this attention would be that not all the visitors to the FALC would use the paved roads and this could stress the ability of the rural municipalities to maintain roadways. There will need to be a way to accommodate this use of the road infrastructure. Also more traffic will affect wildlife in FALC. When the session host asked if cutting off access would be a reasonable mitigation measure, it was stated that this should not be used as it would be offensive and that people should be allowed to freely access the FALC. The appropriate mitigation would be to use buses to shuttle tourists to the interpretive centre.
	Concern was expressed about the effects on air quality from the increase in traffic. It was stated that air quality will be addressed in the EIS.
Access – Effects on Land Uses	It was asked if there would be a difference in use of the FALC (i.e., hunting) with a paved access road versus the unpaved access provided now. Participants generally felt there would not be much difference since if people want to go to FALC they are able and hunting is usually conducted off the side trails from Shipman Trail or Division Road.
	Some participants felt that fishing will not be impacted by the new access road.
	It was stated by the representatives of the JSCN that its views on hunting, trapping and fishing are different than those shared at the session. These perspectives would need to be discussed with JSCN in a separate forum.
	When participants were asked if there could be any effects to use of the FALC by naturalists as a result of the project, it was stated by a community representative that birdwatchers are older people who do not want to travel far from their communities to bird watch. There are many other areas in the region to bird watch and enjoy wildlife. It was stated that those who use FALC live close to FALC or have used it traditionally. It is not a draw for use in the broader region as other areas for recreational use exist closer to other communities.
	Participants stated that it should be recognized that environmental change can create new habitat (and related land uses). Wildlife will move, not die out. Participants felt that hunting will continue.
Mitigating traffic effects – busing, carpooling	Bussing to and from the site was felt to be positive (it is not considered part of the project currently) and could present an

	<p>economic opportunity. Participants suggested that a park and ride system could be established in a nearby community and workers could be bused from these points. It was mentioned that the parking lot (with electrical plug ins) at the insurance agency in Meath Park was used during exploration in this way.</p>
	<p>A suggestion was made that during this time when Saskatchewan has committed to reducing its Green House Gas emissions that Shore Gold should look at providing bus transportation for workers to get to the mine site. Other benefits would include greater work attendance and reducing wildlife collisions/kills. It was clarified that during the exploration phase bussing was used because the roads were not considered safe enough for all workers to use their personal vehicles.</p>
	<p>Others suggested that carpooling could also be encouraged and that shift changes could be scheduled when other traffic such as school buses would not be on the Highways.</p>
Mine Facilities	<p>Participants asked how big the construction camp would be. The construction camp will accommodate a maximum of 700 but average around 350 persons.</p>
Temporary Accommodations and Housing	<p>Availability of temporary accommodations in the region and in particular along the Highway 55 corridor was discussed. It was stated that the RM of Garden River has many lots and that there are many empty farm yards in the region with water and power services that could be used. Regenerating use of these farm yards would be considered positive. It was stated that there are no restrictions in local bylaws to using abandoned farm yards for temporary accommodation sites. Local municipalities encourage rural subdivision.</p>
	<p>Participants also felt that area lakes would be an incentive for use of temporary accommodations in close proximity.</p>
	<p>Mobile home parks were used when the dams were built on the Saskatchewan River. It is expected that this may also happen during mine construction. In the summer it is expected that some of the workers may choose to live at regional parks.</p>
	<p>If First Nations people who now live off reserve want to move back to the reserve and work at the mine, this could exacerbate current housing shortages on reserves.</p>
	<p>Kinistino developed a new subdivision in anticipation of this project.</p>
	<p>Affordable housing is available.</p>
Labour Force, Employment, Training	<p>There was a question about how the 20% Aboriginal workforce was arrived at in the analysis. It was clarified that Shore Gold wishes to</p>

	retain a workforce that is representative of the demographic characteristics of the region.
	A participant asked what percentage of the exploration workforce was from the region. It was stated that more people came from outside of the region during the peak exploration phase because the contractors brought their own workers. However, at that time of exploration, up to 60 aboriginal people worked at the mine site.
	Training of First Nations and Métis people for jobs is important. Having a representative workforce is desirable.
	It was stressed that aboriginal awareness training will be important for workers at the mine.
Community Involvement	When asked if the DDAC should continue to be used discuss regional issues related to the project, it was stated that the DDAC has been very helpful in bringing people together and should continue in the future to ensure all municipalities have information about the project.
Closure and Reclamation	It was asked what would happen to communities at mine closure and how will effects to the community be mitigated. It was stated by other participants that people are resilient to the boom/bust cycles and that mining could be continued in the future if exploration activities find feasible resources.
	Reclamation of the area is important.
	One person suggested the proposed end land use of a skill hill would likely be opposed by the operators of the nearby Wapiti Valley Ski Hill, while others felt that the addition of a new skiing facility would bring more skiers into the region and actually improve the economics of the Wapiti Valley Ski Hill. It was suggested that closure options be left open and be the subject of future discussions.

*\*Comments are categorized by theme or topic area rather than by session.*



*Diamond Development Advisory Committee members George Aramenko and Orest Romanchuk enjoy a coffee break.*

## Workshop Evaluation Summary

Participants were encouraged to complete an evaluation of the workshop to provide feedback on the workshop and any remaining questions or comments about the project. A total of 16 evaluation forms were returned during the workshop and another was received after the workshop for a response rate of 33%. Responses for some questions do not total 16 as not all questions were completed/answered on the returned forms. The comment form received after the workshop only stated: “Very informative session.”

Table 5 lists the number of responses given to various workshop attributes. Response categories were on a scale of 1 to 5 where 1 is poor and 5 is excellent. Overall there were favourable responses about all aspects of the workshop.

Table 5: Workshop Attribute Evaluation Scores

	Poor 1	2	3	4	Excellent 5	Comments
Location of workshop	0	0	0	4	10	
Time of day it was held	0	0	1	2	12	
Length of the session	0	0	1	7	7	
Displays	0	0	2	7	5	
Presentations	0	0	3	8	4	<ul style="list-style-type: none"> <li>• Presenters were great, spoke clearly.</li> <li>• Couldn't read much of the writing on slides particularly – maps. Could have made these display items or clearer handouts</li> <li>• Technical – fast</li> <li>• Maps in PowerPoint too small to see details, some of which would be nice to be able to read.</li> </ul>
Group discussions	0	0	2	10	3	<ul style="list-style-type: none"> <li>• Liked the “break” into smaller group sessions – more comfortable for most people -</li> </ul>

<b>Your opportunity to comment/be heard</b>	0	0	0	9	6	<ul style="list-style-type: none"> <li>Liked the “break” into smaller group sessions – more comfortable for most people -</li> </ul>
<b>Your opportunity to have your questions answered</b>	0	0	0	11	4	<ul style="list-style-type: none"> <li>Liked the “break” into smaller group sessions – more comfortable for most people –</li> <li>Open to questions, + eager to answer</li> </ul>

The following is a list of the comments (verbatim) from other questions on the evaluation form.

**Comments about what participants liked most about the workshop:**

- SOCIO ECONOMICS + WATER ISSUES
- Well laid out and presented
- Wide variety of attendees
- Good overview of what’s happened + will happen at Shore Gold.
- EXCELLENT VENUE
- The group interaction
- Presentation of material
- Ability to comment and hear comments from others.
- The vast concerns being expressed and Shore Gold’s willingness to listen.
- Well organized; Shore Gold was very approachable and open about their project. Well done!
- Transparent regarding potential impacts (e.g. drawdown of wells → comp)
- Very open and informative
- Well rounded group
- Very interesting and informative
- Displays. Presenters were well spoken and knowledgeable

**Comments about what participants least liked about the workshop:**

- First snow fall of the year
- n/a
- WORKBOOKS PICUTURES + GRAPHS ARE NON LEGIBLE
- The maps presented on the powerpoint
- A lot is based on modeling, not enough info of where data comes from.
- —
- Would have been nice to have more detailed info available for review prior to workshop.
- Weather. + Did not seem to receive an invite to the site visit.
- No bottled drinks only coffee.
- At times in plenary sessions sound interference between groups.

**Comments about the Star-Orion South Project overall:**

- CAN’T HAPPEN SOON ENOUGH
- Look forward to further details on mining operations.

- Good for the province, area, local economies.
- LET'S ROLL
- Feel there are some gaps still to address.
- Would like to see more detail on all aspects of the project than required by Fed/prov.regs... this way most if not all concerns should be addressed.
- Be sure to mitigate environmental impacts to highest standard possible –
- Wetland protection, compensation important to consider; need good inventory
- Yes. The EIS should be able to answer many of my questions. (see q 4). Aboriginal involvement in studies (fish, veg, game, reclaim etc)? for HHRA.
- My community is waiting for positive development.
- Hope it happens as soon as possible.
- Handled the water concerns and I think all will go well.

**Other comments, interests or suggestions:**

- Not a lot of highly negative viewpoints.
- Keep your ears open – the public wants to be heard + problems addressed!
- THE NAMETAGS SHOULD NOT HAVE NAMES. . . RATHER WHO OR WHAT DEPT./ORGANIZATION REPRESENTED.
- Thanks for the invitation to participate in this process.
- Thank you for the opportunity to attend.
- Suggest a mitigation approach as follows: avoid first, then minimize, then compensate (when impacts can't be avoided or minimized); reclamation is important.
- Make available to public the work you have done so far regarding the environment (air, water, wildlife, plants).
- Make PPT graphics larger – they were hard to see on screen and read on H.O.'s.
- No. 1 problem with EIS's = Poor or no identification of human receptors (residents, schools, hospitals, daycares eg) that may be impacted by noise, dust, water, etc impacts → "Do a good job here."
- Thank you for workshop!

## Conclusion

The verbal feedback and written evaluations received from participants stated the workshop provided a good opportunity for stakeholders to hear more about and discuss with other stakeholders the preliminary effects and mitigation measures for the project. The results of the workshop, along with the results of Shore Gold's Open Houses, DDAC meetings and other stakeholder inputs, are used to gauge the public's interest on specific issues, guide selection and evaluation of valued ecosystem components or VECs: those environmental elements that have scientific, social, cultural, economic, historical, archaeological or aesthetic importance to people. In summary, the workshop results will influence evaluation and selection of mitigation measures in the development of the project.

As follow-up to the workshop, this summary will be distributed to the participants who attended the workshop and posted on Shore Gold's website for others to view at <http://shoregold.com/environment>, The Shore Gold Star-Orion South Diamond Project, Environmental Interests Workshop summary report will also be inserted into the EIS as a public engagement activity.

# **Appendix A**

**Agenda  
Invitation List  
Attendees List  
Letter of Invitation**



**Environmental Interests Workshop  
Shore Gold Star-Orion South Diamond Project**

# Shore Gold Star-Orion South Diamond Project Environmental Interests Workshop



**Date:** *Tuesday, October 26, 2010*  
**Location:** *E.A. Rawlinson Centre  
142-12<sup>th</sup> Street West  
Prince Albert, Saskatchewan*  
**Time:** *9:00 a.m. – 4 p.m. (lunch provided)*

---

## Agenda

- 9:00 – 9:30**     **Registration and viewing of display materials**
- 9:30 – 9:45**     **Welcome, introductions and agenda review** – Eric Cline, Vice President Corporate Affairs, Shore Gold
- 9:45 – Noon**     **Project Update/Overview**
- Overview of project including mining and processing activities – Bill Van Breugel, Project Manager, Shore Gold
  - Environmental Assessment process overview - Ethan Richardson, Environmental Manager, Shore Gold
  - Surface and Groundwater Effects and Mitigation/Management – Ian Judd-Henrey, Senior Hydrogeologist, AMEC
  - Other Environmental Effects and Mitigation/Management – Ethan Richardson, Environmental Manager, Shore Gold
  - Feedback - comments from the floor, questions and answers – Julia Ewing, Director Community Relations, Shore Gold
- Noon – 12:45**     **Buffet lunch break and viewing of display materials**
- 12:45 – 1:00**     **Introduction/overview of break out session process** – Julia Ewing
- 1:00 – 3:30**     **Break out Sessions (each offered three times in a row):**
- Ground/Surface Water — 1:00 – 1:50/1:50 – 2:40/2:40 – 3:30**  
– Host: Ian Judd-Henrey, Senior Hydrogeologist, AMEC
- Wildlife/Biophysical — 1:00 – 1:50/1:50 – 2:40/2:40 – 3:30**  
– Host: Wayne Bessie, Senior Terrestrial Ecologist, AMEC
- Socio-Economic— 1:00 – 1:50/1:50 – 2:40/2:40 – 3:30**  
– Host: Caroline Burgess, Senior Consultant Human Environment, AMEC

# List of Workshop Invitees and Attendees

<b>Invited Organization</b>	<b>Number of Participants Invited</b>	<b>Number of Participants in Attendance</b>
Canadian Environmental Assessment Agency	1	1
City of Melfort	1	0
City of Prince Albert	1	1
Conseil des Ecoles Fransakoises	1	0
Cumberland college	1	0
Ducks Unlimited	2	1
Environment Canada	1	3
Fisheries and Oceans Canada	2	2
Fort a la Corne Employment Development Inc.	1	0
Health Canada	0	1
James Smith Cree Nation	3	9
Kelsey Trail Regional Health Authority	1	1
Landowners	5	0
Metis Nations Eastern II	1	0
Metis Nations Western II	1	0
Ministry of Social Services NE division	1	0
Muskoday First Nation	1	0
N SK River Basin Council	1	0
National Hydrology Research Centre/National Water Research Institute	1	0
Natural Resources Canada	1	0
Nature Prince Albert	0	1
NE Enterprise Region	1	0
Nipawin Fish and Game	0	"1" - Also DDAC
North Central Enterprise Region	1	1
Northeast School division	1	1
Prince Albert Catholic School Division	1	0
Prince Albert Model Forest	1	0
Partners for the SK River Basin	1	0
Prince Albert Parkland Regional Health Authority	1	0
Prince Albert Wildlife Federation	1	0
Red Earth Cree Nation	1	0
RM of Birch Hills	1	1
RM of Buckland	1	1
RM of Garden River	1	1
RM of Nipawin	1	1
RM of Paddockwood	1	1

RM of Prince Albert	1	1
RM of Torch River	1	1
RM of Willow Creek	1	0
South SK River Watershed Stewarts Inc.	1	0
Sask Eco Network	1	0
Sask Outfitters Association	1	1
Sask Rivers School Division	1	0
Saskatchewan Environmental Society	1	1
Saskatchewan Indian Institute of Technologies	1	0
Saskatchewan Ministry of Energy and Resources	3	2
Saskatchewan Ministry of Environment	6	9
Saskatchewan Watershed Authority	1	0
Saskatchewan First Nations and Metis Relations	1	0
Sturgeon Lake First Nation	1	Picked up materials
Town of Birch Hills	1	0
Town of Choiceland	1	0
Town of Kinistino	1	0
Town of Nipawin	1	1
Town of Tisdale	1	0
Transport Canada	1	2
University of Saskatchewan	1	1
Village of Meath Park	1	1
Village of Paddockwood	1	0
Village of Smeaton	1	0
Village of Weirdale	1	1
Village of White Fox	1	0
Woodland Campus	1	0
<b>Total</b>	<b>75</b>	<b>48</b>

## Presenters

**Shore Gold:** Eric Cline, Julia Ewing, Ethan Richardson, Bill Van Breugel, Chad Wilkinson

**AMEC:** Wayne Bessie, Caroline Burgess, Ian Judd-Henrey



Invitee

September 28, 2010

Address

Dear XXXX,

**Re: Shore Gold Star-Orion South Diamond Project Environmental Interests Workshop**

I am writing to invite you, as a knowledgeable and interested party, to an Environmental Interests Workshop to discuss the potential impacts of and proposed mitigation measures for the Star-Orion South Diamond project (the “project”). The project is proposed for development in the Fort à la Corne forest approximately 60 km east of Prince Albert.

The morning sessions will include an overview of the project, technical findings of the impact assessment, and proposed mitigation measures. Three afternoon break-out sessions will include group discussions about key topic areas community stakeholders have expressed an interest in: groundwater and surface water, wildlife, and socio-economics. Participants will be asked for their input and feedback on the potential impacts and proposed mitigation measures about these topic areas. A workshop agenda is attached.

Shore will provide one honorarium of \$50.00 for those whose employers or associations will not be covering expenses associated with this workshop. Please note that we are only able to provide one honorarium per invitation.

Please reply by October 19<sup>th</sup> to let me know if you, or a designate, will be attending. In the mean time, please do not hesitate to call (306-667-3541) or email me if you have any questions ([erichardson@shoregold.com](mailto:erichardson@shoregold.com)).

Sincerely,

<original signed by>

Ethan Richardson  
Manager of Environment  
Shore Gold Inc.

---

300-224 4<sup>th</sup> Ave. South  
Saskatoon, SK S7K 5M5  
Tel: (306) 664-2202 • Fax: (306) 664-7181  
Email: shoregold@shoregold.com

# Shore Gold Star-Orion South Diamond Project Environmental Interests Workshop



**Date:** *Tuesday, October 26, 2010*  
**Location:** *E.A. Rawlinson Centre  
142-12<sup>th</sup> Street West  
Prince Albert, Saskatchewan*  
**Time:** *9:00 a.m. – 4 p.m. (lunch provided)*

---

## Agenda

- 9:30 – 10:00** **Welcome, introductions and agenda review** – Eric Cline, Vice President Corporate Affairs, Shore Gold
- 10:00– Noon** **Project Update/Overview**
- Overview of project including mining and processing activities – Bill Van Breugel, Project Manager, Shore Gold
  - Environmental Assessment process overview - Ethan Richardson, Environmental Manager, Shore Gold
  - Surface and Ground water Effects and Mitigation/management – Ethan Richardson, Environmental Manager, Shore Gold
  - Other Environmental Effects and Mitigation/management – Ethan Richardson, Environmental Manager, Shore Gold
  - Feedback - questions and answers – Julia Ewing, Director Community Relations, Shore Gold
- Noon – 12:45** **Lunch break**
- 12:45 – 1:00** **Introduction/overview of break out session process**
- 1:00 – 3:30** **Break out Sessions:**  
**Ground/Surface Water** –Host: Ian Judd-Henrey, Senior Hydrogeologist, AMEC  
**Wildlife/Biophysical** – Host: Wayne Bessie, Senior Terrestrial Ecologist, AMEC  
**Socio-Economic** – Host: Caroline Burgess, Senior Consultant Human Environment, AMEC
- 1:00 – 1:50 – Break out 1**  
**1:50 – 2:40 – Break out 2**  
**2:40 – 3:30 – Break out 3**
- 3:30 – 4:00 – Plenary/Overview of outcomes; Evaluation**

## —Procurement—

### *Business Opportunities: Construction Phase\**



#### **Potential Start**

- late 2011 (as determined by the parameters of the Feasibility Study)

#### **Services**

- Steel Fabrication
- Concrete
- Electrical
- Mechanical
- Welding
- Maintenance
- Carpentry
- Catering
- Freight/Courier Services

#### **Materials**

- Lubricants
- Fuel
- Tires
- Pond Liners
- HVAC
- Culverts
- Medical Supplies
- Pre-engineered Buildings

#### **Equipment**

- Generators
- Conveyors
- Security
- Fire Protection
- Cranes
- Forklifts
- Light Vehicles
- Earth-moving Equipment

*\*All information estimated*

***Business Opportunities: Operations Phase\****



**Potential Start**

- late 2016 (as determined by the parameters of the Feasibility Study)

**Services**

- |               |            |                    |
|---------------|------------|--------------------|
| • Welding     | • Freight  | • Carpentry        |
| • Electrical  | • Courier  | • Rental Equipment |
| • Maintenance | • Catering | • Scaffolding      |

**Materials**

- |                 |         |                   |
|-----------------|---------|-------------------|
| • PVF           | • Steel | • Pumps           |
| • Power         | • Fuel  | • Electric Motors |
| • Transmissions | • Tires | • Screens         |

**Equipment**

- |          |                 |              |
|----------|-----------------|--------------|
| • Chutes | • Pit Equipment | • Laboratory |
| • Bins   | • Site Services | • Survey     |
| • Scales | • Conveyors     |              |

*\*All information estimated*

EIS components

Shore Gold Inc.  
Exploring and Developing  
Canada's Diamond Resources



October 26, 2010

---

---

---

---

---

---

---

---

Shore Gold Inc.

**Components**

- Archeology
- Air and Noise
- Soils and Terrain
- Vegetation
- Wildlife
- Biodiversity
- Traditional and Non-traditional Land Use
- Socio-economics
- Human Health



---

---

---

---

---

---

---

---

Shore Gold Inc.

**Archeology**

- HRIA complete
- Phased mitigation
- 22 sites- moderate or high potential



---

---

---

---

---

---


---

---

Shore Gold Inc.

### Air and Noise

- Good air quality
- Noise survey- area is quiet
- Modeling underway
  - Blasting during days only
  - Maximize use of electric power



---

---

---

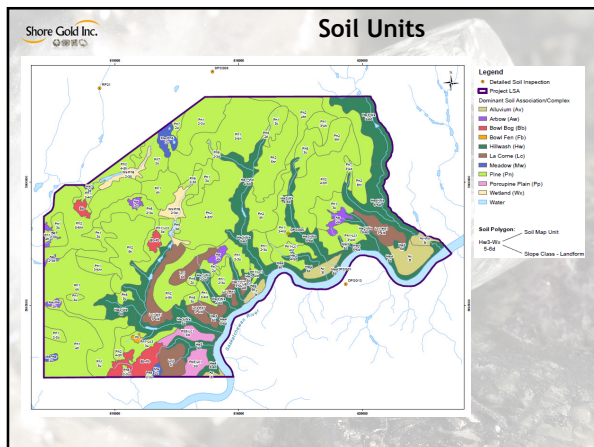
---

---

---

---

---



---

---

---

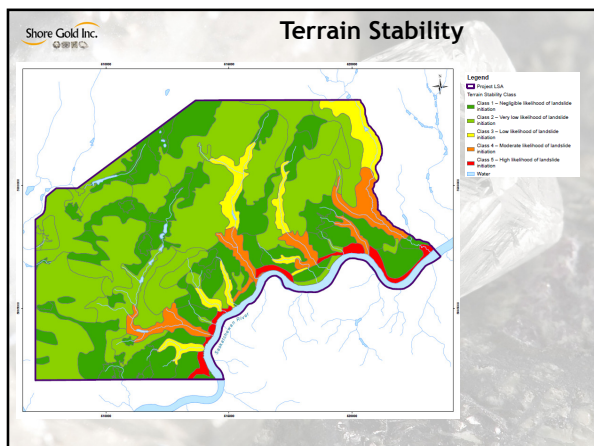
---

---

---

---

---



---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Soil and Terrain Effects

- Soil loss due to burial
- Wind erosion and dust
- Mitigation
  - Limited, targeted soil salvage
  - Direct placement whenever feasible
  - Amendment, if needed, based on on-going research
  - Use of perimeter berms for stockpiles

---

---

---

---

---

---


---

---

Shore Gold Inc. 金礦有限公司

### Vegetation

- Valued Ecosystem components:
  - Old growth forest
  - Rare and endangered plants
  - Riparian communities
    - Ravine and river valley vegetation




---

---

---

---

---

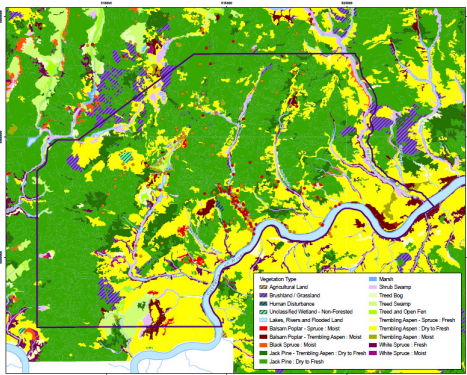
---

---

---

Shore Gold Inc. 金礦有限公司

### Vegetation




---

---

---

---

---

---

---

---

Shore Gold Inc.  
金礦有限公司

### Vegetation

- Jack pine and Aspen upland- 76% of LSA, 60% of FaC forest
- Old growth forest (>120 years) limited in LSA (0.2%)



---

---

---

---

---

---



---

---

Shore Gold Inc.  
金礦有限公司

### Vegetation

- 42 rare plant species recorded in surveys



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦有限公司

### Vegetation Effects

- Loss of vegetation communities
- Impacts to individual rare plants
- Changes in moisture regime
- Mitigation
  - Reclamation and revegetation



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦有限公司

### Wildlife

- Aerial surveys
- Ground surveys



---

---

---

---

---

---

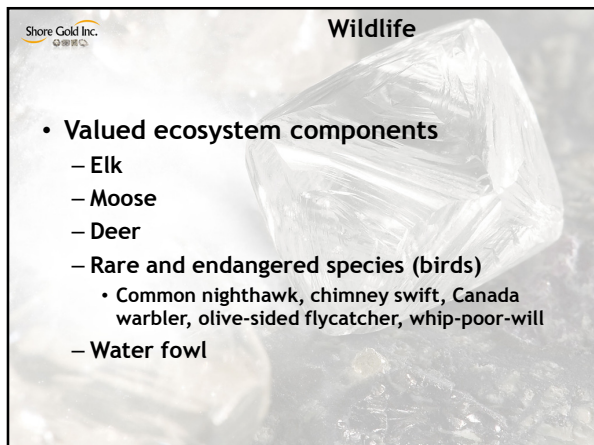
---

---

Shore Gold Inc.  
金礦有限公司

### Wildlife

- Valued ecosystem components
  - Elk
  - Moose
  - Deer
  - Rare and endangered species (birds)
    - Common nighthawk, chimney swift, Canada warbler, olive-sided flycatcher, whip-poor-will
  - Water fowl



---

---

---

---

---

---

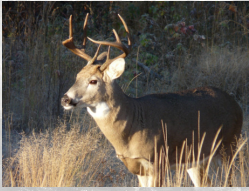
---

---

Shore Gold Inc.  
金礦有限公司

### Wildlife

- Direct loss of habitat
  - 2.7% loss of primary elk habitat
  - 2.4% loss of primary moose habitat
  - 1.8% loss of average and above average white-tailed deer habitat



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦有限公司

### Wildlife

- Indirect effects
  - 4.7% of primary elk habitat affected
  - 4.1% of primary moose habitat affected
  - 3% of average and above average white-tailed deer habitat affected



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦有限公司

### Wildlife

- No expected negative impact to water fowl
- No negative effect expected on rare or endangered species



---

---

---

---

---

---

---

---

Shore Gold Inc.  
金礦有限公司

### Biodiversity

- landscape, community and species level
- Integrates soil, vegetation, wildlife, hydrology and aquatic ecology



---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Closure and Reclamation

- Progressive reclamation where possible
- Revegetation of all disturbances except pits
- Backfilling Star pit with OB from OS
- Remaining area of pits to fill with water
- Limited topsoil salvage
- Roll-back of perimeter berms
- End Land Use
  - Ski hill/recreation
  - Wildlife habitat/ forestry
  - Others?

---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Land Use

The map displays a geographical area with various land use zones. A legend on the right side identifies several categories: Forested Area (yellow), Forested Area Network (orange), Protected Zone (green), and others. The map also shows roads, rivers, and other geographical features. Metadata at the bottom includes the title 'Fort & Cote Property Forest Management Zones', page number 'Page 8', and the company name 'AMEC'.

---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Non Traditional Land Use

- Increase in the intensity and prevalence of outdoor recreation activities due to improved access
- Impact on hunting activities due to loss of available land base
- Hunting success & effort due to impact on animals

---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦股份

### Traditional Land Use

- Important aspect of EIS
- Supporting studies with five groups
  - Harvesting of plants and medicines
  - Consumption of country food
  - Hunting trapping fishing
  - Sacred sites,
  - Cabins and trails,
- Summary included in EIS

---

---

---

---

---

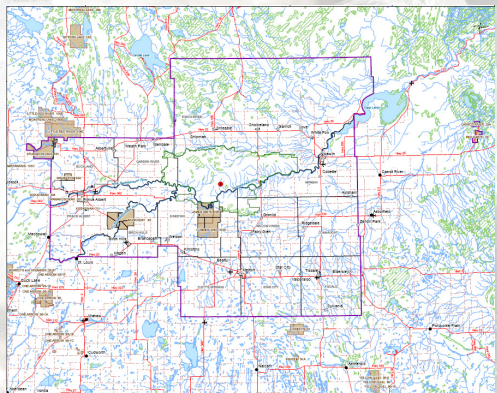
---

---

---

Shore Gold Inc. 金礦股份

### Socio-Economic



---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦股份

### Socio-Economic

- 706 direct and indirect jobs in the region (operation)
- \$96 million in additional household income in the province.
- project operation would contribute approximately 0.4% of provincial GDP (Saskatchewan GDP was \$36.9 billion in 2009)

---

---

---

---

---

---

---


---

Shore Gold Inc.  
金礦有限公司

### Socio-Economic

**Potential effects**

- \$66 million/year in provincial tax revenues
- \$6 million/year to local governments



---

---

---

---

---

---

---

---

Shore Gold Inc.  
金礦有限公司

### Socio-Economics



- Additional 176 workers and their families moving to the region
- Increased traffic on local roads
- Increased pressure on local and regional housing

---

---

---

---

---

---

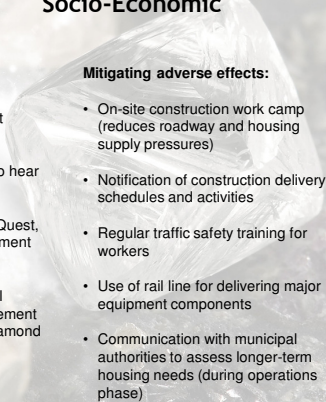
---

---

Shore Gold Inc.  
金礦有限公司

### Socio-Economic

<p><b>Enhancing positive effects:</b></p> <ul style="list-style-type: none"><li>• Local hiring and procurement policies</li><li>• Dialogue with stakeholders to hear interests and ideas (DDAC)</li><li>• Support of Northern Career Quest, Aboriginal Skills and Employment Program</li><li>• Participation in the Aboriginal Workplace Partnership Agreement called the Fort à la Corne Diamond Partnership</li></ul>	<p><b>Mitigating adverse effects:</b></p> <ul style="list-style-type: none"><li>• On-site construction work camp (reduces roadway and housing supply pressures)</li><li>• Notification of construction delivery schedules and activities</li><li>• Regular traffic safety training for workers</li><li>• Use of rail line for delivering major equipment components</li><li>• Communication with municipal authorities to assess longer-term housing needs (during operations phase)</li></ul>
---	--



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦股份

### Human Health

- **Considers occupational and environmental conditions**
- **Direct effects limited:**
  - No additions of toxic material
  - All compounds released naturally occurring
    - In kimberlite
    - In groundwater



---

---

---

---

---

---

---

---

Shore Gold Inc.  
金礦股份

### Human Health

- **Potential Effects**
  - Increased traffic on local roads
  - Construction Safety
  - Mining Safety



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦股份

### Ongoing Work

- **Reclamation and revegetation**
  - U of A greenhouse study
    - Coarse and fine PK, sand, topsoil, compost and municipal biosolids
  - Site revegetation plots
- **Metal Leaching and ABA**
  - Kinetic testing of fine and coarse PK continues
  - On site ABA test pads
- **Hydrogeology**
  - Research agreement with U of S
  - Isotope analysis of shales for hydraulic conductivity



---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

**Star – Orion South Diamond Project**

*Environmental Impact Assessment*



**OCTOBER 2010 INTERESTS WORKSHOP: EVALUATION FORM**

On a scale of 1 to 5 where 1 is poor and 5 is excellent, please rate the following about the Interests workshop (*circle number*):

	Poor					Excellent	Comments
Location of workshop	1	2	3	4	5		
Time of day it was held	1	2	3	4	5		
Length of the session	1	2	3	4	5		
Displays	1	2	3	4	5		
Presentations	1	2	3	4	5		
Group discussions	1	2	3	4	5		
Your opportunity to comment/be heard	1	2	3	4	5		
Your opportunity to have your questions answered	1	2	3	4	5		

**Star – Orion South Diamond Project**

*Environmental Impact Assessment*



**OCTOBER 2010 INTERESTS WORKSHOP: EVALUATION FORM**

What did you like most about the workshop?

---

---

What did you like least about the workshop?

---

---

Do you have any comments about the Star-Orion South Project overall?

---

---

---

Other comments, interests or suggestions?

---

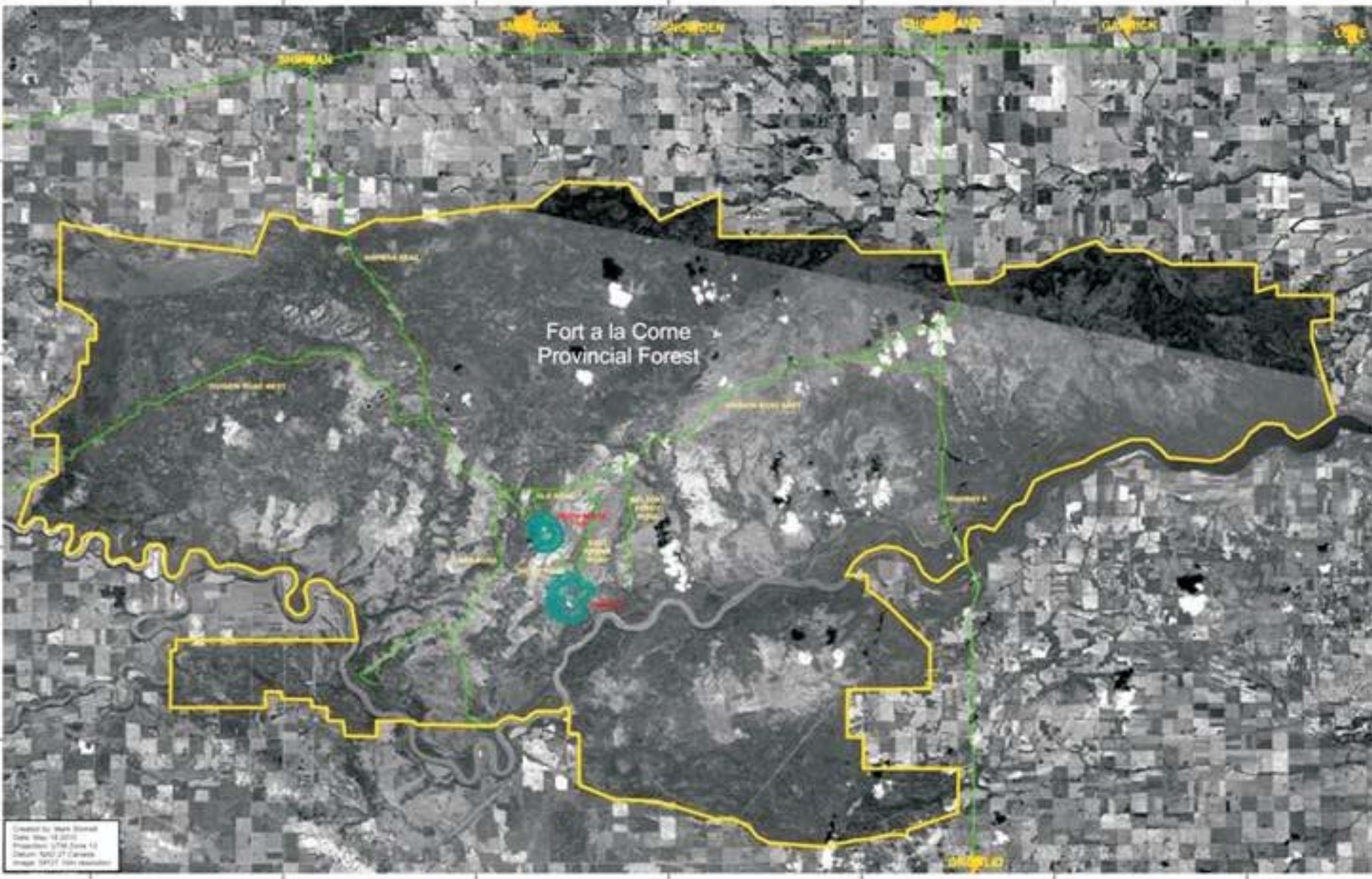
---

---

**THANK YOU!**

Fort a la Come  
Provincial Forest

Created by Mark Stenard  
Data: May 18 2010  
Projection: UTM Zone 12  
Datum: NAD 83  
Image: 30012 - 8000 resolution



## —Geology—

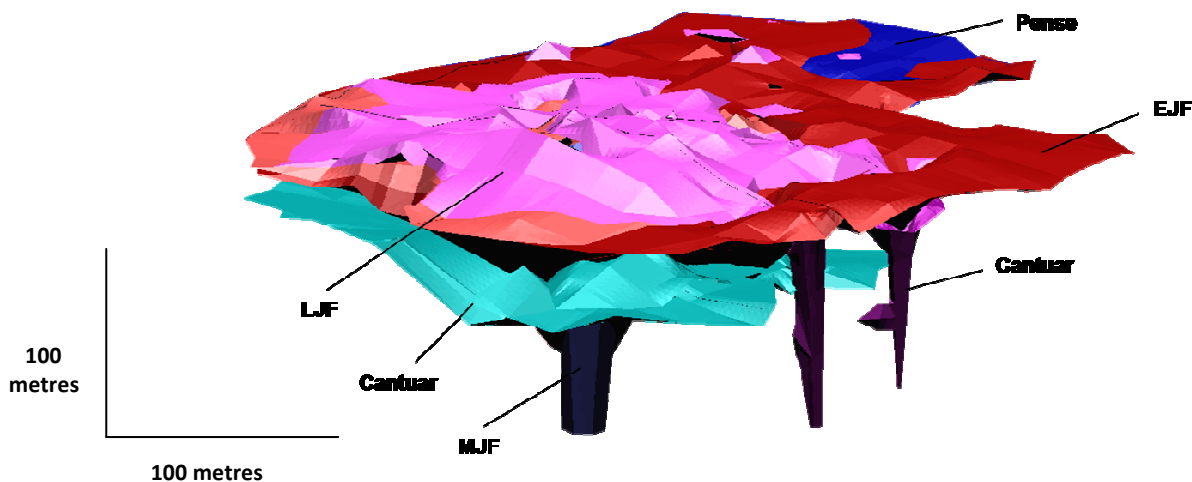
### *Why Are There Diamonds in This Area?*

Saskatchewan's Fort à la Corne area contains one of the most extensive kimberlite fields known in the world. The Star Kimberlite and the Orion South Kimberlite are two of over 60 in the area and each result from distinct volcanic kimberlite eruptions which have combined to form contiguous masses. These eruptions came from far below the earth's surface (approximately 200 km) and erupted between an estimated 99 and 104 million years ago.

These kimberlite formations have existed intact, but buried under large masses of earth and rock, for over 100 million years.

#### Star Kimberlite Eruptions

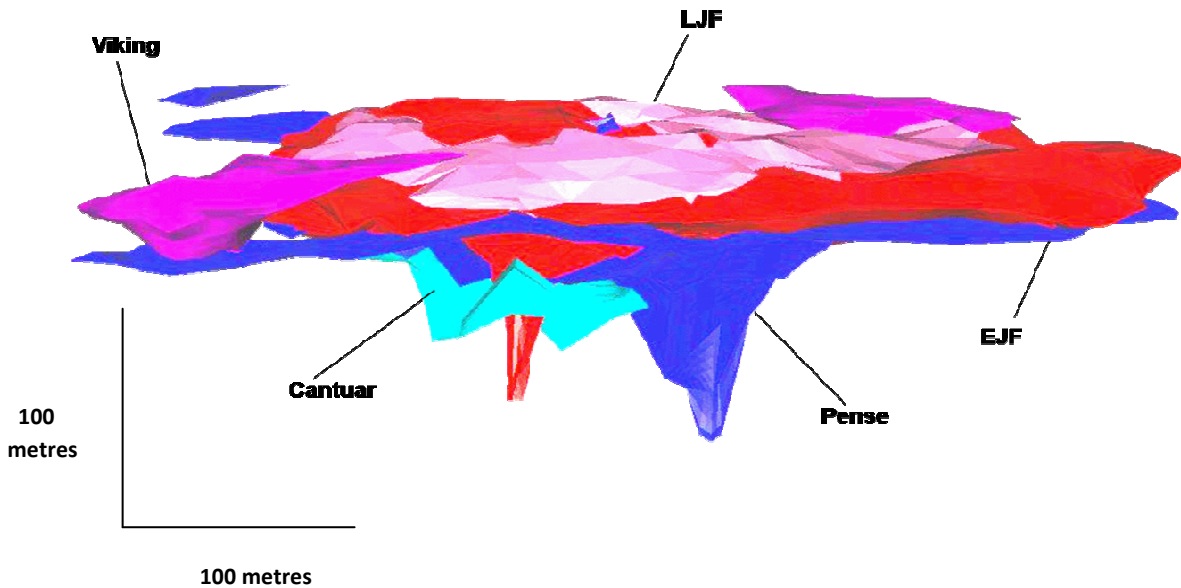
- Cantuar 104 million years ago
- Pense 100 million years ago
- Early Joli Fou (EJF) 100 million years ago
- Middle Joli Fou (MJF) 100 million years ago
- Late Joli Fou (LJF) 100 million years ago



The Star Kimberlite

### Orion South Volcanic Kimberlite Eruptions

- Cantuar 104 million years ago
- Pense 100 million years ago
- Early Joli Fou (EJF) 100 million years ago
- Late Joli Fou (LJF) 100 million years ago
- Viking Approx. 99 million years ago



The Orion South Kimberlite

### Diamonds are “Hitchhikers”

Diamonds are found in kimberlite because they were picked up, approximately 200 kilometers underground in the earth’s upper mantle, as kimberlite magma worked its way to the surface. Those diamonds which survived the molten heat remained in the kimberlite as it erupted and cooled on the earth’s surface.

***Why Does Saskatchewan Have the Most Extensive Kimberlite Field  
in the World?***



Kimberlites that erupted in what is now Saskatchewan remained in place, unlike kimberlites in other parts of the world, which disappeared gradually as they were eroded by forces like wind, water and glaciations. The diamonds were carried to riverbeds and deltas, where they have been mined for centuries. An example of an alluvial deposit is Namdeb, in Namibia, Africa.

The Fort à la Corne kimberlites remained intact because shortly (in geological time) they were buried by a layer of silt left by an ancient sea bed and then overlain by overburden rock and till left by glaciers. Because they were protected by these overlying layers, the Fort a la Corne kimberlites were eroded only to a minor extent, the diamonds within them remaining in place.

### ***How has Shore Gold Explored these Large Kimberlites?***

Since 1996, Shore Gold has been exploring the Fort à la Corne kimberlites using three main methods:

- **Core Drilling** – using 47 to 85mm core barrels, core is extracted, collected and analyzed;
- **Large Diameter Drilling** – 1.2 metre wide drill holes allow for the removal of large samples of kimberlite for processing and diamond recovery;
- **Underground Shaft Sinking** and Lateral Drifting – 4.5 metre wide underground shafts, one on Star Kimberlite and one on Orion South Kimberlite, from which lateral underground drifts (exploration tunnels) are excavated, producing tens of thousands of tonnes of kimberlite to be removed and processed for diamond recovery.

### ***Star - Orion South Pre-feasibility Study and Mineral Reserve Estimate***

- Years of exploration work have resulted in the **Star - Orion South Pre-feasibility Study**, conducted by an independent team of experts from P&E Mining Consultants Inc. Other firms contributed, including A.C.A. Howe International Ltd., Clifton Associates Ltd. and SRK Consulting, utilizing diamond pricing estimates provided by WWW International Diamond Consultants Ltd. of Antwerp, Belgium.
- Probable mineral reserve: 279 million tonnes of kimberlite
- 12.5 carats per hundred tonnes
- 35 million carats
- Average diamond value US\$192 per carat
- P&E concluded the Star - Orion South Project had potential to become a significant diamond producer, recommending further assessment and moving to a Feasibility Study

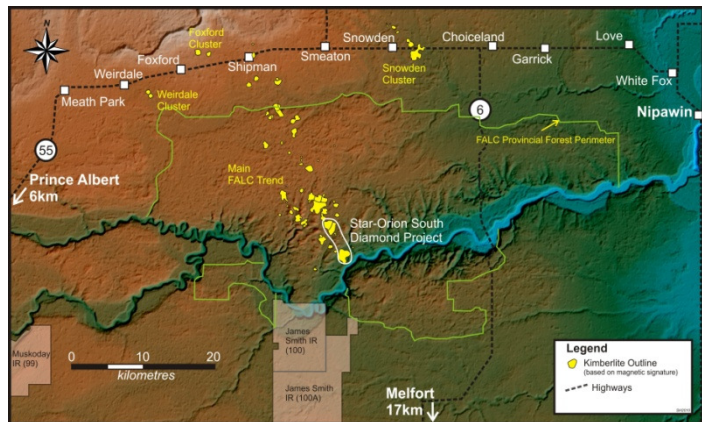
# Welcome!

## — Open House 2010 Information —



**Open House 2010** is the second round of public open houses conducted by Shore Gold Inc. It provides you, your family and neighbours with information about what diamond mining in the Fort à la Corne forest would mean for the area, and for Saskatchewan.

On November 3, 2008, Shore filed a **Project Proposal** with Saskatchewan Ministry of Environment and federal agencies. In February 2010, Shore Issued a News Release announcing the results of a **Technical Report and Pre-Feasibility Study on the Combined Star-Orion South Diamond Project**. In March 2010, the full **Technical Report** was filed.



Filing the Project Proposal commenced an **Environmental Impact Assessment** (EIA) to examine the impact of:

- open pit mining in the Fort à la Corne forest
- mining method
- processing facilities and associated infrastructure to commercially extract diamonds.

A **Feasibility Study** will be completed prior to making a production decision.

**For Further Details** see *Technical Report and Updated Preliminary Feasibility Study on the Star-Orion South Diamond Project*, March 24, 2010 at [www.shoregold.com](http://www.shoregold.com) (click on "Investors"/"Presentations and Media") or [www.sedar.com](http://www.sedar.com). The Environmental Impact Statement will be filed with the Saskatchewan Ministry of Environment and federal authorities over the coming months. It will also be available through the corporate and government websites once filed.

Environmental questions need to be addressed. Discussion with the public and regulators is essential. *That is the purpose of Open House 2010.* We wish to update you on latest project proposal details, and answer questions people put to us at the first round of Open Houses conducted in February 2009, including:

- what will the final potential project "footprint" look like?
- what are the full projected environmental impacts?
- what baseline environmental studies have been completed?
- how will environmental monitoring be done?
- how will water management issues be handled?
- where will the paved road be constructed?
- where will the utilities (e.g. electrical power, natural gas line) come in from?
- what will the overburden pile look like?
- what are the projected timelines to production?
- what is the plan for reclamation and decommissioning when mining ends?

## — Stations —

There are four stations for you to visit:

1. **GEOLOGY** – Why are there diamonds in this area?
2. **MINING & PROCESSING** – What would a diamond mine look like?
3. **ENVIRONMENT** – How do we protect our water, soil, animals, plants and air?
4. **ECONOMY** – What would diamond mining mean for jobs and contractors?



## ***Community Engagement*** ***—Diamond Development Advisory Committee—***

The Diamond Development Advisory Committee (DDAC) was formed in January 2007 to act as a liaison between communities in the Fort à la Corne area and Shore Gold.

The DDAC is made up of representatives from the following communities:

### **Cities**

City of Melfort  
City of Prince Albert

### **Villages**

Village of Love	Village of Paddockwood	Village of Weirdale
Village of Meath Park	Village of Smeaton	Village of White Fox

### **Towns**

Town of Birch Hills	Town of Kinistino	Town of Tisdale
Town of Choiceland	Town of Nipawin	

### **Rural Municipalities**

RM of Birch Hills No. 460	RM of Nipawin No. 487	RM of Torch River No. 488
RM of Buckland No. 491	RM of Paddockwood No. 520	RM of Willow Creek No. 458
RM of Garden River No. 490	RM of Prince Albert No. 461	

### **First Nations\***

Red Earth Cree Nation  
Sturgeon Lake First Nation

### **Métis Nation – Saskatchewan Regions**

Métis Nation Eastern Region II  
Métis Nation Western Region II

### **Other**

Fort à la Corne Development Corporation (owned by James Smith Cree Nation)

\*As well, other neighbouring aboriginal communities have been invited to join and are eligible to attend.

The DDAC meets regularly to review information on Shore Gold's current activities, and provides input and advice. It is an effective and trusted vehicle which ensures the views of the community are known and concerns are responded to.

## ***Star-Orion South Diamond Project Milestones — and Next Steps —***

### **Milestones**

- 1940s — diamonds reported in Prince Albert area
- 1960s — diamond exploration targets identified in Fort à la Corne (FALC) area
- 1988 — first discovery of kimberlites in the area by Uranerz Exploration and Mining Limited
- 1990 — Cameco, De Beers Canada Inc. and Kensington Resources Ltd. investigate in FALC
- 1995 — acquisition of Star Kimberlite mineral claims by Shore
- 1995 on — core drilling, large diameter drilling
- 2003 — processing plant constructed
- 2003-07 — bulk sampling Star Kimberlite; 250 m shaft sunk; 25,000 tonnes of kimberlite extracted through lateral drifting; Shore acquires interests of Cameco and DeBeers Canada Inc. in FALC JV; Shore enters into plan of arrangement with Kensington Resources Ltd.
- 2007-09 — bulk sampling on Orion South Kimberlite; 210 m shaft sunk; 23,468 tonnes of kimberlite extracted through lateral drifting
- 2006-09 — extensive additional exploration on Star Kimberlite and Orion South Kimberlite
- 2008 — Mineral Resource estimate on Star Kimberlite published
- 2008 — filing of Project Proposal, commencing Environmental Impact Assessment
- 2009 — updated Mineral Resource on Star Kimberlite published; Pre-feasibility study and Mineral Reserve estimate on Star Kimberlite published
- 2009 — Mineral Resource estimate on Orion South Kimberlite published
- 2009-10 — desktop engineering studies and data analysis, Star Kimberlite and Orion South Kimberlite
- 2010 — Prefeasibility Study and Mineral Reserve estimate on Combined Star-Orion South Project published

### **Next Steps**

- 2010 — work toward **Feasibility Study** on Combined Star-Orion South Project; complete Environmental Impact Statement on Combined Star-Orion South Project; carry out exploration work based on recommendations of Pre-feasibility Study
- 2010 — submit **Environmental Impact Statement** on Combined Star-Orion South Project to Saskatchewan Environment and federal authorities
- 2010-11 — complete **Feasibility Study** on Combined Star Orion South Project
- 2011 and beyond — completion of environmental assessment by Saskatchewan Environment and federal authorities on Combined Star-Orion South Project; corporate production decision; arrange financing; obtain permits for mine construction; obtain permits for mineral production

**Please let us have your comments, suggestions, questions:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_ City/Town: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ email Address: \_\_\_\_\_

Comments/Suggestions: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Questions: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

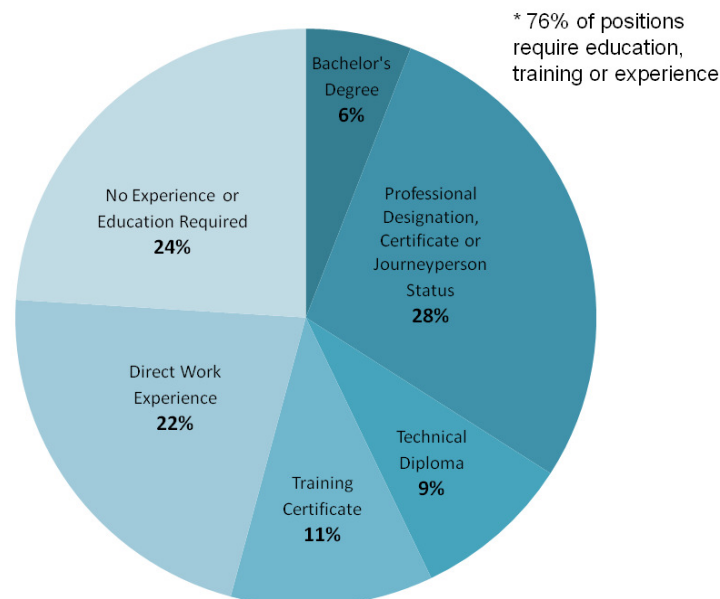
1. Drop this form in the box at the door, or
2. Mail to : Shore Gold Inc.  
Project Proposal  
300-224 4<sup>th</sup> Avenue South  
Saskatoon SK, S7K 5M5
3. Email : [projectproposal@shoregold.com](mailto:projectproposal@shoregold.com)
4. Fax: 1-306-664-7181 "Attention Project Proposal"
5. Phone: 1-306-664-2202

## Jobs & Economy

### Benefits of Diamond Mining to Saskatchewan

- **good jobs**, approximately 500 directly created jobs during construction and approximately 500 when in production
- **indirect ("spinoff") jobs**: it is estimated that for every direct job created in mining, two jobs are created in other industries, e.g. services, housing, sales, etc.
- **increased revenue to governments** -- local, provincial and federal
- **a larger, more diverse economic base**
- **population growth**
- **jobs and skills training** for local young people, including aboriginal youth
- **contracts** for the provision of goods and services

### Positions and Skill Requirements Anticipated for Production



#### Professional Designation, Certificate or Journeyperson Status

- Health & Safety Co-ordinator; Purchasing Agent; Tradesperson; OH&W Nurse

#### No Direct Experience

- Entry level Operator or Labourer

#### Direct Experience

- Production Supervisor; Plant Operator; Equipment Operator

#### Training Certificate

- Security Officer; Equipment Operator

#### Technical Diploma

- Environment Tech; Surveyor; Administrative Support; Geology Tech

#### Bachelor's Degree

- Engineer; Metallurgist; Geologist; Accountant



## ***Jobs in Mining Production***

### **Examples of Mining Jobs During Production**

Occupational Health and Safety Nurse

Information Technology Specialists

Diamond Sorters

Production Miners/Equipment Operators

Accounting Professionals

Buyers/Expeditors/Shippers/Receivers

Human Resources Professionals

Management and Administration

Health and Safety Professionals

Processing Plant Workers/Equipment Operators

Tradespeople, including Mechanics, Electricians, Welders, Millwrights, Carpenters

Geologists

Metallurgist

Lab Technicians

Warehousepersons

Security

Clerical

Trainers

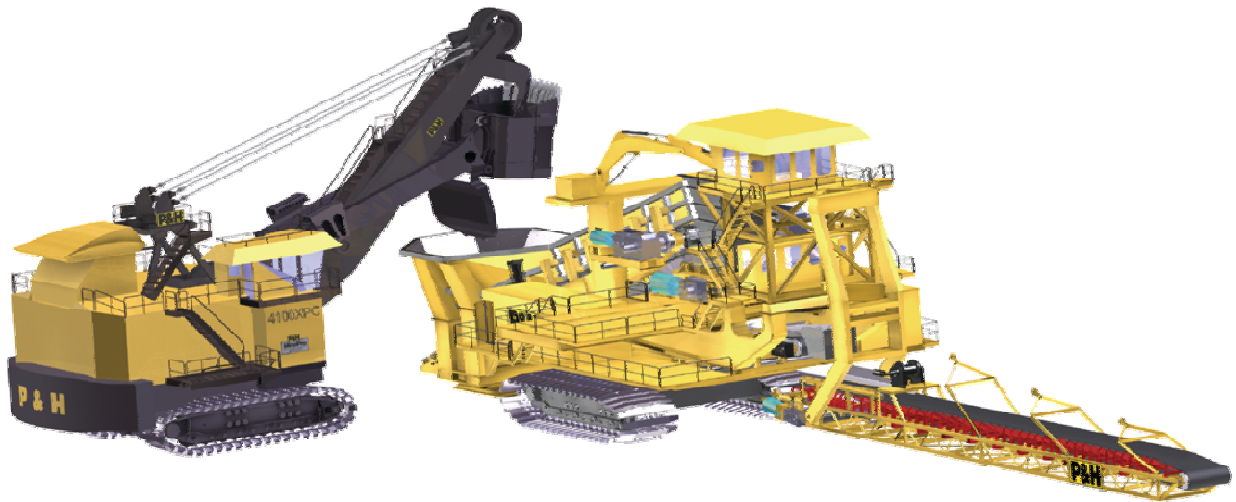
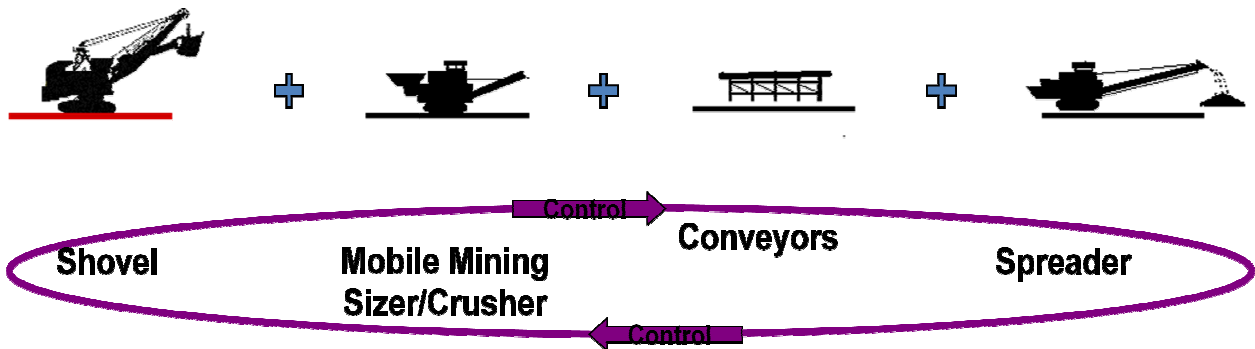
Environmental Specialists

Engineers

Fabricators

## ***Mining & Processing — From Overburden — Removal to Process of Diamond Recovery —***

1. **Pre-stripping:** conventional earth-moving equipment strips sand and clay layers down to boulders/top of till.
2. **Overburden removal:** Electrical-powered IPCC (integrated in-pit crusher and conveyor system) removes overburden (till to top of kimberlite) and conveys it to the overburden pile located outside of the pit.



Shovel

Sizer

- 20,000 tonnes per hour capacity to remove overburden and waste rock
- 4 *electric-powered shovels* with 42 m<sup>3</sup> capacity (including one spare)
- 4 fully *mobile electric crushers/sizers* (including one spare)
- 4 in-pit transfer *electric conveyors* (including one spare)
- cross-bench conveyors
- up ramp conveyors
- overland conveyors to stacker/spreader at overburden pile (one conveyor from Star, one from Orion South)

### 3. Overburden pile

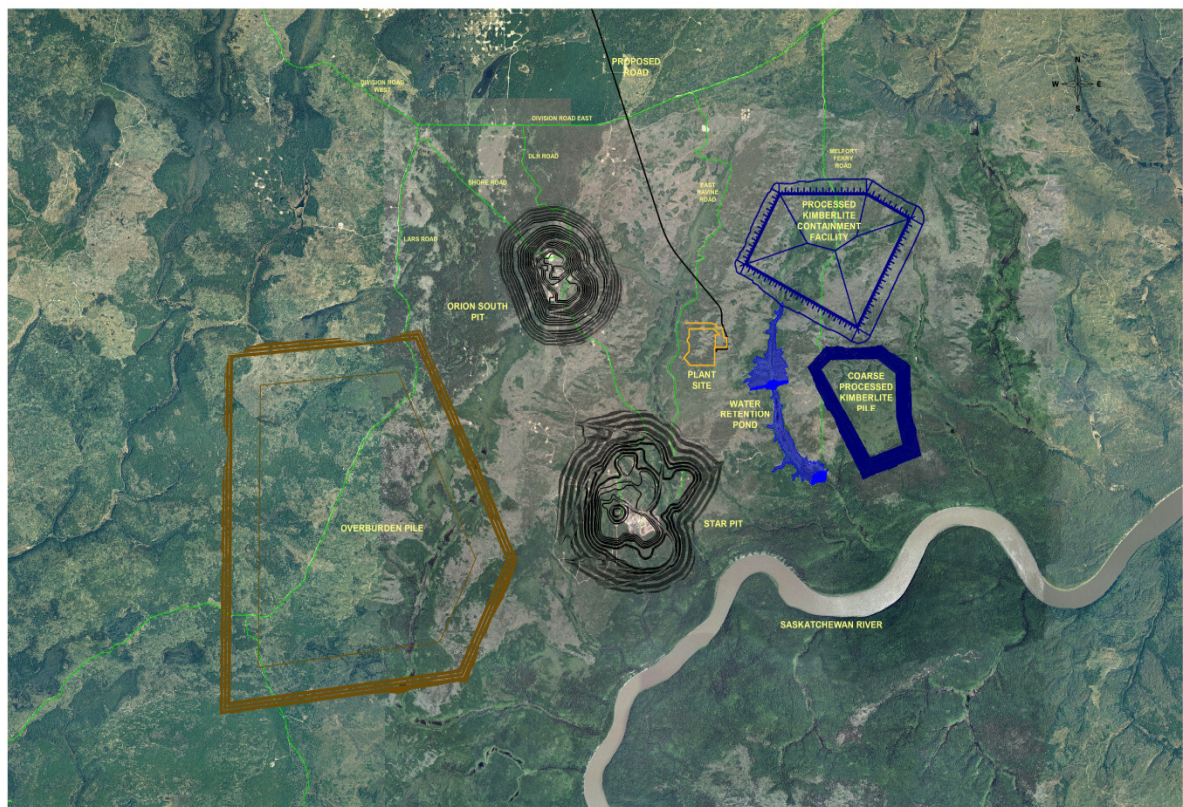
- hill from overburden approximately 912,000,000 m<sup>3</sup>
- approximately 60-80 m tall
- approximately 22 km<sup>2</sup>
- sloped, contoured with rise of three horizontal steps to one vertical
- can be planned/contoured for recreational use, e.g. ski hill, after mine closure
- some overburden may be diverted for use as hydroelectric dam fill or, in part, gravel for road building or maintenance

### 4. Kimberlite removal

- truck and shovel with semi-mobile crusher
- conventional electric hydraulic *excavators* remove 40,000 tonnes per day kimberlite which is loaded into:
  - 136 tonne capacity *diesel haul trucks* which dump the kimberlite into
  - mobile *electric crushers/sizers*, in-pit, which release *the kimberlite* to
  - in-pit cross-bench then up ramp and overland *electric conveyors*, which convey the kimberlite to
  - the *processing plant* (except uneconomic, low-grade kimberlite ore, which goes to an unprocessed kimberlite pile and can be processed at end of mine life)

## 5. Processing plant, processed kimberlite piles

- 40,000 – 45,000 tonnes per day kimberlite processed
- 14.3 million tonnes per year kimberlite ore to be processed
- anticipated mine life of 20 years
- processing plant separates diamonds from kimberlite. The process is environmentally safe, using only water and iron-rich sand, free of hazardous chemicals or byproducts.
- processing plant has 3 outputs: diamonds, processed kimberlite (< 1 mm) and coarse processed kimberlite (1 mm-45 mm)
- *diamonds* separated from kimberlite and secured
- *processed kimberlite* goes to Processed Kimberlite Containment Facility (PKCF), eventual height approximately 55 m. Water is 70-85% of processed kimberlite material and would be removed/reused in processing. Processed kimberlite only; no hazardous chemicals or byproducts.
- *coarse processed kimberlite* goes to Coarse Processed Kimberlite (CPK) Pile, eventual height approximately 54 m. Processed kimberlite only; no hazardous chemicals or byproducts. May be reprocessed in future to extract diamonds.
- all piles, i.e. overburden, processed kimberlite and coarse kimberlite to be reclaimed/revegetated during and after mine life.



## 6. Other infrastructure

- access corridor (road, communication lines e.g. SaskTel fiberoptics link, TransGas 4" natural gas line): south from Highway 55, Shipman to site, 35.6 km to be paved, 10.6 km over existing grid, 25 km generally over existing forest roads. Provincial secondary highway grade standard. One river crossing over White Fox River.
- power line: 230 kV line, from the southeast, stepped down on site to 25 kV, estimated nominal and peak demand loads of 112.8 mW and 123.1 mW on site
- processing plant, including geothermal for most heating and cooling requirements, and associated buildings
- explosives mixing and storage facility
- fuel and lubricant storage and distribution facilities
- potential gravel screening and washing facility
- security structures, administration/changehouse building, maintenance and technical services building, warehouse and cold storage building, vehicle wash facility, warm-up shed, and fire and emergency response building
- waste management facilities
- 50 tonne per hour sample Dense Media Separation plant for exploration and audit purposes
- helicopter landing pad

## 7. Pre-production capital costs:

• post-exploration and development work	\$251 million
• equipment	\$454 million
• processing plant, infrastructure	\$833 million
	<hr/>
	\$1.538 billion

## 8. Potential timelines

- construction — late 2011-2015
- production — 2016-2036



---

---

---

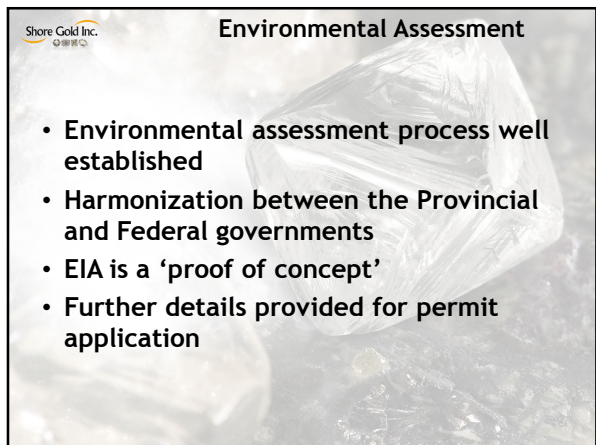
---

---

---

---

---



---

---

---

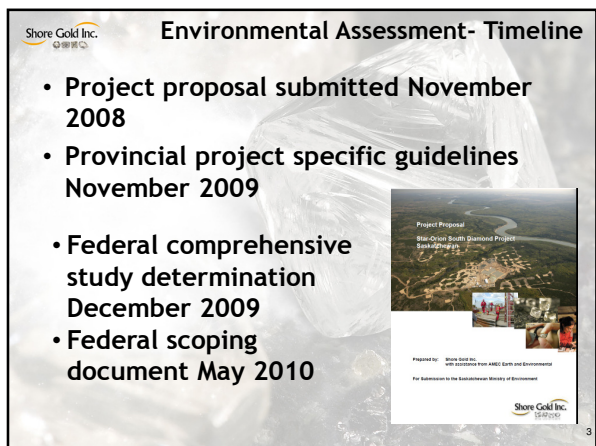
---

---

---

---

---



---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Environmental Assessment- Timeline

- EIS projected submission: December 2010
- 12 month provincial review
  - 3 month permit review
- 16-18 months federal review
- Parallel- feasibility study, detailed design, financing

4

---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Environmental Impact Statement

- Description of the Project
- Description of Baseline conditions
- Prediction and assessment of potential impacts
- Discussion of mitigation measures or enhancement of positive effects
- Assessment of residual impacts
- Assess cumulative effects

---

---

---

---

---

---

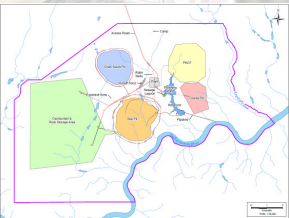
---

---

Shore Gold Inc. 金礦有限公司

### Environmental Assessment

- Three Cases
- Baseline Case
- Project Case
  - Three phases
    - Construction
    - Operation
    - Decommissioning
- Cumulative Case



6

---

---

---

---

---

---

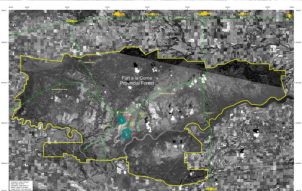
---

---

Shore Gold Inc.  
金礦股份

### Cumulative Effects Case

- **Cumulative Effects Assessment**
  - Exploration drilling: Orion North and Center
  - Future forestry
  - Power line (ancillary development)
    - Separate SaskPower process
  - Hydro dam?



7

---

---

---

---

---

---

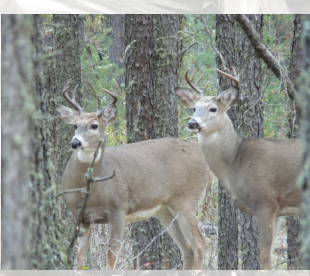
---

---

Shore Gold Inc.  
金礦股份

### Effects Attributes

- **Valued Ecosystem Components**
  - Magnitude
  - Geographic extent
  - Duration
  - Frequency
  - Reversibility
  - Ecological Context
  - Level of Confidence
  - Probability



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦股份

### Stakeholder Input- Issues Scoping

- **Diamond Development Advisory Committee**
- **Open Houses (Feb. 2009, June 2010)**
- **Ongoing meetings**
- **Review of proposed Project Specific Guidelines and Scoping Document**



---

---

---

---

---

---


---

---

Shore Gold Inc.  
金礦有限公司

### Stakeholder Input- EIA

- **Environmental Assessment: Preliminary Discussions**  
– Interests workshop October 2010 – TODAY!
- **Environmental Impact Statement**  
– 30 day public review following government/technical review of the EIS



---

---

---

---

---

---

---

---

Shore Gold Inc.  
金礦有限公司



11

---

---

---

---

---

---

---

---



---

---

---

---

---

---

---

---

Shore Gold Inc.

### Safe Harbour Statement

Certain statements contained in this presentation relate to future events or the Corporation's future performance, business prospects or opportunities and constitute forward-looking statements. All statements other than statements of historical fact may be forward-looking statements, which are often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar expressions. These statements involve known and unknown risks, uncertainties and other factors such as results of exploration activities, the Corporation's limited experience with development-stage mining operations, uninsured risks, regulatory changes, defects in title, availability of materials and equipment, timeliness of government approvals, changes in commodity and particularly diamond prices, changes in the Canadian/US, exchange rate, actual performance of facilities, equipment and processes relative to specifications and expectations, assumptions made regarding the project schedule, assumptions made regarding a diamond royalty regime and provincial taxation, unanticipated environmental impacts on operations, and other key assumptions utilized in the preparation of a pre-feasibility study, any of which may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Other additional factors that could cause actual results to differ materially include, but are not limited to, the risk factors described in the Corporation's Annual Information Form dated March 19, 2009. The Corporation cautions that the foregoing list of factors that may affect future results is not exhaustive. Actual results may differ materially from those expressed or implied by such forward-looking statements.

The potential carats, rock value and gross value set out in this presentation are estimates which are calculated based on potential tonnage, average bulk sample grades and modeled carat values from the bulk sample. These figures are conceptual in nature and should not be unduly relied upon because they are based on preliminary exploration results and could be affected by the risks and uncertainties referred to above.

The Corporation believes that the expectations reflected in its forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements should not be unduly relied upon. These statements speak only as of the date specified. The Corporation does not intend, and does not assume any obligation, to update these forward-looking statements unless required to do so pursuant to applicable securities legislation.

2

---

---

---

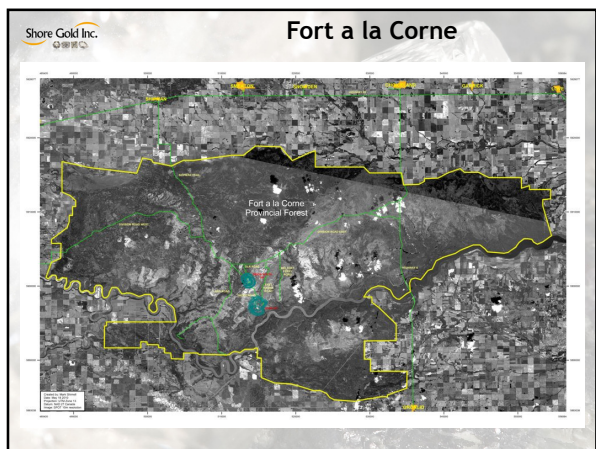
---

---

---

---

---



---

---

---

---

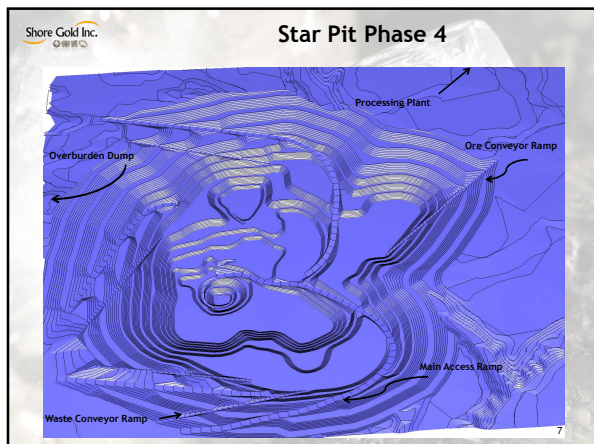
---

---

---

---





---

---

---

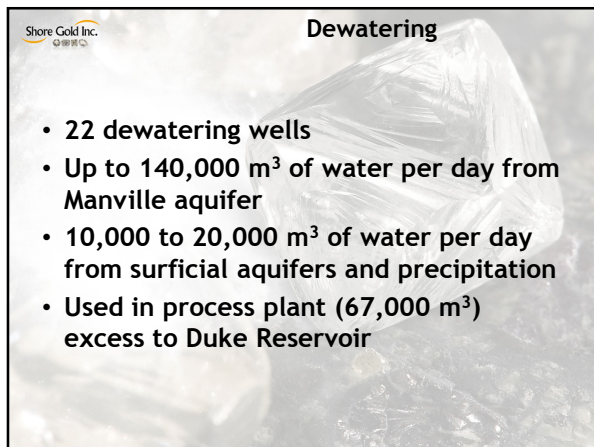
---

---

---

---

---



- 22 dewatering wells
- Up to 140,000 m<sup>3</sup> of water per day from Manville aquifer
- 10,000 to 20,000 m<sup>3</sup> of water per day from surficial aquifers and precipitation
- Used in process plant (67,000 m<sup>3</sup>) excess to Duke Reservoir

---

---

---

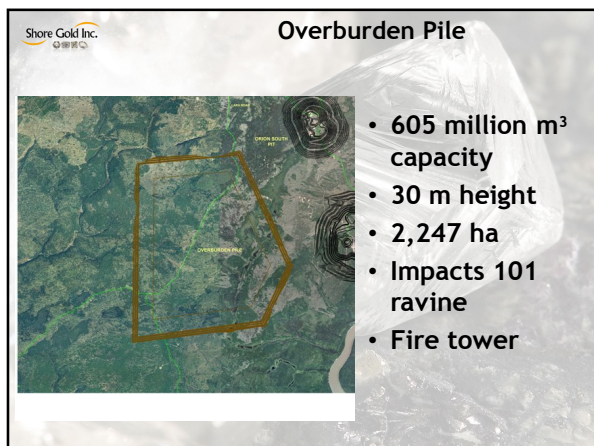
---

---

---

---

---



- 605 million m<sup>3</sup> capacity
- 30 m height
- 2,247 ha
- Impacts 101 ravine
- Fire tower

---

---

---

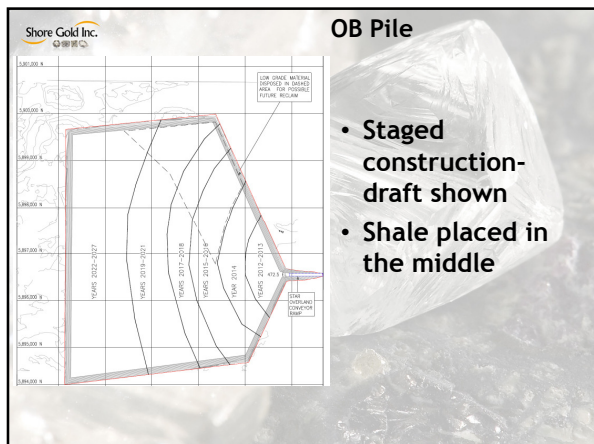
---

---

---

---

---



---

---

---

---

---

---

---

---



---

---

---

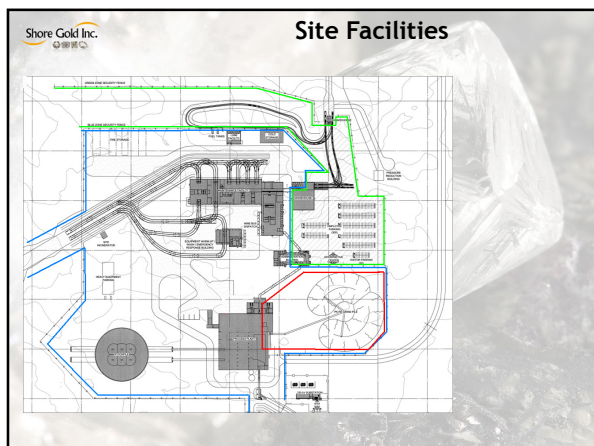
---

---

---

---

---



---

---

---

---

---

---

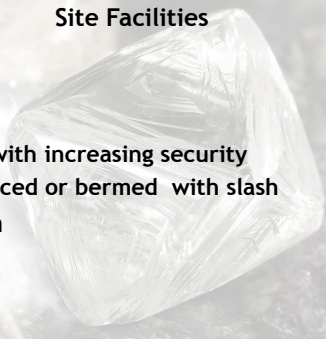
---

---

Shore Gold Inc. 金源礦業

### Site Facilities

- Security
  - Three zones with increasing security
  - Perimeter fenced or bermed with slash
- Sewage lagoon



---

---

---

---

---

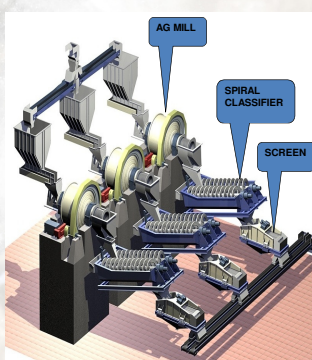
---

---

---

Shore Gold Inc. 金源礦業

### Star-Orion South Processing Plant



- 40,000 to 45,000 tonnes per day
- Recovery uses physical properties of diamond
- No hazardous material used in processing
- Autogenous milling
- AG milling 99% diamond liberation, reduces breakage
- Spiral classifiers remove fines
- Size fraction 1- 45 mm
- Dense Media Separation
- X-ray Sortex
- Grease
- Final diamond sorting & cleaning off site

14

---

---

---

---

---

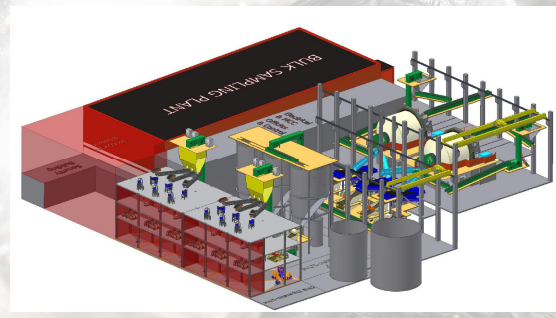
---

---

---

Shore Gold Inc. 金源礦業

### Plant Building



---

---

---

---

---

---

---

---



---

---

---

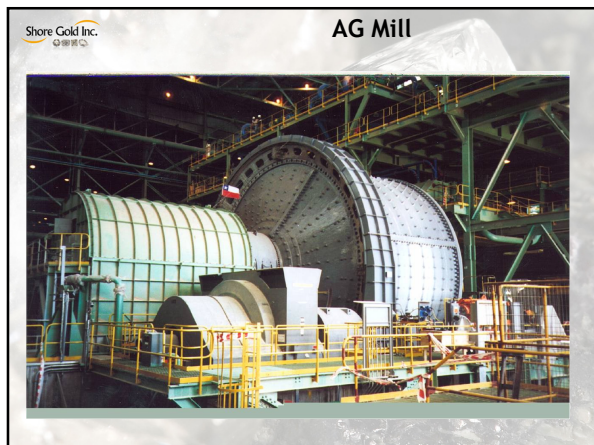
---

---

---

---

---



---

---

---

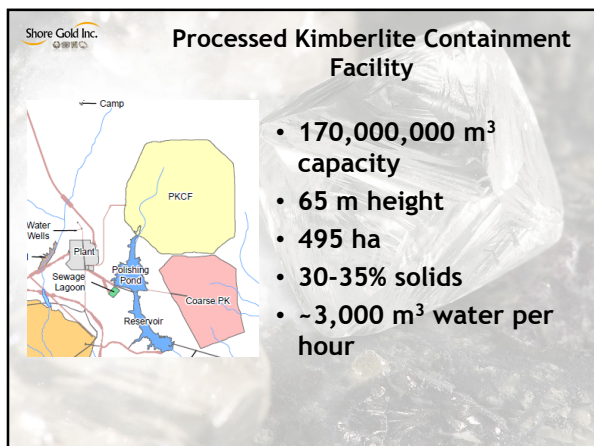
---

---

---

---

---



---

---

---

---

---

---

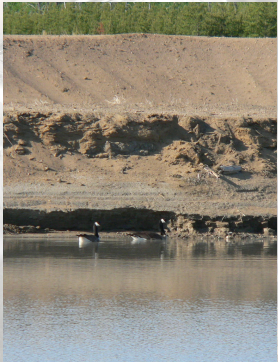
---

---

Shore Gold Inc.  
金礦有限公司

**PKCF**

- Water to Duke Reservoir
- Initial berms of sand
- Progressive construction using cycloned tailings



---

---

---

---

---

---

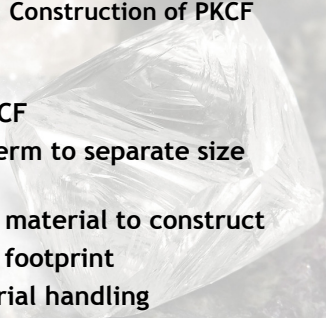
---

---

Shore Gold Inc.  
金礦有限公司

**Construction of PKCF**

- All fines to PKCF
- Cyclones on berm to separate size fractions
- Use separated material to construct
- Reduces PKCF footprint
- Reduces material handling



20

---

---

---

---

---

---

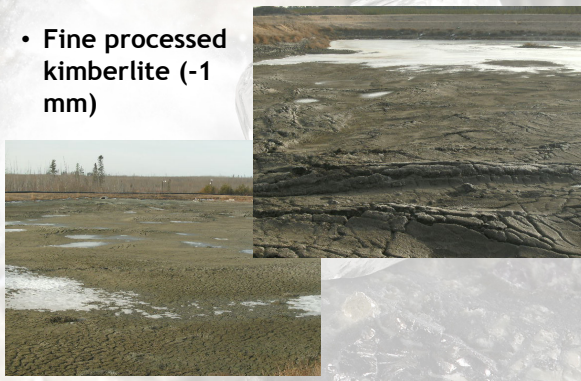
---

---

Shore Gold Inc.  
金礦有限公司

**PKCF**

- Fine processed kimberlite (-1 mm)



---

---

---

---

---

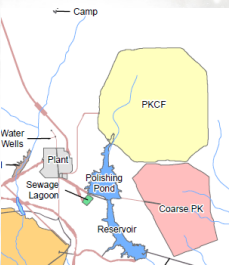
---

---

---

Shore Gold Inc. 金礦股份

### Coarse Processed Kimberlite



- Conveyed from plant
- 240 ha
- ~40-50 m height
- May be reprocessed at end of mine

---

---

---

---

---

---


---

---

Shore Gold Inc. 金礦股份

### Coarse PK, Low grade ore, Recrush

- Low grade ore from pit
- Recrush pile (kimberlite size from 8 mm to 400 mm)
- Coarse PK (1 mm to 8 mm)



23

---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦股份

### Kimberlite- Star and OS



24

---

---

---

---

---

---

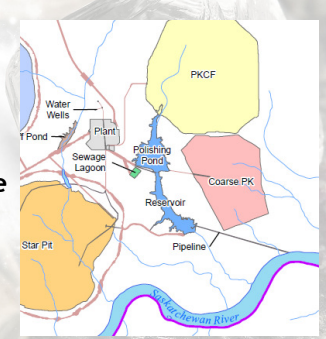
---

---

Shore Gold Inc. 金礦股份

### Duke Ravine Reservoir

- 2 million m<sup>3</sup> capacity
- Two cells separated by a dyke to provide extra settling
- Controlled discharge to Sask. River



25

---

---

---

---

---

---

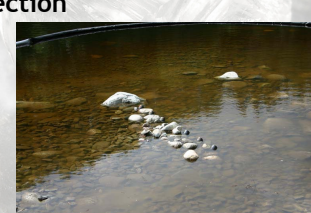
---

---

Shore Gold Inc. 金礦股份

### Discharge to Saskatchewan River

- All water will eventually end up in the Saskatchewan River
- Discharge structure near FalC Ravine
- No in stream works; pipe buried on bank for ice protection
- Similar to Victor  
– Northern Ontario



26

---

---

---

---


---

---

---

---

Shore Gold Inc. 金礦股份



27

---

---

---

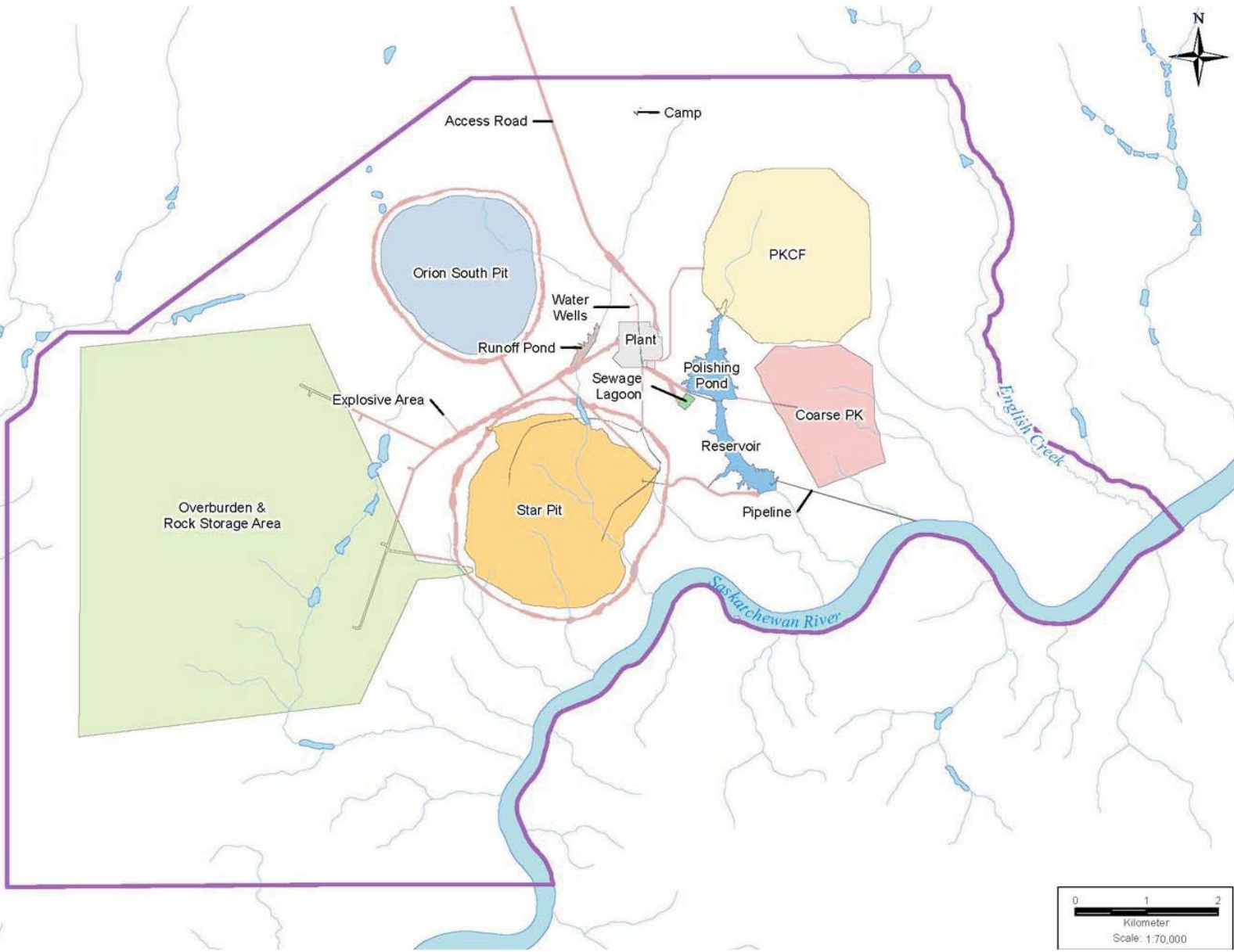
---

---

---

---

---



## Our Vision

---

At Shore Gold Inc., we seek to provide value to shareholders by identifying, exploring, and ultimately developing quality natural resource properties in an environmentally, socially and economically responsible manner while providing employment and economic opportunities to individuals and communities.

## Our Values

---

### **Safety**

We seek to maintain a safe and healthy workplace for all employees with the ultimate goal of zero lost time incidents, and to foster company-wide awareness and cooperation in safety to develop an environment in which all employees can work safely and productively.

### **People**

We value our workforce and strive to develop a respectful and representative workplace which recognizes the diversity of individuals while promoting a team environment.

### **Environment**

We recognize and respect the inherent value of our environment and seek to minimize our impact on the environment through strategic planning, implementation of best management practices and innovation, while striving to continually improve the quality of our environmental practices.

### **Communities**

We value the communities neighbouring our operations and hope to see the quality of life of their citizens enhanced by emerging employment and business opportunities.

### **Security**

We seek to provide professional and efficient security to ensure appropriate safeguards are in place to protect our employees and assets.

## *Our Safety*

---

### **Vision**

At Shore, we seek to maintain a safe and healthy workplace for all employees with the ultimate goal of zero lost time incidents as well as to foster company-wide awareness and cooperation in safety to develop an environment in which all employees can work safely and productively.

### **Safe and Healthy Workplace**

We seek to:

- Identify, assess and manage health and safety risks
- Educate employees in best health and safety practices
- Educate employees in compliance with applicable health and safety rules and regulations
- Investigate incidents promptly and thoroughly, determine the root cause and prevent reoccurrence

### **Responsibilities**

We will:

- Accept responsibility for leadership of the Health and Safety Program, for its effectiveness and improvement, and for providing the safety measures required to ensure a safe workplace
- Ensure that employees are aware of their roles and responsibilities as key partners within all components of the Health and Safety Program

## *Our People*

---

### **Vision**

At Shore, we value our workforce and strive to develop a respectful and representative workplace which recognizes the diversity of individuals while promoting a team environment through mutual respect and cooperation.

### **Value Performance**

We seek to:

- Recruit and develop a dedicated workforce committed to the advancement of our projects
- Provide a workplace that rewards and inspires talented and motivated individuals
- Offer opportunities for growth and success, support performance excellence and foster continuous improvement in all areas of work

### **Respectful Workplace**

We strive to:

- Create and maintain a work environment in which all individuals are treated with respect and dignity
- Establish a work environment which promotes equal opportunity, cooperation and full participation for all our employees

### **Representative and Diverse Workforce**

We work to:

- Develop a workforce which represents the diversity of skills required to advance our projects
- Develop a workforce representative of the geographic areas in which we operate, including communities and cultural groups surrounding our projects

## *Our Environment*

---

### **Vision**

At Shore, we recognize and respect the inherent value of our environment and seek to minimize our impact on the environment through strategic planning, implementation of best management practices and innovation, while striving to continually improve the quality of our environmental practices.

### **Planning**

We seek to:

- Consider the environment as an integral part of all stages of project planning
- Collect and analyze meaningful environmental information to understand the potential effects of our activities on the environment
- Evaluate alternatives and maintain flexibility in project design to reduce our environmental footprint where practical
- Understand the implications of regulatory and policy changes on our projects

### **Environmental Best Management Practices**

We will:

- Strive to implement and follow environmental best management practices
- Educate employees in environmental best management practices and permit conditions relevant to their work
- Meet or exceed regulatory and industry standards

### **Innovation and Continuous Improvement**

We strive to:

- Promote a shared responsibility for environmental management with all employees
- Continually monitor, evaluate and modify our environmental practices and procedures where applicable
- Adapt to changes in regulation and the natural environment
- Use innovative solutions to reduce our environment footprint by:
  - reducing, reusing and recycling wastes
  - maximizing the benefits of any resource utilized
  - evaluating procedural alternatives and new technologies

## *Our Communities*

---

### **Vision**

At Shore, we value the communities neighbouring our operations and hope to see the quality of life of their citizens enhanced by emerging employment and business opportunities.

### **Community Involvement**

We seek to:

- Build long-term relationships with neighbouring communities
- Engage communities through open communication and mutual respect to share information and allow community partners to participate in meaningful ways
- Gather community input to shape project development
- Provide opportunities for communities to enhance their ability to participate in economic opportunities provided by our projects

### **Economic Opportunities**

We strive to:

- Work collaboratively with communities, governments and institutions to create training opportunities for skill development in industry-related occupations
- Provide employment opportunities with a focus on local participation
- Build relationships with local suppliers and businesses to obtain quality, competitively priced goods and services in a timely fashion

### **First Nations and Métis Communities**

We recognize:

- The unique position of First Nations and Métis people in Canada through their treaty and constitutional rights
- The government's duty to consult with First Nations and Métis people and will network with the government to facilitate the process where possible
- The potential socio-economic benefits of the projects for First Nations and Métis communities through employment and business participation

We work to:

- Develop meaningful engagement and communication with neighbouring First Nations and Métis communities
- Create mutually beneficial relationships with First Nations and Métis communities to promote training and recruitment of young people into trades, technical and skilled occupations

## *Our Security*

---

### **Vision**

At Shore, we seek to provide professional and efficient security to ensure appropriate safeguards are in place to protect our employees and assets.

### **Security of Employees**

We seek to:

- Ensure a safe and secure work environment
- Develop and promote a sense of security awareness as a shared responsibility for all our employees
- Ensure professionalism, co-operation, sensitivity, and mutual respect are maintained throughout security programs and initiatives

### **Security of Assets**

We strive to:

- Limit the possibilities for theft and ensure the protection of our assets by planning and coordinating effective and efficient security initiatives

### **Fostering Stakeholder and Partner Confidence**

We work to:

Foster stakeholder and partner confidence by ensuring a consistent standard of enhanced security



**Water**

Shore Gold Inc.  
Exploring and Developing  
Canada's Diamond Resources

October 26, 2010

---

---

---

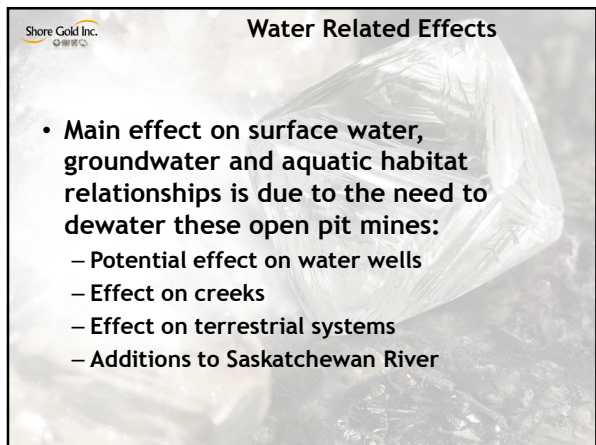
---

---

---

---

---



Shore Gold Inc.

**Water Related Effects**

- **Main effect on surface water, groundwater and aquatic habitat relationships is due to the need to dewater these open pit mines:**
  - Potential effect on water wells
  - Effect on creeks
  - Effect on terrestrial systems
  - Additions to Saskatchewan River

---

---

---

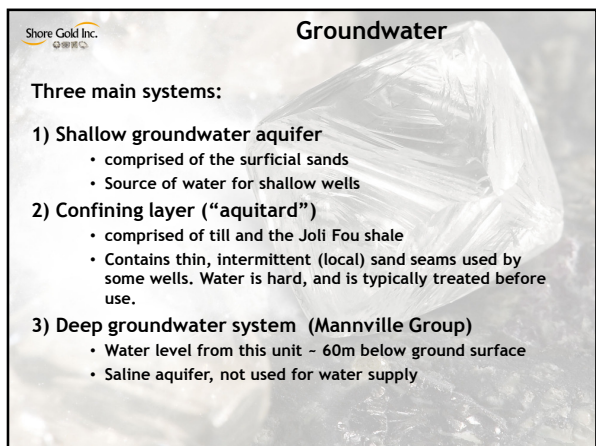
---

---

---

---

---



Shore Gold Inc.

**Groundwater**

Three main systems:

- 1) **Shallow groundwater aquifer**
  - comprised of the surficial sands
  - Source of water for shallow wells
- 2) **Confining layer ("aquitard")**
  - comprised of till and the Joli Fou shale
  - Contains thin, intermittent (local) sand seams used by some wells. Water is hard, and is typically treated before use.
- 3) **Deep groundwater system (Mannville Group)**
  - Water level from this unit - 60m below ground surface
  - Saline aquifer, not used for water supply

---

---

---

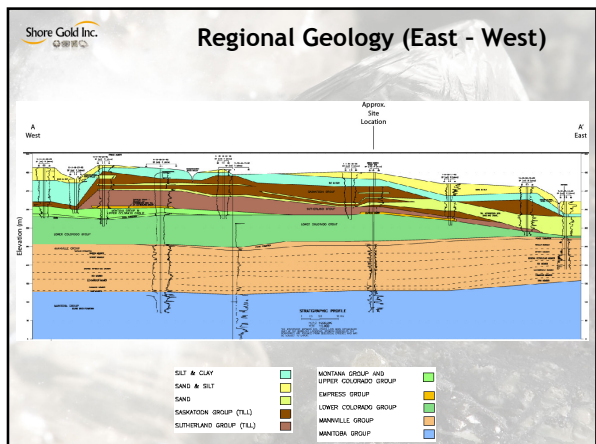
---

---

---

---

---



---

---

---

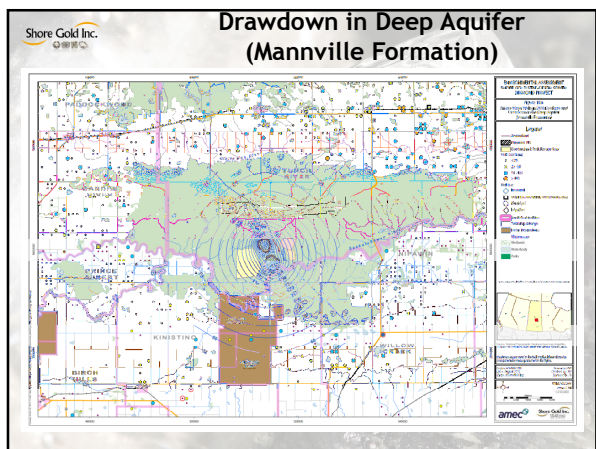
---

---

---

---

---



---

---

---

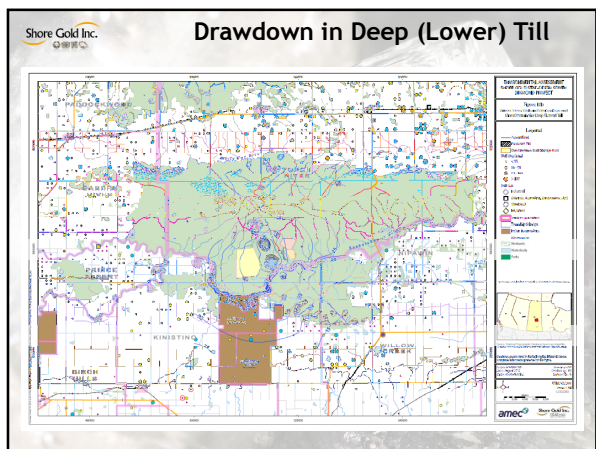
---

---

---

---

---



---

---

---

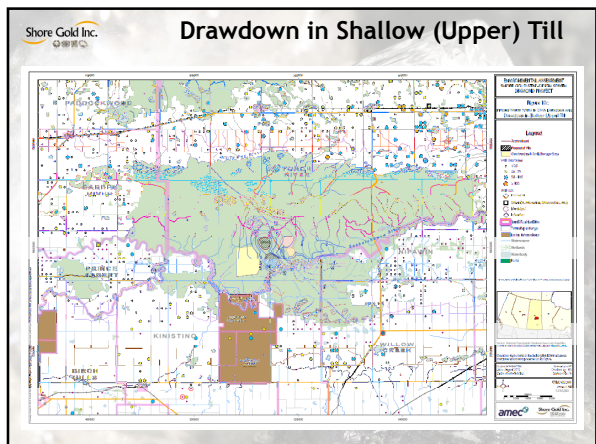
---

---

---

---

---



---

---

---

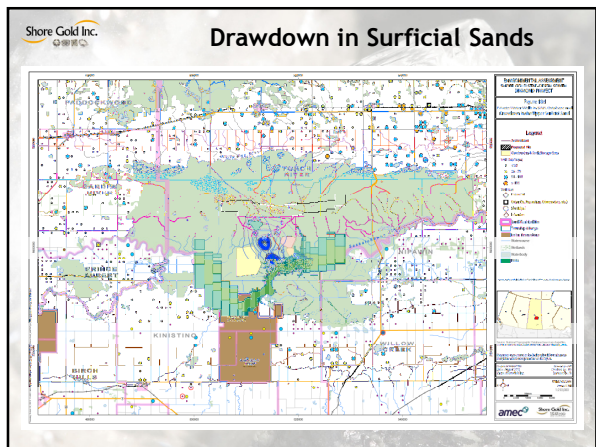
---

---

---

---

---



---

---

---

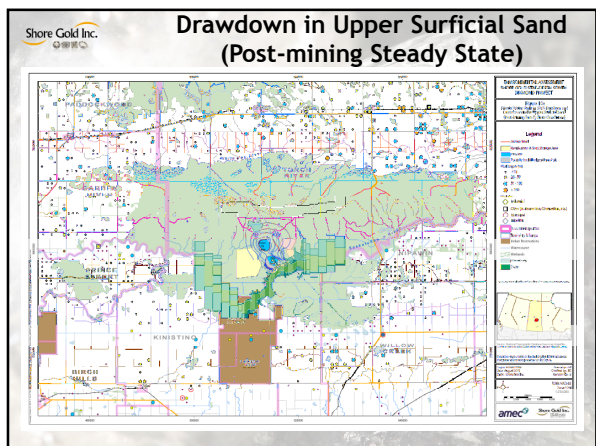
---

---

---

---

---



---

---

---

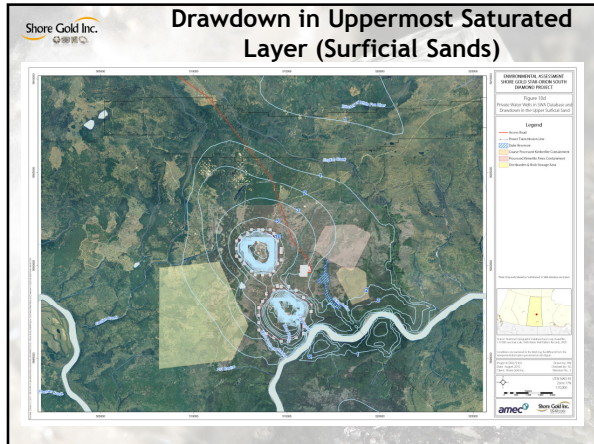
---

---

---

---

---



---

---

---

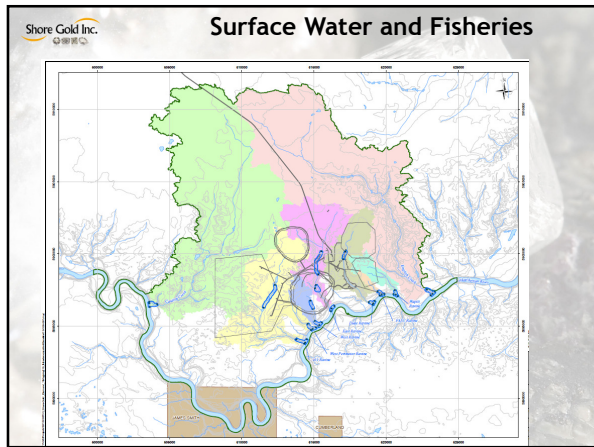
---

---

---

---

---



---

---

---

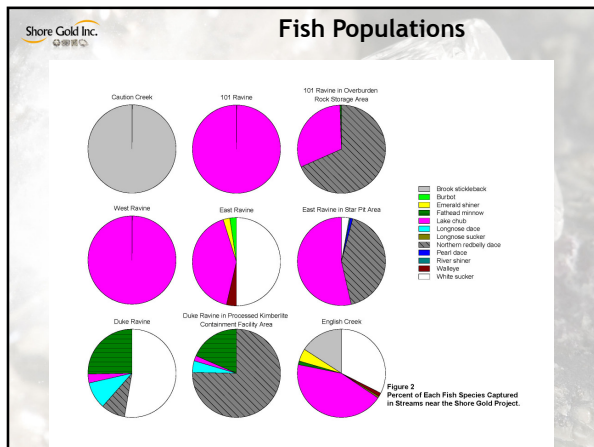
---

---

---

---

---



---

---

---

---


---

---

---

---



Shore Gold Inc. 

### Effect on Groundwater Flows to Local Creeks from Pit Dewatering

Location	Simulated Pre-mining Groundwater Inflows (m <sup>3</sup> /d)	Simulated Lowest Groundwater Inflows (m <sup>3</sup> /d)	Percent Change (%)	Years after Mining ceased when low condition occurred
Saskatchewan River	3,200	1,640	51 **1	6
Caution Creek	6,300	2,500	40	4
101 Ravine	3,100	1,200	39	11
English Creek	13,300	3,850	29	11
Creek South of SK River	2,100	660	31	6
Creek SW of SK River	4,800	870	18	8

**Note:**  
 \*\*1 - Only examines groundwater inflows to river within the modeling area. The simulated decrease in groundwater flows to the river represent only -0.01% of the low flows in this river.

---

---

---

---

---

---

---

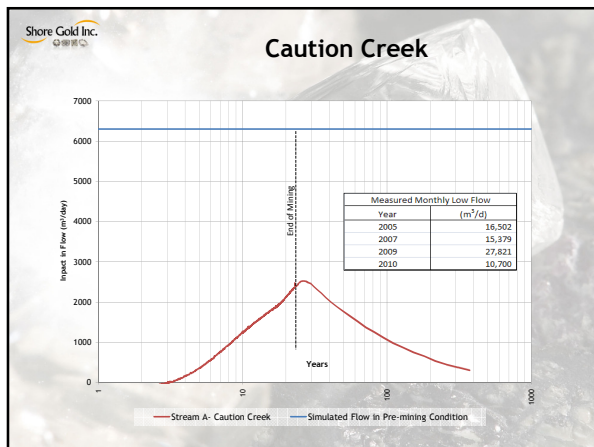
---

---

---

---

---




---

---

---

---

---

---

---


---

---

---

---

---

Shore Gold Inc. 

### Discharge to Saskatchewan River

- **Discharge Location**
  - Downstream of Duke Ravine
- **Volume**
  - Up to 199,000 m<sup>3</sup>/d (less than 2% of low flow of Saskatchewan River)
- **Quality**
  - process water will be sent to a water treatment/settling pond prior to discharge
  - Mainly process water and deep groundwater (lower quality waters) with better quality shallow groundwater and precipitation

---

---

---

---

---

---

---

---

---

---

---

---



Shore Gold Inc. 金礦有限公司

### Ecotoxicity Testing

- Tested end-of-pipe discharge from pilot plant and West Ravine waters in Jan 07
- Two kinds of testing
  - Acute (rainbow minnow) and
  - Sublethal tests (water flea, fathead minnow, green algae and duckweed)

---

---

---

---

---


---

---

---

Shore Gold Inc. 金礦有限公司

### Ecotoxicity Testing - Results



**Acute Test Results:**

- No mortality in both samples at 100% concentration

**Sublethal Test Results:**

- West Ravine water did not cause any significant sublethal toxic effects but some effects with pilot plant discharge:
  - No effects on fathead minnow survival or growth, or green algae growth
  - effect on green algae frond production (IC25 = 53.7%), but not weight (IC25 > 97%)
  - reduced water flea survival (LC50 = 16.4%)
  - reduced water flea reproduction (IC25 = 4.1%)

---

---

---

---

---

---

---

---

Shore Gold Inc. 金礦有限公司

### Discharge Modelling

- River Survey completed
  - Flows and bottom elevations measured along 7 km length of SKR, to adequately describe the mixing of the proposed discharge location
- Flows and Bottom Elevations were used in discharge modelling
- For discharge water used (to be conservative):
  - Flow of 199,000 m<sup>3</sup>/d
  - Chloride concentration of 1,725 mg/L

---

---

---

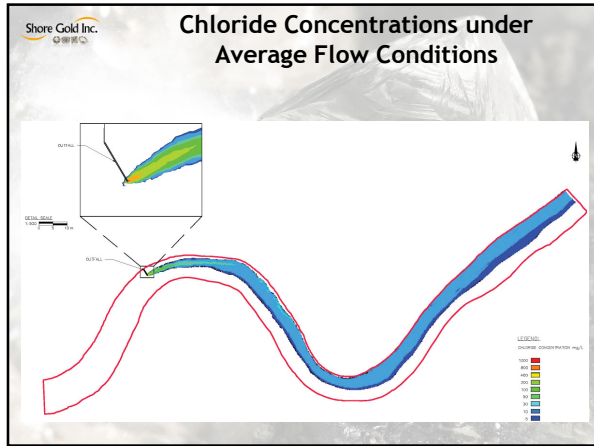
---

---

---

---

---



---

---

---

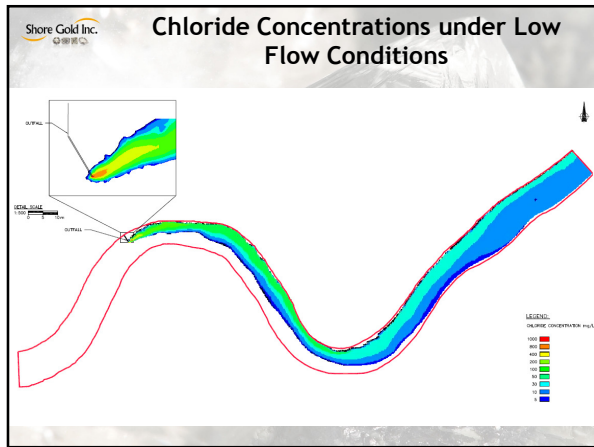
---

---

---

---

---



---

---

---

---

---

---

---

---

# **Appendix C**

## **Presentations:**

- ✓ **Project Overview – Mining and Processing  
Environmental Assessment Process**

**Surface and Groundwater Effects and  
Mitigation/Management**

**Other Environmental Effects and Mitigation/Management**



**Environmental Interests Workshop**

**Shore Gold Star-Orion South Diamond Project**

## Presentations:

Overview of project including mining and processing activities – Bill Van Breugel, Project Manager, Shore Gold



Shore Gold Inc.  
QSEK

### Safe Harbour Statement

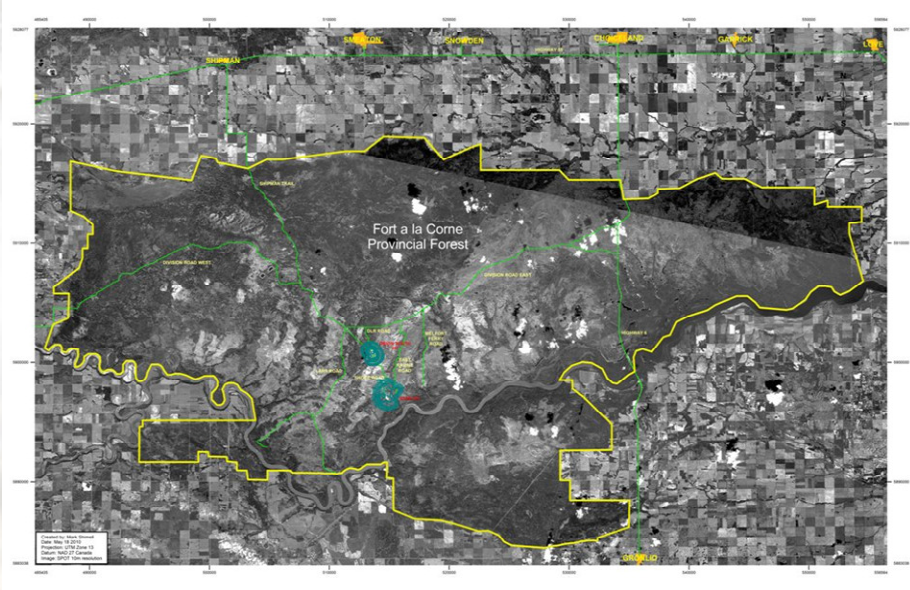
Certain statements contained in this presentation relate to future events or the Corporation's future performance, business prospects or opportunities and constitute forward-looking statements. All statements other than statements of historical fact may be forward-looking statements, which are often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar expressions. These statements involve known and unknown risks, uncertainties and other factors such as results of exploration activities, the Corporation's limited experience with development-stage mining operations, uninsured risks, regulatory changes, defects in title, availability of materials and equipment, timeliness of government approvals, changes in commodity and particularly diamond prices, changes in the Canadian/US. exchange rate, actual performance of facilities, equipment and processes relative to specifications and expectations, assumptions made regarding the project schedule, assumptions made regarding a diamond royalty regime and provincial taxation, unanticipated environmental impacts on operations, and other key assumptions utilized in the preparation of a pre-feasibility study, any of which may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Other additional factors that could cause actual results to differ materially include, but are not limited to, the risk factors described in the Corporation's Annual Information Form dated March 19, 2009. The Corporation cautions that the foregoing list of factors that may affect future results is not exhaustive. Actual results may differ materially from those expressed or implied by such forward-looking statements.

The potential carats, rock value and gross value set out in this presentation are estimates which are calculated based on potential tonnage, average bulk sample grades and modeled carat values from the bulk sample. These figures are conceptual in nature and should not be unduly relied upon because they are based on preliminary exploration results and could be affected by the risks and uncertainties referred to above.

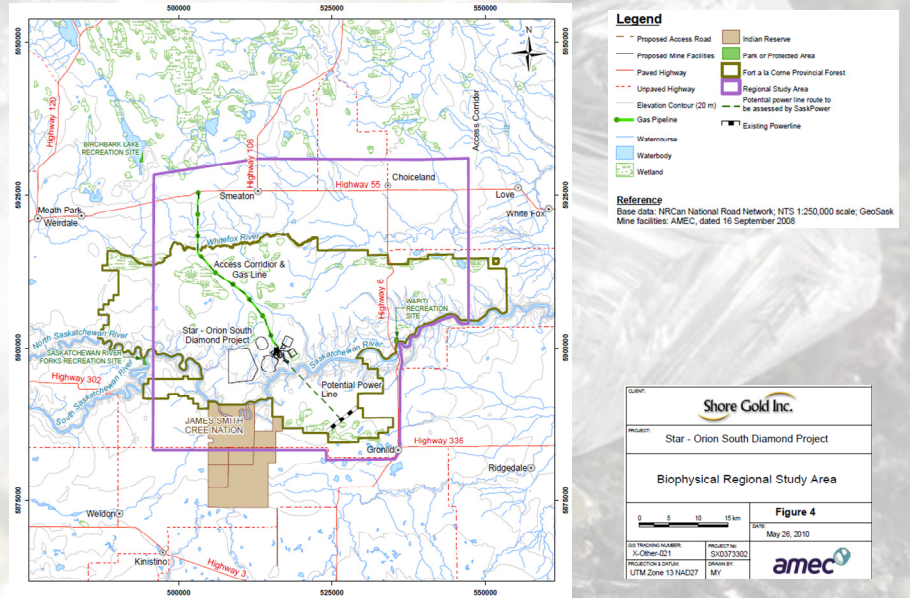
The Corporation believes that the expectations reflected in its forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements should not be unduly relied upon. These statements speak only as of the date specified. The Corporation does not intend, and does not assume any obligation, to update these forward-looking statements unless required to do so pursuant to applicable securities legislation.

2

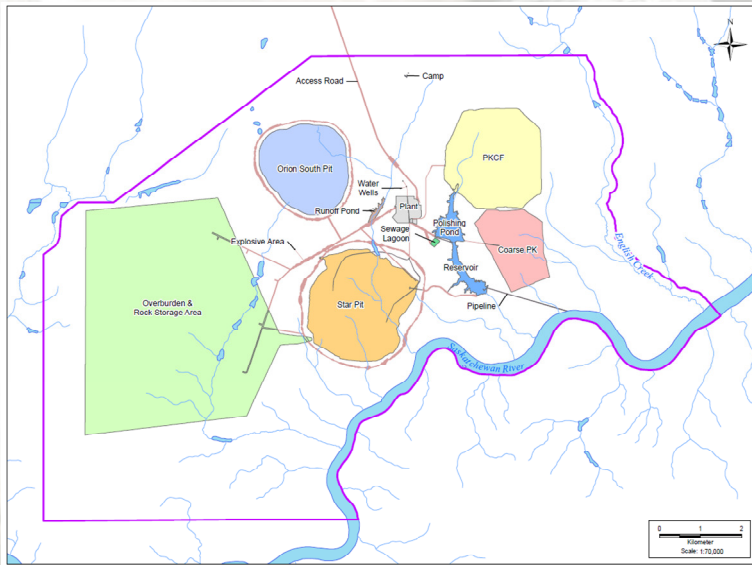
# Fort a la Corne



# Regional Study Area

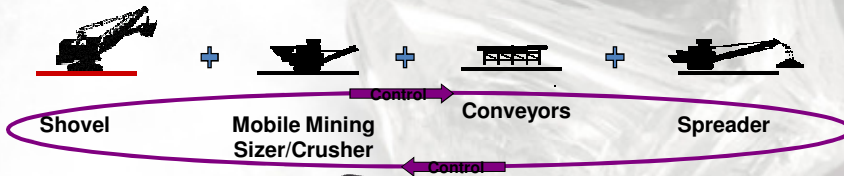


## Site layout

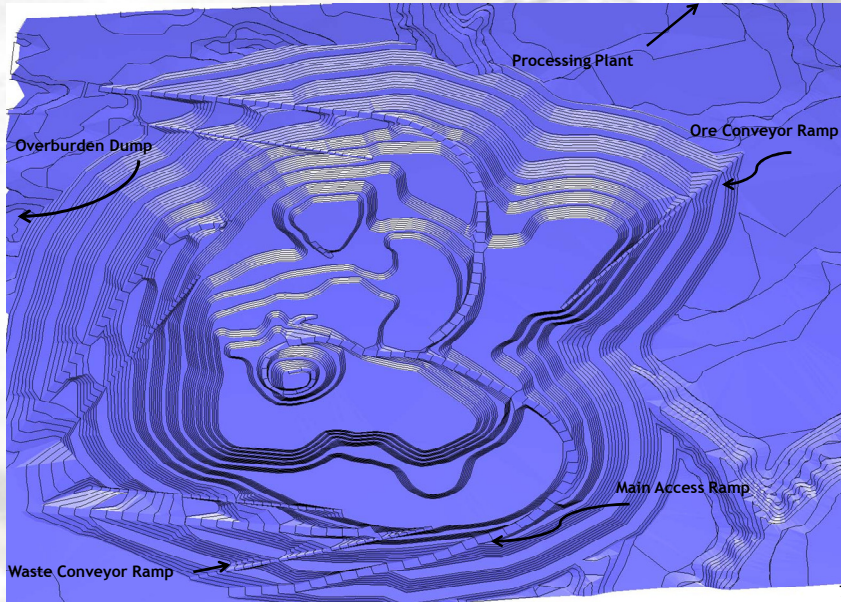


## Overburden Removal & Mining

- Grid power supply enables extensive use of electric equipment
- IPCC: Integrated In Pit Crusher Conveyor System
- Small (7) truck fleet used between shovel and crusher for mining ore



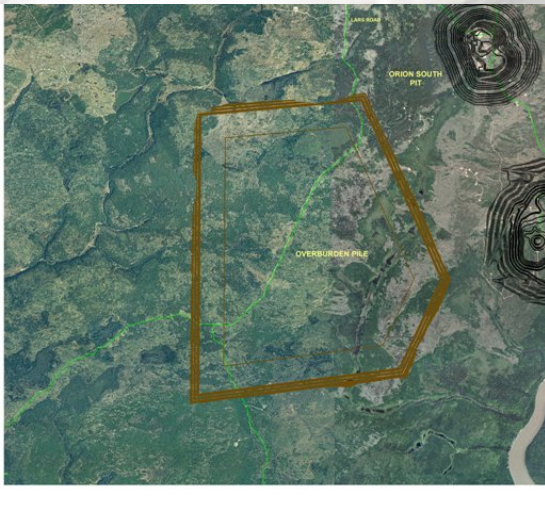
## Star Pit Phase 4



## Dewatering

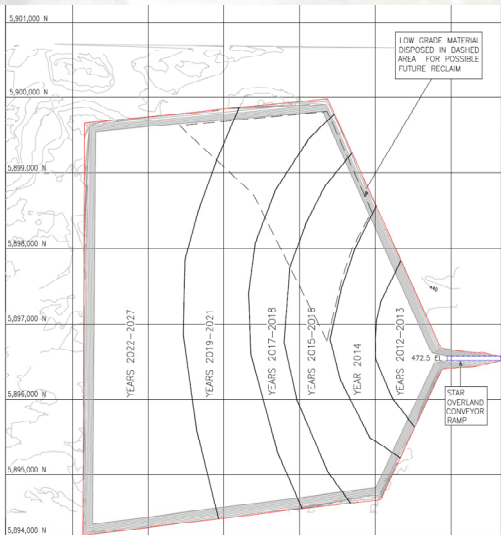
- 22 dewatering wells
- Up to 140,000 m<sup>3</sup> of water per day from Manville aquifer
- 10,000 to 20,000 m<sup>3</sup> of water per day from surficial aquifers and precipitation
- Used in process plant (67,000 m<sup>3</sup>)  
excess to Duke Reservoir

## Overburden Pile



- 605 million m<sup>3</sup> capacity
- 30 m height
- 2,247 ha
- Impacts 101 ravine
- Fire tower

## OB Pile

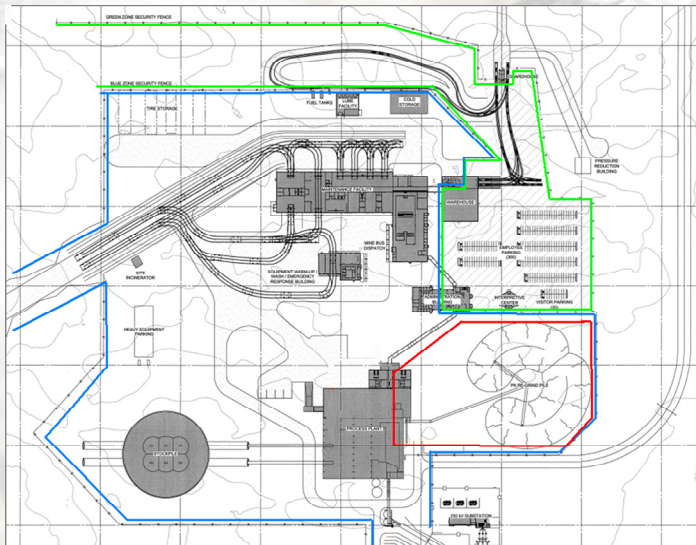


- Staged construction-draft shown
- Shale placed in the middle

## Site Facilities

- Administration Building
- Maintenance Shop and Fuel Bay
- Warehouse and storage
- Incinerator
- Explosives Storage
- Emergency response building

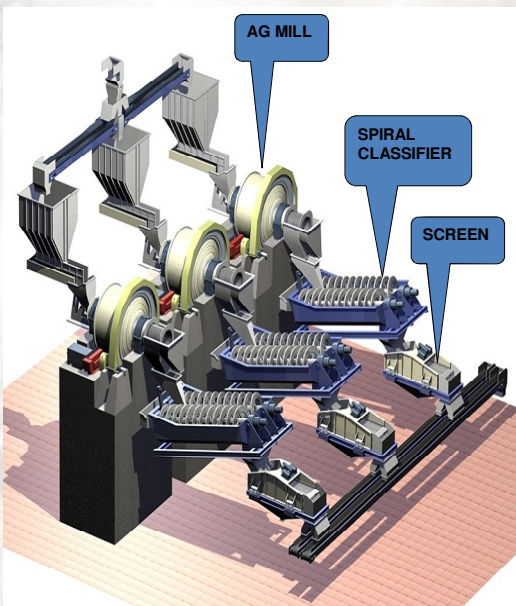
## Site Facilities



## Site Facilities

- **Security**
  - Three zones with increasing security
  - Perimeter fenced or bermed with slash
- **Sewage lagoon**

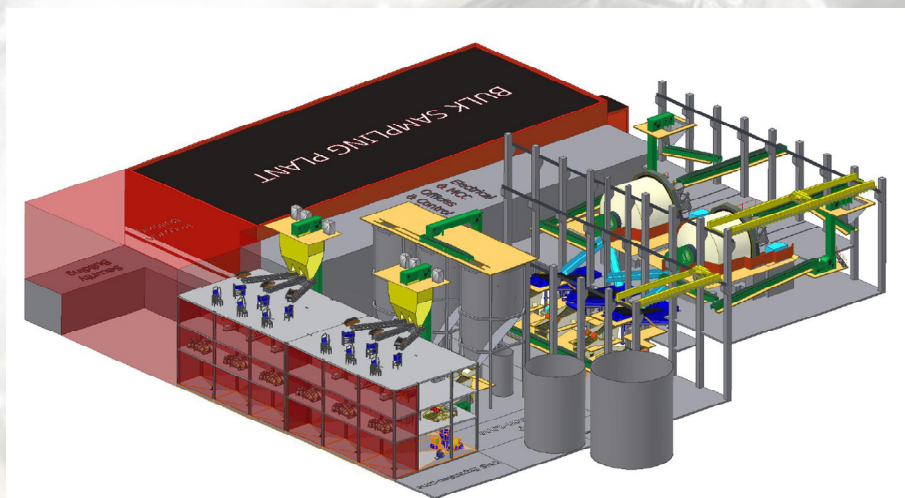
## Star-Orion South Processing Plant



- 40,000 to 45,000 tonnes per day
- Recovery uses physical properties of diamond
- **No** hazardous material used in processing
- Autogenous milling
- AG milling 99% diamond liberation, reduces breakage
- Spiral classifiers remove fines
- Size fraction 1- 45 mm
- Dense Media Separation
- X-ray Sortex
- Grease
- Final diamond sorting & cleaning off site

14

## Plant Building



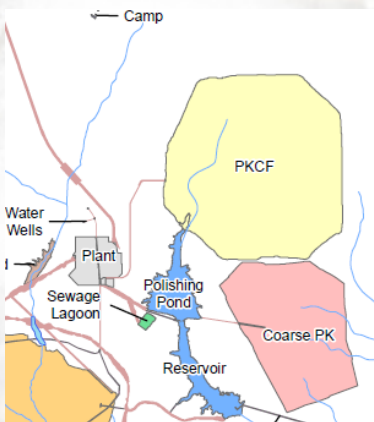
## AG Mill



## AG Mill



## Processed Kimberlite Containment Facility



- 170,000,000 m<sup>3</sup> capacity
- 65 m height
- 495 ha
- 30-35% solids
- ~3,000 m<sup>3</sup> water per hour

## PKCF

- Water to Duke Reservoir
- Initial berms of sand
- Progressive construction using cycloned tailings

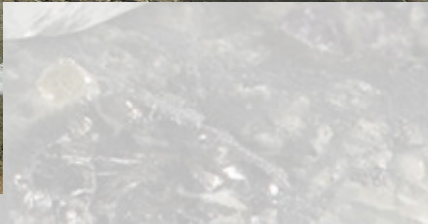


## Construction of PKCF

- All fines to PKCF
- Cyclones on berm to separate size fractions
- Use separated material to construct
- Reduces PKCF footprint
- Reduces material handling

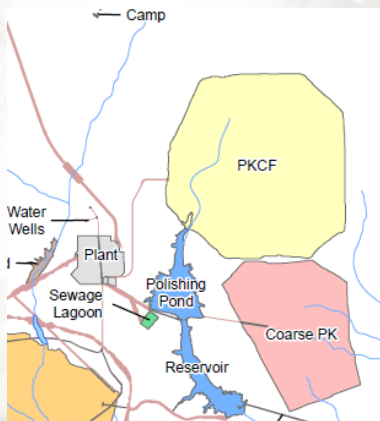
## PKCF

- Fine processed kimberlite (-1 mm)



## Coarse Processed Kimberlite

- Conveyed from plant
- 240 ha
- ~40-50 m height
- May be reprocessed at end of mine



## Coarse PK, Low grade ore, Recrush

- Low grade ore from pit
- Recrush pile (kimberlite size from 8 mm to 400 mm)
- Coarse PK (1 mm to 8 mm)



23

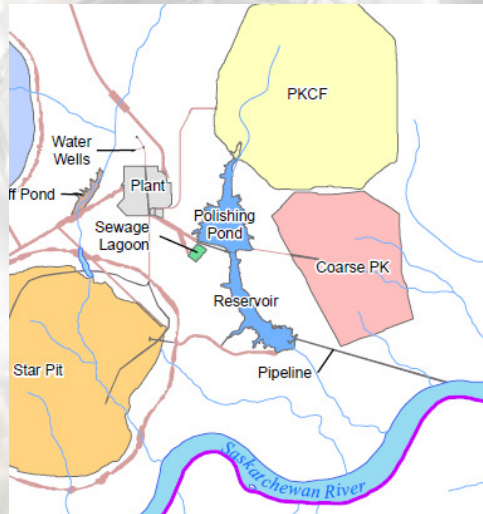
## Kimberlite- Star and OS



24

## Duke Ravine Reservoir

- 2 million m<sup>3</sup> capacity
- Two cells separated by a dyke to provide extra settling
- Controlled discharge to Sask. River



25

## Discharge to Saskatchewan River

- All water will eventually end up in the Saskatchewan River
- Discharge structure near FalC Ravine
- No in stream works; pipe buried on bank for ice protection
- Similar to Victor  
– Northern Ontario





27

# **Appendix C**

## **Presentations:**

### **Project Overview – Mining and Processing**

#### **✓ Environmental Assessment Process**

#### **Surface and Groundwater Effects and Mitigation/Management**

#### **Other Environmental Effects and Mitigation/Management**

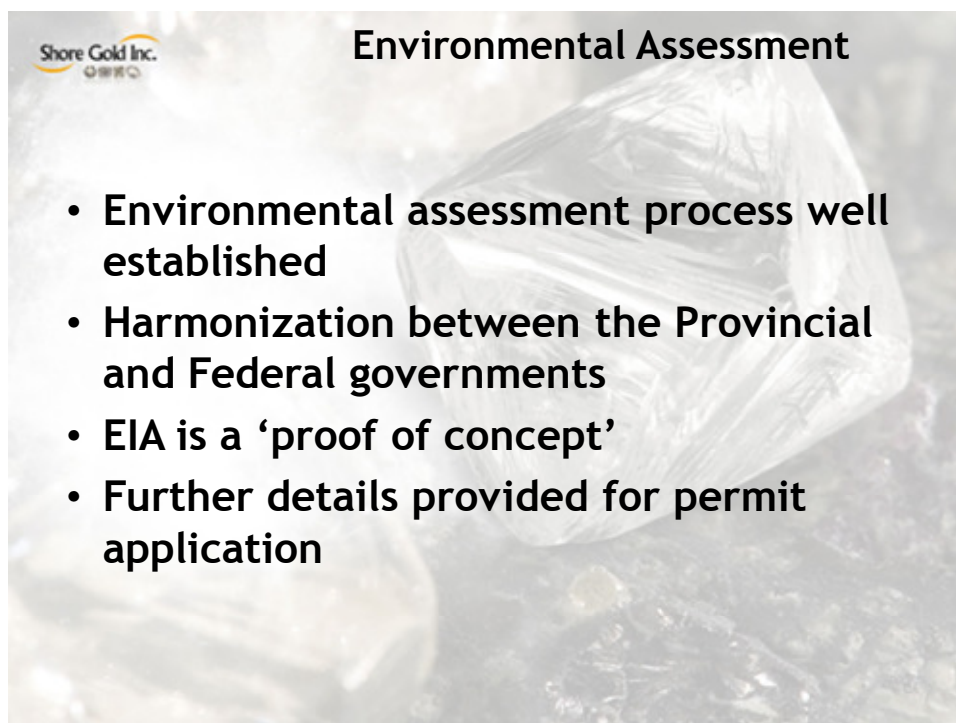


## **Environmental Interests Workshop**

### **Shore Gold Star-Orion South Diamond Project**

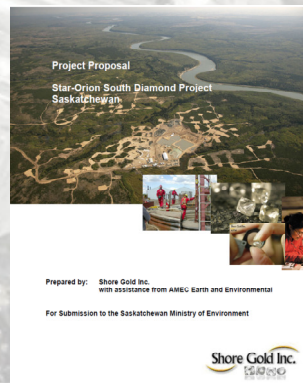
## Presentation

Environmental Assessment process overview — Ethan Richardson, Environmental Manager, Shore Gold



## Environmental Assessment- Timeline

- Project proposal submitted November 2008
- Provincial project specific guidelines November 2009
- Federal comprehensive study determination December 2009
- Federal scoping document May 2010



3

## Environmental Assessment- Timeline

- EIS projected submission: December 2010
- 12 month provincial review
  - 3 month permit review
- 16-18 months federal review
- Parallel- feasibility study, detailed design, financing

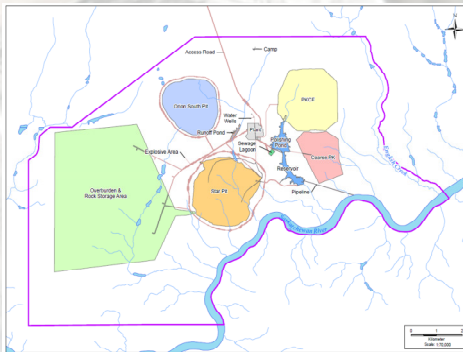
4

## Environmental Impact Statement

- Description of the Project
- Description of Baseline conditions
- Prediction and assessment of potential impacts
- Discussion of mitigation measures or enhancement of positive effects
- Assessment of residual impacts
- Assess cumulative effects

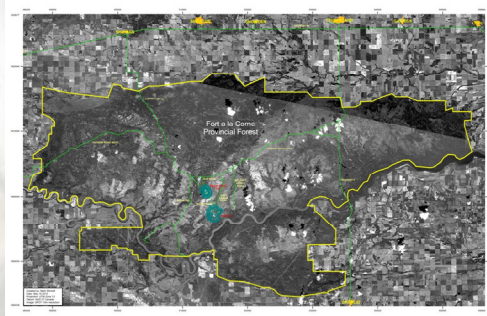
## Environmental Assessment

- Three Cases
- Baseline Case
- Project Case
  - Three phases
    - Construction
    - Operation
    - Decommissioning
- Cumulative Case



## Cumulative Effects Case

- **Cumulative Effects Assessment**
  - Exploration drilling: Orion North and Center
  - Future forestry
  - Power line (ancillary development)
    - Separate SaskPower process
  - Hydro dam?



7

## Effects Attributes

- **Valued Ecosystem Components**

- Magnitude
- Geographic extent
- Duration
- Frequency
- Reversibility
- Ecological Context
- Level of Confidence
- Probability



## Stakeholder Input- Issues Scoping

- **Diamond Development Advisory Committee**
- **Open Houses (Feb. 2009, June 2010)**
- **Ongoing meetings**
- **Review of proposed Project Specific Guidelines and Scoping Document**



## Stakeholder Input- EIA

- **Environmental Assessment: Preliminary Discussions**
  - **Interests workshop October 2010 – TODAY!**
- **Environmental Impact Statement**
  - **30 day public review following government/technical review of the EIS**





# **Appendix C**

## **Presentations:**

**Project Overview – Mining and Processing**

**Environmental Assessment Process**

✓ **Surface and Groundwater Effects and  
Mitigation/Management**

**Other Environmental Effects and Mitigation/Management**



**Environmental Interests Workshop**

**Shore Gold Star-Orion South Diamond Project**

## Presentation

**Surface and Ground water Effects and Mitigation/Management** – Ian Judd-Henrey, Senior Hydrogeologist, AMEC



Shore Gold Inc.

### Water Related Effects

- **Main effect on surface water, groundwater and aquatic habitat relationships is due to the need to dewater these open pit mines:**
  - Potential effect on water wells
  - Effect on creeks
  - Effect on terrestrial systems
  - Additions to Saskatchewan River

This slide features a large, clear diamond crystal on a dark, textured background. The text is overlaid on the left side of the image.

## Groundwater

### Three main systems:

#### 1) Shallow groundwater aquifer

- comprised of the surficial sands
- Source of water for shallow wells

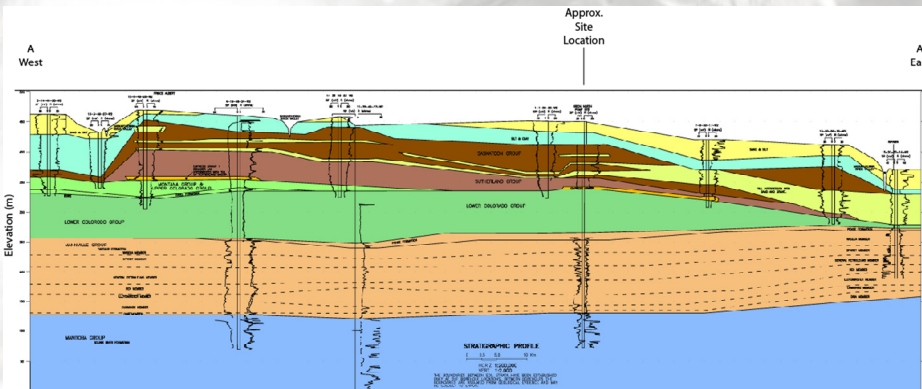
#### 2) Confining layer (“aquitard”)

- comprised of till and the Joli Fou shale
- Contains thin, intermittent (local) sand seams used by some wells. Water is hard, and is typically treated before use.

#### 3) Deep groundwater system (Mannville Group)

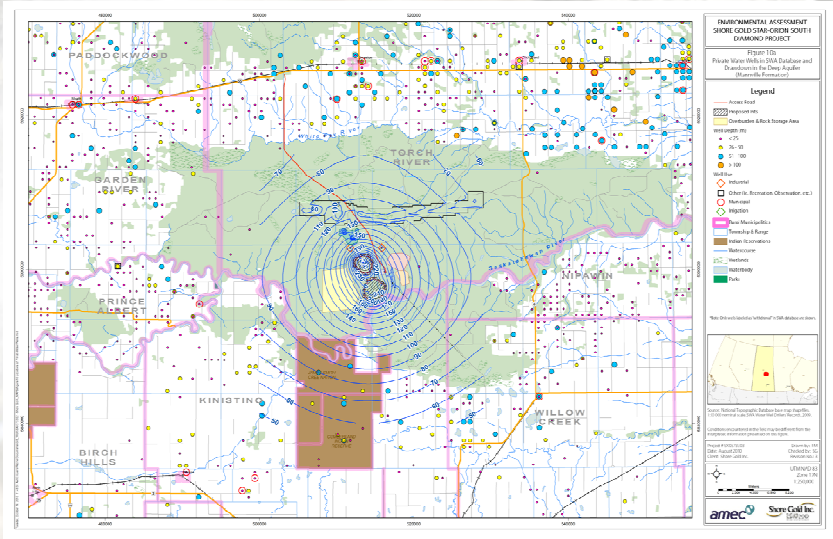
- Water level from this unit ~ 60m below ground surface
- Saline aquifer, not used for water supply

## Regional Geology (East - West)

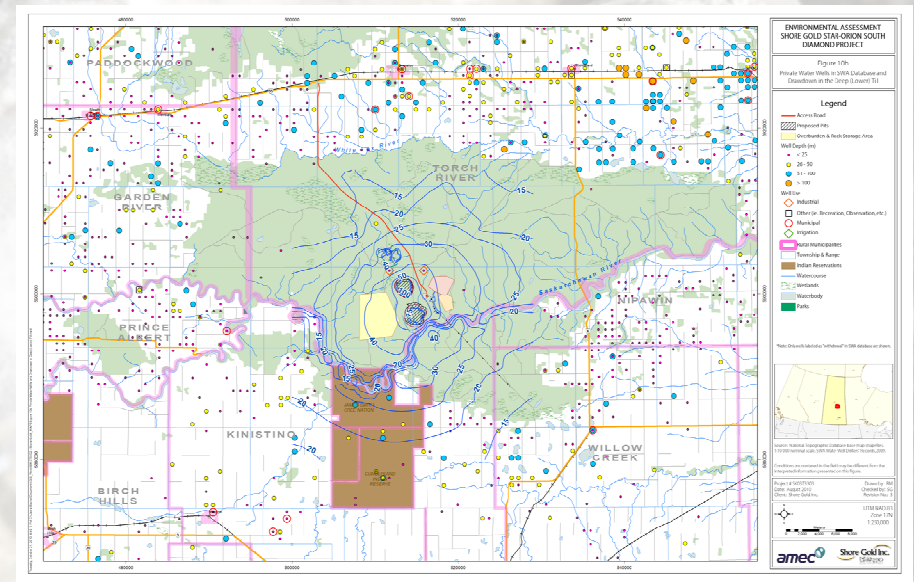


SILT & CLAY		MONTANA GROUP AND UPPER COLORADO GROUP	
SAND & SILT		EMPRESS GROUP	
SAND		LOWER COLORADO GROUP	
SASKATOON GROUP (TILL)		MANNVILLE GROUP	
SLUTHERLAND GROUP (TILL)		MANITOBA GROUP	

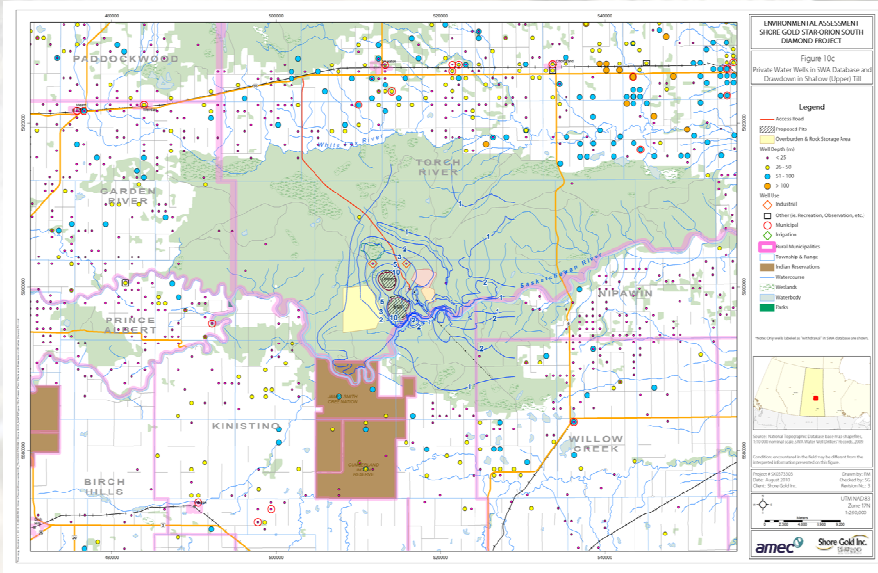
# Drawdown in Deep Aquifer (Mannville Formation)



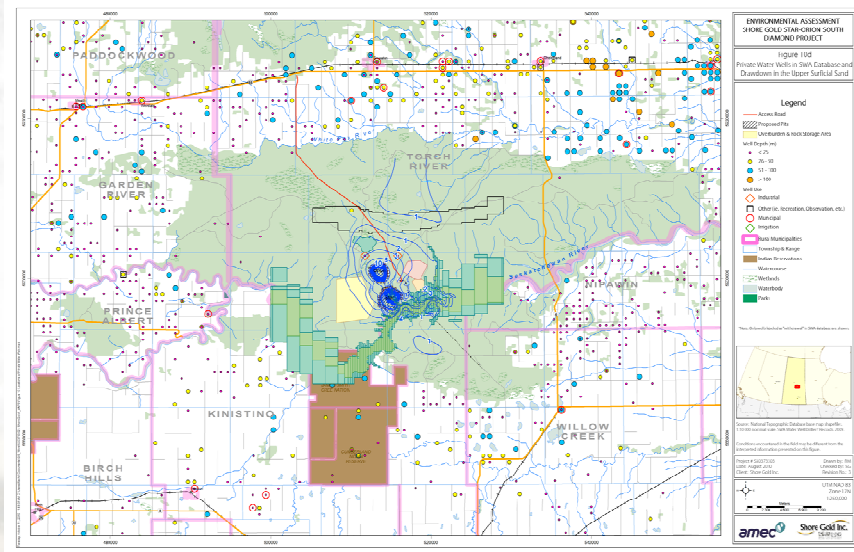
# Drawdown in Deep (Lower) Till



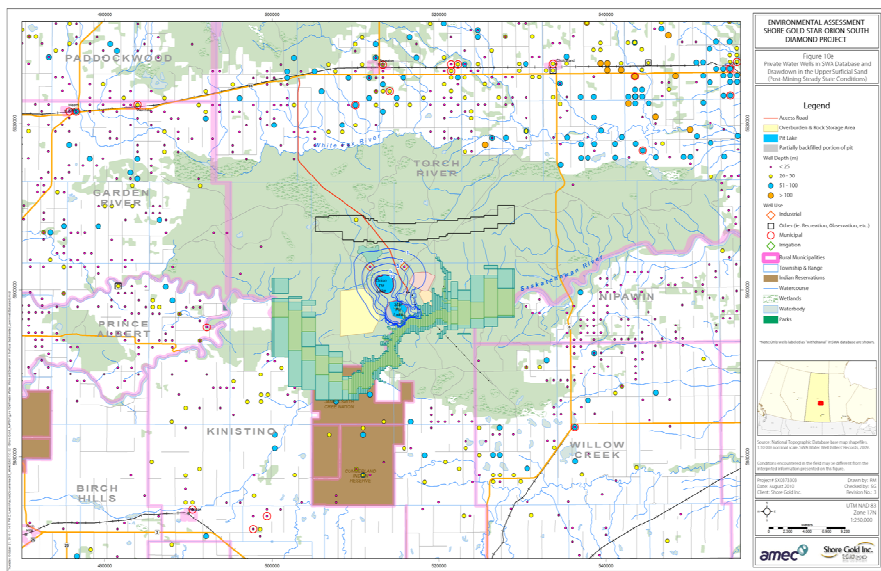
# Drawdown in Shallow (Upper) Till



# Drawdown in Surficial Sands



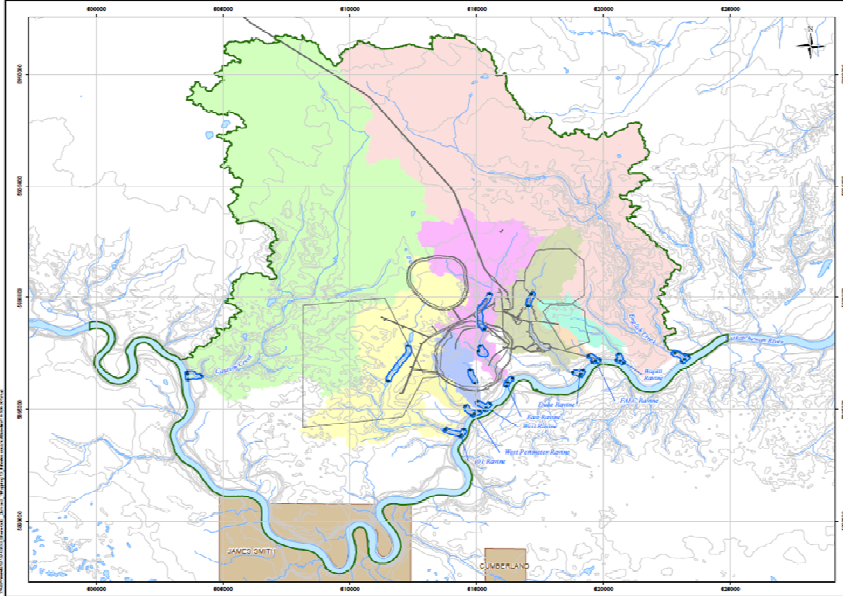
## Drawdown in Upper Surficial Sand (Post-mining Steady State)



## Drawdown in Uppermost Saturated Layer (Surficial Sands)



# Surface Water and Fisheries



# Fish Populations

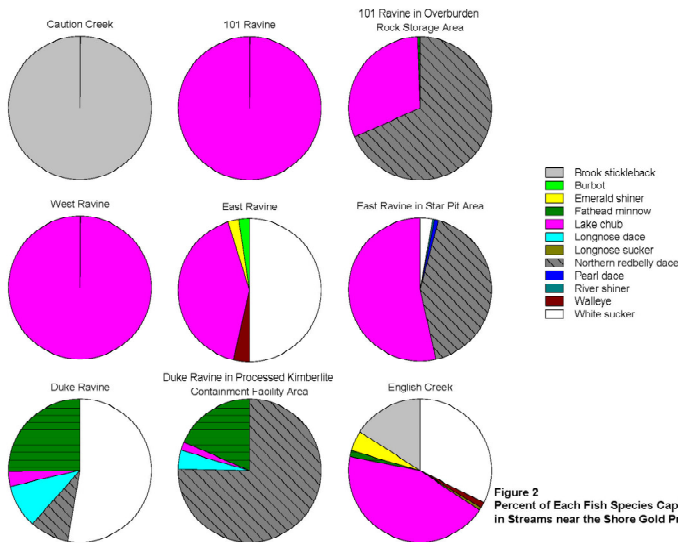


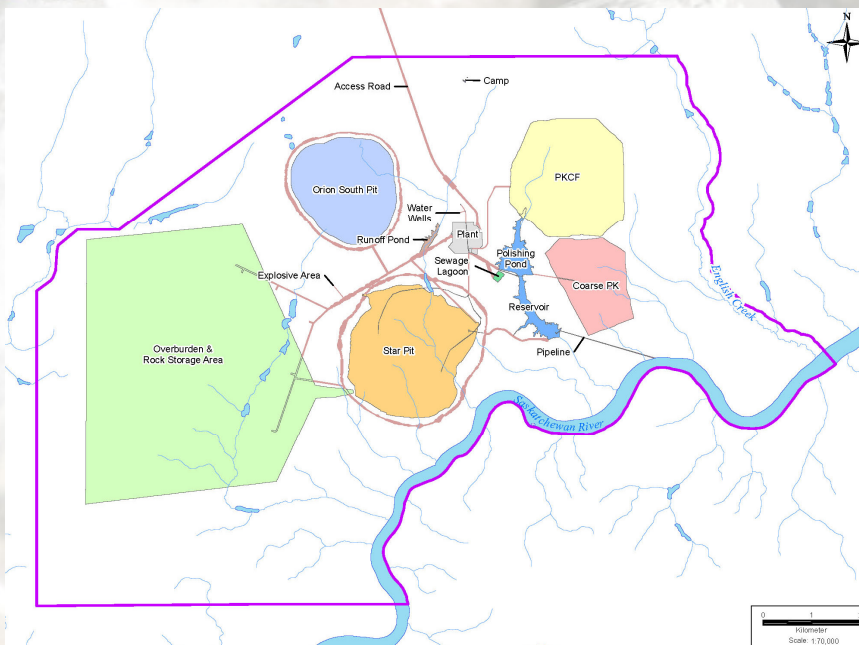
Figure 2  
Percent of Each Fish Species Captured  
in Streams near the Shore Gold Project.

## Impacts to Neighbouring Creeks

- There will be both loss of aquatic habitat locally due to construction of site facilities
- Effect of pit dewatering on groundwater inputs to the local streams



## Creeks Impacted by Site Facilities



## Effect on Local Creeks from Pit Dewatering



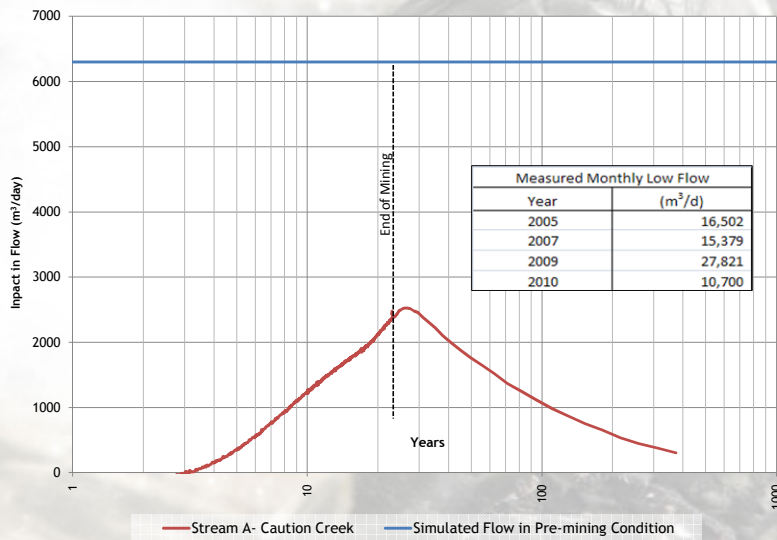
## Effect on Groundwater Flows to Local Creeks from Pit Dewatering

Location	Simulated Pre-mining Groundwater Inflows (m <sup>3</sup> /d)	Simulated Lowest Groundwater Inflows (m <sup>3</sup> /d)	Percent Change (%)	Years after Mining ceased when low condition occurred
Saskatchewan River	3,200	1,640	51 **1	6
Caution Creek	6,300	2,500	40	4
101 Ravine	3,100	1,200	39	11
English Creek	13,300	3,850	29	11
Creek South of SK River	2,100	660	31	6
Creek SW of SK River	4,800	870	18	8

**Note:**

\*\*1 - Only examines groundwater inflows to river within the modeling area. The simulated decrease in groundwater flows to the river represent only -0.01% of the low flows in this river.

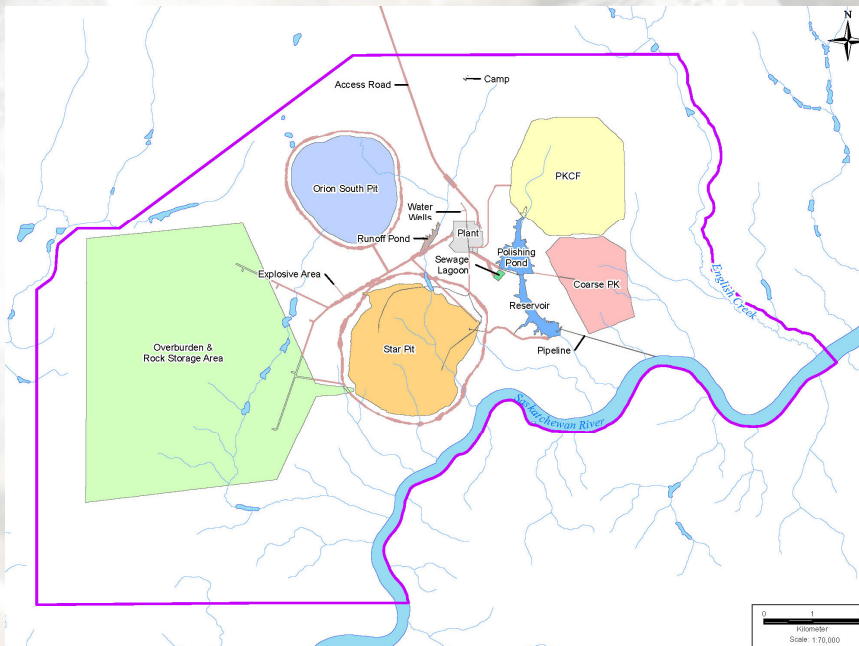
## Caution Creek



## Discharge to Saskatchewan River

- **Discharge Location**
  - Downstream of Duke Ravine
- **Volume**
  - Up to 199,000 m<sup>3</sup>/d (less than 2% of low flow of Saskatchewan River)
- **Quality**
  - process water will be sent to a water treatment/settling pond prior to discharge
  - Mainly process water and deep groundwater (lower quality waters) with better quality shallow groundwater and precipitation

## Discharge Location



## Potential Parameters of Concern

Parameters of Concern	Saskatchewan River (mg/L)	Mannville Aquifer (mg/L)
Total Dissolved Solids (TDS)	262	4,300 - 4,500
Chloride (Cl)	7.4	1,800 - 2,100
Sulphate (SO <sub>4</sub> )	66.9	400 - 600
Sodium (Na)	19.8	1,100 - 1,400
Calcium (Ca)	47.5	10 - 100
Magnesium (Mg)	17.0	10 - 60

- Currently completing water quality modeling
- No standards for TDS

## Chloride Concentration

- Chloride is often selected as discharge criterion
- Draft CCME Guideline for Chloride (May 2010)
  - Short-term - 586 mg/L
  - Long-term - 128 mg/L
  - These guidelines are based on very sensitive species therefore likely the over-protective of the species in the Saskatchewan River (e.g. sturgeon)

## Ecotoxicity Testing

- Tested end-of-pipe discharge from pilot plant and West Ravine waters in Jan 07
- Two kinds of testing
  - Acute (rainbow minnow) and
  - Sublethal tests (water flea, fathead minnow, green algae and duckweed)

## Ecotoxicity Testing - Results



### Acute Test Results:

- No mortality in both samples at 100% concentration

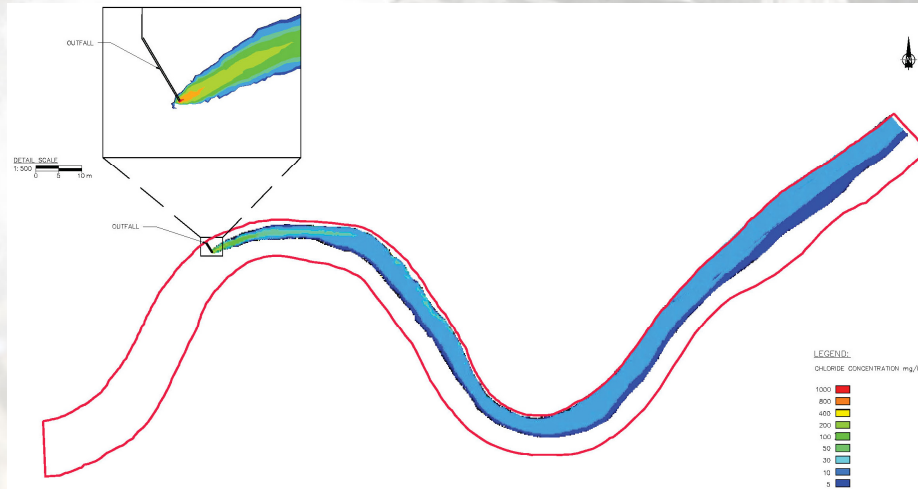
### Sublethal Test Results:

- West Ravine water did not cause any significant sublethal toxic effects but some effects with pilot plant discharge:
  - No effects on fathead minnow survival or growth, or green algae growth
  - effect on green algae frond production (IC25 = 53.7%), but not weight (IC25 > 97%)
  - reduced water flea survival (LC50 = 16.4%)
  - reduced water flea reproduction (IC25 = 4.1%)

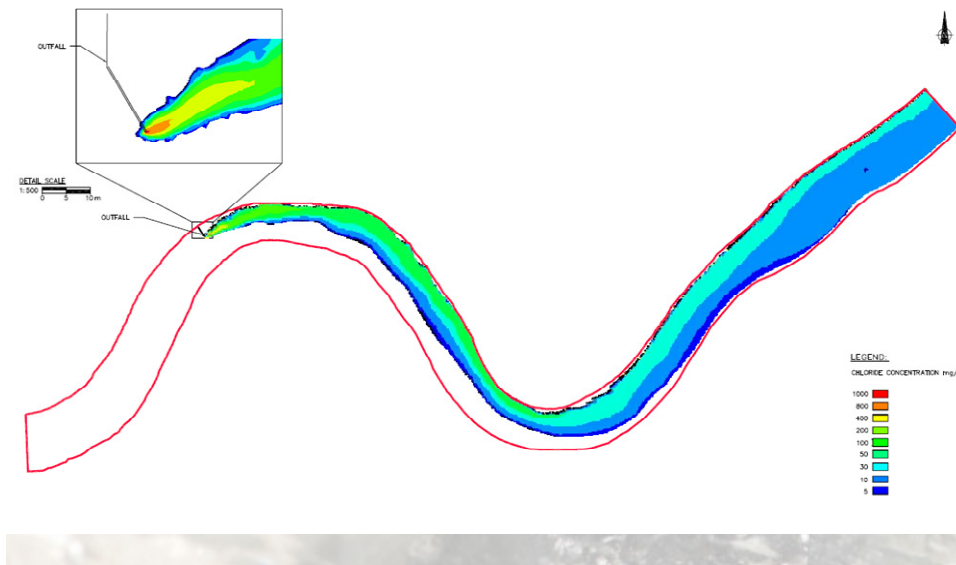
## Discharge Modelling

- **River Survey completed**
  - Flows and bottom elevations measured along 7 km length of SKR, to adequately describe the mixing of the proposed discharge location
- **Flows and Bottom Elevations were used in discharge modelling**
- **For discharge water used (to be conservative):**
  - Flow of 199,000 m<sup>3</sup>/d
  - Chloride concentration of 1,725 mg/L

## Chloride Concentrations under Average Flow Conditions



## Chloride Concentrations under Low Flow Conditions



# **Appendix C**

## **Presentations:**

**Project Overview – Mining and Processing**

**Environmental Assessment Process**

**Surface and Groundwater Effects and  
Mitigation/Management**

✓ **Other Environmental Effects and  
Mitigation/Management**



**Environmental Interests Workshop**

**Shore Gold Star-Orion South Diamond Project**

## Presentation

Other Environmental Effects and Mitigation/management – Ethan Richardson, Environmental Manager, Shore Gold



## Archeology

- HRIA complete
- Phased mitigation
- 22 sites- moderate or high potential

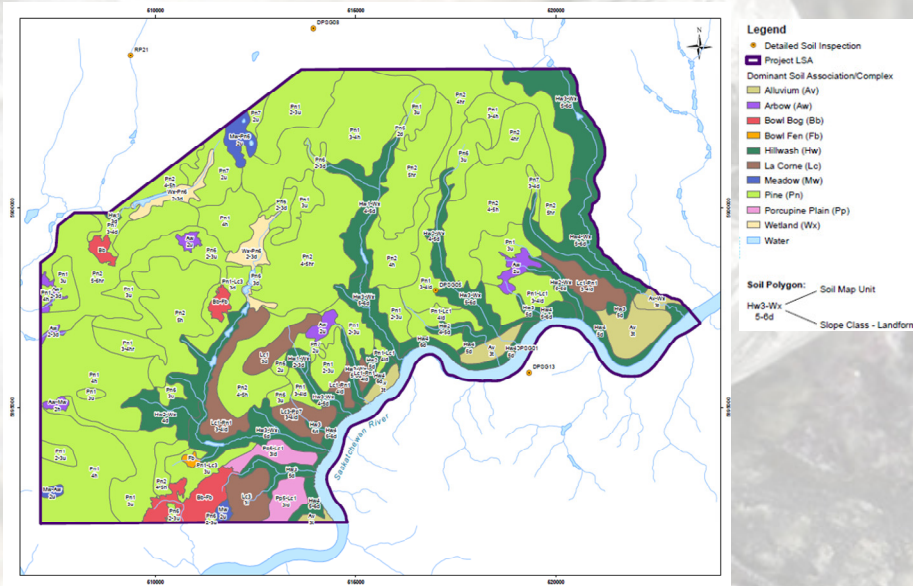


## Air and Noise

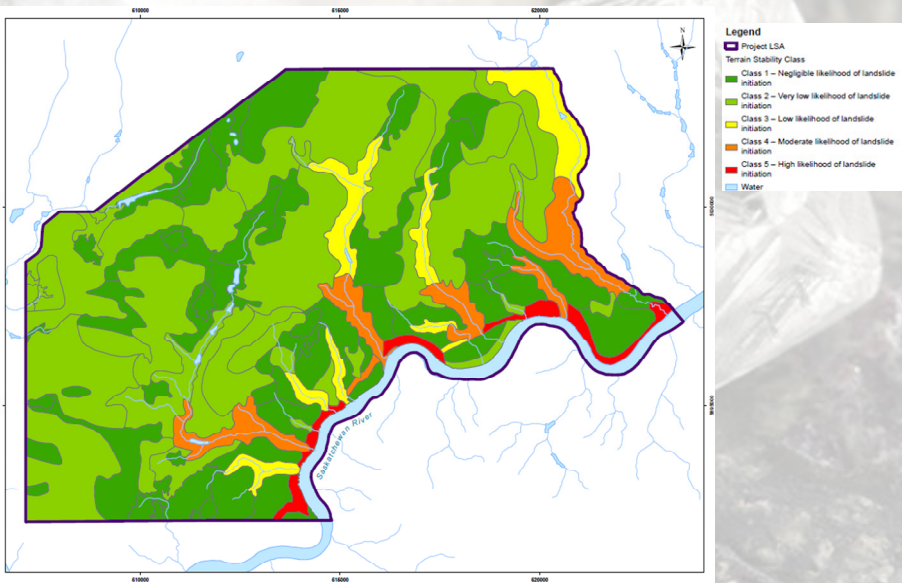
- Good air quality
- Noise survey- area is quiet
- Modeling underway
  - Blasting during days only
  - Maximize use of electric power



## Soil Units



## Terrain Stability



## Soil and Terrain Effects

- Soil loss due to burial
- Wind erosion and dust
- Mitigation
  - Limited, targeted soil salvage
  - Direct placement whenever feasible
  - Amendment, if needed, based on on-going research
  - Use of perimeter berms for stockpiles

## Vegetation

- Valued Ecosystem components:
  - Old growth forest
  - Rare and endangered plants
  - Riparian communities
    - Ravine and river valley vegetation





## Vegetation

- 42 rare plant species recorded in surveys



## Vegetation Effects

- Loss of vegetation communities
- Impacts to individual rare plants
- Changes in moisture regime
- Mitigation
  - Reclamation and revegetation



## Wildlife

- Aerial surveys
- Ground surveys



## Wildlife

- Valued ecosystem components
  - Elk
  - Moose
  - Deer
  - Rare and endangered species (birds)
    - Common nighthawk, chimney swift, Canada warbler, olive-sided flycatcher, whip-poor-will
  - Water fowl

## Wildlife

- **Direct loss of habitat**
  - 2.7% loss of primary elk habitat
  - 2.4% loss of primary moose habitat
  - 1.8% loss of average and above average white-tailed deer habitat



## Wildlife

- **Indirect effects**
  - 4.7% of primary elk habitat affected
  - 4.1% of primary moose habitat affected
  - 3% of average and above average white-tailed deer habitat affected



## Wildlife

- No expected negative impact to water fowl
- No negative effect expected on rare or endangered species



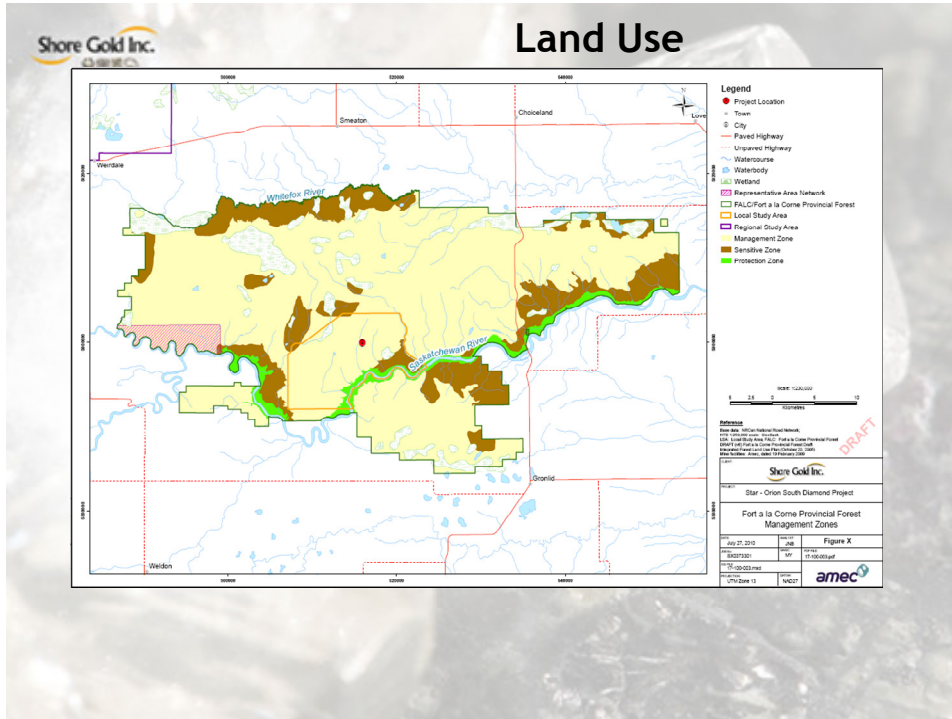
## Biodiversity

- landscape, community and species level
- Integrates soil, vegetation, wildlife, hydrology and aquatic ecology



## Closure and Reclamation

- Progressive reclamation where possible
- Revegetation of all disturbances except pits
- Backfilling Star pit with OB from OS
- Remaining area of pits to fill with water
- Limited topsoil salvage
- Roll-back of perimeter berms
- End Land Use
  - Ski hill/recreation
  - Wildlife habitat/ forestry
  - Others?



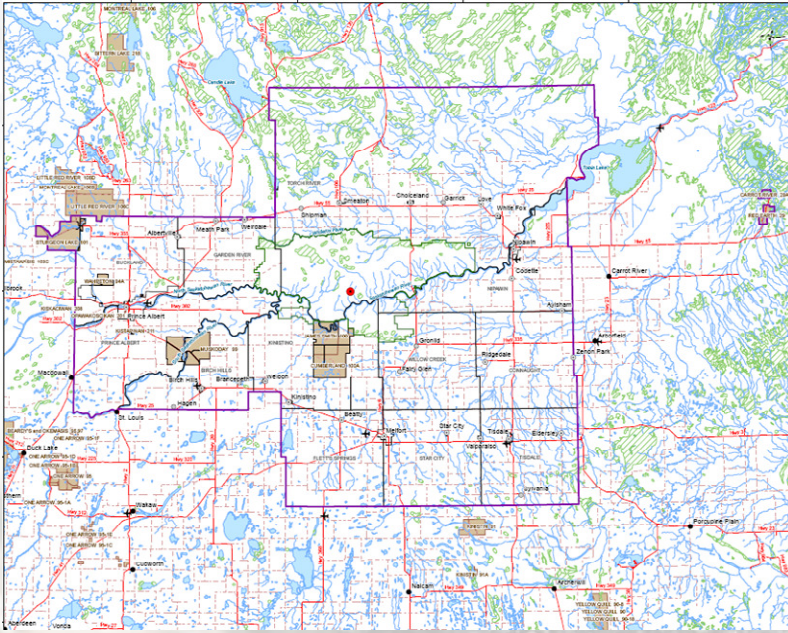
## Non Traditional Land Use

- Increase in the intensity and prevalence of outdoor recreation activities due to improved access
- Impact on hunting activities due to loss of available land base
- Hunting success & effort due to impact on animals

## Traditional Land Use

- Important aspect of EIS
- Supporting studies with five groups
  - Harvesting of plants and medicines
  - Consumption of country food
  - Hunting trapping fishing
  - Sacred sites,
  - Cabins and trails,
- Summary included in EIS

## Socio-Economic



## Socio-Economic

- 706 direct and indirect jobs in the region (operation)
- \$96 million in additional household income in the province.
- project operation would contribute approximately 0.4% of provincial GDP (Saskatchewan GDP was \$36.9 billion in 2009)

## Socio-Economic

### Potential effects

- \$66 million/year in provincial tax revenues
- \$6 million/year to local governments



## Socio-Economics



- Additional 176 workers and their families moving to the region
- Increased traffic on local roads
- Increased pressure on local and regional housing

## Socio-Economic

### Enhancing positive effects:

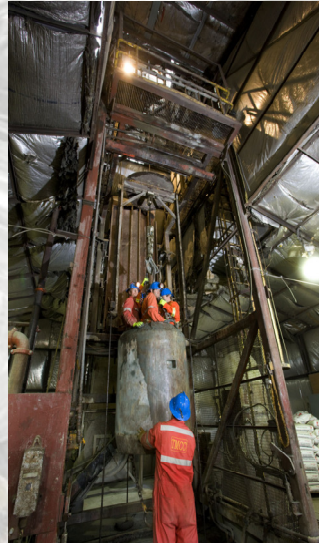
- Local hiring and procurement policies
- Dialogue with stakeholders to hear interests and ideas (DDAC)
- Support of Northern Career Quest, Aboriginal Skills and Employment Program
- Participation in the Aboriginal Workplace Partnership Agreement called the Fort à la Corne Diamond Partnership

### Mitigating adverse effects:

- On-site construction work camp (reduces roadway and housing supply pressures)
- Notification of construction delivery schedules and activities
- Regular traffic safety training for workers
- Use of rail line for delivering major equipment components
- Communication with municipal authorities to assess longer-term housing needs (during operations phase)

## Human Health

- **Considers occupational and environmental conditions**
- **Direct effects limited:**
  - No additions of toxic material
  - All compounds released naturally occurring
    - In kimberlite
    - In groundwater



## Human Health

- **Potential Effects**
  - Increased traffic on local roads
  - Construction Safety
  - Mining Safety



## Ongoing Work

- **Reclamation and revegetation**
  - U of A greenhouse study
    - Coarse and fine PK, sand, topsoil, compost and municipal biosolids
  - Site revegetation plots
- **Metal Leaching and ABA**
  - Kinetic testing of fine and coarse PK continues
  - On site ABA test pads
- **Hydrogeology**
  - Research agreement with U of S
  - Isotope analysis of shales for hydraulic conductivity





300, 224 - 4th Avenue South  
Saskatoon, Saskatchewan, Canada • 57K 5M5 • Tel: (306) 664-2202  
info@shoregold.com • www.shoregold.com