shear diamonds

Jericho Diamond Mine, 2AM-JER0410

Type A Water License Renewal

Public Hearing -
Kugluktuk, NU
Nov. 30 – Dec. 1, 2011

Agenda

1.	Introductions
2.	History of the Project
3.	Who is Shear?
4.	Project Overview
5.	Compliance Status
6.	Summary of Application
7.	Response Submissions
8.	What's Next: Timeline
9.	Acknowledgements

Shear Diamonds Ltd.

Julie Lassonde
CEO, Executive
Chairman & Director

Stephanie Autut
VP Environment and
Community Affairs

Chris Morton
VP Operations

Kyle Conway
Site Environmental
Coordinator

Shear Team Not With Us Today

Toronto Office

- Pamela Strand, President
- Martha Sabogal, Head of HR
- Richard Belfer, CFO
- Kelly Fearman, Investor Relations

Mine Site

- Joe Leil, Assistant Site Manager
- Jim Kane
- Christina Seitz, Site Administrator & Site HR

Beneficiaries

- Andy Uyarrai – a native of Gjoa Haven, Andy has worked closely with the Jericho project for many years. Andy understands the many facets of Jericho's operations and has proven to be a valuable asset to Shear Diamonds
- Raymond Oniak – a native of Kugluktuk, Raymond has firmly established himself within the mining industry. With many years of experience, Raymond brings a vast array of knowledge and skill to the Site Services division of Shear diamonds
- Arthur Oniak – a native of Kugluktuk, Arthur's work ethic and aspiration to learn has made him invaluable to the Shear Site Services division. Arthur demonstrates a strong work ethic and offers an incredible skill set to the Shear team

Continuity

- Chris Morton: VP Operations, was with Jericho when owned by Tahera. Intimate knowledge of the project
- Joe Leil: Assistant Site Manager, was with Jericho when owned by Tahera. Comprehensive knowledge of the project
- Stephanie Autut: VP Environment, ex-Executive Director of NIRB, reviewed the original application for Jericho done by Tahera. Comprehensive knowledge of the project

Technical Team (EBA) Present

- Bill Horne - Senior Technical Reviewer
- Gary Koop - Engineering Team Lead
- Allison Rippin Armstrong - Environment Team Lead
- William Liu - Environmental Scientist

Legal – Lawson Lundell

- JoAnn Jamieson
- Christine Kowbel

Shear's Support Team

- EBA Engineering
- SRK Consulting
- Rescan
- Dyno-Nobel
- DRA Engineering
- McCarthy Tetrault
- Lawson Lundell
- QDC/Det'on Cho Logistics
- NUNA Logistics

HISTORY OF THE PROJECT

History

- The Project Certificate for the Jericho Diamond Mine was issued on July 20, 2004
- The Public Hearing for the original water licence was held December 6th and 7th, 2004.
- Date of the Type A Water Licence, NWB1JER0410, December 21, 2004, effective date January 25, 2005.
- The Jericho Diamond Mine was constructed in 2005 and 2006
- The mine went into commercial production on July 1, 2006

History

- The mine operated for 24 months and produced 780,000 carats
- Tahera went into bankruptcy protection on January 10, 2008

History

- Jericho temporarily shut down since June 2008
- AANDC assumed responsibility for the site
- Shear acquired Jericho - August 2010
- Water license due to expire on December 31, 2010
- Shear immediately began discussions with the NWB and AANDC to determine how best to proceed with the renewal of the water license

History - Overall

- A staged approach (October 2010) with commitments from the company was decided to be the best way to move forward (AANDC, NWB, NIRB, KIA, Shear)
  - Application to assign the Type A water license
  - Emergency amendment request
  - 2AM-JER0410 Type A water license renewal

- Shear has worked closely with the regulators within an aggressive timeframe

History – Assignment Request

- On November 15, 2010 Shear submitted an assignment request
  - Completed application
  - Compliance assessment
  - Cover letter which included a request for a 60 day extension for the water license

- Assignment and 60 day extension granted on December 1, 2010
  - Water license extended to March 1, 2011

History – Emergency Amendment Request

- On January 31, 2011 - submitted emergency amendment request, included:
  - Identifying four most critical action items that if left would constitute an emergency situation
  - A Care and Maintenance Plan in accordance with Schedule J, 2a of the water license, including the following plans:
    - Site Water Management, PKCA Management, General Monitoring and Aquatic Effects Monitoring
  - Work Plan describing activities to be undertaken over the next year

- Emergency amendment request granted March 1, 2011 (1 year)

History – Type A Renewal Application

- Application submitted February 28, 2011
- Supporting documents including:

1. Emergency Preparedness and Response Plan for Dam Emergencies	7. Preliminary Landfarm Design Plan
2. C1 Diversion Construction Summary Report	8. Preliminary Landfill Design Plan
3. Contingency Management Plan	9. Waste Management Plan
4. Fuel Storage Containment Facility Design Plan	10. Waste Rock Management Plan
5. Interim Closure and Reclamation Plan	11. Wastewater Treatment Management Plan
6. Landfarm Management Plan	12. OMS Manual

History

- Technical Meeting and Pre-Hearing Conference
  - Held in Cambridge Bay June 20 and 21st, 2011
  - Technical submissions received from AANDC, EC and DFO
  - Shear provided a powerpoint presentation and written response to the submissions
  - Table of Commitments was developed

History - Additional submissions since the Technical Meeting

Technical Memos	
A	Schedule of Monitoring Activities
B	Current Operational Plans
C	Proposed Changes to the AEMP
D	Operational Commitments
E	Landfill and Sludge Pit Location Addendum
F	Onsite Nitrate and TSS Analysis Methods
G	Proposed PKCA Effluent Discharge Criteria
H	Final Specifications of the Hydrocarbon Contact Water Remediation Unit
I	Two Year Implementation Schedule

History - Additional submissions since the Technical Meeting

- Processed Kimberlite Containment Area Management Plan
- Executive Summaries for plans previously filed
- Letter, August 15, 2011 – General Commitment #17, Proposed amendments to existing terms and conditions and any proposed discharge criteria for the Project
- Other correspondence, August 15, 2011
  - Jericho Site Reclamation Cost Estimate – Inuit Owned Lands
  - Jericho Site Reclamation Cost Estimate – Crown Lands
  - Life of mine water balance summary sheet

- Shear has addressed all items that were requested in the Table of Commitments from the Pre-hearing Conference

WHO IS SHEAR?

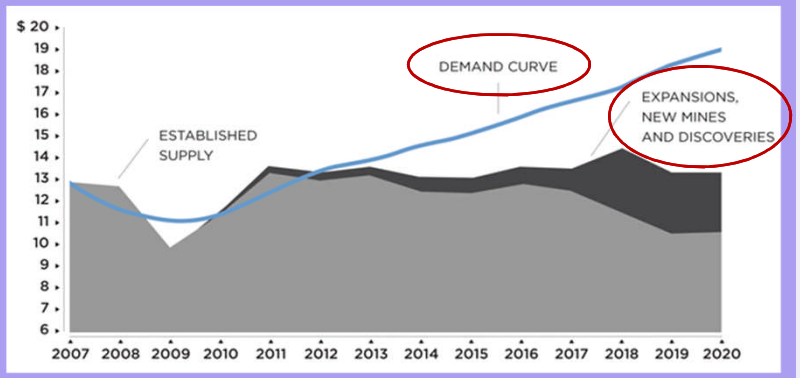
Why Shear Bought Jericho

✓ **Flagship Asset**	• 100% owner of past-producing Jericho Diamond Mine
✓ **Current Resource[(2)]**	• 1.88 Mcts indicated • 1.13 Mcts inferred
✓ **Exploration**	• Excellent exploration potential, 2011 drilling program complete
✓ **Infrastructure**	• $200 M invested in infrastructure, fully functional camp
✓ **Jurisdiction**	• Nunavut – favourable mining jurisdiction
✓ **Management**	• Experienced management team with strong track record • Over 50 cumulative years operating in the North
✓ **Processing**	• Shear brings processing expertise that enables optimization of diamond recovery

Why Diamonds?
Diamond Market Dynamics

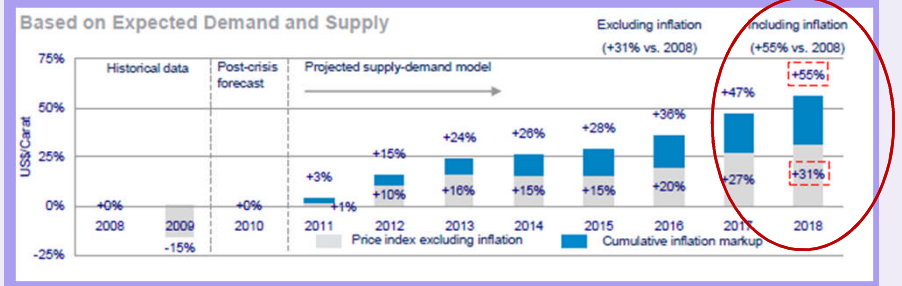
Strong Supply/Demand Dynamics Expected to Support Prices

Rough Diamond Market (US$B)(1)



- Supplies are declining
- Demand is increasing; particularly in emerging markets such as China and India

Rough Diamond Price Index (US$/carat)(2)

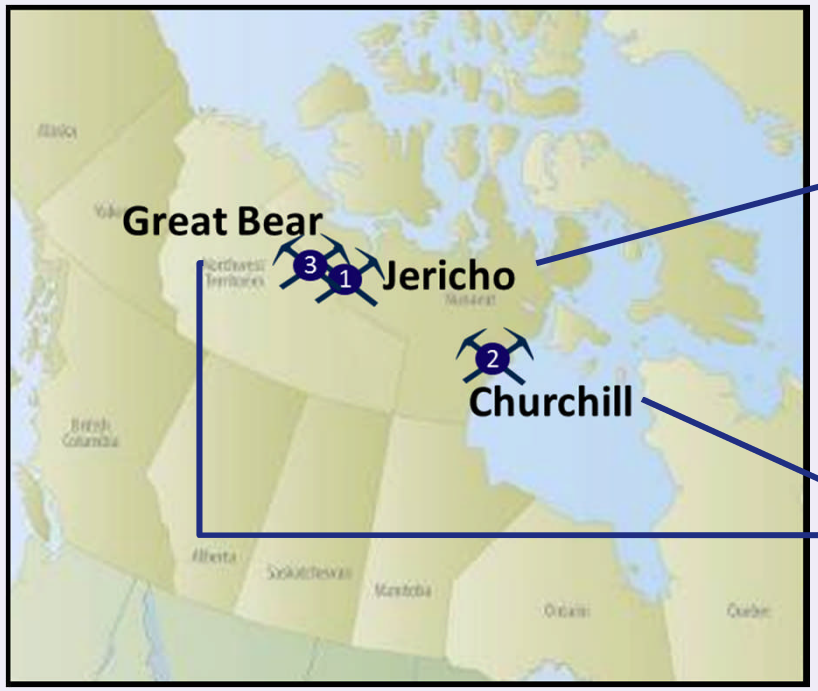


- Rough diamond prices are increasing

(1) Source: Rio Tinto – November 2011
(2) Source: ALROSA Diamonds – June 2010

Diversified Portfolio

Portfolio of Assets at Various Stages of Development



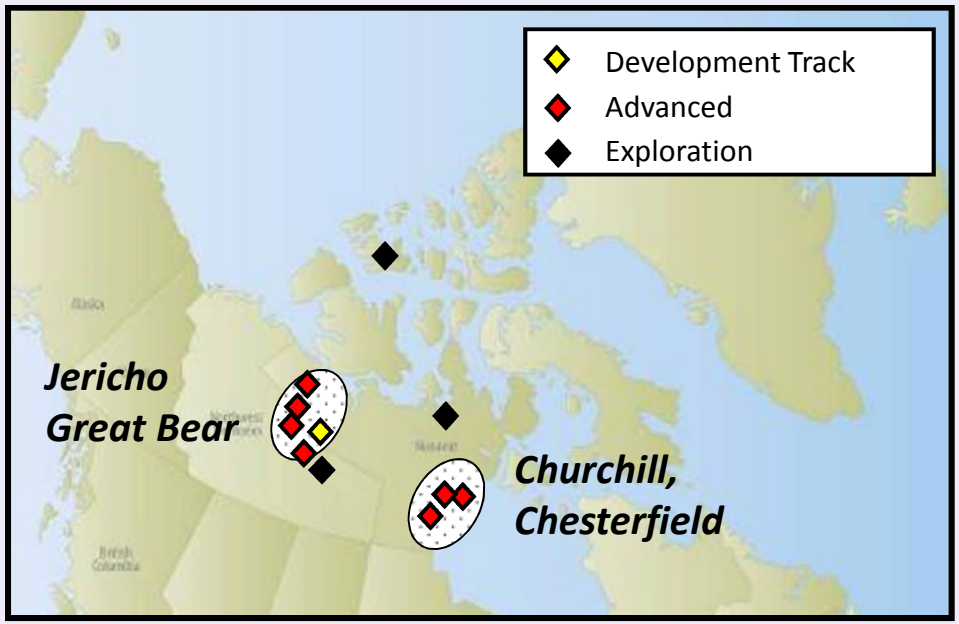
Development

Advanced Stage

Shear has over 120 kimberlites on its properties

Shear is Nunavut Focused

- Mining friendly
- Nunavut is seeking sustainable future through mining
- Permitting process is well defined
- Strong partnerships in place: KIA, AANDC, GN and NRC (MOU signed Feb. 2011)
- Underexplored Geology



Shear's Corporate Social Responsibility

Shear Diamonds is committed to being a leader in environmental sustainability while integrating environmental considerations into our business

Shear employees exemplify environmental stewardship through the application of sound judgement, best practices, meeting and exceeding regulatory requirements, and minimizing any adverse effects Shear's activities may have on the environment

Environmental Track Record

- Thomas Kudloo Award – 2007
- Environment Stewardship Award - Kivalliq Inuit Assoc. 2007
- Community Award – NTI 2006

JERICHO DIAMOND MINE

Jericho History

1995	Jericho discovered
1998 - 2004	Exploration and development
2005 - 2006	Construction of Jericho Mine • Over C$350 million invested in infrastructure and exploration
2006 - 2008	Operated by Tahera Diamond Corporation (“Tahera”) • 1.5 Mt mined, 1.2 Mt processes and 780,000 carats recovered
2008	Tahera granted bankruptcy court-protection and suspended operations
2010	Shear completed court-sanctioned transaction to acquire the Jericho Mine

Jericho Project
Existing Infrastructure

- **C$200 Million in infrastructure**
  1. 2,000 tpd diamond processing plant
  2. Maintenance shop
  3. Fuel farm
  4. Staff Offices & Accommodations for 225
  5. Jericho open pit mine
  6. Year round airstrip
- **Excellent project access via air and winter road**
- **Operating permits in place**

Jericho Diamond Value

Large Diamonds Recovered


2.2 ct diamond, rare white colour


Jericho Diamonds (+10.8 ct)

Over 1,000 stones greater than 10 cts

59 ct gem sold for $450,000

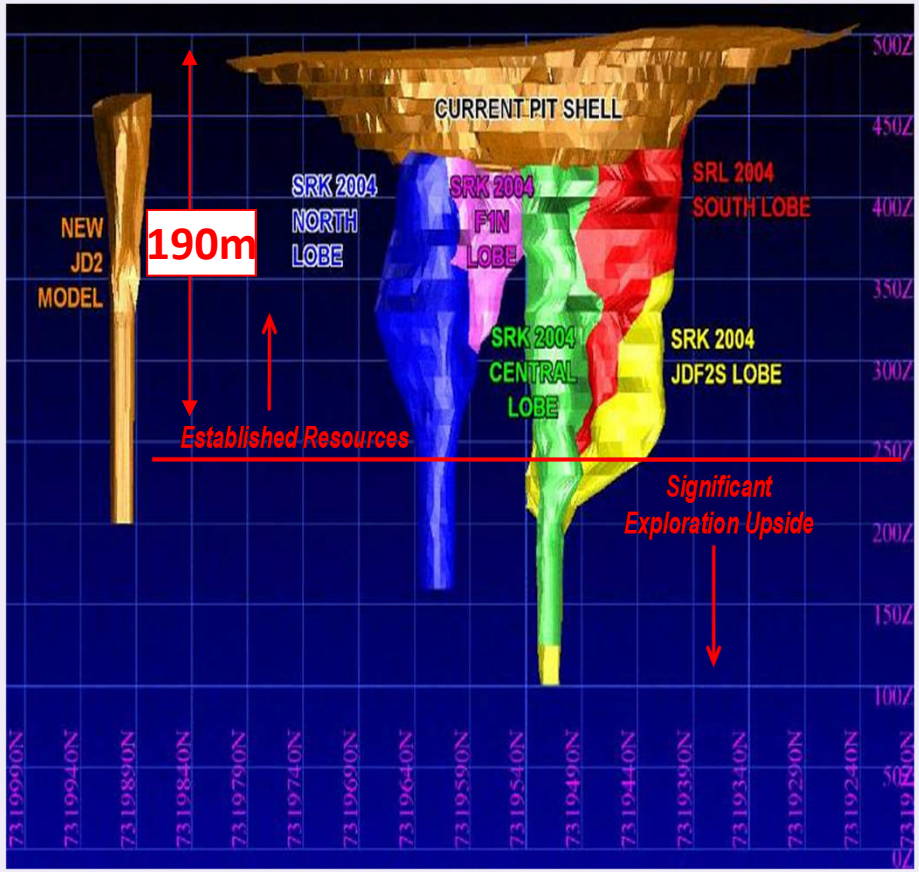
200 ct stone crushed by previous milling

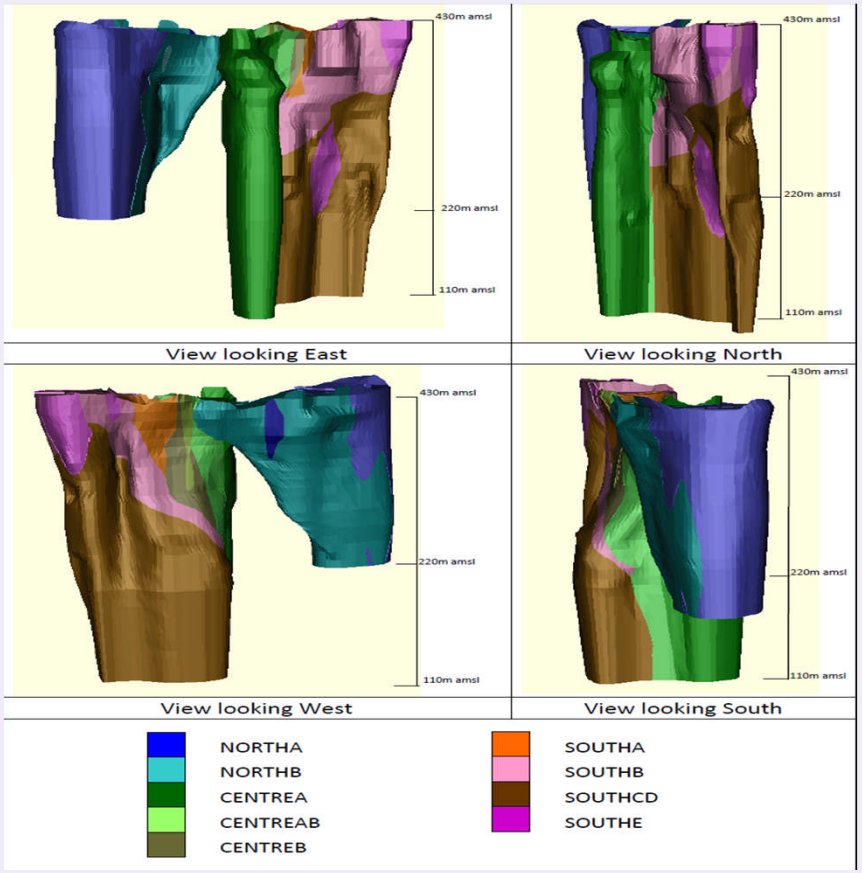
Jericho Project Highlights

Past Producing Open Pit Mine in Nunavut	
Shear's Ownership:	100%
Previously Mined and Processed:	Jan 2006 to May 2008
Kimberlite Mined:	1.5 Mt
Kimberlite Processed:	1.2 Mt
Carats Recovered:	780,000 cts
Previous Investment: (includes exploration and infrastructure)	C$350M
Indicated Resource:	1.88 Mcts
Inferred Resource:	1.13 Mcts

Jericho Project
Resource Upside Potential

Old Model → New Model 2011





Jericho Diamond Mine
Stockpile Upside

Started Processing Stockpiles in Q4 2011

Recovery Reject Audit Results	• 18,000 tonne* Recovery Rejects - 308.8 kg @ 11.3 cpt. - 4,048.5 kg @ 14.5 cpt.
CPK Audit Results	• 900,000 tonne* Coarse Processed Kimberlite. - 1,345 kg @ 0.84 cpt.
Processing Trial	• 22 wet tonnes processed • 200 carats recovered (press release October 6, 2011)

** Tonnage estimated from historic mine records; additional information in press release dated February 8, 2011*

Jericho Project
Attainable Milling Improvements

Previous recoveries extraordinarily low

- Expected recover: 1.05 cpt
- Average recovery (2 year period): 0.62 cpt

Improvements made to systems to achieve higher diamond recovery through:

- Re-engineering of front-end crushing circuit
- Additional installation of 2 X-ray machines and a grease table
- Additional metallurgical work to assess possible need for larger cyclones
- Service and rehabilitation of HPGR (High Pressure Grinder Roller)

Factors Contributing to Shut Down

Tahera Issue	Shear Solution or Mitigating Measures
Foreign exchange movement	Original feasibility was based on a USD:CDN of $0.65
Diamond prices	Future profitability is based on conservative diamond pricing (in light of today's markets) and forex
Diamond recovery	Analysis and re-engineering of diamond recovery plant
Geological controls	Shear commits to having a mine geologist on site during commercial production
Contractors	Shear run operation. Shear is experienced in effective contractor management

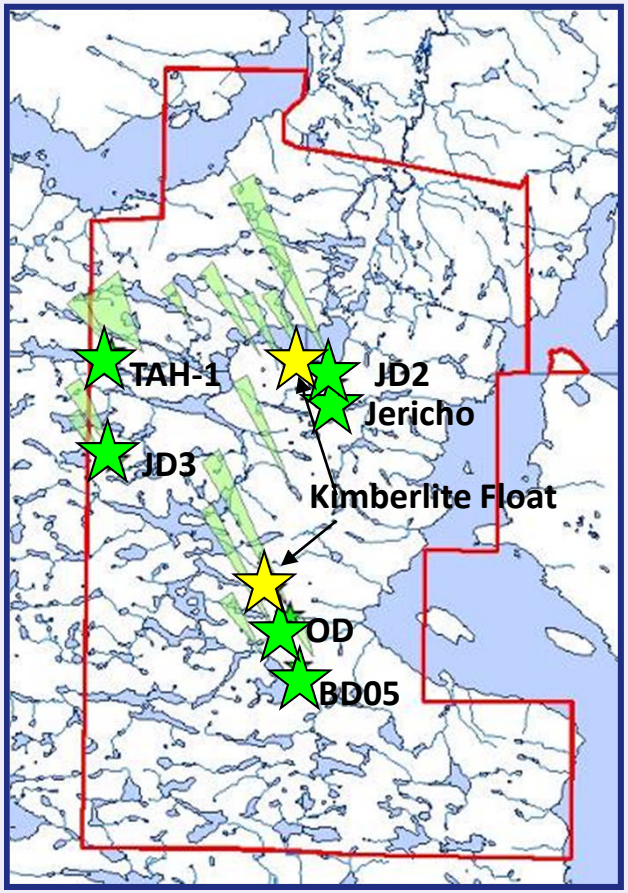
OTHER ASSETS

Excellent New Discovery Potential Jericho Project Carat Property

Carat Property - Near Mine Exploration Potential

Carat Property Highlights	
Shear's Ownership:	**100%**
Trucking Distance to Jericho:	**10 km**
Land Position:	**68,000 acres**
Known Kimberlites:	**6**
Kimberlite Indicator Dispersion Trails:	**5**
Unsourced Kimberlite Float:	**2**

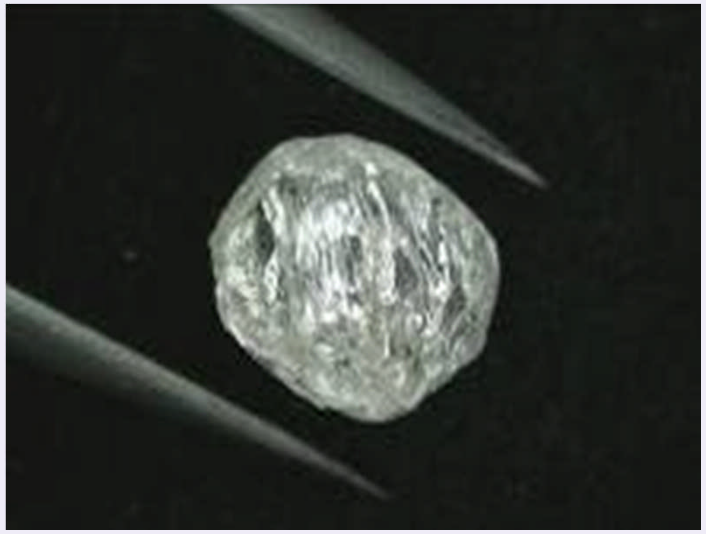
JD3 – 493t RC bulk sample: 135 cts = 0.27 cpt
JD2 – 219kg modelled microdiamond grade = 1.79 cpt



Excellent New Discovery Potential
Churchill Project

387 cts parcel undergoing valuation

Churchill Highlights	
Shear's Ownership:	**62.78%**
Location:	**Nunavut**
Land Package:	**600,000 acres**
Known Kimberlites:	**88**
High grade Kimberlite Dykes:	**11**
Targets:	**+400**



Kimberlite Name	Body Type	Grade *(cpt) >0.85mm*	Tonnes Processed	Carats	Width *(m)*	Length *(km)*	Deepest Intersect *(m)*
Kahuna	Vertical Dyke	1.04	356	337	3.5-4	5.5	152
Notch	Vertical Dyke	0.862	17	14.8	1.5	3	80

Excellent New Discovery Potential Great Bear Project

Great Bear Highlights	
Shear's Ownership:	50-100%
JV Partners:	De Beers + Rio Tinto
Location:	NU
Land Package:	112,000 acres
Known Kimberlites:	20
Sub-projects:	5

1. Polar

- 70,000 acres
- 4 known kimberlites
- Muskox: 928t RC bulk sample yielding 477cts, 0.51cpt, 3.5ha
- Voyageur: 17.1t PQ bulk sample yielding 0.75-0.40cts

2. Ranch Lake

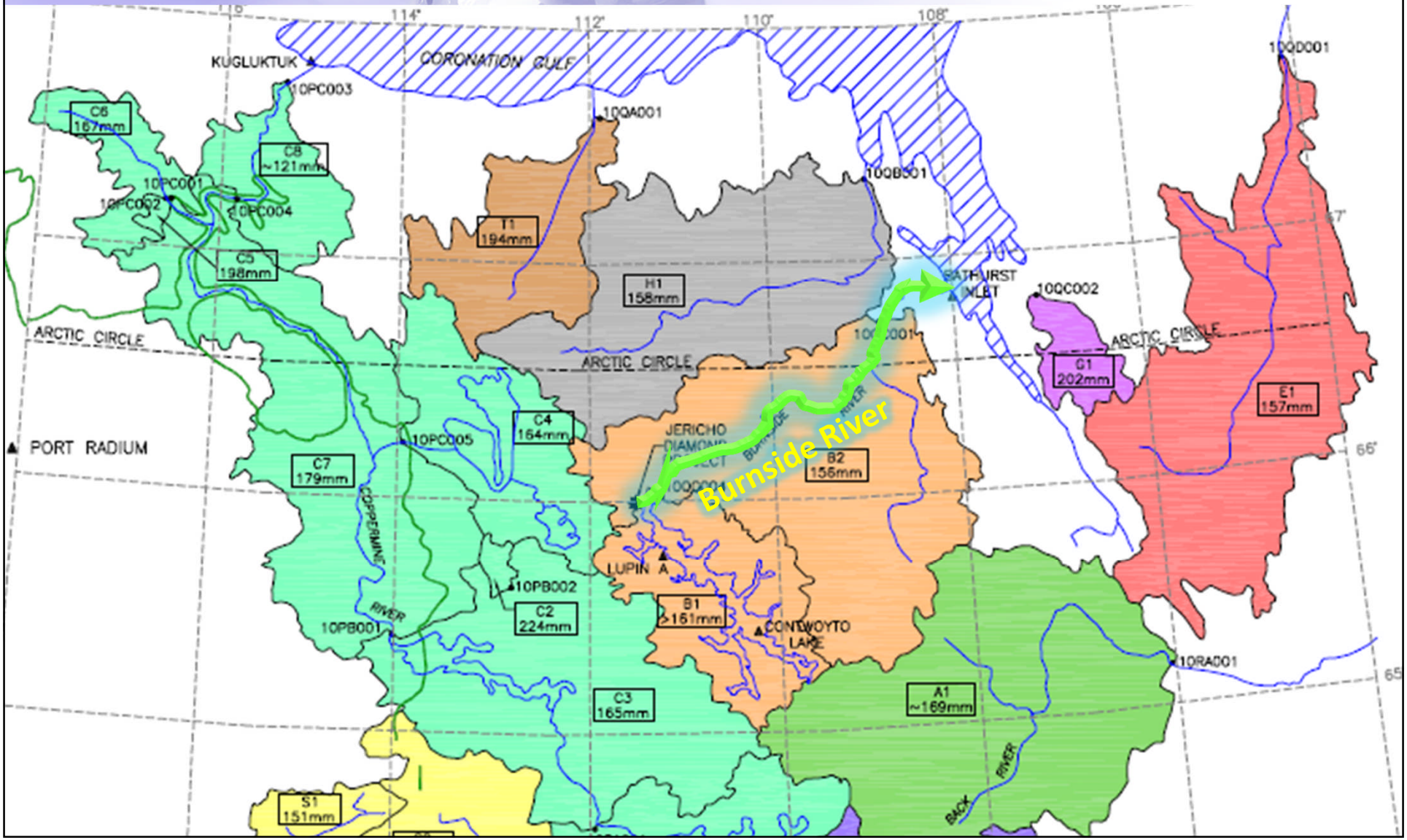
- 18,444 acres
- 12.4ha estimated to host 58Mt grading 0.30-0.35cpt

3. Rockinghorse

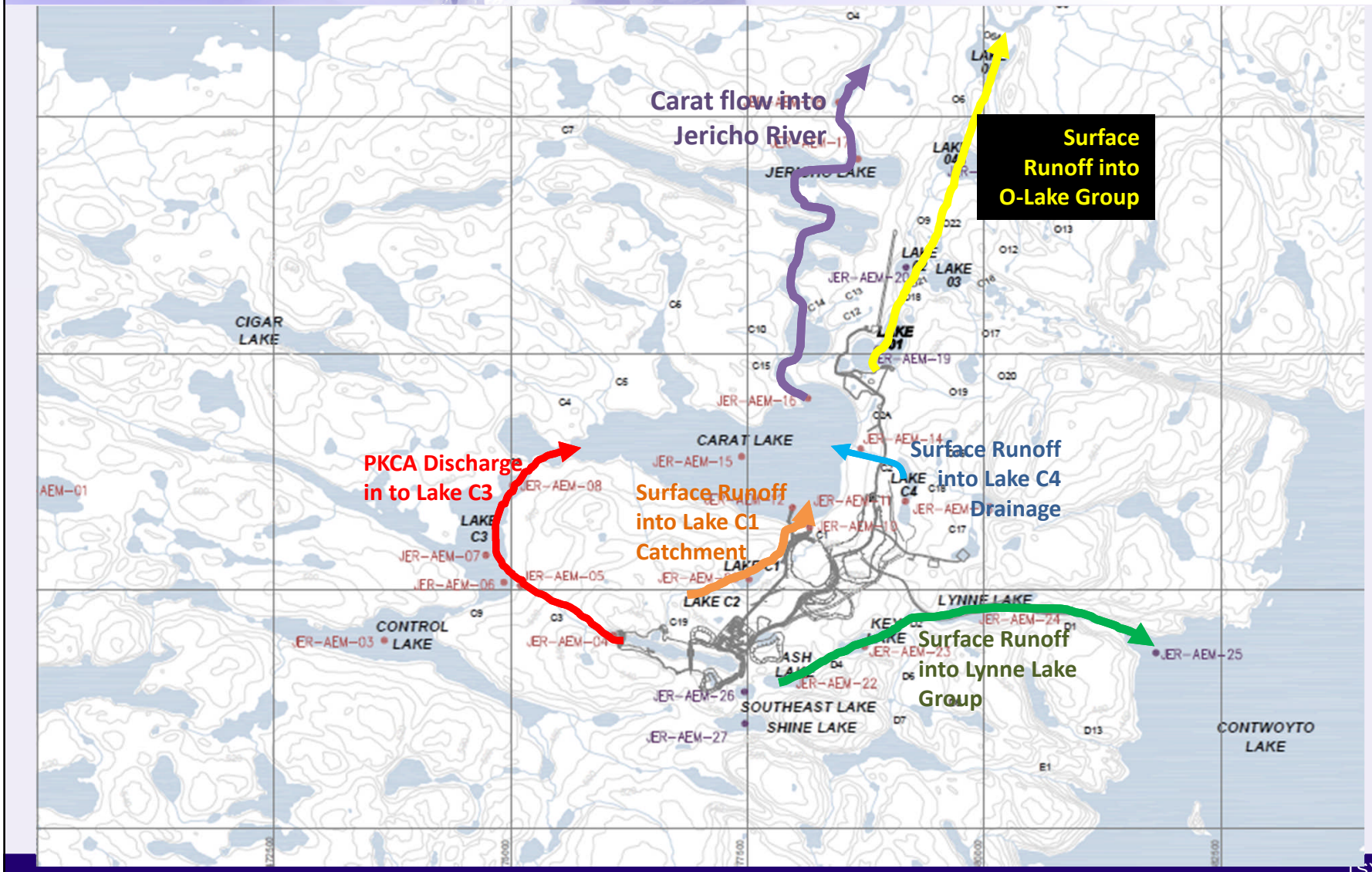
- 104,579 acres
- Anuri:
  - Rio Tinto JV
  - 15Mt kimberlite pipe
  - 26t bulk sample grading 0.35cpt

PROJECT OVERVIEW

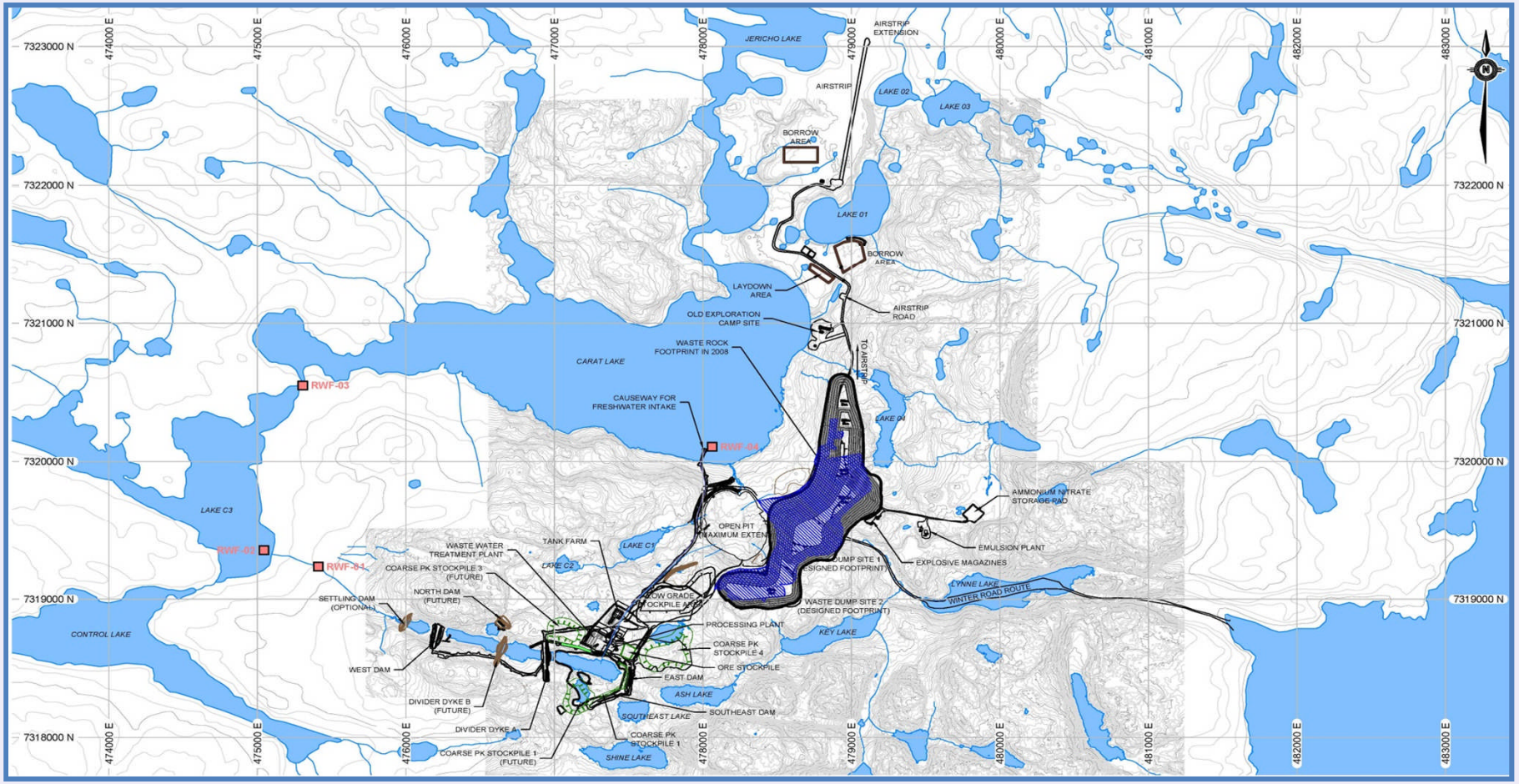
Regional Water Flow Pathway



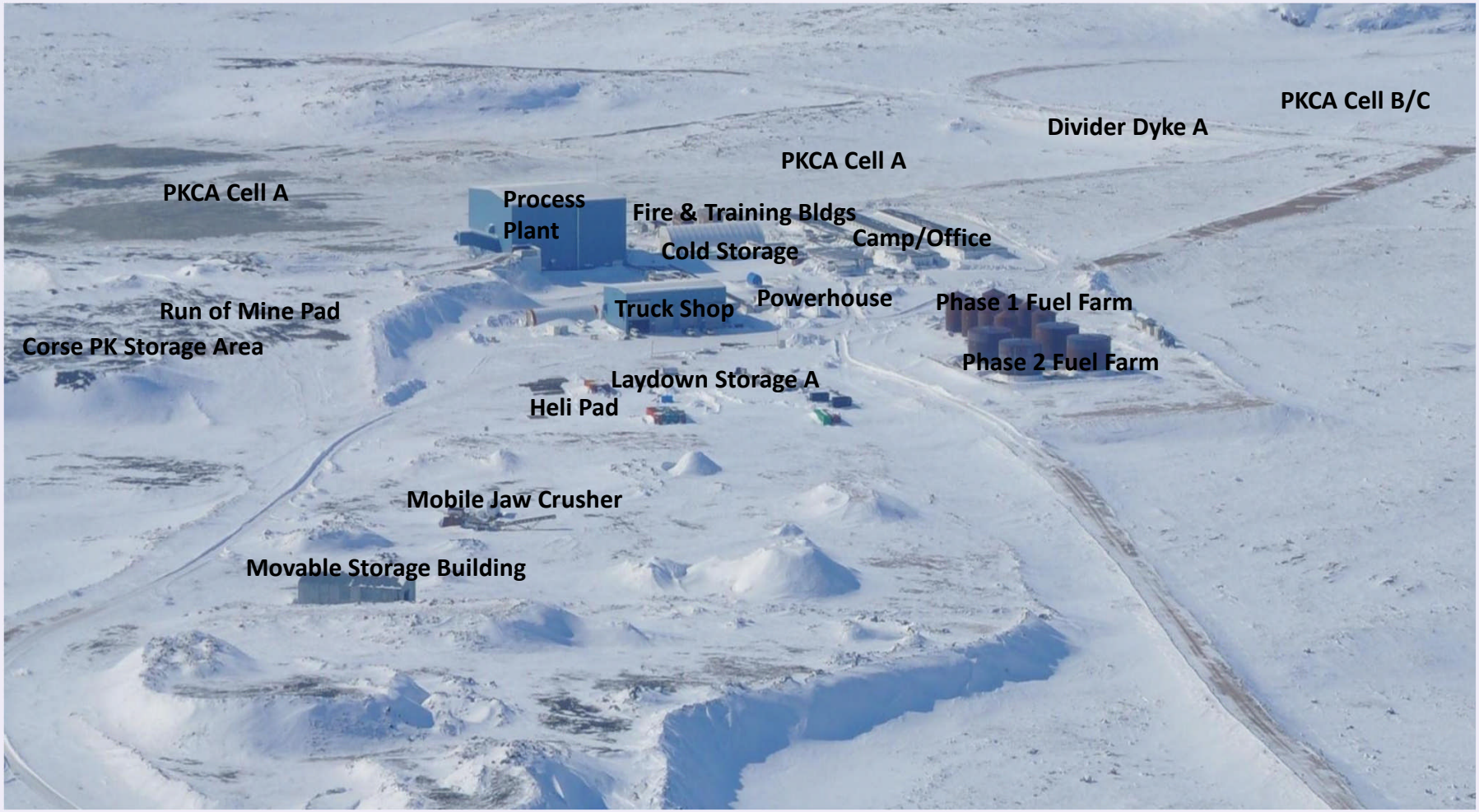
Jericho Site Water Pathways



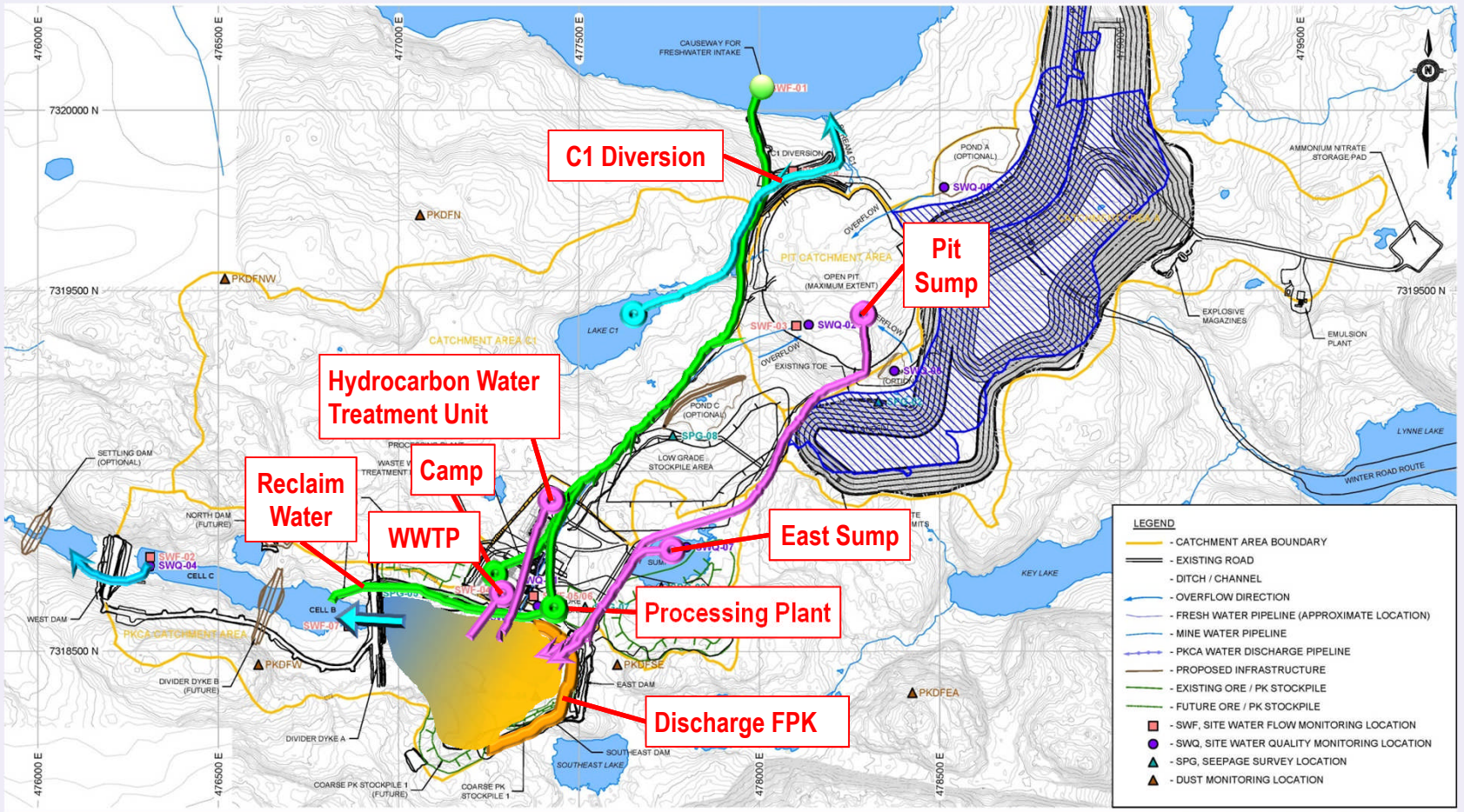
Site Overview



Site Layout


PKCA Cell B/C
Divider Dyke A
PKCA Cell A
PKCA Cell A
Process Plant
Fire & Training Bldgs
Camp/Office
Cold Storage
Powerhouse
Phase 1 Fuel Farm
Run of Mine Pad
Truck Shop
Corse PK Storage Area
Phase 2 Fuel Farm
Laydown Storage A
Heli Pad
Mobile Jaw Crusher
Movable Storage Building

Site Overview – Site Water Flow

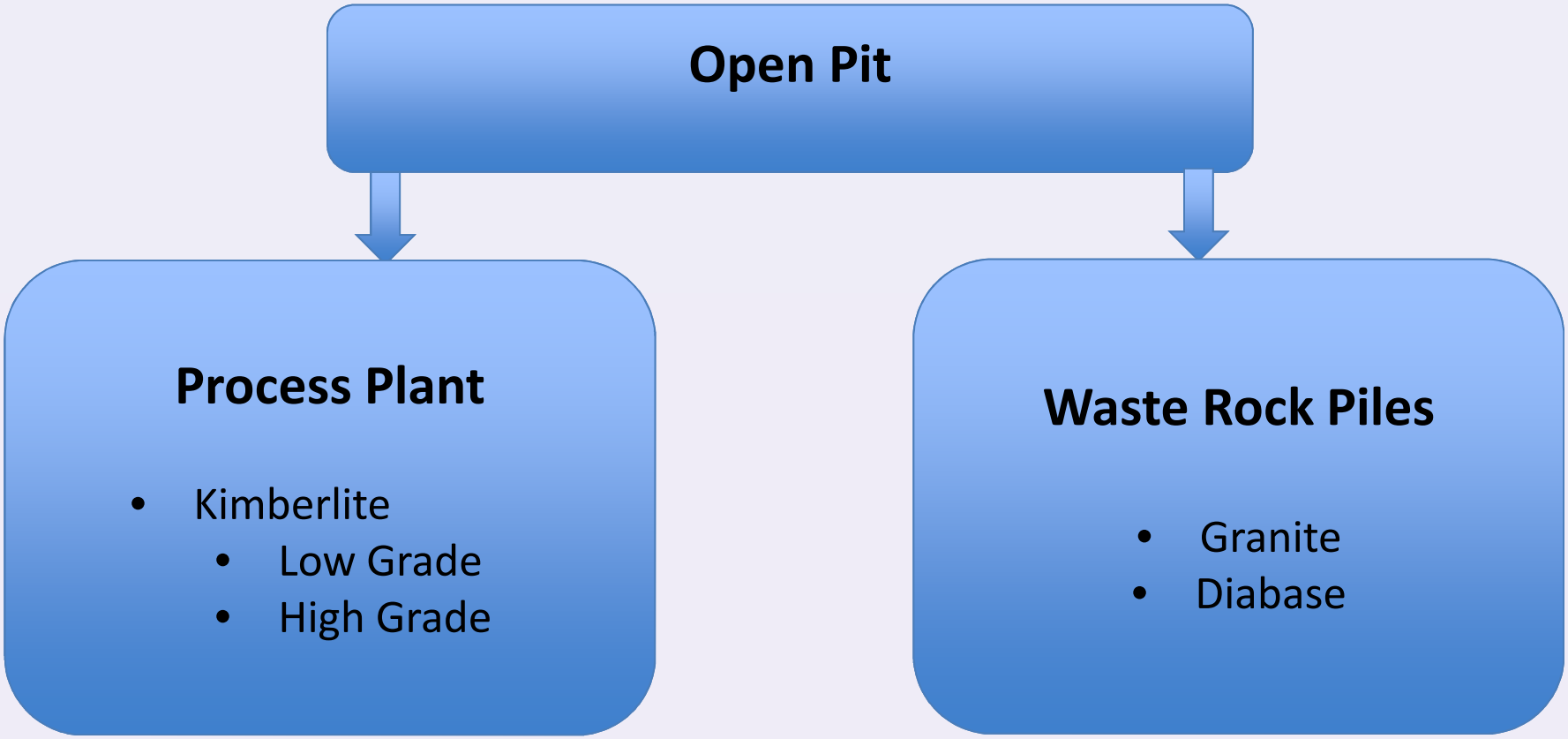


Site Facilities

- Facilities at the Jericho Diamond Mine include:
  - Accommodations and Office Buildings
  - Wastewater Treatment System
  - Airstrip
  - Fuel Facilities
  - Open Pit
  - Waste Rock Piles
  - Process Plant
  - Process Kimberlite Containment Area (PKCA)
  - Coarse Processed Kimberlite Stockpiles
  - Landfill
  - Landfarm

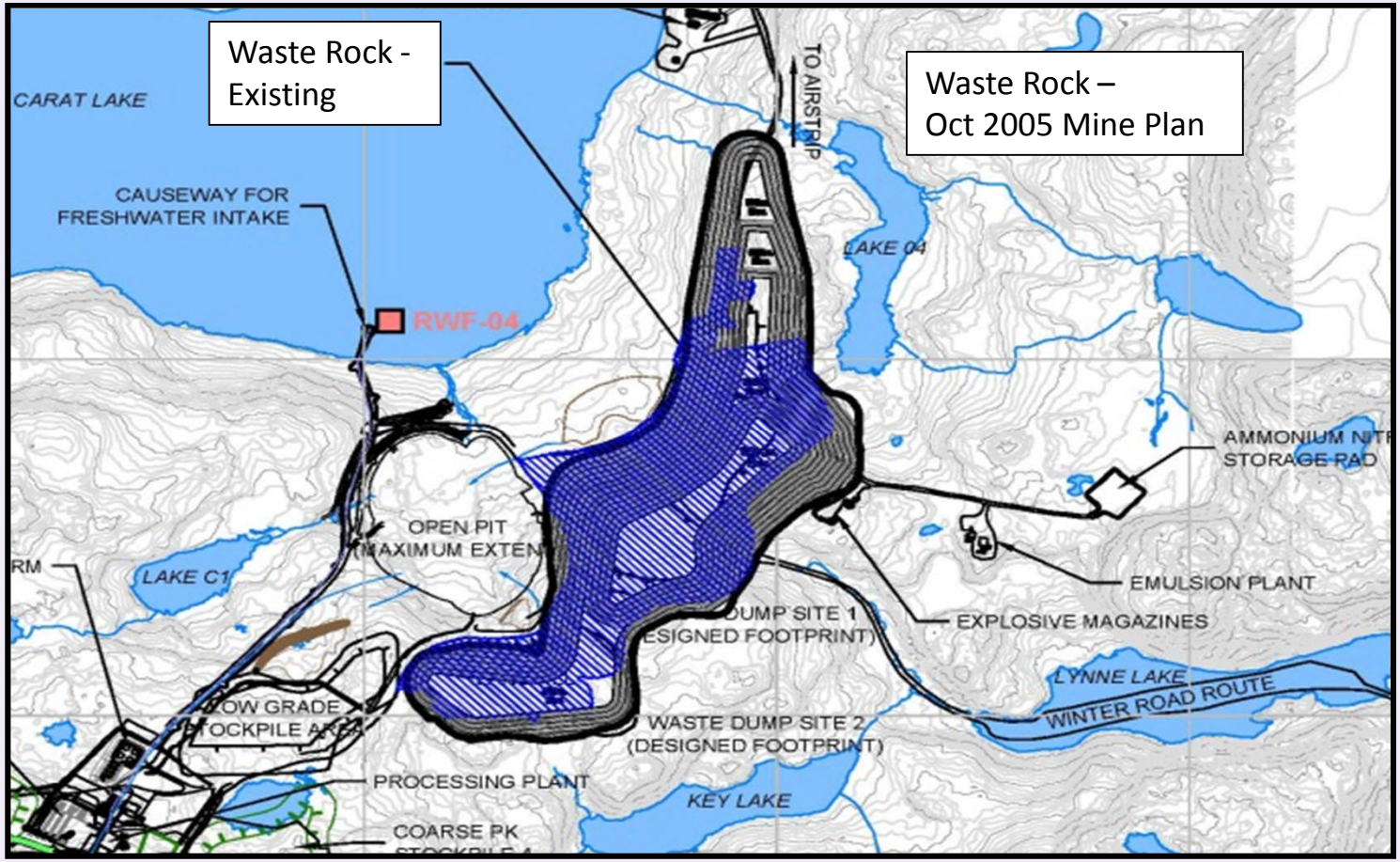
Open Pit

Mining


Open Pit
Process Plant
• Kimberlite
• Low Grade
• High Grade
Waste Rock Piles
• Granite
• Diabase

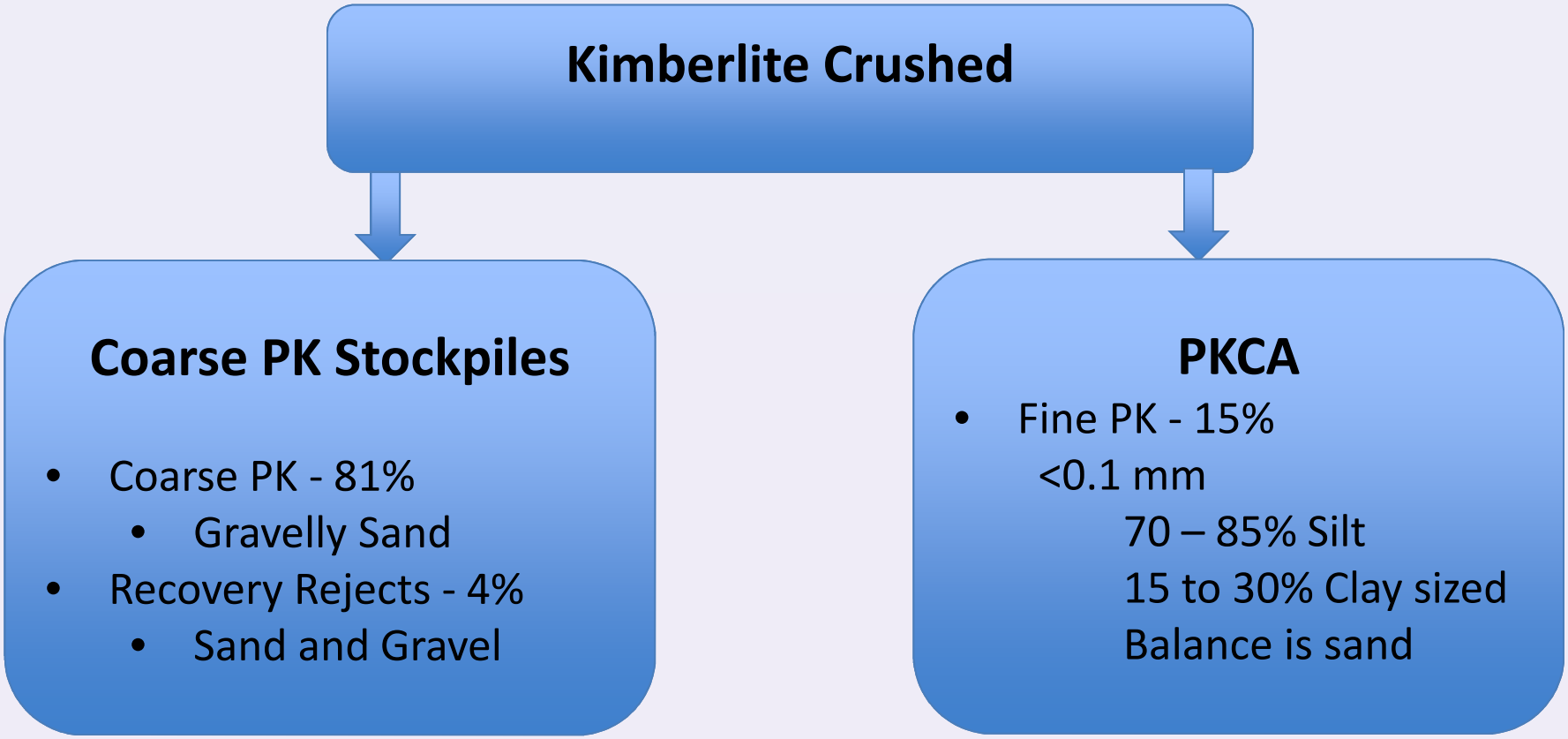
Waste Rock Piles

Waste Rock Piles



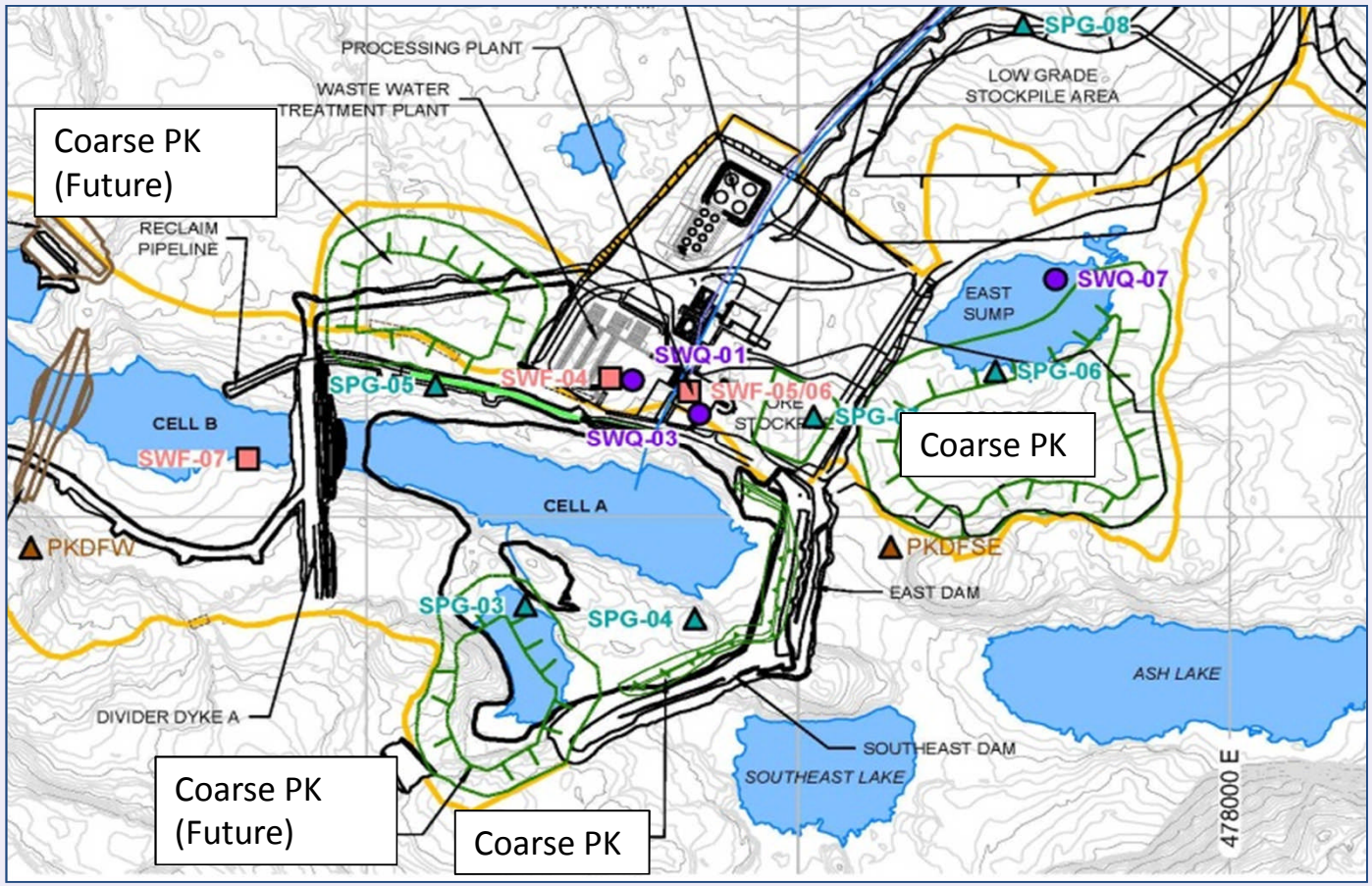
Process Plant

Processing the Diamonds

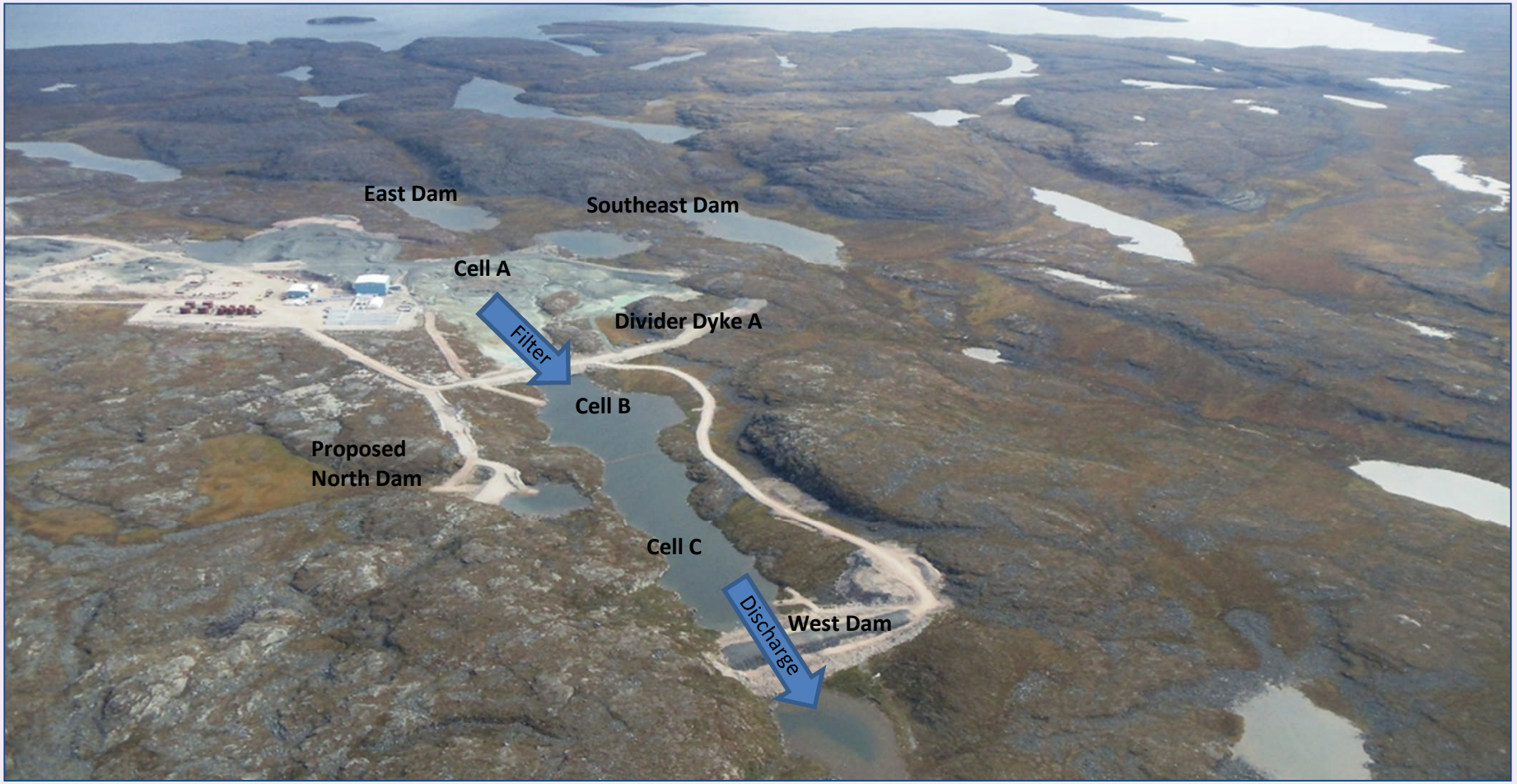


Coarse Processed Kimberlite Stockpiles

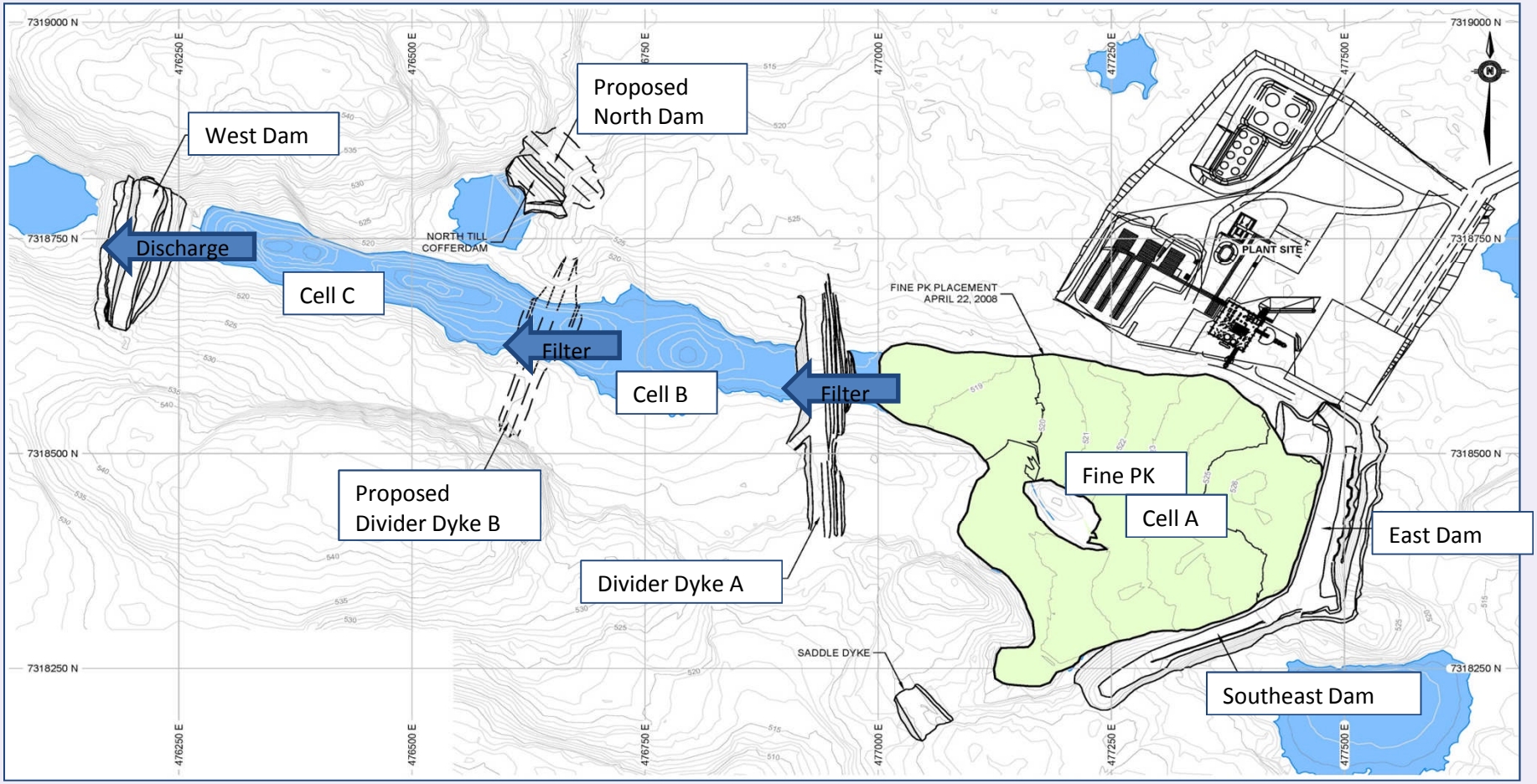
Coarse Processed Kimberlite Stockpiles



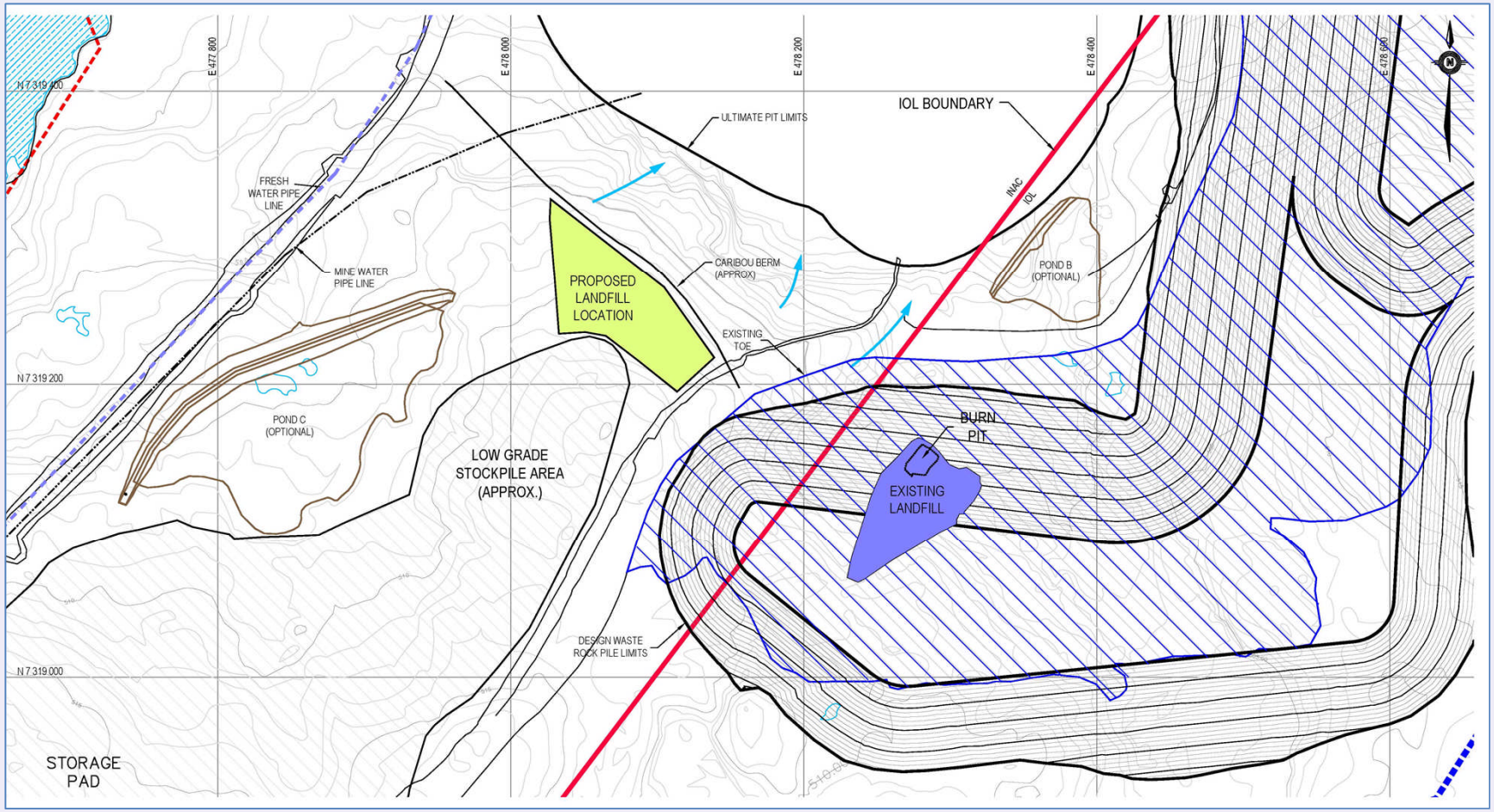
PKCA Facility



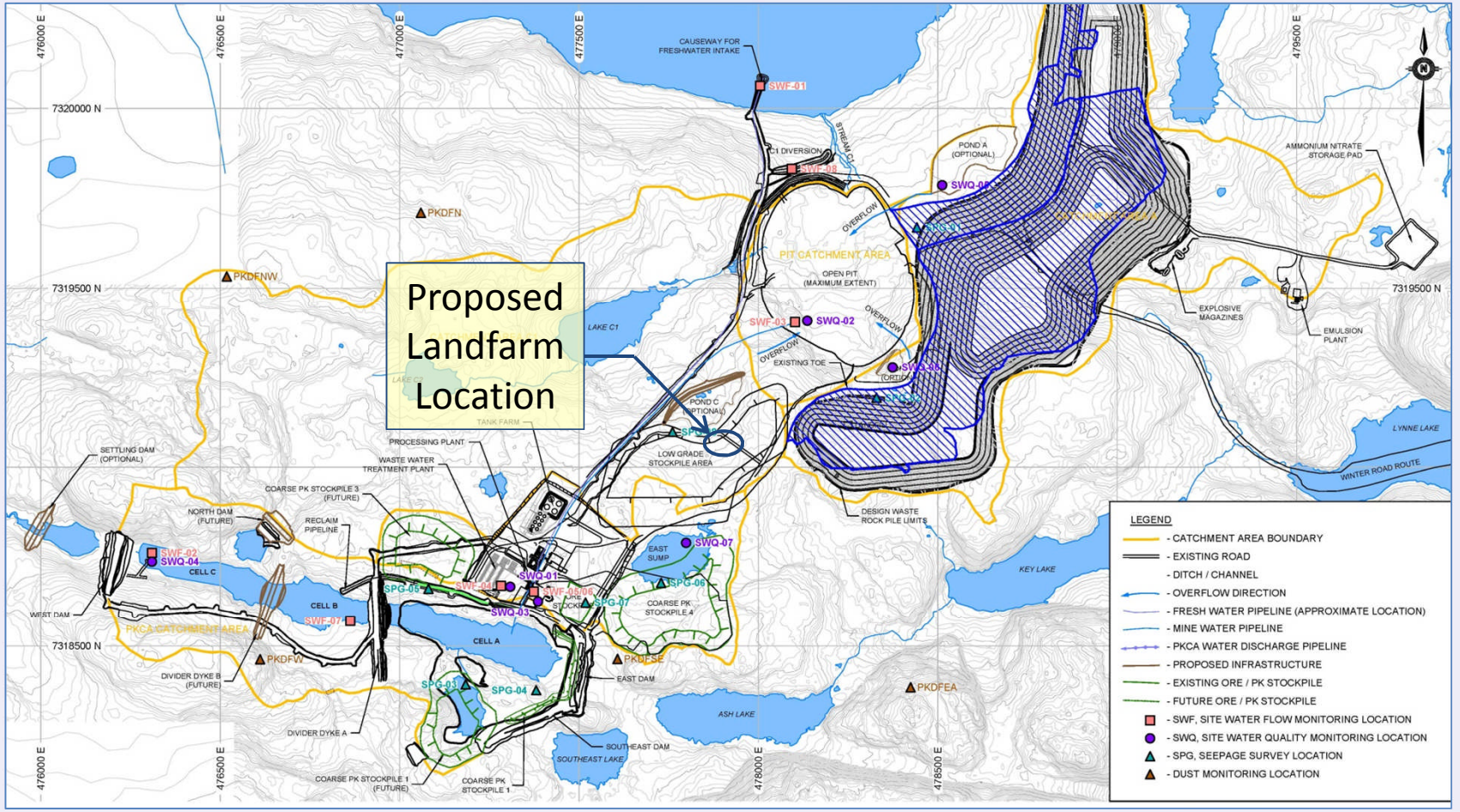
PKCA Facility



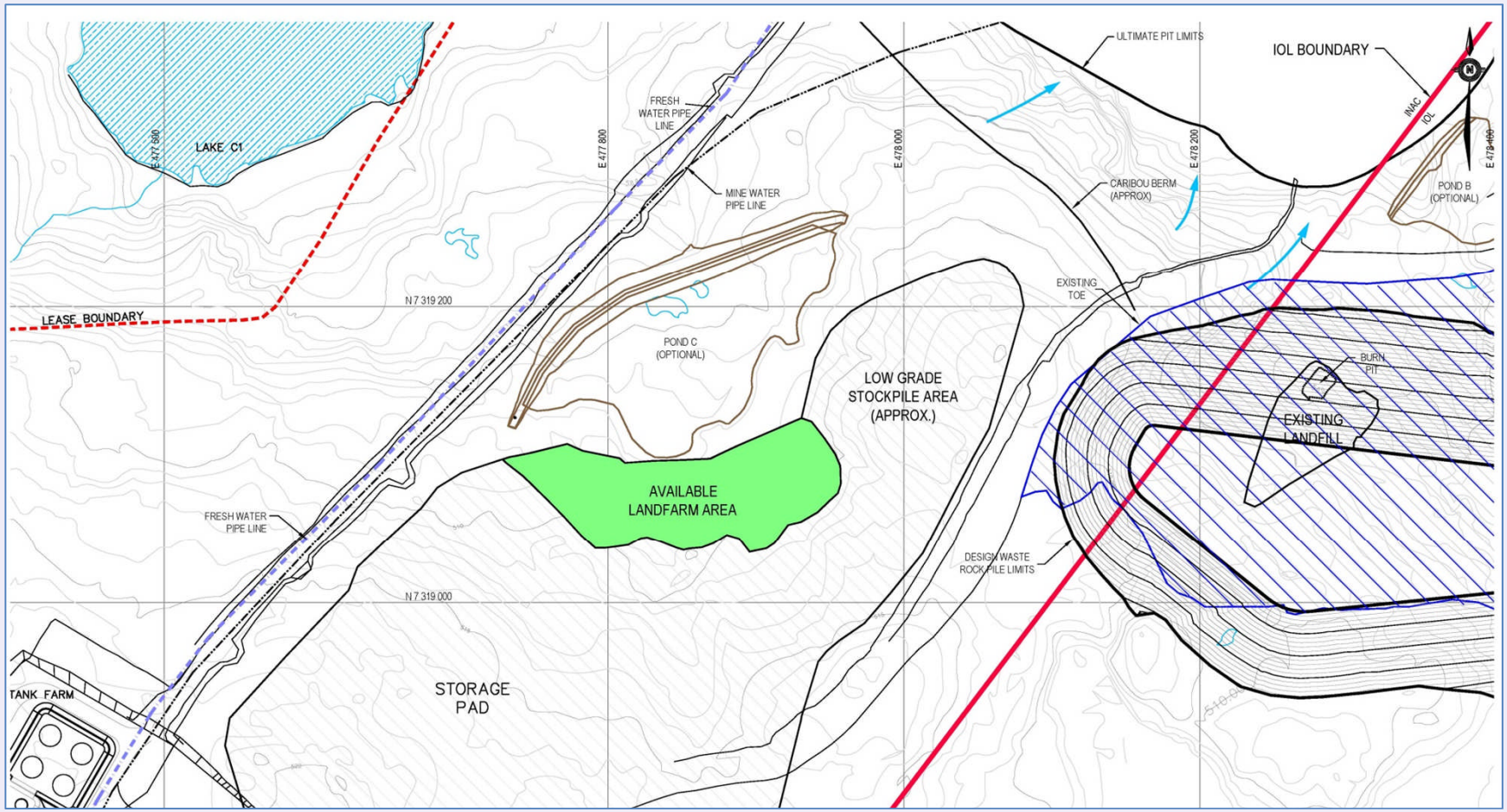
Landfill


E 477 800
E 478 000
E 478 200
E 478 400
E 478 600
N 7 319 400
N 7 319 200
N 7 319 000
IOL BOUNDARY
ULTIMATE PIT LIMITS
INAC
IOL
FRESH WATER PIPE LINE
MINE WATER PIPE LINE
PROPOSED LANDFILL LOCATION
CARIBOU BERM (APPROX)
EXISTING TOE
POND B (OPTIONAL)
POND C (OPTIONAL)
LOW GRADE STOCKPILE AREA (APPROX.)
BURN PIT
EXISTING LANDFILL
DESIGN WASTE ROCK PILE LIMITS
STORAGE PAD

Landfarm


Proposed Landfarm Location
476000 E
476500 E
477000 E
477500 E
479500 E
478000 E
478500 E
7320000 N
7319500 N
7318500 N
CAUSEWAY FOR FRESHWATER INTAKE
SWF-01
C1 DIVERSION
SWF-08
STREAM C1
POND A (OPTIONAL)
SWQ-08
AMMONIUM NITRATE STORAGE PAD
PKDFN
PKDFNW
PIT CATCHMENT AREA
OPEN PIT (MAXIMUM EXTENT)
OVERFLOW
SWF-03
SWQ-02
LAKE C1
EXISTING TOE
SWQ-05
EXPLOSIVE MAGAZINES
EMULSION PLANT
POND C (OPTIONAL)
TANK FARM
PROCESSING PLANT
WASTE WATER TREATMENT PLANT
LOW GRADE STOCKPILE AREA
LYNNE LAKE
WINTER ROAD ROUTE
SETTLING DAM (OPTIONAL)
COARSE PK STOCKPILE 3 (FUTURE)
NORTH DAM (FUTURE)
RECLAIM PIPELINE
DESIGN WASTE ROCK PILE LIMITS
SWF-02
SWQ-04
CELL C
SWQ-07
EAST SUMP
SWQ-01
SPG-06
SPG-05
SWF-04
SWF-05/06
SPG-07
COARSE PK STOCKPILE 4
KEY LAKE
WEST DAM
CELL B
SWF-07
SWQ-03
PKCA CATCHMENT AREA
CELL A
PKDFW
PKDFSE
EAST DAM
SPG-03
SPG-04
PKDFEA
DIVIDER DYKE B (FUTURE)
ASH LAKE
DIVIDER DYKE A
SOUTHEAST DAM
SOUTHEAST LAKE
COARSE PK STOCKPILE 1 (FUTURE)
COARSE PK STOCKPILE 1
LEGEND
- CATCHMENT AREA BOUNDARY
- EXISTING ROAD
- DITCH / CHANNEL
- OVERFLOW DIRECTION
- FRESH WATER PIPELINE (APPROXIMATE LOCATION)
- MINE WATER PIPELINE
- PKCA WATER DISCHARGE PIPELINE
- PROPOSED INFRASTRUCTURE
- EXISTING ORE / PK STOCKPILE
- FUTURE ORE / PK STOCKPILE
- SWF, SITE WATER FLOW MONITORING LOCATION
- SWQ, SITE WATER QUALITY MONITORING LOCATION
- SPG, SEEPAGE SURVEY LOCATION
- DUST MONITORING LOCATION

Landfarm


LAKE C1
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EXISTING TOE
LOW GRADE STOCKPILE AREA (APPROX.)
BURN PIT
EXISTING LANDFILL
AVAILABLE LANDFARM AREA
FRESH WATER PIPE LINE
DESIGN WASTE ROCK PILE LIMITS
N 7 319 000
STORAGE PAD
TANK FARM

Landfarm

COMPLIANCE STATUS

Compliance Status

Shear conducted a compliance review as part of the water licence renewal application. Deficiencies were noted in the following areas:

- Administrative
  - Submission of plans
- Construction
  - Facilities
- Waste Management
  - Waste storage, handling and disposal
- Monitoring
  - Submission of monitoring reports

Compliance Status – Accomplishments to Date

Since acquisition Shear has worked toward bringing the site into full compliance. Some of the accomplishments to date include:

- Submitted a Care and Maintenance Plan
- Significant improvements to the AEMP
- Conducted AEMP sampling in April and August 2011
- Conducted site water sampling – GMP and SWMP
- Inventory of hazardous wastes on site
- Cleaned up old fuel and hazardous waste at Muskox Camp
- Purchased and tested a mobile water treatment unit (Oztek) for hydrocarbon contaminated water
- Pumped, treated and sampled the accumulated storm and melt water in the fuel containment facilities
- Developed procedures for onsite monitoring of TSS and nitrate

Compliance Status – Accomplishments to Date

- Established an onsite lab
- Conducted a site wide clean-up
- Cleaned up stained soil – evidence of old spills
- Sub-arctic Surveyors – survey of site
- Updated the reclamation cost estimate for Crown and Inuit Owned Lands
- Developed and implemented an Air Quality Monitoring Program – worked with Environment Canada
- Contracted a 2010 and 2011 Geotechnical Inspection
- Conducted a Seepage Survey
- Filed a Fish Habitat Compensation Plan to DFO following numerous discussions
- Registered as a Hazardous Waste Generator

Compliance Status – Inspections 2011

- Inspections of the Jericho Mine site were conducted by:
  - AANDC Water Resource Officer
    - (June 10, 2011 & Nov 1, 2011)
  - EC
    - (September 18, 2010 & September 19, 2011)
  - KIA
    - (August 24, 2011)

AANDC Inspections 2011

Action Items & Comments	Status
Plan required for how Shear will deal with old fuel on site.	Shear had fuel tanks dipped and the fuel tested. A plan is being developed for submission.
Treat and pump water in secondary containment facilities.	Shear assisted in the design of a mobile hydrocarbon water treatment system (Oztek). Water treated, sampled and pumped to the PKCA.
Clean up numerous legacy (minor) spills.	Minor spills and “stains” around site were cleaned up.
Plan for the Hazardous Waste Transfer Area.	Shear will address the HWTA in 2012.
All fuel to be stored in secondary containment, including drummed fuel.	Secondary containment was already en route when the Inspector was on site. All fuel on site is in secondary containment.

Environment Canada Inspections 2011

Action Items & Comments	Status
EC requested electronic copies of all our plans, but specifically: Sample Monitoring Plan, Containment Pond Inspection Reports, Spill Contingency Plan	All electronic plans have been sent to EC
EC – Requested amounts of all E2 gases on site	All E2 gases on site have been measured and reported to EC
EC noted that we had to register Shear's E2 gases on site (CEPA registration)	Confirmation of registration Nov 15, 2011
Removal of water in the fuel farm berms	Fuel Berms pumped out Sept 23, 2011

SUMMARY OF APPLICATION

Licence Terms and Conditions

- Renew the existing water licence, on substantially the same terms, for the life of the mine (14 years)

- Requesting amendments concerning:
  - Term of the licence
  - Timing of submission of Final Closure and Reclamation Plan
  - Flexibility of filing timelines
  - Remove Part G, Item 2 (e)
  - Remove terms and conditions that no longer apply and update other conditions

- Updating Security

***To assist the NWB and the interveners, we are providing a mark-up of Shears' proposed changes to the water licence for the next part of the presentation.**

Term of Licence

- The licence application proposed a term of 10 years
- This was based on a production rate of 2000 tpd. At this production rate the projected mine life was 8 years which included 2 years of reclamation
- A review of the processing operations revealed that the rate of processing will be closer to 1250 tpd.
- This results in a projected mine life of 10 years, plus 2 years for reclamation
- It is anticipated that it will take 2 years to resume production
- **Based on these new projections, Shear is requesting that the term of the licence be 14 years**

Importance of a Life of Mine Licence

- Investors look for the security of a fully permitted project for Life of Mine
- Shear has committed to quarterly updates (as per Technical Memo I) to the Nunavut Water Board to maintain transparency and seeks an ongoing working relationship with all regulators
- Shear is prepared to provide a full compliance report after 7 years

Timing of the Final Closure and Reclamation Plan

- Part M, Item 5. "*The Licensee shall submit to the Board for approval, at the time of licence renewal, a Proposed Final Closure and Reclamation Plan developed in accordance with Schedule M, Item 2.*"
- Final Closure and Reclamation Plan incorporates information from numerous studies which have not yet been conducted, including, but not limited to:
  - A Human Health and Ecological Risk Assessment
  - All results of landfarming
  - All results of revegetation trials
  - Multi-stage Environmental Site Assessment plans

- **Shear proposes that Part M, Item 5 be amended to provide that the Final Closure and Reclamation Plan be submitted three years from issuance of the licence**
- **Shear will submit a revised Interim Closure and Reclamation Plan within one year of issuance of the licence**

Flexibility of Filing Timelines

- The current licence sets out numerous timelines for reporting and filing with respect to plans and approvals
- There may be circumstances where it is not practical to meet the timelines. Shear requests that the licence provide some flexibility with respect to the timelines

- **Shear asks that the licence be amended to include the following term under Part B, General Conditions:**
- **“The Board may, at it’s discretion, vary any timelines applicable to reporting or filing set out in this licence.”**

PKCA Discharge Outflows

- Wording in Part G, Item 2(e) creates difficulty

- Part G, Item 2(e) states that:

"the Licensee shall make every effort to **simulate natural water flows in Stream C3** *during discharge."*

- Part G, Item 8(a) states that:

"The Licensee shall ensure that the de-watering of Long Lake and or effluent discharge to Stream C3 is undertaken such that the discharge does not exceed the typical average freshet flows over the sustained discharge period for the de-watering and the discharge during operations should **simulate the natural seasonal flows***."*

- Difficulty is that Stream C3 naturally has very low flows

PKCA Discharge Outflows

- During operations, Tahera exceeded the natural seasonal stream flow rates in Stream C3
- This was unavoidable as Stream C3 flow rates reduce significantly following freshet, and as all mine waters are pumped to the PKCA, these waters must be discharged annually in order to maintain the required 1 metre freeboard of the dams
- Maximum discharges have been 17,800 m^3/day (0.2 m^3/sec) (2006-2007) and 183,000 m^3/month (average 0.07 m^3/sec). No adverse effects to stream C3 were reported

PKCA Discharge Outflows Cont.

- Shear requests that these conditions be removed as it is not possible to simulate the natural seasonal flows and maintain a 1 metre freeboard of the dams
- Shear proposes that the maximum discharge to C3 should be restricted to 0.2 m^3/sec.
- Erosion considerations will be addressed as per Part G, Item 8(c) and (d)

Updating the Licence

- There are a number of conditions that apply to the construction of facilities that are now in place
- Some plans and reports have been superceded
- The plans that were required to be submitted, for example the Waste Management Plan, Waste Rock Management Plan, Explosives Management Plan, the Landfill and Landfarm Management Plans, have been filed, the licence should speak to revisions of these plans

Reclamation Security

	AANDC Estimate	*Shear Estimate*	*Difference*
Total Land and Water	$11,916,505.00	$11,671,300.00	$245,205.00
Less KIA Attributable	(1,264,034.00)	(2,892,000.00)	(1,627,966.00)
TOTAL Crown	$10,652,471.00	$8,779,300.00	$1,873,171.00

Security

- Shear and the KIA have reached agreement that the total amount of security for IOL's is $2,892,000

RESPONSE TO SUBMISSIONS

Responding to Submissions

- Shear appreciates the time and effort that reviewers have invested in reviewing our application and submissions
- In responding to the technical submissions received to date:
  - Shear has provided a written response to **every** query, comment and recommendation received. The written response has been provided in table format
  - Shear has also made a number of commitments which have been provided in the same table
  - Shear identified 6 primary concerns while reviewing the submissions

Responding to KIA

In response to the Kitikmeot Inuit Association's submission:

- Closure and Reclamation Security
  - Shear and the Kitikmeot Inuit Association have reached an agreement related to reclamation security
- Water Compensation
  - Shear and the Kitikmeot Inuit Association have no outstanding issues related to water compensation

Responding to KIA cont.

- Final Closure and Reclamation Plan
  - The Kitikmeot Inuit Association would like the Final Closure and Reclamation Plan filed within 2 years of the issuance of the licence
  - Shear proposes submitting the Final Closure and Reclamation Plan within 3 years of the issuance of the licence in order that Shear can undertake the studies required under Schedule M, Item 2 of the licence

- Term of the Water Licence
  - The Kitikmeot Inuit Association is requesting a 5 year term of licence
  - Shear is requesting a 14 year term of licence which will include 2 years leading up to production, 10 years of production and 2 years for reclamation and closure

Responding to DFO

- In response to Fisheries and Oceans Canada's (DFO) submission, Shear will:
  - Continue to work with DFO to develop plans and timelines to achieve the completion of the outstanding fish habitat compensation and monitoring
  - Provide copies of all future plans and reports to DFO for review as they are available

Responding to AANDC

- In response to Appendix 1, Shear has submitted a detailed table of responses and commitments
  - Shear will speak to a number of issues in detail
- In response to Appendix 2, Shear submits that the timelines proposed by Shear in Technical Memo I, as requested by the NWB, and the current licence terms should continue to apply
- In response to Appendix 3, Shear and AANDC have reached agreement

Responding to EC

- In response to Environment Canada's submission, Shear has submitted a detailed table of responses and commitments
- Shear will speak to a number of these issues in detail

Responses to Particular Issues

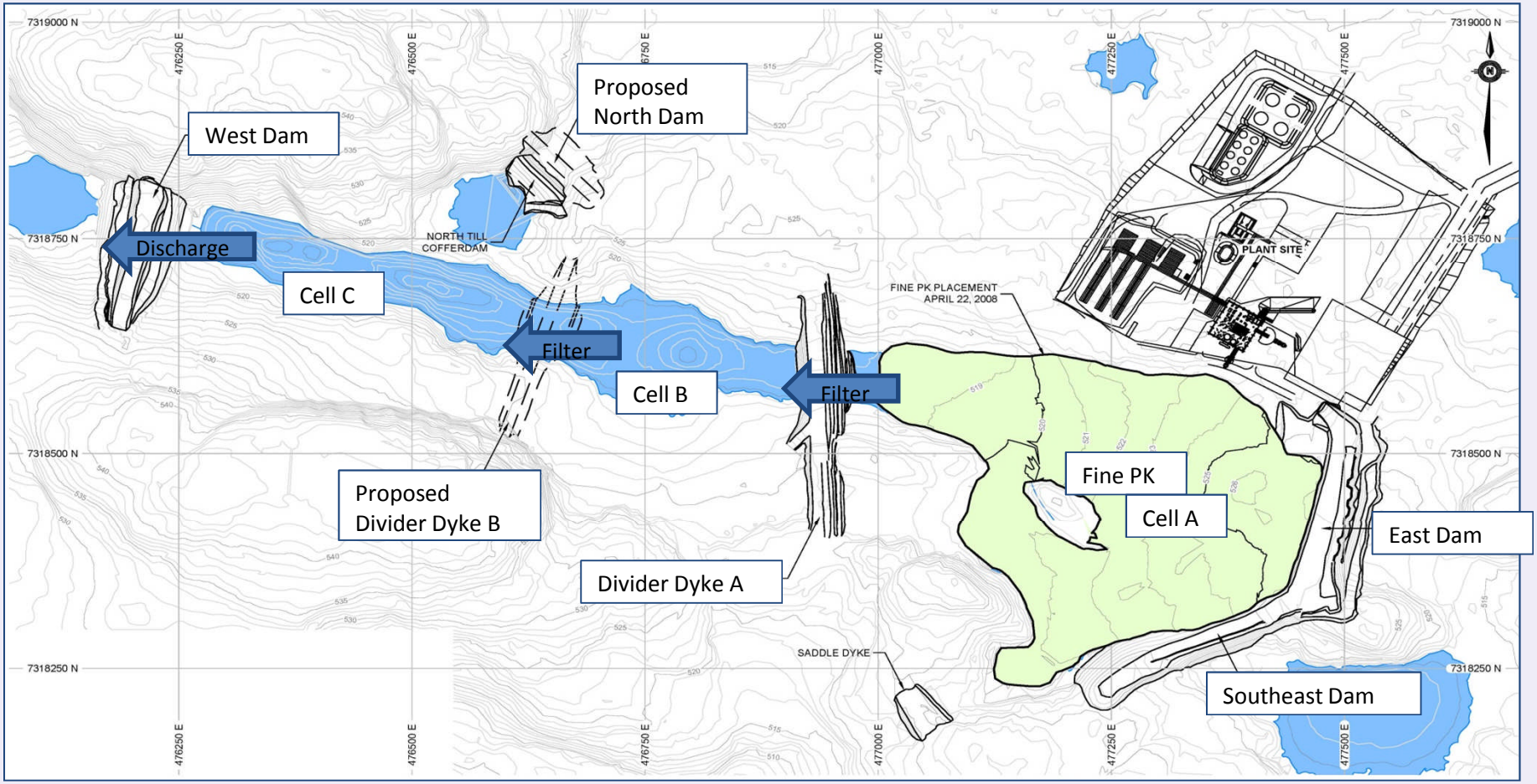
In reviewing the Intervener AANDC and EC submissions Shear identified some particular issues to address in more detail:

- Further work required for the PKCA
- Residual flocculent & coagulant and chronic toxicity
- The Dilution Factor
- Effluent Quality Criteria recommended by EC
- Site Water Quality
- Open Pit Infill Rates

The next section of this presentation will address these issues

PKCA – Bill Horne

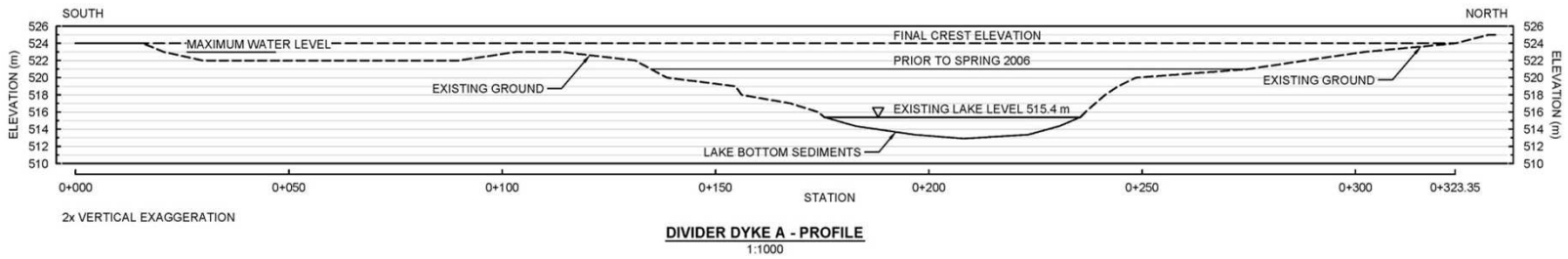
PKCA Facility – Dams and Dykes



PKCA – Dam and Dyke Construction Schedule

Structure	Design Crest (m)	As-Built Crest (approx) (m)	Construction Period
West Dam	528 Crest 524 Core	525 (min) Crest 520 (min) Core	Year 1
East Dam	524.5 Crest 523.5 Liner	524.5 Crest 523.5 Liner	
Southeast Dam	524.5 Crest 523.5 Liner	524.5 Crest 523.5 Liner	
Divider Dyke A	524	Varies – low point 521.5	Year 0
Divider Dyke B	524	Not in place	Year 1
North Dam	528 Crest 524 Core	Not in place	Year 0
Cell A Perimeter Dyke	528.5	Not in place -	Stage 1 Year 1 Stage 2 Year 3
West Settling Pond Dam	-	Optional	Optional

PKCA Divider Dyke



DIVIDER DYKE A - PROFILE
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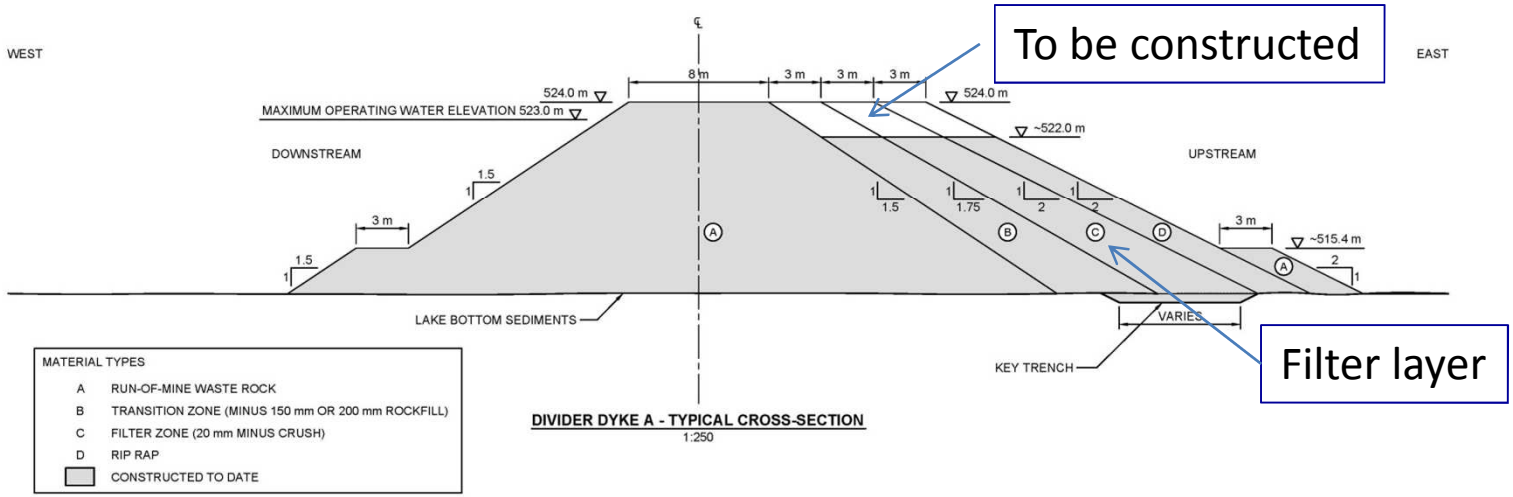

DIVIDER DYKE A - TYPICAL CROSS-SECTION
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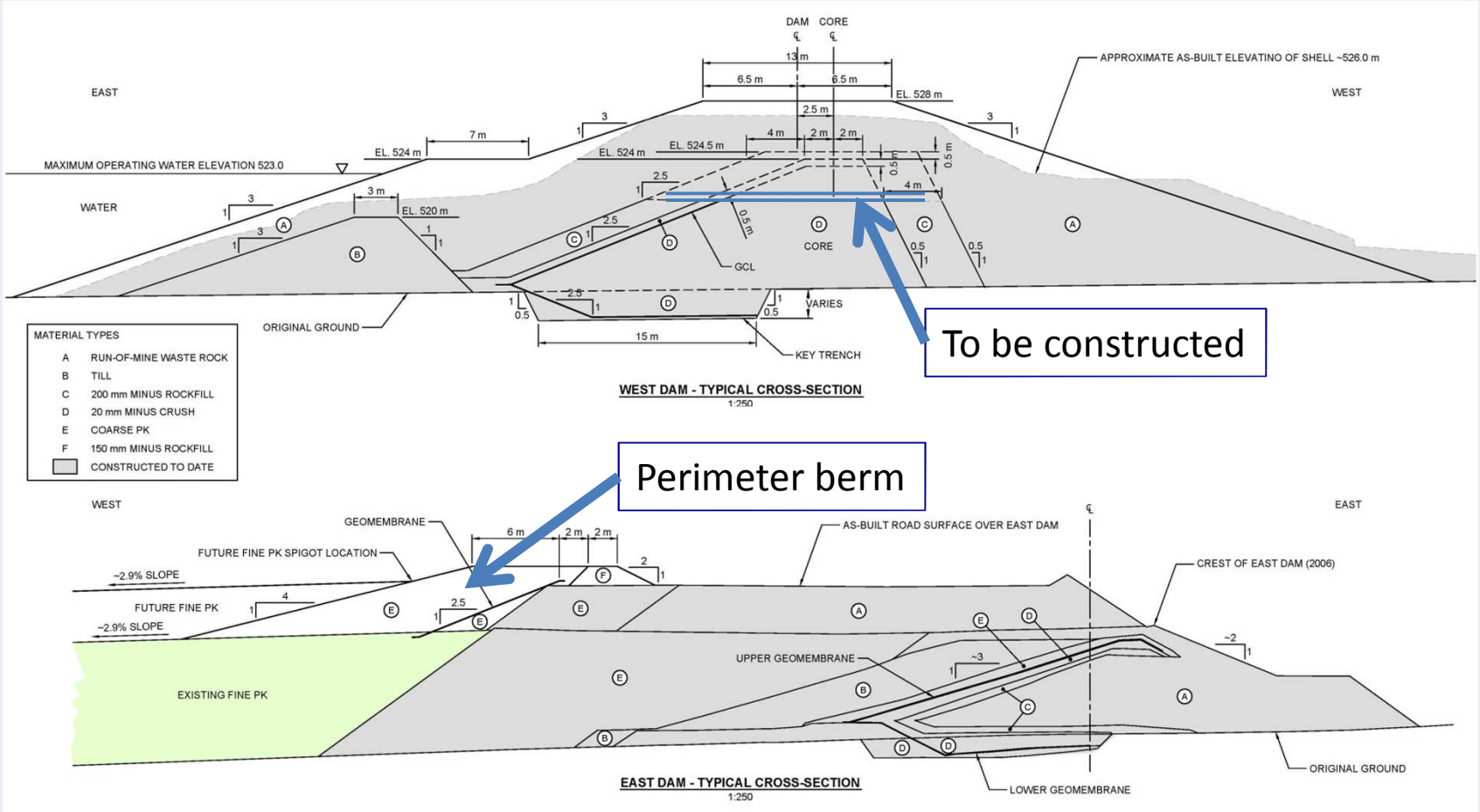
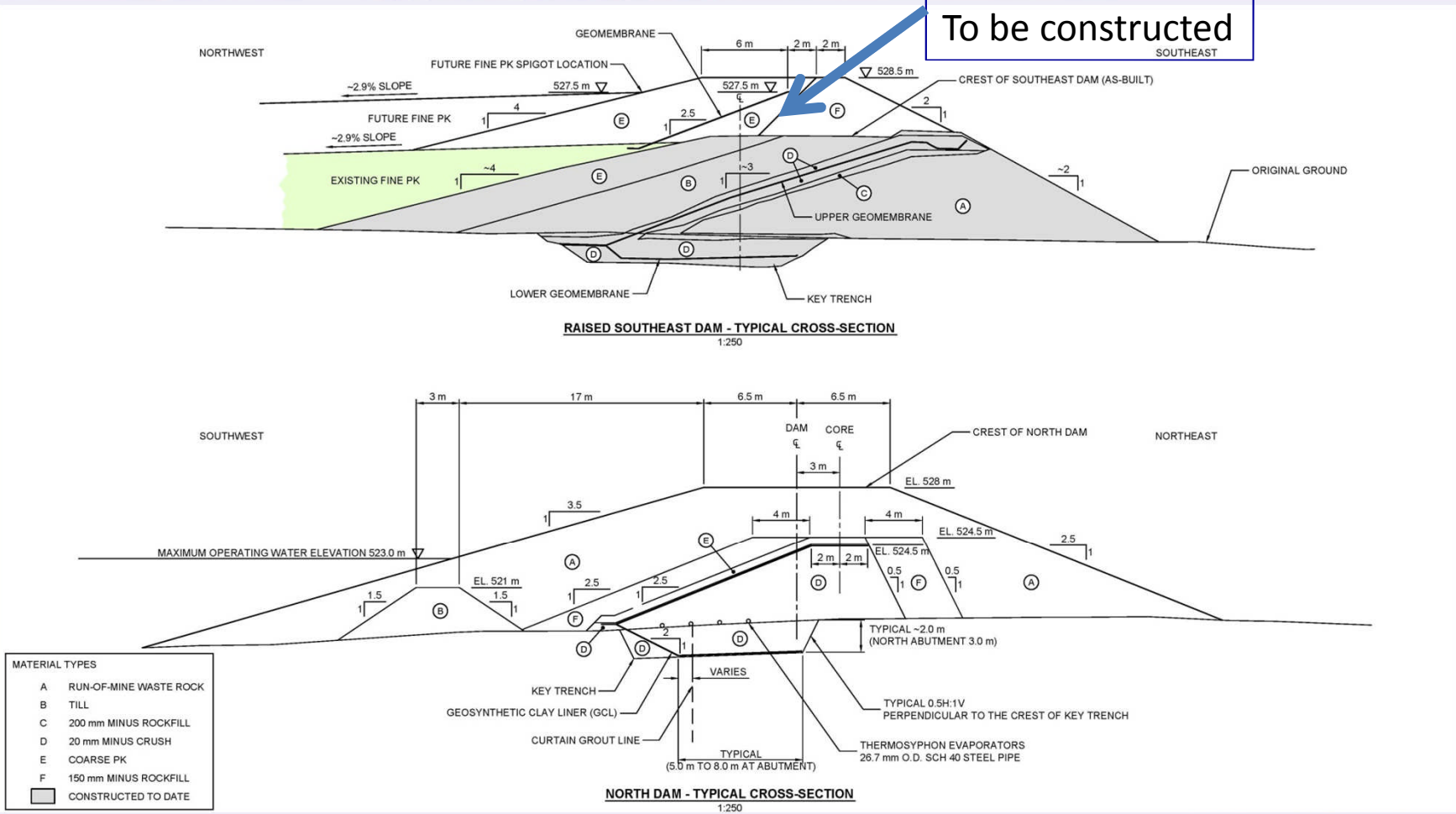
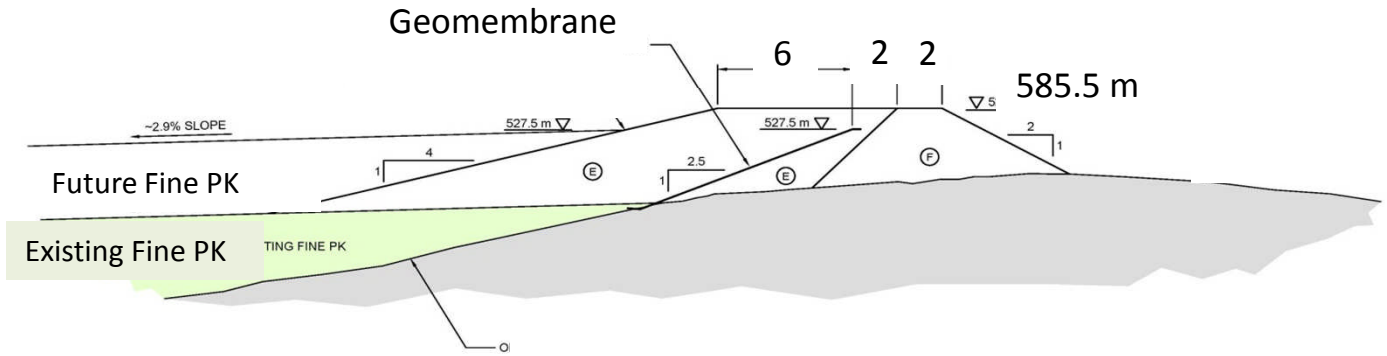
PKCA – West Dam and East Dam



PKCA – Southeast Dam and North Dam



PKCA Cell A Perimeter Berm



Fine Processed Kimberlite

- Fine PK deposited as a slurry
  - 30% Solids Content
  - After placement density 0.685 t/m3 (based on measured data including ice entrainment)
  - Beach Slope 2.9%

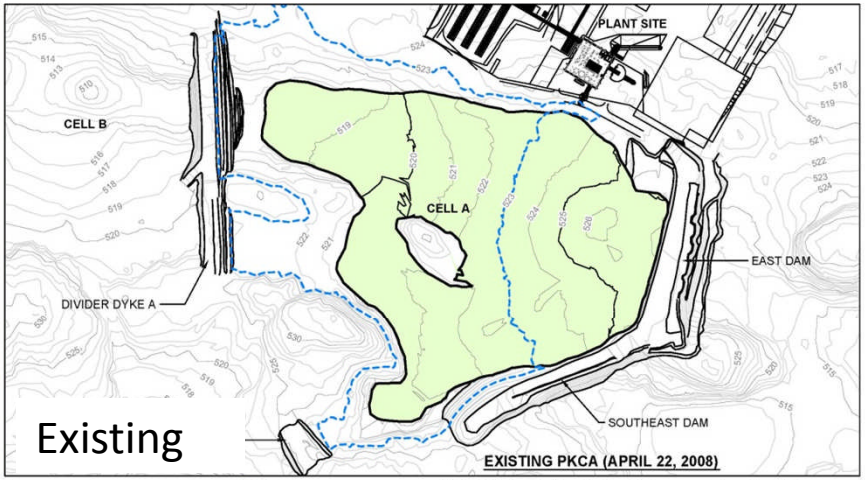
PKCA - Capacity

Capacity	
Cell A	1,140,000 m^3
Cell B	250,000 m^3
Total	1,390,000 m^3

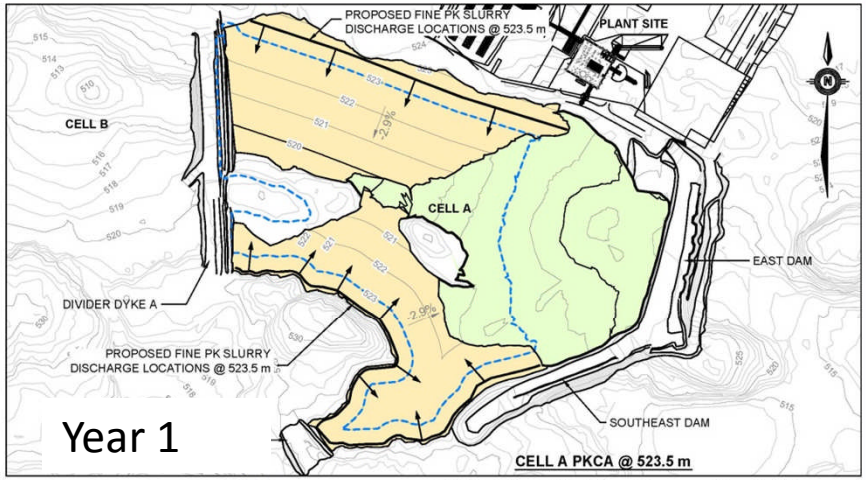
Fine PK	
Historical 2008	<579,000 m^3
Future	806,000 m^3
Total	1,385,000 m^3

- There is enough capacity in the PKCA for the life of the mine

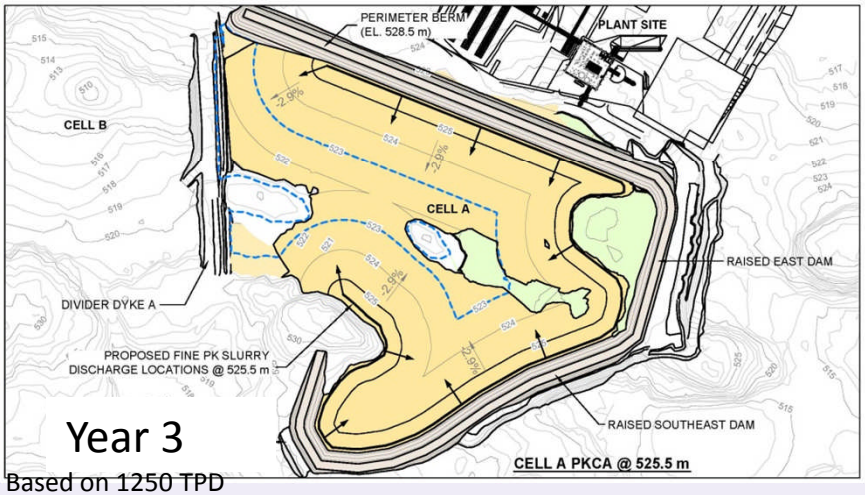
PKCA – Fine PK Distribution – Cell A



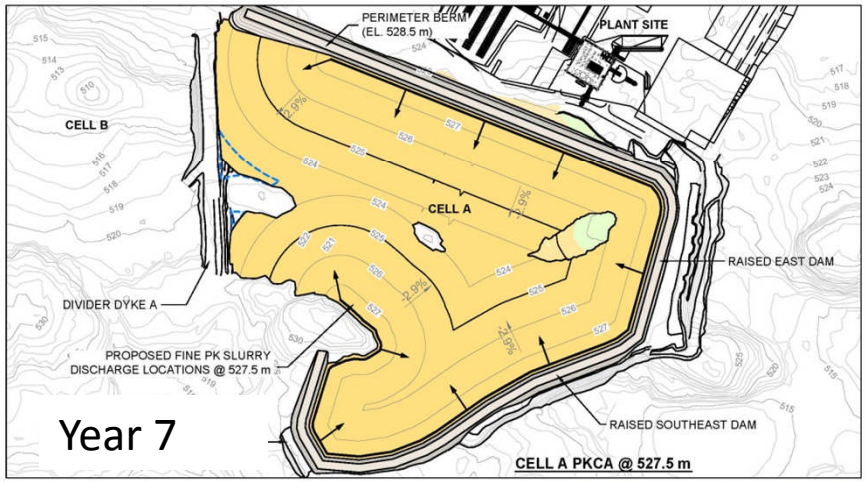
Existing



Year 1



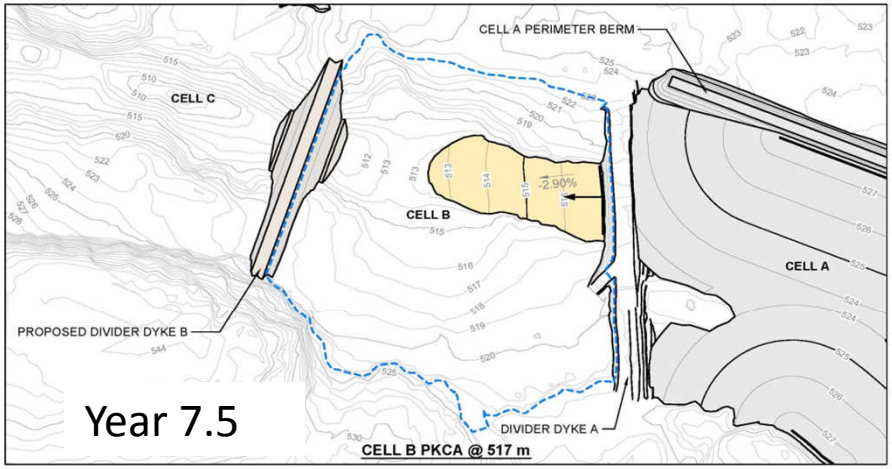
Year 3



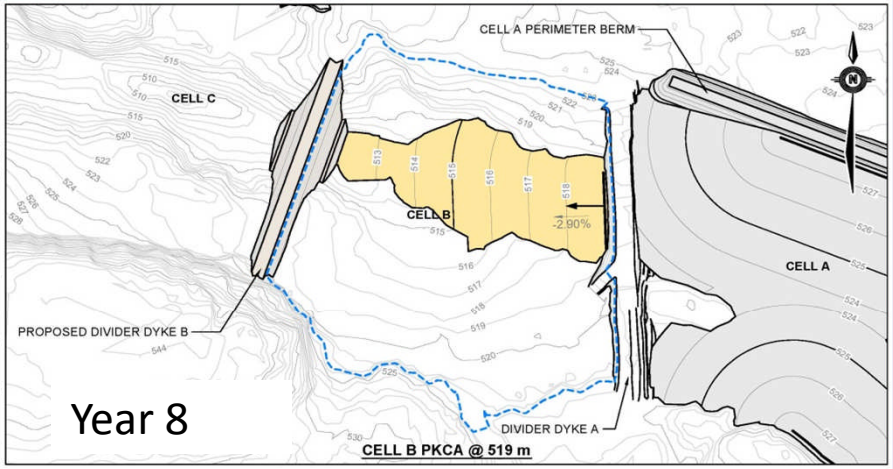
Year 7

Based on 1250 TPD

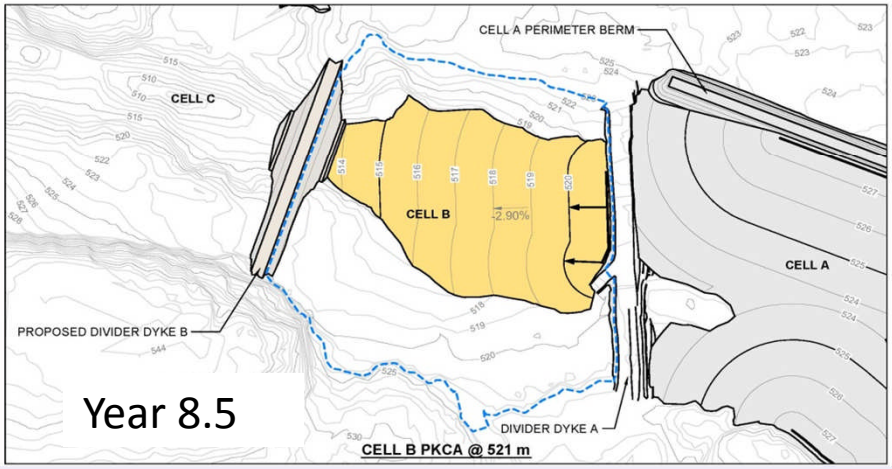
PKCA – Fine PK Distribution – Cell B



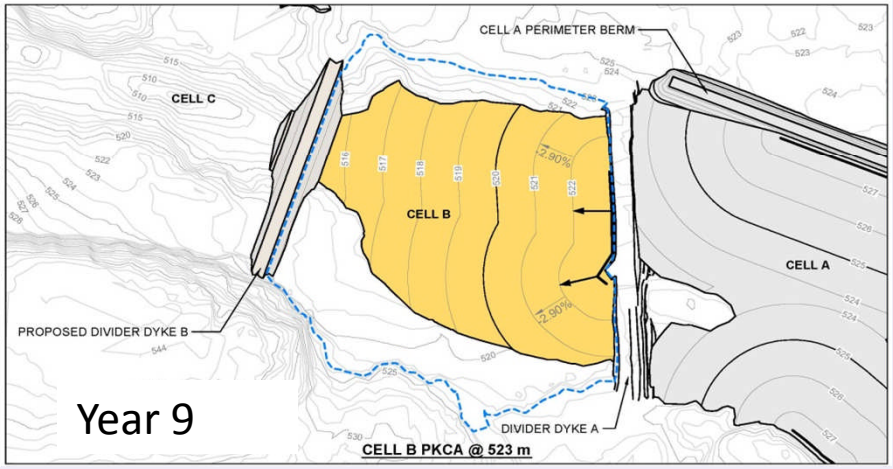
Year 7.5



Year 8



Year 8.5



Year 9

Flocculent – Allison Rippin Armstrong

Residual Flocculent and Coagulant

- Concern has been raised with regard to residual flocculent and coagulant in the PKCA and discharge water
- Currently the water licence requires chronic testing within the mixing zone of Lake C3
- It is difficult to measure residual flocculent and coagulant in water
- Shear is working with the lab to determine the toxicity of flocculent and coagulant at various dilution strengths

Flocculent

- The name flocculent comes from the wooly appearance of the floc
- Flocculent clumps suspended solids together making them heavy so that they settle out in the PKCA

What is Toxicity Testing?

- Toxicology is defined as “the study of the adverse effects of chemical, physical or biological agents on living organisms and the ecosystem”
- Toxicity tests were developed as a tool for evaluating the potential harmful effects of effluents discharged into receiving waters
- Acute toxicity is the adverse effects of a substance that result either from a single exposure or from multiple exposures in a short space of time
- Chronic toxicity is the adverse effects from repeated exposure to a substance over a longer time period

Determining Toxicity of Flocculent

- Maxxam's Ecotoxicology lab has extensive experience in both freshwater and marine water toxicity testing
- Maxxam has also performed due diligence product tests on various floccing agents to determine potential toxicity dosing limits
- This entailed performing multiple-dilution rainbow trout tests on untreated mine site water or in-house trout culture water
- These tests resulted in site-specific dosing limits and/or confirmed toxicity data of the MSDS

Chronic Toxicity Testing

- Environment Canada recommended:
  - Conducting chronic toxicity tests to the cladoceran crustacean *Ceriodaphnia dubia* (EPS/1/RM/21) and the freshwater alga *Pseudokirchneriella subcapitata* (EPS/1/RM/25) using 100% strength effluent once prior to discharge and a second time prior to completion of discharge – although not as regulated conditions, rather to track the potential for sublethal effects in the receiving environment
- Shear's response:
  - Shear is prepared to accept the recommendation to conduct the chronic toxicity tests using 100% strength effluent, but feel that these additional toxicity tests should be added to Schedule L of the water licence, for monitoring.
  - Shear will undertake the plume delineation study that was recommended by EC.as an addition to the chronic toxicity tests under Schedule L, Item 4(d)(iv)

Chronic Toxicity Testing

EC recommends:

- The condition described in Schedule L 4(d) should be removed from the water licence

Shear's response:

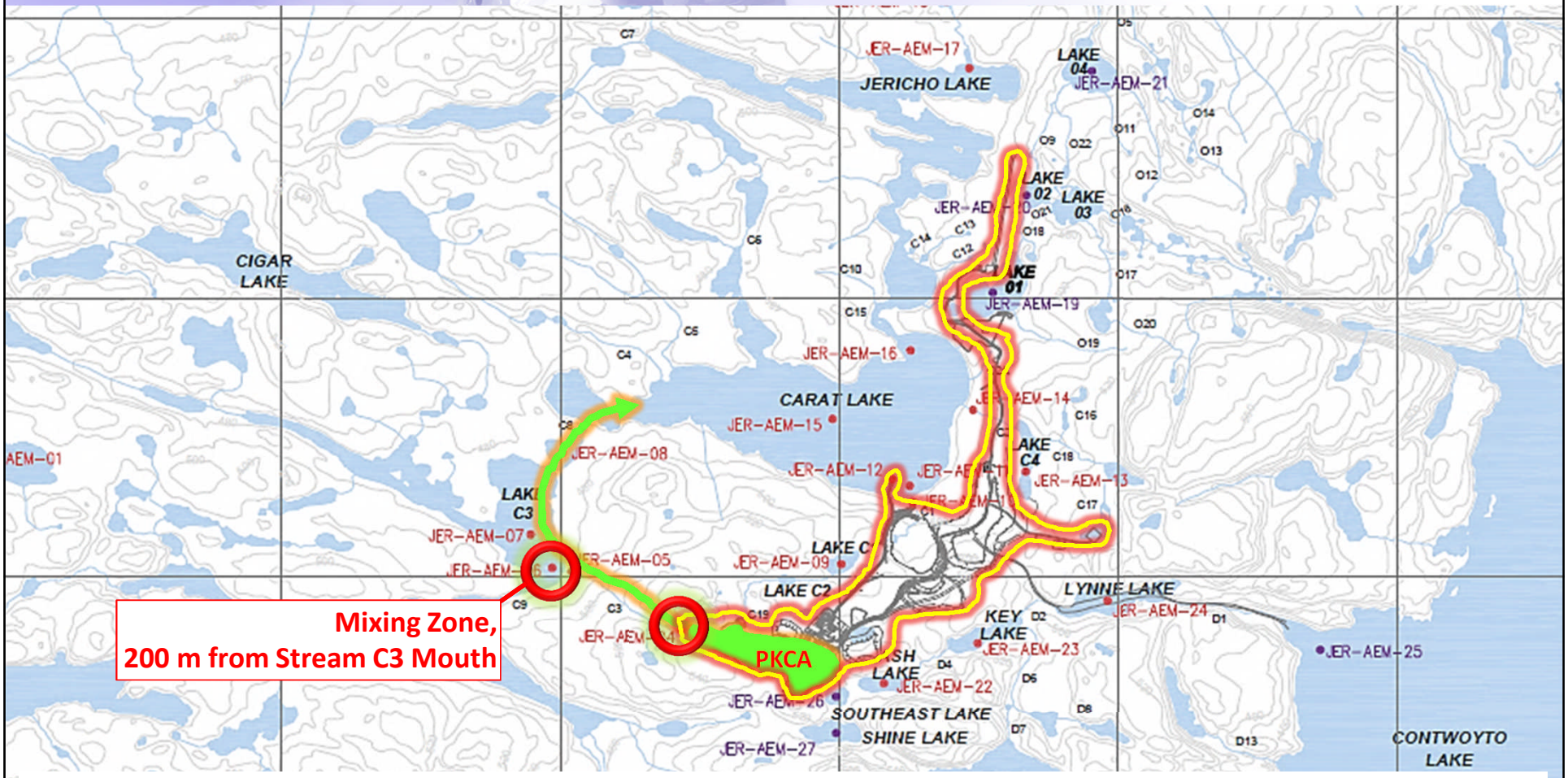
- EC also recommends that Shear undertake a plume delineation study within Lake C3
  - This is discussed later in the presentation
- Shear will continue to conduct chronic testing in the 200 metre mixing zone in Lake C3 (once prior to discharge and once before completion of the discharge) until the plume delineation study (within Lake C3) has been completed
  - This will be in addition to the chronic testing using 100% strength effluent as described on the previous slide
- The results of the plume delineation study will confirm the chronic toxicity sampling location within Lake C3
- The chronic testing in Lake C3 will be conducted once one week following the start of discharge and once before completion of discharge

Chronic Toxicity Testing

- AANDC:
  - Shear to get back to AANDC re: chronic toxicity (testing) of flocculants
- Shear's response:
  - Shear will work with Maxxam Laboratories to undertake due diligence tests on floccing agents to determine potential toxicity dosing limits
  - The results of these tests will be provided to the regulators

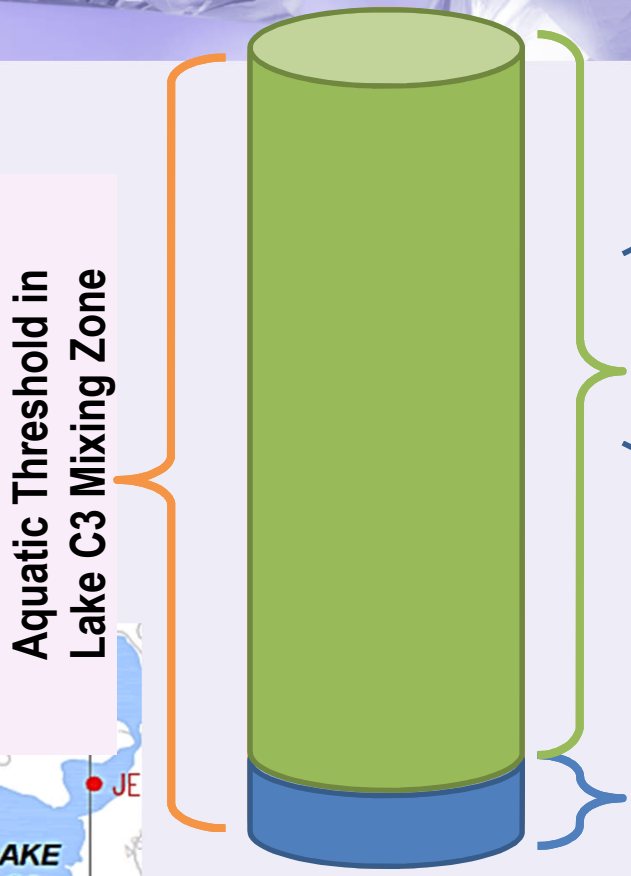
Dilution Factor – William Liu

Verification of Dilution Factor



$$\text{Conc.}_{\text{Discharge}} = (\text{Conc.}_{\text{Threshold}} - \text{Conc.}_{\text{Background}}) \times \text{Dilution Factor}$$

Verification of Dilution Factor



Aquatic Threshold in Lake C3 Mixing Zone

Discharged Concentration in Mixing Zone

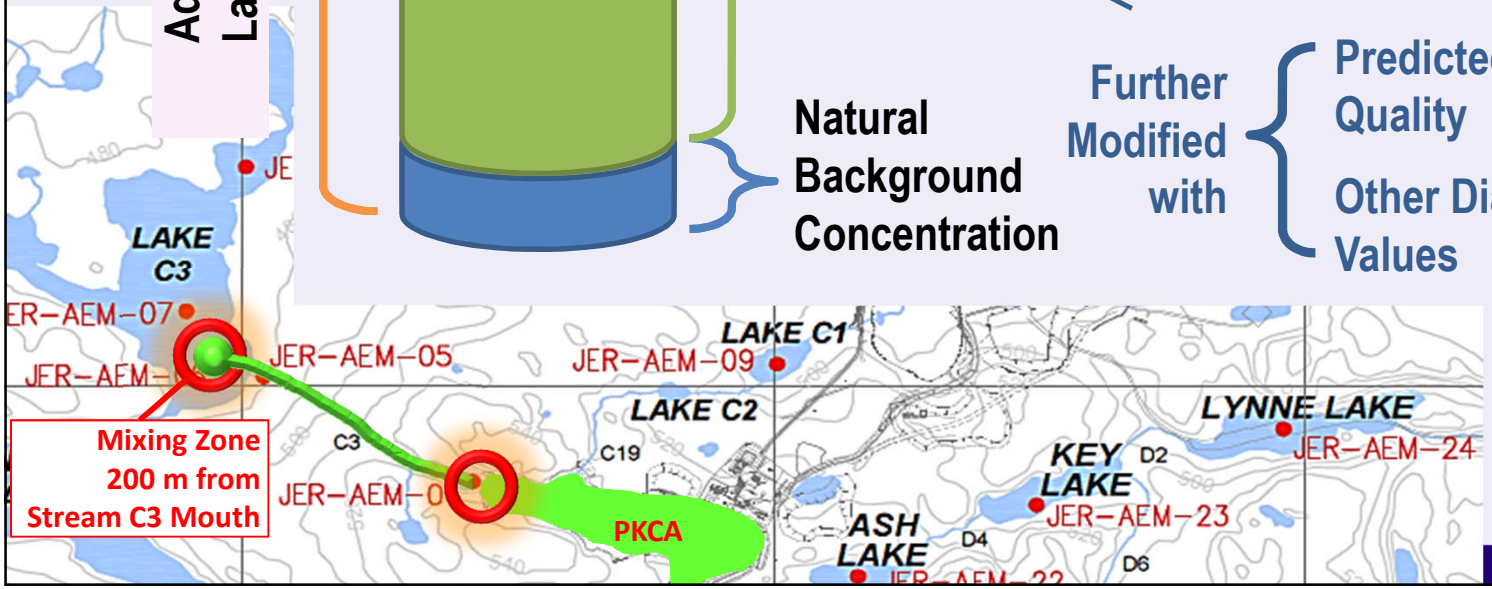
Natural Background Concentration

× 10 Dilution Factor

= Provisional PKCA Discharge Limits

Further Modified with

- Predicted Discharge Water Quality
- Other Diamond Mines' Licence Values



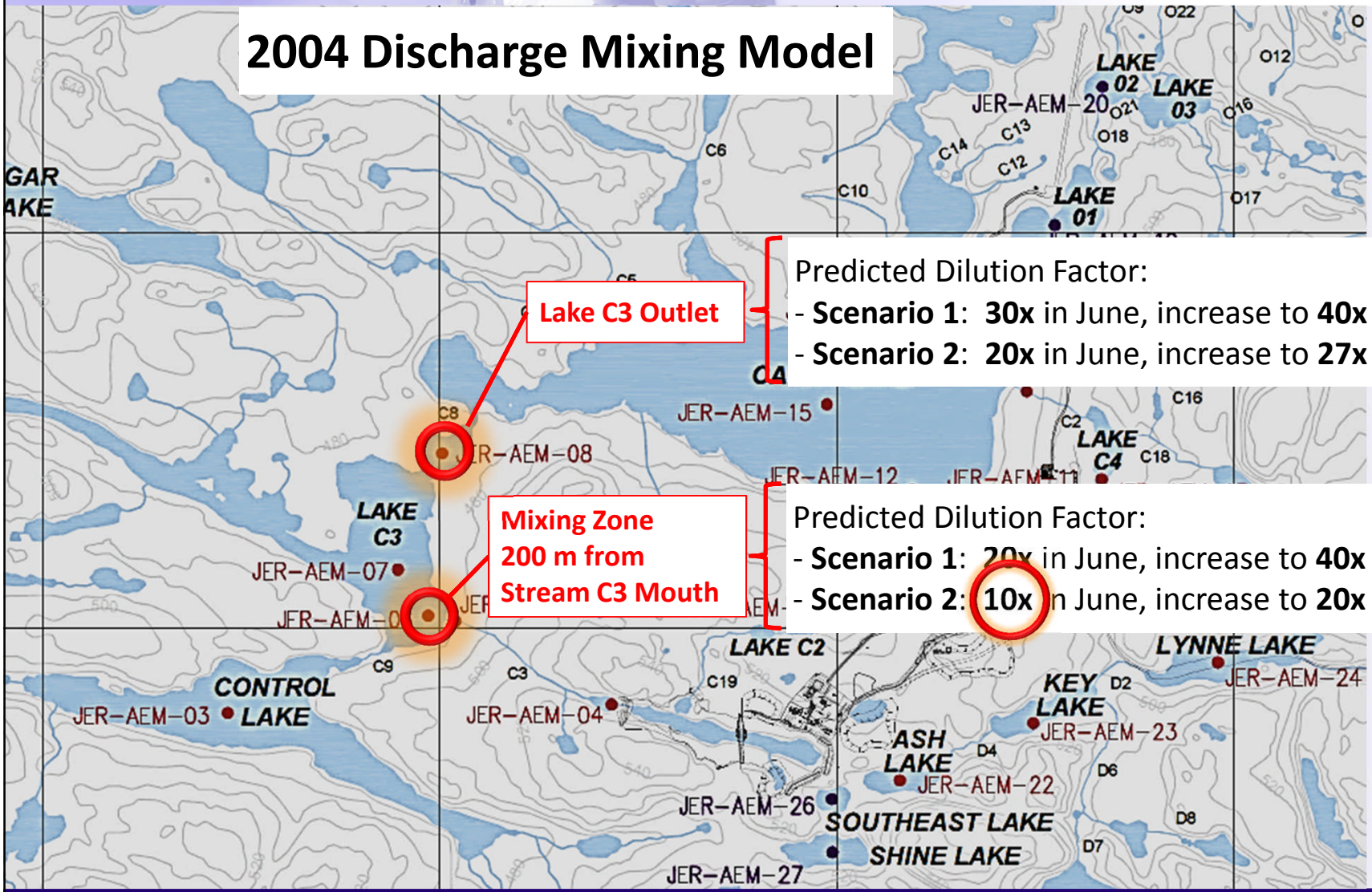
Verification of Dilution Factor

- Reviewed 2004 TDC Tech Memo N – Estimates of Receiving Water Quality (August 2004)

- Dilution Factors were predicted using Princeton Ocean Model under TWO Operational Scenarios:
  - Scenario 1: Average Operational Discharge
  - Scenario 2: One Year Accumulated Effluent Discharge (a worst case scenario)

Verification of Dilution Factor

2004 Discharge Mixing Model

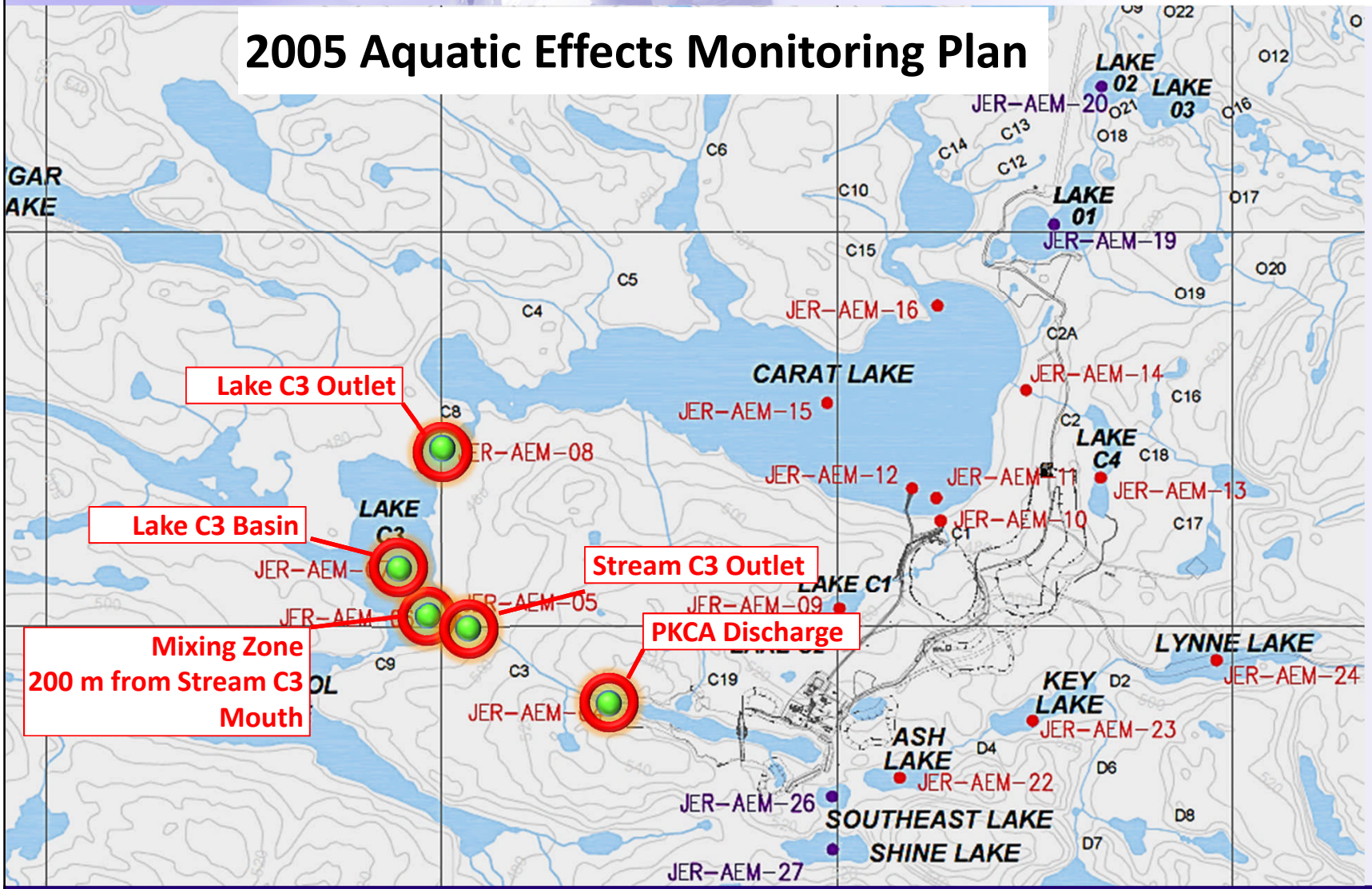


Predicted Dilution Factor:
- **Scenario 1**: **30x** in June, increase to **40x** by mid-July
- **Scenario 2**: **20x** in June, increase to **27x** by mid-July

Predicted Dilution Factor:
- **Scenario 1**: **20x** in June, increase to **40x** by mid-July
- **Scenario 2**: **10x** in June, increase to **20x** by beg-July

Verification of Dilution Factor

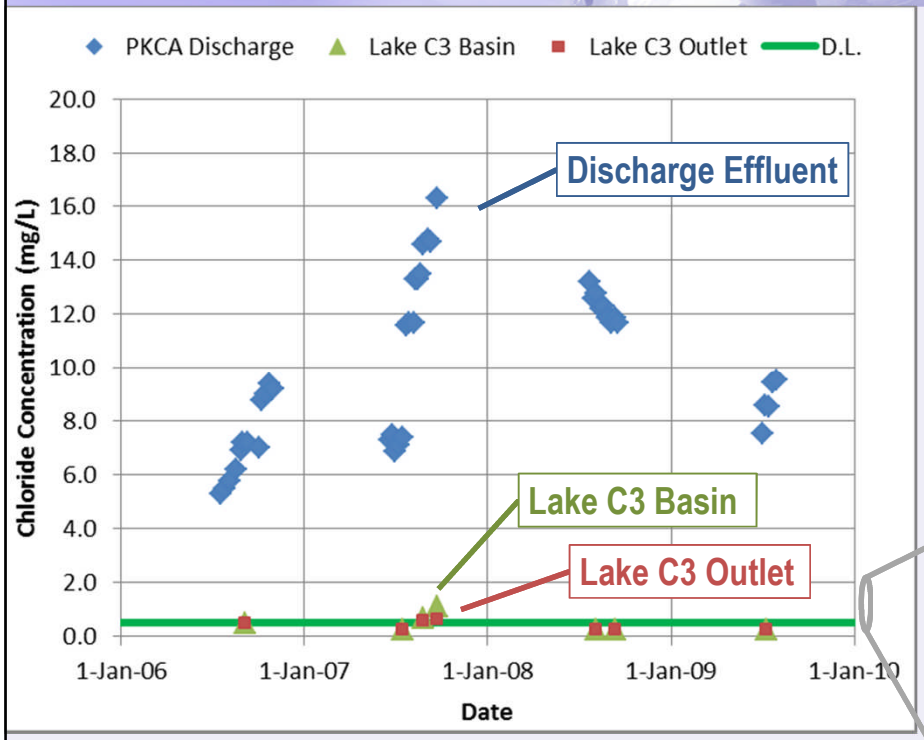
2005 Aquatic Effects Monitoring Plan



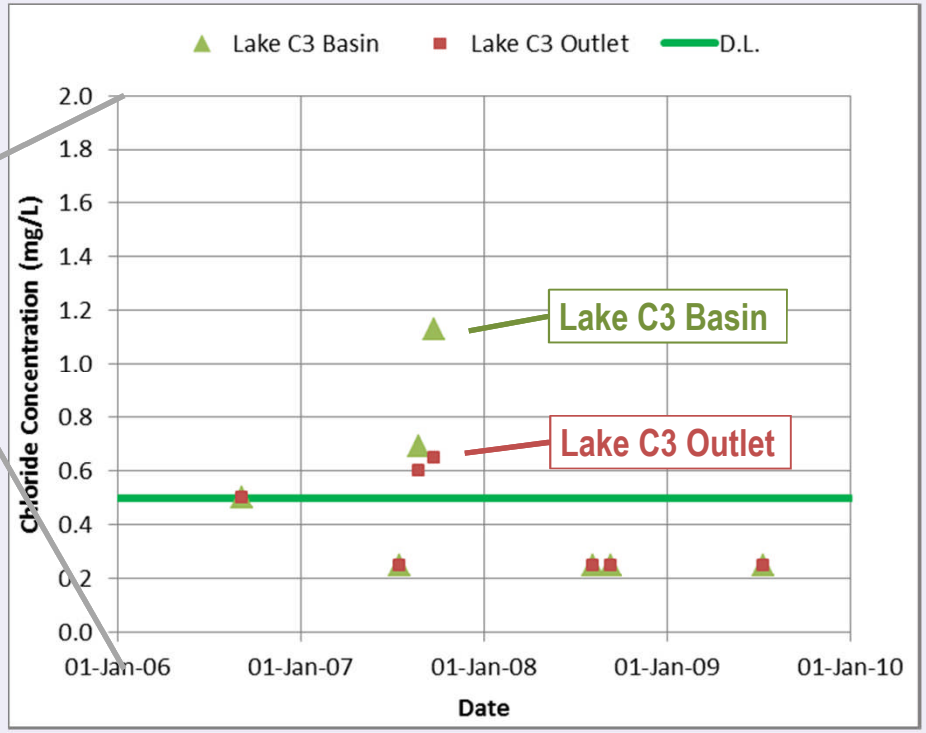
Verification of Dilution Factor

- Reviewed parameters that:
  - Have relatively high solubility in water,
  - Do not easily react with other substance nor be biologically consumed, and
  - Have relatively high initial concentration in the effluent.
- Chloride and sodium were selected as the tracer parameters;
- As nitrate was the only parameter that was close to the water licence discharge limit, Shear also reviewed the fate of nitrate in Lake C3

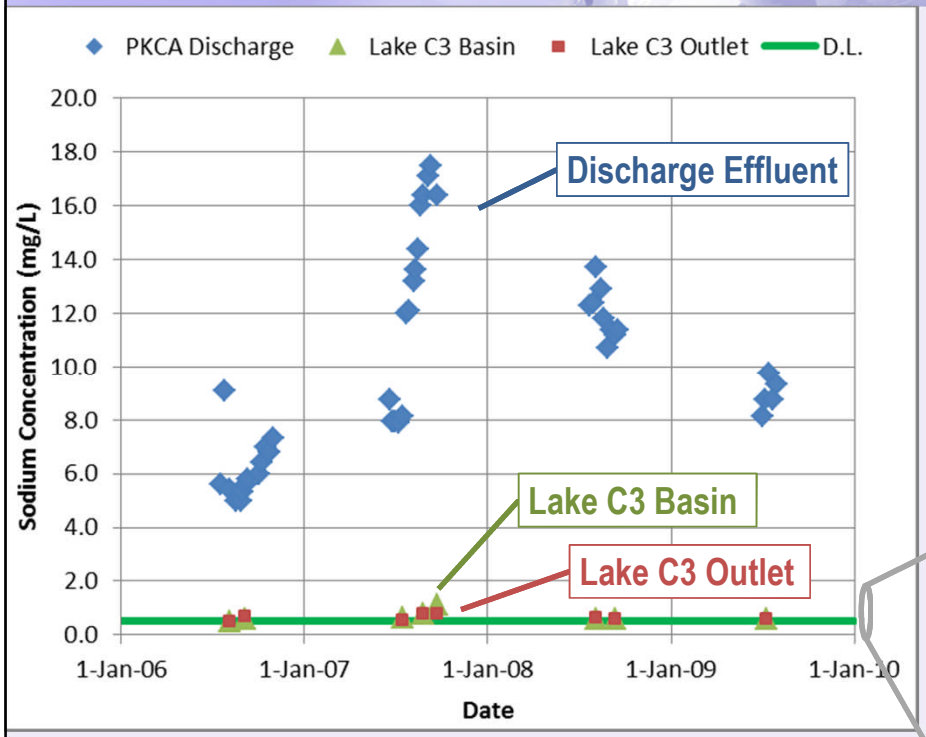
Verification of Dilution Factor



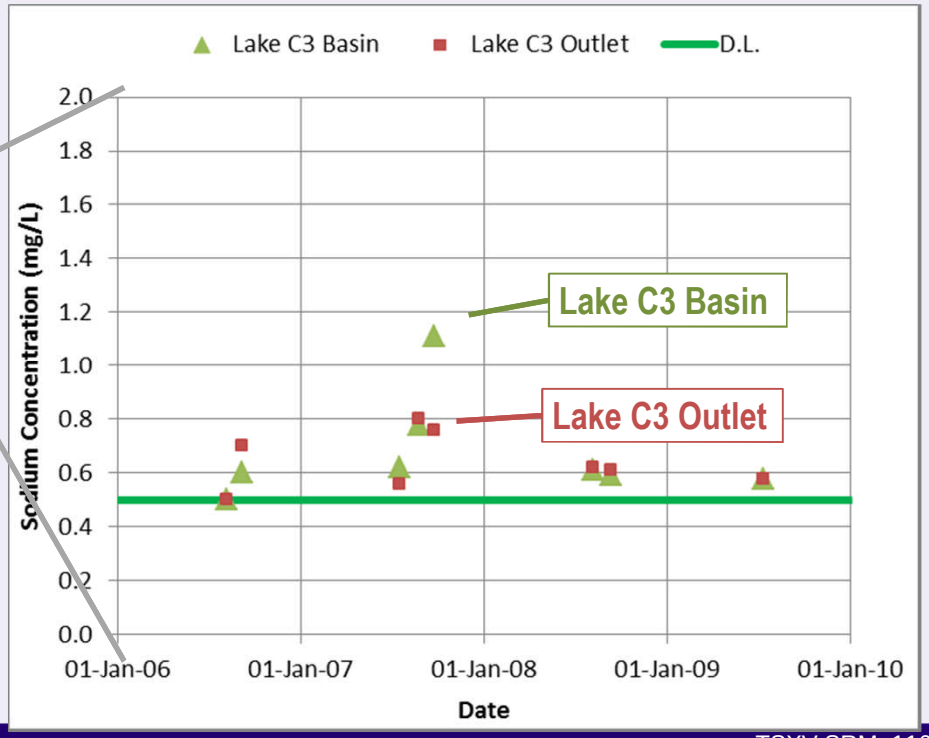
Chloride Dilution at Lake C3 Basin and Outlet



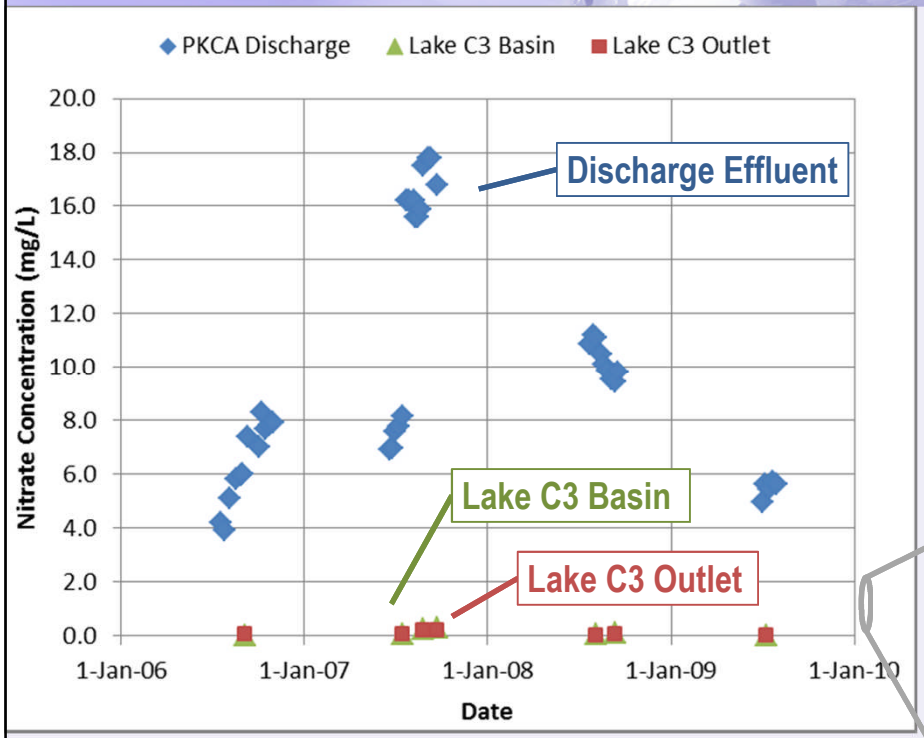
Verification of Dilution Factor



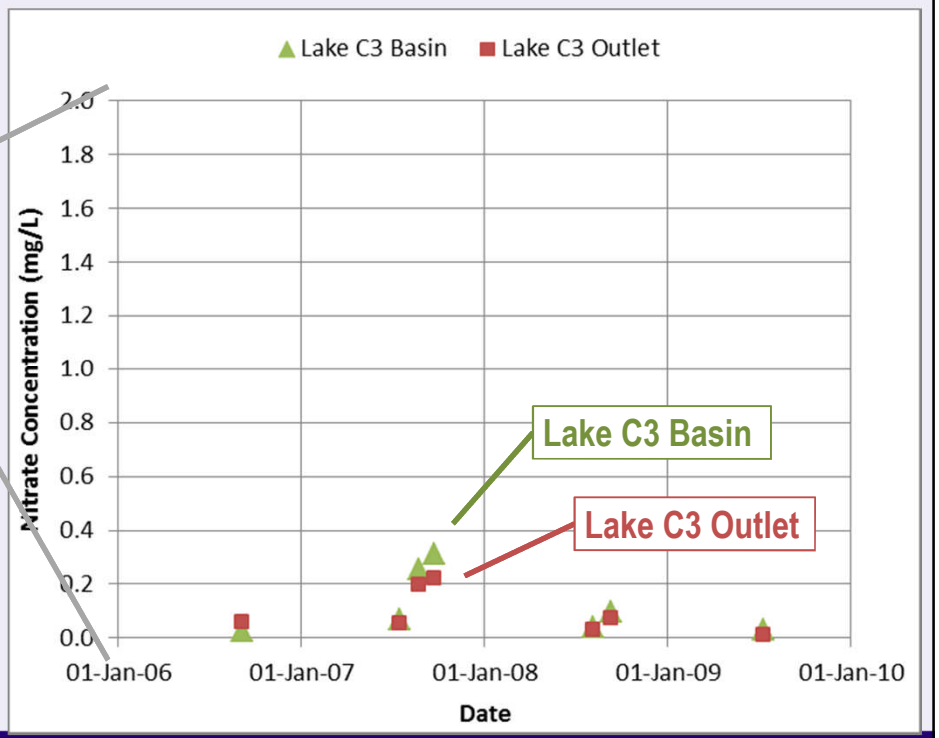
Sodium Dilution at Lake C3 Basin and Outlet



Verification of Dilution Factor



Nitrate Dilution
at Lake C3 Outlet



Verification of Dilution Factor

Dilution Factor = Conc.$_{\text{Discharge}}$ ÷ (Conc.$_{\text{Lake C3}}$ – Conc.$_{\text{Background (Control Lake)}}$)

Location	PKCA Discharge	Lake C3		Control Lake	Dilution Factor in Lake C3	
		Basin	Outlet		Basin	Outlet
Sampling Period	Jun 25 - Sep 4, 2007	Jul 16 - Sep 23, 2007	Jul 16 - Sep 23, 2007	Jul 16 - Sep 23, 2007	-	-
Modeled Dilution Factor in 2004					-	27 (4)
Chloride (Cl) (mg/L)	10.6 (1)	0.69 (2,3)	0.5 (2,3)	0.25 (2,3)	24	42
Sodium (Na) (mg/L)	11.7 (1)	0.84 (2)	0.7 (2)	0.25 (2,3)	20	26
Nitrate (N) (mg/L)	12.8 (1)	0.21 (2)	0.16 (2)	0.025 (2,3)	69	95

Note:

1. Values are calculated using the weekly water quality and daily pumping records;
2. Arithmetic mean of the monthly water quality records;
3. Analytical results below detection limits are assumed to be a half of the detection limits;
4. Predicted Dilution Factor at Lake C3 outlet under Scenario 2 – Discharging one year of accumulated flow with average PKCA effluent flow.

Verification of Dilution Factor

- Shear acknowledges the lack of monitoring efforts under previous ownership, and the uncertainty of the current dilution factor verification
- Based on the above study, Shear has verified that the Calculated Dilution Factor using the measured data at Lake C3 outlet is **similar** to the Predicted Dilution Factor using the mixing model

Verification of Dilution Factor

- Environment Canada recommended:
  - A plume delineation study be done late in the discharge season, which examines the extent and behaviour of the plume in three dimensions. Water quality objectives should be stated, and comparisons drawn for where they are expected to be met in Lake C3 (based on tracer concentrations)
- Shear's response:
  - Shear has started and will continue to monitor the water quality in the Lake C3 mixing zone;
  - Shear will directly verify the dilution factor in the Lake C3 mixing zone once mining operations resume;
  - Shear will also undertake a plume delineation study within two years following commencement of mining operations

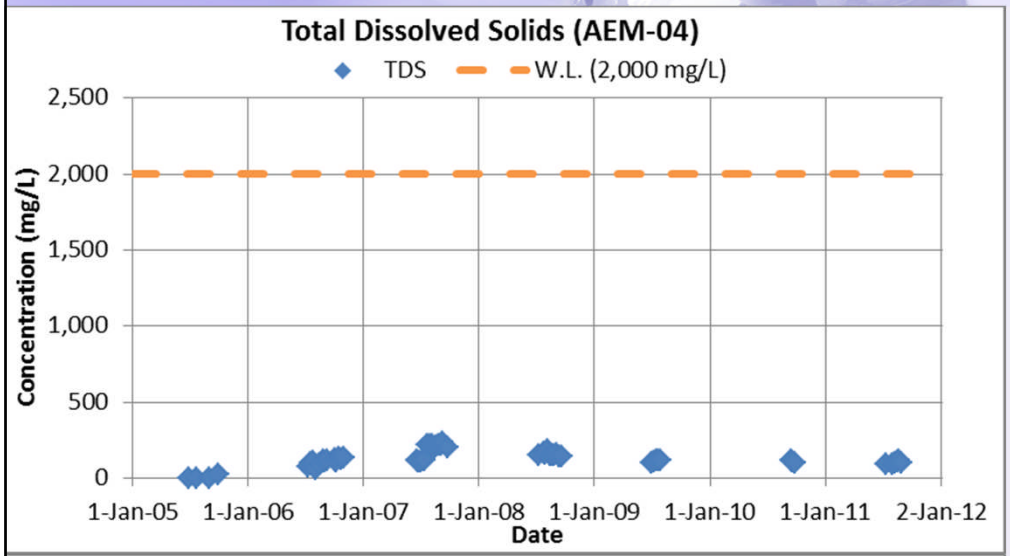
Effluent Quality Criteria

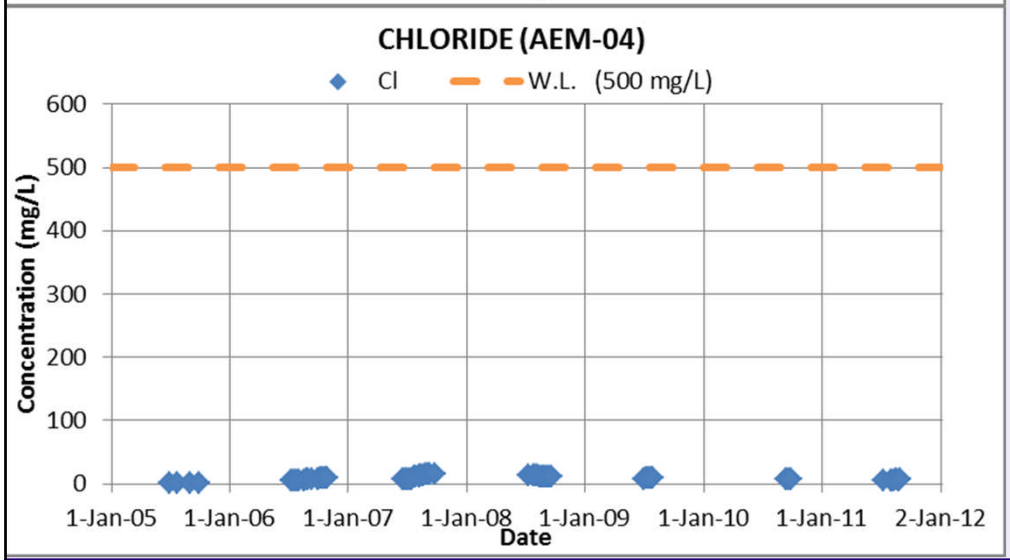
Effluent Quality Criteria

- Shear proposed no changes to the current effluent criteria limits in the submissions to the Nunavut Water Board
- Environment Canada has recommended:
  - Reductions in the effluent discharge limits for nitrate and nitrite
  - The addition of discharge limits for Total Extractable Hydrocarbons (TEH)
  - The removal of discharge limits for TDS and chloride, instead, monitoring these parameters within 24 months of resuming mining operation
  - The removal of discharge limit for oil and grease if not depositing of untreated camp waste directly into the PKCA

Parameter	Unit	2004 Water Licence Limits		Recommended Limits By Environment Canada	
		Max. Grab	Max. Average	Max. Grab	Max. Average
pH	-	6 - 8.8	6 - 8.8	6 – 8.8	6 – 8.8
Total Dissolved Solids (TDS)	mg/L	4,000	2,000	Monitoring	Monitoring
Total Suspended Solids (TSS)	mg/L	25	15	25	15
Chloride (Cl)	mg/L	1,000	500	Monitoring	Monitoring
Ammonia (N)	mg/L	12	6	12	6
Nitrate (N)	mg/L	56	28	40	20
Nitrite (N)	mg/L	5	2.5	2	1
Phosphorus (P)	mg/L	0.4	0.2	0.4	0.2
Aluminum (Al)	mg/L	Total – 3.0 Diss. – 2.0	Total – 1.5 Diss. – 1.0	Total – 3.0 Diss. – 2.0	Total – 1.5 Diss. – 1.0
Arsenic (As)	mg/L	0.10	0.05	0.10	0.05
Cadmium (Cd)	mg/L	0.0024	0.0012	0.0024	0.0012
Chromium (Cr)	mg/L	0.17	0.087	0.17	0.087
Copper (Cu)	mg/L	0.04	0.02	0.04	0.02
Lead (Pb)	mg/L	0.02	0.01	0.02	0.01
Molybdenum (Mo)	mg/L	1.5	0.73	1.5	0.73
Nickel (Ni)	mg/L	0.10	0.05	0.10	0.05
Uranium (U)	mg/L	1.0	0.5	1.0	0.5
Zinc (Zn)	mg/L	0.50	0.25	0.50	0.25
Oil and Grease	mg/L	5.0	3.0	Removed	Removed
Total Extractable Hydrocarbons (TEH)	mg/L	-	-	-	3
BOD_5	mg/L	25	15	25	15
Faecal Coliforms	CFU/dL	20	10	20	10

Effluent Quality Criteria Development for TDS and Chloride





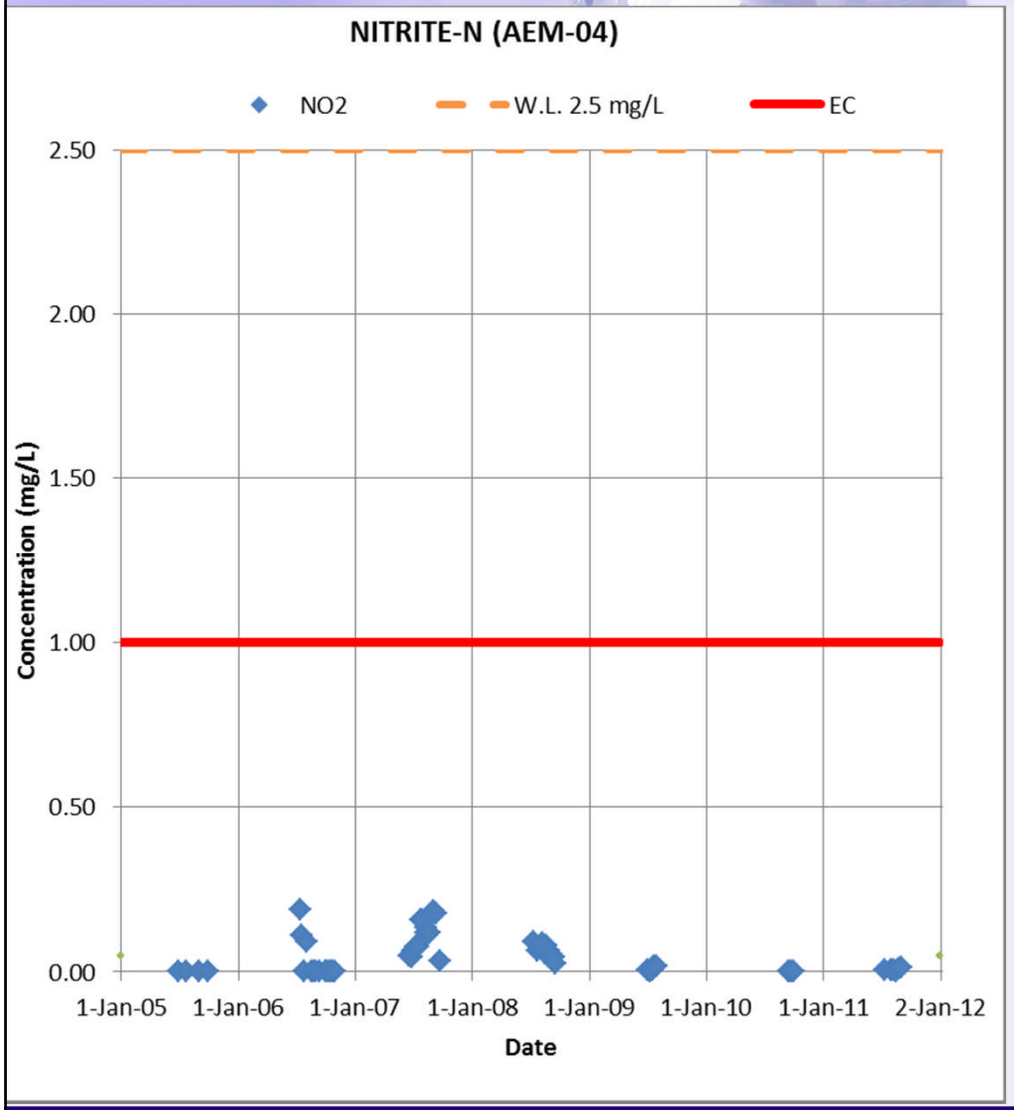
- Both TDS and Chloride showed increasing trend from 2006 to 2007 during previous operations;
- However, the maximum concentrations of both parameters were insignificant comparing to the current discharge limits;
- In addition, concentrations of both parameters showed rapid reduction after the suspension of the mining operation;

Effluent Quality Criteria – TDS & Chloride

- Environment Canada recommended:
  - The removal of discharge limits for TDS and chloride, instead, monitoring these parameters within 24 months of resuming mining operation

- Shear's response:
  - Shear proposes that the current criteria remain in the licence while Shear works with EC to consider these recommendations over the next 2 years

Effluent Quality Criteria Development for Nitrite



- Similarly, nitrite concentrations showed increasing trend from 2006 to 2007 during previous mining operation;
- However, the maximum concentration was insignificant comparing to the current water licence discharge limit;

Effluent Quality Criteria - Nitrite

- Environment Canada recommended:
  - Reductions in the effluent discharge limits for nitrite
  - Maximum Average Concentration (MAC) ~ 2.5 mg/L to 1 mg/L

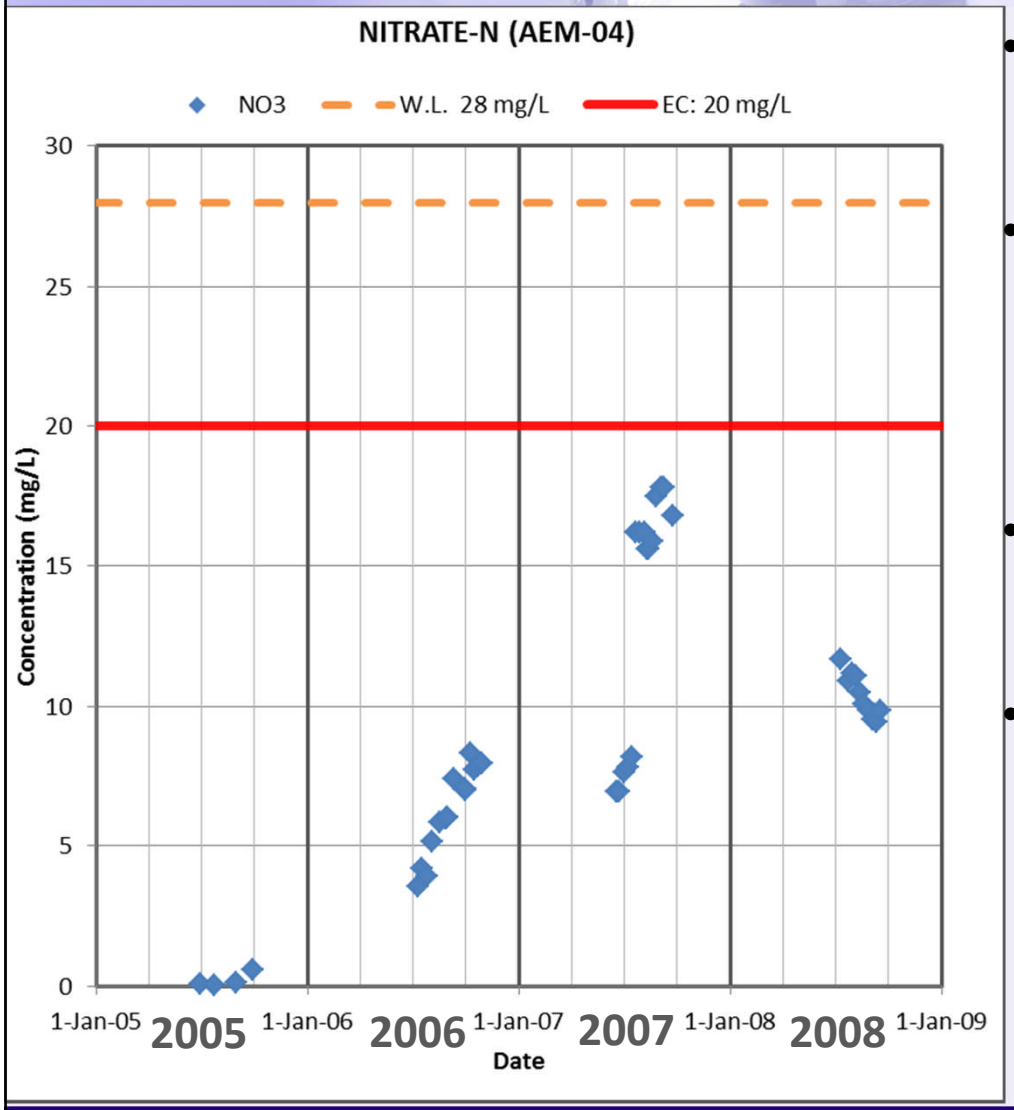
- Shear's response:
  - Based on the current data review, Shear believes that the recommended discharge limit of 1 mg/L can be achieved once mining operations resume
  - Shear accepts this recommendation

Effluent Quality Criteria - Nitrate

- Environment Canada recommended:
  - Reductions in the effluent discharge limits from 28 mg/L to 20 mg/L (MAC), and from 56 mg/L to 40 mg/L (Grab)

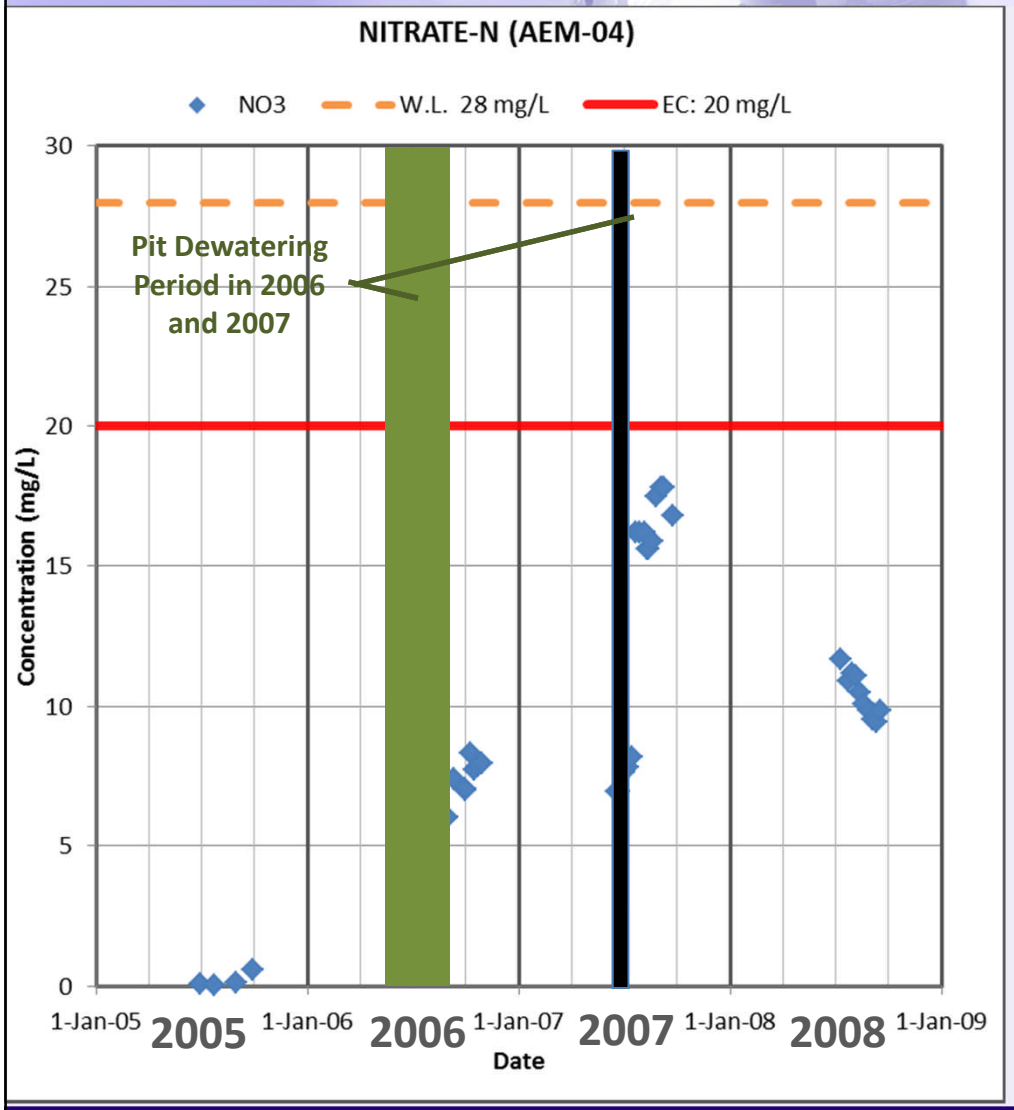
- Shear's response:
  - Shear proposes that nitrate limits remain at the currently licenced limits of 28 mg/L for MAC and 56 mg/L for grab and that two years following the commencement of mining operations a Technical Meeting be held to review the water quality data and to reassess nitrate discharge limit

Effluent Quality Criteria Development for Nitrate



- Environment Canada recommended lowering the discharge limit for nitrate from 28 mg/L to 20 mg/L
- During previous operations, the nitrate concentration in grab samples increased from less than 0.05 mg/L in 2005 upto 17.8 mg/L in September 2007;
- The Maximum Average Concentration (MAC) of nitrate from August 27 to September 24, 2007 was 17.5 mg/L
- If mining operations had continued in 2008 (Year 3), it is possible that nitrate in the effluent may have exceeded the discharge limit currently being recommended by EC

Effluent Quality Criteria Development for Nitrate

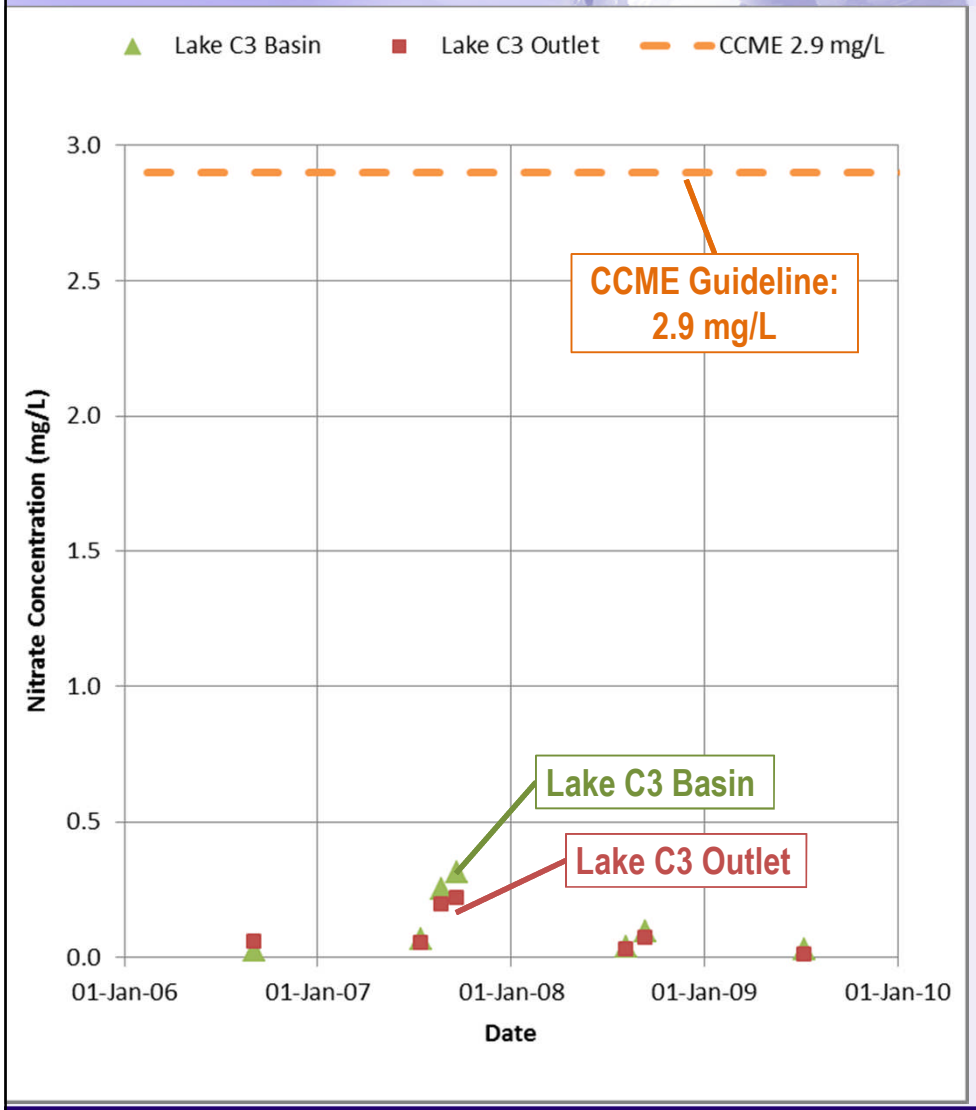


- Based on the current review of the site water quality data, elevated nitrate in the PKCA effluent mainly originated from pit dewatering during operations;
- Nitrate in the pit water ranged from 46 mg/L to 121 mg/L between June 2006 and August 2007
- The source of the nitrate in the pit water is the residual ammonium nitrate dissolving in the pit sump from blasting activities

Effluent Quality Criteria - Nitrate

- The CCME guidelines are protective of the aquatic environment and are conservative
- The current nitrate discharge limit of 28 mg/L was calculated based on the current CCME guideline value of 2.9 mg/L
- Shear believes maintaining the current nitrate discharge limit within two years of resuming mining operations will adequately protect the aquatic health in the receiving environment

Effluent Quality Criteria - Nitrate



- Nitrate concentrations in Lake C3 were well below the aquatic threshold limit during previous mining operations, despite an increasing trend in the PKCA discharge, which approached the discharge limit being recommended by EC;
- Nitrate concentration is controlled by physical dilution and biological consumption;
- Maintaining the effluent concentration at the current water licence limit of 28 mg/L will keep the nitrate concentration below aquatic threshold in Lake C3

Effluent Quality Criteria - Nitrate

- Environment Canada recommended:
  - Reductions in the effluent discharge limits from 28 mg/L to 20 mg/L (MAC), and from 56 mg/L to 40 mg/L (Grab)

- Shear's response:
  - Shear proposes that nitrate limits remain at the currently licenced limits of 28 mg/L for MAC and 56 mg/L for grab and that two years following the commencement of mining operations a Technical Meeting be held to review the water quality data and to reassess nitrate discharge limit

Mitigating Nitrate Concentrations - Blasting Management Practices

- The storage area will be bermed including a geomembrane liner as per current best practices
- All emulsion materials are acutely toxic to aquatic life, thus will be stored at the emulsion plant where spills would be 100% contained within the building
- All empty, partially full, contaminated, or ripped bags of prill will be collected and stored in a dedicated contained location for backhaul on the winter road

Blasting Management Practices

- Any reportable spills of ammonium nitrate will be reported by the Shear Diamonds plant manager as required by the Nunavut spill reporting regulations
- Shear will investigate possible deficiencies during past blasting operations and prill management

Effluent Quality Criteria – Oil & Grease

- Environment Canada recommended:
  - The removal of discharge limit for oil and grease if not depositing of untreated camp waste directly into the PKCA

- Shear's response:
  - All wastewater generated from the camp is treated in the Wastewater Treatment Plant before being discharged into the PKCA; and no camp waste will be directly deposited of in the PKCA;
  - Shear accepts Environment Canada's recommendation to remove Oil and Grease from the regulated parameters

Effluent Quality Criteria – TEH

- Environment Canada recommended:
  - The addition of discharge limits for Total Extractable Hydrocarbons (TEH)

- Shear's response:
  - Contact water from the tank farm containment area and future landfarm will be treated using the onsite treatment unit, before being discharged into the PKCA;
  - Shear believes that the recommended TEH discharge limit of 3 mg/L can be achieved;
  - Shear accepts Environment Canada's recommendation to add Total Extractable Hydrocarbon (TEH) as a regulated parameter for the PKCA discharge effluent;
  - **In addition, Shear proposes to add Maximum Grab Concentration Limit of 6 mg/L for TEH in the PKCA discharge Effluent**

Site Water – Julie Lassonde

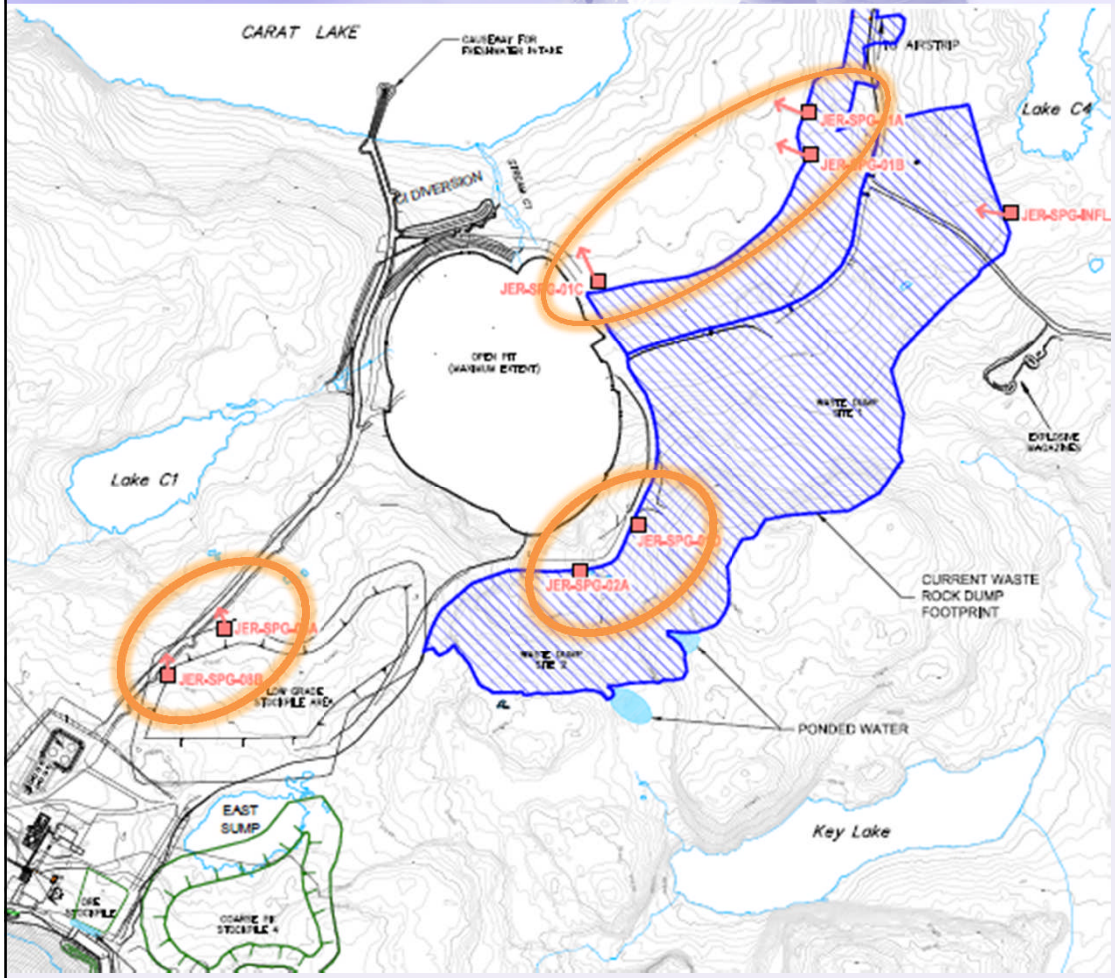
Site Water Quality & Management

- A number of comments were received with regard to site water quality and management
- In 2011, Shear gained a better understanding of site water
- Shear will revise and submit the Site Water Management Plan by end of year 2012
- Shear will incorporate the recommendations from intervenors and the knowledge that Shear has gained through monitoring and sampling in 2011

Site Water Quality – Pit Water

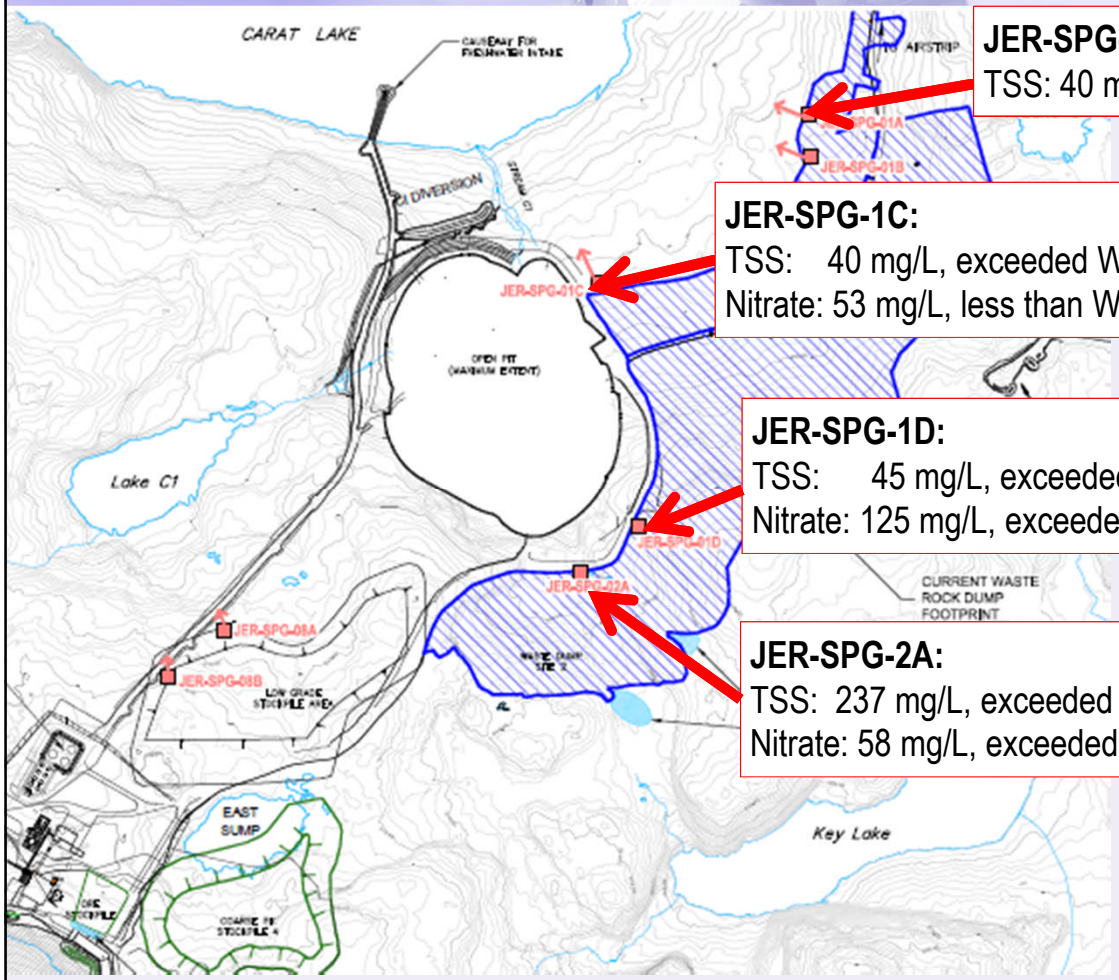
- AANDC:
  - Shear to reassess (Pit) Water Quality Dilution modeling after production
- Environment Canada recommends:
  - EC requests the Proponent commit to a timeline for delivering its pit water quality remodeling
- Shear's Response:
  - Shear will be able to understand pit water quality after resumption of mining operations. Shear proposes sampling and monitoring pit water quality for a period of two years at which time the company will update the pit water quality model. Shear is requesting two years because the first year of mining will not be representative of a typical operations year

Site Water Quality – 2011 Seepage Survey



- Conducted seepage survey on September 14 and 15, 2011;
- Identified seven active seeps;
- Three were flowing towards Carat Lake;
- Two were flowing towards Lake C1;
- Two were flowing on road between pit and waste rock dump and infiltrate the road

Site Water Quality – 2011 Seepage Survey



JER-SPG-1A:
TSS: 40 mg/L, exceeded W.L. Grab Limit of 25 mg/L

JER-SPG-1C:
TSS: 40 mg/L, exceeded W.L. Grab of 25 mg/L
Nitrate: 53 mg/L, less than W.L. Grab of 56 mg/L, but exceeded W.L. Avg. of 28 mg/L

JER-SPG-1D:
TSS: 45 mg/L, exceeded W.L. Grab of 25 mg/L
Nitrate: 125 mg/L, exceeded W.L. Grab of 56 mg/L

JER-SPG-2A:
TSS: 237 mg/L, exceeded W.L. Grab of 25 mg/L
Nitrate: 58 mg/L, exceeded W.L. Grab of 56 mg/L

Site Water Quality – 2011 Seepage Survey

- Considerations:
  - Elevated total suspended solids (TSS) may be attributed to snow melt and a rain event that occurred on the day of the seepage survey;
  - By the time the analytical results were received from the laboratory, freeze up had occurred
  - The sources and fates of the seeps are under evaluation

Site Water Quality – Collection Ponds

- AANDC:
  - Design of berms (retention ponds) – conceptual design of ponds will be included in revised SWMP (not in advance of hearings)
- Shear's response:
  - Shear conducted a Seepage Survey in September of 2011. Copies of the report are being provided. Based on the results of the seepage survey Shear will implement a more detailed seepage survey program in 2012 that includes seasonal sampling and establishing sampling stations in Carat Lake and Lake C1. Shear will conduct a surface water dispersion model in Carat Lake
  - The detailed survey program will include source and fate investigations
  - The results of the detailed seepage survey program will assist Shear in determining the need for and the design requirement for any collection system

Pit Water Quality and the PKCA

AANDC:

- Shear to reassess Water Quality Dilution modeling after production

Shear's Response:

- Reassess water quality mixing modeling after production resumes
  - TDC water quality during production – nitrate concentration was upto 121 mg/L in August 2007
  - Anecdotal information indicates that blasting practices did not adhere to the management plan
- Shear will include the site water quality prediction for production in the updated Site Water Management Plan

Open Pit Infill Rates

- AANDC recommends:
  - Shear include contingency measures in updated A & R to facilitate filling of the pit if it is not found to be filling to schedule

- Shear's response:
  - Shear will include contingency measures that will facilitate pit filling in the Final Closure and Reclamation Plan.
  - A revised ICRP will be filed within one year of the date of reissuance of the water licence

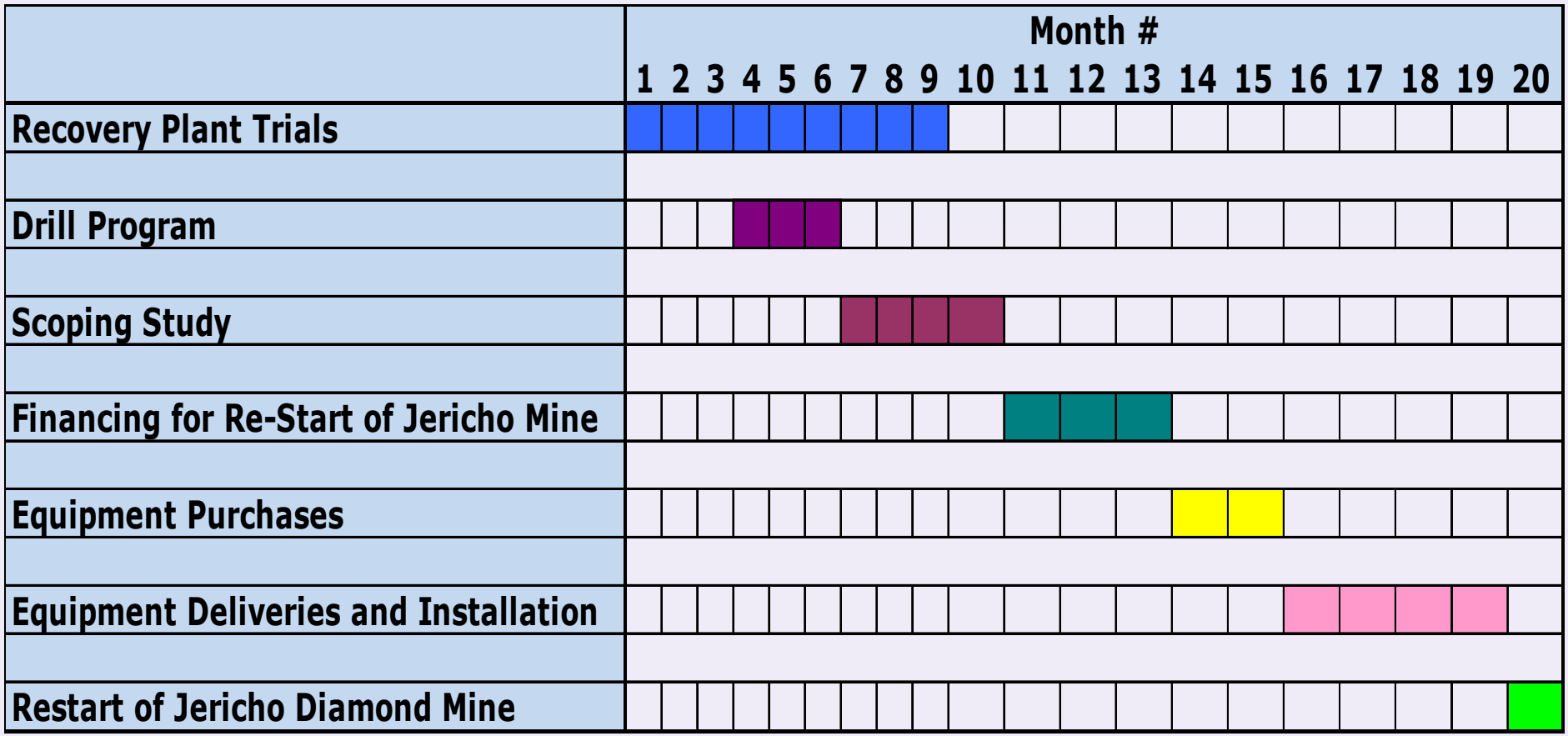
Open Pit Infill Rates

- Environment Canada recommends:
  - Shear's commitment to re-evaluate the pit fill rate by April 2012 and looks forward to reviewing the revised Plan and pit fill rate when available

- Shear's response:
  - Shear is re-evaluating the pit infill rates and will provide a Technical Memo in April 2012 as committed. The Technical Memo will present scenarios and options for infilling. This information will also be included in the revised ICRP and Final Closure and Reclamation Plan

WHAT'S NEXT: TIMELINE

What's Next? – Timeline



ACKNOWLEDGEMENTS