KENSGINGTON MINE
ANNUAL MEETING for
2011

COEUR
ALASKA
KENSGINGTON GOLD MINE
Kensington

Facing North East
Jualin

Mill & Lion’s Head Mountain – Facing North
Safety

• 1 Fatality & 7 Lost Time Accidents (LTA) in 2011
• Daily workplace & pre-shift inspections utilizing the 5 point safety card system
• Planned General Inspections (PGI’s)
• Expanded & Increased level of Training Program (Site Trainer/On-site 40-hour MSHA training)
Avalanche Control Program

Sneaky, Gully, Triangle, & Alder Meadow North Avalanche Zones
Avalanche Control Program

Warning and Avoidance:
We use snowpack and weather observations as well as weather forecasts to generate daily forecast and travel restrictions.
Avalanche Control Program

Rescue program:

• Mine personnel are issued and wear Recco belts
• On going rescue training
• Record snow-falls in 2011-2012
• Through Monitoring and Mitigation, no issues resulted from large snow-fall.
Surface Warehouse Construction

- 10,000 Square Feet Building for Warehouse & Offices
- Planned opening is July 1st, 2012
3-Story Dorm Facility

- 96 person dormitory structure
- 12,228 square feet building
Expansion of Kitchen & Dining Room

- Expanded by 1618 SF; from 3083 SF to 4701 SF
- Constructed Covered Walkways/Stairs
Surface Dry Facility Construction

• 1000 square feet facility

• Worker shower, laundry, locker facility
Upgrade of Potable Water System

- Addition of 2 tanks (additional 5000 gallons of storage)
- Installation of larger multi-media tanks
- Increased treatment capacity (6 to 14 gpm)
Paste Plant Construction

• Looking North From the 947’ Deck, Overlooking the Vacuum Pumps, Air Receiver Tanks, and the Electrical MCC Area
Paste Plant Construction

Looking North at the 947’ Disk Filter Deck.
Looking East at the Tailings Pump, Hydraulic Unit, Mixer Deck, with the Cone of the Cement Silo in the Background
2011 Coeur Alaska Ore Reserves and Resource

Proven and probable reserves:

• 6.00 million tons @ 0.22 opt – 1.34 million ounces
• Includes 10% external dilution and 93% ore recovery

Measured and indicated mineral resource exclusive of reserves:

• 3.04 million tons @ 0.19 opt – 0.58 million ounces
• Undiluted, no ore losses
Coeur Alaska Life of Mine Plan, 2011

- Based on the resource model developed by Coeur Alaska geologists.
- Mine plan developed by Coeur Alaska engineers.
- Mining method is mostly transverse longhole stoping with limited drift and fill in large, high grade shear veins.
- Production profile is 1350 tpd through 2023.
- Ore modeling of the Raven deposit near completion, first pass mine planning 2^{nd} half, 2012.
Existing and proposed development with longhole stopes

Current mining areas

To Jualin Portal

2050 Level

To Comet Portal
Paste Backfill Plant

Commissioned May, 2012

Paste Backfill Plant and Adjacent Development
Core Drilling in 2011

- Total of 76,957 feet of underground core drilling was completed between January and December of 2011
- The development drilling was comprised of 401 drill holes and 58,891 feet
  - This program was assessed in the up-ramp and down-ramp
- The exploration drill program included 31 drill holes and 20,066 feet.
- There was no drilling completed from the surface in 2011.
Mill Operations

- **2011 End-of-Year Numbers:**
  - 415,340 tons milled
  - 0.229 opt Ore Grade (weighted avg.)
  - 92.5% average Recovery
  - 10,194 tons Concentrate Produced
  - 8.583 opt Concentrate Grade (weighted avg.)
  - Mill Capacity: ~450,500 tpy
**2012 Targets**

- Milled tons: ~413,200 tpy (dry)
- Reserve Grade (diluted): 0.23 opt
- Gold Recovery: 94% to 96%
- Concentrate Produced: up to 48 tpd
- Concentrate Grade: 7 to 10 opt
Analytical Laboratory Facilities

Sample Prep

Fire Assay

Wet-Chemistry Lab

![Graph showing average sample determinations per month and per man hour](chart.png)
Power Generation

Five Independent, 1.75Mw (each) Diesel Powered Generators; with a sixth gen-set being commissioned in 2012.
2012 Project – Crusher Facility Renovation
2012 MILL PROJECTS

• Portable Crushers & Screening Plant Producing Mill Feed, while the Kensington Crusher Facility is undergoing Renovation.

• Hopper-Feeder & Jump Conveyor for By-passing the Fine Ore Bin System, while the Crusher Facility is undergoing Renovation.
2012 MILL PROJECTS

- Paste Plant – In Operation May 2012
2012 MILL PROJECTS

• Construction of Intermediate Tailings Holding Tank
2012 MILL PROJECTS

- Redundant Pump Installation in the Milling Facility
Treatment Plant Performance

Operations

- Tod Thurber – Supervisor
- Rick Saulnier – Sr. Operator
- Dennis Lorance – Operator
- Larry Akaran – Operator
- Brent McEwen – Operator
- John Ashenfelter – Operator
- Curt Jones – Sr. Operator
- Gary Sharrett – Sr. Operator
- Peter McCorison – Operator
- Steve Williamson – Operator
- Daniel Edershien – Operator/Sump Maintenance
Comet Mine Water Treatment
Plant Performance

- Seven Permit Threshold Non-Conformances in 2011
  - Two TSS Non-Conformance in February & One in March (CRF upset conditions; Sump cleaning Operations)
  - One Turbidity Non-Conformance in April: (CRF upset conditions).
  - One pH, Copper & Turbidity Non-Conformance as result of Cement being introduced into mine water during Paste Plant construction.
Tailings Treatment Facility Water Treatment Plant Performance

- Nine Permit Threshold Non-Conformances in 2011
  - One Toxicity Non-Conformance in January (over-dose of polymer)
  - Seven Sulfate Non-Conformances: (Sulfate concentrations higher than modeled in tailings facility)
  - One Total Dissolved Solids Non-Conformance as result of elevated Sulfate concentrations
Temporary Package Water Treatment Plant at TTF

- Rotating Cylinder Treatment System (RCTS)
- Lime/Flocculent Addition
- Automated System
- Flows average 5-15 gpm/Influent pH increased
Plant Performance

- Potable Water System operated without a Water Quality Non-Conformance in 2011

- Sewer Treatment Plant had three BOD Permit Threshold Non-Conformances in 2011 as result of algae growth in dosing tank.
Compliance/Permitting

• APDES Permit Effective Date of Sept. 1, 2011.
• Revised Reclamation Plan & Integrated Waste Management Plan - submitted on 4-2-10; revised on 3-31-11; responses 12-20-11.
• Several Building Permits – 3-Story Dorm, Surface Warehouse, Admin. Building, KDR expansion
Compliance/Permitting

- Air Quality Permit Modification Application(s)
- Portable Crusher & Screening Plant Permit
Compliance/Permitting

• Toxic Release Inventory (TRI) Reporting RY-10:
  
  • Form-R submittals for Ammonia, Naphthalene, 1, 2, 4-Trimethylbenzene, Xylene, Lead & Mercury
  
  • Ammonia utilized in generator Selective Catalytic Reduction (SCR) systems
  
  • Lead & Mercury in Development Rock disposed on-site
  
  • Additional chemicals reported as a result of quantity of diesel fuel usage at the site – primarily in the generators.
Environmental Management Plan:

- Comprehensive Plan developed that describes site environmental compliance
- Third Party Audit Conducted in 2011
- Provided to site managers and department heads
  - Lists of Permits and Plans
  - Site Specific Guidelines
  - Waste Management
  - Hazardous Waste & Materials Management
  - Monitoring Requirements
  - Water Quality Data Management
Fine Tuning of Intelex System

INTELEX Software – further developing the Environmental Management System (EMS); Permit tracking system.

INTELEX modules include…

• Policy
• Objective and Targets
• Monitoring and Measurement
• Legal and Other Requirements
• Training and Awareness
• Audits
• Document Control
• Meeting Manager
Key Performance Indicators (KPI’s) are monthly monitoring system which provide a way to identify areas for improvement.

- Such as: number of exceedences, *training hours*, *materials recycled* etc….

KPI’s:

- **Spills** – 21 in 2010 & 12 in 2011

- **Gallons of Mine Water Treated** since last exceedence – 313 MG in 2010 & 206 MG in 2011

Transportation Plan

• Primary mode of transportation during 2011 was MV Majestic Fjord (operated by Goldbelt)

• Helicopters still used on an as-needed basis (weather)
Transportation Plan

• Yankee Cove was primary dock utilized in 2011

• Echo Cove utilized on limited basis from Nov. 14, 2011 – April 30, 2012 when unsafe weather conditions prevented use of Yankee Cove
Marine mammal/vessel encounters to be recorded and reported.

Mutual agreement of 2-3 wk “eulachon spawning season” during which time:

- No fueling within Berners Bay.
- “Marine Observer” to accompany crew vessel.
- No more than 2-3 vessel trips/day.
- Vessel speed reduced to 13 knots within bay.
- Reduce fuel shipments by stocking up on fuel prior to eulachon season.
- Limit barging of concentrate and shipments of chemicals.
- Adjust routing to avoid fish congregations.
85 marine mammal surveys were conducted from the crew transportation boat running from Yankee Cove to Slate Cove between April 26 and May 19, 2011.

Marine mammal activity near Slate Cove increased substantially during the last week of April and the “eulachon spawning season” was adopted from April 28th to May 19th when activity declined again.

The three week restrictions were placed at the right time in 2011 to cover the greatest marine mammal activity.

There were no marine mammal encounters in 2011.
2011 Water Quality
Water Quality- Summary of QA/QC

QA/QC Monitoring Data Review:

• Field Blind Duplicate Comparison
• Review of Monitoring Data Collected
  • Laboratory Data
  • Field Data
• Variance Analysis Reports
• Overall Completeness Review
Water Quality - Monitoring Locations

- Outfalls
  - 001 (Active)
  - 002 (Active)
  - 003 (Halted)
- Receiving Waters
  - Sherman Creek
  - Slate Creek
  - Johnson Creek
Monitoring Sites

Water Quality & Aquatic Resources
In general, monitoring results in 2011 indicate...

• Water quality in the area of the project is very good
• Impact from the project activities is minimal
Water Quality- Receiving Waters

Project Area receiving waters generally...

- Have peak water temperature in August or Sept.
- Have mildly basic pH
- Are at or near oxygen saturation
- Are generally soft (in most cases <100ppm hardness, excluding SH113 and SH103)
- Contain low levels of sulfate (<10ppm, excluding Sherman Creek)
- Have low concentrations of dissolved metals
- Have seasonal fluctuation of conductivity with peak in winter
Water Quality – Sherman Creek

ALUMINUM, Dissolved

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
IRON, Dissolved

Sherman Creek

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
ALUMINUM, Dissolved

Johnson Creek

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Johnson Creek

IRON, Dissolved

No Iron Graph for ‘11, non-detect all year

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Slate Creek

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Slate Creek

IRON, Dissolved

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality - Outfall 001

Comet Mine Water Treatment Plant
Water Quality- Outfall 001

On the whole, Outfall 001 effluent discharges...

- Follow seasonal cyclic trends for temperature and dissolved oxygen
- Typically have very low levels of turbidity
- Contain total recoverable metals mostly at or only slightly above detection limits
- Are monitored for constituents that are typically well under permitted limits
Water Quality – Outfall 001

TURBIDITY

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 001

AMMONIA as N

001 EFFLUENT

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 001

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
COPPER, Total Recoverable

001 EFFLUENT

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 001

IRON, Total Recoverable

001 EFFLUENT

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 002

TURBIDITY

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 002

AMMONIA

002 EFFLUENT

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 002

ALUMINUM, Total Recoverable

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 002

COPPER, Total Recoverable

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 002

IRON, Total Recoverable

Figures from Volume 2: Water Quality 2011 in the NPDES Annual Report
Water Quality – Outfall 003

Comet Camp Domestic Wastewater Treatment Plant

• Operation ceased October 2007

• Treatment Plant was removed from site during 2008

• Monitoring requirement removed from APDES Permit in September 2011
Water Quality - Field Pictures

21 x 50m transects around the Slate Lakes basin. Monitored weekly for wildlife sign e.g., Scat, tracks.

Motion-sensor cameras also record activity on game trails.
Wildlife Monitoring: Slate Lakes

- One of the most significant uses of the area is by Canada geese near Spectacle Lake in summer.

Figure 9: Waterfowl: (A) Canada geese, July 24; (B) Red-throated loon, Spectacle Lake, July 24; (C) Goose near access road; (D) Canada goose Spectacle; (E) Greater yellowlegs appeared to be nesting; (F) Blue-winged teal observed in May.
Moose and bears appeared to frequent the area as often in 2011 as they did in previous years.
2012 Planned Activities: UG Triple Sump

Capture and Remove Sediment Prior to Exiting UG mine; Ability to Remove Sediment without affecting mine water quality
2012 Planned Activities: 850

Level Maintenance Facility

18,000 ft² of workshop, service, and warehouse space. 25 and 10 ton cranes.
Stage 2 - Tailings Treatment Facility

- Begin Construction Activities in June 2012
- Increase height from 690’ to 715’
Graphitic Phyllite Temporary Storage Cell Construction

- Construct new containment cell for storage of Graphitic Phyllite (GP) (Expect 5500 cy; Capacity of 8000 cy)
- GP from the construction of the interim emergency spillway
- Spillway will be shot-creted to seal-off the GP
- Water collected in cell and conveyed to sump and transported to temporary package water treatment plant at TTF for treatment
- Under Liner sealed to Top Liner
- Temporary Storage until 2014 at which time it will be encapsulated in paste tailings in an underground stope
Tailings Treatment Facility

- Upgrade Reclaim Barge and Access

- Re-locate collection sump at Temporary Package Water Treatment Plant
Surface Exploration Program

- 20–30 drill holes (15,000 ft)
- 20 drill sites (12 sites on patented land, 8 on FS)
Cultural Resource Testing

- Probing and Testing - Excavation of Structures F&T. (Both features located at Jualin)

- Full-fill requirement contained in MOA between FS, Coeur, & SHPO
Permits/Plans

• Approval to Construct and Operate Stage 2 Tailings Facility Dam
• Finalize Updated Reclamation Plan
• Integrated Waste Management Permit
• Update Tailings Treatment Facility EMP
• Geochemical Testing & Reporting of Graphitic Phyllite
Permits/Plans

Water Treatment Plants:

• Elevated Manganese Levels at TTF & Comet – Continue to Comply with current Compliance Schedule contained in APDES permit

• Re-line Pond 1 at Comet Mine Water Treatment Plant

• Continue to monitor Algae concentrations in TTF
  • Conduct testing with coagulant in TTF-WTP
  • Conduct testing with potassium permanganate (Manganese treatment option)
### Site Specific Water Quality Standards

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Proposed Change</th>
<th>Stream</th>
</tr>
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<tbody>
<tr>
<td>TDS</td>
<td>500 - 1000 mg/L</td>
<td>Slate Creek</td>
</tr>
<tr>
<td>Sulfate</td>
<td>250 Total to 200 Na &amp; Mg</td>
<td>Slate Creek</td>
</tr>
<tr>
<td>Ammonia</td>
<td>TBD on Testing</td>
<td>Sherman Creek</td>
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<tr>
<td>Aluminum</td>
<td>TBD on Testing</td>
<td>Slate &amp; Sherman</td>
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<tr>
<td>Copper</td>
<td>TBD on Testing</td>
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</tr>
<tr>
<td>Cadmium</td>
<td>TBD on Testing</td>
<td>Slate &amp; Sherman</td>
</tr>
</tbody>
</table>
Thank-You