

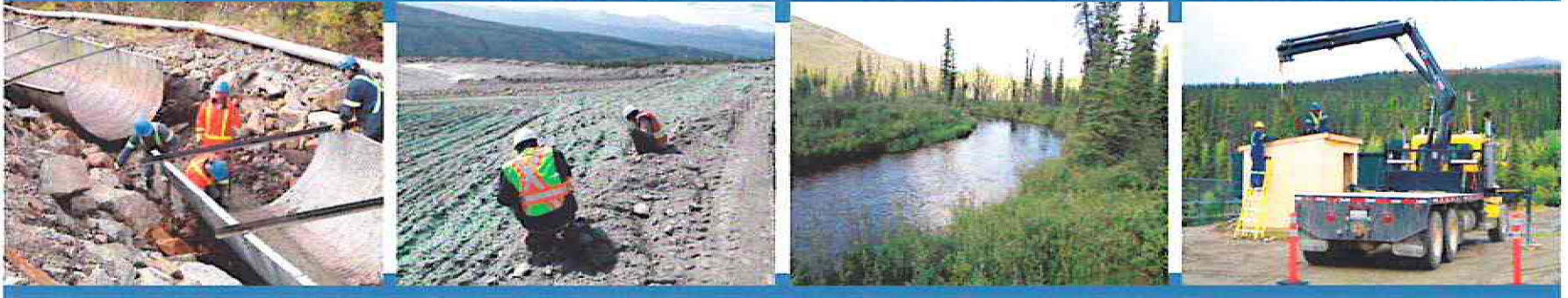
Faro Mine Complex Care & Maintenance

Tlichó Engineering and Environmental Services Quarter 2 Performance Report

November 2012



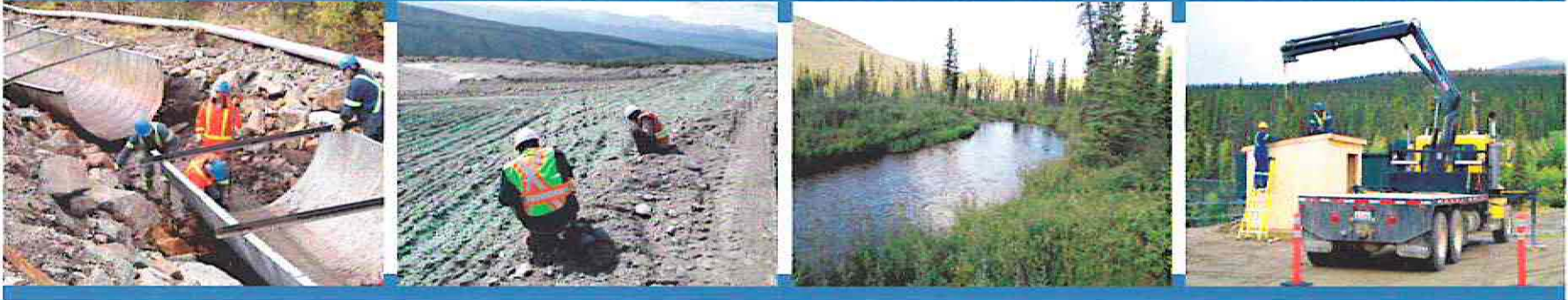
Faro Mine Complex Care & Maintenance



Q2 Performance Presentation

1. Introductions
2. TEES Overview
3. Health & Safety
4. Site Activities
5. AYFN Training & Participation
6. Financial Reporting
7. Closing Remarks

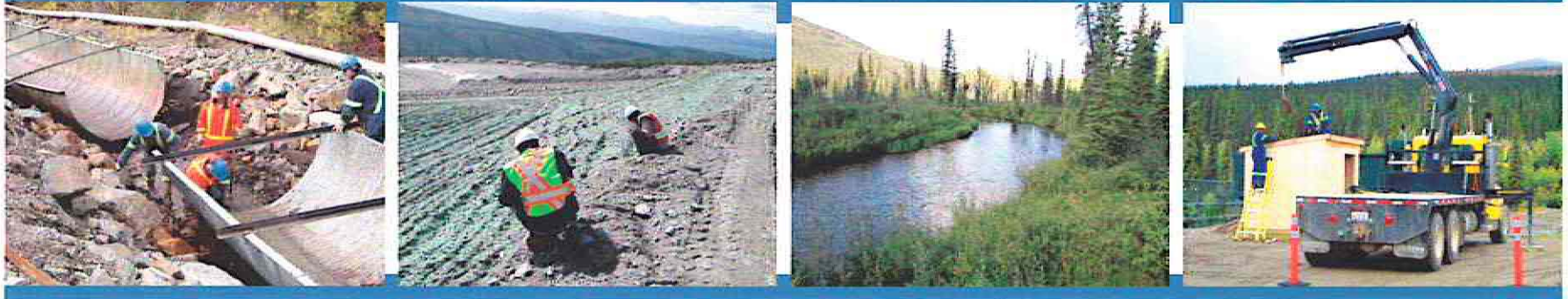
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Introductions

- Jared Buchko – Client Service Manager/Backup PM
- Boyd Barstad – Site Manager
- Jodi Boyd – Site Administrator
- Tracey Parkin – Acting Environmental Coordinator

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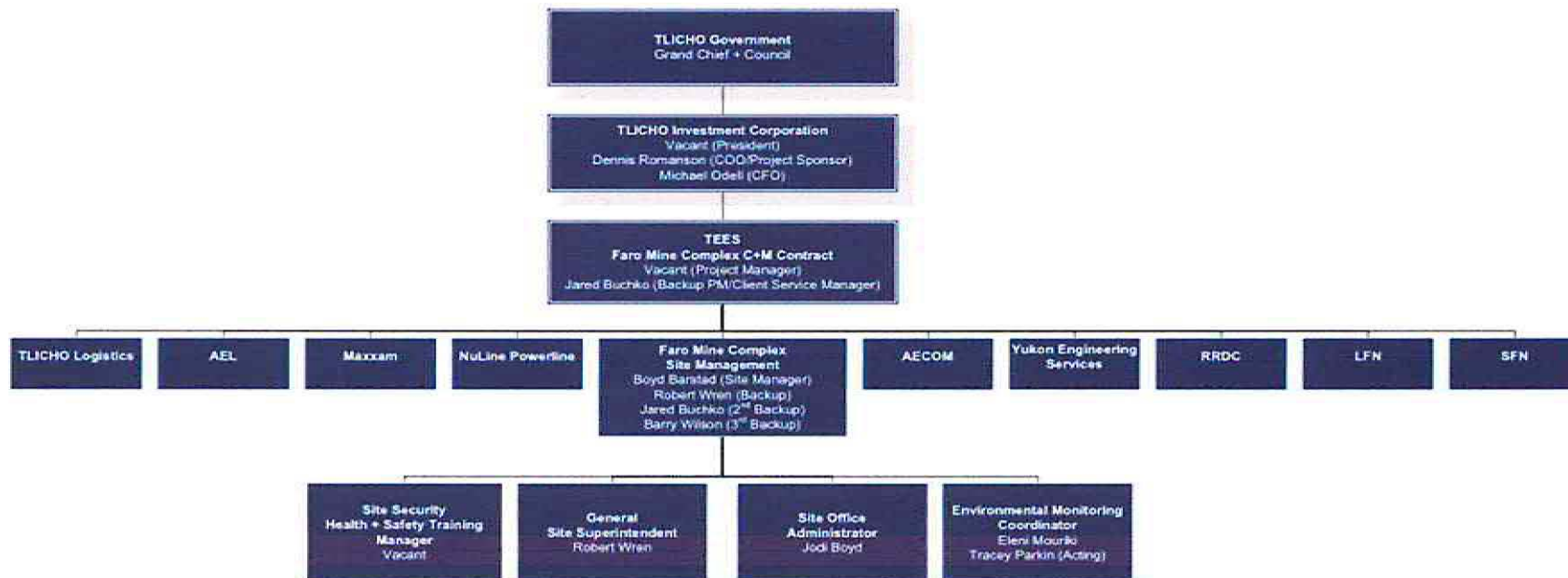


Yukon Government
Faro Care and Maintenance

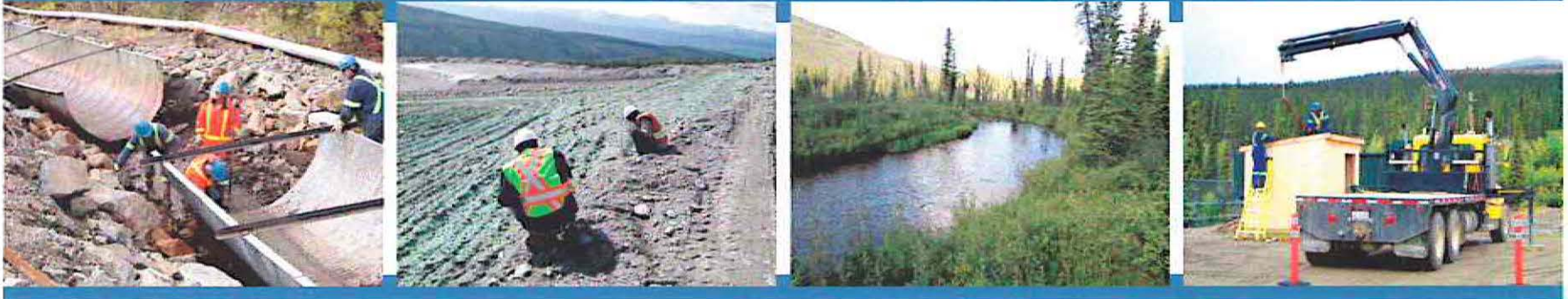
Corporate Team Organization



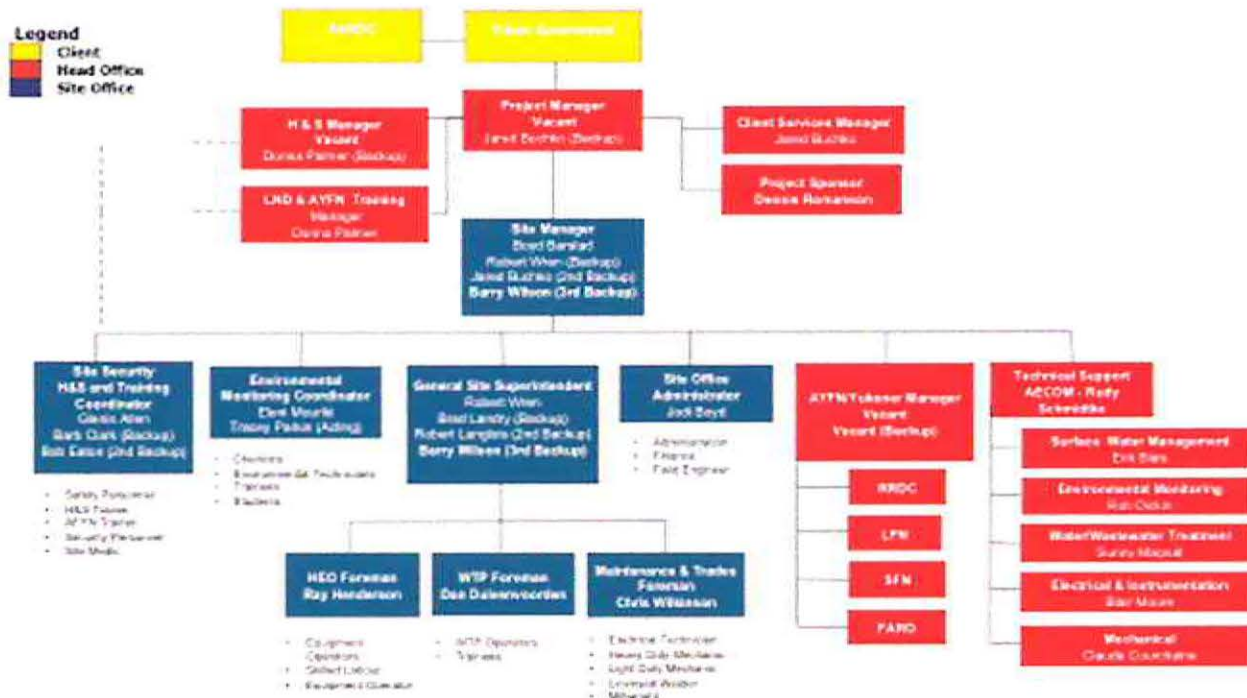
Corporate Team Organization Chart



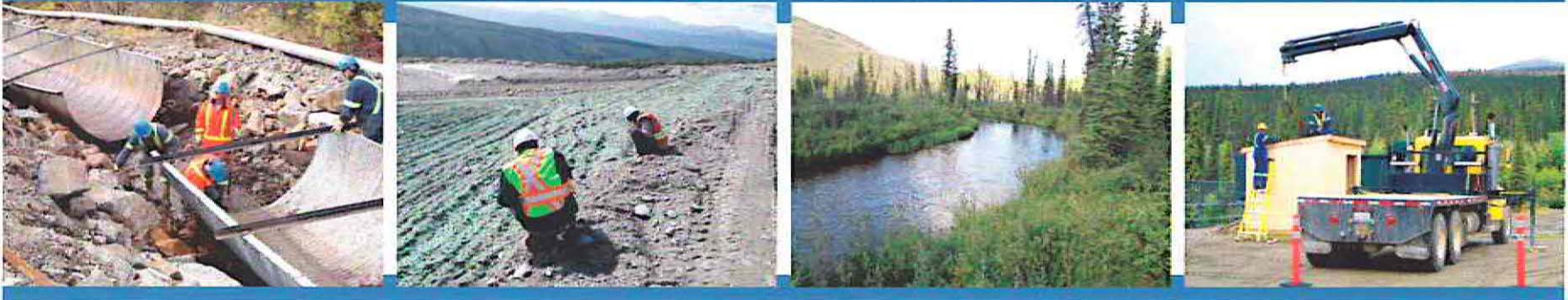
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Project Team Organization



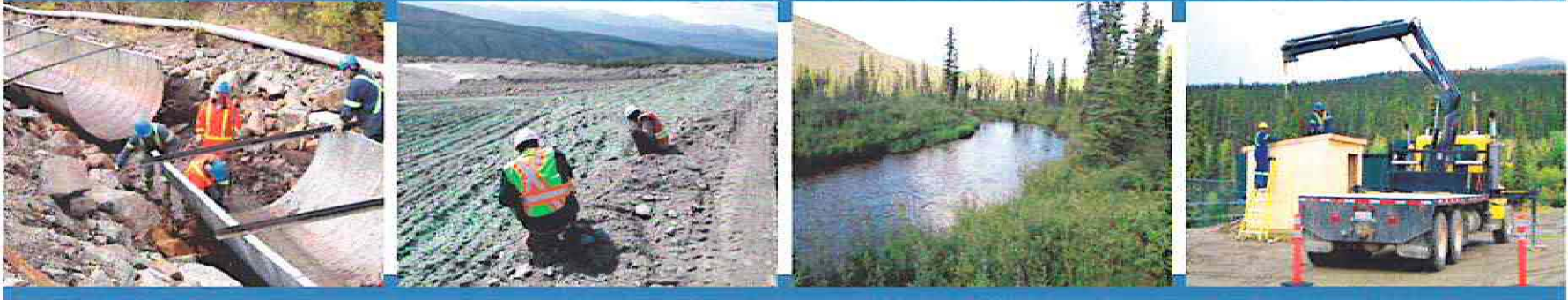
Faro Mine Complex Care & Maintenance



Corporate Structure

- Tlicho Engineering and Environmental Services Ltd. (TEES) is wholly owned by the Tlicho Investment Corporation (TIC), a business arm of the Tlicho Government.
- Our Corporate mandates:
 - Competitive and Profitable
 - Train Local Impacted People
 - Provide Employment Opportunities to Impact Groups
 - Provide Economic Sustainability to Impacted Communities

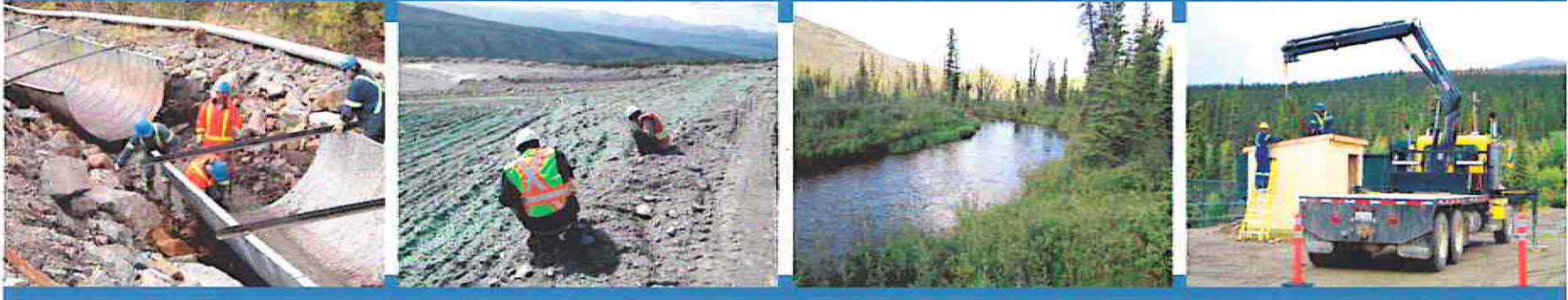
Faro Mine Complex Care & Maintenance



Care & Maintenance Goals

- Primary Goal
 - Prevent adverse effects on persons, property and the environment in a cost effective manner
- Secondary Goals
 - Yukon Occupational H&S Act Compliance
 - Benefits provided for AYFN, Faro and Yukon residents and businesses
 - Environmental Protection

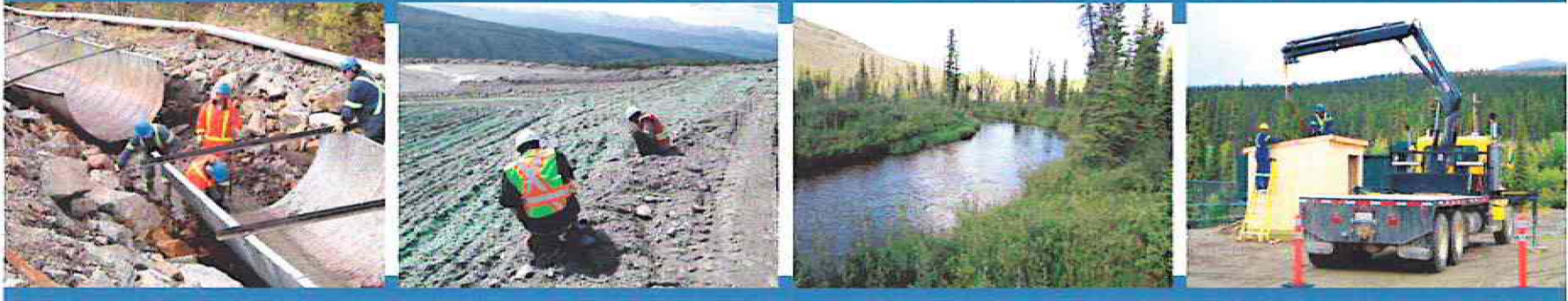
Faro Mine Complex Care & Maintenance



Care & Maintenance Services

- Environmental Protection
- H&S programs for protection of workers & public
- Manage site in accordance with SOW
- Emergency Response
- Budget forecasting and Reporting
- Implementation of Participation Plan

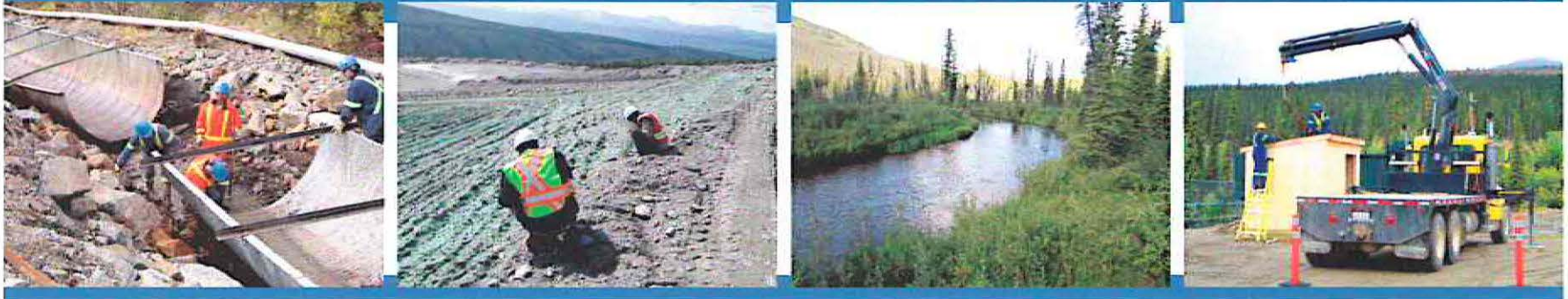
Faro Mine Complex Care & Maintenance



Management Team Skills

- Experience managing Complex sites related to mining
- Experience working with government
- Experience as ultimate authority & responsibility
- Experience managing mining operations in at least 2 of the following:
 - Surface water management
 - Waste water management
 - Earthworks, erosion and sediment control
- O&M of electrical/mechanical systems in at least 1 of:
 - Surface water management and earthworks
 - Water treatment systems

Faro Mine Complex Care & Maintenance



Health and Safety – Incidents

- No Lost Time Injuries (LTI's) or Medical Treatment Cases (MTC's)
- Total person hours worked in the quarter: 23460.75

Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
July 2012	1	Contractors employee was riding over rough terrain on an ATV and felt a sharp pain in arm. (Challenger)	Reported to TEES, contractor to evaluate and do internal follow up

Faro Mine Complex Care & Maintenance



Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
Aug 2012	1	YG employee backed into light duty vehicle causing damage to front bumper.	Stop and adjust mirrors for better visibility, stop if vision is impaired.
		Employees radio slipped out of employees pocket into the creek	Place radio more securely in the lower or inside pockets of rain jacket
Sept 2012	5	Vangorda Gate was found open	Old chain replaced with new heavier chain
		Employee spread bucket of floc on walkway. Mistaken for salt	Pay attention to containers and labels
		Employee reported water leaking out of faro sludge cell	Workers and equipment were mobilized and the leak was plugged off . No environmental impact. Mines inspector notified

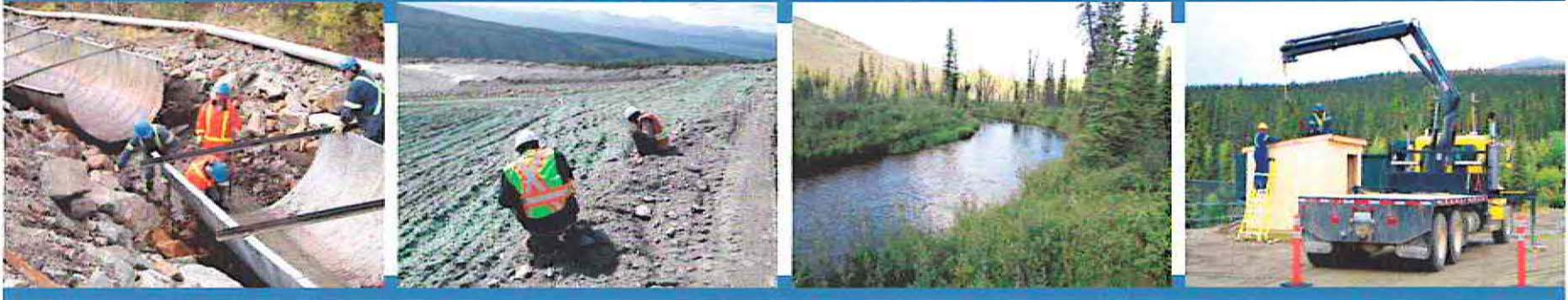
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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
July 2012	<ul style="list-style-type: none"> • Site Orientations held • Lead Blood Tests Completed • Regular Monthly Inspections completed, such as fire extinguishers, first aid kits • Hearing tests completed 	<ul style="list-style-type: none"> • Drafted 34 Safe work practices • Updated first aid kits • Completed and posted updated evacuation maps and fire alarm procedures for all active buildings on the Faro Mine Complex

Faro Mine Complex Care & Maintenance



Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
Aug 2012	<ul style="list-style-type: none"> • Monthly Inspections completed (fire extinguishers, emergency showers, air horns, O₂ monitors) • Multi-gas monitor calibrated and bump tested • Norcan shop chemical inventory updated • Orientations 	<ul style="list-style-type: none"> • Emergency Radio Alarm evacuation drill practiced and documented • Emergency Radio Alarm procedures approved and posted • Work continued on WCB inspection action items

Faro Mine Complex Care & Maintenance



Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>Sept 2012</p>	<ul style="list-style-type: none"> • Mill Water Treatment Plant building, Vangorda Water Treatment Plant, Vangorda lunchroom, Warehouse, Cat Bays, Norcan shop, Welding shop, V-15 Pump Station, Zone 2 Pump Station, IP Sea Can, and S-Well Sea Can inspections completed • Monthly test and calibration of stationary Oxygen Monitors: Zone 2 Pump Station, V-15 Pump Station, S-Well Sea Can and IP Sea Can and m-40 hand held Multi-gas Monitors. • Monthly Fire Extinguisher Inspection, and yearly Fire extinguisher inspection by Total Fire Protection • 37 Orientations 	<ul style="list-style-type: none"> • External contractor hired by TEES to assist with COR certification. Initially reviewing current TEES process and systems

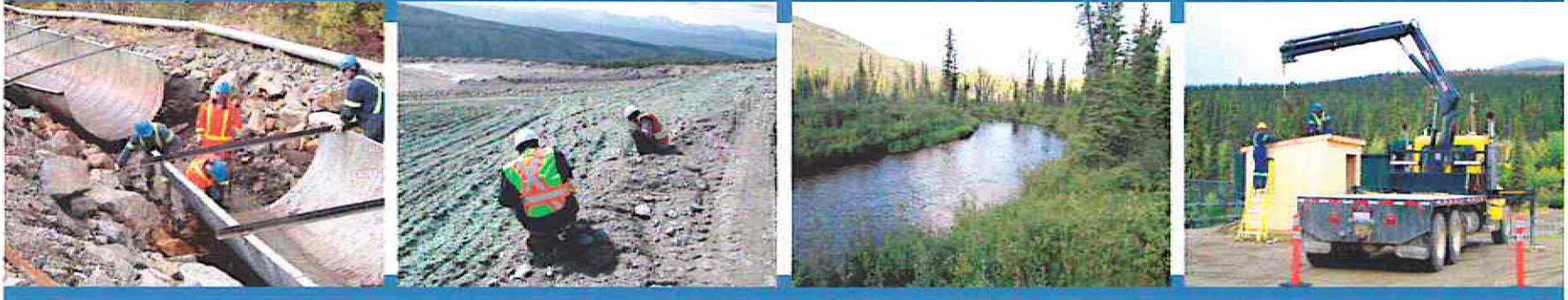
Faro Mine Complex Care & Maintenance



Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
July 2012	<ul style="list-style-type: none">• Support to CH2MHill on drill site preparation• LCD shut down due to low water levels• Precision on site for repairs to potable water system• Equipment arrangements made for supporting the GSC hydro seed program	<ul style="list-style-type: none">• Entrance to old heating plant in Faro Mill blocked. Isolated area that has asbestos present• Replacement of rusty barrels around site continues

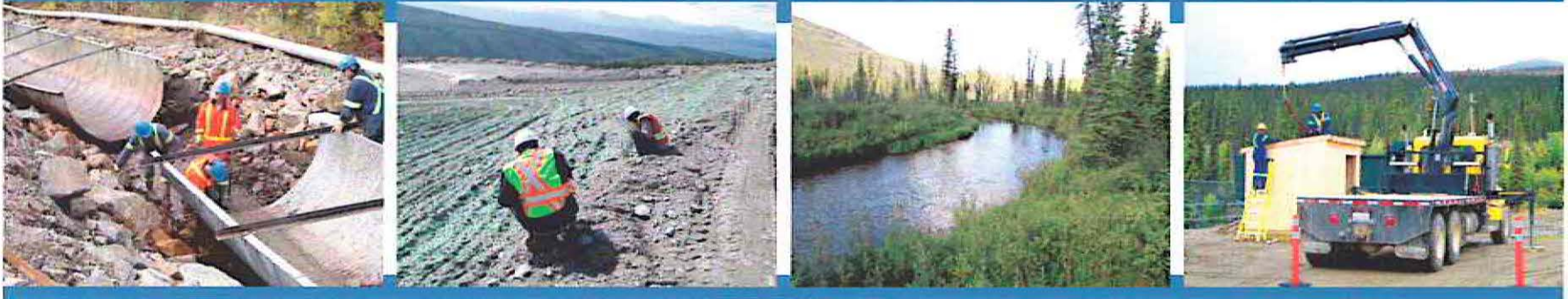
Faro Mine Complex Care & Maintenance



Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
Aug 2012	<ul style="list-style-type: none"> • Vangorda Plant was shut down for the season Aug 18 • Replaced the 30HP Flyght pump in the ETA Aug 21 . Found that two of the three spares were in disrepair • Godwin removed from GSC for the season. Final pump down using gas pump discharging to unlined pond • Equipment support for Hydro seeding crew on the GSC • CH2MHILL support for pilot test. Water delivery/sampling 	<ul style="list-style-type: none"> • Gravel truck and loader placing material for road repairs to the road in the X-14 area • Berm built behind Norcan shop • Site labeling for environmental sampling points

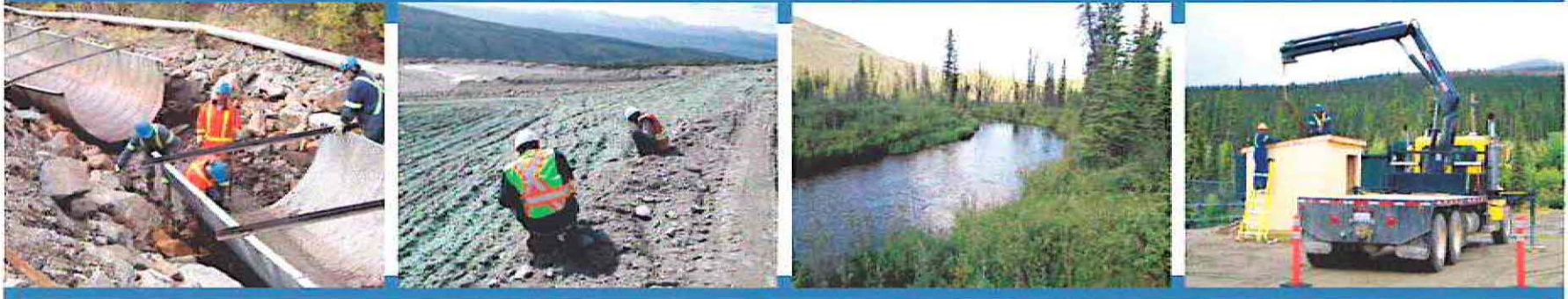
Faro Mine Complex Care & Maintenance



Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
Sept 2012	<ul style="list-style-type: none"> • IP shut down for the season on Sept 23 • Barge removed from Vangorda pit • Faro pit pumping shut down Sept 23 • ETA pumping system shut down and removed Sept 23 • CVP siphon shut down prior to CH2MHill aquifer test • All treatment systems being de-commissioned for the winter 	<ul style="list-style-type: none"> • Electrical shed for hot line across from main guard house • 345 excavator installed culvert to redirect water flow from the Grum Ore Transfer pad • Emergency Radio Alarm Procedures approved and posted

Faro Mine Complex Care & Maintenance

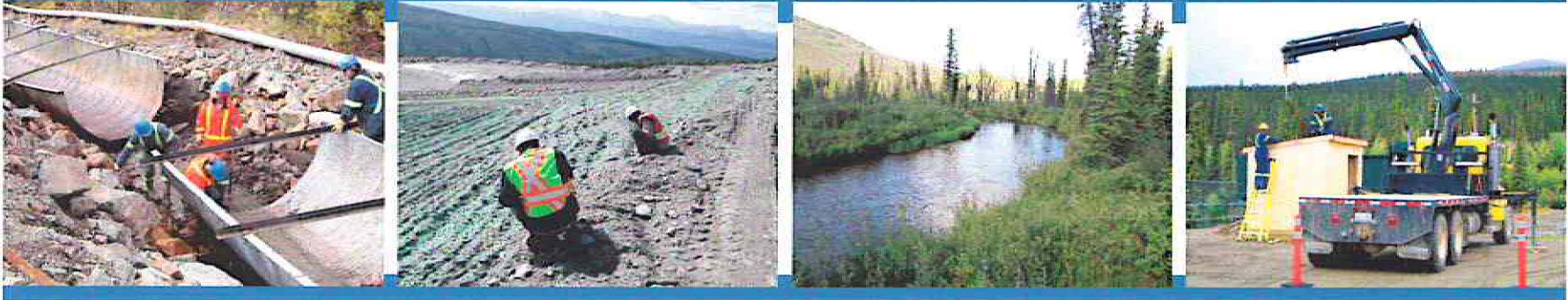


Contaminated Water Management

Month	Water Volume at Faro Mill (m ³)			Water Volume at VTP (m ³)
	Faro Pit	IP	ETA	Vangorda Pit
Jul-12	505,952	128,934	37,414	321,652
Aug-12	470,265	260,747	35,256	229,851
Sep-12	222,185	228,348	25,768	0
Total (per stream)	1,198,403	618,029	98,438	551,503
Total (all streams)	1,914,870			551,503
2011 By Stream	1,166,781	680,003	49,385	337,781
2011 All streams	1,896,169			337,781
2012 YTD	3,019,590			601,073

Month	Rose Creek Discharge, m ³	GID Discharge, m ³
Jul-12	1,061,516	448,866
Aug-12	1,124,707	259,636
Sep-12	676,102	0
Total	2,862,324	708,502
2012 YTD	4,578,030	773,423

Faro Mine Complex Care & Maintenance



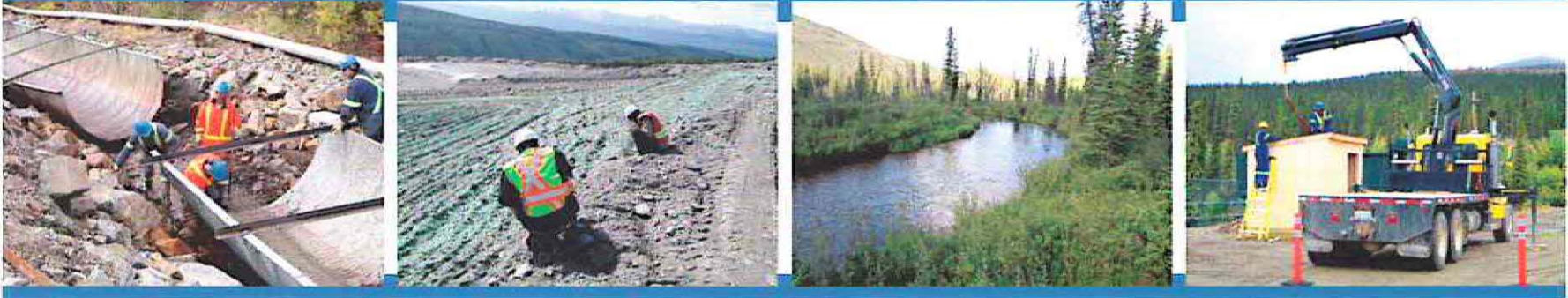
Water Elevations

Site	Reference Start Date ¹	Starting Elevation ² , masl	Reference Finish Date	Finishing Elevation, masl	Target Elevation (revised), masl	Difference From Target, m
Faro Pit	07-May-12	1142.130	24-Sep-12	1140.919	1140.93	-0.008
Grum Pit	07-May-12	1212.113	24-Sep-12	1214.023	N/A	N/A
Intermediate Pond	07-May-12	1046.140	24-Sep-12	1044.306	1044.28	0.026
Little Creek Dam	07-May-12	1108.801	24-Sep-12	1108.573	1108.40	0.173
Polishing Pond	07-May-12	1027.753	24-Sep-12	1027.470	1027.00	0.470
Vangorda Pit	07-May-12	1086.585	24-Sep-12	1081.495	1084.00	-2.505
Original Zone II Pit	07-May-12	1111.449	24-Sep-12	1101.004	1099.60	1.404

¹A reference start date common for all sites was chosen

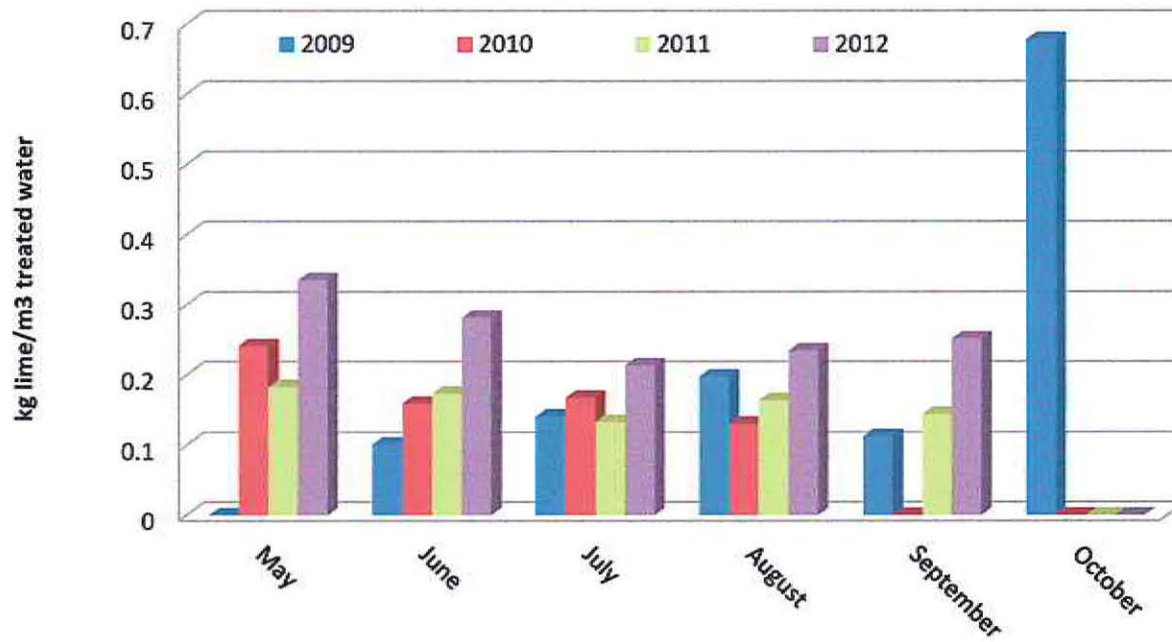
²Elevations shown are not peak starting elevations

Faro Mine Complex Care & Maintenance

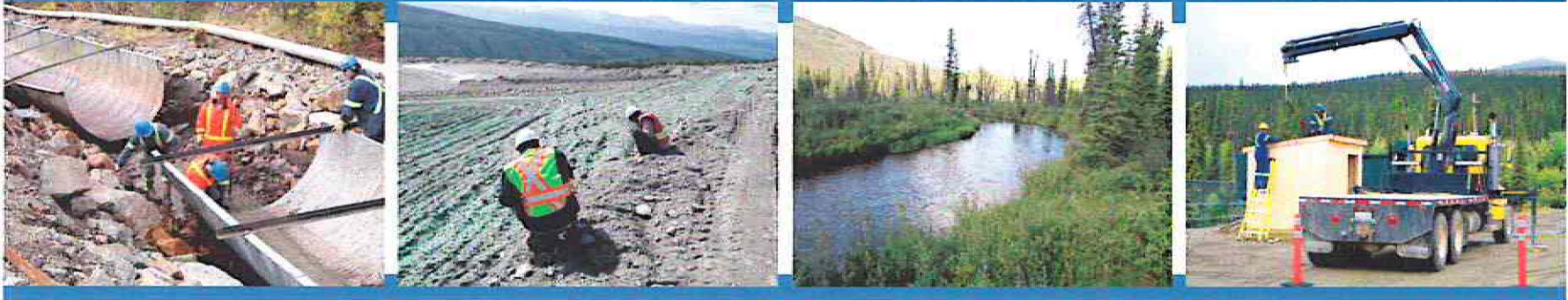


Lime Consumption

2009-2012 Faro Mill Lime Consumption



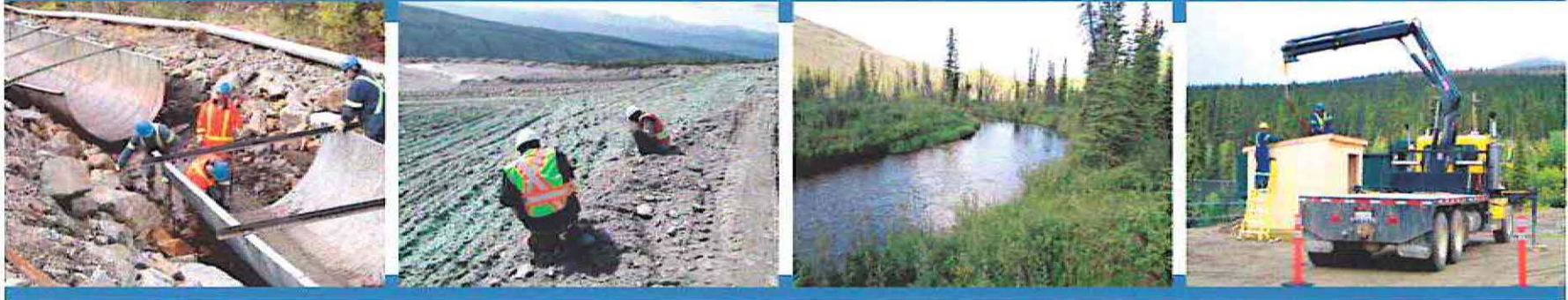
Faro Mine Complex Care & Maintenance



Maintenance

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>July 2012</p>	<ul style="list-style-type: none"> • Received Cat Challenger to site. This unit to be used to apply soil cement to tailings • Carpenter doing repairs to doors and windows at the guest house • Ongoing repairs to furnace and lines at 450 Campbell • NDT performed on all lifting devices at site 	<ul style="list-style-type: none"> • Exchanged hoist cylinders on lime truck. Allows for better off loading of lime from C-cans • Welder relocated vibrator on lime truck to help with the off loading process

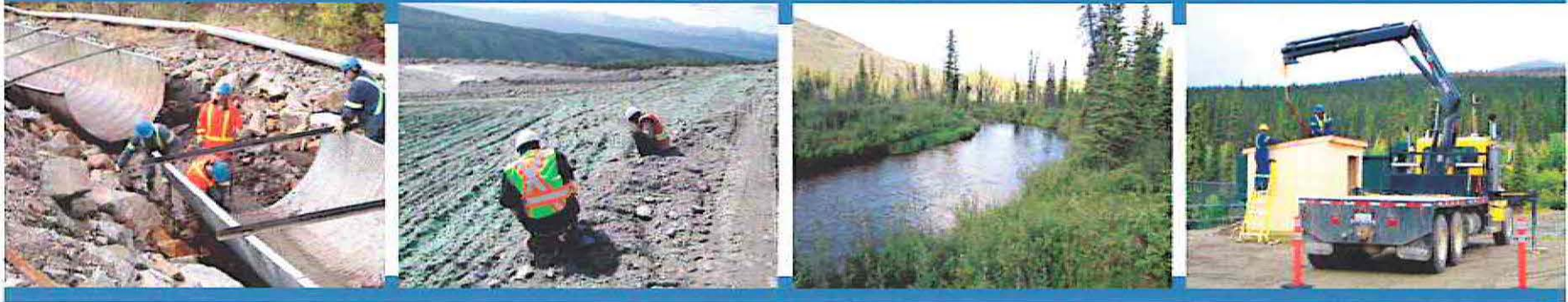
Faro Mine Complex Care & Maintenance



Maintenance

Month	Activities/ Work Completed	Improvements/Efficiencies
Aug 2012	<ul style="list-style-type: none">• Vangorda WTP shut down for the winter. Systems drained, pumps removed for inspection and rebuild• Vangorda Barge and booster systems removed. Pumps brought to shop for cleaning and rebuilds	<ul style="list-style-type: none">• Remove set of stairs from old truck shop that will be used for access to Lime dump area at the Vangorda plant• Stops welded on hopper at Vangorda WTP

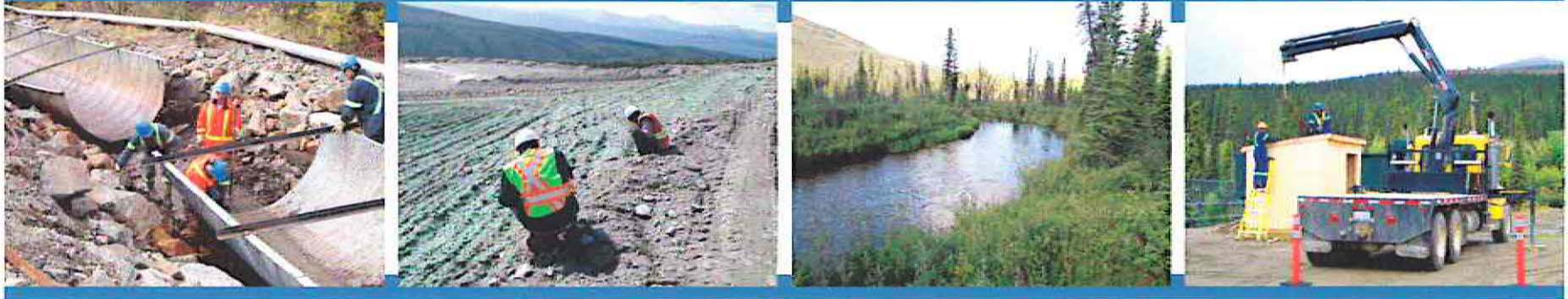
Faro Mine Complex Care & Maintenance



Maintenance

Month	Activities/ Work Completed	Improvements/Efficiencies
Sept 2012	<ul style="list-style-type: none"> • Decommissioning VTP/Barge and booster • Drain Faro Mill for winter season • Remove lime and floc pumps from mill • Work continued at electrical shack near guard house • Remove instrumentation from the mill • Repair yard light in guard house area 	<ul style="list-style-type: none"> • Vangorda flume repairs • Performed leak test on thickener and clarifier tanks in the Faro Mill • Rain gutter place at environment building • Brush clearing around NWISD, Grum survey pins as well as electrical subs

Faro Mine Complex Care & Maintenance



Equipment Recommendations

Existing Equipment	YG Recommended Option	For TEES Unit Replacement Recommended Options							Costs per Fiscal Year ²		
		Estimated Year to Replace ¹	TEES Supplied Equiv. Unit	Hourly Rate (Operation)	Hourly Rate (Standby)	Annual Hours (Operation)	Annual Hours (Standby)	Cost for Mobilization	2012/2013	2013/2014	2014/2015
Link-Belt 460 LX Excavator	Overhaul	N/A	N/A	N/A	N/A	N/A	N/A	\$ 40,000	\$ 294,411	Unknown	Unknown
Caterpillar 16G Road Grader	3 month lease (Jan to March 2013) and then Replacement with Alternate (TEES) in April 2013	2012/2013	CAT 14M	\$ 110.00	\$ 39.00	700	1380	\$ 18,000	\$ 90,410	\$ 170,091	\$ 155,443
Caterpillar D5 Dozer	3 mo/yr Challenger Rental	N/A	CAT Challenger	The Challenger is rented at a \$130/hr, minimum 50 hr/month					(\$ 24,500) already rented this FY	\$ 49,988	\$ 50,487
Caterpillar 345CL Excavator	Midlife repair	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 40,000	Annual Maint.	Annual Maint.
Volvo L220E Front Loader	Replacement with Alternate (TEES)	2012/2013	CAT 980G	\$ 110.00	\$ 39.00	600	1480	\$ 24,000	\$ 96,410 ¹	\$ 174,813	\$ 153,983
Case 580 Back-Hoe/ Loader	Midlife repair	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 40,000	Annual Maint.	Annual Maint.

¹estimated delivery date of January 2013

²costs presented are minimum annual costs based on estimated rates of usage.

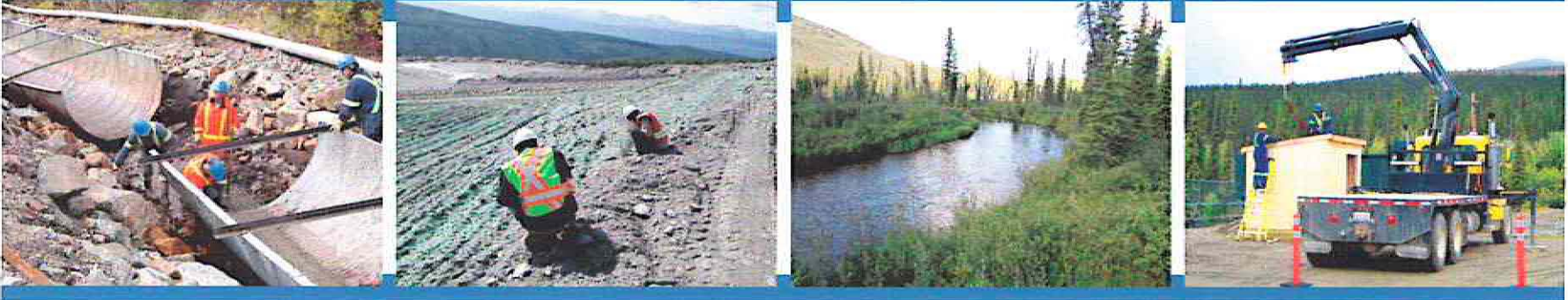
Improvements



Improvements



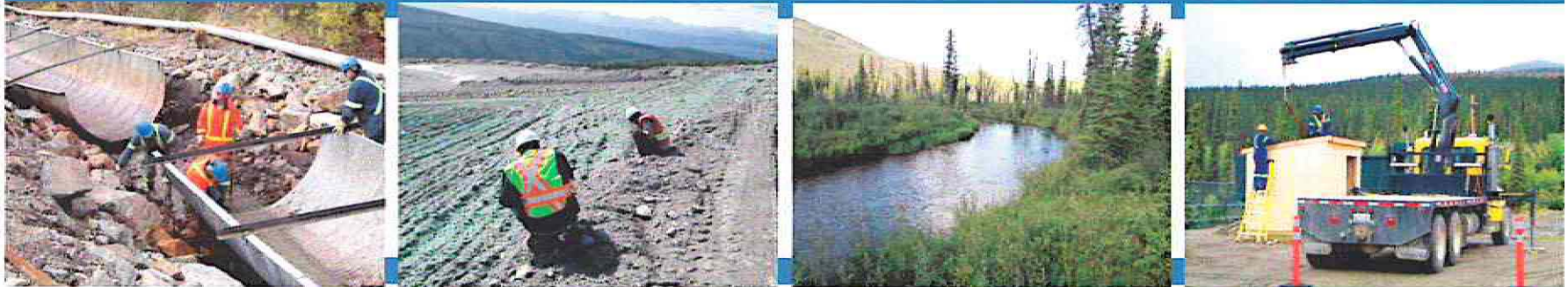
Faro Mine Complex Care & Maintenance



Environment – SOW

Type of Activity	Details	Issues	Cause	Action taken
Water Quality	<ul style="list-style-type: none"> ✓ Surface Water ✓ Seepage ✓ Groundwater ✓ QA/QC ✓ Bioassays ✓ Monthly Reporting 	Values outside historic range.		Retest requested through Maxxam Analytics and values either confirmed or corrected.
	Flow Monitoring	<ul style="list-style-type: none"> ✓ Staff Gauge Reading ✓ In-stream Flows ✓ Weir Flows ✓ Estimated Flows ✓ In-pipe Flows ✓ Continuous Monitoring* ✓ Maintenance of Facilities ✓ Monthly Reporting 	No in-stream flows conducted.	Hazardous conditions/ too much sediment present.
No ultrasonic flows conducted.		Substation cut power to pumps before ultrasonic flows could be measured.		
Water flowing around weir plate.		Weir plate does not extend far enough.	Overflow measured and weir repair recommended.	

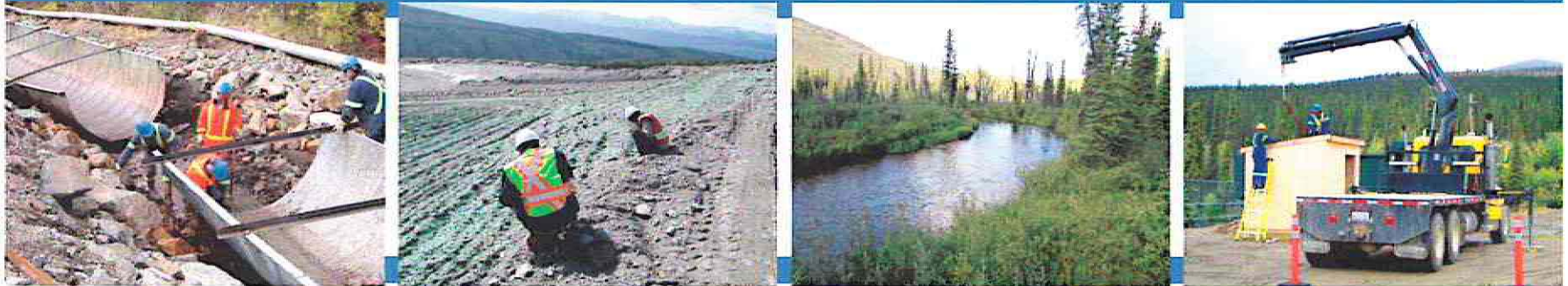
Faro Mine Complex Care & Maintenance



Environment – General SOW

Type of Activity	Details	Issues	Cause	Action taken
Meteorological Monitoring	<ul style="list-style-type: none"> ✓ Monthly Downloads ✓ Station Battery Checks ✓ Monthly Reporting 	-	-	-
Water Levels	<ul style="list-style-type: none"> ✓ Pits ✓ Ponds 	-	-	-
Geotechnical Monitoring	<ul style="list-style-type: none"> ✓ Faro Diversion SG reading ✓ Piezometers ✓ Inclinometers ✓ Thermistors ✓ Observations/Photos ✓ Slope Stability/Wall Regression ✓ Weir Flows ✓ NF1, NF2 water levels ✓ Continuous Flow Monitoring ✓ Equipment Maintenance and Calibration ✓ Training 	<p>Lack of 2012 Monitoring Program.</p> <p>Damaged structures/ non-operational sensors.</p>	-	<p>Recommended to YG that monitoring program be updated.</p> <p>All issues reported to KCB with the geotechnical data.</p>

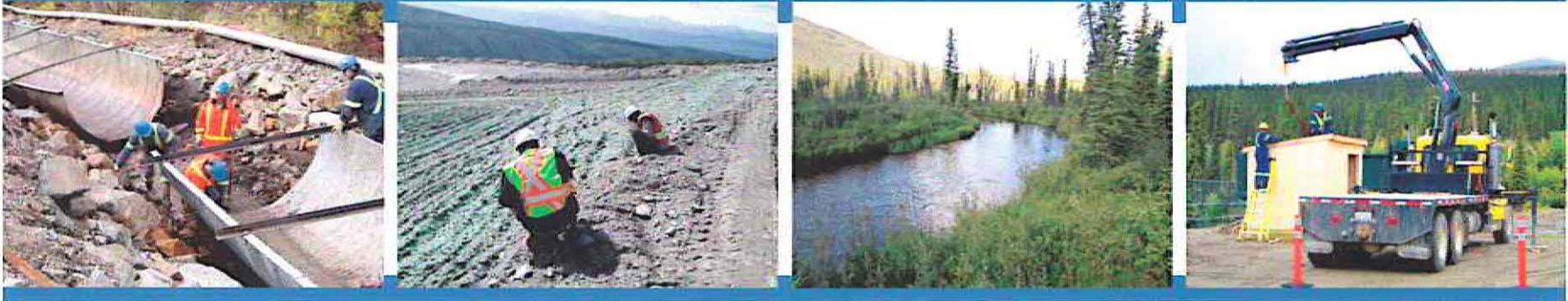
Faro Mine Complex Care & Maintenance



Environment – General SOW

Type of Activity	Details	Issues	Cause	Action taken
Site Inspections	<ul style="list-style-type: none"> ✓ Log of Observations ✓ Photos 	-	-	-
CVP Monitoring	<ul style="list-style-type: none"> ✓ Depth Profile Sampling ✓ In-House Analysis 	-	-	-

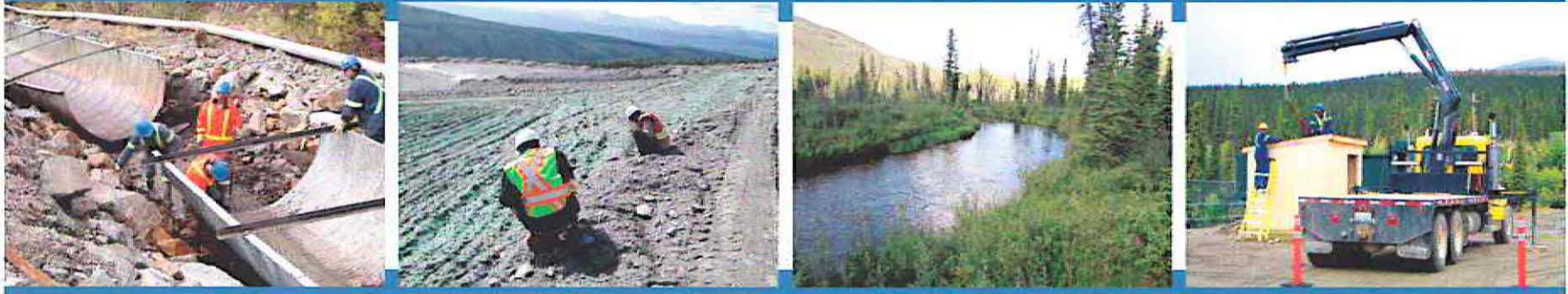
Faro Mine Complex Care & Maintenance



Environment – Non-routine Activities

Type of Activity	Details	Issues	Cause	Action taken
Water Levels/ Pumping Rates	<ul style="list-style-type: none"> ✓ Surveys ✓ Flow Measurements 	No ultrasonic flows conducted.	Substation cut power to pumps before ultrasonic flows could be measured.	-
Water Quality	<ul style="list-style-type: none"> ✓ Sampling ✓ In-House Analysis ✓ Potable Water 	No chlorination occurring in potable water.	Valve not turned on.	Precision Pump visited site, addressed issue and trained staff.
TEES Technical Support	<ul style="list-style-type: none"> ✓ Site tours ✓ Guiding ✓ Equipment Assistance ✓ Historical Data Supply 	-	-	-

Faro Mine Complex Care & Maintenance



Environment – Special Projects

Type of Activity	Details	Issues	Cause	Action taken
Kaori's Seep	<ul style="list-style-type: none"> ✓ Seep Monitoring ✓ Observations 	-	-	-
Grum Sulphide Cell Sampling	<ul style="list-style-type: none"> ✓ Sampling ✓ In-house Analysis ✓ Visual Inspections ✓ Level Logger Downloads ✓ Elevations ✓ Reporting of Results 	Staff gauge moved before elevation for level logger analysis was conducted.	Miscommunication.	Staff instructed on correct procedure for future installation events.

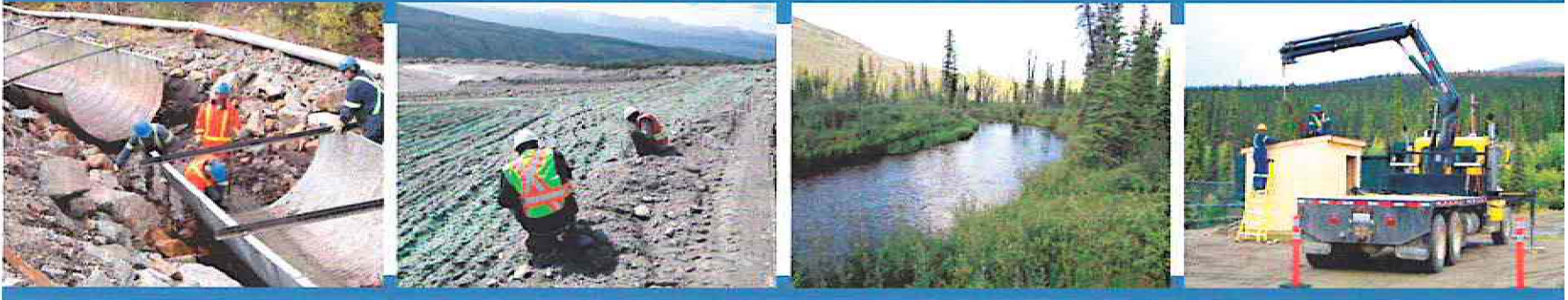
Faro Mine Complex Care & Maintenance



Environment – FMC Laboratory

Type of Activity	Details	Issues	Cause	Action taken
Maintenance and Operation	<ul style="list-style-type: none"> ✓ Analytical and Equipment Supplies ✓ Consumables ✓ Stock Management ✓ House-keeping ✓ Maintenance Log ✓ Equipment Service ✓ Lab Improvements ✓ Training ✓ Service Contract Renewed 	Fume hood low flow alarm/Nitric Acid smell.	Suspected low ventilation flow.	Flow check performed, acid removed to another fume hood.
		QA/QC.	Suspected temperature fluctuations.	Air conditioner installed, failures documented, standards and tubing replaced frequently.
		Residue in digester.	Excessive ventilation tubing.	Perkin Elmer maintenance in July.
External Laboratory Analysis	<ul style="list-style-type: none"> ✓ Total and Dissolved Zinc Analysis ✓ pH Analysis ✓ TSS Analysis 	High metal samples interfered with ICP analysis.	High metal samples.	High acid standard used for extended purging of ICP.

Faro Mine Complex Care & Maintenance

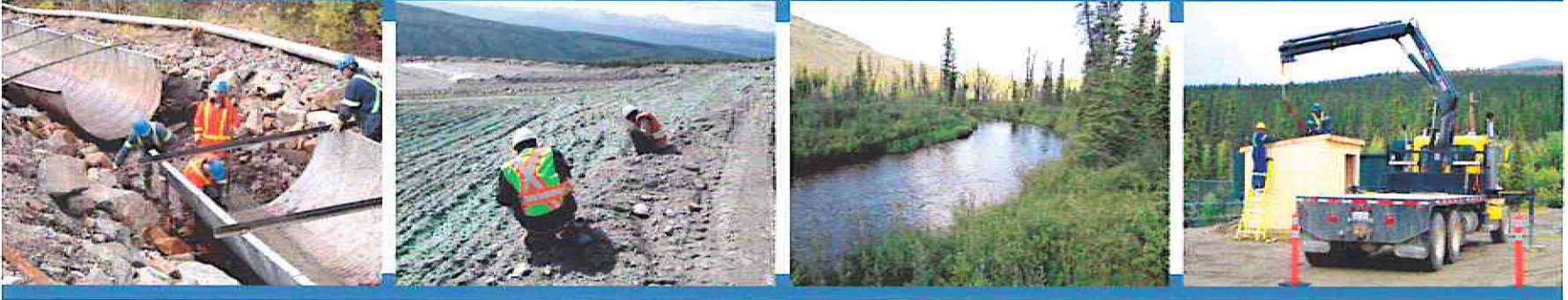


Environment – Compliance

JULY 2012

Compliance Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	Yes	-	-	-
X13	No	Colour – 40 Col. Units	Colour – 20 Col. Units	Sample was analyzed past holding time. Site has historically shown problems with colour and turbidity.
V2	Yes	-	-	-
V25BSP	Yes	-	-	-

Faro Mine Complex Care & Maintenance

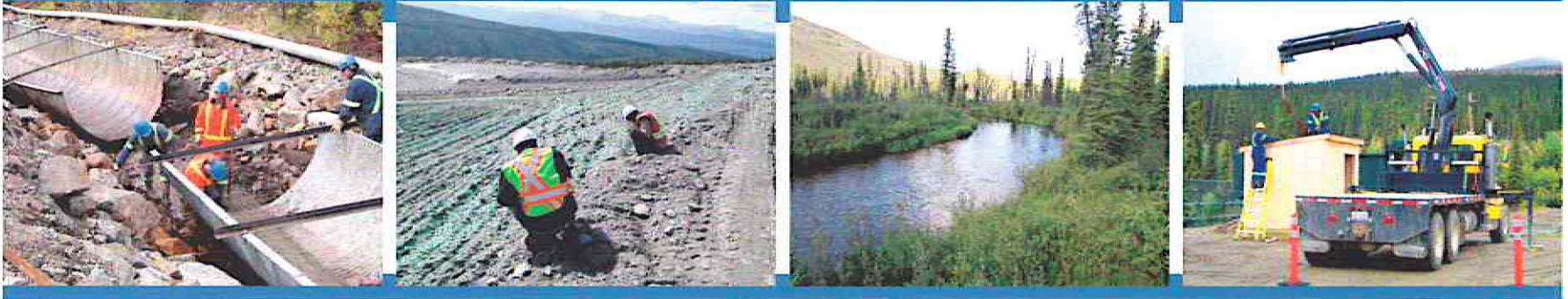


Environment – Compliance

AUGUST 2012

Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	No	Colour – 40 Col. Units	Colour – 20 Col. Units	Colour tested outside of hold time.
X13	No	Colour – 50 Col. Units Turbidity – 24.6 NTU	Colour – 20 Col. Units Turbidity – 15 NTU	Colour tested within 72 hours. Turbidity tested within 72 hours. . Site has historically shown problems with colour and turbidity.
V2	Yes	-	-	-
V25BSP	Yes	-	-	-

Faro Mine Complex Care & Maintenance



Environment – Compliance

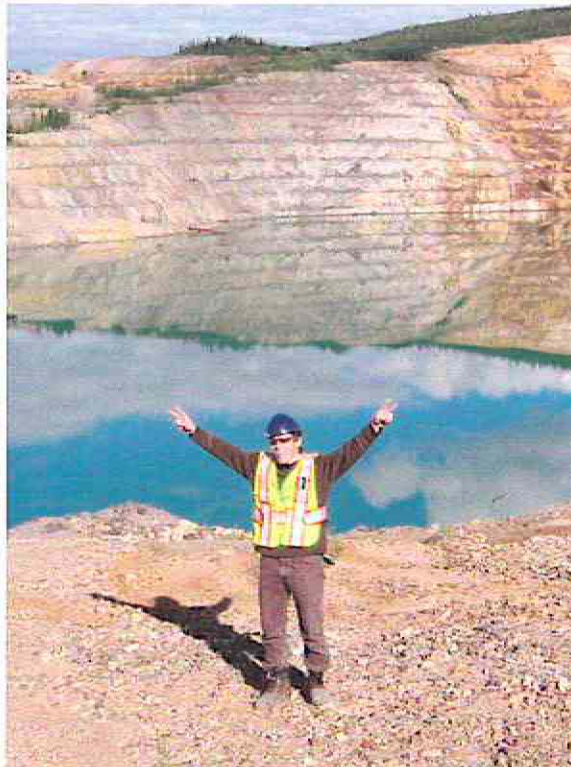
SEPTEMBER 2012

Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	Yes	-	-	-
X13	Yes	-	-	-
V2	Yes	-	-	-
V25BSP	Yes	-	-	-

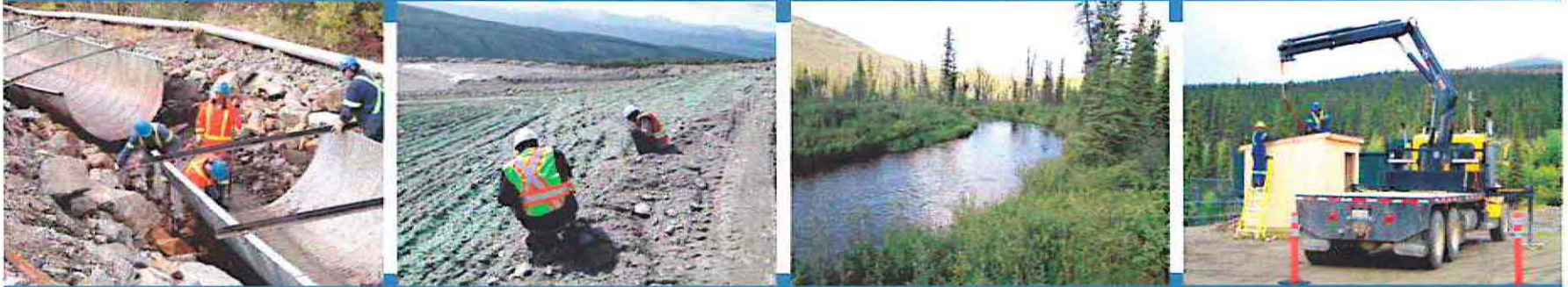
Faro Mine Complex Care & Maintenance



Environment – Photos



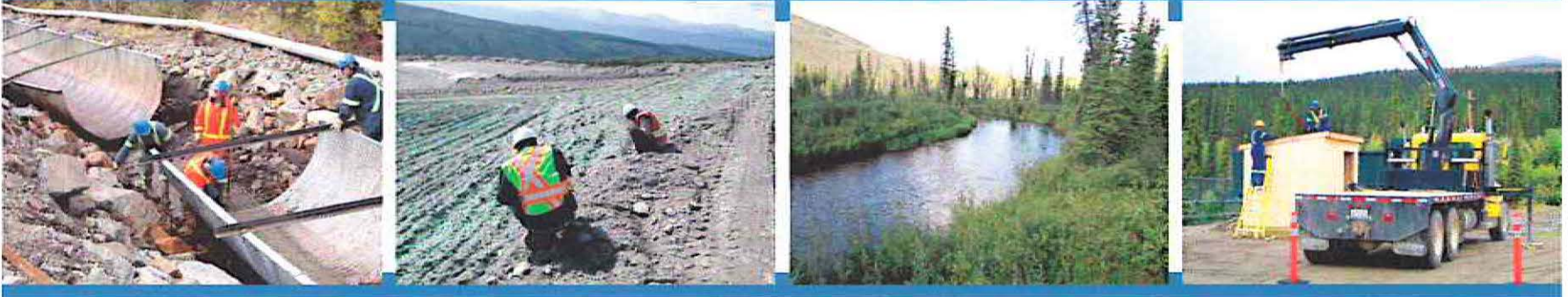
Faro Mine Complex Care & Maintenance



Environment – Photos



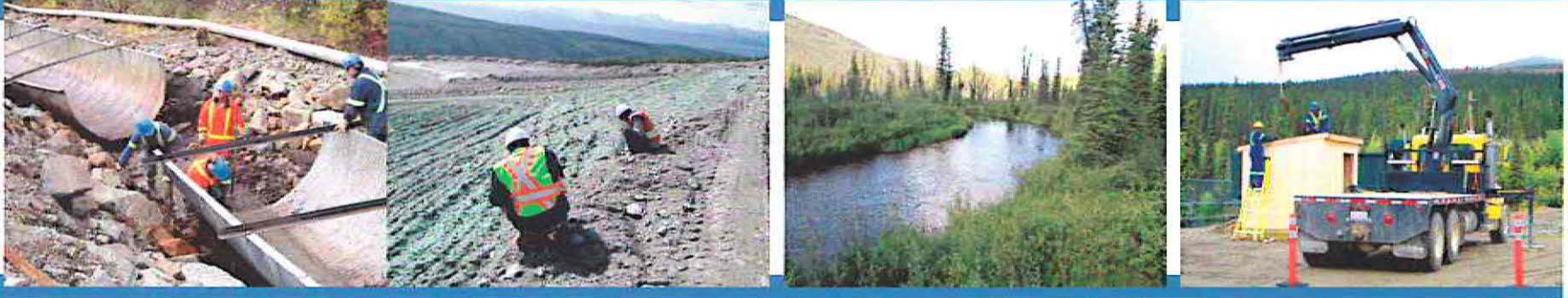
Faro Mine Complex Care & Maintenance



AYFN - Training and Participation

- AYFN coordinator left TEES
- AJ continued employment
- AYFN supported Pilot test for CH
- Cross training in July/Aug

Faro Mine Complex Care & Maintenance



AYFN - Statistics

	Total	Target
Class Room/Training	710 hr	12 hr
Informal and Formal	29.50%	12.50%
Formal Certification	0	0
Direct Employment	19%	12.50%
Subcontractors	\$11,210	10%

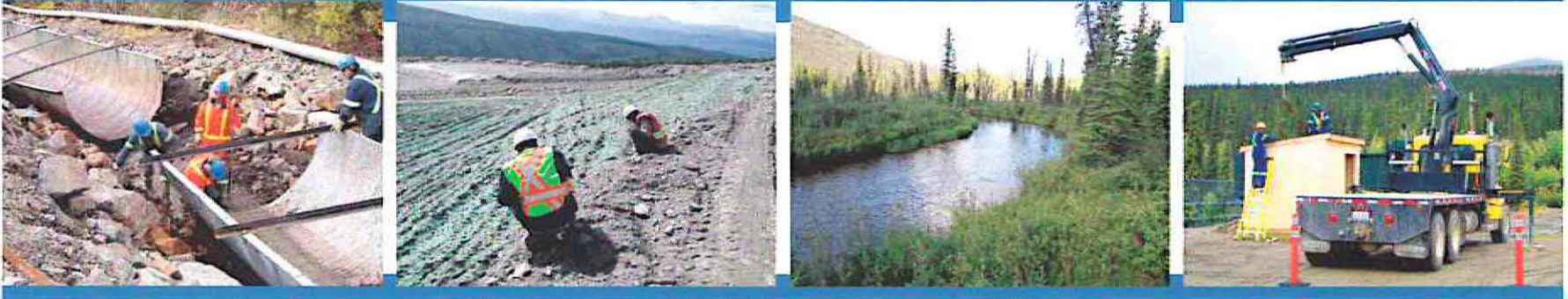
Faro Mine Complex Care & Maintenance



AYFN – Photos

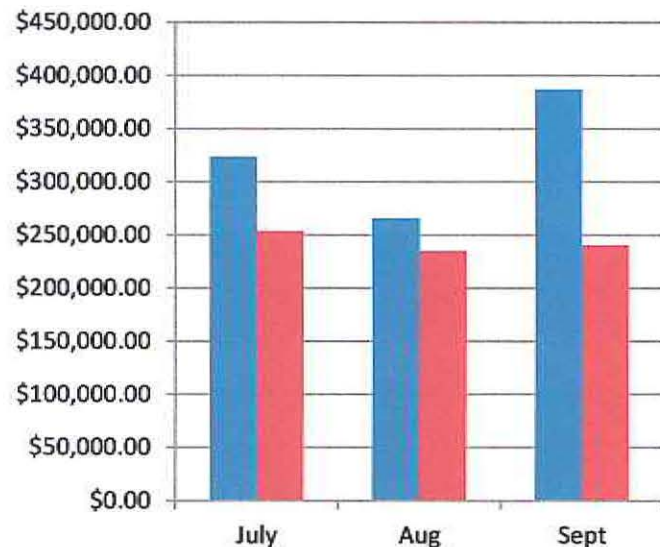


Faro Mine Complex Care & Maintenance



Financial Reporting

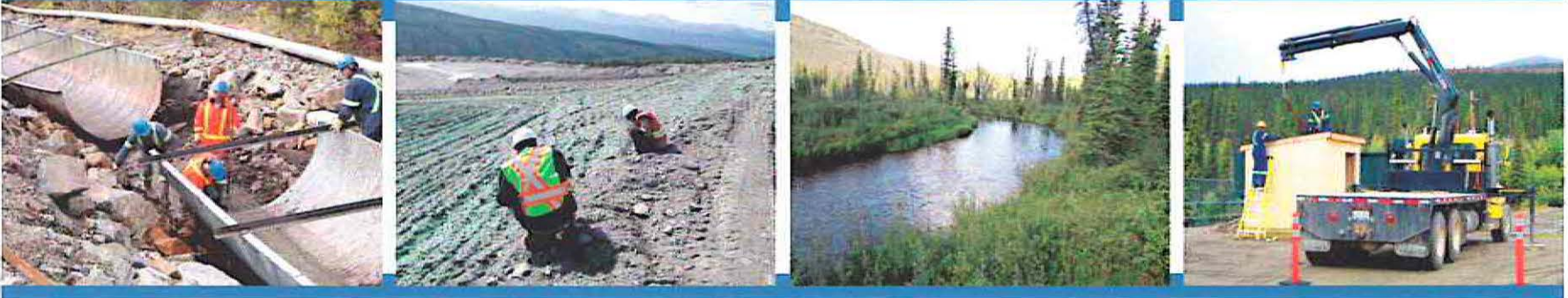
Q2 Operations



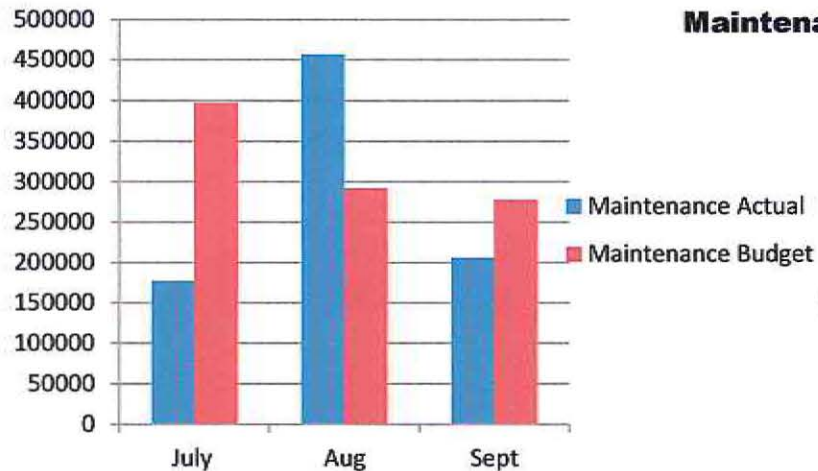
Operations: Q2 Results

Month	Actual	Budget	Var \$	Var %	YTD Q2
July	323,537	253,500	(70,037)	-28%	
Aug	264,665	235,000	(29,665)	-13%	
Sept	386,909	240,668	(146,241)	-61%	
Q1+Q2 TD	1,438,580	1,403,668	(34,912)	-2%	102%

Faro Mine Complex Care & Maintenance



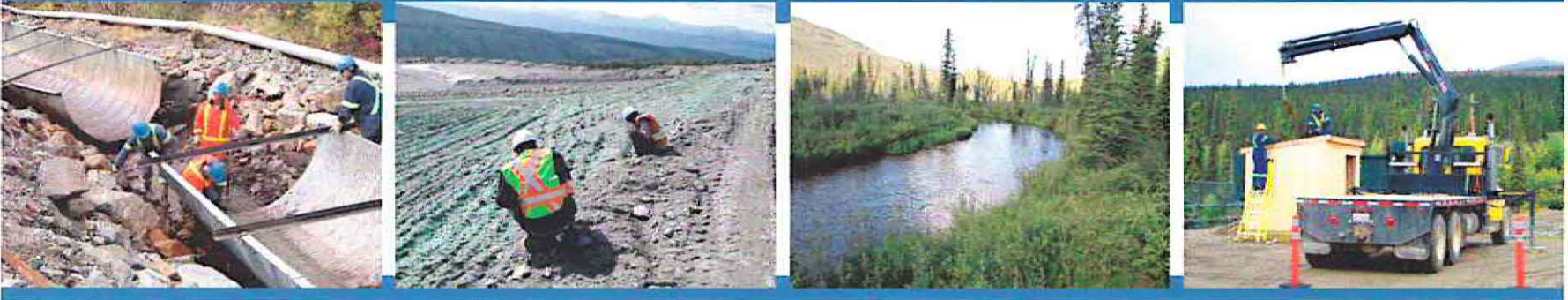
Financial Reporting Q2 Maintenance



Maintenance: Q2 Results

Month	Actual	Budget	Var \$	Var %	YTD Q2
July	177,078	171,200	(5,878)	-3%	
Aug	456,893	303,933	(152,959)	-50%	
Sept	206,405	291,033	84,628	29%	
Q1+Q2 TD	1,315,281	1,673,665	(358,384)	21%	79%

Faro Mine Complex Care & Maintenance



Financial Reporting

Q2 Budget Summary

Operations and Maintenance: Q1 & Q2 Results

Q1 & Q2	Actual	Budget	Var \$	Var %	YTD Q2
YTD	2,753,861	3,077,333	323,472	10%	110%

Faro Mine Complex Care & Maintenance



Masi Cho