

Faro Mine Complex Care & Maintenance

Tlicho Engineering and Environmental Services

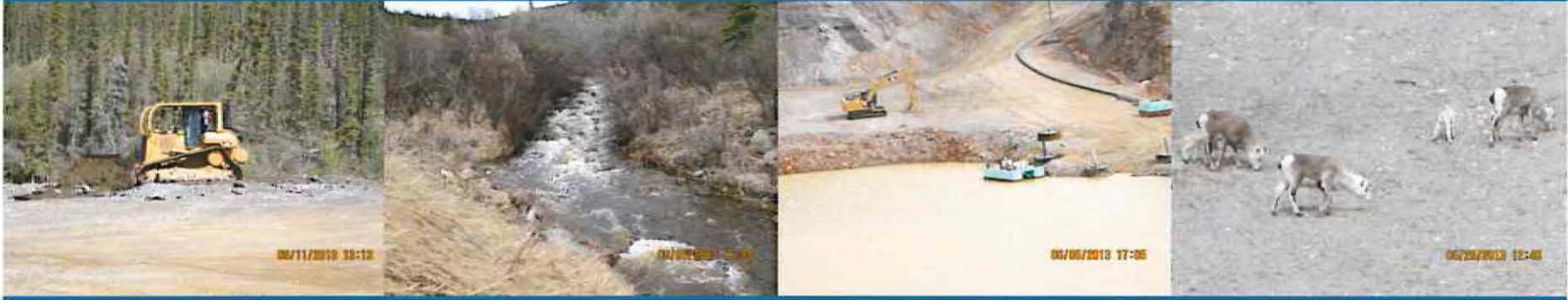
Quarter 2 Performance Report

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Faro Mine Complex Care & Maintenance



Q2 Performance Presentation

1. Introductions
2. Health & Safety
3. Site Activities
4. AYFN Training & Participation
5. Financial Reporting
6. Ongoing and Upcoming Activities

Faro Mine Complex Care & Maintenance



Care & Maintenance Services

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



Health and Safety – Incidents

Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
July 2013	There were no LTI's (lost time injuries), one MTC's (medical treatment cases), one first aid and two near misses reported 4 incidents	<p>IR-034-07-13: On July 2, 2013 an employee had non work related numbness in the left arm. As a precautionary measure, the employee was sent to medical aid.</p> <p>IR-035-07-13: On July 9, 2012 a trainee pinched his middle finger while assisting CH2M Hill employee move rocks. This resulted in first aid.</p> <p>IR-036-07-13: On July 16, 2013 a trainee slipped on spilled floc in the Cat Bays. This resulted in a near miss.</p> <p>IR-037-13: On July 31, 2013 an employee damaged the driver's door of the fuel truck parking too close to the Excavator.</p>	<p>Discussed during morning toolbox meeting</p> <p>Review YWCHSB handout on PPE, wear the right PPE for the job, CH2M Hill to ensure trainees wear proper PPE.</p> <p>Use headlamps for areas with low visibility, clean up spilled floc and discuss with trainee the importance of reporting near misses.</p> <p>SWP Parking of service vehicles/ light vehicles around stationary and mobile equipment, and discussed parking too close to equipment during toolbox meeting.</p>

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Health and Safety - Incidents

Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
August 2013	<p>One first aid and one near miss reported</p> <p>2 incidents</p>	<p>There were no LTI's (lost time injuries) and no MTC's (medical treatment cases)</p> <p>IR-038-07-13: On August 26, 2013 a trainee spilled hot food on his palms while removing hot food from the microwave. This resulted in first aid.</p> <p>IR-039-08-13: On August 29, 2013 a trainee lost his balance at X-13 and slipped into the water. This resulted in a near miss.</p>	<p>Discussed during toolbox meeting and use of hand protection when removing food from the microwave.</p> <p>Discussed during toolbox meeting and use equipment to check the depth before wading into water.</p>

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Health and Safety - Incidents

Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
September 2013	One minor spill reported 1 incident	There were no LTI's (lost time injuries) and no MTC's (medical treatment cases) IR-03-09-13: On September 22, 2013 an employee overfilled the generator with diesel at the Cross valley filtration trailers. This resulted in a minor spill between five and twenty litres of diesel.	The contaminated soil was replaced, revise site wide SWP fuel procedures to accommodate all site personnel and discussed at toolbox meeting.

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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>July 2013</p>	<p>Monthly Inspections of Fire Extinguishers, First Aid Kits, Eyewash Stations and Emergency Showers: Warehouse, Cat Bays, Warm Storage, Potable Water building, Norcan shop, Welding shop, V-15 Pump Station, Zone 2 Pump Station, IP Sea Can, S-Well Sea Can, Guardhouse, Dry, Lunchroom, Millwright and Electrician shop, S-Well Generator building, Environmental Storage building and Lab.</p> <p>Monthly testing and calibration of oxygen sensors and site portable monitors</p> <p>Light duty and heavy equipment first aid kit and fire extinguishers inspections are ongoing.</p> <p>93 orientations</p>	

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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>August 2013</p>	<p>Monthly Inspections of Fire Extinguishers, First Aid Kits, Eyewash Stations and Emergency Showers: Warehouse, Cat Bays, Warm Storage, Potable Water building, Norcan shop, Welding shop, Guardhouse, Dry, Lunchroom, Millwright and Electrician shop, S-Well Generator building, Environmental Storage building ,Lab, S- Well Sea Can, IP Sea Can, Zone 2 Sea Can and V-15 Sea Can.</p> <p>The monthly test and calibration of the Stationary Oxygen Monitors were resumed for the IP Sea Can, V-15 Sea Can, Zone 2 Sea Can and S-Well Sea Can.</p> <p>48 Orientations</p>	<p>8 employee/ trainees attended the Fall Arrest, Rigging and Hoisting courses on site.</p> <p>Revisions to SWP 3.20 Working Near (On a Stream Bank) or In (Wading) Water and SWP 3.20 a Working Over Water are pending corporate approval</p>

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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>September 2013</p>	<p>Monthly Inspections were conducted of Fire Extinguishers, First Aid Kits, Eyewash Stations and Emergency Showers: Warehouse, Cat Bays, Warm Storage, Potable Water building, Norcan shop, Welding shop, Guardhouse, Dry, Lunchroom, Millwright and Electrician shop, S-Well Generator building, Environmental Storage building, Lab, S Well Sea Can, IP Sea Can, V-15 Sea Can and Zone 2 Sea Can.</p> <p>Monthly building inspections were conducted at Cat Bays, IP Sea Can, S-Well Sea Can, Zone 2 Sea Cans , S-Well generator building, lab, lunchroom, male and female dry, Vangorda Water treatment plant & lunchroom,</p> <p>Monthly test and calibration of the stationary oxygen monitors were conducted for the IP Sea Can, the Zone 2 Sea Can, the S-Well Sea Can and the V-15 Sea Can. Monthly test and calibration of M-40 Multi-gas portable monitors were completed.</p> <p>The spare Fire Extinguishers were inspected and the records were updated for 2013.</p> <p>71 Orientations</p>	<p>September 18, 2013: A medical emergency site wide drill was held. EMR/ Security, back up ambulance drivers, and the ERT list with contact information is available to EMR/ Security.</p> <p>September 22nd & 23rd, 2013: Total Fire Protection Services was onsite for the yearly inspections of all the fire extinguishers.</p>

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Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>July 2013</p>	<ul style="list-style-type: none"> •Pumping from S-wells continued through month of July for a total of 4,623m³. •Zone II pumping continued pumping through July for a total of 12,272m³, Year to Date 133,448m³ •At the Vangorda Treatment Plant we treated 246,556m³ in July With no major issues •Pumping started from IP to Faro Pit on April 23, In July we pumped 248,533m³ from IP to the Faro Pit . •Installation of Grum Pipeline was completed during July 	<p>The IP to Faro pumping system which was started April 23/13 so far has pumped 869,230m³ for the season so far</p> <ul style="list-style-type: none"> •Zone II pumping system has pumped 133,448m³ so far this season •S wells pumping system has pumped 34,279m³ so far this year •Year to date Vangorda treatment plant has treated 323,371m³

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Contaminated Water Management

Month	Activities/ Work Completed	Achievements
August 2013	<ul style="list-style-type: none"> • Pumping continued from IP to Faro pit for the month of August at a rate of 7000 Litres per minute, for a total of 302,968m³ for the month. • Siemens Filter trailers were brought to site and set up for interim water treatment at the CVP • The S-Well pumping continued at a flow rate of 1.9 litres per second for a total of 39,567m³ in August. • Zone II - no pumping during the month of August • Grum to Vangorda pumping was started this month • Vangorda Treatment plant treated 340,078m³ for the month. Year to Date 663,450m³ 	<ul style="list-style-type: none"> • 109,508m³ water were pumped from the Grum Pit to the Vangorda Pit • Dredge was assembled and electrical commissioning took place • 1,171,748m³ of water has been pumped to the Faro Pit from the IP so far year to date. • Pioneer pump was installed in the IP to Faro system in Aug which showed an increase of water being pumped from IP to Faro pit and a decrease in fuel being consumed. IP pumps are now able to pump at 100% efficiency

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Contaminated Water Management

Month	Activities/ Work Completed	Achievements
<p>September 2013</p>	<ul style="list-style-type: none"> •Pumping from IP to Faro Pit continued with 302,968m³pumped in September, •Dredge was launched in Vangorda Clarification pond •S-Wells pumping at 1.9 litres per second for a total of 5,288m³ in September •Pumping from the Grum Pit to Vangorda in September •Godwin was reinstalled in Grum Pit and more water was pumped to Vangorda Pit •No water was pumped from Zonell during September •Vangorda Water Treatment plant was finished treating water Sept 4 due to a blown seal on Booster pump •Siemens Filtration trailers were commissioned and filtering water from CVP at a rate of 4.5m³ a minute and then increased to 5.7m³ as experience was gained on operation of trailers 	<ul style="list-style-type: none"> •Confirmation that the Miller skid will be ready for inspection in October •Dredge was commissioned in the water and sludge was moved (Pumped) back to Vangorda Pit

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Fresh Water Management

Month	Activities/ Work Completed	Achievements
July 2013	<ul style="list-style-type: none"> • All Creeks and Diversions were checked daily • Low lying areas and ponds were monitored and pumped as required (swimming hole, west pond) • X5 siphon was down for the month of July due to unusually high turbidity readings 	<p>Planning started for a solution to processing the water in the CVP so elevations could be lowered</p>

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Fresh Water Management

Month	Activities/ Work Completed	Achievements
<p>Aug 2013</p>	<ul style="list-style-type: none"> •All creeks and diversions were checked daily •The CVP siphon was up and down all month due to turbidity issues •Siemens filtration trailers were setup and pipe work was done in preparation of discharging compliant water to the environment from the Cross valley pond 	<ul style="list-style-type: none"> • Media was placed in the Filtration Trailers ahead of schedule and done safely

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Fresh Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>Sept 2013</p>	<ul style="list-style-type: none"> •All creeks and diversions were checked daily •X 5 siphon once again was up and down all month due to high turbidity •Siemens trailers started producing compliant water from CVP this month 	<ul style="list-style-type: none"> •Filter trailer discharge was increased from 1250 US gallons per minute to 1600 per minute mid month to get maximum performance. •Vangorda Treatment Plant was winterized towards the end of the month after releasing 667,189 m3 to the environment

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Maintenance

Month	Activities/ Work Completed	Achievements
<p>July 2013</p>	<ul style="list-style-type: none"> •Regular Preventative maintenance and servicing was performed on light and heavy duty vehicles regularly through out the month •Inland Kenworth was on site to deal with fuel issues on the new volvo loader •Finning was also on site for some minor warranty work on new equipment •TEES mechanic resigned to pursue emploment in Whitehorse 	<p>Add was placed for a new site mechanic</p> <p>Total North installed permanent radios in new equipment</p>

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Maintenance

Month	Activities/ Work Completed	Achievements
<p>August 2013</p>	<ul style="list-style-type: none"> •Regular preventative maintenance and servicing was performed on light and heavy duty vehicles •Pioneer Tech was onsite to clear errors on Pioneer pump •None Destructive testing was done on site Lifting devices •Case Backhoe was sent off site for repairs •Inland Kenworth delivered forks and spare tire for Volvo loader 	<ul style="list-style-type: none"> •Inland Kenworth solved fuel injection problem on Volvo Loader •Finning was on site to do warranty work on some of new equipment •Fountain tire was also on site to do some Light vehicle repairs

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Maintenance

Month	Activities/ Work Completed	Achievements
<p>Sept 2013</p>	<ul style="list-style-type: none"> •Regular preventative maintenance and services were performed on light and heavy duty equipment •Inland Kenworth was on site doing services and repairs to equipment •Canol Mobile Maintenance was also on site for equip repairs . •Pioneer Tech was on site to fix a computer problem on pump 	<ul style="list-style-type: none"> •After pioneer tech made his last visit , pump has been performing at high efficiency, allowing us to run the IP pumps at maximum output

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Environment – SOW

Type of Activity	Details	Challenges	Cause	Action taken
Water Quality	<ul style="list-style-type: none"> ✓ Surface Water ✓ Seepage ✓ Groundwater ✓ QA/QC ✓ Bioassays ✓ Potable Water ✓ Monthly Reporting 	Values outside historic range	-	Retest requested through Maxxam Analytics and values either confirmed or corrected
		No samples collected	Hazardous access	Access currently under review
		No chlorination occurring in potable water	Currently under investigation	WESA retained to perform an inspection and troubleshoot system
Flow Monitoring	<ul style="list-style-type: none"> ✓ Staff Gauge Readings ✓ In-stream Flows ✓ Weir Flows ✓ Estimated Flows ✓ In-pipe Flows ✓ Continuous Monitoring ✓ Monthly Reporting 	No discharge measurements taken	Hazardous conditions	Measurements were conducted when safer conditions occurred
		Weir plates in need of maintenance	Deterioration over time	Required maintenance list compiled and submitted to Site Superintendent

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Environment – SOW

Type of Activity	Details	Challenges	Cause	Action taken
Meteorological Monitoring	<ul style="list-style-type: none"> ✓ Monthly Downloads ✓ Station Battery Checks ✓ Monthly Reporting 	Suspect data	Meteorological stations have not been serviced since installation	Campbell Scientific serviced meteorological stations in July. Operating program is being adjusted for accurate data collection
		Declining accumulative precipitation values	-	Gauges inspected and data sent to Campbell Scientific for analysis
Water Levels	<ul style="list-style-type: none"> ✓ Pits ✓ Ponds 	-	-	-

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Environment – SOW

Type of Activity	Details	Challenges	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 	-	-	-

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Environment – Non-Routine Activities

Type of Activity	Details	Challenges	Cause	Action taken
Geotechnical Monitoring	<ul style="list-style-type: none"> ✓ Observations ✓ Slope Stability Measurements ✓ Water Level Elevations ✓ Staff Gauge Readings ✓ Discharge Measurements ✓ Weir Flows ✓ Continuous Flow Monitoring ✓ Rating Curve Updates ✓ Slope Indicator Readings ✓ Piezometer Readings ✓ Thermistor Readings ✓ Bathymetry Survey ✓ Equipment Maintenance 	Lack of 2013 Monitoring Program	-	Met with Robert Lo of KCB and Karen Furlong. KCB to provide a program
		Staff gauges in need of maintenance	Deterioration over time	Gauges cleaned or replaced
		Weir plates in need of maintenance	Deterioration over time	Required maintenance list compiled and submitted to Site Superintendent
		Improvement of discharge measurement collection	Estimation inaccuracy during peak and low flow periods	Identified that accuracy would be improved with installation of a weir. Site list compiled and submitted to Site Superintendent

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Environment – Non-Routine Activities

Type of Activity	Details	Challenges	Cause	Action taken
Hydrology Monitoring	<ul style="list-style-type: none"> ✓Continuous Monitoring ✓Discharge Measurements 	No discharge measurements taken	Hazardous conditions	Measurements were conducted when safer conditions occurred
		Staff gauges in need of maintenance	Deterioration over time	Gauges cleaned or replaced
S-Wells Monitoring	<ul style="list-style-type: none"> ✓Continuous Monitoring ✓Piezometer Readings 	Wells in need of maintenance	Deterioration over time	Reported to YG on a monthly basis
CH2M Hill Support	<ul style="list-style-type: none"> ✓Hydrological Station Installation ✓Weir Installation 	-	-	-

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Environment – Special Projects

Type of Activity	Details	Challenges	Cause	Action taken
Grum Sulphide Cell Monitoring	<ul style="list-style-type: none"> ✓ Water Level Elevations ✓ Continuous Monitoring ✓ TSS Analysis ✓ Zinc Analysis 	Lengthy TSS filtration	High amounts of solids	Vacuum pump purchased to prevent potential repetitive stress injuries
Intermediate Pond – Faro Pit Sampling	<ul style="list-style-type: none"> ✓ Water Quality Sample Collection 	Ferrous Iron analysis	Shipper delays	Contacted Maxxam Analytics and Air North Cargo to ensure samples are transported directly to the laboratory
Lime Testing	<ul style="list-style-type: none"> ✓ Lime Titration ✓ pH Analysis ✓ TSS Analysis ✓ Turbidity Analysis 	Lengthy TSS filtration	High amounts of solids	Vacuum pump purchased to prevent potential repetitive stress injuries
Lime and Sodium Hydroxide Testing	<ul style="list-style-type: none"> ✓ Lime Titration ✓ Sodium Hydroxide Titration ✓ pH Analysis ✓ TSS Analysis 			

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Environment – Special Projects

Type of Activity	Details	Challenges	Cause	Action taken
CVP Turbidity Monitoring	<ul style="list-style-type: none"> ✓Depth Profile Sampling ✓In-House Turbidity Analysis 	-	-	-
CVP Cyanide Monitoring	<ul style="list-style-type: none"> ✓Depth Profile Sampling ✓External Cyanide Analysis ✓In-House Iron, Manganese and Zinc Analysis 	ICP nebulizer clogged repeatedly during dissolved metals analysis	-	Digested dissolved samples.
S-Wells Monitoring	<ul style="list-style-type: none"> ✓Water Quality Sample Collection ✓Discharge Monitoring 	-	-	-

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Environment – FMC Laboratory

Type of Activity	Details	Challenges	Cause	Action taken
Maintenance and Operation	<ul style="list-style-type: none"> ✓ Analytical and Equipment Supplies ✓ Consumables ✓ Stock Management ✓ House-keeping ✓ Maintenance Log ✓ Equipment Maintenance ✓ Lab Improvements ✓ Proficiency Testing ✓ Training 	Cracked filters on the RO Unit	-	Replaced filters
		Low air flow on fume hood	Worn fan belt	Replaced fan belt
		Missing working sash height on fume hood	-	Placed working sash height on fume hood
		Expired chemicals kept on site	-	Chemicals removed from site and disposed in the correct manner

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Environment – Compliance

July 2013

Compliance Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	Yes	-	-	-
X13	No	Colour – 40 TCU	Colour – ≤ 20 TCU	Site has historically shown problems with Colour. FMC Laboratory has attained proficiency in Colour analysis
V2	Yes	-	-	-
V25BSP	Yes	-	-	-

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Environment – Compliance

August 2013

Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	Yes	-	-	-
X13	No	Colour – 70 TCU	Colour – ≤ 20 TCU	Site has historically shown problems with Colour. FMC Laboratory has attained proficiency in Colour analysis
V2	Yes	-	-	-
V25BSP	Yes	-	-	-

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Environment – Compliance

September 2013

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

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AYFN and YUKONER PROGRAM

Q2 Activities

- Summer Training/Work Experience Program officially began July 2, 2013 and ended officially ended on August 29 2013
- Program started with 11 trainees; 8 completed the program: (2)Watson Lake;(2)Pelly Crossing; (5) Ross River; (2) Faro
- Two trainees remained on site until September 26th: (1) Environment Department and, (1) Millwright
- Seven certificates were issued for Hoisting and Rigging and 7 for Fall Protection
- Classroom/group activities and guest speakers included: Global Water Issues; Fracking; The Costs and Benefits of Mining; Global Mining Issues; Careers in Mining; Aptitude Testing; All about Rocks; Environmental Assessment.
- All trainees have indicated that they would like to continue on with training over the winter and next summer
- Planning now underway for training between November and March and for next summer. Two meetings have taken place with Yukon College to date. Ideas being explored for training include the ECO- Canada BEAHR program; Emergency Response; HIAB and Forklift; Chainsaw Safety and Maintenance; Heavy Equipment Maintenance and Simulator Training

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AYFN and YUKONER PROGRAM

Challenges

- Finding sufficient hands-on work experiences for trainees
- Scheduling challenges and space allocation
- Absenteeism due to social / personal challenges
- Affordable and appropriate housing

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AYFN – Statistics for Q2 - 2013

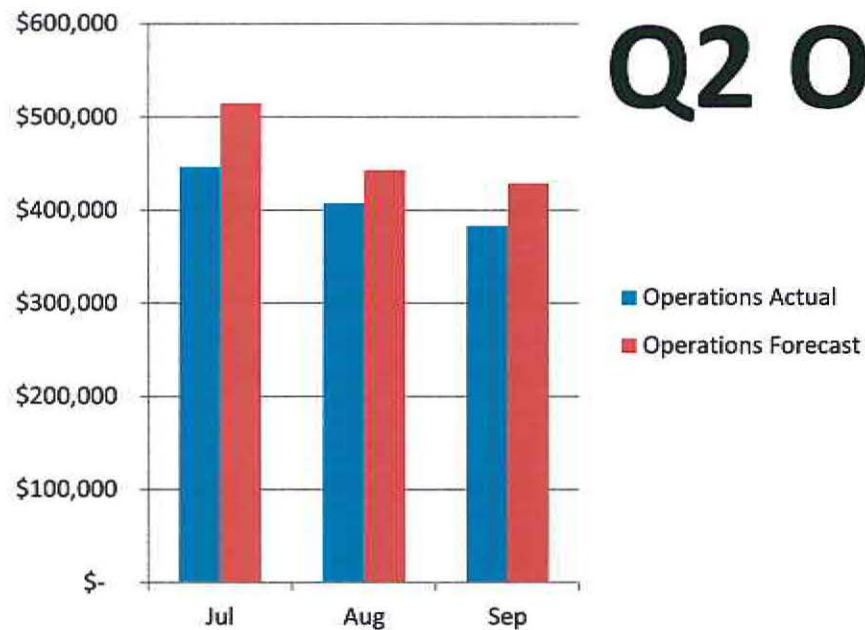
	Total	Target
Class Room/Training	652 hrs	15 hrs
Apprenticeships	3209 (11.5%)	15 %
Formal Certification	0	\$ 10,000
Direct Employment	2172.5/27938 h (7.8%)	15 %
Contracting		
• Cliff McLeod- RRDC	Equipment \$53,904	15%

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Financial Reporting

Q2 Operations

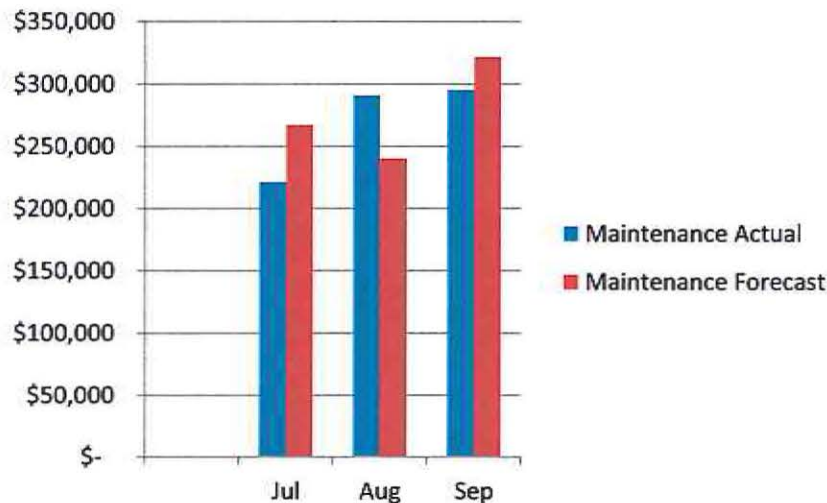


Month 2013	Actual	Forecast	Variance	
	(\$)	(\$)	(\$)	(%)
Jul	446,273	515,400	69,127	13.4
Aug	407,682	443,385	35,703	8.1
Sep	383,228	428,700	45,472	10.6
YTD	2,235,515	2,578,285	342,770	13.3

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Financial Reporting Q2 Maintenance



Month	Actual (\$)	Forecast (\$)	Variance	
			(\$)	(%)
2013				
Jul	221,094	267,000	45,906	17.2
Aug	290,832	240,200	(50,632)	(21.1)
Sep	295,326	321,745	26,419	8.2
YTD	1,374,496	1,481,745	107,249	7.2

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Financial Reporting

Year End Forecast

	13-14 Forecast	13-14 Budget	Variance	
	(\$)	(\$)	(\$)	(%)
Operations	3,350,237	2,901,497	(448,740)	(15.47)
Maintenance	2,272,995	2,237,100	(35,895)	(1.6)
Adaptive Management	501,059	505,469	4,410	0.88
Total	6,124,291	5,644,066	(480,225)	(8.51)

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Ongoing and Upcoming Activities

- Continue IP to Faro Pumping to achieve target elevation in IP
- Continue monitoring X5 and open siphon when turbidity results allow
- Site preparation for Interim Water Treatment System
- Procurement and Planning of Interim Water Treatment System
- Inspect Miller Pump System and Sign Off if acceptable
- Planning for 2014 AYFN Program
- AYFN Community Consultations
- Winter Operations