

Faro Mine Complex Care & Maintenance

Tlicho Engineering and Environmental Services

Quarter 1 Performance Report

July 2013

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Q1 Performance Presentation

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

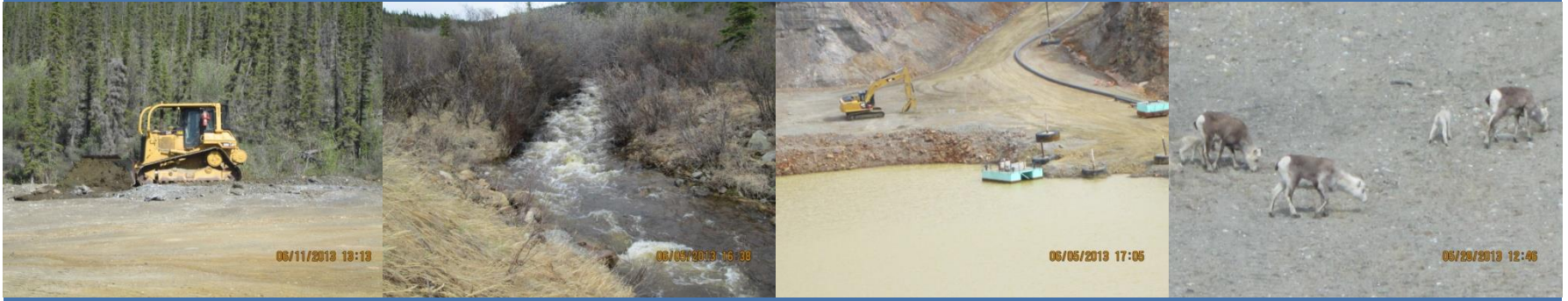
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Introductions

- Jasper Lamouelle – Tlicho Investment Corporation (TIC) President and Director, Acting AYFN Manager
- Tracey Parkin – Environmental Coordinator
- Patricia Winfield – AYFN Coordinator
- Byron O'Connor – Project Manager

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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
<p>April 2013</p>	<p>There were no LTI's (lost time injuries) and no MTC's (medical treatment cases).</p> <p>There were no accidents or incidents reported.</p>		

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Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
May 2013	3	<p>There were no LTI's (lost time injuries) and no MTC's (medical treatment cases)</p> <p>IR-029-05-13: On May 6, 2013 an employee slipped and fell in the parking lot. This resulted in a near miss.</p> <p>IR-030-05-13: On May 4, 2013 an employee slid a short distance down the Vangorda Ramp in a light duty pick up. This resulted in a near miss.</p> <p>IR-031-05-13: On May 28, 2013 an employee backed into a bollard near guardhouse. This resulted in a near miss.</p>	<p>Vehicle parked in a non slippery area; Ice cleats used and ice scraped off parking lot</p> <p>Drive to road conditions and discussed in toolbox meeting</p> <p>The area is drive through only and discussed in toolbox meeting</p>

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Month	Number of Incidents Reported	Incident Description	Action Taken/ Response
June 2013	2	<p>There were no LTI's (lost time injuries)</p> <p>IR-032-06-13: On June 19, 2013 two employees were going to the south corner of the CVP in a boat and the motor struck an object. This resulted in a near miss.</p> <p>IR-033-06-13: An employee was pumping gas and was sprayed in the face with gas from the filter system. This resulted in a First Aid injury</p>	<p>The shear pin was replaced</p> <p>Gasket replaced in float bowl of filter housing, filter housing covered and protected from direct sunlight</p>

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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>April 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>Mark Ruelle, Applied Workplace Safety Consulting Inc. compiled and updated the H & S program to reflect the current Yukon Occupational Health and Safety Regulations and the Occupational Health and Safety Act</p> <p>28 orientations</p>	<p>Arc Flash Training by Orbis Engineering was held on site April 8, 2013. 9 employees completed the course.</p> <p>Confined Space Entry/ Attendant course by Northern Safety Network Yukon was held onsite April 10 & 11, 2013. 11 employees completed the course.</p>

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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>May 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>29 Orientations</p>	<p>Revisions to the Emergency Management Plan were completed and approved</p> <p>Revisions to the Confined Space Program were completed and approved</p> <p>MSDS Binders were updated for 2013</p> <p>Old Tailings Pump House risk assessment completed with water treatment and maintenance supervisors</p>

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Health and Safety – Activities

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>June 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 and S-Well generator building</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>49 Orientations</p>	<p>June 4, 2013 a fire/ evacuation drill was held onsite to comply with YOH & S Regulations and to maintain COR certification</p> <p>June 11, 2013 Stewart Hearing Health came to the site and completed 38 hearing screening tests for employees</p>

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Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>April 2013</p>	<ul style="list-style-type: none"> •Pumping from S-wells continued through month of April. •Crews continued working on the Grum/ Vangorda pipeline, About 400 meters left of pipe to fuse by end of month. •Modifications underway to the Grum Barge to accommodate the new pump which weighs 2500 LBS •Pumping started from IP to Faro Pit on April 23. 	<ul style="list-style-type: none"> •The IP to Faro pumping system started April 23/13 with a flow rate of 6750 LPM, System includes the IP Barge pumps and a HLM6-Godwin pumping in two stages to Faro Pit. •Approximately 72,090 m3 of water were pumped to the Faro pit during the month of April from the IP. •Discharge line for S-Wells was cleaned and flow rate was increased from 1.2 litres per second to 1.9 litres per second •Cyclonaire Lime Handling Unit arrived on site April 11

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Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>May 2013</p>	<ul style="list-style-type: none"> • Pumping continued from IP to Faro pit for the month of May. • The S-Well pumping continued at a flow rate of 1.9 litres per second • The Grum/ Vangorda pipe line fusing was completed during May • Runoff from the Grum Sulphide Cell bypassed the GSC lined pond and entered the unlined pond, Water reached crest of unlined spillway and damaged the spillway and water from the unlined pond entered V-15 waterway. Actions were taken immediately to repair the damaged spillway although there was a release of non compliant water, which was reported to all stakeholders 	<ul style="list-style-type: none"> • 364,443 m3 of water were pumped to the Faro Pit from the IP during the month of May • Zone II pump system started during May and pumped 75,885 m3 of water to Faro Pit during the month • Cyclonaire system was installed at VTP and commissioned May 15 and 16

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Contaminated Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>June 2013</p>	<ul style="list-style-type: none"> •Pumping from IP to Faro Pit continued with 297,747m3 pumped in June. •S-Wells pumping at 1.9 litres per second. •Zone II pumped through June for a total of 75,885 m3, switch to new well on June 20. •Vangorda Water Treatment plant started June 13 •Shut down Vangorda Treatment plant June 16 for toxicity testing •Vangorda Treatment plant started back up June 26 and treatment has continued 	<ul style="list-style-type: none"> •662,190 m3 of water pumped from IP to Faro Pit to the end of June •The Miller skid and pump system was ordered on June 12/13

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Fresh Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
April 2013	<ul style="list-style-type: none">• All Creeks and Diversions were checked daily• Steaming of pipes and culverts were done as required	

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Fresh Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>May 2013</p>	<ul style="list-style-type: none"> •All creeks and diversions were checked daily •The CVP siphon was started May 8 •Steaming of culverts were done as required due to warmer temps during day and cold nights 	<ul style="list-style-type: none"> • Heavy Equipment removed snow and ice buildups from diversions, creeks and potential trouble areas and collection ditches

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Fresh Water Management

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>June 2013</p>	<ul style="list-style-type: none"> • CVP siphon was shut down June 11 due to frequent none compliant turbidity readings (>15 NTU) • All Creeks and Diversions were monitored closely for potential flooding problems • Peak freshet occurred during the early morning of June 2 	<ul style="list-style-type: none"> • No major issues arose in any of our fresh water systems this spring melt • Solutions being evaluated to address the water quality in CVP.

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Maintenance

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>April 2013</p>	<ul style="list-style-type: none"> • Modifications to the Tailings pump house were started by the Maintenance team to accommodate water from the IP • Regular Preventative maintenance and servicing was performed on light and heavy duty vehicles • Maintenance also assisted in the preparation, placement and commissioning of the IP Barge and booster pumps 	<ul style="list-style-type: none"> • Small Godwin pump taken from storage and commissioned for the pumping season • Three pieces of new machinery arrived on site -730 Cat Rock Truck, Cat 336 Excavator, and Cat 14M Grader • Equipment training for the new equipment started April 23/13 • Sludge removal completed at Vangorda clarification pond with a total of 916 loads removed, 270 loads more than last year

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Maintenance

Month	Activities/ Work Completed	Improvements/Efficiencies
<p>May 2013</p>	<ul style="list-style-type: none"> •Regular preventative maintenance and servicing was performed on light and heavy duty vehicles •Snowmobiles serviced and put away for the season •Vangorda pump and barge inspected and serviced for the treatment season •Snow clearing and preparation of diversions for spring melt 	<ul style="list-style-type: none"> •Extra reinforcing rip rap was placed at head of Vangorda flume for preventative measures for freshet •Rip rap placed along portion of Faro Diversion •Ditches and culverts were cleaned in preparation for freshet •Assessment of mill building was done May 14/13

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Maintenance

Month	Activities/ Work Completed	Improvements/Efficiencies
June 2013	<ul style="list-style-type: none">•Regular preventative maintenance and services were performed on light and heavy duty equipment•Extra flotation was added to the Grum Barge to handle the weight of the pump	<ul style="list-style-type: none">•CH2MHill trailer and office pad constructed in preparation for their summer work program•Drill pads constructed for summer drilling program

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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 ✓ Salt Slug Flows ✓ Monthly Reporting 	No in-stream flows conducted	Accurate results could not be obtained due to prevailing ice conditions	Salt slug flows were implemented at strategic locations in each drainage

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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 contacted and stations will be serviced and calibrated in July
Water Levels	<ul style="list-style-type: none"> ✓ Pits ✓ Ponds 	-	-	-
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 ✓ Pit Wall Regression Measurements ✓ 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 ✓ Equipment Maintenance 	Lack of 2013 Monitoring Program	-	Met with Robert Lo of KCB and Karen Furlong. KCB to provide a program
		No observations made	Hazardous access	Monitoring suspended until safer conditions prevail
		Inaccurate discharge measurement	Ice conditions	Monitoring suspended until ice had cleared

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Environment – Non-Routine Activities

Type of Activity	Details	Challenges	Cause	Action taken
Hydrology Monitoring	✓Continuous Monitoring	Data logger installation	Ice formation	Monitoring suspended until ice had cleared. Investigation into winter installation
		No discharge measurements taken	Hazardous conditions	Measurements taken when water levels dropped
S-Wells Monitoring	✓Continuous Monitoring ✓Piezometer Readings	Wells in need of maintenance	Deterioration over time	Reported to YG on a monthly basis
		Data logger not installed over winter	Ice formation	Monitoring suspended until ice had cleared

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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 	Data logger installation	Ice formation	Monitoring suspended until ice had cleared. Investigation into winter installation
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

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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 	ICP QA/QC failures	Temperature of lab	2 air conditioners installed
		Digester lid protection failure	Unknown	Regular maintenance. Perkin Elmer was contacted and troubleshooting is currently taking place
		Ammonia proficiency testing result	Unknown	Will carry out simultaneous analysis with Maxxam Analytics. Instrument may need to be replaced

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Environment – Compliance

April 2013

Compliance Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	-	-	-	Not Discharging
X13	Yes	-	-	-
V2	Yes	-	-	-
V25BSP	-	-	-	Frozen

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Environment – Compliance

May 2013

Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	No	Colour – 40 TCU	Colour – ≤ 20 TCU	Site has historically shown problems with Colour. FMC Laboratory has attained proficiency in Colour analysis
X13	Yes	-	-	-
V2	No	Total Zinc – 0.586 mg/L	Total Zinc – 0.500 mg/L	Sample taken during Grum Sulphide Cell runoff event
V25BSP	No	TSS– 20.7 mg/L	TSS - ≤ 15 mg/L	Possibly due to spring runoff conditions

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Environment – Compliance

June 2013

Site	Compliance Met	Non-Compliant Parameter Value	Effluent Quality Standard Value	Comments
X5	-	Colour – 50 TCU Turbidity – 18 NTU	Colour – ≤ 20 TCU Turbidity - ≤ 15 NTU	Site has historically shown problems with colour. FMC Laboratory has attained proficiency in colour analysis. X5 discharge (CVP) stopped due to turbidity results.
X13	Yes			
V2	Yes			
V25BSP	Yes	-	-	-

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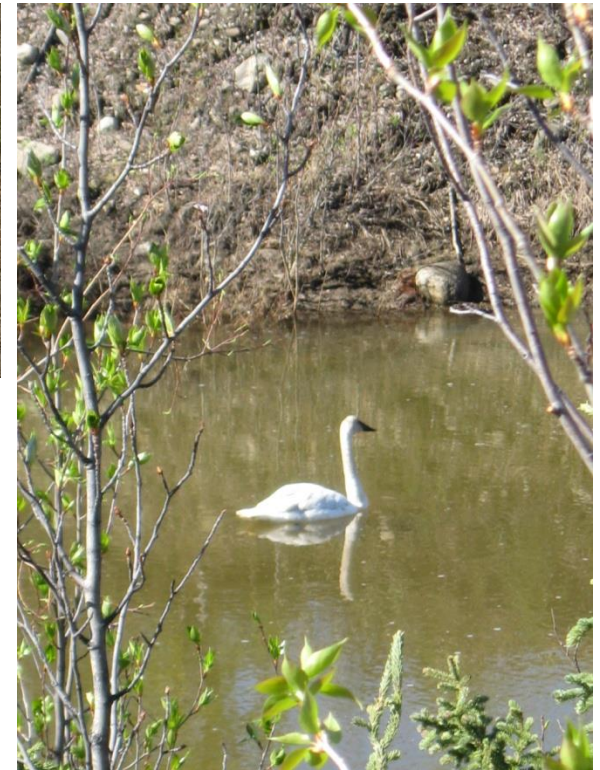
Environment – Photos



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Environment – Photos



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AYFN and YUKONER PROGRAM

Q1 Activities

- Community meeting held in Pelly Crossing
- New AYFN and Yukoner Coordinator joined project on May 13th
- Education and Training Plan completed by June 10th
- Budget for summer Training Plan completed and approved by June 18th
- Contact made with Yukon College regarding BEAHR Program, Mine Training Programs, Safety Training, and Apprenticeship Programs
- Meetings with Town of Faro and local Yukon College Coordinator
- Advertisement regarding AYFN plan distributed to communities
- Three houses rented through T. Moon Construction of Ross River
- 12 Participants selected to start program July 2nd - one withdrew at urging of Community Coordinator: 2 Selkirk First Nation; 2 Liard First Nation; 5 Ross River; 2 Faro including one from Little Salmon Carmacks First Nation

Challenges

- Unclear definitions about the role of Community Coordinators and whether there were any in place.

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AYFN – Statistics for Q1 - 2013

	Total	Target
Class Room/Training	0	15 %
Apprenticeships	0	15 %
Formal Certification	0	\$ 10,000
Direct Employment	3,354.5 h/21,717 h (15.4%)	15 %

Contracting

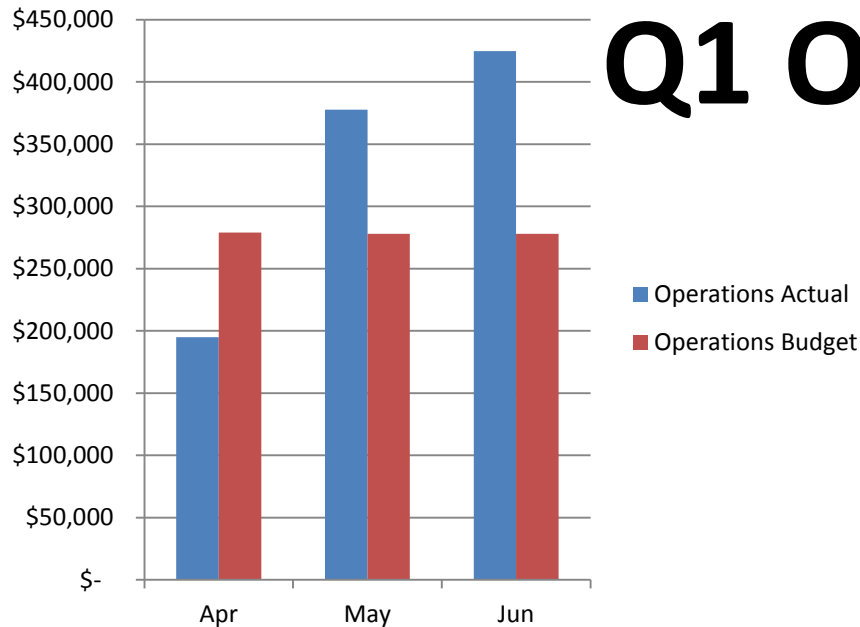
- Cliff McLeod- RRDC Equipment \$49,091.60
- T. Moon Construction- RRDC Housing \$15,500.00

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Financial Reporting

Q1 Operations

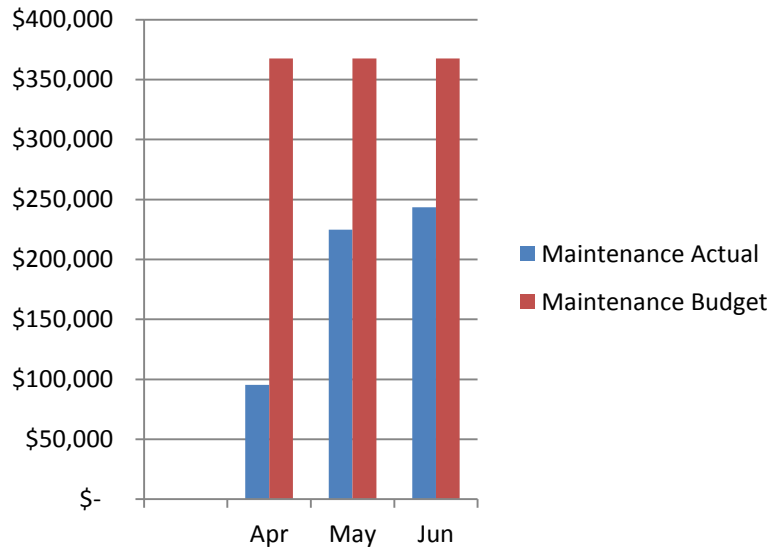


Month 2013	Actual (\$)	Budget (\$)	Variance	
			(\$)	(%)
Apr	195,005	278,917	-83,912	-30.1
May	377,757	277,916	99,841	35.9
June	424,736	277,916	146,820	52.8
YTD	997,499	834,749	162,750	19.5

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Financial Reporting Q1 Maintenance



Month	Actual (\$)	Budget (\$)	Variance	
			(\$)	(%)
2013				
Apr	95,368	367,668	-272,300	-74.1
May	224,675	367,666	-142,991	-38.9
June	243,419	367,666	-124,247	-33.8
YTD	563,462	1,103,000	-539,538	-48.9

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Financial Reporting

Q1 Budget Summary

YTD: April 1 – June 30, 2013				
	Actual	Budget	Variance	
	(\$)	(\$)	(\$)	(%)
Operations	997,498	834,749	162,749	19.5
Maintenance	563,462	1,103,000	-539,538	-48.9
Total	1,560,960	1,937,749	-376,789	-19.4

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Ongoing and Upcoming Activities

- Continue IP to Faro Pumping to achieve target elevation in IP
- Continue pumping and treating Vangorda Pit water to achieve target elevation in Vangorda Pit
- Complete Grum to Vangorda pumping system and start pumping
- Finalize CVP water quality solution and implement – continue to monitor turbidity at X5 and discharge when compliant until this solution is in place
- Develop plan to enhance V15 collection system
- Evaluation of interim water treatment options (IP and Faro Pit systems)
- Implement GSC mitigation measures
- Plan for GSC ponds pumping system upgrades
- Commission Vangorda dredge after Grum pumping system starts up
- Continue providing support to CH2M Hill
- Continue with AYFN Plan

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Masi Cho