

## Community Liaison Committee Meeting

July 7, 2004

Audit.Tax.Consulting.Financial Advisory.

#### Agenda

- 1. Welcome/introductions
- 2. Overview Status of Receivership Administration
- 3. New Water Licence QZ03 059
- 4. 2004 Care and Maintenance program
  - Fresh Water Supply Dam
  - BXL / Stanchem (now Brenntag Canada Ltd.)
  - Down Valley Structures
  - Mill & Other Buildings
  - Faro Diversion
  - Grum Buildings
  - Vangorda Plateau Water Treatment Plant
  - Grum Pit/Dumps
  - Vangorda Plateau
  - Vangorda Flume June 8, 2004
  - Financial Update
- 5. Water Treatment and Testing Programs
- 6. Comprehensive Risk Assessment Update
- 7. Questions and Answers
- 8. Site Tour

#### YUKON WATER BOARD

Pursuant to the Waters Act and Regulation, the Yukon Water Board, hereinafter referred to as the Board, hereby grants to

#### Deloitte & Touche Inc. (in its capacity as Interim Receiver of Anvil Range Mining Corporation) Suite 1900, 79 Wellington Street West Toronto, Ontario M5K 1B9

hereinafter called the Licensee, the right to use water and deposit a waste subject to the restrictions and conditions contained in the Waters Act and Regulation made hereunder and subject to and in accordance with the conditions specified in this licence.

Licence Number:	QZ03-059 Water Management Area: 02 Yukon
Licence Type: A	Nature of Undertaking: Quartz Mining
Water Sources:	Rose Creek, Vangorda Creek, Little Creek Dam Pond, Faro Pit, Zone II Pit, Vangorda Pit, Grum Pit, Grum/Vangorda Freshwater Supply Pond.
Tributaries of P	ally River

TIBURBRINGS OF: L

Minimum Latitude:	62° 14' 00" N	Maximum Latitude:	62° 29' 30" N
Minimum Longitude:	133° 07' 30" W	Maximum Longitude:	133° 32' 45° W

Purpose: To divert and alter a flow of water, store water, modify the bed and banks of a watercourse and deposit a waste.

The date that the signature of the Minister of the Executive Effective Date of Licence: Council Office is affixed.

February 28, 2009 Expiry Date of Licence:

Dated this 25 day of March, 2004

Witness

Approved this 30 day of \_\_\_\_\_\_ 2004

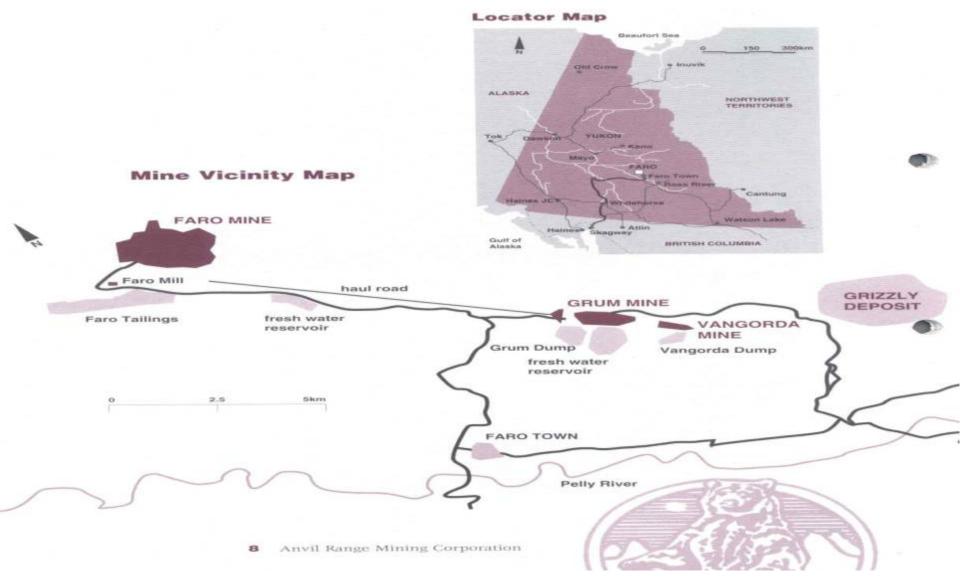
Witness

YUKON WATER BOARD

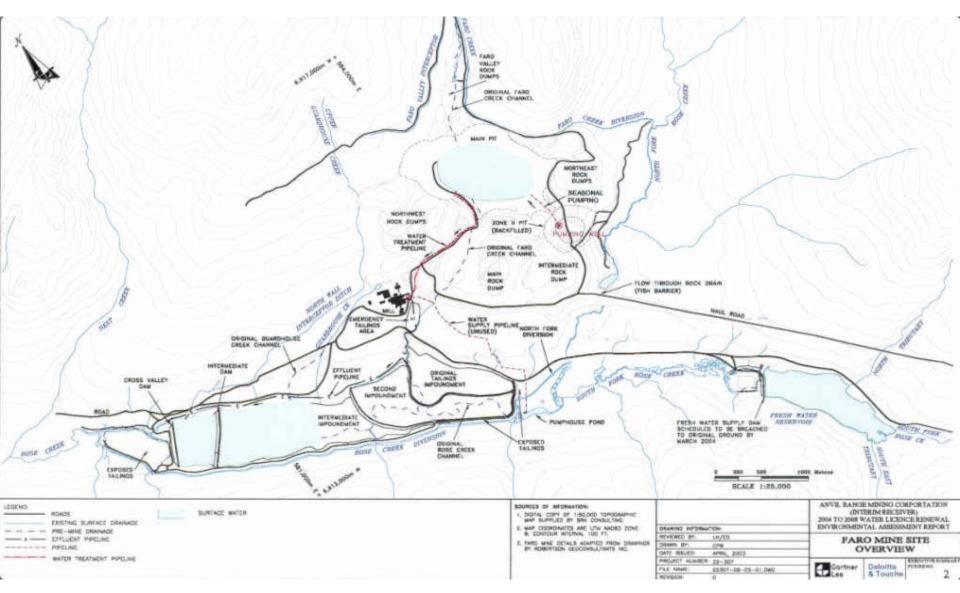
Minister, Executive Council Office

# 2004 Care and Maintenance Program

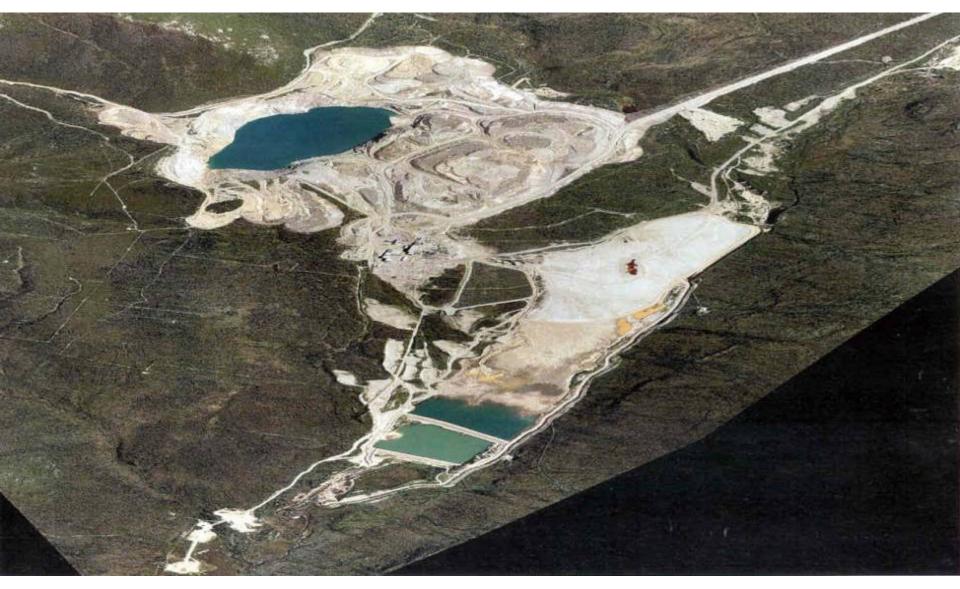
#### **Mine Vicinity Map**



#### **Faro Mine Site Overview**



#### Faro Mine Site



#### Fresh Water Supply Reservoir – May, 2003



#### Fresh Water Supply Dam – August, 2003



### Fresh Water Supply Dam – August, 2003













#### Fresh Water Reservoir – June 2004



#### Fresh Water Reservoir K8 – May 2004



## Faro Valley – Tailings and Water Impoundments – August, 2003



#### BXL / Stanchem / Pump house – May, 2003



#### First & Second Tailing Impoundments – August, 2003



#### Tailings Test Cover – April 2004



#### Tailings Test Cover – April 2004



#### Intermediate Tailings Impoundment – August, 2003



#### Polishing Pond / Cross Valley Dam – May, 2003



#### Cross Valley Dam – May, 2003



#### **Rose Creek Diversion – August, 2003**



#### Faro Mine Structures – August, 2003



#### Faro Mill – May, 2003



#### **Concentrate Load Out Building – May 2003**



#### Concentrate Load Out Facility – May 2003



#### Faro Scrape Yard – June 2004



#### Faro Main Rock Dump – August, 2003



#### Faro Valley – May, 2003



#### Faro Valley Rock Dump – August, 2003



### Faro Pit Wall – August, 2003



#### Faro Creek Diversion Project – Summer 2003













# Faro Pit Pumping Barge – August, 2003



# Faro Zone II Pit – August, 2003



# Faro Intermediate Rock Dump – May, 2003



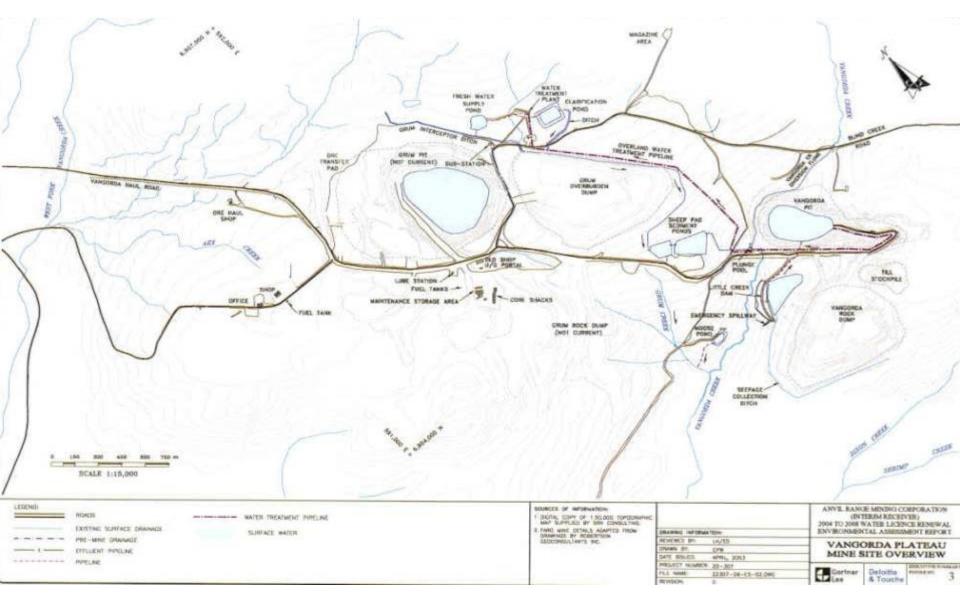
#### Rock Drain / North Fork of Rose Creek – May, 2003



# Vangorda Haul Road – May, 2003



#### Vangorda Plateau Mine Site Overview



# Grum/Vangorda Plateau Arial View



# Crum Transfer Pad Area – May 2003



# Grum Dump – June 2004



# Grum Core Shacks – July 2003



#### **Grum Core Shack Location – June 2004**



#### Grum Office / Garage Building – August, 2003



# Grum Pit – August, 2003



# Vangorda Plateau Water Treatment Plant – August, 2003



#### Vangorda Plateau Setting Pond – May 2004



# Grum Overburden Dump – June 2004



# Vangorda Sludge Containment – May 2004



# Grum Pit – August, 2003



# Sheep Pad Ponds – August, 2003



# Vangorda Pit – August, 2003



# Vangorda Flume – Summer 2003



# Little Creek Dam – May, 2003



# Vangorda Dump Cover – June 2004



# Grum / Vangorda Plateau – August, 2003



# Grum Rock Dump – August, 2003



# Grum Rock Dump – May, 2003



# Faro Mine Complex – August, 2003

















### Headworks Calvert – June 8, 2004



### Vangorda Headwork – June 8, 2004



### Above Vangorda Headwork – June 8, 2004



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### Vangorda Creek Above Headwork – June 8, 2004



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### Vangorda Headwork Calvert – June 9, 2004



85 Community Liaison Committee Meeting – Site Tour Material

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### Above Vangorda Headwork – June 9, 2004



### Table 1

Security and Maintenance	2002	2003	2004
Main Expenditures	\$	\$	\$
Payroll and Benefits	284,000	330,500	335,250
Mechanical and maintenance	98,900	99,000	97,000
Insurance	30,000	60,000	144,000
Contractors	65,900	41,000	70,000
Fuel and Lubricants	119,500	119,500	100,000
Security & Maintenance Program			
TOTAL	\$995,850	\$907,850	\$1,039,450

### Table 2

Environmental (Water Treatment)	2002	2003	2004
Main Expenditures	\$	\$	\$
Payroll and Benefits	1,187,948	1,083,600	1,210,400
Environmental Engineering	178,000	160,000	190,000
Lime	492,000	330,000	280,000
Lease payments		264,000	264,000
Maintenance and Parts	281,900	194,000	190,000
Yukon Electric	860,000	730,000	650,000
Support Services Labs	100,000	100,000	77,000
Fuel and Lubricants	166,000	166,000	108,000
Environmental (Water Treatment)			
PROGRAM TOTAL	\$3,472,048	\$3,114,600	\$3,128,500

### Table 3

	2002	2003	2004
	\$	\$	\$
Care & maintenance Budget TOTAL	\$4,427,898	\$4,082,450	\$4,168,000

# Water Treatment and Testing Programs

# Comprehensive Risk Assessment - 2003 Update

### **Comprehensive Risk Assessment**

- The Comprehensive Risk Assessment, initiated in 2001, was updated in 2004 to reflect the 2003-2004 care and maintenance activities as well as the results of the special projects that were completed during this timeframe.
- The categories of High risk and Low risk continue to experience the most significant shifts with changes of 48% and 52% respectively.
- Most notable was that the breach of the FWSD resulted in the elimination of the element in the Highest Risk category as well as the resultant elimination of related elements such as the FWSD reservoir.

### Comprehensive Risk Assessment (Cont'd)

Number of elements in category	2001 Risk Assessment	2002-03 Update	2003-04 Update	% Change from 2001
Highest Risk	1	1	0	100% decrease
High	29	16	15	48% decrease
Moderately High	25	28	26	4% increase
Moderate	26	26	21	19% decrease
Low	25	34	38	52% increase
Lowest Risk	0	1	2	200% increase
Element no longer exists or poses no risk	N/A	N/A	4	
TOTAL	106	106	106	

Consequences of the Event	Very High			I.2; V.1 V.2; V.3 VI.1	VI.6; VI.7	
	High	VIII.15; VIII.17	I.3 III.2 VIII.10VIII.20VIII.7 VIII.14	I.12; II.1; II.7; III.1; III.9 VII.25 VIII.3; VIII.13	VI.2 VII.23 VIII.4	VIII.11
	Moderate	I.9 III.10 III.13; IV.10 VII.20 VIII.6; VIII.8; VIII.12	VII.1; VII.1; VII.22	I.11 III.5 IV.9 VI.8 VII.19	II.8; III.4 IV.2; IV.3; IV.5 V.4; V.5 VII.21	IV.4; VI.3; VI.5 VIII.16
	Low	II.6 III.8	1.1; 04; 1.5; 1.8 II.4; II.9; II.10 III.11; III.12; III.15 V.6; V.7 VII.3; VII.6; VII.8; VII.12; VII.16; VII.18; VII.12; VII.16; VII.18;	II.5 VII.2; VII.5; VII.14; VII.15;	IV.11 VII.10	IV.1; IV.7; IV.8; IV.12
	Very Low	UI.3: (711.24	I.10 III.7; III.14 VII.7; VII.17	V.8 VII.4; VII.9; VII.13		IV.6
		Very Low	Low	Moderate	High	Very High
			Likelihood	d of the Eve	ent	

# Questions and Answers

# and

# Site Tour

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# Deloitte.

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## Deloitte

Deloitte & Touche Inc. 79 Wellington Street West Suite 1900 P.O. Box 29 TD Centre Toronto ON M5K 1B9 Canada

Tel: (416) 601-6150 Fax: (416) 601-6690 www.deloitte.ca

### Memo

Date:	August 2004
То:	Community Liaison Committee Members
From:	Deloitte & Touche Inc. Interim Receiver of Anvil Range Mining Corporation ("Interim Receiver")
Subject:	Meeting Minutes - July 7, 2004

On Wednesday, July 7, 2004, a meeting of the Community Liaison Committee ("CLC") for Anvil Range Mining Corporation ("Anvil Range") was held at the community recreation centre in Faro, Yukon.

Under the old Vangorda Water Use Licence IN89-002 there was a requirement to maintain a Technical Advisory Committee ("TAC"). As of March 30, 2004, this requirement is no longer applicable as this was the date that the Vangorda Water Use Licence was merged with the Faro Water Licence into a new Anvil Range Water Use Licence QZ03-059. The latter has no requirement for such a committee. During the Yukon Water Board hearing on the application for a new water licence, Deloitte & Touche Inc. ("D&T") committed to hold scheduled meetings to update the community on its annual care and maintenance activities. This new committee is now called the Anvil Range Mine Community Liaison Committee and a list of the attendees for the July 7<sup>th</sup> meeting is attached as Appendix A.

The meeting was arranged in two parts. In the morning, presentations were made covering the care and maintenance activities, annual budget and an update on the comprehensive risk assessment program. A tour of the mine site was completed during the afternoon. The agenda for the meeting was as follows:

#### Agenda

- 8:30 9:00 1. Welcome
- 9:00 11:00 2. Status update
  - a) Status of Receivership
  - b) New Water Licence
  - c) Review of care and maintenance activities and projects
  - d) Water treatment and testing programs
  - e) Comprehensive Risk Assessment Update
- 11:00 3:00 3. Site Tour lunch provided

### 4. Questions and Answers Session

### 1. Welcome/Introductions

Wes Treleaven, Senior Vice President with D&T and the Partner responsible for the Anvil Range administration opened the meeting by welcoming all participants, presented the proposed agenda and introduced the team from D&T (Valerie Chort - National Partner for Environment, Health and Safety Services, Joe Solly - Senior Manager, Dana Haggar - Site Operations Manager, Anvil Range). All attendees were invited to introduce themselves and their organizational affiliation and to complete the sign-in sheet. Participants were encouraged to ask questions throughout the presentations. All participants were given a map of the Faro and Vangorda sides of the property and graphical information on the Faro and Faro Zone II pit water levels. Also, two large wall size satellite orthorectified aerial photo maps of the Faro and Vangorda sides of the property were posted in the meeting room.

It was also noted that similar maps with two metre elevation contour intervals have been prepared which will assist engineers and the Yukon Type II Project Office in the closure planning process. Mr. Treleaven advised the attendees that the 2003 water treatment programs were similar to the previous year. The intermediate pond was pumped and treated so that adequate emergency storage capacity was maintained. The Faro and Vangorda pits were pumped and the water was treated, resulting in year-end water elevations in the pits slightly lower than those of the previous year. There is a dedicated group of staff who oversee the water treatment programs to ensure that all effluent discharged meets the regulatory requirements. As reported in the 2003 Anvil Range Annual Report submitted to the Yukon Water Board, all water discharged from the properties was within regulatory compliance.

Also during the past year, further upgrades to the site's laboratory were completed and Mr. Treleaven indicated that participants would have the opportunity to see the lab during the site tour.

The new Water Use Licence and the environmental section of the 35<sup>th</sup> Court Report which outlined the past year's care and maintenance activities and special projects had been distributed to the participants prior to the meeting.

Mr. Treleaven advised that in reviewing the care and maintenance activities for the site that he was going to make the presentation by way of a number of pictures. The slide presentation shown to the participants during the meeting is attached as Appendix B. These meeting minutes should be reviewed in parallel with the attached photos/sides.

#### 2. Overview - Status of Receivership Administration

During the past 12 months, there has been an active ongoing care and maintenance program at the mine site. Also, a number of care and maintenance projects were undertaken. A stable workforce of approximately 36 employees was employed to support the care and maintenance activities which include site security and water treatment, maintenance of roadways and physical structures and building maintenance.

Mr. Treleaven also advised that a number of additional staff and outside contractors completed special field work programs including: the breach of the Fresh Water Supply Dam ("FWSD"), a grass seeding program in the Fresh Water Supply Reservoir basin, a fish removal program of the basin, upgrades to the Faro Creek Diversion and removal of the BXL/Brentgag (previously known as Stanchem) buildings. In summary, the past year was a very active and productive year and all water treatment programs were properly carried out meeting all of the Water Use Licence requirements.

Mr. Treleaven stated that on an overall basis the mine site is in better shape today than it was several years ago; however, there continues to be some degradation around certain mine structures, which, if left unattended, could pose a risk in the future.

Mr. Treleaven advised that the appeal of the Plan of Arrangement to the Supreme Court of Canada had been heard and leave was denied in April 2003. This allowed for an initial distribution to the Affected Creditors under the Plan. Several unresolved legal issues still remain relating to the property and these continue to be administered by the Interim Receiver.

One outstanding issue involves the Trusteed Environmental Fund ("TEF"), which had not been properly set up to qualify as a reclamation fund under the *Income Tax Act*. The Interim Receiver continues to have ongoing meetings and discussions with the Canada Revenue Agency (CRA) to resolve the income tax issues. Once resolved, the TEF will be combined with those of the established Reclamation Trust Fund. As it was noted last year, the trustees of the TEF have authorized this combination. As at May 31, 2004, Mr. Treleaven reported that the reclamation funds totalled \$12,951,666 with an additional \$1,480,000 being held as security under the Water Licence via way of a Letter of Credit. Once outstanding matters have been resolved with CRA, the Interim Receiver will be able to complete a final distribution to the Affected Creditors. This is expected to occur in 2004.

A number of legal questions remain outstanding regarding mining claims and property leases. The Interim Receiver continues to work with government officials to determine which mining claims may be ultimately returned to the public registry.

Mr. Treleaven also advised that the Interim Receiver has commenced a long term disposition program of the mill assets and earlier this year completed a sale of three of the large grinding mills. With mining activities increasing around the world, there has been increased interest shown in a number of the mill assets with a number of foreign purchasers attending at the mine site. This will be an ongoing program which will likely take several years to complete.

Finally, Mr. Treleaven advised that the Interim Receiver will continue to report to the court at least three times a year. The May report is a summary of the year's management activities and provides an overall accounting summary for the year ending March. The November report provides a status update on the summer season's activities and the February report sets out the proposed budget for the coming year. The same sequence will occur during the 2004 - 2005 operating year.

#### 3. New Water Use Licence QZ03 - 059

Anvil Range held two separate Water Use Licences known as the Faro and Vangorda Water Use Licences both having expiration dates of December 31, 2003. At last year's TAC meeting, D&T provided a full update on the process which was initiated to secure a new water licence for the property. The application to the Yukon Water Board was filed on May 20, 2003 and a one-week hearing was held in the Town of Faro during the last week of October. Several of the participants attending today's meeting were interveners at the Water Board hearing. Mr. Treleaven advised that D&T believed that the hearing went very well, with all interveners having the opportunity to fully participate in the process.

In early December 2003, D&T wrote to the Water Board requesting an update as to whether or not a new water licence would be issued prior to the expiry of the old licences. The Board indicated that it was not likely and therefore, the Interim Receiver advised Yukon Water Resources that it would be its intent to continue to remain in possession of the property and manage it in accordance with the terms of the expired licences until such time as a new water licence was issued. This was agreed to. The property continued to be monitored and water testing requirements were carried out under the terms of the old Water Use Licences. On March 30, 2004 D&T received a new five year Water Use Licence for the Anvil Range mine property.

Mr. Treleaven advised that the new licence, which is a type A licence, is a five-year care and maintenance licence which requires the applicant to file monthly reports and an annual report. Mr. Treleaven outlined several initial steps taken as required under the Water Use Licence. **Paragraph 16 - Contingency Plans**: Within 30-days after the effective day of the licence, D&T was required to file with the Board, contingency plans which addressed measures to take in the event of a fuel spill, pipeline break and other conditions as noted in the licence. Mr. Treleaven advised that the contingency plans had been reviewed, updated and filed with the Yukon Water Board.

**Paragraph 49 - Terrestrial Effects Study**: A Terrestrial Effects Study as described in the Water Licence application is to be carried out and submitted to the Yukon Water Board by December 31, 2005. Mr. Treleaven advised that a significant amount of work had all ready taken place in developing the guidelines for the Terrestrial Effect Study. Meetings have been held with the communities of Ross River, the Town of Faro and with Selkirk First Nation. Valuable input received in these meetings has assisted in the design and development of the Terrestrial Effects Study which is being carried out through the remainder of this season and next.

**Paragraph 51 - Water Treatment Sludge Management Study**: A requirement under the Water Use Licence is that a Water Treatment Sludge Management Plan was to be prepared and submitted to the Board by June 30<sup>th</sup>. Mr. Treleaven confirmed that such a plan had been submitted to the Yukon Water Board. He also noted that during the site tour, the sludge disposal cell on the Grum Overburden Dump containing the sludge from the Vangorda clarification pond would be shown to participants.

**Paragraph 52 - Grum Pit Water Management Plan**: Under the Water Use Licence, a water management plan for the Grum Pit was to be prepared and submitted to the Board by June 30, 2004. Such a plan was submitted to the Yukon Water Board. Mr. Treleaven advised that a large bioremediation project was being undertaken at the Grum Pit this year. The field test study involves mixing fertilizer with the Grum Pit water in an attempt to grow algae which would result in a reduction of zinc content in the water. Mr. Treleaven advised that during the afternoon tour, attendees would be given the opportunity to view the pit where the field work was being carried out.

**Paragraph 53 - Aquatic Life Sampling and Testing Program**: Another requirement under the Water Use Licence was for an Aquatic Life Sampling and Testing Program to be filed with the Board by April 30, 2004. Mr. Treleaven advised that a plan had been prepared in consultation with the Department of Fisheries and Oceans and had been filed with the Yukon Water Board. This proposed program requires a sampling and testing program in both Rose Creek and Vangorda Creek on an annual basis over the five-year licence term. Results of the study will be included in the annual report filed with the Yukon Water Board.

**Paragraph 54 - Adaptive Management Plan:** Under the Water Use Licence an Adaptive Management Plan was to be prepared and submitted to the Board by June 30, 2004. Mr. Treleaven advised that in consultation with the communities of Ross River, Town of Faro and Selkirk First Nations, an Adaptive Management Plan covering eight events had been developed and submitted to the Yukon Water Board. During the Water Board hearing, it was acknowledged that there were certain elements at the mine site which at the present time did not represent major concerns, however required careful monitoring. As such, an Adaptive Management Plan was identified as a management approach to track eight events at the mine site. For each of the events, the plan identified the indicators and triggers for action, the measures of statistically significant changes to be tracked, the monitoring locations and parameters, the sampling frequencies, the methods to be used to analyze and evaluate the data, and the actions to be taken. The results related to the monitoring of the Adaptive Management Plan will also be included in the Annual Report to the Yukon Water Board.

Mr. Treleaven advised that as a result of this process, the trigger for one of the elements, the Grum Seep, had been activated. He indicated that this issue would be discussed in more detail during the overview of the Care and Maintenance Programs at the mine site.

**Paragraph 57 - Plan for the Management of Oxide Fines**: A long term plan for the management of oxide fines is to be prepared and submitted to the Board by July 30<sup>th</sup>. Mr. Treleaven indicated that SRK Consulting Engineers were working to prepare such a plan.

Mr. Treleaven indicated that all of the required filings with the Yukon Water Board either have been or will be filed on schedule. In closing this portion of the presentation Mr. Treleaven advised that one other very important paragraph of the Water Use Licence is paragraph 58 which sets out the requirement that a final closure plan for the mine is to be prepared and submitted to the Yukon Water Board by December 31, 2006.

Mr. Treleaven highlighted that one of the key issues with respect to the new Water Licence is the significant increase in water testing requirements. While the licence specifies a few additional water testing locations, the key difference is that the majority of water tests have increased in frequency from quarterly to monthly. Prior to the issuance of the new licence, approximately 16 to 20 water samples per month with two water bottles were sent to an independent lab in Vancouver and now when we are treating and discharging water, we are required on a weekly basis to collect water at five locations and this includes five bottles for each location whereas previously it was monthly. Also now on a monthly basis we have approximately 25 sample locations wherein we will collect 4 to 5 bottles at each site and send them out for an independent lab analysis. Also, there are monthly sampling locations at the FWSD through the months of April to September and also bioassay tests have been increased with two additional locations which are done four times a year. And finally, there are 22 other sites which use to be tested once a year and now will be tested in the spring and fall of each year. In conclusion, Mr. Treleaven pointed out that under the old water licences approximately 400 to 500 water samples were shipped out to independent labs on an annual basis whereas under the new water licence over 1,500 water samples will be tested by independent laboratories. Field and laboratory work has more than doubled as a result of the new water licence.

#### 4. 2004 Care and Maintenance Programs

Care and maintenance activities were reviewed by presenting pictures of the various elements at the mine site. Mr. Treleaven advised that the care and maintenance activities for the past 12 months mirrored those of the previous year. Also geotechnical studies conducted by BGC (Faro side of the property) and SRK Consulting (Vangorda side of the property) will be conducted again this year. As in the past, Laberge Environmental Services will complete the benthic study.

Slides 5, 6 and 7 - Mr. Treleaven outlined the routing for this afternoon's site tour pointing out stops which will be taken including the Fresh Water Supply Reservoir, the guard house and a stop at the Faro Valley Rock Dump to see both the Faro Diversion Ditch and the Faro Pit. Mr. Treleaven pointed out that a comprehensive set of orthorectified aerial photos have now been acquired for the complete mine site, from which contour maps with two metre contour intervals have been prepared. This is very important as basic engineering inputs for future mine closure activities.

**Photos 8 through 17** - Fresh Water Supply Reservoir - The planned breach of the FWSD was described at the July 9, 2003 TAC meeting and was also outlined in detail in the Interim Receiver's 31<sup>st</sup> Court Report. A directive was received from DFO in November 2002 to investigate a breach of the FWSD. An inspection of the low level pipe raised a number of concerns regarding it's integrity and, with the FWSD being at the head of the valley above the tailings, a full breach of the FWSD was determined to be the best way to

mitigate this risk. A planning program was established with the objective of having a final design plan submitted by April 2003.

Mr. Treleaven advised that three key approvals were required and received including an environmental assessment, approval from DFO/Coast Guard and the Yukon Water Board hearing which was held in September 2003

All regulators involved participated in bi-weekly conference calls to ensure that the regulatory timelines evolved in parallel to design efforts. Following a Water Board hearing held in Whitehorse, a Water Use Licence was issued on November 1<sup>st</sup> 2003. A comprehensive contract had been signed with Pelly Construction of Whitehorse and they immediately mobilized their equipment and the project started in accordance with the terms of the Water Use Licence on November 10<sup>th</sup>. Work was carried out 24-hours a day, 7 days a week and the project was completed on December 15<sup>th</sup>.

The breach of the FWSD was a one-year process which was completed on time and under budget. With careful planning and supervision, there were no events of any consequence during the construction phase.

Mr. Treleaven then went through a number of slides pointing out that slide 8 was a picture of the reservoir as at May 2003. The spillway elevation was 1096m and the picture showed the water level within the reservoir at 1093m. The water had been removed primarily through siphons and also with the installation of an orifice within the valve house which allowed the valves to be fully opened. Picture 9 showed the water level at an elevation of 1090m. Mr. Treleaven pointed out that starting in early June the first three metres on the top side of the reservoir were seeded by Artic Alpine Seed, a Yukon Company who employed a number of individuals from Ross River. Once the water level reached 1085m, a second seeding program was commenced in September along with a number of test plots for willow staking. Also during the month of September a fish salvage program was carried out again utilizing individuals from Ross River. Over 4,000 fish were captured, weighed, measured and transferred to other locations. Mr. Treleaven also highlighted that the upstream portion of Rose Creek (formerly the FWS Reservoir) had re-established itself in its original creek bed and was now meandering through the reservoir basin, resembling the Rose Creek watercourse downstream of the Dam.

Picture 10, Mr. Treleaven pointed out where the actual breach took place noting that the valve house had been removed.

Pictures 11 and 12 show the setup for handling the water during the construction phase noting that an onsite electrical generator ran 24-hours a day providing power to the required water pumps. Mr. Treleaven pointed out that 50% of the project was really managing the handling of water and even during the months of November and December, approximately 4,500 gallons per minute of water ran through Rose Creek representing significant construction challenges.

Pictures 13, 14 and 15 show the actual breach of the FWSD showing the pipeline which transferred the water, the height of the breach and set back. Mr. Treleaven explained that five ripples were installed through the man-made channel to provide flow control and fish habitat.

Picture 16 shows a more recent picture of the FWS Reservoir taken in June 2004 showing Rose Creek in its original creek bed and the various areas where additional seeding and willow planting had taken place this year.

Picture 17 shows one of the tributaries flowing into the FWS Reservoir known as K8. This is one location of two, where regular water monthly samples are taken, the results of which are provided to the community of Ross River as required under the new Water Use Licence. Repairs to this particular area were completed in early spring to limit further erosion of the channel.

Mr. Treleaven concluded by saying that a requirement of the Water Use Licence for the FWSD is regular monitoring and reporting to the Yukon Water Board annually with respect to the FWSD breach.

Picture 18 - This picture provided an overview of the down valley showing the tailings and water impoundments. Mr. Treleaven pointed out the BXL/Brentag buildings at the head of the first tailing impoundment, the various tailing impoundment dams, various drill holes and the Rose Creek Diversion.

Picture 19 - Mr. Treleaven advised that, in consultation with the owners of the BXL and Brentgag buildings, these properties were dismantled last year and a Phase 1 and 2 environmental assessment had been carried out along with limited preliminary soil remediation activities. In-ground tanks had been removed and the copper sulphate pond had also been removed under the Care and Maintenance Program last year. Mr. Treleaven advised that further soil remediation work would be carried out during the summer of 2004.

Picture 20 - Mr. Treleaven advised that under paragraph 40 of the new Water Use Licence, the Rose Creek Diversion is to have a capacity to carry a 1 in 500 year design flow. After breaching the FWSD, engineers investigated the Rose Creek Diversion to assess its design capacity. Mr. Treleaven pointed out an area along a portion of the intermediate tailings impoundment where the Rose Creek Diversion would need to be raised by approximately one metre in height for a section of approximately 300 metres to ensure that the 1:500 year requirement is met. Also, Mr. Treleaven pointed out that under the proposed sludge management program, storage of sludge produced at the Faro mill as well as sludge to be removed from the polishing pond will be stored in an area adjacent to the cover test cells on the first tailings impoundment shown in the lower right hand portion of the picture.

Pictures 21 & 22 - As part of tests for closure planning, cover tests were placed within a section of the intermediate tailings impoundment in early April 2004. Two rock covers were prepared approximately 30 square metres in area. One cover had a geo textile lining placed on top of the tailings before the rock cover was installed whereas the second one had no geo textile installation. After the installation, the covers were surveyed and are being surveyed on a monthly basis to determine their stability on the tailings.

Picture 23 - Mr. Treleaven pointed out the specific location of the rock covers within the Intermediate Tailing Impoundment. He also advised that under the new Water Use Licence paragraph 56, there is a requirement for a Rose Creek Tailing facility water management plan. Mr. Treleaven indicated that such a plan will be prepared and submitted to the Board by March 31, 2005 and it will address the option of either maintaining a higher level of water within the Intermediate Tailing Impoundment to cover more tailings with water or as is presently being done, in accordance with the recommendation as set out in the 2002 independent Dam Safety Review, that the water level be reduced thus decreasing the pressure on the Intermediate Dam but, however, resulting in increased exposure of tailings to the atmosphere . Mr. Treleaven advised that it is the intention of the Interim Receiver to continue to manage this facility to have as much emergency storage as possible and thus reduce the pressure on the dam in the short term. The results of the study will be reviewed at next year's meeting. Also Mr.

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which is a completely self-sufficient operation and is now 100% electrical with power provided through a diesel generator.

Picture 24 - During the winter of 2001, the sludge which had accumulated at the entry point of the Intermediate Spillway into the polishing pond had been removed and placed into the Faro pit. Mr. Treleaven pointed out that during the past two years of water treatment, additional sludge has been accumulating to a point where again during the winter of 2004/05 it is planned that the sludge will need to be removed. It will this time be moved and will be stored in an area on the first Tailings Impoundment. Also the culvert on the roadway which carries the north interceptor ditch water flow is undersized causing glaciation during the winter season. It is planned that during this summer, a new larger culvert will be installed to prevent such conditions.

Picture 25 - Mr. Treleaven pointed out that the top of the Cross Valley Dam had been topdressed during the summer of 2003.

Picture 26 - This is an excellent overview of the down valley tailings area. Mr. Treleaven pointed out that the top and downstream side of the Intermediate Dam had also been dressed during the summer of 2003. Mr. Treleaven advised that a contract had been signed with BGC Engineering to formalize and enhance the emergency response programs relating to the management of the dam structures within the valley.

Picture 27 -This picture is an overview of the Faro Mine building structures. Mr. Treleaven pointed out that further upgrades have been completed to the guard house to comply with Yukon Workers' Compensation Board directives ("YWCB"). Also further upgrades have been completed to the water testing lab and a new phone system has been installed. Mr. Treleaven advised that later this summer, a new laundry/washroom/dry trailer facility will be installed at the site which again is in accordance with a YWCB directive. Mr. Treleaven pointed out the location of the Norcan Maintenance Shop which is now exclusively used by the mine site for maintaining the mobile equipment fleet. Mr. Treleaven outlined further upgrades which will be done this year to this facility.

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Pictures 28 to 30 – Picture 28, Mr. Treleaven pointed out the Concentrate Load Out facility and advised that the remaining, approximately 1600 tones of zinc concentrate were going to be removed from the property this year and shipped to the Teck Cominco Smelter in Trail, BC.

Mr. Treleaven advised that in cooperation with Yukon College, a building dismantling training program had been designed, and during the week of July 19<sup>th</sup>, a six-week training program was going to commence for six trainees. As part of the training program, a small structure as shown in Picture 30 would be dismantled by the Yukon College staff along with the trainees. Following the training program, a decision will be made as to whether or not the trainees would commence the dismantling of the Concentrate-Load-Out building.

Picture 31 - Mr. Treleaven pointed out several piles of scrap steel and advised that as part of this year's ongoing care and maintenance program,, a steel reclamation program had commenced employing eight individuals from Ross River.

Picture 32 - Mr. Treleaven pointed out the location of the oxidized fines advising that significant contamination and medal loading is occurring from these fines and confirmed that a study program would be filed with the Yukon Water Board by the end of the month which will propose various action steps to be taken in the future.

Pictures 33 to 41 - The next sequence of pictures dealt with improvement to the Faro Creek Diversion which diverts the Faro Creek water around the Faro Pit. Picture 31 shows both the interceptor ditch which was re-established to take water from the north side of the valley wall to the rehabilitated Faro Creek Diversion. Mr. Treleaven indicated that while there continues to be some seepage from the diversion which collects behind

the Faro Valley Rock Dump, the amount of water has been significantly reduced as a result of the installation of a bentamite liner and new rip rap in the Faro Creek Diversion, It is believed that more than 50% of the load (incoming water) to the Faro Pit comes from this particular source which becomes highly contaminated as it seeps through the Faro Valley Rock Dump. In Picture 35, Mr. Treleaven pointed out one particular area of the Pit wall which continues to slough in and is now approximately 20 metres away from the Faro Creek Diversion. In 2002, a Faro Creek Diversion relocation study was completed. As part of this study, a pit wall stability analysis was completed by Golder & Associates. The results indicated that the estimated remaining pit wall life would be approximately 10 years. With this information, D&T, under its care and maintenance program, undertook the rehabilitation program of the Faro Creek Diversion. Water was pumped through a pipeline (Picture 37) down the Faro Creek Diversion roadway during the summer of 2003. The creek bed was cleared of debris and relined with a soil bottom so that the bentamite could be installed and the appropriate rip rap placed. A pilot ditch within the ditch was built. The result is that no ice buildup was observed during the winter of 2004 and significantly less seepage from the diversion is occurring. The latter results in a decrease in contaminated load to the Faro Pit. Picture 41 shows the significant amount of stone cobble which was prepared during the summer of 2003 and used in the rehabilitation of the diversion.

Picture 42 - shows the barge platform installation within the Faro Pit. Mr. Treleaven described how the new platform installed last year provides greater flexibility in managing the water levels within the pit. Mr. Treleaven provided a handout with the pit water elevations, which are taken on a regular basis.

Picture 43 - Mr. Treleaven pointed out the location of the Faro Zone II Pit. He advised that a new pump was installed last year and that a replacement pump is onsite in case of a

pump failure. The Zone II Pit is regularly pumped transferring the water back into the Faro Pit and again a Zone II Pit water level chart was distributed to the participants.

Picture 44 - Mr. Treleaven advised that there continues to be ongoing investigations relating to the various rock dumps on the property. These involve seasonal readings of temperature and gas monitors which have been installed in the rock dumps. Work is also continuing on improving the dump water balance estimates through investigations to assess the amount of water infiltrating the waste rock dumps as well as investigations to determine the dump water balances.

Picture 45 - Mr. Treleaven pointed out the rock drain and the water retained behind the rock drain. Mr. Treleaven advised that during this year there will be further monitoring of the water levels behind the rock drain as special instrumentation has been installed.

Picture 46 - is a picture of the Vangorda Haul Road which is regularly inspected under the care and maintenance program to ensure that all culverts are properly working and are not blocked.

Pictures 47 & 48 - These pictures provide an overview of the Vangorda Grum Plateau mine site. Mr. Treleaven highlighted those areas that would be covered during the site tour and pointed out the locations where the tour would be stopping to view key elements on the property.

Picture 49 - Buildings and steel located across from the Grum transfer pad have been removed as part of the ongoing care and maintenance program; this portion of the site has now been appropriately graded.

Pictures 50 to 52 - Mr. Treleaven pointed out an area in Picture 50 which was the location of the Grum core shacks. The cores were catalogued and removed last year and the shacks were removed. Mr. Treleaven also pointed out the location of a weather monitoring station which has been installed. On Picture 52, Mr. Treleaven pointed out that the two drills that remain on the property are being removed. One is being cut up for scrap steel and the other has been donated to the Town of Faro for its future mine museum.

Picture 53 – Mr. Treleaven pointed out the location of the stored cores from the Grum core shacks (lower right hand corner) and advised that the Grum office building and garage are now owned by the Town of Faro. In the top right corner, Mr. Treleaven pointed out what was known as the old Pelly Construction site and advised that during last year's TAC meeting, Mr. Powers from the Town of Faro had raised concerns about the ponding of water at this location. The Interim Receiver advised that this location had been reclamated last year, i.e., the barrels and old vehicles had been removed, the pond had been breached and the landscape regraded so that water could no longer collect in this location.

Picture 54 – This is a picture of the Grum Pit. Mr. Treleaven described the bio remediation program taking place at the Grum Pit this year and also pointed out the location of the temporary sludge storage facility placed on the Grum Overburden Dump. Earlier this year, the sludge which had accumulated in the Vangorda Plateau Water Treatment Plant clarification pond had been removed and is being stored in this location in accordance with the Sludge Management Program.

Pictures 55 to 58 - Mr. Treleaven pointed out the Vangorda Plateau Water Treatment Plant and identified the sludge near the diffuser box in the top left corner of the

clarification pond. Picture 56 shows the clarification pond following the removal of a significant amount of sludge from the pond to an area on the Grum Overburden Dump (Picture 57). The latter is a 30 square meter area, surrounded by a snow fence to prevent wildlife from getting on to the sludge. Mr. Treleaven advised that the sludge will not be covered at this time as the engineers wish to study this area over a two year period to determine the freeze/thaw compaction implications for the storage of the sludge material.

Picture 60 - is a view of the Vangorda Plateau including the Sheep Pad Ponds which were established for sediment control, the Little Creek Dam and the Vangorda Pit. Mr. Treleaven advised of ongoing improvements to the ditching in this area, resulting in a significant improvement to the condition of the roads particularly during the spring freshet.

Picture 61 – Mr. Treleaven provided an overview of the Vangorda Pit outlining the locations of the plunge pool leading to the drop box which was installed to dissipate the water flow coming down from the Vangorda Flume and Sheep Pad Ponds with the exit of the water under the mine access road to Vangorda Creek. The barge installation was also pointed out. Mr. Treleaven again confirmed that the geotechnical study completed by SRK will be included in this year's Annual Report to the Yukon Water Board.

Picture 62 - Mr. Treleaven pointed out an area where two previous land slides had occurred blocking the Vangorda Flume. Last year, a great deal work was done in the area above the flume to re-slope the landscape and build a rock drain to prevent the likelihood of any future landslides. Also, 32 new flume sections were installed and a significant amount of new rip rap was deposited along the sides above the flume section installations. Mr. Treleaven also pointed out that an investigation of the pit wall was completed in 2002

by SRK, which indicated that the pit wall is stable and that there should be no concerns regarding pit wall stability influencing the flume over the next several years.

Picture 63 - This picture shows the Little Creek Dam and water contained therein. Mr. Treleaven also advised that the weir plates for each of the six drains around the perimeter of the Vangorda Dump had been replaced during the summer of 2003.

Picture 64 - During the Curragh Receivership, a cover test was completed on the Vangorda Dump which is now approximately ten years old. It is planned that during the coming year, there will be some test seed plots placed on this cover.

Picture 65 - As part of the ongoing care and maintenance program, it is important to minimize the inflow of any waters to the various pits at the mine site. Mr. Treleaven described efforts being taken on the Vangorda Plateau to minimize input to the Vangorda Pit. Ditches on the west section of the pit have been upgraded and an electrical sump pump has been installed in the plunge pool to control and direct the water away from the Vangorda Pit.

Picture 66 - This is a picture of the Grum Rock Dump and as earlier explained, seep surveys of the rock dumps have been taken annually and work is continuing in this regard. One of the elements included in the Adaptive Management Plan (AMP) is the Grum Seeps. Based on the established criteria under the AMP for this element, a trigger has been detected and as prescribed in the AMP, additional monitoring will be carried out during the coming year. These activities and the results of the monitoring will be outlined in the Annual Report to the Yukon Water Board.

Picture 67 - Mr. Treleaven pointed out that an access road along the toe of the dump will be built this year thus providing greater access for staff and engineers to monitor the toe of the dump.

Picture 68 - is an overview of the Faro Mine Complex and Mr. Treleaven indicated that was an overview of last year's care and maintenance program, however, he wanted to bring to the attention of the participants, an event that occurred on June 8<sup>th</sup> 2004.

Pictures 69 to 86 - Mr. Treleaven advised that a storm event had occurred on the Vangorda side of the property and the result was illustrated in a series of pictures showing the flood conditions that ran through and badly damaged the Vangorda Flume. During the evening of June 7<sup>th</sup>, rain started to fall within the town of Faro and over the mine property, however, it was very concentrated within the Vangorda Valley area. The evening inspection showed that the Vangorda flume was flowing at three quarters of its capacity. During the early morning inspection which took place at 5:45 a.m. on June 8<sup>th</sup>, site personnel found that water was flowing outside of the actual flume and that a small amount of water had started to back up behind the headworks (a dam at the top of the Vangorda Flume which provides road access to the Vangorda Water Treatment Plant). An emergency response program was immediately initiated and equipment was mobilized to this side of the property including a bulldozer and backhoe. Within an hour, conditions worsened and a backhoe was used to hold portions of the flume sections in place. The latter were being lifted as a result of the significant amount of water flowing under the flume sections (pictures 73). Water behind the headworks was rapidly rising and equipment was put in place to build a breach of the roadway and relieve the pressure. By 10:00 a.m., water was nearing the top of the dam. Picture 77 shows the location of the breach and Picture 78 shows the level of water behind this eight metre dam. The result of

this storm event, which the engineers now believe was greater than a 1:100 year event, has extensively damaged the Vangorda Flume.

Pictures 80 to 86 - These pictures show the sizable amount of erosion that occurred at the lower end of the flume including the damaged flume sections (Picture 81). Mr. Treleaven indicated that within one day the water had receded and repair work had been commenced to ensure that the flume was stable.

Mr. Treleaven indicated that this example illustrates the importance of continual monitoring of the property throughout the operating season. Regular inspections are carried out and the site personnel handled this event in a professional way following the site's emergency response plan. Without the quick reaction of site management and staff, significantly greater damage would have been incurred to the flume resulting in significantly increased costs to repair. Mr. Treleaven indicated that repair work will be carried out during September when the flow in the flume is much lower and the water treatment program at the Vangorda Plant will have been completed.

### Q - What are the chances of this happening again next year?

A: The chances of this type of event occurring again next year are dependent on the timing and magnitude of the event and the capacity of the Vangorda Flume. The Vangorda Flume was designed to handle a 1:100 year storm event. An analysis to assess the magnitude of the June 8<sup>th</sup> event was performed and it was found that the localized or 'cell' event exceeded the 1:100 year storm rating. The chance of this occurring are then related to the likelihood that a storm event greater than a 1:100 year storm event will occur. The damages to the Vangorda Flume have been assessed and funds have been authorized by the Department of Indian and Northern Affairs to complete the repairs over the course of the summer and fall.

#### Q – What do you mean by a 'cell' event?

A: The term 'cell' event was used in this case to indicate that the rain storm was highly localized and resulted in a large volume of rain water being concentrated on one area of the mine site.

#### Q - Could a similar situation occur to the Faro Diversion?

A: The Faro Diversion is presumed to have the same design capacity as the Vangorda Diversion and therefore could not have handled a storm of similar intensity. Should such a storm occur and cause the diversion to discharge into the Faro Pit, the current freeboard in the pit would provide sufficient time to respond and make repairs to the Faro Diversion. Past work has been conducted to assess relocation options for the Faro Creek Diversion. These continue to be reviewed as part of the closure planning process.

### **Financial Update**

The year end of the Interim Receivership coincides with the federal government's year end. Every year a comprehensive budget is established which includes security, maintenance and environmental costs. For security and maintenance, costs have been consistent throughout the years. Site security is maintained year round. The environmental protection (water treatment) budget has also been relatively consistent during the past three years. Overall for the past three years, the mine site's total care and maintenance budget has been slightly in excess of \$4 million per year. The major accounts by expenditure category were shown on overheads 87 through 89.

#### Water Treatment and Testing Programs

Mr. Dana Haggar, the Anvil Range Site Manager, provided a comprehensive overview of the ongoing water treatment and water testing programs at the Faro and Vangorda mine sites. Mr.

Haggar again emphasized the significant increase in water testing requirements under the new Water Use Licence and the significant amount of work that is carried out by the site's lab technicians and independent labs in Vancouver.

# Q: You test water every four hours and cannot do much about the steady flow of water – what happens if the integrity of the system is compromised? What can you do about water treatment on the Vangorda side?

A: Water leaving the Vangorda Water Treatment plant is tested every four hours as it leaves the Vangorda Water Treatment Clarification Pond. If there is an indication that the treated water is non-compliant, then water is held within the pond and not released to Vangorda Creek. In such a case, the pumping of water from the Vangorda Pit to the Vangorda Water Treatment Plant would cease to allow time for the problem to be resolved.

### **Comprehensive Risk Assessment**

Valerie Chort presented a summary of this year's update to the Comprehensive Risk Assessment ("CRA"). This is a dynamic process, which was initiated in 2001 and has been regularly updated since that time to reflect site care and maintenance activities as well as the information gained from ongoing studies. The purpose of the update is to track how risks have been changing over time and to assess progress with respect to the overall objective of lowering the risk for the remaining elements on site. Slides 92 through 94 summarize the results of the 2003-04 update.

One item of note is that the Fresh Water Supply Dam element was rated the highest risk element at the mine site and has since been lowered due to the breach of the dam. There are no other elements categorized as highest risk on the mine site at this time. Also, some elements have been removed entirely as they have been either been eliminated or no longer exist such as the removal of the some of the core storage buildings on the property.

The CRA methodology was presented to the Water Board as part of the hearing to demonstrate how it is used by the Interim Receiver to manage risk at the mine site and as an input in making care and maintenance decisions. It is a requirement in the Water Licence to provide an annual update to the Yukon Water Board as to how the CRA is assisting the Interim Receiver to manage elements at the mine site.

## Q: Did the Interim Receiver shift the Vangorda Creek Flume element as a result of the recent flood event.

A: No the Vangorda Diversion element was originally ranked as Moderately High. Upon review of the consequences and likelihood associated with a Moderately High risk, it was felt that this element was ranked correctly.

#### Q: What about the sludge deposit now in the orange fence area, has this been ranked?

A: As this is a new element, it will be assessed and ranked as part of the update to the Comprehensive Risk Assessment that will be completed in January – February of next year. In terms of background, prior to identifying where the Vangorda Water Treatment Sludge was to be disposed, an engineering review of a number of options was conducted. This was the area recommended as the best suited to store the sludge.

# Q: What about all other studies in the areas outside of the mine property dealing with vegetation?

A: A study is currently being conducted to assess the Terrestrial Effects that the mine may have had on vegetation and wildlife in and around the mine site. This information is part of the many studies being conducted in order to develop a closure plan for the property which needs to be submitted to the Water Board by December 31, 2006.

### **Site Tour**

The entire group proceeded to the site tour. The tour followed the slide presentation delivered during the morning by starting at the Fresh Water Supply Dam continuing on through the Rose Creek Valley. Following lunch, the tour continued on the Faro side of the property and then traveled to the Vangorda Plateau. There were a few minor questions relating to information presented during the morning slide presentation. There was no new information presented or debated.

#### **Questions and Answers**

Participants were asked at the end of the tour if they had any further questions and if they wanted a formal question and answer session. As there were no further questions and no requests for a formal wrap up, the tour was completed and the participants left the mine site.