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Teck

March 26, 2014

Robert Holmes
Director, Mineral Resources
Government of Yukon
P.O.Box 2703 (K-9),
Whitehorse, Yukon
Y1A 2C6

Dear Mr. Holmes;

Re: Sä Dena Hes Mine – Quartz Mining License QML-0004 – 2013 Detailed Decommissioning and Reclamation Plan Report

As required in Part III – Reporting, Monitoring and Inspections of licence QML-0004, Teck is submitting this report describing the annual inspections, and the decommissioning and reclamation activities completed in 2013 at the Sä Dena Hes (SDH) mine.

Annual Inspections

Section 9 of the licence states that annual inspections be conducted no later than September 30th in each year. The 2013 geotechnical inspection of water and waste management facilities at SDH was carried out by SRK on June 25 and June 26, 2013. The inspection report is provided as Attachment 1. The report provides observations and recommendations which generally include monitoring and regular inspections for each facility. No significant events occurred during the year which required any remedial measures.

Reporting and Monitoring

Section 10.1 in Part III of the licence states that in 2013 and 2014 the licensee must submit a written report documenting (a) the decommissioning and reclamation activities completed; (b) the effectiveness of the remediation measures implemented; (c) the results of the studies and monitoring programs detailed in the DDRP and subsequent updates; and (d) summary of decommissioning and reclamation activities planned for the upcoming year. Each of these items is further discussed below.

2013 Decommissioning and Reclamation Activities

The 2013 decommissioning and reclamation activities were included in the Reclamation Status report submitted by Teck entitled *Decommissioning and Reclamation Status Report dated November 28, 2013 (Teck, 2013).* As all the activities were completed October 11, 2013, there is no additional information to add to this report.

Effectiveness of the Remediation Measures

Due to the delay of the project in 2013, the remediation measures conducted were limited and there is no additional information to report.

Results of Studies and Monitoring Programs

In 2012, Keyeh Nejeh Golder, on behalf of the Liard First Nation, conducted an external review of the DDRP. A number of gaps were identified including waste rock stability, seepage and water quality from the waste rock dumps, and stability analysis of the underground workings. Teck retained SRK to conduct these studies in 2013. The waste rock stability memorandum and the stability analysis of the underground workings are still in progress and will be issued in April 2014. The seepage and water quality memorandum *2013 Seepage Monitoring Program, dated March 6, 2014* is attached as Attachment 2. The 2013 work identified seepage from the Main Zone waste rock dump, Jewelbox open pit and 1250 portal. The water sample analysis indicates that metal concentrations were elevated compared to the water license and CCME guidelines for aquatic life. The results will be integrated into the mass loading analysis being conducted by SRK.

As required under Section 6.3, additional studies that are in preparation as part of the mine site decommissioning include:

- Soil and Hydrogeological Assessment by Golder Associates Ltd.
- Ecological and Human Health Risk Assessment (HHERA) by Azimuth Consulting. There are four deliverables which will include the following:
    a. Data Report
    b. Interim Results of the ERA to Guide Closure Planning
    c. Human Health Risk Assessment
    d. Final ERA
- Water and Load Balance by SRK Consulting.

The preliminary results of these studies are targeted to be submitted by April 15th as per the extension received on December 31st, 2013. The final ERA is targeted to be issued in June.

Teck continues to engage with the Liard First Nation regarding the final end land use. No additional Traditional Knowledge studies have been completed since October 2013, however a meeting with the Elder's did occur on January 21st, 2014 to review the details of the DDRP. Their proposed land use has been incorporated into the HHERA and the findings will be used to develop risk management or mitigation measures required to ensure the site is safe.

2014 Decommissioning and Reclamation Activities

The work scheduled for 2014 was outlined in the November Reclamation Status Report (Teck, 2013) and includes building removal and major earthworks, such as dewatering the reclaim and tailings pond, decommissioning the Reclaim and South dams, channel construction, recontouring and portal closure works. Additional environmental studies, including soil delineation and spring groundwater monitoring and sampling will be conducted in 2014. Consultation with Mineral Resources and the Liard First Nation will continue in 2014 as the risk assessment results become available to determine the final end land use for the site.

I trust that the information provided is sufficient under the Licence. Please do not hesitate to contact me at (250) 427-8422 if you have any questions or require any further information.

Sincerely,



Michelle Unger
Senior Environmental Scientist, Canadian Dormant Properties
Teck

cc:
Chief Daniel Morris, Liard First Nation
Chief Jack Caesar, Ross River Dena Council

Attachments:

1 – 2013 Geotechnical Inspection Tailings Management Facility, Sä Dena Hes, Yukon Territory, February 2014, SRK Consulting Inc.

2 - 2013 Seepage Monitoring Program, dated March 6, 2014, SRK Consulting Inc.

ATTACHMENT 1

2013 Geotechnical Inspection Tailings Management Facility, Sä Dena Hes, Yukon Territory

2013 Geotechnical Inspection Tailings Management Facility
Sä Dena Hes, Yukon Territory

Prepared for

Teck Resources Limited



Prepared by

SRK Consulting (Canada) Inc.
1CT008.041
February 2014

2013 Geotechnical Inspection Tailings Management Facility
Sä Dena Hes, Yukon Territory

February 2014

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Project No: 1CT008.041

File Name: 2013SDHGeotInsp Report_1CT008.041_SN_PMH_20140307

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1 Introduction

In accordance with an authorization by Mr. Gerry Murdoch, Teck Resources Limited, Mr. Peter Healey of SRK (Canada) Inc. completed an annual geotechnical inspection of the water and waste management facilities at the Sä Dena Hes mine on June 25, 2013. The purpose of this inspection was to evaluate the performance and physical stability of key elements of the Tailings and Water Management Facilities including:

- The North Dam and the cofferdam;
- The North Creek Dyke and second crossing;
- The South Dam and emergency spillway;
- The Reclaim Dam and emergency spillway;
- The Camp Creek Diversion;
- The Camp Creek Exit Chute, and
- The Burnick Waste Rock Dump below the 1200 Portal.

The weather during the inspection was mild and overcast.

2 Background

The Tailings Management Facility (TMF) consists of three earth structures, which are referred to as the North Dam, the South Dam and the Reclaim Dam as shown on Figures 1 and 2. The North and South Dams, which impound the tailings, were constructed between July 1990 and October 1991. The starter dams for both structures were built to a height of about 13 m (North Dam to El. 1098 m and the South Dam to El. 1096 m). A small, two-metre high cofferdam was also constructed halfway between the two dams to control flow of water and tailings from the north end of the impoundment. It should be noted that all elevation referenced in this report are based on the original site datum used to design and build the structures in the early 90's. The survey datum current being used at the site is about two metres higher than the one used in the 90's. All previous inspection reports used the 1990 datum.

In addition to the North and South Dams, the Reclaim Dam was built (El.1082 m) to detain supernatant water decanted through a concrete control structure (Decant Tower) located in ponded water on the north side of the South Dam. During the operating years, the decanted water discharged to the reclaim pond via a corrugated metal pipe that was installed at the base of the South dam. The mine operation involved recycling of the detained water to the mill combined with a controlled discharge, when required, into Camp Creek from April to October each year. The discharge rate and the total volume of discharge was set by the Yukon Water Board and is governed by the current Water Licence.

Camp Creek is currently diverted into a channel along the west side of the Reclaim Pond and discharges through two 1.2 m diameter culverts into a riprap lined exit chute.

An emergency spillway is also located in the west abutment of the South Dam and was originally designed to accommodate the 200-year flood event. However, the spillway can accommodate the peak discharge during a 1000-year event without overtopping the dam crest.

In March 1992, the previous operators, Curragh Resources, built a rockfill buttress along the toe of the Reclaim Dam to provide extra protection against sloughing and erosion of the toe due to increased seepage.

In September 1992, work commenced on a 2 m raise of the South Dam to an elevation of 1098 m. Work on the extension was shut down on October 14, 1992 because of the construction difficulties experienced due to sub-zero temperatures. The raise was never completed.

Operations at Sä Dena Hes mine, which commenced in July 1991, were suspended in December 1992 due to low lead and zinc prices. Operations at the mine remain suspended.

In 2013 Teck decided to permanently close the mine and the decommissioning of the South Dam and the Reclaim Dam are schedule for 2014.

Since the shutdown of the mine, the following work has been carried out at the site:

- Removal of a sand and gravel buttress at the east end of the South Dam and replacement with a shot-rock toe buttress;
- Extension of the existing shot-rock buttress at the east end of the Reclaim Dam;
- Upgrading of the spillway and overflow pipes in the North Creek Dam which was part of the water supply system to the mill;
- Construction of drainage ditches and berms adjacent to the abutments at the Reclaim and South Dams to provide better control of the runoff;
- Placement of additional riprap at the base of the Camp Creek exit chute;
- Removal of the cross-over culverts adjacent to the Reclaim Pond spillway;
- Installation of steel plates for erosion protection along the sections of the sideslopes of the berm that forms the Camp Creek Diversion;
- Completion of a toe buttress at the South Dam;
- Placed a 20 to 25 cm cover of 20 mm minus gravel over a 150 m by 80 m area adjacent to the northwest corner of the tailings impoundment to control tailings migrations;
- Installation of a series of high-density polyethylene (HDPE) siphon pipelines between the Tailings and Reclaim Ponds to control the water level in the tailings pond;
- Installation of HDPE siphon pipelines from the Reclaim Pond to the exit chute in Camp Creek below the Reclaim Dam to control the water level in the Reclaim pond;
- Cleanup of the area adjacent to the inlet of the sluice gate at the Cofferdam (2009);

- The raising of the east abutment of the South Dam to improve freeboard above the design flood event (2010); and
- Upgrade of the east interceptor ditch above the TMF (2010).

3 Observations and Recommendations

3.1 General

At the TMF, each dam was inspected for the following:

- Settlement, bulging or deflection of the embankments;
- Heave or deformation of the foundation soils;
- Seepage at the toe or in foundation soils; and
- Piezometric levels.

SRK also inspected the emergency spillways at the Reclaim Dam and the South Dam, the Camp Creek diversion channel, the exit chute, the North Creek Dyke, a second stream crossing on North Creek below the dyke and the waste dump below the Burnick 1200 portal. Photos depicting areas discussed in this section are presented in Appendix A and are referenced throughout this report.

3.2 North Dam

3.2.1 Observations

A site plan of the North Dam is presented on Figure 3 and a view of the tailings management facility taken from the Jewelbox waste rock dump is shown in Photo 1.

The crest of the North Dam (Photo 2), which is at an elevation of 1098 m, shows no signs of deformation or abnormal settling. Neither the upstream nor downstream faces of the dam show signs of surficial movement or erosion nor is there any sign of bulging at the downstream toe of the dam.

Teck has surveyed the settlement gauges on the North Dam since 1993. Results are shown on Table 3.1.

No settlement survey was completed in 2011, 2012 or 2013. The results on Table 3.1 indicate that there has been no significant settlement of the embankment.

The piezometers and protective caps (Photo 3) along the crest of the North Dam remain intact. Some of the deformation monitoring pins and the original settlement gauges protected by 40 gal drums are still evident on the crest of the dam. Labels on each of the piezometers have recently been upgraded to lower the risk of damage by the elements.

Table 3.1: Summary of Survey Results for North Dam Settlement Gauges

DATE	NDS3	NDS1	NDS2
Aug/93	1098.639	1098.501	1098.613
July/94	1098.637	1098.502	1098.589
Aug/95	1098.690	1098.545	1098.663
July/96	1098.637	1098.493	1098.609
Aug/97	1098.637	1098.496	1098.618
Oct/98	1098.627	1098.482	NA
Oct/02	1098.619	1098.481	1098.607
Jun/05	1098.637	1098.479	1098.587
Jun/06	1098.63	1098.45	1098.57
Aug/07	1098.786	1098.454	1098.489
June/08	1098.626	1098.482	1098.597
June /09	1098.625	1098.469	1098.587
June /10	1098.59	1098.47	1098.60

Historically, there has been seepage along an 80 m zone of the downstream toe of the dam on both sides of the valley. This seepage is collected at a monitoring station referred to as MH-02 (Photos 4 and 5) and is a combination of groundwater discharge from the surrounding hillsides to the west and minor seepage flow from the impoundment.

The water levels in the piezometers are recorded monthly when accessible and the 2013 data are presented in Appendix B. Levels recorded in June 2013 are plotted on the dam section shown on Figure 4. The seasonal fluctuations recorded this year in the piezometric levels are generally consistent with those in previous years and are within acceptable tolerance limits.

At the east end of the North Dam, the tailings surface remains about 1.5 m below the crest. The tailings surface at the west end of the dam is just below the crest elevation. Most of the tailings within the TMF lie within the northern half of the impoundment upstream of the cofferdam. The tailings adjacent to the western end of the North Dam are covered with a 100 mm thick layer of gravel to control wind swept tailings migration.

Recommendations

SRK makes the following recommendations:

- Continue to take monthly water level readings from the top of the 2-inch diameter plastic piezometers inside the casing in accordance with the OMS manual. Water levels should not be measured from the rim of the steel casing.
- As Teck has decided to adopt the new datum for the site, the conversion from depths to elevation in future should be carried out using the new 2013 datum.

- During the construction season in 2014, SRK recommends that readings be taken of the settlement gauges on the North dam and converted to the new datum.
- Continue to monitor the flow at MH-02 monthly and collect water quality samples in accordance with the OMS and the water licence.

3.3 North Creek Dyke and Second Crossing

3.3.1 Observations

At the time of the inspection, the water level in the pond behind the North Creek Dyke was about 300 mm above the invert of the lower 600 mm culvert (Photo 6). No significant debris had accumulated around the inlet of the upper 600 mm culvert. A site plan and a number of sections of the North Creek Dyke are shown in Figures 5 to 8.

No tension cracks were noted on the dam crest and the upstream and downstream faces were stable. Sandbags that had been placed around the inlets to the three culverts were still in place (Photo 6). No signs of deformation or abnormal settling were rated.

Vegetation is taking hold on the downstream face of the dyke. No significant rills or erosion gullies were evident on the face (Photo 7).

There has been no change in the condition of the three overflow pipes (Photo 7) and an inspection of the buried joint between the 1200 mm and 1000 mm pipe found that it has remained secure. Flow through the lower 600 mm pipe is shown on Photos 8 and 9.

Below the North Creek Dyke is a second crossing consisting of a single 900mm diameter CMP culvert. There are in fact two culverts but the lower one is blocked off and is not used (See Photo 10). A number of large boulders lie at the entrance to the culvert but do not significantly reduce the inflow capacity of the culvert.

The downstream face of the road fill is stable and there is little evidence of any significant erosion or sloughing. Historically, runoff from the roadway has caused erosion gullies to develop in the fill above the pipes. However since runoff management berms were installed by Teck several years ago, the erosion has stabilized.

3.3.2 Recommendations

The North dyke is scheduled for removal this year and the resulting channel would be riprapped. However until this occurs, monthly inspections should be made of the site to ensure no blockage of the culverts has occurred. Remove any debris that accumulates at the inlet to the lower 600 mm dia. culvert at the North Creek Dyke when needed.

Monthly inspections should also be made of the sideslopes at the second crossing in North Creek to ensure there are no blockages.

3.4 South Dam

3.4.1 Observations

In 2010, Teck carried out an upgrade to the interceptor ditch along the eastern flank of the TMF. This work involved clearing the vegetation from the ditch and building an access road on the downhill side of the ditch. The work significantly improved the hydraulic capacity of the ditch and provided easier access for ongoing inspections and maintenance. As shown on Photo 11, the ditch is clear of vegetation and debris.

In 2009, Teck approved remedial work associated with the cofferdam, which involved pulling back the sideslopes near the inlet to ensure free drainage through the culvert and stabilize the slopes. An inspection of the sluice gate and the cofferdam in 2013 showed that the inlet had remained clear of debris and the sideslopes showed very little erosion (Photos 12 and 13). At the time of our inspection, ponded water covers about 50 percent of the tailings surface (Photo 14).

A plan and section of the South Dam are shown in Figures 9 and 10.

Each year Teck siphons water from the Tailings Pond to the Reclaim Pond to control the water level in the tailings impoundment. The level of the ponded water behind the South Dam during our inspection was about El. 1094 m and there was some flow discharging through the overflow spillway into the Reclaim Pond. In preparation for the dam decommissioning in 2014, extra pumping effort brought the pond level down to about El 1088 by October as shown in Photo 20.

At the time of our inspection, the cover over the outlet pipe in the decant tower was still in place but we understand that the cover has since been removed in preparation for the 2014 decommissioning.

Piezometric levels in the South Dam for the month of June are shown in Figure 10. A plot of the changes in piezometric levels in the piezometers at the toe of the South Dam compared with the fluctuating tailings pond level is shown in Figure 11. The piezometric levels have remained below the maximum safe level for each of the three piezometers. The steel caps for these piezometers historically rotate due to movement and place pressure of the plastic pipes. This was observed again this year (Photos 15 and 16).

As expected the levels in the piezometers along the centreline of the dam fluctuate with the water level in the tailings pond. As the water level in the pond drops there is a corresponding drop in the piezometric levels. The relationship between the water level in the tailings pond and the piezometric levels at the toe of the South Dam are shown on Figure 12.

There has been no significant erosion on the downstream face of the dam.

The crest of the South Dam shows no signs of settlement or bulging. The buttress at the toe of dam shows no signs of instability, settlement or movement.

3.4.2 Recommendations

In 2014, Teck has scheduled the removal of the South Dam. As such a number of recommendations, which have been made in previous years, will be made redundant:

- Piezometric readings should continue to be taken up to and during the dam decommissioning. Rapid drawdown of the pond to accommodate the dam removal may cause unstable conditions to occur on the upstream face of the South Dam. Therefore monitoring of the piezometers during the pond drawdown must be carried out to ensure the integrity of the dam during decommissioning. Once the dam is removed no new piezometers are planned.
- Water levels in the piezometers must be taken from the tops of the PVC pipe and not the rim of the steel protective caps.
- Monthly inspections of the inlet and outlet ends of the sluice gate culvert at the cofferdam to be carried out up to the final removal of the cofferdam;
- *No longer required after dam removal* (Readings from the shallow piezometer adjacent to SDW 5A and 5B (now marked “Do Not Use”));
- *No longer required after dam removal* (Remove debris around and inside inlet to spillway culverts);
- *No longer required after dam removal* (Monitor undercutting of the spillway culverts at the outlet end);
- *No longer required after dam removal* (Monitor the erosion gullies in the toe buttress.
- *No longer required after dam removal* (Ensure protective caps around the three piezometers at the toe are not touching the PVC pipes).
- *No longer required after dam removal* (Inspect (monthly from May to December) the inlet side of the culvert at the southern end of the east interceptor ditch. Remove buildup of debris if needed).

3.5 Reclaim Dam

3.5.1 Observations

A plan and section of the Reclaim Dam are shown on Figures 13 and 14. A photo looking north over the Reclaim Dam in June 2013 is shown in Photo 17. A view along the crest of the dam and the upstream face also in June 2013 is shown Photo 18.

No cracks or signs of settlement were observed on the crest of the dam. The toe buttress, which was built in March 1992, and extended in September 1994, is stable. The upstream and downstream faces of the Reclaim Dam show no signs of surficial movement or erosion.

The level of the water in the Reclaim Pond on June 2013 was El. 1078.79 m.

Seepage continues to discharge along the toe buttress and is funnelled into the V-notch weir at MH 07 (Photo 23).

Piezometric levels recorded for RDW-2A, 2B, 2C, 3A, 3B, GW1A and 1B in June, 2013 are shown in Figure 14, and are below the trigger levels outlined in the OMS.

Teck has surveyed the settlement gauges on the Reclaim Dam since August 1993. Historical survey results are as follows:

Table 3.2: Summary of Survey Results for Reclaim Dam Settlement Gauges

DATE	RDS1	RDS2	RDS4
Aug/93	1082.670	1082.435	1082.390
July/94	1082.655	1082.409	1082.368
Aug/95	1082.646	1082.392	1082.349
July/96	1082.642	1082.398	1082.359
Aug/97	1082.643	1082.400	1082.364
Oct/98	1082.650	1082.413	1082.369
Oct/02	1082.648	1082.401	1082.370
Jun/05	1082.657	1082.422	1082.379
Jun/06	1082.67	1082.41	No reading
Aug/07	1082.675	1082.44	1082.39
June/08	1082.65	1082.42	1082.37
June/09	1082.66	1082.41	1082.37
June/10	1082.68	1082.44	1082.40

No settlement readings were taken in 2011, 2012 or 2103. The Reclaim dam would be removed in 2014 as part of the TMF decommissioning. Photos 19 and 20 were taken at the end of September 2013 when the pond level was at El. 1076.63. Photos 21 and 22 of the Reclaim pond and the South Pond were taken several weeks later. Photos of the toe buttress at the Reclaim dam and the outlet of the spillway pipes at the Reclaim are provided in Photos 23 and 24.

3.5.2 Recommendations

As part of the construction scheduling for the TMF decommissioning, SRK prepared a water balance as a guide for managing the drawdown. Details of this water balance are provided in Appendix G of the TMF decommissioning design report. Until the Reclaim Dam is removed, the water level in the Reclaim Pond should be maintained at or lower than El. 1079.0 m to provide an adequate safety factor for embankment stability. Monitoring of the seepage at the toe, flow measurement and water quality sampling should also continue until the dam is removed.

Teck should continue to monitor the water levels in the piezometers monthly until the dam is removed.

In addition to the above, the following recommendations are made:

- *No longer required after dam removal* Record pond level during and following any rainstorm event irrespective of whether it meets the regular monitoring schedule. Record pond levels during freshet.
- *No longer required after dam removal* When taking water level readings in the pump house check for ice and make visual estimates of the pond level.
- *No longer required after dam removal* Inspect and adjust where necessary all the protective steel caps so that the settlement gauges are not touching the inside of the caps.

3.6 Reclaim Dam Spillway and Exit Chute

3.6.1 Observations

There is one section along the south side of the exit chute from the spillway (See Photo 25) where the riprap erosion protection does not provide sufficient freeboard for the design flood event.

3.6.2 Recommendations

As this chute will be removed during the TMF decommissioning, no action is recommended.

3.7 Camp Creek Diversions

3.7.1 Observations

A layout of the Camp Creek Diversion is shown on Figure 15.

Teck installed a seasonal water level recorder, a staff gauge and a datalogger in Camp Creek upstream of the Reclaim Dam spillway (Photos 26 and 28). The recorder collects stream flow and runoff data that will be used to confirm design flood estimates for the site.

In 1993, a quarter-round corrugated sheets were installed along the eastern wall of the diversion to provide additional protection against erosion (Photo 27 and 29). The fill placed in behind these sheets initially settled and tension cracks developed. Despite these developments, the cracks have “healed” and the bank has remained stable with no significant subsidence.

Minor erosion of the channel sideslopes has occurred in a number of locations along the channel. No major failure of the bank slope was observed.

3.7.2 Recommendations

As the diversion would be removed in the summer and fall of 2014, the following recommendations would only be applicable before the diversion is removed:

- Continue to monitor the sideslopes monthly for signs of erosion and instability including the steel plates and the backfill.
- Monitor the channel during the winter months for any signs of abnormal glaciation and be prepared to mobilize equipment to the site if ice build-up is significant.
- Collect flow data prior to and during this year's freshet. Spot measurements on the staff gauge should also be made prior to and during peak flows this year.

3.8 Burnick Waste Dump

3.8.1 Observations

SRK inspected the Burnick waste dump at the 1200 portal. No further disturbance of the crest of waste dump and no major toe movement or bulging was noted.

3.8.2 Recommendations

SRK recommends that no waste be placed on the crest of this dump and that Teck continue to inspect the slope for any sign of vertical settlement or displacement.

SRK also recommends that Teck make annual checks of the slide area at the toe of the dump for any sign of further movement.

This report, 2013 Sa Dena Hes Annual Geotechnical Inspection, was prepared by



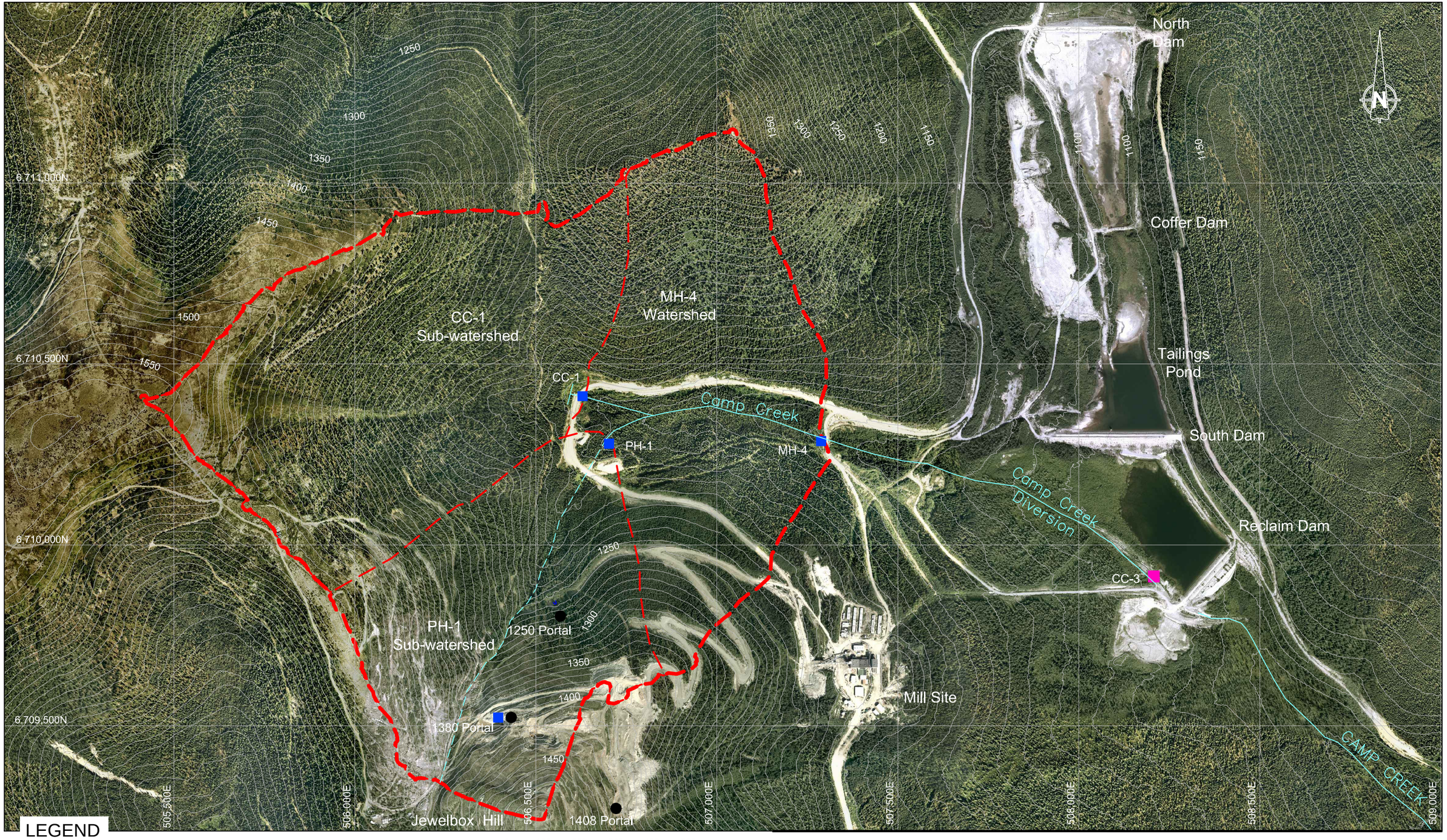
Peter Healey, P.Eng

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

Disclaimer—SRK Consulting (Canada) Inc. has prepared this document for Teck Resources Limited. Any use or decisions by which a third party makes of this document are the responsibility of such third parties. In no circumstance does SRK accept any consequential liability arising from commercial decisions or actions resulting from the use of this report by a third party.

The opinions expressed in this report have been based on the information available to SRK at the time of preparation. SRK has exercised all due care in reviewing information supplied by others for use on this project. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information, except to the extent that SRK was hired to verify the data.

Figures



LEGEND

Water Monitoring Locations

- Flow Monitoring
- Continuous Flow Recorder
- Portal

- Watershed Boundary
- Subwatershed Boundary
- Continuous Flow
- Intermittent Flow

0 100 200 300 400 500

Scale in Metres

CONTOUR INTERVAL=10m

NOTE

Topographic contour data and aerial photos were obtained from McElhanney and are based on August 15, 2012 LiDAR survey. Coordinate system is UTM NAD 83CSRS zone 9V.

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SRK JOB NO.: 1CT008.041

FILE NAME: Figure_1.dwg

Teck

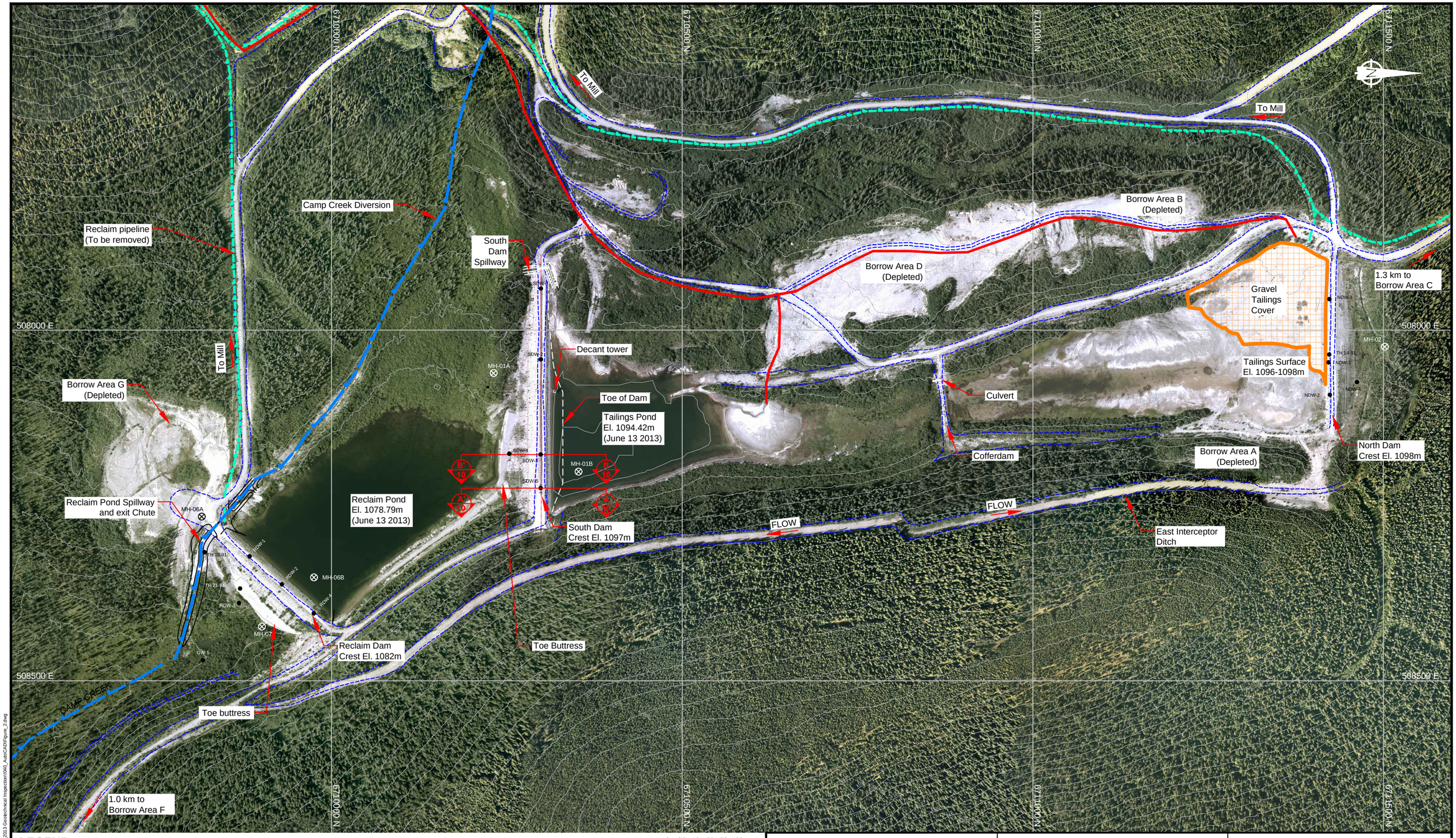
Sa Dena Hes Mine

2013 Geotechnical Inspection

General Arrangement Plan

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H	1

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LEGEND

- Covered Tailings
- Cover and Revegetate
- Sediment Retaining Structure
- Major Contours
- Edge of Road
- Water Pipe
- Realigned Flow Channel
- Tailings Line
- Creek

0 20 40 60 80 100
Scale in Metres

NOTE

Topographic contour data and aerial photos were obtained from McElhanney and are based on August 15, 2012 LiDAR survey. Coordinate system is UTM NAD 83CSRS zone 9V.

srk consulting

SRK JOB NO.: 1CT008.041

FILE NAME: Figure_2.dwg

Teck

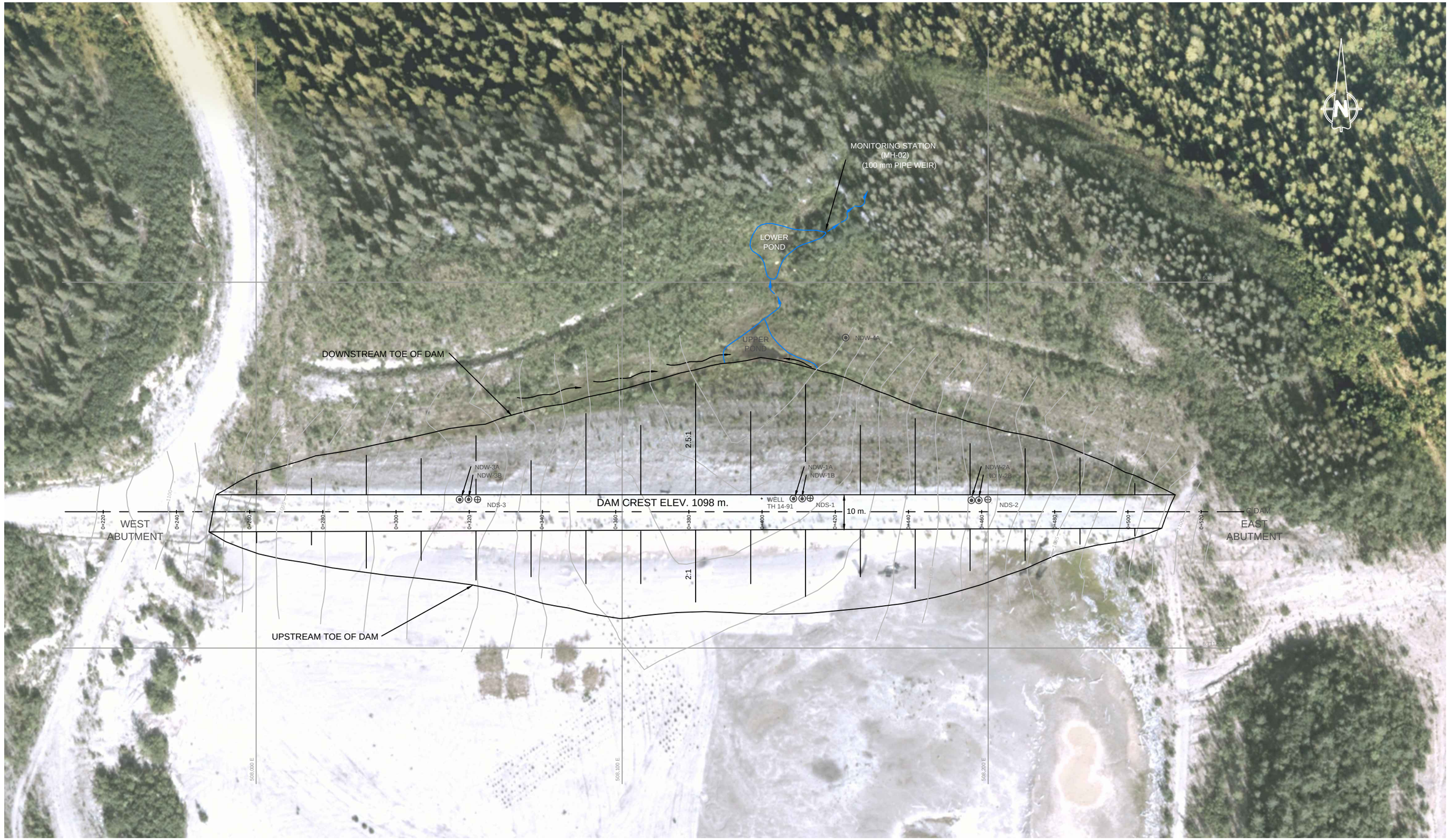
Sä Dena Hes Project

2013 Geotechnical Inspection

Layout and Tailings Management Facility

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	2

J:\01_SITES\Sä_Dena_Hes\1CT008.041_2013 Geotechnical Inspection\040_AutoCAD\Figure_2.dwg



KEY

- NDW-1 — PIEZOMETERS INSTALLED (NOV., 1991)
- NDS-1 — SETTLEMENT GAUGE INSTALLED (NOV., 1991)
- SEEPAGE

NOTES:

1. TOPOGRAPHIC DATA REPRESENTS ORIGINAL GROUND (PRE-STRIPPING).
2. FOOTPRINT DATA IS BASED ON STAKING IN THE FIELD (POST-STRIPPING).
3. SEEPAGE MAPPED DURING JULY 1997.
4. BASE TOPOGRAPHY FROM NORTH AMERICAN DATUM 1983 ALL SURFACE FACILITIES AND BOUNDARIES HAVE BEEN ADJUSTED FROM NAD 1927.

srk consulting

SRK JOB NO.: 1CT008.041
FILE NAME: Figures_3_9_13.dwg

Teck

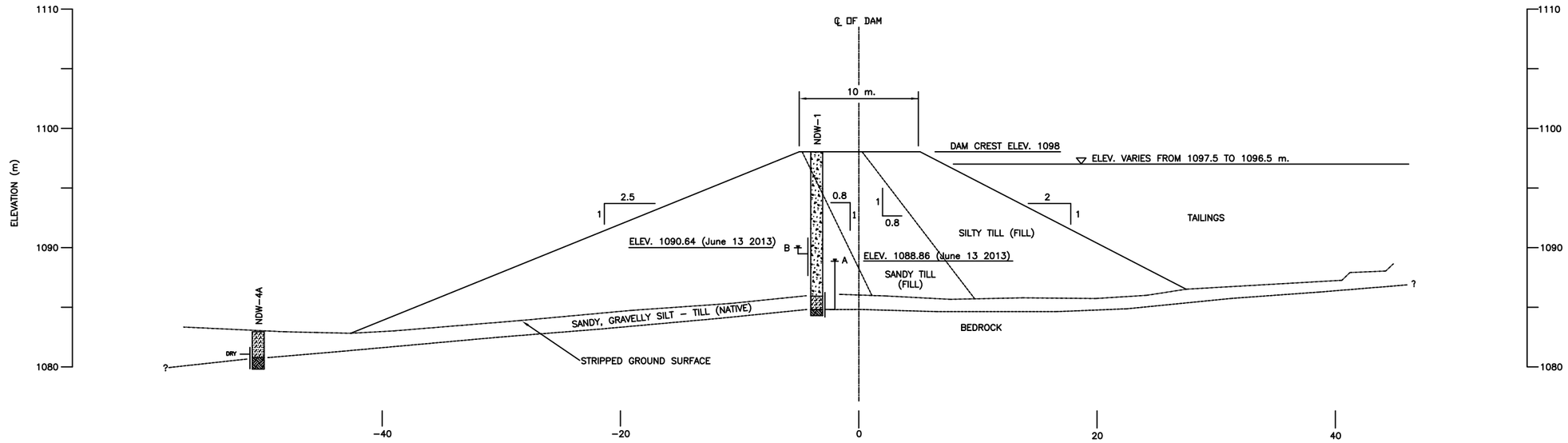
Sa Dena Hes Mine

2013 Geotechnical Inspection

North Dam
Site Plan

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	3

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	DATE	T.O.P.	READING	ELEV.
NDW-1B	June 13 2013	1098.57	7.93	1090.64
NDW-1A	June 13 2013	1098.69	9.83	1088.86

KEY

- SANDY TILL (FILL)
- SILTY TILL (FILL)
- SAND & GRAVEL (FILL)
- SILTY SAND (TILL)
- GRAVELLY SILTY SAND (TILL)
- SAND & GRAVEL (NATIVE)
- BEDROCK
- PIEZOMETERIC HEAD FOR FILTER ZONE INDICATED

0 4 8 12 16 20 Metres

1:400

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SRK JOB NO.: 1CT008.041

FILE NAME: Figure_4.dwg

Teck

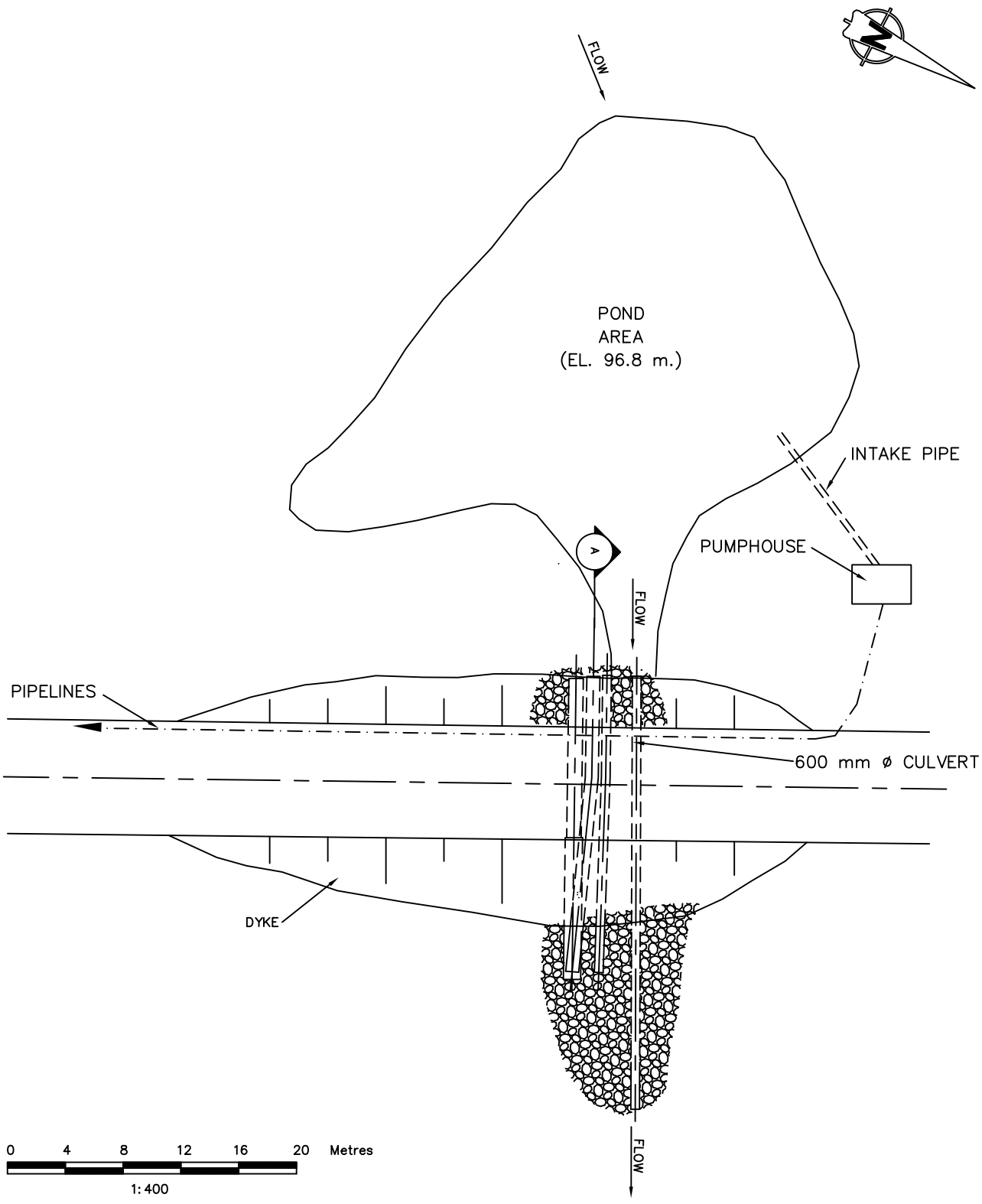
Sa Dena Hes Mine

2013 Geotechnical Inspection

Section 0+400
North Dam

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	4

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srk consulting

Teck

2013 Geotechnical Inspection

Site Plan of
North Creek Dyke and Pond

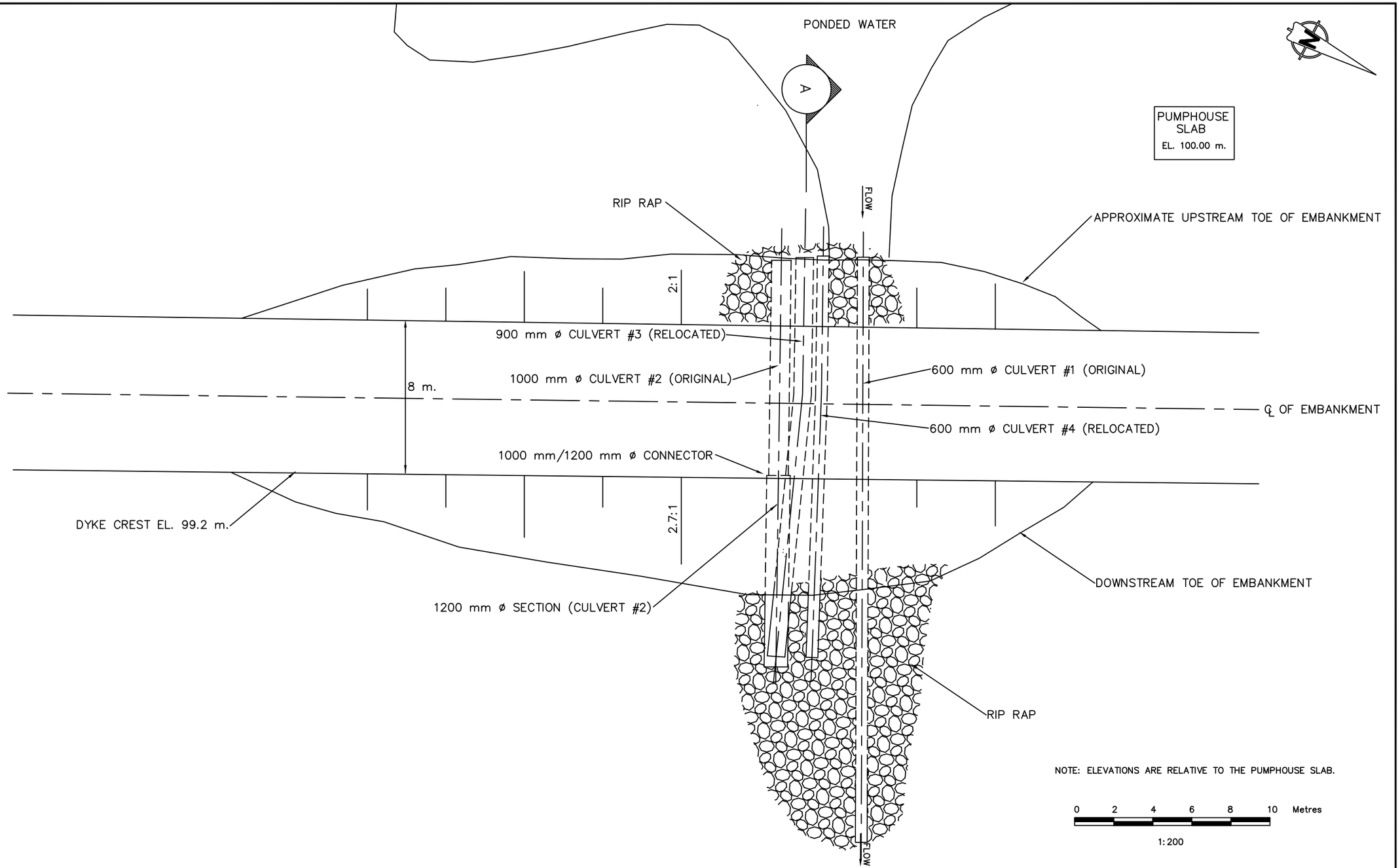
SRK JOB NO.: 1CT008.041

FILE NAME: Figure_5.dwg

Sa Dena Hes Mine

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	5

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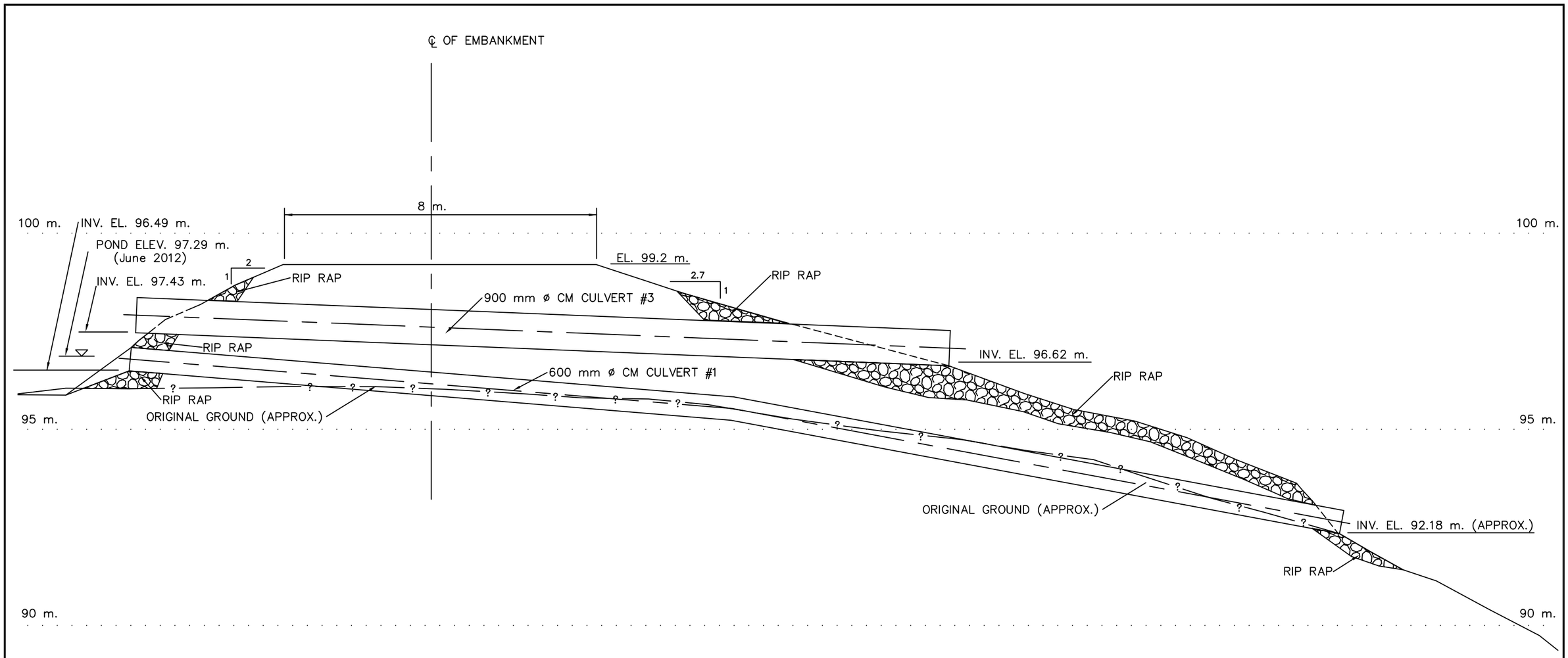
NOTE: ELEVATIONS ARE RELATIVE TO THE PUMPHOUSE SLAB.

0 2 4 6 8 10 Metres

1:200

srk consulting	Teck	2013 Geotechnical Inspection
SRK JOB NO.: 1CT008.041	Sa Dena Hes Mine	Plan of North Creek Dyke
FILE NAME: Figure_6.dwg		DATE: Nov. 28 2013 / APPROVED: P.M.H. / FIGURE: 6

J:\01_SITES\Sa_Dena_Hes\1CT008.041_2013 Geotechnical Inspection\1040_AutoCAD\Figure_6.dwg



SECTION A

NOTE: ALL ELEVATIONS ARE RELATIVE TO PUMPHOUSE SLAB (ELEV. 100 m.).

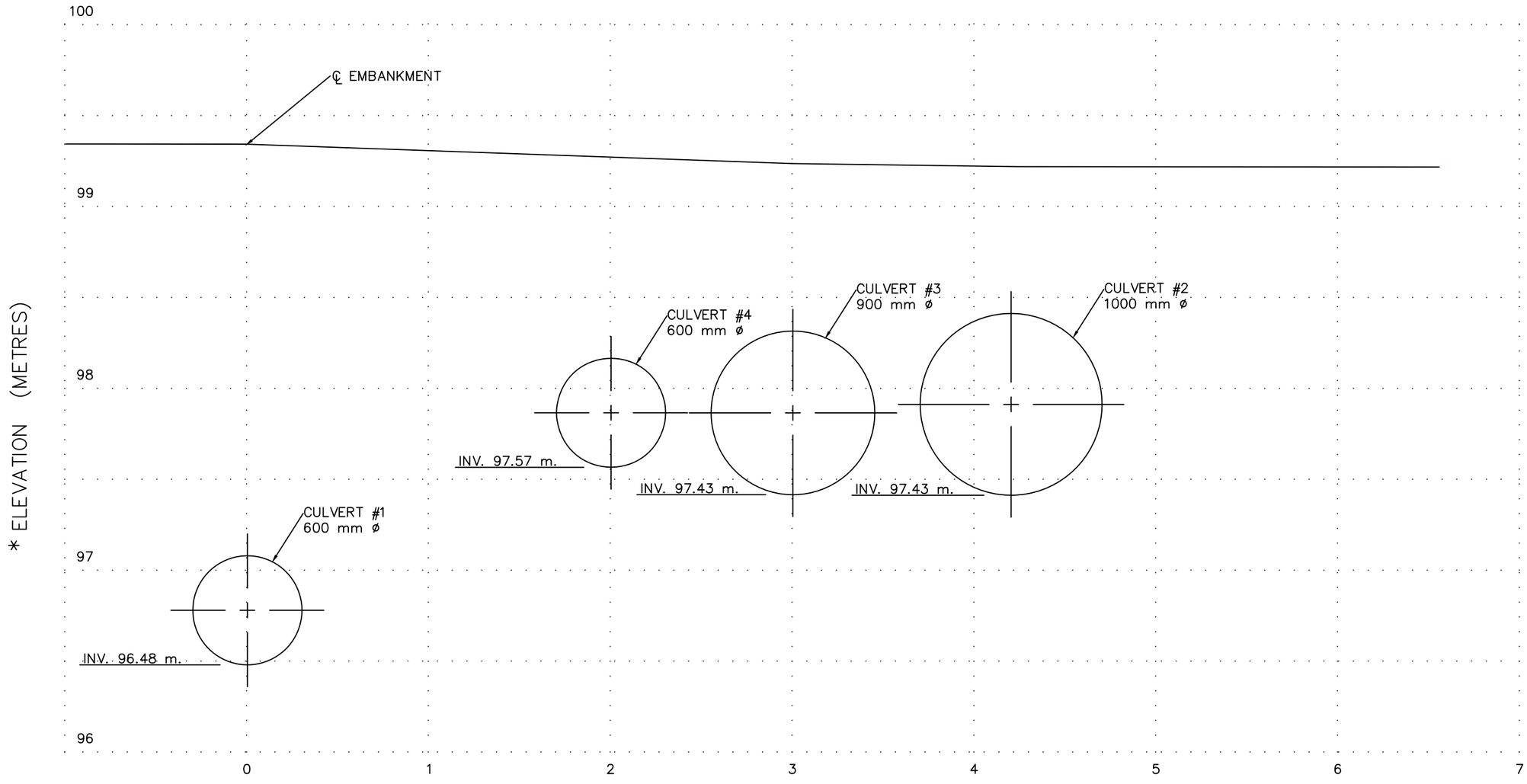
NOTE: FOR CLARITY CULVERT #4 IS NOT SHOWN.

0 1 2 3 4 5 Metres

1:100

srk consulting	Teck	2013 Geotechnical Inspection
SRK JOB NO.: 1CT008.041	Sa Dena Hes Mine	North Creek Dyke Section through Culvert #3 at Crossing
FILE NAME: Figure_7.dwg		DATE: Nov. 28 2013 / APPROVED: P.M.H. / FIGURE: 7

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0 0.25 0.5 0.75 1.0 1.25 Metres

1:25

NOTE: ALL ELEVATIONS RELATIVE TO NORTH CREEK DAM PUMPHOUSE SLAB (REL. ELEV= 99.94 m.).

srk consulting	Teck	2013 Geotechnical Inspection
SRK JOB NO.: 1CT008.041	Sa Dena Hes Mine	North Creek Dyke Profile Along Centerline of Crossing
FILE NAME: Figure_8.dwg		DATE: Nov. 28 2013 / APPROVED: P.M.H. / FIGURE: 8

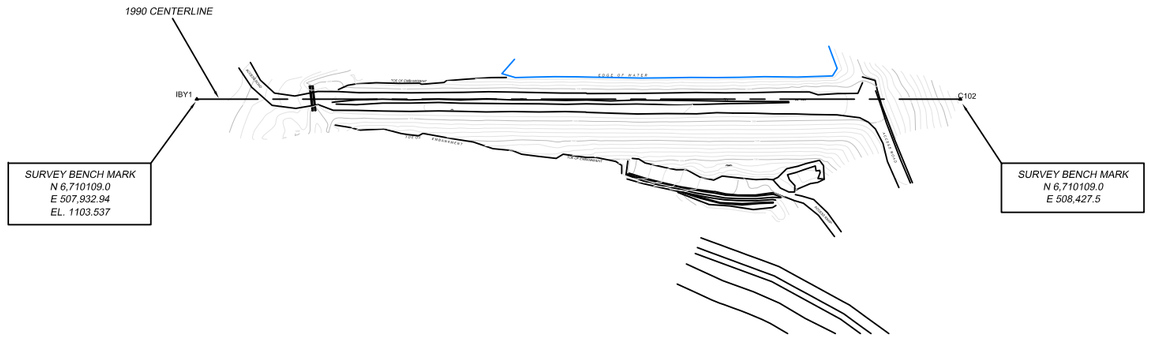
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STA. 0+200
STA. 0+250
STA. 0+300
STA. 0+350
STA. 0+400
STA. 0+450
STA. 0+500

TAILINGS POND
ELEV. 1094.42 m
(June 13 2013)

CURRENT UPSTREAM DAM CREST
TOE OF 1992 LIFT
CREST OF 1992 LIFT
TOE OF EMBANKMENT
DECANT TOWER
EDGE OF WATER
1.5 m
4.0 m
2:1
SDW-1A
SDW-1B
SDS-1
SDW-2A
SDW-1B
SDS-2
SDW-3A
SDW-3B
SDS-3
SDS-5
1991 DAM CONSTRUCTION CENTERLINE
1992 DAM CONSTRUCTION CENTERLINE
SDW-5A
SDW-5B
ORIGINAL 1990 DAM CONSTRUCTION CENTERLINE
2.5:1
EXISTING SPILLWAY CULVERTS
TOE OF EMBANKMENT
CURRENT DOWNSTREAM DAM CREST
CREST OF TOP ZONE
SDW-4B
SDW-4A
SDW-4C
DRAIN ROCK TRENCH
CREST OF DRAIN ROCK
OUTLET OF 600mm DIA. DECANT CSP
MH-01A
EXTENT OF SHOT ROCK
TOE OF DRAIN ROCK
TOE BUTTRESS
ACCESS RAMP
℄ OF DRAINAGE DITCH
TOE OF TOP ZONE
CREST OF SHOT ROCK
TOE OF SHOT ROCK

RECLAIM POND
ELEV. 1078.79 m (June 13 2013)
RECOMMENDED SAFE ELEV. 1079.00



LEGEND

◉	SDW-1A	PIEZOMETERS
⊕	SDS-1	SETTLEMENT GAUGES
⊗	MH-01A	MONITORING WELL

NOTES :

1. SURVEY DATA PROVIDED BY YUKON ENGINEERING SERVICES LTD., OCT. 1997
2. DIMENSIONS IN METRES
3. GRID IS UTM
4. BASE TOPOGRAPHY FROM NORTH AMERICAN DATUM 1983 ALL SURFACE FACILITIES AND BOUNDARIES HAVE BEEN ADJUSTED FROM NAD 1927

0 100 200 300 400 500 METRES
1:1000

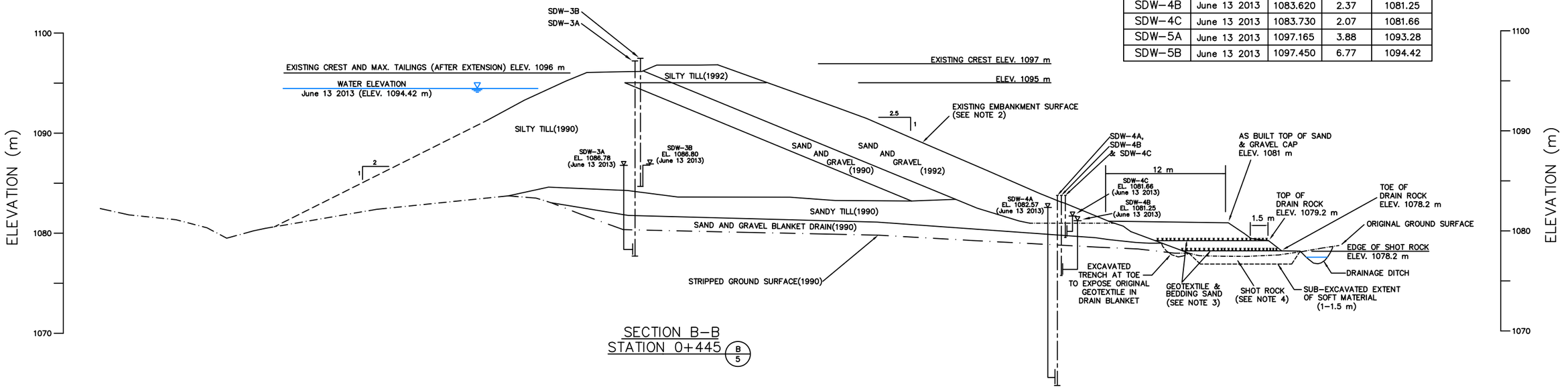
srk consulting
SRK JOB NO.: 1CT008.041
FILE NAME: Figures_3_9_13.dwg

Teck
Sa Dena Hes Mine

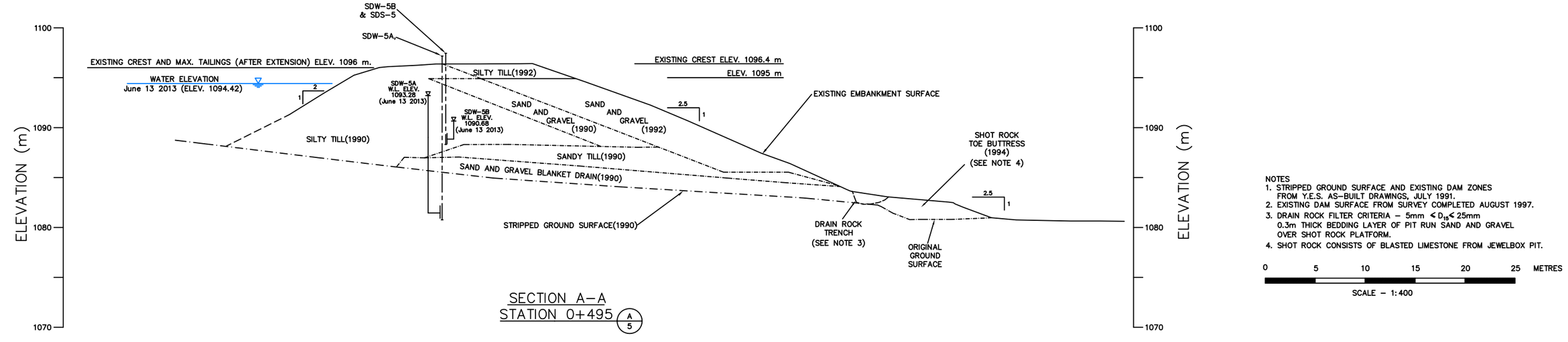
2013 Geotechnical Inspection
South Dam
Site Plan
DATE: Nov. 28 2013
APPROVED: P.M.H.
FIGURE: 9

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PIEZOMETER	DATE	TOP	READING	ELEVATION
SDW–3A	June 13 2013	1097.215	10.43	1086.78
SDW–3B	June 13 2013	1097.479	10.68	1086.80
SDW–4A	June 13 2013	1083.970	1.40	1082.57
SDW–4B	June 13 2013	1083.620	2.37	1081.25
SDW–4C	June 13 2013	1083.730	2.07	1081.66
SDW–5A	June 13 2013	1097.165	3.88	1093.28
SDW–5B	June 13 2013	1097.450	6.77	1094.42



SECTION B–B
STATION 0+445 (B/5)



SECTION A–A
STATION 0+495 (A/5)

NOTES
1. STRIPPED GROUND SURFACE AND EXISTING DAM ZONES FROM Y.E.S. AS–BUILT DRAWINGS, JULY 1991.
2. EXISTING DAM SURFACE FROM SURVEY COMPLETED AUGUST 1997.
3. DRAIN ROCK FILTER CRITERIA – 5mm $< D_{15} <$ 25mm
   0.3m THICK BEDDING LAYER OF PIT RUN SAND AND GRAVEL OVER SHOT ROCK PLATFORM.
4. SHOT ROCK CONSISTS OF BLASTED LIMESTONE FROM JEWELBOX PIT.

0 5 10 15 20 25 METRES

SCALE – 1:400

srk consulting

SRK JOB NO.: 1CT008.041

FILE NAME: Figure_10.dwg

Teck

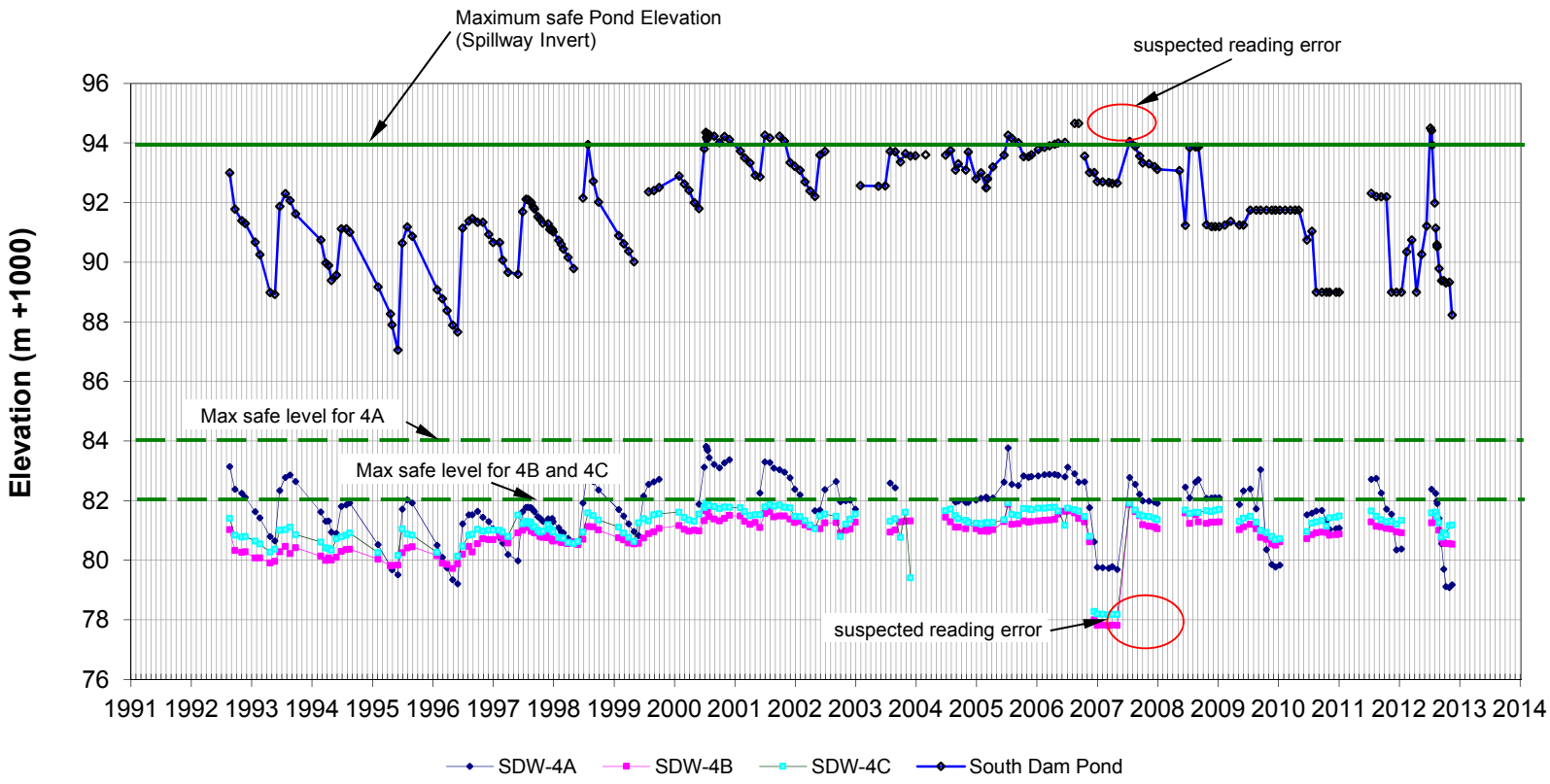
Sa Dena Hes Mine

2013 Geotechnical Inspection

Section 0+445 & 0+495
South Dam

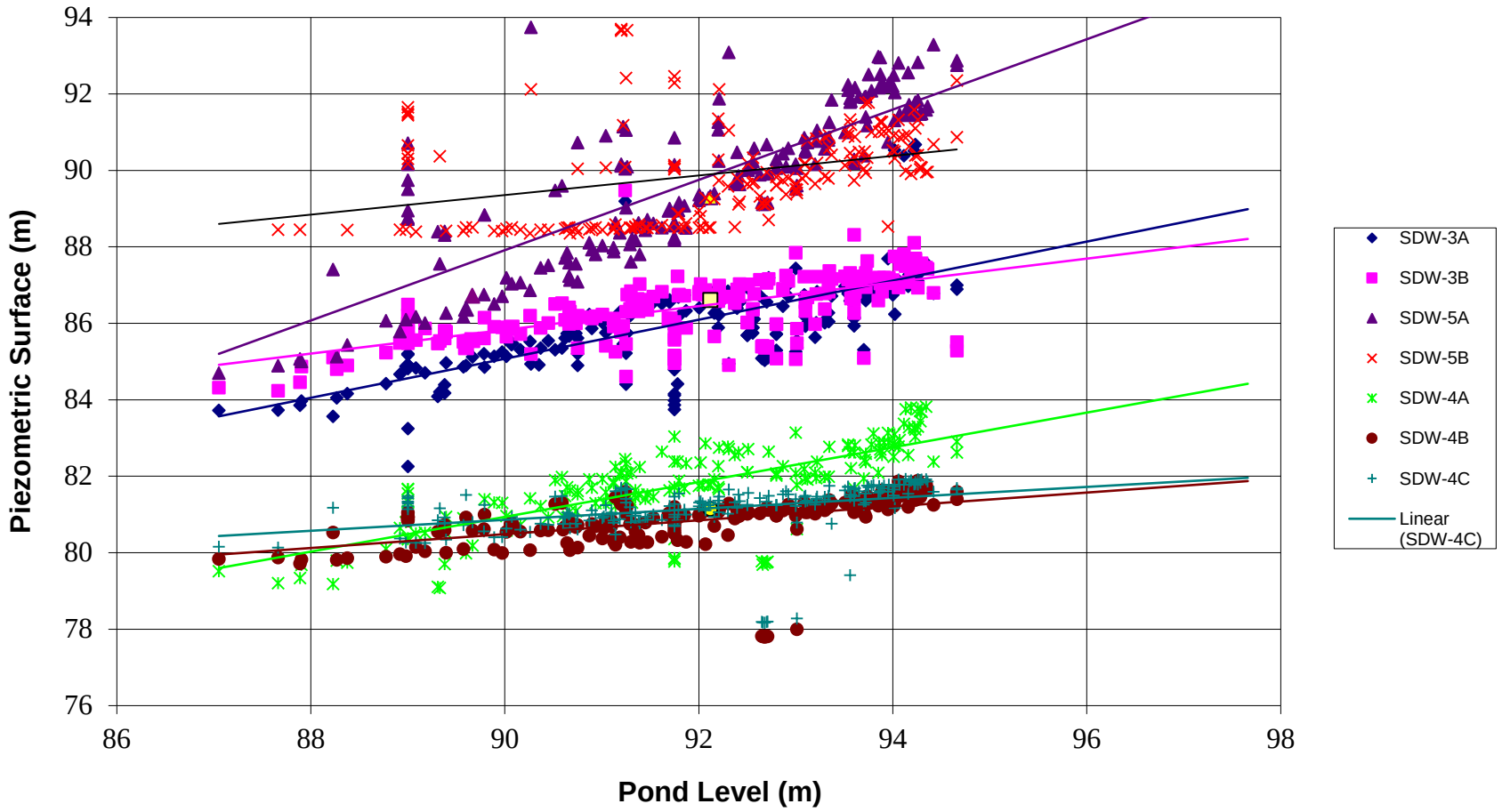
DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	10

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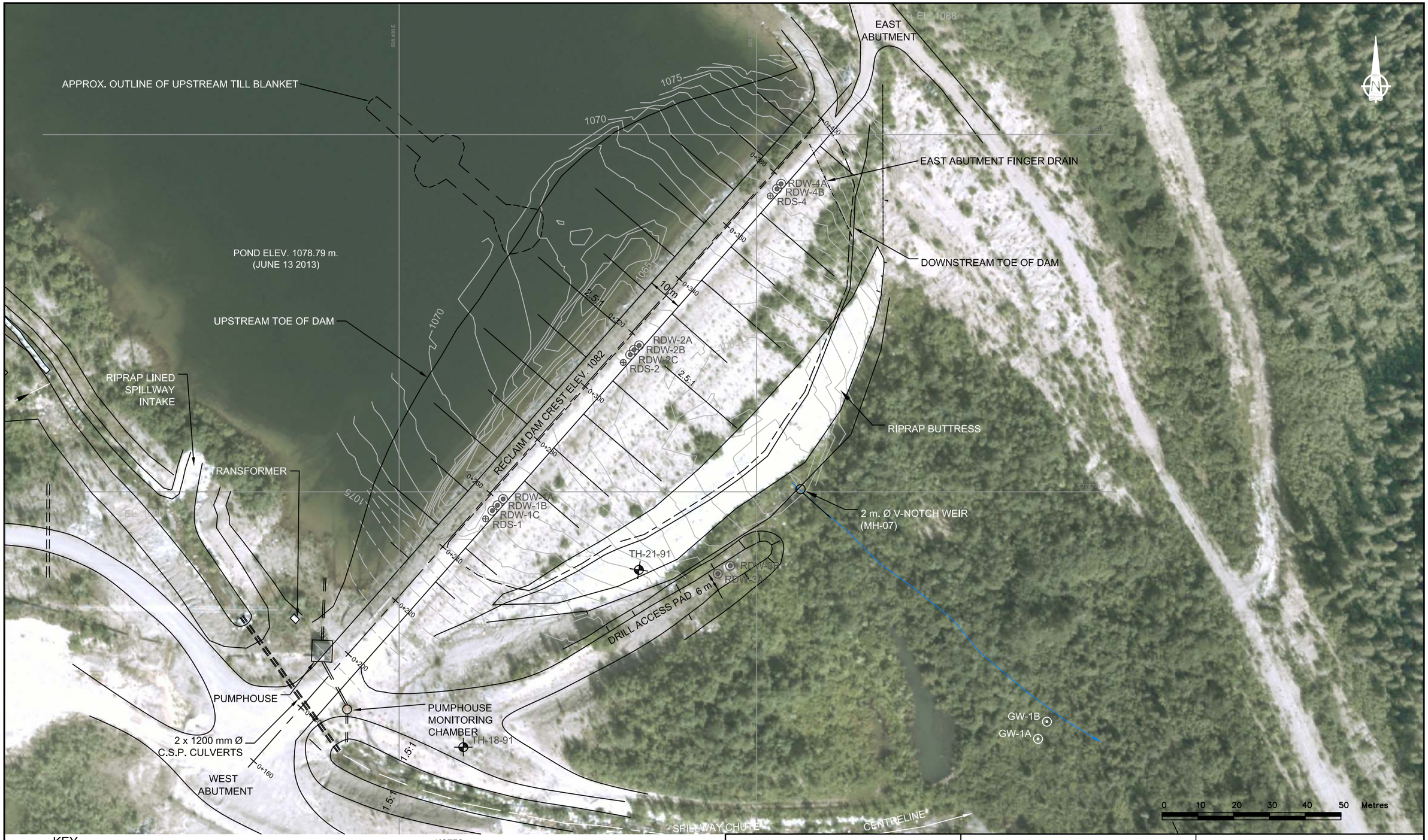
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srk consulting	Teck	2013 Geotechnical Inspection
Job No: 1CT008.041 File: TMF_piezoLevels_1CT008 041_JMC_20131120_Rev0	Sa Dena Hes Mine	South Dam Piezometric Levels vs. Time
		Date: Nov. 28, 2013 / Approved: PMH / Figure: 11



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srk consulting	Teck	2013 Geotechnical Inspection
Job No: 1CT008.028 File:TMF_piezoLevels_1CT008.041_JMC_20131120_Rev0	Sa Dena Hes Mine	South Dam Piezometric Levels vs.Tailings Pond Levels
		Date: Niovember 2013 | Approved: PMH | Figure: 12



KEY

- RDW-1 — PIEZOMETERS (NOV., 1991)
- RDS-1 — SETTLEMENT GAUGE (NOV., 1991)
- GW-1 — GROUNDWATER WELL (NOV., 1991)
- TH-21-91 — OBSERVATION WELL (JUNE, 1991)
- EXCAVATION CONTOURS
- ESTIMATED EXCAVATION CONTOURS
- SEEPAGE

NOTES:

1. TOPOGRAPHIC DATA REPRESENTS STRIPPED GROUND.
2. DETAILS OF SPILLWAY CHUTE ARE INCLUDED IN NOV. 12, 1992 INSPECTION REPORT.
3. TOPOGRAPHIC CONTOUR DATA AND AERIAL PHOTOS WERE OBTAINED FROM MCELHANNEY AND ARE BASED ON AUGUST 15, 2012 LIDAR SURVEY. COORDINATE SYSTEM IS UTM NAD 83CSRS ZONE 9V.

srk consulting

SRK JOB NO.: 1CT008.041

FILE NAME: Figures_3_9_13.dwg

Teck

Sa Dena Hes Mine

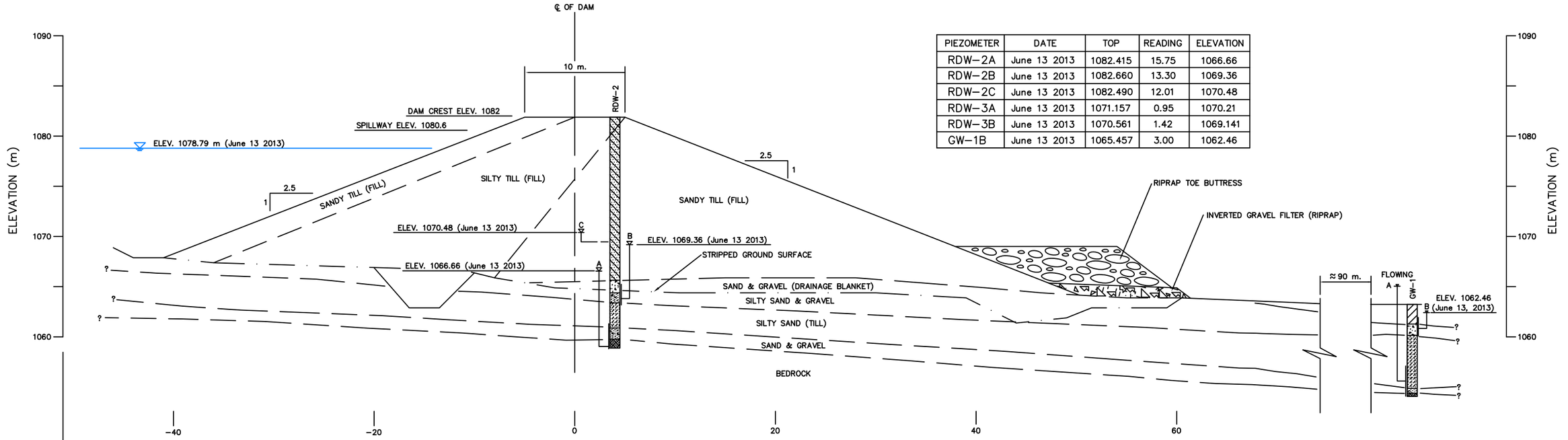
2013 Geotechnical Inspection

Reclaim Dam Site Plan

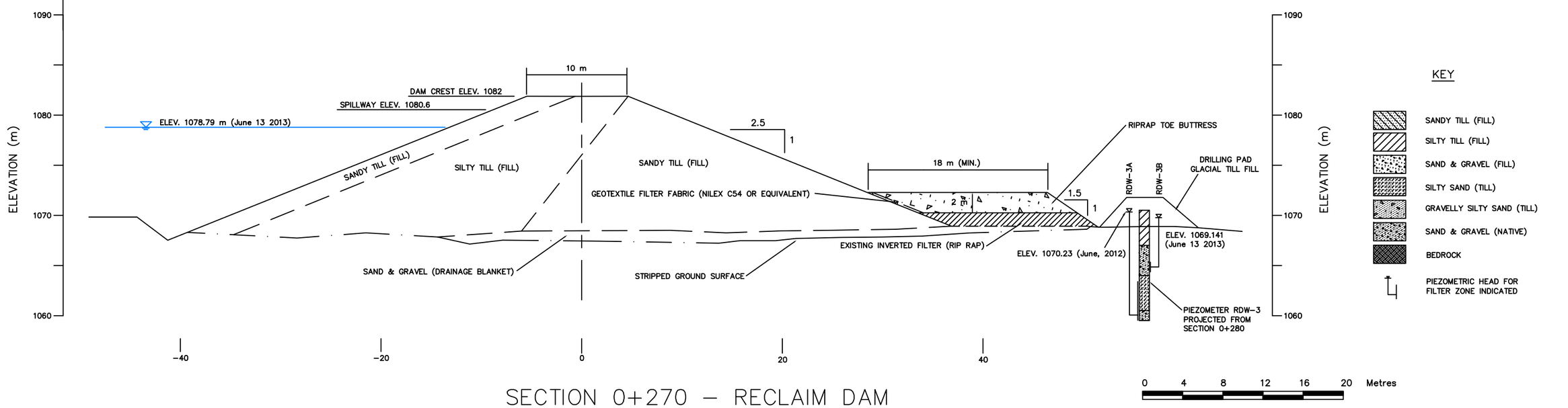
DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	13

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PIEZOMETER	DATE	TOP	READING	ELEVATION
RDW–2A	June 13 2013	1082.415	15.75	1066.66
RDW–2B	June 13 2013	1082.660	13.30	1069.36
RDW–2C	June 13 2013	1082.490	12.01	1070.48
RDW–3A	June 13 2013	1071.157	0.95	1070.21
RDW–3B	June 13 2013	1070.561	1.42	1069.141
GW–1B	June 13 2013	1065.457	3.00	1062.46



SECTION 0+320 – RECLAIM DAM



SECTION 0+270 – RECLAIM DAM

srk consulting

SRK JOB NO.: 1CT008.041

FILE NAME: Figure_14.dwg

Teck

Sa Dena Hes Mine

2013 Geotechnical Inspection

Section 0+320 & 0+270
Reclaim Dam

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	14

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RUN OFF CENTRELINE

1/4 ROUND CMP ARMOURING

RIPRAP LINED SPILLWAY INTAKE

TRANSFORMER

APPROX. OUTLINE OF UPSTREAM TILL BLANKET

UPSTREAM TOE OF DAM

0+160

0+200

0+220

0+240

0+260

0+280

0+300

0+320

0+340

1.5:1

2.5:1

1075

1070

1065

508,400 E

TH-18-91

TH-21-91

RDW-1C
RDW-1B
RDW-1A
RDS-1

RDS-2
RDW-2C
RDW-2B
RDW-2A

RECLAIM DAM CREST ELEV. 1092

DRILL ACCESS PAD 6 m

NOTE 2)

0 10 20 30 40 50

Scale in Metres

CONTOUR INTERVAL=10m

LEGEND

- Major Contours
- Edge of Road
- Top of Slope

NOTE

Topographic contour data and aerial photos were obtained from McElhanney and are based on August 15, 2012 LiDAR survey. Coordinate system is UTM NAD 83CSRS zone 9V.

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SRK JOB NO.: 1CT008.041

FILE NAME: Figures_15.dwg

Teck

Sa Dena Hes Mine

2013 Geotechnical Inspection

Camp Creek Diversion

DATE:	APPROVED:	FIGURE:
Nov. 28 2013	P.M.H.	15

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Appendix A: Photo Log



Photo1 : View of the Tailings Management Facility from Jewelbox Waste Rock Dump



Photo 2: View west along the North Dam Crest



Photo 3: Protective Steel Cap over the NDW-2A Piezometer in the North Dam



Photo 4: Monitoring point at the downstream toe of the North Dam (MW-02)



Photo 5: View of the downstream face of the North Dam



Photo 6: Inlet Culverts at the North Creek Dyke



Photo 7: Outlet culverts at the North Dyke



Photo 8: Main outlet culvert at the North Creek Dyke



Photo 9: Flow at the outlet from the main 600mm culvert at the North Creek Dyke



Photo 10:Outlet at the Second crossing in North Creek



Photo 11: Upper interceptor ditch above the northern end of the TMF



Photo 12: Cofferdam



Photo 13:Sluice gate at cofferdam XX



Photo 14: View north over the ponded water above the cofferdam



Photo 15: Piezometers and vegetation the downstream toe of the South Dam



Photo 16: Piezometers 4A, 4B and 4C at the toe of the South Dam.



Photo 17: View north over the reclaim pond XX



Photo 18:View along the upstream face of the Reclaim Dam in June 2013



Photo 19:View of the reclaim pond in September 2013



Photo 20: View of the pond behind the South Dam in September 2013



Photo 21: View of the reclaim pond in October 2013



Photo 22: View of the ponded water behind the South Dam in October 2013. Decant tower on the left



Photo 23: Toe buttress at the Reclaim Dam



Photo 24: Outlet of the two 1200 mm culverts at the Reclaim Dam



Photo 25: Syphon outlets in the exit chute below the Reclaim Dam



Photo 26: Inlet of the two 1200 mm dia culverts at the Reclaim Dam



Photo 27: Steel pipe armouring in Camp creek looking south



Photo 28: Water level logger in Camp creek.



Photo 29: More sidehill armouring in Camp Creek looking north.

Appendix B: Water Levels

		24-Sep-13	25-Sep-13	26-Sep-13	27-Sep-13	28-Sep-13	30-Sep-13	16-Oct-13	18-Oct-13	20-Nov-13	1-Dec-13		
North Dam													
1	NDW-3A						7.35	7.32					
2	NDW-3B						5.14	5.14					
3	TH-14-91						10.87	10.84					
4	NDW-1A						10.56	10.51					
5	NDW-1B						8.02	8.02					
6	NDW-2A						7.62	7.59					
7	NDW-2B						5.12	5.13					
8	NDW-4A						2.99	2.9					
	Pond level	NO WATER AGAINST DAM											
Reclaim Dam													
1	RDW-1C						14.2	14.04		14.05			
2	RDW-1B						13.54	13.48		13.47			
3	RDW-1A						9.47	9.46		9.46			
4	RDW-2C						note 1	16.73					
5	RDW-2B						14.11	14.21					
6	RDW-2A						12.15	12.15					
7	RDW-4B						9.79	9.64					
8	RDW-4A						8.31	8.3					
9	TH-18-91						13.19	13.12					
10	TH-21-91						4	3.94					
11	RDW-3A						2	1.94					
12	RDW-3B						2.32	2.26					
13	GW-1B						2.91	2.95					
	Pond level	1076.365	1076.41	1076.43	1076.44	1076.43	1076.39	1076.63		1076.87			
South Dam													
1	SDW-1A						5.38	5.31					
2	SDW-1B						note 5	note 5					
3	SDW-2A						10.5	10.5					
4	SDW-2B						8.2	8.12					
5	SDW-3A						13.01	13.65					
6	SDW-3B						11.94	12.37					
7	SDW-5A						9.61	9.76					
8	SDW-5B						7.08	note 5					
9	SDW-4A						4.7	4.6					
10	SDW-4B						3.06	3.09					
11	SDW-4C						2.5	2.48					
	Pond level						1089.33		1088.23				
		note 1	no date recorded for the readings										
		note 2	caretaker unable to take a reading because either the piezometer is plugged or drifted over with snow.										
		note 3	well was muddy										
		note 4	ice plug in well										
		note 5	dry, sensor sounded										

		13-Jan	13-Feb	13-Mar	13-Apr	13-May	13-Jun	10-Jul-13	16-Jul-13	18-Jul-13	30-Jul-13	13-Aug-13	10-Sep-13
North Dam													
1	NDW-3A	7.45	7.67	8.1	8	7.7	6.75		7.25			7.4	7.48
2	NDW-3B	5.14	5.14	5.13	5.13	5.08	5.01		5.14			5.14	5.14
3	TH-14-91	11.21	11.28	10.42	10.32	10.28	10.7		10.77			10.85	10.94
4	NDW-1A	9.32	9.51	11.26	11	10.44	9.83		10.49			10.6	10.67
5	NDW-1B				11.11	10.01	7.93		7.98			8.03	8.02
6	NDW-2A	8.54	9.01	9.23	9.2	8.22	6.6		7.57			7.72	7.86
7	NDW-2B	5.34	5.67	5.8	5.81	5.69	4.98					note 5	5.12
8	NDW-4A	3.12	3.34	3.6	3.32	3.07	2.38		3			3.09	3.13
	Pond level	NO WATER AGAINST DAM											
Reclaim Dam													
1	RDW-1C	10.24	10.36	10.55	9.21	9.23	9.33	11.62		11.56	11.7	10.65	13.52
2	RDW-1B	13.08	13.4	13.6	13.5	13.41	12.25	11.1		11.01	11.16	12.06	12.96
3	RDW-1A	13.72	14	14.18	14.03	13.92	12.8	9.49		9.48	9.49	9.55	13.5
4	RDW-2C	12.36	12.36	12.3	12.2	12.1	12.01	15.42		15.28	15.36	15.71	16.23
5	RDW-2B	14	14.1	14.16	13.02	13.25	13.3	12.71		12.69	12.71	13.03	13.57
6	RDW-2A	16.42	16.48	17	16.81	16.56	15.75	12.09		12.1	12.11	12.13	12.15
7	RDW-4B	8.32	8.32		note 4	10.05	8.13	6.92		7.28	8.21	8.26	9.13
8	RDW-4A				note 4	7.43	7.22	8.22		8.18	7.7	8.24	8.26
9	TH-18-91	13.2	13.25	13.29	13.1	12.06	11.9	11.02		10.97	11.06	11.89	12.67
10	TH-21-91	3.1	3.12	3.16	3.18	3	2.99	2.3		2.27	2.34	2.97	3.58
11	RDW-3A	1.46	2	2.14	1.99	1.76	0.95	0.25		0.21	0.28	0.91	1.55
12	RDW-3B	3.1	3.18	3.6	2.86	2	1.42	0.93		0.9	0.95	1.42	1.91
13	GW-1B	3.14	3.1	2.47	2.52	2.43	3	3.15		3.1	3.07	3.42	2.94
	Pond level	1081.03	1081.03	1076.67	1076.94	1077.44	1078.79	1080	1079.85	1079.77	1079.3	1078.42	1077.15
South Dam													
1	SDW-1A				note 4			note 1	5.24	5.25	5.24		5.34
2	SDW-1B				4.6	3.76	3.39	note 5	note 5	note 5	3.33	3.38	note 5
3	SDW-2A	12.3	12.3	12.26	12.28	8.04	6.51	7.56	8.61	8.74	9.25	9.9	10.27
4	SDW-2B	7.7	7.76	7.18	7.1	6.18	6.16	7.71	8.12	8.12	8.12	8.12	8.12
5	SDW-3A	12.3	12.32	12.3	12.28	11.76	10.43	11.32	11.86	11.91	12.36	12.82	13.04
6	SDW-3B				12.28	11.54	10.68	10.59	10.95	10.97	11.33	11.67	11.87
7	SDW-5A	8.11	7.76	7.5	3.42	6.02	3.88	6.68	7.57	7.69	8.33	8.86	8.76
8	SDW-5B				5.33	6.27	6.77	7.11	dry	dry	7.33	7.33	note 5
9	SDW-4A				note 2	note 2	1.4	1.53	1.8	1.88	2.38	3.23	4.08
10	SDW-4B				note 2	note 2	2.37	2.17	2.32	2.35	2.62	2.89	3.03
11	SDW-4C				note 2	note 2	2.07	2.05	2.18	2.19	2.41	2.89	2.74
	Pond level	1090.35	1090.75	1089	1090.27	1091.22	1094.42	1091.14	1090.59	1090.52	1089.79	1089.38	1089.38
		note 1	no date recorded for the readings										
		note 2	caretaker unable to take a reading because either the piezometer is plugged or drifted over with snow.										
		note 3	well was muddy										
		note 4	ice plug in well										
		note 5	dry, sensor sounded										

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		note 1	note 1	note 1	note 1		note 1	note 1	note 1	note 1	note 1	note 1	note 1
1	NDW-3A	7.75	8.00	7.95	7.90		7.00	7.33	7.30	7.29	7.34	7.38	7.36
2	NDW-3B	5.14	5.14	5.06	5.04		5.07	5.11	5.12	5.13	5.13	5.13	5.13
3	TH-14-91	10.99	11.29	11.31	11.37		10.29	10.78	10.89	10.98	10.95	10.97	11.02
4	NDW-1A	10.86	10.90	11.06	11.17		10.00	10.55	10.76	10.66	10.68	10.70	10.86
5	NDW-1B	9.76	8.05	7.79	7.49		7.90	7.98	7.80	7.97	8.04	8.17	9.04
6	NDW-2A	8.71	9.05	9.09	9.15		6.98	7.84	7.77	7.98	8.02	8.22	8.22
7	NDW-2B	4.88	5.19	5.10	4.95		5.00	5.02	5.08	5.10	5.03	5.00	5.01
8	NDW-4A	3.65	3.45	3.25	3.21		2.60	2.96	3.00	3.07	3.04	3.01	2.99
	Pond level	NO WATER AGAINST DAM											
Reclaim Dam													
1	RDW-1C		8.49	8.79	9.35		9.45	9.37	9.40	9.45	9.45	9.45	9.46
2	RDW-1B	13.46	13.45	13.51	13.58		12.24	11.14	11.76	12.31	12.51	12.76	12.89
3	RDW-1A	14.01	14.07	14.07	14.08		12.66	11.65	11.91	12.83	12.87	13.03	13.68
4	RDW-2C	12.27	12.19	12.23	12.42		12.01	12.09	13.00	13.33	12.99	13.00	13.00
5	RDW-2B	16.00	11.24	12.31	14.13		13.19	12.82	13.12	13.43	13.56	13.85	13.88
6	RDW-2A	16.46	17.00	16.92	16.86		15.77	15.19	12.03	10.04	16.12	16.40	16.36
7	RDW-4B	9.17	10.23	note 2	note 2		8.22	5.29	6.19	8.17	8.19	8.22	8.32
8	RDW-4A	note 3	8.56	note 2	note 2		7.77	5.33	7.13	8.43	8.57	8.77	9.02
9	TH-18-91	13.56	13.20	13.16	13.14		11.97	11.15	11.92	12.10	12.65	13.05	13.16
10	TH-21-91	3.16	3.20	3.18	3.16		3.73	2.46	2.85	3.16	3.04	3.06	3.05
11	RDW-3A	1.52	1.84	1.80	1.67		0.93	0.36	0.86	1.09	1.06	1.05	1.05
12	RDW-3B	2.17	2.34	2.30	2.26		1.47	1.01	1.12	1.54	1.57	1.69	2.01
13	GW-1B	2.96	2.90	2.86	2.86		3.02	2.95	3.14	3.97	3.67	3.42	3.16
	Pond level	1077.09	1077.09	1077.09	1077.09		1078.96	1079.61	1078.96	1078.51	1076.67	1076.67	1076.67
South Dam													
1	SDW-1A	5.00	4.70	note 4	note 4		5.08	5.24	5.30	5.39	5.32	5.37	5.16
2	SDW-1B	3.39	3.39		4.67		3.43	3.40	3.40	3.39	3.40	3.44	3.40
3	SDW-2A	13.16	note 2	note 2	note 2		6.76	7.00	7.24	7.50	8.67	8.75	12.34
4	SDW-2B	note 2	note 2	note 2	note 2		6.45	7.00		7.33	7.57	7.69	8.02
5	SDW-3A	note 2	note 2	note 2	note 2		12.27	10.70	10.98	11.33	11.62	12.03	12.30
6	SDW-3B	11.76	12.06	12.16	12.37		12.57	10.49	10.90	10.86	10.99	11.27	11.48
7	SDW-5A	note 2	note 2	note 2	note 2		4.08	5.29	5.90	6.10	6.45	6.97	8.22
8	SDW-5B	note 2	note 2	note 2	note 2		6.40	5.33	6.10	7.17	7.01	7.00	6.80
9	SDW-4A	note 2	note 2	note 2	note 2		1.07	1.03	1.52	2.07	2.23	3.43	3.40
10	SDW-4B	note 2	note 2	note 2	note 2		2.33	2.48	2.50	2.55	2.57	2.67	2.70
11	SDW-4C	note 2	note 2	note 2	note 2		2.01	2.19	2.30	2.38	2.35	2.45	2.32
	Pond level	1089.00	1089.00	1089.00	1089.00		1092.31	1092.21	1092.20	1092.20	1089.00	1089.00	1089.00

No sampling conducted in May due to extreme snow conditions

note 1 no date recorded for the readings

note 2 caretaker unable to take a reading because either the piezometer is plugged or drifted over with snow.

note 3 well was muddy

note 4 ice plug in well

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		21-Jan-11	12-Feb-11	13-Mar-11	5-Apr-11	23-May-11	23-Jun-11	18-Jul-11	22-Aug-11	19-Sep-11	8-Oct-11	15-Nov-11	5-Dec-11
1	NDW-3A	7.94	7.83	8.04	8.28	7.03	6.82	7.02	7.32	7.21	7.10	7.26	7.46
2	NDW-3B	5.08	5.08	5.10	5.10	5.12	5.14	5.14	5.13	5.13	5.12	5.13	5.14
3	TH-14-91	11.30	11.17	11.42	11.63	11.02	10.15	10.43	10.68	11.01	11.72	11.48	10.93
4	NDW-1A	11.17	11.07	11.30	11.49	10.79	9.71	10.03	10.41	10.68	10.26	10.43	10.75
5	NDW-1B	8.13	8.06	8.22	8.97	8.45	8.00	7.98	7.98	8.45	8.96	9.47	9.90
6	NDW-2A	9.22	8.97	9.56	9.71	7.03	6.65	7.00	7.61	7.45	7.25	7.82	8.36
7	NDW-2B	5.08	5.07	5.10	5.11	5.10	5.10	5.08	5.07	5.06	5.06	4.97	4.73
8	NDW-4A	3.33	3.32	3.34	3.32	2.80	2.19	2.46	3.02	2.45	2.83	2.92	3.01
	Pond level	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Reclaim Dam													
1	RDW-1C	9.51	9.50	9.50	9.48	9.40	9.38	9.40	9.42	9.42	9.41	9.43	9.46
2	RDW-1B	13.12	13.22	13.34	14.06	13.07	12.39	12.01	11.78	11.89	12.10	12.67	13.13
3	RDW-1A	13.52	13.65	13.85	14.00	13.10	12.38	12.29	12.25	12.32	12.57	12.40	13.74
4	RDW-2C	12.35	12.41	note 1	12.19	12.10	12.00	12.01	12.03	12.16	12.29	12.45	12.96
5	RDW-2B	13.77	13.80	note 1	14.10	13.76	13.48	13.40	13.31	13.17	13.12	13.42	13.90
6	RDW-2A	16.21	16.40	16.61	16.68	16.05	15.87	15.62	15.55	15.62	15.82	16.08	16.34
7	RDW-4B	8.27	8.32	8.36	note 1	8.35	8.29	8.32	8.37	8.39	8.52	8.46	8.41
8	RDW-4A	9.60	9.65	9.71	note 1	8.56	8.39	8.36	8.33	8.37	8.50	9.27	10.00
9	TH-18-91	12.92	12.97	13.14	25.90	16.02	12.14	11.73	11.60	11.72	11.92	12.67	13.91
10	TH-21-91	3.69	3.82	4.00	4.00	3.61	3.10	2.81	2.73	2.79	2.92	3.00	3.10
11	RDW-3A	1.77	note 1	note 1	note 1	1.10	1.01	0.91	0.69	0.75	0.88	0.92	1.04
12	RDW-3B	2.08	2.16	2.26	7.00	1.62	1.57	1.37	1.25	1.31	1.40	1.90	2.02
13	GW-1B	2.94	2.96	2.92	3.02	2.98	2.94	2.98	3.06	3.00	2.93	2.96	3.02
	Pond level	1076.00	1076.00	1076.00	1076.00	1078.00	1078.15	1078.45	1078.91	1078.72	1078.65	1076.94	1076.67
South Dam													
1	SDW-1A	5.71	6.00	6.50	6.10	5.71	5.20	5.16	5.14	5.08	5.07	5.06	5.10
2	SDW-1B	3.35	3.35	3.35	3.35	3.17	3.15	3.15	3.41	3.39	3.38	3.38	3.36
3	SDW-2A	note 1	note 1	note 1	note 1	8.79	8.66	8.60	8.52	8.48	13.14	13.10	13.08
4	SDW-2B	note 1	note 1	note 1	note 1	8.45	8.15	8.14	8.14	8.12	8.12	8.10	8.08
5	SDW-3A	13.23	13.35	13.47	note 1	12.01	11.46	12.01	14.96	13.97	12.40	12.38	12.34
6	SDW-3B	12.37	12.42	12.52	note 1	12.13	12.07	12.00	11.85	11.71	11.68	11.62	11.58
7	SDW-5A	note 1	note 1	note 1	note 1	6.44	6.26	7.00	7.42	7.66	8.44	8.42	8.40
8	SDW-5B	note 1	note 1	note 1	note 1	7.41	7.38	7.27	7.15	6.01	5.97	5.92	5.80
9	SDW-4A	note 1	note 1	note 1	note 1	2.25	2.20	2.13	2.11	2.45	2.75	2.72	2.70
10	SDW-4B	note 1	note 1	note 1	note 1	2.90	2.76	2.70	2.68	2.69	2.78	2.76	2.74
11	SDW-4C	note 1	note 1	note 1	note 1	2.70	2.42	2.38	2.33	2.52	2.24	2.22	2.18
	Pond level	1091.75	1091.75	1091.75	1091.75	1090.75	1091.04	1089.00	1089.00	1089.00	1089.00	1089.00	1089.00
		note 1	caretaker unable to take a reading because either the piezometer is plugged or drifted over with snow.										
		note 2	caretaker unable to reach ponds because the snow is like sugar thus dangerous to snowmobile on.										

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		13-Jan-10	16-Feb-10		11-Apr-10	4-May-10	15-Jun-10	20-Jul-10	16-Aug-10	21-Sep-10	23-Oct-10	14-Nov-10	11-Dec-10
1	NDW-3A	7.45	7.80		7.35	7.25	7.10	7.35	7.61	7.63	7.65	7.71	7.70
2	NDW-3B	5.21	5.51		5.03	5.25	5.40	5.16	5.09	5.07	5.06	5.08	5.03
3	TH-14-91	10.21	10.12		12.44	11.02	10.47	10.54	10.96	11.01	11.08	11.12	11.10
4	NDW-1A	10.41	10.25		10.71	10.35	10.12	10.32	10.79	10.85	10.90	10.94	10.90
5	NDW-1B	10.25	7.86		7.95	7.90	7.98	7.97	7.96	7.95	7.95	7.94	7.94
6	NDW-2A	7.85	8.42		7.86	7.42	7.29	8.01	8.46	8.52	8.75	8.77	8.76
7	NDW-2B	5.10	5.12		5.10	5.10	5.11	5.00	4.93	4.95	5.02	5.06	5.03
8	NDW-4A	2.71	2.60		2.70	2.74	2.79	3.02	3.36	3.37	3.39	3.32	3.21
	Pond level	n.a	n.a		n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Reclaim Dam													
1	RDW-1C	9.45	9.46		9.49	9.49	9.44	9.45	9.45	9.45	9.46	9.53	9.51
2	RDW-1B	11.17	11.30		11.68	11.49	11.23	12.17	12.72	12.79	12.43	13.01	13.00
3	RDW-1A	12.40	11.69		12.25	12.00	11.60	12.58	12.56	12.91	13.38	13.40	13.38
4	RDW-2C	12.62	12.84		12.21	12.23	12.24	12.25	12.29	12.27	12.25	12.25	12.20
5	RDW-2B	12.45	12.55		13.20	12.82	12.69	13.00	13.14	13.48	13.67	13.70	13.60
6	RDW-2A	15.00	14.42		15.30	15.01	14.63	14.67	15.35	15.49	15.98	16.00	
7	RDW-4B	8.01	7.94		8.27	8.21	8.18	8.14	8.28	8.27	8.26	8.25	8.25
8	RDW-4A	8.45	6.87	note 2	8.07	7.92	7.72	8.00	8.42	8.99	9.52	9.56	9.54
9	TH-18-91	11.55	11.45		11.78	11.52	11.11	11.43	11.98	12.13	12.75	12.81	12.80
10	TH-21-91	2.35	2.10		2.83	2.53	2.37	2.97	3.03	3.27	3.57	3.61	3.60
11	RDW-3A	0.70	0.18		0.67	0.51	0.32	0.65	0.95	1.23	1.59	1.63	1.62
12	RDW-3B	1.00	0.64		1.05	1.00	0.85	1.01	1.39	1.72	1.94	2.00	2.00
13	GW-1B	2.41	2.30		2.61	2.82	3.05	3.05	3.04	3.02	3.00	2.98	2.97
	Pond level	1079.04	1079.01		1078.46	1078.56	1078.28	1078.43	1078.70	1077.28	1076.20	1076.00	1076.00
South Dam													
1	SDW-1A	5.00	4.61		6.57	6.40	5.10	5.25	5.48	5.52	5.61	5.67	5.63
2	SDW-1B	3.44	3.50		3.38	3.38	3.37	3.40	3.40	3.37	3.35	3.35	3.35
3	SDW-2A	7.87	10.56		10.58	9.11	7.96	9.31	9.39	9.57	10.35		
4	SDW-2B	8.00	note 1		8.18	8.01	7.93	8.16	8.21	8.25	8.28		
5	SDW-3A	11.45	note 1		12.81	12.00	11.28	11.37	12.29	12.43	13.06	13.10	
6	SDW-3B	11.17	10.84		12.87	12.02	11.44	11.51	11.85	11.91	12.33	12.32	
7	SDW-5A	7.15			8.14	6.11	6.31	7.02	8.54	8.61	8.92	8.99	8.95
8	SDW-5B	note 1	note 1		1.62	5.03	4.99	5.16	7.42	7.40	7.35	7.35	7.31
9	SDW-4A	note 1	note 1		1.91	1.45	1.39	2.06	0.74	3.42	3.92	4.01	3.95
10	SDW-4B	note 1	note 1		2.60	2.50	2.42	2.56	2.86	2.92	3.08	3.12	3.00
11	SDW-4C	note 1	note 1		2.35	2.25	2.19	2.39	2.66	2.73	2.87	2.97	2.94
	Pond level	1091.25	1091.37		1091.25	1091.25	1091.75	1091.75	1091.75	1091.75	1091.75	1091.75	1091.75

note 1 caretaker unable to take a reading because either the piezometer is plugged or drifted over with snow.

note 2 caretaker unable to reach ponds because the snow is like sugar thus dangerous to snowmobile on.

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		note 1	note 1	note 1	13-Apr-09	18-May-09	13-Jun-09	20-Jul-09	6-Aug-09	24-Sep-09	23-Oct-09	15-Nov-09	9-Dec-09
1	NDW-3A	no reading because the piezometers are burried in snow	no reading because the piezometers are burried in snow	no reading because the piezometers are burried in snow	9.00	6.71	6.79	7.21	7.40	7.08	7.06	7.07	7.11
2	NDW-3B				blocked	5.10	5.10	5.11	5.12	5.10	5.10	5.10	5.11
3	TH-14-91				15.34	10.45	10.19	10.71	10.84	10.65	10.67	10.70	10.71
4	NDW-1A				blocked	10.21	9.91	10.43	10.60	10.33	10.33	10.35	10.37
5	NDW-1B				blocked	7.94	7.95	8.02	8.17	7.94	7.95	7.97	10.97
6	NDW-2A				5.10	7.14	6.98	7.45	7.50	7.60	7.63	7.65	7.68
7	NDW-2B				9.86	5.12	5.12	5.11	5.10	5.05	5.10	5.12	5.10
8	NDW-4A				covered	2.64	2.63	2.84	2.91	2.76	2.77	2.79	2.77
	Pond level				n.a.	n.a.	n.a.	n.a	n.a	n.a	n.a	n.a	n.a
Reclaim Dam													
1	RDW-1C				covered	9.32	9.42	12.10	12.16	9.47	9.46	9.45	9.43
2	RDW-1B				covered	10.95	12.11	12.02	12.02	11.12	11.10	11.12	11.15
3	RDW-1A				16.00	11.01	12.50	10.10	12.31	12.10	12.10	12.10	12.15
4	RDW-2C				12.17	11.62	12.01	15.21	12.16	12.00	12.04	12.05	12.07
5	RDW-2B				13.46	11.65	12.75	13.01	13.16	12.97	12.95	12.93	12.95
6	RDW-2A				12.92	12.03	14.80	12.05	15.28	15.10	15.08	15.12	15.15
7	RDW-4B				12.54	7.45	7.81	8.60	8.07	8.02	8.00	8.05	8.07
8	RDW-4A				9.46	7.91	8.51	8.05	8.63	8.34	8.30	8.36	8.39
9	TH-18-91				12.40	11.23	13.12	11.17	11.98	11.65	11.69	11.68	11.70
10	TH-21-91				covered	2.10	2.75	2.86	2.98	2.65	2.67	2.67	2.70
11	RDW-3A				covered	0.46	0.79	0.89	0.99	0.70	0.65	0.70	0.75
12	RDW-3B				covered	0.91	1.29	1.31	1.45	1.23	1.11	1.24	1.26
13	GW-1B				1.19	2.08	2.98	2.25	2.27	3.50	2.67	2.43	2.51
	Pond level				1079.09	1079.67	1069.05	1078.51	1078.71	1079.30	1079.08	1079.03	1079.00
South Dam													
1	SDW-1A				5.95	5.81	5.18	5.17	5.23	5.10	5.10	5.10	5.12
2	SDW-1B				3.36	3.45	3.37	3.35	3.35	3.40	3.40	3.40	3.40
3	SDW-2A				blocked	9.02	6.99	7.70	6.90	8.12	8.00	8.00	7.98
4	SDW-2B				blocked	9.10	6.72	7.00	6.50	8.10	8.12	8.10	8.05
5	SDW-3A				3.20	8.02	10.31	10.28	10.16	11.47	11.45	11.44	11.40
6	SDW-3B				blocked	8.00	10.88	10.44	10.34	10.73	11.70	11.70	11.67
7	SDW-5A				blocked	7.12	4.19	4.65	4.21	7.07	7.05	7.03	7.00
8	SDW-5B				7.67	7.36		6.18	6.18	3.78	3.80	3.77	3.75
9	SDW-4A				buried	1.33	1.69	1.16	1.08	1.70	1.69	1.68	1.68
10	SDW-4B				buried	2.03	2.39	2.10	2.34	2.39	2.35	2.35	2.33
11	SDW-4C				buried	1.98	2.09	2.05	2.06	2.00	2.03	1.99	1.96
	Pond level				1093.07	1091.24	1093.85	1093.87	1093.87	1091.26	1091.20	1091.20	1091.20

note 1 No readings because the piezometers are burried in snow

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		4-Jan-08	11-Feb-08	3-Mar-08	2-Apr-08		17-Jun-08	19-Jul-08	15-Aug-08	3-Sep-08	10-Oct-08	14-Nov-08	1-Dec-08
1	NDW-3A	7.30	7.34	7.35	7.33		6.85	6.93	7.02	7.13	7.11	7.10	7.10
2	NDW-3B	5.40	5.42	5.42	5.40		5.10	5.10	5.09	5.09	5.08	5.06	5.05
3	TH-14-91	11.70	11.75	11.71	11.70		10.62	10.62	10.63	10.64	10.57	10.55	10.51
4	NDW-1A	10.50	10.53	10.46	10.51		10.36	10.38	10.40	10.41	10.42	10.41	10.40
5	NDW-1B	8.15	8.19	8.12	8.15		7.93	7.94	7.95	7.97	10.98	7.96	7.95
6	NDW-2A	7.81	7.85	7.80	7.82		7.30	7.41	7.50	7.58	7.57	7.53	7.52
7	NDW-2B	5.80	5.83	5.75	5.80		5.10	5.11	5.12	5.11	5.10	5.09	5.10
8	NDW-4A	2.65	2.60	2.64	2.63		2.70	2.82	2.87	2.91	2.87	2.83	2.81
	Pond level	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Reclaim Dam													
1	RDW-1C	9.28	9.25	9.24	9.25		11.97	12.05	11.98	12.01	12.00	11.97	11.96
2	RDW-1B	11.70	11.57	11.65	11.63		11.69	11.98	11.70	11.71	11.69	11.67	11.61
3	RDW-1A	11.97	11.95	11.94	11.91		9.35	9.40	9.37	9.36	9.33	9.32	9.30
4	RDW-2C	11.71	11.67	11.68	11.65		15.03	15.16	15.02	15.14	15.07	15.05	15.00
5	RDW-2B	11.94	11.90	11.88	11.87		12.68	12.75	12.70	12.73	12.69	12.65	12.62
6	RDW-2A	14.51	14.50	14.48	14.49		11.93	12.08	11.96	12.02	12.00	11.97	11.93
7	RDW-4B	8.00	7.97	7.95	8.01		8.37	8.44	8.40	8.42	11.39	8.35	8.31
8	RDW-4A	8.11	8.07	8.05	8.10		8.00	8.05	8.02	8.02	7.97	7.94	7.91
9	TH-18-91	11.46	11.42	11.40	11.40		11.49	11.65	11.53	11.61	11.57	11.52	11.50
10	TH-21-91	2.11	2.11	2.10	2.12		2.56	2.81	2.57	2.79	2.68	2.63	2.60
11	RDW-3A	0.53	0.50	0.47	0.50		0.59	0.73	0.60	0.67	0.65	0.62	0.60
12	RDW-3B	1.00	0.98	0.97	0.98		1.11	1.22	1.13	1.20	1.15	1.10	1.01
13	GW-1B	2.24	2.21	2.20	2.14		2.21	2.25	2.22	2.24	2.24	2.20	2.18
	Pond level	1079.13	1079.26	1079.31	1079.43		1078.91	1078.43	1078.97	1078.85	1078.87	1078.88	1078.93
South Dam													
1	SDW-1A	5.80	5.81	5.80	5.80		5.09	5.12	5.20	5.31	5.28	5.30	5.27
2	SDW-1B	3.70	3.70	3.70	3.70		3.35	3.36	3.37	3.37	3.37	3.35	3.37
3	SDW-2A	10.01	10.02	10.00	10.11		7.06	7.23	7.51	8.08	8.10	8.12	8.14
4	SDW-2B	10.13	10.17	10.10	10.13		7.11	7.30	7.67	8.12	8.12	8.15	8.16
5	SDW-3A	12.12	12.18	12.13	12.14		10.10	10.41	10.65	11.17	11.14	11.20	11.21
6	SDW-3B	12.11	12.12	12.09	12.07		10.54	10.65	10.83	10.65	10.70	10.71	10.80
7	SDW-5A	8.02	8.04	8.00	8.05		4.35	4.89	5.35	6.30	6.35	6.40	6.44
8	SDW-5B	8.30	8.35	8.30	8.32		6.13	6.19	6.25	6.53	6.57	6.62	6.67
9	SDW-4A	4.03	4.05	4.00	4.09		1.00	1.23	1.57	1.79	1.80	1.83	1.87
10	SDW-4B	5.80	5.82	5.80	5.81		1.75	1.99	2.13	2.43	2.48	2.50	2.56
11	SDW-4C	5.47	5.49	5.47	5.48		1.75	1.98	2.14	2.18	2.20	2.25	2.30
	Pond level	1094.70	1092.68	1092.65	1092.66		1094.06	1093.89	1093.57	1093.34	1093.30	1093.21	1093.12

No samples taken in May because of dangerous snow conditions

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		19-Jan-07	18-Feb-07	21-Mar-07	11-Apr-07	22-May-07	9-Jun-07	19-Jul-07	12-Aug-07	18-Sep-07	17-Oct-07	15-Nov-07	3-Dec-07
1	NDW-3A	7.28	7.26	7.25	7.69	7.77	6.66	6.77	6.99	7.14	7.35	7.30	7.32
2	NDW-3B	5.00	5.00	5.00	5.17		5.10	5.12	5.15	5.72	5.40	5.38	5.41
3	TH-14-91	11.00	11.02	11.00	11.31	11.84	10.30	10.25	10.10	10.71	11.75	11.72	11.73
4	NDW-1A	11.07	11.07	11.05	11.42	11.88	10.04	10.06	10.36	10.46	10.50	10.47	10.49
5	NDW-1B	7.77	7.69	7.70	7.81		7.92	7.93	7.95	7.96	8.13	8.12	8.15
6	NDW-2A	8.81	8.80	8.75	9.27	9.80	7.05	7.09	7.22	7.58	7.84	7.76	7.84
7	NDW-2B	4.70	4.68	4.70	4.97	5.08	5.08	5.04	5.02	5.66	5.81	5.75	5.80
8	NDW-4A	3.27	3.11	3.10	3.40	3.42	2.56	2.66	2.94	2.99	2.67	2.66	2.65
	Pond level	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Reclaim Dam													
1	RDW-1C	9.41	9.40	9.38	9.39	9.40	9.44	9.56	9.86	9.44	9.40	9.40	9.30
2	RDW-1B	11.72	11.70	11.68	11.68	11.69	11.11	11.43	11.75	11.96	11.87	11.78	11.72
3	RDW-1A	11.89	11.85	11.86	11.88		7.01	11.56	11.92	12.17	12.06	12.03	11.98
4	RDW-2C	11.90	11.90	11.89	11.91	12.10	12.00	12.01	12.05	12.00	11.57	11.86	11.72
5	RDW-2B	12.76	12.75	12.73	12.72	12.72	12.29	12.36	12.75	12.96	12.80	12.36	11.94
6	RDW-2A	14.92	14.90	14.85	14.80	14.72	14.17	14.41	14.82	15.01	14.76	14.55	14.53
7	RDW-4B	8.32	8.32	8.31	8.54	8.90	8.14	8.17	8.22	8.26	8.24	8.12	8.01
8	RDW-4A	8.32	8.30	8.30	8.13	8.03	7.38	7.96	8.37	8.45	8.53	8.30	8.14
9	TH-18-91	11.60	11.57	11.53	11.45	11.32	11.08	11.08	11.07	11.89	11.86	11.52	11.48
10	TH-21-91	2.67	2.65	2.61	2.50	2.57	2.23	2.67	2.43	2.68	2.60	2.32	2.12
11	RDW-3A	0.79	0.75	0.71	0.77	0.87	2.07	0.71	0.79	0.82	0.80	0.72	0.50
12	RDW-3B	1.31	1.30	1.28	1.17	1.01	0.88	1.24	2.00	1.34	1.35	1.12	1.01
13	GW-1B	2.72	2.64	2.60	2.60	2.61	2.27	2.39	2.79	2.48	2.46	2.30	2.24
	Pond level	1078.98	1078.98	1078.98	1079.02	1079.29	1079.09	1078.45	1078.32	1078.84	1078.98	1079.03	1079.14
South Dam													
1	SDW-1A	5.37	5.35	5.32	5.30	5.28	3.39	5.02	5.07	5.33	5.82	5.82	5.80
2	SDW-1B	3.38	3.37	3.37	3.35		5.01	3.39	3.43	3.39	3.70	3.70	3.70
3	SDW-2A	7.00	6.97	6.95	6.94	6.91		6.90	6.88	7.22	9.10	9.97	10.02
4	SDW-2B	6.99	6.98	6.98	7.34	7.90	7.02	6.89	6.77	7.23	9.28	9.98	10.14
5	SDW-3A	10.38	10.35	10.33	10.47	10.98	10.10	10.22	10.32	10.63	11.67	11.85	12.12
6	SDW-3B	10.28	10.28	10.29	10.35	10.43	10.20	11.97	12.19	10.16	11.62	12.00	12.08
7	SDW-5A	5.00	4.97	4.89	4.96	5.13	4.23	4.29	4.41	5.38	7.11	7.56	8.00
8	SDW-5B	6.44	6.43	6.41	6.92	7.13	6.22	6.58	5.10	6.12	7.96	8.04	8.32
9	SDW-4A	0.91	0.90	0.90	0.93	0.98	0.66	0.88	1.16	1.15	2.01	3.16	4.02
10	SDW-4B	2.28	2.27	2.25	2.07	1.98	1.97	2.03	2.22	2.33	3.00	5.62	5.81
11	SDW-4C	1.92	1.90	1.88	2.01	2.49	1.92	1.97	2.01	2.20	2.87	5.38	5.46
	Pond level	1093.86	1093.91	1093.96	1094.00	1094.02	not recorded	1094.66	1094.66	1093.56	1093.01	1093.01	1092.71

		Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
North Dam		30-Jan-06	9-Feb-06	13-Mar-06		19-May-06	13-Jun-06	5-Jul-06	14-Aug-06	15-Sep-06	15-Oct-06	1-Nov-06	12-Dec-06
1	NDW-3A	6.47	6.40	6.41		6.51	6.87	7.58	6.87	7.78	7.37	7.69	7.30
2	NDW-3B	4.08	4.01	4.00		4.17	5.11	4.99	5.11	5.05	5.04	5.17	5.00
3	TH-14-91	11.03	11.00	11.02		10.89	10.62	10.95	10.62	11.29	11.19	11.23	11.03
4	NDW-1A	10.80	10.77	10.74		10.40	10.35	10.78	10.35	11.22	11.12	11.15	11.08
5	NDW-1B	10.58	10.50	10.42		8.81	7.92	7.98	7.92	7.99	7.88	7.93	7.76
6	NDW-2A	8.80	8.78	8.71		8.17	7.28	8.06	7.28	9.06	8.89	8.88	8.85
7	NDW-2B	4.80	4.81	4.80		4.85	5.12	5.97	5.12	5.15	4.79	4.80	4.75
8	NDW-4A	3.08	3.03	3.07		2.99	2.66	3.38	2.66	3.44	3.42	3.51	3.40
	Pond level												
Reclaim Dam													
1	RDW-1C	9.60	9.6	9.58		9.51	9.49	9.40	9.36	9.86	9.46	9.52	9.38
2	RDW-1B	12.30	12.32	12.30		11.67	10.62	11.88	11.92	11.95	11.95	11.92	11.76
3	RDW-1A	12.35	12.31	12.32		12.12	10.29	12.05	12.09	12.13	12.06	12.00	12.00
4	RDW-2C	12.34	12.37	12.35		12.31	12.10	11.35	12.03	12.07	12.04	12.02	11.98
5	RDW-2B	12.16	12.13	12.01		12.11	12.25	12.74	12.78	12.88	12.89	12.92	12.78
6	RDW-2A	10.00	10.17	10.15		11.16	14.23	14.56	14.95	15.03	15.00	14.98	14.93
7	RDW-4B	8.40	8.43	8.40		8.36	8.25	8.22	8.38	8.22	8.36	8.16	8.32
8	RDW-4A	8.65	8.71	8.70		7.96	6.65	8.53	8.47	8.42	8.39	8.35	8.33
9	TH-18-91	12.10	12.09	12.10		11.67	10.79	11.88	11.86	11.87	11.79	11.68	11.62
10	TH-21-91	2.97	2.95	2.91		2.32	1.96	2.78	2.76	2.83	2.72	2.70	2.70
11	RDW-3A	1.10	1.11	1.14		0.76	0.02	0.78	0.88	0.85	0.82	0.80	0.80
12	RDW-3B	1.56	1.52	1.50		1.11	0.75	1.39	1.39	1.40	1.32	1.28	1.30
13	GW-1B	2.79	2.82	2.80		2.72	2.65	2.72	2.67			2.66	
	Pond level	1079.83	1079.84	1079.80		1079.93	1080.39	1078.53	1078.65		1078.90	1078.94	1078.94
South Dam													
1	SDW-1A	5.62	5.67	5.62		5.55	5.10	5.30	5.27	5.40	5.41	5.43	5.38
2	SDW-1B	3.60	3.60	3.60		3.54		3.86	3.89		3.37		3.37
3	SDW-2A	9.00	9.09	9.10		8.23	7.06	6.87	6.91	7.00	7.08	7.01	7.02
4	SDW-2B	9.20	9.23	9.20		8.20	7.10	7.00	7.16	6.97	7.01	6.92	7.00
5	SDW-3A	11.53	11.50	11.58		11.06	10.11	10.25	10.29	10.44	10.39	10.51	10.38
6	SDW-3B	11.46	11.50	11.50		11.21	10.55	10.40	10.43	10.27	10.33	10.40	10.30
7	SDW-5A	7.11	7.10	7.00		6.97	4.34	4.61	4.67	4.93	5.07	5.00	5.08
8	SDW-5B	7.81	7.84	7.80		7.11	6.13	6.53	6.54	6.55	6.46	6.57	6.45
9	SDW-4A	1.67	1.71	1.69		1.16	0.01	1.23	1.27	0.95	0.99	0.97	0.95
10	SDW-4B	2.60	2.65	2.60		2.32	1.74	2.42	2.40	2.30	2.35	2.32	2.30
11	SDW-4C	2.41	2.42	2.40		2.30	1.74	2.12	2.16	1.93	1.94	1.97	1.92
	Pond level	1092.50	1092.80	1093.20		1093.60	1094.26	1094.16	1094.01		1093.54	1093.61	1093.78

No data because of poor snow conditions

		Jan	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
North Dam		1/31/2005	4/30/2005	5/31/2005	6/30/2005	7/30/2005	8/16/2005	9/30/2005	10/14/2005	11/30/2005	12/31/2005	1/30/2006	2/9/2006
1	NDW-3A	8.25	8.02	7.69	7.25	7.49	7.46	5.73	7.60	7.10	6.62	6.47	6.40
2	NDW-3B	5.1	5.00	4.91	5.14	5.08	5.09	5.09	5.05	4.82	4.10	4.08	4.01
3	TH-14-91	11.98	11.93	11.87		11.97	11.01	11.22	11.31	11.16	11.06	11.03	11.00
4	NDW-1A	12.13	11.98	11.94	10.51	10.61	10.90	11.14	11.18	11.10	10.88	10.80	10.77
5	NDW-1B	8	8.13	8.84	8.01	8.00	8.02	7.97	7.97	7.84	7.62	10.58	10.50
6	NDW-2A	10.33	9.07	9.68	7.64	7.90	8.33	8.94	9.19	8.92	8.84	8.80	8.78
7	NDW-2B	5.13	5.13	5.04	5.11	5.11	5.10	5.07	5.01	4.96	4.82	4.80	4.81
8	NDW-4A	3.5 dry	3.57	3.38	2.98	3.18	3.35	3.48	3.44	3.16	3.10	3.08	3.03
	Pond level												
Reclaim Dam													
1	RDW-1C	9.38	9.49	4.59	9.37	9.46	9.46	9.67	9.60	958.00	9.60	9.60	9.6
2	RDW-1B	13.01	12.92	12.88	11.92	11.24	11.24	12.23	12.31	12.28	12.24	12.30	12.32
3	RDW-1A	13.17	13.02	13.00	12.01	11.40	11.40	12.38	12.41	12.40	12.36	12.35	12.31
4	RDW-2C	11.9	12.00	12.10	12.03	12.06	12.28	12.07	12.03	11.76	11.68	12.34	12.37
5	RDW-2B	13.59	13.45	13.49	12.66	12.46	12.89	13.01	13.09	13.10	13.15	12.16	12.13
6	RDW-2A	15.71	14.91	15.41	14.52	12.29	12.62	15.14	15.23	15.12	15.06	10.00	10.17
7	RDW-4B	8.51 dry	8.41	8.30	8.37	8.26	8.33	8.36	8.36	8.36	8.38	8.40	8.43
8	RDW-4A	9.32	8.57	8.87	8.27	7.74	8.57	8.65	8.67	8.60	8.62	8.65	8.71
9	TH-18-91	12.82	12.72	12.70	11.77	11.26	11.96	12.14	12.17	12.12	12.11	12.10	12.09
10	TH-21-91	3.52	3.47	3.41	2.74	8.34	2.43	3.01	2.88	2.98	2.94	2.97	2.95
11	RDW-3A	1.56	1.50	1.50	0.85	0.46	1.00	1.10	1.14	1.10	1.08	1.10	1.11
12	RDW-3B	2	1.92	1.87	1.35	1.07	1.47	1.55	1.52	1.54	1.59	1.56	1.52
13	GW-1B	2.90	1.90	1.90	2.80	2.85	2.96	2.70	2.50	2.62	2.84	2.79	2.82
	Pond level	1077.48		1077.55	1077.42	1079.47	1078.47	1078.47	1078.34	1078.42	1078.60	1079.83	1079.84
South Dam													
1	SDW-1A	5.92	5.92	5.87	5.19	5.32	5.43	5.69	5.52	5.58	5.60	5.62	5.67
2	SDW-1B	3.62	3.75	3.80	3.60	3.63	3.61	3.59	3.62	3.62	3.62	3.60	3.60
3	SDW-2A	8.16	8.21	8.48	7.10	8.33	8.40	8.68	8.90	9.00	9.02	9.00	9.09
4	SDW-2B	8.16	8.07	8.02	7.09	8.10	8.16	8.08	8.18	8.20	8.24	9.20	9.23
5	SDW-3A	blocked	blocked	11.28	10.26	11.04	11.20	11.29	11.91	11.92	11.96	11.53	11.50
6	SDW-3B	10.66	10.29	9.16	10.30	10.93	11.11	11.16	12.39	12.40	12.42	11.46	11.50
7	SDW-5A	blocked	blocked	blocked	4.66	6.63	6.60	6.68	6.78	6.88	7.00	7.11	7.10
8	SDW-5B	blocked	blocked	blocked	5.67	7.27	7.60	7.57	7.41	7.62	7.80	7.81	7.84
9	SDW-4A	NA	blocked	blocked		1.83	1.80	1.84	1.84	1.76	1.70	1.67	1.71
10	SDW-4B	NA	hidden snow	2.18	2.33	2.51	2.51	2.56	2.36	2.56	2.65	2.60	2.65
11	SDW-4C	NA	hidden snow	2.00	1.95	2.17	2.27	2.32	2.40	2.42	2.44	2.41	2.42
	Pond level	1093.61		1093.60	1093.75	1093.10	1093.30	1093.10	1093.70	1092.80	1093.00	1092.50	1092.80

													2005
		Jan	April	May	June	July	Aug	Sept	Oct	Nov	Dec		January
North Dam		1/11/2005	4/30/2004	5/31/2004	6/30/2004	7/31/2004	8/31/2004	9/30/2004	10/31/2004	11/30/2004	12/31/2004		1/31/2005
1	NDW-3A	**8.27**	**8.84**	**8.81**	**7.34**	**8.02**	**7.96**	**7.9**	**7.85**	**7.96**	**7.98**		8.25
2	NDW-3B	5.43	5.4	5.41	5.38	5.41	5.11	5.09	5.03	5.06	5.09		5.1
3	TH-14-91	11.82	12.26	11.73	11.74	11.16	11.91	11.52	11.5	11.62	11.72		11.98
4	NDW-1A	8.1	12.41	11.92	10.5	11.02	11.01	11.02	11.01	11.07	11.52		12.13
5	NDW-1B	12.8	8.1	8.11	8.15	8.17	8.35	8.17	8.16	8.12	8.08		8
6	NDW-2A	8.71	11.2	11.97	7.83	8.68	8.97	8.68	8.64	8.75	8.33		10.33
7	NDW-2B	5.31	5.3	7.63	5.82	5.38	5.12	5.38	5.29	5.2	5.24		5.13
8	NDW-4A	3.57	3.62	3.67	2.59	3.63 dry	3.45	3.63 dry	3.60 dry	3.58	3.60 dry		3.5 dry
	Pond level												
Reclaim Dam													
1	RDW-1C	9.72	9.73	9.71	9.68	9.68	9.46 dry	9.45	9.64	9.42	9.45		9.38
2	RDW-1B	12.58	12.74	12.32	12.01	11.85	11.83	11.9	13	12.98	13.02		13.01
3	RDW-1A	12.47	12.6	12	11.93	11.76	11.91	12.04	12.98	13.01	13.1		13.17
4	RDW-2C	12.46 Dry	dry	dry	12.31	12.3	12.46 dry	11.98	12	11.92	11.99		11.9
5	RDW-2B	13.38	12.55	12.67	13.19	13.08	12.79	12.78	13.1	13.22	13.35		13.59
6	RDW-2A	14.97	13.55	13.72	14.57	14.54	14.61	14.62	14.6	14.77	14.89		15.71
7	RDW-4B		8.23	8.27	8.35	8.44 dry	8.39 dry	8.40 dry	8.44 dry	8.46 dry	8.50 dry		8.51 dry
8	RDW-4A	8.77	8.8	8.1	7.9	8.46	8.4	8.48	8.48 dry	8.46 dry	8.41 dry		9.32
9	TH-18-91	12.27	12.4	12.22	11.78	11.64	11.77	11.64	12.62	12.71	12.7		12.82
10	TH-21-91	3.6	3.2	3.1	2.7	2.64	2.72	2.77	3.4	3.46	3.45		3.52
11	RDW-3A	1.72	1	0.93	0.85	0.74	0.81	0.87	1.48	1.58	1.6		1.56
12	RDW-3B		1.43	1.4	1.34	1.28	1.33	1.38	1.78	1.86	1.77		2
13	GW-1B	1.92	2.94	2.87	2.84	2.95	2.95 dry	2.93	2.94	2.96	2.95		2.90
	Pond level	1078.84	1078.79	1078.82	1079.15	1079.09	1079.06	1079	1077.15	1077.22	1077.35		1077.48
South Dam													
1	SDW-1A	5.87	6.1	5.98	5.24	6.50 dry	5.56	6.50 dry	5.57 dry	5.67 dry	5.82 dry		5.92
2	SDW-1B	3.64 dry	3.65	3.63	3.6	3.58 dry	3.57 dry	3.28 dry	3.33 dry	3.43 dry	3.72 dry		3.62
3	SDW-2A	8.27	8.86	8.79	7.43	7.17	7.23	7.38	7.3	7.67	7.73		8.16
4	SDW-2B	8.16	8.29	8.1	7.48	7.19	7.16	7.35	7.32	7.71	7.79		8.16
5	SDW-3A	11.1	11.47	11.33	10.62	10.47	10.5	10.5	10.48	10.58	10.57		blocked
6	SDW-3B	10.71	11.1	11.12	10.16	10.24	10.32	10.25	10.3	10.61	10.51		10.66
7	SDW-5A	6.59	7.1	6.93	5.23	5.25	5.32	5.24	5.28	blocked	5.33		blocked
8	SDW-5B	7.75	7.78	7.12	5.69	6.95	7.04	6.97	7	7.21	7.31		blocked
9	SDW-4A	na	na	na	1.19	1.35	NA	NA	NA	NA	NA		NA
10	SDW-4B	na	na	na	2.68	2.61	2.33	2.31	2.3	NA	NA		NA
11	SDW-4C	na	na	na	2.35	2.27	2.9	2.05	4.25	NA	NA		NA
	Pond level	1092.57	1092.557	1092.559	1093.72	1093.71	1093.37	1093.65	1093.56	1093.58	NA		1093.61
	Data for Feb / Mar is missing. Changed caretakers during this period and something got missed.												

ATTACHMENT 2

2013 Seepage Monitoring Program

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Memo

To:	Michelle Unger, Teck	**Client:**	Teck Resources Limited
From:	Lisa Barazzuol	**Project No:**	1CT008.043
Cc:	Tom Sharp, SRK	**Date:**	March 6, 2014
Subject:	Sä Dena Hess – 2013 Seepage Monitoring Program		

1 Introduction

The Sä Dena Hes lead/zinc mine is owned by Teck Resources Limited (Teck) and Korea Zinc and operated from 1991 to 1992. The mine is currently under care and maintenance. As part of planning for permanent closure, a review of the Detailed Decommissioning and Reclamation Plan 2012 Update (Teck 2012) was conducted on behalf of the Liard First Nation (Golder 2013). The scope of Golder's review was to identify information gaps or potential issues in the closure plan that need to be addressed to facilitate closuring planning, assessment and the permitting process. Golder identified a number of gaps in the water quality data set, specifically samples from the Main Zone open pit and waste rock dump, Jewelbox open pit and 1450 waste rock dump, and Burnick 1300 level waste rock dump.

In the spring and fall of 2013, SRK surveyed the Main Zone, Jewelbox and Burnick areas for seepage, defined as contact waters from mine rock, mine waste and underground workings. The purpose of the survey was to determine if seepage was present during snowmelt only or throughout the year, and to collect samples for water chemistry analysis. The scope of the seepage survey was to:

- Address data gaps identified by Golder (2013);
- Support the site wide ecological and human health risk assessments, and
- Support water chemistry predictions for the post-closure water licence application.

This memorandum summarizes water chemistry results from the 2013 seep surveys. Sites that are routinely monitored under the water licence are outside the scope of this memo because they are well characterized and their results are already documented in annual water license reports. Routinely monitoring mine influenced seepage locations include:

- MH-1– South Tailings Pond Outflow;
- MH-2 – North Dam seepage;
- MH-7 – Reclaim Pond seepage;

- MH-22 – Burnick 1200 Portal discharge; and
- MH-25 – Main Zone 1380 Portal discharge.

2 Methodology

2.1 Seep Survey and Sample Collection

The scope of the seepage survey included the Main Zone, Jewelbox and Burnick mine workings (open pits, portals and waste rock dumps). The sampling plan was to visit sites as soon as snow melted in the spring and then to visit the sites again during subsequent surveys to observe if seepage was ephemeral or occurred over the entire open water season. The spring seepage survey was conducted at sites located at progressively higher elevations over three periods (June 5 to 7, June 18 to 25, and July 4 to 10, 2013) as the snow melted and sites became accessible. The fall seepage survey was conducted from September 24 to 27, 2013.

Samples were collected where water contacted and/or flowed from mine areas and as close as possible to the source to limit dilution by snow melt. Field measurements included temperature, pH, electrical conductivity, turbidity, oxygen-reduction potential (ORP) and flow rate.

Seepage was observed and samples were collected at the following three locations (Attachment A):

- Jewelbox Pit (sample ID Jewelboxpit);
- Jewelbox 1250 Portal (SDH-S5); and
- Main Zone waste rock dump (SDH-S2).

Of these three locations only seepage in the vicinity of the Jewelbox 1250 portal was flowing during the September survey. All samples collected were flowing seepage, with the exception of the Jewelbox open pit, which was standing water within the pit.

Four duplicates were collected and submitted for laboratory analysis as part of SRK's quality assurance/quality control (QA/QC) program. The seepage samples were collected as part of a larger water quality sampling campaign. Field duplicates were collected on each sampling trip but were from sites routinely monitored as required by the water licence.

2.2 Laboratory Analysis

Water samples were collected, field filtered and/or preserved in the field as needed. Samples were shipped to Maxxam Analytics, in Burnaby, BC for analysis. Analytes nominally included total and dissolved metals, anions, and general chemistry (sulphate, total suspended solids, total dissolved solids, alkalinity, conductivity and lab pH). Dissolved metals were analyzed for all samples. Total metals were analyzed for in the Jewelbox 1250 Portal (June sample). Data as reported by the laboratory are presented in Attachment B.

2.3 Quality Assurance and Quality Controls

Four duplicate samples were collected as part of the QA/QC program. The ion balances were acceptable (within +/- 10%) for the six seepage samples and four duplicate pairs. Duplicate results were assessed using the relative percent difference (RPD) method, defined as:

$$\%RPD = \frac{C1 - C2}{\left[\frac{C1 + C2}{2}\right]} * 100$$

Where: C_1 = The concentration of the first sample;
C_2 = The concentration of the second sample.

The majority of parameters had acceptable values of RPD%, with the exception of aluminum, iron, manganese, lead and zinc (dissolved or total) in selected samples. For these parameters, the lack of duplication of data for these parameters is suspected to be the introduction of suspended or colloidal material into the sample. Values of field and lab EC exhibited a positive correlation, with lab values routinely higher than those measured in the field.

3 Results

The mine workings in the Main Zone, Jewelbox Hill and Burnick zones were inspected for seepage (Attachment A). Exceptions included sites that are routinely monitored as part of the water license, specifically the Main Zone 1380 portal (MH-25), Burnick 1200 portal (MH-22) and the tailings and reclaim ponds (MH-1, MH-2 and MH-7). Seepage was not observed during freshet in the following areas:

- Jewelbox: 1450 waste rock dump and 1408 portal; and
- Burnick: 1300 portal, 1300 waste rock dump, 1200 waste rock dump and sedimentation pond.

A total of four samples from the Main Zone and Jewelbox mine workings were collected in 2013. The areas sampled were upstream of sites that are part of the water license sampling program (e.g. MH-4 in Camp Creek, and MH-11, MH-13 and MH-16 in False Canyon Creek). In June, seepage was observed at the Main Zone waste rock dump (SDH-S2), Jewelbox open pit and Jewelbox 1250 portal (SDH-S5). As of July, water was no longer present at the Main Zone waste rock dump or Jewelbox open pit. Seepage was observed during freshet and low flow at the Jewelbox 1250 portal.

3.1 Seepage Water Chemistry

Field data are presented in Table 1 and laboratory data are presented in Tables 2 and 3.

Field and lab pH's of the samples were neutral to alkaline. Lab values of conductivity ranged from 284 to 372 uS/cm, with the exception of the Jewelbox open pit, which had a value of less than 100 uS/cm. Field conductivity values were uniformly lower than lab values and exhibited a positive correlation.

Table 1: Field Measurements

Parameter	MainZone	Jewelbox		
	Waste rock	Open pit	1250 Portal	
	June	June	June	Sept
Easting	506334	506502	506561	506561
Northing	6709575	6709475	6709877	6709877
pH	7.0	7.7	8.1	7.6
EC (uS/cm)	277	59	201	216
ORP (mv)	218	165	155	186
Temperature (C)	13.5	6.1	6	2.5
Turbidity (NTU)	29.7	1.94	0.24	0.45
Flow (L/min)	0.9	0	48	6
Flow method	Visual estimate	Visual estimate	Volumetric	Volumetric
Sampling Notes	Small flow under waste rock dump; sampled with syringe.	Ponded water in pit; drainage flow path not observable as some snow cover remains.	Sampled in front of portal; may contain some surface flow.	Sampled in front of portal; may contain some surface flow.

Source: \\VAN-SVR0\Projects\01_SITES\Sa_Dena_Hes\1CT008.043_Sa Dena Hes Water Licence Support 2014\2013 Seepage Memo\Working Files\Tables 1-4\SDH_2013Seepage_1CT008043_Tables 1-4_RTC_rev00

Sulphate levels ranged from 10 to 110 mg/L, with the highest values in the seepage from the Main Zone waste rock dump. Concentrations of total alkalinity ranged from 30 to 109 mg/L. Alkalinity was lowest for the Main Zone waste rock dump.

Zinc and lead levels were variable, with the highest observed values in the seepage from the Main Zone waste rock dump (7.97 and 0.04 mg/L, respectively) and the Jewelbox open pit (0.51 and 0.026 mg/L, respectively). For the Jewelbox 1250 portal dissolved zinc concentrations were similar during freshet and low flow in September (0.0033 and <0.005 mg/L, respectively) and dissolved lead concentrations were higher during freshet (0.0014 versus <0.0002 mg/L). Cadmium levels had similar trends as zinc and lead, with the highest levels in the seepage from the Main Zone waste rock and the Jewelbox open pit, and lowest levels for the Jewelbox 1250 portal.

Table 2: General Parameters and Nutrient Data

Parameter	Main Zone	Jewelbox		
	Waste rock	Open pit	1250 Portal	
	June	June	June	Sept
pH	--	--	7.98	8.14
EC (uS/cm)	312	84.1	284	372
TSS (mg/L)	213	<4	<1	<4
Sulphate (mg/L)	105	11.5	48.6	83.2
Total Alkalinity (mg/L)	48.2	30.3	97	109
Acidity pH 4.5 (mg/L)	<0.5	--	<0.5	<0.5
Total Acidity pH 8.3 (mg/L)	10.6	--	2.39	0.97
Nitrate (N) (mg/L)	--	--	--	0.42
Nitrite (N) (mg/L)	--	--	--	<0.005
Ammonia (N) (mg/L)	0.017	0.018	0.014	0.013
Chloride (mg/L)	--	--	--	0.77
Bromide (mg/L)	--	--	--	<0.01

Source: \\VAN-SVR0\Projects\01_SITES\Sa_Dena_Hes\1CT008.043_Sa Dena Hes Water Licence Support 2014\2013 Seepage Memo\Working Files\Tables 1-4\SDH_2013Seepage_1CT008043_Tables 1-4_RTC_rev00

Table 3: Trace Element Data (all mg/L)

Parameter	MainZone	Jewelbox			
	Waste rock	Open pit	1250 Portal		
	June	June	June		Sept
	Dissolved	Dissolved	Total	Dissolved	Dissolved
Al	<0.003	<0.003	0.00218	0.00183	<0.003
Sb	<0.0005	<0.0005	0.000137	0.000147	<0.0005
As	<0.0001	<0.0001	0.00067	0.000723	0.00183
Ba	0.0161	0.0053	0.0157	0.014	0.0144
Be	<0.0001	<0.0001	<0.00001	<0.00001	<0.0001
Bi	<0.001	<0.001	<0.000005	<0.000005	<0.001
B	<0.05	<0.05	<0.05	<0.05	<0.05
Cd	0.0736	0.00799	0.000095	0.000076	0.00012
Ca	52.3	13.2	51	54.9	66.9
Cr	<0.001	<0.001	<0.0001	<0.0001	<0.001
Co	0.00057	<0.0005	0.000011	0.000011	<0.0005
Cu	0.0002	0.00022	0.000373	0.000322	0.00034
Fe	0.006	<0.005	0.0086	0.0019	<0.005
Pb	0.0397	0.0261	0.00344	0.00137	<0.0002
Li	<0.005	<0.005	0.00153	0.00182	<0.005
Mg	1.79	0.526	4.93	5.01	5.52
Mn	0.0042	0.0098	0.000727	0.000135	<0.001
Hg	<0.00005	<0.00005	#N/A	#N/A	<0.00005
Mo	<0.001	0.0034	0.00111	0.00119	<0.001
Ni	<0.001	<0.001	0.000183	0.00015	<0.001
K	0.519	0.155	0.389	0.422	0.639
Se	0.00278	0.00011	0.00266	0.00265	0.00352
Si	2.01	0.325	2.88	2.92	3.05
Ag	<0.00002	<0.00002	<0.000005	<0.000005	<0.00002
Na	0.335	0.054	0.703	0.71	1.29
Sr	0.0685	0.0159	0.123	0.129	0.143
S	34.3	3.6	18.4	18	27.3
Tl	<0.00005	<0.00005	0.000005	0.000003	<0.00005
Sn	<0.005	<0.005	<0.0002	<0.0002	<0.005
Ti	<0.005	<0.005	<0.0005	<0.0005	<0.005
U	0.00022	0.00014	0.00105	0.00121	0.00221
V	<0.005	<0.005	0.00203	0.00198	0.007
Zn	7.97	0.509	0.00589	0.00333	<0.005
Zr	<0.0005	<0.0005	<0.0001	<0.0001	<0.0005

Source: \\VAN-SVR0\Projects\01_SITES\Sa_Dena_Hes\1CT008.043_Sa Dena Hes Water Licence Support 2014\2013 Seepage Memo\Working Files\Tables 1-4\SDH_2013Seepage_1CT008043_Tables 1-4_RTC_rev00

4 Discussion

4.1 Seepage Water Chemistry

Ammonia and trace element concentrations were compared to water license QZ99-045 limits and ten times the CCME guidelines for aquatic life. The comparison to CCME guidelines was for screening purposes only because these samples represent contact waters from mine workings and are not considered to be the receiving environment where CCME guidelines would apply.

Zinc, lead and cadmium were the only parameters elevated. Zinc in seepage from the Main Zone waste rock and Jewelbox open pit was above the water license limits and also ten times CCME levels. Lead and cadmium were above ten times CCME levels for the Main Zone waste rock and Jewelbox open pit samples.

Table 4 presents a comparison of seepage water chemistry from 2002 (SRK 2003) and 2013. In 2013, sulphate and lead levels were lower than 2002 for the Main Zone waste rock dump, and cadmium and zinc levels were comparable. For Jewelbox pit, sulphate levels were higher in 2013, however levels of lead, zinc and cadmium were the same order of magnitude. The Jewelbox 1250 portal was not sampled in 2002 because it was determined by visual inspection that seepage was not flowing from the portal.

Table 4: Comparison of 2002 and 2013 Seepage Samples for Selected Parameters

	Units	Main Zone		Jewelbox				
		Waste Rock		Pit Inflow	Pit Pond	1250 Portal		
		Jul 2002	Jun 2013	Jul 2002	Jun 2013	Jul 2002	Jun 2013	Sep 2013
pH	-	7.8	7.0*	8	7.7*	8.4*	7.98	8.14
EC	uS/cm	524	312	114	84.1	420*	284	372
Total Alk	mg/L	53	48.2	54	30.3	--	97	109
SO_4	mg/L	209	105	3.3	115	--	48.6	83.2
Ca	mg/L	98.9	52.3	21.1	13.2	--	54.9	66.9
Mg	mg/L	4.01	1.79	0.98	0.526	--	5.01	5.52
Na	mg/L	0.63	0.335	0.49	0.054	--	0.71	1.29
Cd	mg/L	0.085	0.0736	0.006	0.00799	--	0.000076	0.00012
Pb	mg/L	0.22	0.0397	<0.03	0.0261	--	0.00137	<0.0002
Zn	mg/L	10.1	7.97	0.149	0.509	0.04*	0.00333	<0.005

Source: \\VAN-SVR0\Projects\01_SITES\Sa_Dena_Hes\1CT008.043_Sa Dena Hes Water Licence Support 2014\2013 Seepage Memo\Working Files\Tables 1-4\SDH_2013Seepage_1CT008043_Tables 1-4_RTC_rev00

Notes:
*Field value. Zn determined by coulimeter.
Metal concentrations are "dissolved"

For the 2013 Main Zone waste rock seepage, the daily zinc load is 0.01 kg/day, between 30 and 200 times lower than the load from the 1380 portal, which ranges from 0.3 to 2 kg/day depending on the flow. Loadings for the 2002 sample could not be calculated because flow data was not

available. This result shows the mass load from the one month of seepage from the Main Zone waste rock dump is insignificant in the context of other sources at the site. These results will be integrated into the site mass loading analysis as part of the water quality predictions.

5 Conclusion

In 2013, the portals, open pits and waste rock dumps from the Main Zone, Jewelbox and Burnick mining areas were surveyed for seepage and where present, the seepage was sampled. This work was conducted to address water chemistry data gaps identified by Golder on behalf of the Liard First Nation (Golder 2013) and also in support of site wide risk assessments and water chemistry predictions for the post-closure water license application. Sites that are routinely monitored as part of the water license (i.e., MH-1, MH-2, MH-7, MH-22 and MH-25) were considered outside the scope of this report and are not discussed.

Seepage was observed and sampled at three sites in June: the Main Zone waste rock dump, Jewelbox open pit and in the vicinity of the Jewelbox 1250 portal. The 1250 portal was the only site sampled in the spring and fall seepage surveys. These samples are upstream of sites that are part of the water license sampling program.

The pH of the four seepage samples obtained was neutral to alkaline. Data were compared to water license QZ99-045 and ten times the CCME guidelines for aquatic life as a screening measure to determine if levels were elevated. Samples from the Main Zone waste rock dump and Jewelbox open pit had elevated levels, specifically lead, zinc and/or cadmium. Zinc levels were above the permit levels and ten times the CCME limit, whereas lead and cadmium were above ten times the CCME limit only. The metal loads in these seepage samples are much less than other sources (e.g. Main Zone 1380 Portal, Burnick Portal and seepage from the tailings impoundment).

Disclaimer—SRK Consulting (Canada) Inc. has prepared this document for Teck Resources Limited. Any use or decisions by which a third party makes of this document are the responsibility of such third parties. In no circumstance does SRK accept any consequential liability arising from commercial decisions or actions resulting from the use of this report by a third party.

The opinions expressed in this report have been based on the information available to SRK at the time of preparation. SRK has exercised all due care in reviewing information supplied by others for use on this project. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information, except to the extent that SRK was hired to verify the data.

6 References

Golder 2013. Review of the 2012 Detailed Decommissioning and Reclamation Plan, Sä Dena Hes Mine, Yukon Territory. Report submitted to Liard First Nation by Golder Associates, February 6, 2013.

SRK 2003. 2002 Geochemical Projects, Sä Dena Hes Mine, Yukon Territory. Report prepared for Teck Cominco Ltd. by SRK Consulting, March 2003.

Teck Metals Limited (Teck) 2012. Sa Dena Hes Mine Detailed Decommissioning and Reclamation Plan January 2012 Update. January 28, 2012.

Attachment A: 2013 Seepage Sample Locations

509700

6710000

N

BURNICK 1300 PORTAL

BURNICK 1300 WASTE ROCK DUMP

BURNICK 1200 WASTE ROCK DUMP

MH-22

BURNICK 1200 PORTAL

West Fork of Tributary E

Burnick Ck

North Creek

NORTH CREEK DYKE

East Fork of Tributary E

MH-02

Camp Creek

MH-01A

JEWELBOX 1250 PORTAL

SDH-S5

MH-07

MAIN ZONE 1380 WASTE ROCK DUMP

SDH-S2

MH-25

MAIN ZONE 1380 PORTAL

JEWELBOXPIT

JEWELBOX 1450 WASTE ROCK DUMP

JEWELBOX 1408 PORTAL

MILL SITE

Portal Creek

Access Creek

Legend

- 2013 Seepage Samples
- Inspected, Seepage Absent
- Routine Monitoring Stations
- Creeks
- Ephemeral Stream
- Claim Boundary
- Lease Boundary
- Burnick Zone
- Jewelbox Hill Zone
- Main Zone

NOTE

Topographic contour data and aerial photos were obtained from McElhanney and are based on August 15, 2012 LiDAR survey.
Coordinate system is UTM NAD 83CSRS zone 9V.

0 0.5 1 Kilometers

srk consulting

Job No: 1CT008.040

Filename: 1CT008.040_sdh_wq2013_fig_01_seepage_samples

Teck

Sa Dena Hes Mine

2013 Seepage Sampling Program

Seepage Survey and Sampling Locations

Date:	Approved:	Figure:
Feb 2014	LNB	1

C:\Projects\Sa_Dena_Hes\020_Site-Wide_Data\GIS\Maps\Figure Maps\1CT008.040_sdh_wq2013_fig_01_seepage_samples.mxd

Attachment B: Laboratory Data Reports

Maxxam

Success Through Science®

Your P.O. #: 8470
Your Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your C.O.C. #: EB766113

Attention: Jay Cherian
SRK CONSULTING
SRKCONSU-VAN
SUITE 2200
1066 W. HASTINGS ST.
VANCOUVER, BC
Canada V6E 3X2

Report Date: 2013/07/11

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B352552
Received: 2013/06/24, 10:45

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	2	N/A	2013/06/25	BBY6SOP-00037	SM-2310B
Alkalinity - Water	6	2013/06/25	2013/06/26	BBY6SOP-00026	SM2320B
Chloride by Automated Colourimetry	1	N/A	2013/06/28	BBY6SOP-00011	SM-4500-Cl-
Cyanide + Thiocyanate	3	N/A	2013/06/27	BBY6SOP-00004	SM4500-CN N
Colour (True)	4	N/A	2013/06/25	BBY6SOP-00021	SM-2120B
Carbon (DOC) - field filtered/preserved	1	N/A	2013/06/26	BBY6SOP-00003	SM-5310C
Conductance - water	6	N/A	2013/06/26	BBY6SOP-00026	SM-2510B
Fluoride	1	N/A	2013/07/03	BBY6SOP-00012	SM - 4500 F C
Hardness Total (calculated as CaCO3)	3	N/A	2013/06/25	BBY7SOP-00002	EPA 6020A
Hardness Total (calculated as CaCO3)	1	N/A	2013/07/02	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	6	N/A	2013/07/11	BBY7SOP-00002	EPA 6020A
Bromide as Bromine (Br) by ICPMS	1	N/A	2013/07/02	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	6	N/A	2013/07/11	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved)	6	N/A	2013/07/10	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	2013/06/24	2013/06/25	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	2013/06/24	2013/07/02	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	3	2013/06/25	2013/06/25	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	1	2013/06/27	2013/06/28	BBY7SOP-00002	EPA 6020A
Ammonia-N (Preserved)	6	N/A	2013/06/25	BBY6SOP-00009	SM-4500NH3G
Filter and HNO3 Preserve for Metals	6	N/A	2013/06/24	BBY6WI-00001	EPA 200.2
pH Water	4	N/A	2013/06/26	BBY6SOP-00026	SM-4500H+B
Sulphate by Automated Colourimetry	5	N/A	2013/06/25	BBY6SOP-00017	SM4500-SO42- E
Sulphate by Automated Colourimetry	1	N/A	2013/06/26	BBY6SOP-00017	SM4500-SO42- E
Total Suspended Solids	6	N/A	2013/06/26	BBY6SOP-00034	SM - 2540 D

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604) 638-5020

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GS7903	GS7904	GS7905	GS7906	GS7907		GS7908		
Sampling Date		2013/06/18 11:15	2013/06/18 14:45	2013/06/19 15:15	2013/06/19 10:55	2013/06/19 14:00		2013/06/19 09:55		
	UNITS	**MH-06A**	**MH-02**	**SDH-S2**	**MH-05**	**JEWELBOX PIT**	**QC Batch**	**MH-04**	**RDL**	**QC Batch**
Misc. Inorganics										
Acidity (pH 4.5)	mg/L			<0.50	<0.50		6931771		0.50	
Acidity (pH 8.3)	mg/L			10.6	<0.50		6931771		0.50	
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	FIELD	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics										
Cyanide + Thiocyanate	mg/L	<0.00050			<0.00050		6938741	<0.00050	0.00050	6938741
Fluoride (F)	mg/L							0.130	0.010	6951453
Dissolved Organic Carbon (C)	mg/L							1.55	0.50	6934553
Alkalinity (Total as CaCO3)	mg/L	135	234	48.2	120	30.3	6933710	130	0.50	6933710
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	6933710	<0.50	0.50	6933710
Bicarbonate (HCO3)	mg/L	165	286	58.8	147	37.0	6933710	159	0.50	6933710
Carbonate (CO3)	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	6933710	<0.50	0.50	6933710
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	6933710	<0.50	0.50	6933710
Anions										
Dissolved Sulphate (SO4)	mg/L	16.2	198	105	42.7	11.5	6934805	12.2	0.50	6936816
Dissolved Chloride (Cl)	mg/L							0.64	0.50	6943901
MISCELLANEOUS										
True Colour	Col. Unit	5.0(1)	<5.0(1)		<5.0(1)		6932282	5.0(1)	5.0	6932282
Nutrients										
Ammonia (N)	mg/L	0.027	0.029	0.017	0.012	0.018	6931780	0.0074	0.0050	6931780
Physical Properties										
Conductivity	uS/cm	280	790	312	325	84.1	6933722	267	1.0	6933722
pH	pH Units	8.19	8.16		8.10		6933721	8.17		6933721
Physical Properties										
Total Suspended Solids	mg/L	<4.0	<4.0	213	<4.0	<4.0	6931545	<4.0	4.0	6931545

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		GS7908		
Sampling Date		2013/06/19 09:55		
	UNITS	**MH-04**	**RDL**	**QC Batch**
ANIONS				
Bromide (Br)	mg/L	<0.010	0.010	6947746

RDL = Reportable Detection Limit

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GS7903	GS7904	GS7905		GS7906	GS7907	GS7908		
Sampling Date		2013/06/18 11:15	2013/06/18 14:45	2013/06/19 15:15		2013/06/19 10:55	2013/06/19 14:00	2013/06/19 09:55		
	UNITS	**MH-06A**	**MH-02**	**SDH-S2**	**QC Batch**	**MH-05**	**JEWELBOX PIT**	**MH-04**	**RDL**	**QC Batch**
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	139	391	138	6927730	161	35.0	128	0.50	6930733
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	<3.0	<3.0	<3.0	6953319	<3.0	<3.0	3.4	3.0	6953319
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	6953319	<0.50	<0.50	<0.50	0.50	6953319
Dissolved Arsenic (As)	ug/L	0.35	0.63	<0.10	6953319	1.31	<0.10	0.30	0.10	6953319
Dissolved Barium (Ba)	ug/L	37.7	56.3	16.1	6953319	9.3	5.3	17.7	1.0	6953319
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	6953319	<0.10	<0.10	<0.10	0.10	6953319
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	6953319	<1.0	<1.0	<1.0	1.0	6953319
Dissolved Boron (B)	ug/L	<50	<50	<50	6953319	<50	<50	<50	50	6953319
Dissolved Cadmium (Cd)	ug/L	0.102	0.138	73.6	6953319	0.228	7.99	0.226	0.010	6953319
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	6953319	<1.0	<1.0	<1.0	1.0	6953319
Dissolved Cobalt (Co)	ug/L	<0.50	0.54	0.57	6953319	<0.50	<0.50	<0.50	0.50	6953319
Dissolved Copper (Cu)	ug/L	0.98	0.38	0.20	6953319	0.34	0.22	0.34	0.20	6953319
Dissolved Iron (Fe)	ug/L	<5.0	35.2	6.0	6953319	<5.0	<5.0	<5.0	5.0	6953319
Dissolved Lead (Pb)	ug/L	0.21	<0.20	39.7	6953319	2.68	26.1	0.33	0.20	6953319
Dissolved Lithium (Li)	ug/L	<5.0	<5.0	<5.0	6953319	<5.0	<5.0	<5.0	5.0	6953319
Dissolved Manganese (Mn)	ug/L	1.3	336	4.2	6953319	<1.0	9.8	<1.0	1.0	6953319
Dissolved Mercury (Hg)	ug/L	<0.050	<0.050	<0.050	6953319	<0.050	<0.050	<0.050	0.050	6953319
Dissolved Molybdenum (Mo)	ug/L	1.4	<1.0	<1.0	6953319	<1.0	3.4	<1.0	1.0	6953319
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	<1.0	6953319	<1.0	<1.0	<1.0	1.0	6953319
Dissolved Selenium (Se)	ug/L	1.28	0.28	2.78	6953319	2.91	0.11	0.55	0.10	6953319
Dissolved Silicon (Si)	ug/L	2130	3180	2010	6953319	4140	325	2640	100	6953319
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	6953319	<0.020	<0.020	<0.020	0.020	6953319
Dissolved Strontium (Sr)	ug/L	191	475	68.5	6953319	182	15.9	170	1.0	6953319
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	6953319	<0.050	<0.050	<0.050	0.050	6953319
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	6953319	<5.0	<5.0	<5.0	5.0	6953319
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	6953319	<5.0	<5.0	<5.0	5.0	6953319
Dissolved Uranium (U)	ug/L	1.00	1.39	0.22	6953319	0.74	0.14	0.60	0.10	6953319
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	6953319	<5.0	<5.0	<5.0	5.0	6953319
Dissolved Zinc (Zn)	ug/L	18.6	83.1	7970	6953319	5.2	509	<5.0	5.0	6953319
Dissolved Zirconium (Zr)	ug/L	<0.50	<0.50	<0.50	6953319	<0.50	<0.50	<0.50	0.50	6953319
Dissolved Calcium (Ca)	mg/L	46.9	138	52.3	6928776	59.9	13.2	47.1	0.050	6928776
Dissolved Magnesium (Mg)	mg/L	5.43	11.1	1.79	6928776	2.79	0.526	2.52	0.050	6928776
Dissolved Potassium (K)	mg/L	0.832	1.35	0.519	6928776	0.467	0.155	0.360	0.050	6928776

RDL = Reportable Detection Limit

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GS7903	GS7904	GS7905		GS7906	GS7907	GS7908		
Sampling Date		2013/06/18 11:15	2013/06/18 14:45	2013/06/19 15:15		2013/06/19 10:55	2013/06/19 14:00	2013/06/19 09:55		
	UNITS	**MH-06A**	**MH-02**	**SDH-S2**	**QC Batch**	**MH-05**	**JEWELBOX PIT**	**MH-04**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	0.627	8.21	0.335	6928776	0.820	0.054	0.693	0.050	6928776
Dissolved Sulphur (S)	mg/L	4.8	63.7	34.3	6928776	13.8	3.6	3.1	3.0	6928776

RDL = Reportable Detection Limit

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		GS7903	GS7904		GS7906		GS7908		
Sampling Date		2013/06/18 11:15	2013/06/18 14:45		2013/06/19 10:55		2013/06/19 09:55		
	UNITS	**MH-06A**	**MH-02**	**QC Batch**	**MH-05**	**QC Batch**	**MH-04**	**RDL**	**QC Batch**
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	149	427	6928229	170	6928229	140	0.50	6928229
Total Metals by ICPMS									
Total Aluminum (Al)	ug/L	29.6	<3.0	6932288	<3.0	6940554	12.5	3.0	6932288
Total Antimony (Sb)	ug/L	<0.50	<0.50	6932288	<0.50	6940554	<0.50	0.50	6932288
Total Arsenic (As)	ug/L	0.42	0.49	6932288	1.31	6940554	0.34	0.10	6932288
Total Barium (Ba)	ug/L	39.3	60.3	6932288	9.2	6940554	19.0	1.0	6932288
Total Beryllium (Be)	ug/L	<0.10	<0.10	6932288	<0.10	6940554	<0.10	0.10	6932288
Total Bismuth (Bi)	ug/L	<1.0	<1.0	6932288	<1.0	6940554	<1.0	1.0	6932288
Total Boron (B)	ug/L	<50	<50	6932288	<50	6940554	<50	50	6932288
Total Cadmium (Cd)	ug/L	0.126	0.252	6932288	0.224	6940554	0.239	0.010	6932288
Total Chromium (Cr)	ug/L	<1.0	<1.0	6932288	<1.0	6940554	<1.0	1.0	6932288
Total Cobalt (Co)	ug/L	<0.50	0.58	6932288	<0.50	6940554	<0.50	0.50	6932288
Total Copper (Cu)	ug/L	0.82	<0.20	6932288	0.34	6940554	<0.20	0.20	6932288
Total Iron (Fe)	ug/L	64.8	61.7	6932288	<5.0	6940554	18.5	5.0	6932288
Total Lead (Pb)	ug/L	2.68	0.42	6932288	2.76	6940554	0.66	0.20	6932288
Total Lithium (Li)	ug/L	<5.0	<5.0	6932288	<5.0	6940554	<5.0	5.0	6932288
Total Manganese (Mn)	ug/L	16.2	394	6932288	<1.0	6940554	<1.0	1.0	6932288
Total Mercury (Hg)	ug/L	<0.050	<0.050	6932288	<0.050	6940554	<0.050	0.050	6932288
Total Molybdenum (Mo)	ug/L	1.4	<1.0	6932288	<1.0	6940554	<1.0	1.0	6932288
Total Nickel (Ni)	ug/L	<1.0	<1.0	6932288	<1.0	6940554	<1.0	1.0	6932288
Total Selenium (Se)	ug/L	1.13	0.29	6932288	2.55	6940554	0.54	0.10	6932288
Total Silicon (Si)	ug/L	2310	3510	6932288	4470	6940554	2890	100	6932288
Total Silver (Ag)	ug/L	<0.020	<0.020	6932288	<0.020	6940554	<0.020	0.020	6932288
Total Strontium (Sr)	ug/L	206	502	6932288	180	6940554	184	1.0	6932288
Total Thallium (Tl)	ug/L	<0.050	<0.050	6932288	<0.050	6940554	<0.050	0.050	6932288
Total Tin (Sn)	ug/L	<5.0	<5.0	6932288	<5.0	6940554	<5.0	5.0	6932288
Total Titanium (Ti)	ug/L	<5.0	<5.0	6932288	<5.0	6940554	<5.0	5.0	6932288
Total Uranium (U)	ug/L	1.07	1.52	6932288	0.77	6940554	0.68	0.10	6932288
Total Vanadium (V)	ug/L	<5.0	<5.0	6932288	<5.0	6940554	<5.0	5.0	6932288
Total Zinc (Zn)	ug/L	23.4	104	6932288	5.1	6940554	<5.0	5.0	6932288
Total Zirconium (Zr)	ug/L	<0.50	<0.50	6932288	<0.50	6940554	<0.50	0.50	6932288
Total Calcium (Ca)	mg/L	50.1	151	6928232	63.3	6928232	51.3	0.050	6928232
Total Magnesium (Mg)	mg/L	5.84	12.3	6928232	2.99	6928232	2.80	0.050	6928232
Total Potassium (K)	mg/L	0.938	1.68	6928232	0.507	6928232	0.393	0.050	6928232

RDL = Reportable Detection Limit

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		GS7903	GS7904		GS7906		GS7908		
Sampling Date		2013/06/18 11:15	2013/06/18 14:45		2013/06/19 10:55		2013/06/19 09:55		
	UNITS	**MH-06A**	**MH-02**	**QC Batch**	**MH-05**	**QC Batch**	**MH-04**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	0.666	8.58	6928232	0.840	6928232	0.708	0.050	6928232
Total Sulphur (S)	mg/L	4.6	74.8	6928232	13.7	6928232	3.9	3.0	6928232

RDL = Reportable Detection Limit

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

General Comments

Sample GS7903-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS7904-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS7906-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS7908-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6931545	Total Suspended Solids	2013/06/26	103	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
6931771	Acidity (pH 8.3)	2013/06/25			98	80 - 120	0.62, RDL=0.50	mg/L	NC	20
6931771	Acidity (pH 4.5)	2013/06/25					<0.50	mg/L	NC	20
6931780	Ammonia (N)	2013/06/25	94	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20
6932282	True Colour	2013/06/25					<5.0	Col. Unit	NC	20
6932288	Total Aluminum (Al)	2013/06/25	108	80 - 120	110	80 - 120	<3.0	ug/L	NC	20
6932288	Total Antimony (Sb)	2013/06/25	112	80 - 120	117	80 - 120	<0.50	ug/L	NC	20
6932288	Total Arsenic (As)	2013/06/25	105	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
6932288	Total Barium (Ba)	2013/06/25	NC	80 - 120	108	80 - 120	<1.0	ug/L	2.9	20
6932288	Total Beryllium (Be)	2013/06/25	104	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
6932288	Total Bismuth (Bi)	2013/06/25	111	80 - 120	109	80 - 120	<1.0	ug/L	NC	20
6932288	Total Cadmium (Cd)	2013/06/25	105	80 - 120	106	80 - 120	<0.010	ug/L	1.6	20
6932288	Total Chromium (Cr)	2013/06/25	109	80 - 120	107	80 - 120	<1.0	ug/L	NC	20
6932288	Total Cobalt (Co)	2013/06/25	103	80 - 120	107	80 - 120	<0.50	ug/L	NC	20
6932288	Total Copper (Cu)	2013/06/25	103	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
6932288	Total Iron (Fe)	2013/06/25	NC	80 - 120	115	80 - 120	<5.0	ug/L	5.0	20
6932288	Total Lead (Pb)	2013/06/25	105	80 - 120	108	80 - 120	<0.20	ug/L	NC	20
6932288	Total Lithium (Li)	2013/06/25	112	80 - 120	107	80 - 120	<5.0	ug/L	NC	20
6932288	Total Manganese (Mn)	2013/06/25	NC	80 - 120	109	80 - 120	<1.0	ug/L	3.2	20
6932288	Total Mercury (Hg)	2013/06/25	106	80 - 120	109	80 - 120	<0.050	ug/L		
6932288	Total Molybdenum (Mo)	2013/06/25	NC	80 - 120	106	80 - 120	<1.0	ug/L	NC	20
6932288	Total Nickel (Ni)	2013/06/25	101	80 - 120	106	80 - 120	<1.0	ug/L	NC	20
6932288	Total Selenium (Se)	2013/06/25	104	80 - 120	109	80 - 120	<0.10	ug/L	NC	20
6932288	Total Silver (Ag)	2013/06/25	108	80 - 120	100	80 - 120	0.032, RDL=0.020	ug/L	NC	20
6932288	Total Strontium (Sr)	2013/06/25	NC	80 - 120	109	80 - 120	<1.0	ug/L	3.1	20
6932288	Total Thallium (Tl)	2013/06/25	113	80 - 120	114	80 - 120	<0.050	ug/L	NC	20
6932288	Total Tin (Sn)	2013/06/25	106	80 - 120	110	80 - 120	<5.0	ug/L	NC	20
6932288	Total Titanium (Ti)	2013/06/25	98	80 - 120	135(1, 2)	80 - 120	<5.0	ug/L	NC	20
6932288	Total Uranium (U)	2013/06/25	111	80 - 120	112	80 - 120	<0.10	ug/L	4.8	20
6932288	Total Vanadium (V)	2013/06/25	95	80 - 120	114	80 - 120	<5.0	ug/L	NC	20
6932288	Total Zinc (Zn)	2013/06/25	NC	80 - 120	106	80 - 120	<5.0	ug/L	1.1	20
6932288	Total Boron (B)	2013/06/25					<50	ug/L	NC	20
6932288	Total Silicon (Si)	2013/06/25					<100	ug/L	4.8	20
6932288	Total Zirconium (Zr)	2013/06/25					<0.50	ug/L	NC	20
6933710	Alkalinity (Total as CaCO3)	2013/06/25	NC	80 - 120	100	80 - 120	<0.50	mg/L		
6933710	Alkalinity (PP as CaCO3)	2013/06/25					<0.50	mg/L		
6933710	Bicarbonate (HCO3)	2013/06/25					<0.50	mg/L		
6933710	Carbonate (CO3)	2013/06/25					<0.50	mg/L		
6933710	Hydroxide (OH)	2013/06/25					<0.50	mg/L		

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6933722	Conductivity	2013/06/26			99	80 - 120	<1.0	uS/cm		
6934553	Dissolved Organic Carbon (C)	2013/06/26	107	80 - 120	105	80 - 120	<0.50	mg/L	NC	20
6934805	Dissolved Sulphate (SO4)	2013/06/25	97	80 - 120	92	80 - 120	<0.50	mg/L	4.0	20
6936816	Dissolved Sulphate (SO4)	2013/06/26	NC	80 - 120	94	80 - 120	<0.50	mg/L	1.4	20
6938741	Cyanide + Thiocyanate	2013/06/27	93	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20
6940554	Total Aluminum (Al)	2013/06/28	105	80 - 120	101	80 - 120	<3.0	ug/L	1.7	20
6940554	Total Antimony (Sb)	2013/06/28	NC	80 - 120	100	80 - 120	<0.50	ug/L	4.8	20
6940554	Total Arsenic (As)	2013/06/28	NC	80 - 120	97	80 - 120	<0.10	ug/L	2.6	20
6940554	Total Barium (Ba)	2013/06/28	NC	80 - 120	101	80 - 120	<1.0	ug/L	1.7	20
6940554	Total Beryllium (Be)	2013/06/28	109	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
6940554	Total Bismuth (Bi)	2013/06/28	96	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6940554	Total Cadmium (Cd)	2013/06/28	101	80 - 120	97	80 - 120	<0.010	ug/L	0	20
6940554	Total Chromium (Cr)	2013/06/28	99	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6940554	Total Cobalt (Co)	2013/06/28	96	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
6940554	Total Copper (Cu)	2013/06/28	93	80 - 120	98	80 - 120	<0.20	ug/L	1.6	20
6940554	Total Iron (Fe)	2013/06/28	NC	80 - 120	106	80 - 120	<5.0	ug/L	2.2	20
6940554	Total Lead (Pb)	2013/06/28	NC	80 - 120	99	80 - 120	<0.20	ug/L	2.2	20
6940554	Total Lithium (Li)	2013/06/28	100	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
6940554	Total Manganese (Mn)	2013/06/28	NC	80 - 120	101	80 - 120	<1.0	ug/L	2.4	20
6940554	Total Mercury (Hg)	2013/06/28	97	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
6940554	Total Molybdenum (Mo)	2013/06/28	NC	80 - 120	99	80 - 120	<1.0	ug/L	2.5	20
6940554	Total Nickel (Ni)	2013/06/28	94	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
6940554	Total Selenium (Se)	2013/06/28	101	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
6940554	Total Silver (Ag)	2013/06/28	103	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
6940554	Total Strontium (Sr)	2013/06/28	NC	80 - 120	100	80 - 120	<1.0	ug/L	0.5	20
6940554	Total Thallium (Tl)	2013/06/28	NC	80 - 120	103	80 - 120	<0.050	ug/L	5.5	20
6940554	Total Tin (Sn)	2013/06/28	101	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
6940554	Total Titanium (Ti)	2013/06/28	86	80 - 120	109	80 - 120	<5.0	ug/L	NC	20
6940554	Total Uranium (U)	2013/06/28	102	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
6940554	Total Vanadium (V)	2013/06/28	103	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
6940554	Total Zinc (Zn)	2013/06/28	NC	80 - 120	98	80 - 120	<5.0	ug/L	1.7	20
6940554	Total Boron (B)	2013/06/28					<50	ug/L	NC	20
6940554	Total Silicon (Si)	2013/06/28					<100	ug/L	5.0	20
6940554	Total Zirconium (Zr)	2013/06/28					<0.50	ug/L	NC	20
6943901	Dissolved Chloride (Cl)	2013/06/28	98	80 - 120	98	80 - 120	<0.50	mg/L	0.9	20
6947746	Bromide (Br)	2013/07/02	107	78 - 120	102	80 - 120	<0.010	mg/L	NC	20
6951453	Fluoride (F)	2013/07/03	90	80 - 120	98	80 - 120	<0.010	mg/L	2.6	20
6953319	Dissolved Aluminum (Al)	2013/07/10	116	80 - 120	104	80 - 120	<3.0	ug/L	1.1	20
6953319	Dissolved Antimony (Sb)	2013/07/10	110	80 - 120	102	80 - 120	<0.50	ug/L	NC	20

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6953319	Dissolved Arsenic (As)	2013/07/10	110	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
6953319	Dissolved Barium (Ba)	2013/07/10	NC	80 - 120	102	80 - 120	<1.0	ug/L	1.2	20
6953319	Dissolved Beryllium (Be)	2013/07/10	107	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
6953319	Dissolved Bismuth (Bi)	2013/07/10	94	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6953319	Dissolved Cadmium (Cd)	2013/07/10	106	80 - 120	102	80 - 120	<0.010	ug/L	1.2	20
6953319	Dissolved Chromium (Cr)	2013/07/10	97	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6953319	Dissolved Cobalt (Co)	2013/07/10	97	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
6953319	Dissolved Copper (Cu)	2013/07/10	91	80 - 120	103	80 - 120	<0.20	ug/L	4.2	20
6953319	Dissolved Iron (Fe)	2013/07/10	118	80 - 120	103	80 - 120	<5.0	ug/L	NC	20
6953319	Dissolved Lead (Pb)	2013/07/10	99	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
6953319	Dissolved Lithium (Li)	2013/07/10	NC	80 - 120	98	80 - 120	<5.0	ug/L	5.8	20
6953319	Dissolved Manganese (Mn)	2013/07/10	NC	80 - 120	99	80 - 120	<1.0	ug/L	2.3	20
6953319	Dissolved Mercury (Hg)	2013/07/10	95	80 - 120	98	80 - 120	<0.050	ug/L	NC	20
6953319	Dissolved Molybdenum (Mo)	2013/07/10	106	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
6953319	Dissolved Nickel (Ni)	2013/07/10	NC	80 - 120	101	80 - 120	<1.0	ug/L	0.2	20
6953319	Dissolved Selenium (Se)	2013/07/10	109	80 - 120	107	80 - 120	<0.10	ug/L	1.8	20
6953319	Dissolved Silver (Ag)	2013/07/10	90	80 - 120	96	80 - 120	<0.020	ug/L	NC	20
6953319	Dissolved Strontium (Sr)	2013/07/10	NC	80 - 120	100	80 - 120	<1.0	ug/L	1.9	20
6953319	Dissolved Thallium (Tl)	2013/07/10	104	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
6953319	Dissolved Tin (Sn)	2013/07/10	105	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
6953319	Dissolved Titanium (Ti)	2013/07/10	110	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
6953319	Dissolved Uranium (U)	2013/07/10	NC	80 - 120	98	80 - 120	<0.10	ug/L	0.6	20
6953319	Dissolved Vanadium (V)	2013/07/10	107	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
6953319	Dissolved Zinc (Zn)	2013/07/10	NC	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
6953319	Dissolved Boron (B)	2013/07/10					<50	ug/L	NC	20
6953319	Dissolved Silicon (Si)	2013/07/10					<100	ug/L	10.4	20
6953319	Dissolved Zirconium (Zr)	2013/07/10					<0.50	ug/L	NC	20

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam Job #: B352552
Report Date: 2013/07/11

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - Blank Spike outside acceptance criteria (10% of analytes failure allowed)

Maxxam

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5 Ph: (604) 734-7276 Fax: (604) 731-2386, Toll Free: (800) 665-8566

CHAIN OF CUSTODY RECORD

Maxxam Job #: B352552 COC #: EB766113 Click here to get the COC number Page: 1 of 1

#1787 **Invoice To:** Require Report? Yes ☑ No ☐

Company Name:	Teck Resources Ltd.
Contact Name:	Michelle Unger, Environmental Scientist
Address:	PC:
Phone / Fax#:	Ph: 250-427-8422 Fax: 250-427-8451
E-mail	michelle.unger@teck.com

Report To:

Company Name:	SRK Consulting
Contact Name:	Jay Cherian
Address:	PC:
Phone / Fax#:	Ph: 867-334-4412 Fax:
E-mail	jcherian@srk.com

PO #:	Teck PO 8470
Quotation #:	B13-142-1-KP
Project # :	1CT008.037
Proj. Name:	Sa Dena Hes - Spring Seeps
Location:	Watson Lake, Yukon
Sampled by:	J Cherian / S McPhee

REGULATORY REQUIREMENTS:
- ☐ CSR
- ☑ CCME
- ☐ BC Water Quality
- ☐ Other
- ☐ DRINKING WATER

SERVICE REQUESTED:
- ☑ Regular Turn Around Time (TAT) (5 days for most tests)
- ☐ RUSH (Please contact the lab) ☐ 1 Day ☐ 2 Day ☐ 3 Day

Date Required:

SPECIAL INSTRUCTIONS:
Return Cooler ☐ Ship Sample Bottles (please specify) ☐

ANALYSIS REQUESTED

	Sample Identification	Lab Identification (Lab Use Only)	Sample Type	Date/Time(24hr) Sampled	BTEX/VPH- ☐ MTBE	VOC/VPH ☐	EPH ☐ TEH	PAH ☐ LEPH/HEPH	CCME-PHC (Fractions 1-4 Plus BTEX) ☐	CCME-PHC (Fractions 2-4) ☐	CCME-PHC (Fraction 1 Plus BTEX) ☐	PCB ☐	Phenols by 4AAP ☐ Phenols by GCMS	TOG ☐ MOG ☐ SMOG	Dissolved Metals (DM) Field Filtered? Y/N	Total Metals Field Acidified? Y/N	Nitrate ☐ Nitrite ☐ Ammonia ☑ Field Acidified? Y/N	Chloride ☐ Fluoride ☐ Sulphate ☑	Total Suspended Solids (TSS) ☑ TDS	pH ☐ Conductivity ☑ Alkalinity ☑	BOD ☐ COD ☐	Coliform: Total & E.coli ☐ Fecal	Anions ☑	Acidity	Cyanide - total	Colour	Bioassay - Trout 96 hr LC50	DOC (field filtered, field acidified)	HOLD ☐	Number of Containers	Samples are from a Drinking Water Source? YES ☐ NO ☑	Does source supply multiple households? YES ☐ NO ☑
1	MH-06A	G57903	Surface W	13/06/18 11:15											x	x	x	x	x	x	x					x	x	x				8		
2	MH-02	G57904	Seepage	13/06/18 14:45											x	x	x	x	x	x	x						x					6		
3	SDH-S2	G57905	Seepage	13/06/19 15:15											x	x		x	x	x	x				x							5		
4	MH-05	G57906	Surface W	13/06/19 10:55											x	x	x	x	x	x	x				x	x	x					7		
5	Jewelbox Pit	G57907	Surface W	13/06/19 14:00											x	x		x	x	x	x											5		
6	MH-04	G57908	Surface W	13/06/19 9:55											x	x	x	x	x	x	x				x		x	x		x		8		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

B352552

Print name and sign

*Relinquished By:	Date (yy/mm/dd):	Time (24 hr):
J Cherian	13/06/19	20:15

Print name and sign

Received by :	Date (yy/mm/dd):	Time (24 hr):
Kellyun HELEN ZHEN	2013/06/24	10:45

Time Sensitive ☐

Laboratory Use Only

Temperature on Receipt (°C)					Custody Seal	Yes	No
A) 19	B) 18	C) 19			Present?	☐	☐
Just sampled & rec'd on ice: ☐					Intact?	☐	☐

N/A

*IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

Maxxam

Success Through Science®

Your P.O. #: 8470
Your Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your C.O.C. #: EB767813

Attention: Jay Cherian
SRK CONSULTING
SRKCONSU-VAN
SUITE 2200
1066 W. HASTINGS ST.
VANCOUVER, BC
Canada V6E 3X2

Report Date: 2013/07/09

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B352619
Received: 2013/06/24, 10:45

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	5	N/A	2013/06/25	BBY6SOP-00037	SM-2310B
Alkalinity - Water	1	2013/06/25	2013/06/25	BBY6SOP-00026	SM2320B
Alkalinity - Water	9	2013/06/25	2013/06/26	BBY6SOP-00026	SM2320B
Chloride by Automated Colourimetry	5	N/A	2013/06/28	BBY6SOP-00011	SM-4500-Cl-
Cyanide + Thiocyanate	3	N/A	2013/06/28	BBY6SOP-00004	SM4500-CN N
Colour (True)	1	N/A	2013/06/25	BBY6SOP-00021	SM-2120B
Colour (True)	1	N/A	2013/06/26	BBY6SOP-00021	SM-2120B
Carbon (DOC) - field filtered/preserved	5	N/A	2013/06/26	BBY6SOP-00003	SM-5310C
Conductance - water	1	N/A	2013/06/25	BBY6SOP-00026	SM-2510B
Conductance - water	9	N/A	2013/06/26	BBY6SOP-00026	SM-2510B
Fluoride	5	N/A	2013/07/03	BBY6SOP-00012	SM - 4500 F C
Hardness Total (calculated as CaCO3)	5	N/A	2013/06/30	BBY7SOP-00002	EPA 6020A
Hardness Total (calculated as CaCO3)	5	N/A	2013/07/02	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	5	N/A	2013/06/28	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	5	N/A	2013/07/04	BBY7SOP-00002	EPA 6020A
Bromide as Bromine (Br) by ICPMS	5	N/A	2013/07/02	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	5	N/A	2013/06/28	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	5	N/A	2013/07/04	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (dissolved)	5	N/A	2013/07/04	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved)	5	N/A	2013/06/28	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	2013/06/24	2013/07/02	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2013/06/30	BBY7SOP-00002	EPA 6020A
Elements by ICPMS Low Level (total)	5	N/A	2013/06/29	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	3	2013/06/25	2013/06/28	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	2	2013/06/27	2013/06/28	BBY7SOP-00002	EPA 6020A
Ammonia-N (Preserved)	10	N/A	2013/06/25	BBY6SOP-00009	SM-4500NH3G
Filter and HNO3 Preserve for Metals	10	N/A	2013/06/24	BBY6WI-00001	EPA 200.2
pH Water	1	N/A	2013/06/25	BBY6SOP-00026	SM-4500H+B
pH Water	9	N/A	2013/06/26	BBY6SOP-00026	SM-4500H+B
Sulphate by Automated Colourimetry	10	N/A	2013/06/25	BBY6SOP-00017	SM4500-SO42- E
Total Dissolved Solids (Filt. Residue)	5	2013/06/26	2013/06/27	BBY6SOP-00033	SM 2540C
Total Suspended Solids	5	N/A	2013/06/27	BBY6SOP-00034	SM - 2540 D
Total Suspended Solids-Low Level	5	2013/06/26	2013/06/27	BBY6SOP-00034	SM-2540 D

* Results relate only to the items tested.

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604) 638-5020

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GS8454	GS8455		GS8456	GS8457			GS8458	GS8459		
Sampling Date		2013/06/21 16:30	2013/06/21 13:30		2013/06/21 11:30	2013/06/21 15:15			2013/06/20 12:55	2013/06/20 13:45		
	UNITS	**MH-15**	**MH-14**	**QC Batch**	**MH-13**	**MH-16**	**RDL**	**QC Batch**	**PH-1**	**PH-2**	**RDL**	**QC Batch**
Misc. Inorganics												
Acidity (pH 4.5)	mg/L	<0.50		6931771			0.50		<0.50	<0.50	0.50	6931771
Acidity (pH 8.3)	mg/L	<0.50		6931771			0.50		0.62	0.90	0.50	6931771
Calculated Parameters												
Filter and HNO3 Preservation	N/A	FIELD	FIELD	ONSITE	FIELD	FIELD	N/A	ONSITE	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics												
Cyanide + Thiocyanate	mg/L		0.00079	6942601	0.00087	0.00084	0.00050	6942601				
Fluoride (F)	mg/L	0.096		6951453	0.058		0.010	6951453	0.230	0.230	0.010	6951453
Dissolved Organic Carbon (C)	mg/L	3.92		6934553	3.76		0.50	6934553	1.88	1.29	0.50	6934553
Alkalinity (Total as CaCO3)	mg/L	186	174	6933710	148	171	0.50	6933710	124	123	0.50	6933710
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	6933710	<0.50	<0.50	0.50	6933710	<0.50	<0.50	0.50	6933710
Bicarbonate (HCO3)	mg/L	227	212	6933710	180	208	0.50	6933710	151	150	0.50	6933710
Carbonate (CO3)	mg/L	<0.50	<0.50	6933710	<0.50	<0.50	0.50	6933710	<0.50	<0.50	0.50	6933710
Hydroxide (OH)	mg/L	<0.50	<0.50	6933710	<0.50	<0.50	0.50	6933710	<0.50	<0.50	0.50	6933710
Anions												
Dissolved Sulphate (SO4)	mg/L	4.12	8.38	6934805	7.51	7.52	0.50	6934805	22.7	23.4	0.50	6934805
Dissolved Chloride (Cl)	mg/L	0.50		6946281	0.52		0.50	6946281	<0.50	0.59	0.50	6946281
MISCELLANEOUS												
True Colour	Col. Unit		5.0(1)	6932282	10.0(1)		5.0	6936387				
Nutrients												
Ammonia (N)	mg/L	0.023	0.011	6931780	0.015	0.020	0.0050	6931780	0.012	0.011	0.0050	6931780
Physical Properties												
Conductivity	uS/cm	342	332	6933722	286	324	1.0	6933722	279	280	1.0	6933722
pH	pH Units	8.27	8.25	6933721	8.20	8.28		6933721	8.07	8.04		6933721
Physical Properties												
Total Suspended Solids	mg/L	3.3	8.5	6934722	2.5	5.3	1.0	6934722	<4.0	<4.0	4.0	6934716
Total Dissolved Solids	mg/L	206		6935100	178		10	6935100	184	176	10	6935100

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample analysed past recommended hold time.

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GS8460	GS8461	GS8462			GS8463		
Sampling Date		2013/06/20 14:00	2013/06/20 10:45	2013/06/20 14:45			2013/06/20 11:40		
	UNITS	**CC-1**	**MH-25**	**CC-3**	**RDL**	**QC Batch**	**SDH-S5**	**RDL**	**QC Batch**
Misc. Inorganics									
Acidity (pH 4.5)	mg/L	<0.50			0.50	6931771	<0.50	0.50	6931771
Acidity (pH 8.3)	mg/L	<0.50			0.50	6931771	2.39	0.50	6931771
Calculated Parameters									
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics									
Fluoride (F)	mg/L	0.070			0.010	6951453			
Dissolved Organic Carbon (C)	mg/L	2.11			0.50	6934553			
Alkalinity (Total as CaCO3)	mg/L	114	27.9	143	0.50	6933710	97.0	0.50	6933710
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	<0.50	0.50	6933710	<0.50	0.50	6933710
Bicarbonate (HCO3)	mg/L	139	34.1	174	0.50	6933710	118	0.50	6933710
Carbonate (CO3)	mg/L	<0.50	<0.50	<0.50	0.50	6933710	<0.50	0.50	6933710
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	0.50	6933710	<0.50	0.50	6933710
Anions									
Dissolved Sulphate (SO4)	mg/L	6.62	149	12.0	0.50	6934805	48.6	0.50	6934805
Dissolved Chloride (Cl)	mg/L	0.70			0.50	6946281			
Nutrients									
Ammonia (N)	mg/L	0.016	0.011	0.037	0.0050	6931780	0.014	0.0050	6931780
Physical Properties									
Conductivity	uS/cm	224	359	290	1.0	6933722	284	1.0	6933722
pH	pH Units	8.09	7.05	8.22		6933721	7.98		6933721
Physical Properties									
Total Suspended Solids	mg/L	<4.0	21.8	<4.0	4.0	6934716	<1.0	1.0	6934722
Total Dissolved Solids	mg/L	146			10	6935100			

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		GS8454	GS8456	GS8458	GS8459	GS8460		
Sampling Date		2013/06/21 16:30	2013/06/21 11:30	2013/06/20 12:55	2013/06/20 13:45	2013/06/20 14:00		
	UNITS	**MH-15**	**MH-13**	**PH-1**	**PH-2**	**CC-1**	**RDL**	**QC Batch**
ANIONS								
Bromide (Br)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	6947746

RDL = Reportable Detection Limit

Maxxam Job #: B352619
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SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GS8458		GS8459	GS8460	GS8461		GS8462		
Sampling Date		2013/06/20 12:55		2013/06/20 13:45	2013/06/20 14:00	2013/06/20 10:45		2013/06/20 14:45		
	UNITS	**PH-1**	**QC Batch**	**PH-2**	**CC-1**	**MH-25**	**RDL**	**CC-3**	**RDL**	**QC Batch**
Misc. Inorganics										
Dissolved Hardness (CaCO3)	mg/L	145	6930733	142	114	121	0.50	153	0.50	6930733
Dissolved Metals by ICPMS										
Dissolved Aluminum (Al)	ug/L	<3.0	6941025	<3.0	<3.0	9.5	3.0	3.0	3.0	6941025
Dissolved Antimony (Sb)	ug/L	<0.50	6941025	<0.50	<0.50	<0.50	0.50	<0.50	0.50	6941025
Dissolved Arsenic (As)	ug/L	0.54	6941025	0.52	0.33	<0.10	0.10	0.40	0.10	6941025
Dissolved Barium (Ba)	ug/L	15.8	6941025	16.6	10.3	8.6	1.0	28.4	1.0	6941025
Dissolved Beryllium (Be)	ug/L	<0.10	6941025	<0.10	<0.10	<0.10	0.10	<0.10	0.10	6941025
Dissolved Bismuth (Bi)	ug/L	<1.0	6941025	<1.0	<1.0	<1.0	1.0	<1.0	1.0	6941025
Dissolved Boron (B)	ug/L	<50	6941025	<50	<50	<50	50	<50	50	6941025
Dissolved Cadmium (Cd)	ug/L	0.634	6941025	0.643	0.077	358	0.010	0.151(1)	0.013	6941025
Dissolved Chromium (Cr)	ug/L	<1.0	6941025	<1.0	<1.0	<1.0	1.0	<1.0	1.0	6941025
Dissolved Cobalt (Co)	ug/L	<0.50	6941025	<0.50	<0.50	5.62	0.50	<0.50	0.50	6941025
Dissolved Copper (Cu)	ug/L	0.21	6941025	0.26	0.23	0.77	0.20	0.27	0.20	6941025
Dissolved Iron (Fe)	ug/L	<5.0	6941025	<5.0	<5.0	<5.0	5.0	5.2	5.0	6941025
Dissolved Lead (Pb)	ug/L	1.21	6941025	1.49	0.34	68.2	0.20	0.40	0.20	6941025
Dissolved Lithium (Li)	ug/L	<5.0	6941025	<5.0	<5.0	<5.0	5.0	<5.0	5.0	6941025
Dissolved Manganese (Mn)	ug/L	<1.0	6941025	<1.0	<1.0	131	1.0	<1.0	1.0	6941025
Dissolved Mercury (Hg)	ug/L	<0.050	6941025	<0.050	<0.050	<0.050	0.050	<0.050	0.050	6941025
Dissolved Molybdenum (Mo)	ug/L	<1.0	6941025	<1.0	<1.0	<1.0	1.0	<1.0	1.0	6941025
Dissolved Nickel (Ni)	ug/L	<1.0	6941025	<1.0	<1.0	<1.0	1.0	<1.0	1.0	6941025
Dissolved Selenium (Se)	ug/L	1.10	6962376	1.10	0.26	4.23	0.10	0.60	0.10	6941025
Dissolved Silicon (Si)	ug/L	3390	6941025	3120	2610	2890	100	3160	100	6941025
Dissolved Silver (Ag)	ug/L	<0.020	6941025	<0.020	<0.020	<0.020	0.020	<0.020	0.020	6941025
Dissolved Strontium (Sr)	ug/L	123	6941025	130	164	50.1	1.0	196	1.0	6941025
Dissolved Thallium (Tl)	ug/L	<0.050	6941025	<0.050	<0.050	<0.050	0.050	<0.050	0.050	6941025
Dissolved Tin (Sn)	ug/L	<5.0	6941025	<5.0	<5.0	<5.0	5.0	<5.0	5.0	6941025
Dissolved Titanium (Ti)	ug/L	<5.0	6941025	<5.0	<5.0	<5.0	5.0	<5.0	5.0	6941025
Dissolved Uranium (U)	ug/L	0.65	6941025	0.75	0.52	<0.10	0.10	0.78	0.10	6941025
Dissolved Vanadium (V)	ug/L	<5.0	6941025	<5.0	<5.0	<5.0	5.0	<5.0	5.0	6941025
Dissolved Zinc (Zn)	ug/L	10.8	6941025	10.8	<5.0	35000	5.0	<5.0	5.0	6941025
Dissolved Zirconium (Zr)	ug/L	<0.50	6941025	<0.50	<0.50	<0.50	0.50	<0.50	0.50	6941025
Dissolved Calcium (Ca)	mg/L	53.3	6928776	52.1	43.0	46.1	0.050	56.0	0.050	6928776
Dissolved Magnesium (Mg)	mg/L	2.83	6928776	2.87	1.69	1.44	0.050	3.19	0.050	6928776

RDL = Reportable Detection Limit
(1) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed).

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GS8458		GS8459	GS8460	GS8461		GS8462		
Sampling Date		2013/06/20 12:55		2013/06/20 13:45	2013/06/20 14:00	2013/06/20 10:45		2013/06/20 14:45		
	UNITS	**PH-1**	**QC Batch**	**PH-2**	**CC-1**	**MH-25**	**RDL**	**CC-3**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.487	6928776	0.508	0.287	0.438	0.050	0.468	0.050	6928776
Dissolved Sodium (Na)	mg/L	0.543	6928776	0.547	0.615	0.297	0.050	0.745	0.050	6928776
Dissolved Sulphur (S)	mg/L	8.4	6928776	8.2	<3.0	54.1	3.0	4.6	3.0	6928776

RDL = Reportable Detection Limit

Maxxam Job #: B352619
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SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		GS8458		GS8459	GS8460			GS8461		GS8462		
Sampling Date		2013/06/20 12:55		2013/06/20 13:45	2013/06/20 14:00			2013/06/20 10:45		2013/06/20 14:45		
	UNITS	**PH-1**	**QC Batch**	**PH-2**	**CC-1**	**RDL**	**QC Batch**	**MH-25**	**RDL**	**CC-3**	**RDL**	**QC Batch**
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	148	6928229	146	116	0.50	6928229	135	0.50	152	0.50	6928229
Total Metals by ICPMS												
Total Aluminum (Al)	ug/L	28.6	6932026	<3.0	<3.0	3.0	6940554	431	7.5	40.4	3.0	6932026
Total Antimony (Sb)	ug/L	<0.50	6932026	<0.50	<0.50	0.50	6940554	1.3	1.3	<0.50	0.50	6932026
Total Arsenic (As)	ug/L	0.65	6932026	0.54	0.33	0.10	6940554	1.31	0.25	0.44	0.10	6932026
Total Barium (Ba)	ug/L	16.4	6932026	15.7	10.4	1.0	6940554	12.7	2.5	27.3	1.0	6932026
Total Beryllium (Be)	ug/L	<0.10	6932026	<0.10	<0.10	0.10	6940554	<0.25	0.25	<0.10	0.10	6932026
Total Bismuth (Bi)	ug/L	<1.0	6932026	<1.0	<1.0	1.0	6940554	<2.5	2.5	<1.0	1.0	6932026
Total Boron (B)	ug/L	<50	6932026	<50	<50	50	6940554	<130	130	<50	50	6932026
Total Cadmium (Cd)	ug/L	0.693	6932026	0.621	0.079	0.010	6940554	392	0.025	0.175	0.010	6932026
Total Chromium (Cr)	ug/L	<1.0	6932026	<1.0	<1.0	1.0	6940554	<2.5	2.5	<1.0	1.0	6932026
Total Cobalt (Co)	ug/L	<0.50	6932026	<0.50	<0.50	0.50	6940554	7.1	1.3	<0.50	0.50	6932026
Total Copper (Cu)	ug/L	0.59	6932026	0.28	0.25	0.20	6940554	5.80	0.50	0.96	0.20	6932026
Total Iron (Fe)	ug/L	51.9	6932026	<5.0	<5.0	5.0	6940554	1660	13	80.2	5.0	6932026
Total Lead (Pb)	ug/L	4.76	6932026	1.35	0.37	0.20	6940554	1240	0.50	1.59	0.20	6932026
Total Lithium (Li)	ug/L	<5.0	6932026	<5.0	<5.0	5.0	6940554	<13	13	<5.0	5.0	6932026
Total Manganese (Mn)	ug/L	2.9	6932026	<1.0	<1.0	1.0	6940554	287	2.5	2.9	1.0	6932026
Total Mercury (Hg)	ug/L	<0.050	6932026	<0.050	<0.050	0.050	6940554	<0.13	0.13	<0.050	0.050	6932026
Total Molybdenum (Mo)	ug/L	<1.0	6932026	<1.0	<1.0	1.0	6940554	<2.5	2.5	<1.0	1.0	6932026
Total Nickel (Ni)	ug/L	<1.0	6932026	<1.0	<1.0	1.0	6940554	5.7	2.5	<1.0	1.0	6932026
Total Selenium (Se)	ug/L	1.02	6932026	1.09	0.20	0.10	6940554	4.40	0.25	0.58	0.10	6932026
Total Silicon (Si)	ug/L	3120	6932026	3050	2550	100	6940554	4890	250	2980	100	6932026
Total Silver (Ag)	ug/L	<0.020	6932026	<0.020	<0.020	0.020	6940554	0.320	0.050	<0.020	0.020	6932026
Total Strontium (Sr)	ug/L	148	6932026	125	163	1.0	6940554	52.3	2.5	214	1.0	6932026
Total Thallium (Tl)	ug/L	<0.050	6932026	<0.050	<0.050	0.050	6940554	0.72	0.13	<0.050	0.050	6932026
Total Tin (Sn)	ug/L	<5.0	6932026	<5.0	<5.0	5.0	6940554	<13	13	<5.0	5.0	6932026
Total Titanium (Ti)	ug/L	<5.0	6932026	<5.0	<5.0	5.0	6940554	<13	13	<5.0	5.0	6932026
Total Uranium (U)	ug/L	0.72	6932026	0.73	0.52	0.10	6940554	<0.25	0.25	0.75	0.10	6932026
Total Vanadium (V)	ug/L	<5.0	6932026	<5.0	<5.0	5.0	6940554	<13	13	<5.0	5.0	6932026
Total Zinc (Zn)	ug/L	15.9	6932026	11.3	<5.0	5.0	6940554	45300	13	5.1	5.0	6932026
Total Zirconium (Zr)	ug/L	<0.50	6932026	<0.50	<0.50	0.50	6940554	<1.3	1.3	<0.50	0.50	6932026
Total Calcium (Ca)	mg/L	53.7	6928232	53.3	43.6	0.050	6928232	50.6	0.13	55.3	0.050	6928232
Total Magnesium (Mg)	mg/L	3.34	6928232	3.08	1.79	0.050	6928232	2.04	0.13	3.35	0.050	6928232
Total Potassium (K)	mg/L	0.536	6928232	0.499	0.282	0.050	6928232	0.42	0.13	0.435	0.050	6928232

RDL = Reportable Detection Limit

Maxxam Job #: B352619
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SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		GS8458		GS8459	GS8460			GS8461		GS8462		
Sampling Date		2013/06/20 12:55		2013/06/20 13:45	2013/06/20 14:00			2013/06/20 10:45		2013/06/20 14:45		
	UNITS	**PH-1**	**QC Batch**	**PH-2**	**CC-1**	**RDL**	**QC Batch**	**MH-25**	**RDL**	**CC-3**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	0.646	6928232	0.594	0.657	0.050	6928232	0.24	0.13	0.793	0.050	6928232
Total Sulphur (S)	mg/L	8.8	6928232	7.1	<3.0	3.0	6928232	54.0	7.5	3.5	3.0	6928232

RDL = Reportable Detection Limit

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GS8454	GS8455	GS8456	GS8457	GS8463		
Sampling Date		2013/06/21 16:30	2013/06/21 13:30	2013/06/21 11:30	2013/06/21 15:15	2013/06/20 11:40		
	UNITS	**MH-15**	**MH-14**	**MH-13**	**MH-16**	**SDH-S5**	**RDL**	**QC Batch**
Misc. Inorganics								
Dissolved Hardness (CaCO3)	mg/L	188	182	152	175	158	0.50	6930733

RDL = Reportable Detection Limit

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
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Your P.O. #: 8470
Sampler Initials: JC

LOW LEVEL DISSOLVED METALS IN WATER (WATER)

Maxxam ID		GS8454	GS8455	GS8456	GS8457	GS8463		
Sampling Date		2013/06/21 16:30	2013/06/21 13:30	2013/06/21 11:30	2013/06/21 15:15	2013/06/20 11:40		
	UNITS	**MH-15**	**MH-14**	**MH-13**	**MH-16**	**SDH-S5**	**RDL**	**QC Batch**
Dissolved Metals by ICPMS								
Dissolved Aluminum (Al)	ug/L	3.46	3.95	5.98	5.69	1.83	0.50	6936038
Dissolved Antimony (Sb)	ug/L	0.128	0.117	0.149	0.128	0.147	0.020	6936038
Dissolved Arsenic (As)	ug/L	0.378	0.277	0.429	0.352	0.723	0.020	6936038
Dissolved Barium (Ba)	ug/L	178	143	109	131	14.0	0.020	6936038
Dissolved Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	6936038
Dissolved Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	6936038
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	50	6936038
Dissolved Cadmium (Cd)	ug/L	0.0080	0.0160	0.0270	0.0290	0.0760	0.0050	6936038
Dissolved Chromium (Cr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6936038
Dissolved Cobalt (Co)	ug/L	0.0280	0.0350	0.0580	0.0270	0.0110	0.0050	6936038
Dissolved Copper (Cu)	ug/L	0.200	0.383	0.577	0.532	0.322	0.050	6936038
Dissolved Iron (Fe)	ug/L	87.2	72.8	123	59.1	1.9	1.0	6936038
Dissolved Lead (Pb)	ug/L	0.0450	0.101	0.720	0.849	1.37	0.0050	6936038
Dissolved Lithium (Li)	ug/L	1.04	0.92	0.81	0.97	1.82	0.50	6936038
Dissolved Manganese (Mn)	ug/L	12.2	7.95	16.2	6.02	0.135	0.050	6936038
Dissolved Molybdenum (Mo)	ug/L	1.82	0.830	0.869	1.07	1.19	0.050	6936038
Dissolved Nickel (Ni)	ug/L	0.381	0.319	0.445	0.308	0.150	0.020	6936038
Dissolved Selenium (Se)	ug/L	0.384	0.699	0.596	0.562	2.65	0.040	6936038
Dissolved Silicon (Si)	ug/L	3130	3000	2980	2970	2920	100	6936038
Dissolved Silver (Ag)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	6936038
Dissolved Strontium (Sr)	ug/L	179	196	158	174	129	0.050	6936038
Dissolved Thallium (Tl)	ug/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0030	0.0020	6936038
Dissolved Tin (Sn)	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6936038
Dissolved Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6936038
Dissolved Uranium (U)	ug/L	0.769	0.822	0.973	0.862	1.21	0.0020	6936038
Dissolved Vanadium (V)	ug/L	<0.20	<0.20	<0.20	<0.20	1.98	0.20	6936038
Dissolved Zinc (Zn)	ug/L	0.51	0.62	2.09	2.02	3.33	0.10	6936038
Dissolved Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6936038
Dissolved Calcium (Ca)	mg/L	54.9	54.2	46.5	52.6	54.9	0.050	6930514
Dissolved Magnesium (Mg)	mg/L	12.5	11.3	8.68	10.6	5.01	0.050	6930514
Dissolved Potassium (K)	mg/L	0.314	0.406	0.316	0.358	0.422	0.050	6930514
Dissolved Sodium (Na)	mg/L	0.849	1.09	0.722	1.01	0.710	0.050	6930514
Dissolved Sulphur (S)	mg/L	<3.0	<3.0	<3.0	3.2	18.0	3.0	6930514

RDL = Reportable Detection Limit

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

LOW LEVEL TOTAL METALS IN WATER (WATER)

Maxxam ID		GS8454	GS8455	GS8456	GS8457	GS8463		
Sampling Date		2013/06/21 16:30	2013/06/21 13:30	2013/06/21 11:30	2013/06/21 15:15	2013/06/20 11:40		
	UNITS	**MH-15**	**MH-14**	**MH-13**	**MH-16**	**SDH-S5**	**RDL**	**QC Batch**
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	179	174	145	169	148	0.50	6928229

RDL = Reportable Detection Limit

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
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Your P.O. #: 8470
Sampler Initials: JC

LOW LEVEL TOTAL METALS IN WATER (WATER)

Maxxam ID		GS8454	GS8455	GS8456	GS8457	GS8463		
Sampling Date		2013/06/21 16:30	2013/06/21 13:30	2013/06/21 11:30	2013/06/21 15:15	2013/06/20 11:40		
	UNITS	**MH-15**	**MH-14**	**MH-13**	**MH-16**	**SDH-S5**	**RDL**	**QC Batch**
Total Metals by ICPMS								
Total Aluminum (Al)	ug/L	8.64	10.3	15.4	20.9	2.18	0.50	6941624
Total Antimony (Sb)	ug/L	0.123	0.118	0.158	0.135	0.137	0.020	6941624
Total Arsenic (As)	ug/L	0.440	0.329	0.498	0.385	0.670	0.020	6941624
Total Barium (Ba)	ug/L	161	132	104	124	15.7	0.020	6941624
Total Beryllium (Be)	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	6941624
Total Bismuth (Bi)	ug/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	6941624
Total Boron (B)	ug/L	<50	<50	<50	<50	<50	50	6941624
Total Cadmium (Cd)	ug/L	0.0180	0.0470	0.0340	0.103	0.0950	0.0050	6941624
Total Chromium (Cr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6941624
Total Cobalt (Co)	ug/L	0.0340	0.0410	0.0710	0.0620	0.0110	0.0050	6941624
Total Copper (Cu)	ug/L	0.311	0.715	0.687	1.39	0.373	0.050	6941624
Total Iron (Fe)	ug/L	173	123	192	147	8.6	1.0	6941624
Total Lead (Pb)	ug/L	0.220	1.07	0.790	3.04	3.44	0.0050	6941624
Total Lithium (Li)	ug/L	1.00	0.78	0.69	0.79	1.53	0.50	6941624
Total Manganese (Mn)	ug/L	13.2	9.40	18.8	12.8	0.727	0.050	6941624
Total Molybdenum (Mo)	ug/L	1.64	0.831	0.896	1.00	1.11	0.050	6941624
Total Nickel (Ni)	ug/L	0.472	0.412	0.510	0.496	0.183	0.020	6941624
Total Selenium (Se)	ug/L	0.505	0.929	0.619	0.591	2.66	0.040	6941624
Total Silicon (Si)	ug/L	3060	2960	2840	2850	2880	100	6941624
Total Silver (Ag)	ug/L	0.0060	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	6941624
Total Strontium (Sr)	ug/L	171	185	153	166	123	0.050	6941624
Total Thallium (Tl)	ug/L	0.0150	0.0090	0.0060	0.0060	0.0050	0.0020	6941624
Total Tin (Sn)	ug/L	<0.20	<0.20	<0.20	0.32	<0.20	0.20	6941624
Total Titanium (Ti)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6941624
Total Uranium (U)	ug/L	0.709	0.736	0.891	0.769	1.05	0.0020	6941624
Total Vanadium (V)	ug/L	0.20	<0.20	0.25	0.26	2.03	0.20	6941624
Total Zinc (Zn)	ug/L	1.35	2.61	1.90	6.23	5.89	0.10	6941624
Total Zirconium (Zr)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6941624
Total Calcium (Ca)	mg/L	51.4	51.5	43.2	49.7	51.0	0.050	6930515
Total Magnesium (Mg)	mg/L	12.3	11.0	8.93	10.8	4.93	0.050	6930515
Total Potassium (K)	mg/L	0.295	0.374	0.320	0.406	0.389	0.050	6930515
Total Sodium (Na)	mg/L	0.815	1.07	0.708	1.14	0.703	0.050	6930515
Total Sulphur (S)	mg/L	<3.0	<3.0	<3.0	4.4	18.4	3.0	6930515

RDL = Reportable Detection Limit

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

General Comments

Sample GS8454-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8455-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8456-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8457-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8458-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8459-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8460-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8461-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8462-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8463-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample GS8458, Elements by CRC ICPMS (dissolved): Test repeated.

CSR TOTAL METALS IN WATER (WATER) Comments

Sample GS8461-04 Elements by CRC ICPMS (total): RDL raised due to sample matrix interference.

Maxxam Job #: B352619
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SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6931771	Acidity (pH 8.3)	2013/06/25			98	80 - 120	0.62, RDL=0.50	mg/L	NC	20
6931771	Acidity (pH 4.5)	2013/06/25					<0.50	mg/L	NC	20
6931780	Ammonia (N)	2013/06/25	94	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20
6932026	Total Aluminum (Al)	2013/06/28	101	80 - 120	98	80 - 120	<3.0	ug/L	NC	20
6932026	Total Antimony (Sb)	2013/06/28	106	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
6932026	Total Arsenic (As)	2013/06/28	106	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
6932026	Total Barium (Ba)	2013/06/28	105	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
6932026	Total Beryllium (Be)	2013/06/28	98	80 - 120	94	80 - 120	<0.10	ug/L	NC	20
6932026	Total Bismuth (Bi)	2013/06/28	107	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
6932026	Total Cadmium (Cd)	2013/06/28	106	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
6932026	Total Chromium (Cr)	2013/06/28	105	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
6932026	Total Cobalt (Co)	2013/06/28	107	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
6932026	Total Copper (Cu)	2013/06/28	109	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
6932026	Total Iron (Fe)	2013/06/28	132(1)	80 - 120	122(1, 2)	80 - 120	<5.0	ug/L	NC	20
6932026	Total Lead (Pb)	2013/06/28	102	80 - 120	97	80 - 120	<0.20	ug/L	NC	20
6932026	Total Lithium (Li)	2013/06/28	101	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
6932026	Total Manganese (Mn)	2013/06/28	105	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
6932026	Total Mercury (Hg)	2013/06/28	110	80 - 120	106	80 - 120	<0.050	ug/L	NC	20
6932026	Total Molybdenum (Mo)	2013/06/28	111	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
6932026	Total Nickel (Ni)	2013/06/28	108	80 - 120	109	80 - 120	<1.0	ug/L	NC	20
6932026	Total Selenium (Se)	2013/06/28	101	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
6932026	Total Silver (Ag)	2013/06/28	102	80 - 120	75(1, 2)	80 - 120	0.036, RDL=0.020	ug/L	NC	20
6932026	Total Strontium (Sr)	2013/06/28	106	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
6932026	Total Thallium (Tl)	2013/06/28	107	80 - 120	105	80 - 120	<0.050	ug/L	NC	20
6932026	Total Tin (Sn)	2013/06/28	118	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
6932026	Total Titanium (Ti)	2013/06/28	136(1)	80 - 120	127(1, 2)	80 - 120	<5.0	ug/L	NC	20
6932026	Total Uranium (U)	2013/06/28	100	80 - 120	94	80 - 120	<0.10	ug/L	NC	20
6932026	Total Vanadium (V)	2013/06/28	107	80 - 120	107	80 - 120	<5.0	ug/L	NC	20
6932026	Total Zinc (Zn)	2013/06/28	106	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
6932026	Total Boron (B)	2013/06/28					<50	ug/L	NC	20
6932026	Total Silicon (Si)	2013/06/28					<100	ug/L	NC	20
6932026	Total Zirconium (Zr)	2013/06/28					<0.50	ug/L	NC	20
6932282	True Colour	2013/06/25					<5.0	Col. Unit	NC	20
6933710	Alkalinity (Total as CaCO3)	2013/06/26	NC	80 - 120	100	80 - 120	<0.50	mg/L	0.4	20
6933710	Alkalinity (PP as CaCO3)	2013/06/26					<0.50	mg/L	NC	20
6933710	Bicarbonate (HCO3)	2013/06/26					<0.50	mg/L	0.4	20
6933710	Carbonate (CO3)	2013/06/26					<0.50	mg/L	NC	20
6933710	Hydroxide (OH)	2013/06/26					<0.50	mg/L	NC	20
6933722	Conductivity	2013/06/26			99	80 - 120	<1.0	uS/cm	0.8	20

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SRK CONSULTING
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Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6934553	Dissolved Organic Carbon (C)	2013/06/26	107	80 - 120	105	80 - 120	<0.50	mg/L	NC	20
6934716	Total Suspended Solids	2013/06/27	NC	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
6934722	Total Suspended Solids	2013/06/27			99	80 - 120	<1.0	mg/L		
6934805	Dissolved Sulphate (SO4)	2013/06/25	97	80 - 120	92	80 - 120	<0.50	mg/L	1.7	20
6935100	Total Dissolved Solids	2013/06/27	102	80 - 120	96	80 - 120	<10	mg/L	1	20
6936038	Dissolved Aluminum (Al)	2013/07/04	100	80 - 120	106	80 - 120	<0.50	ug/L		
6936038	Dissolved Antimony (Sb)	2013/07/04	97	80 - 120	103	80 - 120	<0.020	ug/L		
6936038	Dissolved Arsenic (As)	2013/07/04	91	80 - 120	101	80 - 120	<0.020	ug/L		
6936038	Dissolved Barium (Ba)	2013/07/04	69 (1)	80 - 120	106	80 - 120	<0.020	ug/L		
6936038	Dissolved Beryllium (Be)	2013/07/04	94	80 - 120	94	80 - 120	<0.010	ug/L		
6936038	Dissolved Bismuth (Bi)	2013/07/04	97	80 - 120	102	80 - 120	<0.0050	ug/L		
6936038	Dissolved Cadmium (Cd)	2013/07/04	93	80 - 120	99	80 - 120	<0.0050	ug/L		
6936038	Dissolved Chromium (Cr)	2013/07/04	98	80 - 120	105	80 - 120	<0.10	ug/L		
6936038	Dissolved Cobalt (Co)	2013/07/04	99	80 - 120	106	80 - 120	<0.0050	ug/L		
6936038	Dissolved Copper (Cu)	2013/07/04	97	80 - 120	105	80 - 120	<0.050	ug/L		
6936038	Dissolved Iron (Fe)	2013/07/04	109	80 - 120	120	80 - 120	<1.0	ug/L		
6936038	Dissolved Lead (Pb)	2013/07/04	95	80 - 120	102	80 - 120	<0.0050	ug/L		
6936038	Dissolved Lithium (Li)	2013/07/04	95	80 - 120	100	80 - 120	<0.50	ug/L		
6936038	Dissolved Manganese (Mn)	2013/07/04	98	80 - 120	109	80 - 120	<0.050	ug/L		
6936038	Dissolved Molybdenum (Mo)	2013/07/04	96	80 - 120	102	80 - 120	<0.050	ug/L		
6936038	Dissolved Nickel (Ni)	2013/07/04	100	80 - 120	108	80 - 120	<0.020	ug/L		
6936038	Dissolved Selenium (Se)	2013/07/04	96	80 - 120	96	80 - 120	<0.040	ug/L		
6936038	Dissolved Silver (Ag)	2013/07/04	97	80 - 120	101	80 - 120	<0.0050	ug/L		
6936038	Dissolved Strontium (Sr)	2013/07/04	97	80 - 120	104	80 - 120	<0.050	ug/L		
6936038	Dissolved Thallium (Tl)	2013/07/04	101	80 - 120	106	80 - 120	<0.0020	ug/L		
6936038	Dissolved Tin (Sn)	2013/07/04	100	80 - 120	109	80 - 120	<0.20	ug/L		
6936038	Dissolved Titanium (Ti)	2013/07/04	100	80 - 120	110	80 - 120	<0.50	ug/L		
6936038	Dissolved Uranium (U)	2013/07/04	97	80 - 120	105	80 - 120	<0.0020	ug/L		
6936038	Dissolved Vanadium (V)	2013/07/04	99	80 - 120	103	80 - 120	<0.20	ug/L		
6936038	Dissolved Zinc (Zn)	2013/07/04	97	80 - 120	119	80 - 120	<0.10	ug/L		
6936038	Dissolved Boron (B)	2013/07/04					<50	ug/L		
6936038	Dissolved Silicon (Si)	2013/07/04					<100	ug/L	NC	20
6936038	Dissolved Zirconium (Zr)	2013/07/04					<0.10	ug/L		
6936387	True Colour	2013/06/26					<5.0	Col. Unit	NC	20
6940554	Total Aluminum (Al)	2013/06/28	105	80 - 120	101	80 - 120	<3.0	ug/L	1.7	20
6940554	Total Antimony (Sb)	2013/06/28	NC	80 - 120	100	80 - 120	<0.50	ug/L	4.8	20
6940554	Total Arsenic (As)	2013/06/28	NC	80 - 120	97	80 - 120	<0.10	ug/L	2.6	20
6940554	Total Barium (Ba)	2013/06/28	NC	80 - 120	101	80 - 120	<1.0	ug/L	1.7	20
6940554	Total Beryllium (Be)	2013/06/28	109	80 - 120	98	80 - 120	<0.10	ug/L	NC	20

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6940554	Total Bismuth (Bi)	2013/06/28	96	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6940554	Total Cadmium (Cd)	2013/06/28	101	80 - 120	97	80 - 120	<0.010	ug/L	0	20
6940554	Total Chromium (Cr)	2013/06/28	99	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6940554	Total Cobalt (Co)	2013/06/28	96	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
6940554	Total Copper (Cu)	2013/06/28	93	80 - 120	98	80 - 120	<0.20	ug/L	1.6	20
6940554	Total Iron (Fe)	2013/06/28	NC	80 - 120	106	80 - 120	<5.0	ug/L	2.2	20
6940554	Total Lead (Pb)	2013/06/28	NC	80 - 120	99	80 - 120	<0.20	ug/L	2.2	20
6940554	Total Lithium (Li)	2013/06/28	100	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
6940554	Total Manganese (Mn)	2013/06/28	NC	80 - 120	101	80 - 120	<1.0	ug/L	2.4	20
6940554	Total Mercury (Hg)	2013/06/28	97	80 - 120	101	80 - 120	<0.050	ug/L	NC	20
6940554	Total Molybdenum (Mo)	2013/06/28	NC	80 - 120	99	80 - 120	<1.0	ug/L	2.5	20
6940554	Total Nickel (Ni)	2013/06/28	94	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
6940554	Total Selenium (Se)	2013/06/28	101	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
6940554	Total Silver (Ag)	2013/06/28	103	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
6940554	Total Strontium (Sr)	2013/06/28	NC	80 - 120	100	80 - 120	<1.0	ug/L	0.5	20
6940554	Total Thallium (Tl)	2013/06/28	NC	80 - 120	103	80 - 120	<0.050	ug/L	5.5	20
6940554	Total Tin (Sn)	2013/06/28	101	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
6940554	Total Titanium (Ti)	2013/06/28	86	80 - 120	109	80 - 120	<5.0	ug/L	NC	20
6940554	Total Uranium (U)	2013/06/28	102	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
6940554	Total Vanadium (V)	2013/06/28	103	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
6940554	Total Zinc (Zn)	2013/06/28	NC	80 - 120	98	80 - 120	<5.0	ug/L	1.7	20
6940554	Total Boron (B)	2013/06/28					<50	ug/L	NC	20
6940554	Total Silicon (Si)	2013/06/28					<100	ug/L	5.0	20
6940554	Total Zirconium (Zr)	2013/06/28					<0.50	ug/L	NC	20
6941025	Dissolved Aluminum (Al)	2013/06/28	NC	80 - 120	107	80 - 120	<3.0	ug/L	5.8	20
6941025	Dissolved Antimony (Sb)	2013/06/28	101	80 - 120	103	80 - 120	<0.50	ug/L		
6941025	Dissolved Arsenic (As)	2013/06/28	101	80 - 120	100	80 - 120	<0.10	ug/L		
6941025	Dissolved Barium (Ba)	2013/06/28	101	80 - 120	101	80 - 120	<1.0	ug/L		
6941025	Dissolved Beryllium (Be)	2013/06/28	101	80 - 120	100	80 - 120	<0.10	ug/L		
6941025	Dissolved Bismuth (Bi)	2013/06/28	101	80 - 120	104	80 - 120	<1.0	ug/L		
6941025	Dissolved Cadmium (Cd)	2013/06/28	102	80 - 120	100	80 - 120	<0.010	ug/L		
6941025	Dissolved Chromium (Cr)	2013/06/28	97	80 - 120	100	80 - 120	<1.0	ug/L		
6941025	Dissolved Cobalt (Co)	2013/06/28	98	80 - 120	101	80 - 120	<0.50	ug/L		
6941025	Dissolved Copper (Cu)	2013/06/28	97	80 - 120	100	80 - 120	<0.20	ug/L		
6941025	Dissolved Iron (Fe)	2013/06/28	NC	80 - 120	115	80 - 120	<5.0	ug/L		
6941025	Dissolved Lead (Pb)	2013/06/28	99	80 - 120	102	80 - 120	<0.20	ug/L		
6941025	Dissolved Lithium (Li)	2013/06/28	NC	80 - 120	105	80 - 120	<5.0	ug/L		
6941025	Dissolved Manganese (Mn)	2013/06/28	NC	80 - 120	102	80 - 120	<1.0	ug/L		
6941025	Dissolved Mercury (Hg)	2013/06/28	98	80 - 120	98	80 - 120	<0.050	ug/L		

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6941025	Dissolved Molybdenum (Mo)	2013/06/28	103	80 - 120	105	80 - 120	<1.0	ug/L		
6941025	Dissolved Nickel (Ni)	2013/06/28	99	80 - 120	99	80 - 120	<1.0	ug/L		
6941025	Dissolved Selenium (Se)	2013/06/28	108	80 - 120	103	80 - 120	<0.10	ug/L		
6941025	Dissolved Silver (Ag)	2013/06/28	105	80 - 120	103	80 - 120	<0.020	ug/L		
6941025	Dissolved Strontium (Sr)	2013/06/28	105	80 - 120	105	80 - 120	<1.0	ug/L		
6941025	Dissolved Thallium (Tl)	2013/06/28	101	80 - 120	103	80 - 120	<0.050	ug/L		
6941025	Dissolved Tin (Sn)	2013/06/28	102	80 - 120	104	80 - 120	<5.0	ug/L		
6941025	Dissolved Titanium (Ti)	2013/06/28	98	80 - 120	108	80 - 120	<5.0	ug/L		
6941025	Dissolved Uranium (U)	2013/06/28	102	80 - 120	104	80 - 120	<0.10	ug/L		
6941025	Dissolved Vanadium (V)	2013/06/28	NC	80 - 120	102	80 - 120	<5.0	ug/L		
6941025	Dissolved Zinc (Zn)	2013/06/28	NC	80 - 120	98	80 - 120	<5.0	ug/L		
6941025	Dissolved Boron (B)	2013/06/28					<50	ug/L		
6941025	Dissolved Silicon (Si)	2013/06/28					<100	ug/L		
6941025	Dissolved Zirconium (Zr)	2013/06/28					<0.50	ug/L		
6941624	Total Aluminum (Al)	2013/06/29	NC	80 - 120	109	80 - 120	<0.50	ug/L	11.9	20
6941624	Total Antimony (Sb)	2013/06/29	98	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
6941624	Total Arsenic (As)	2013/06/29	101	80 - 120	104	80 - 120	<0.020	ug/L	2.2	20
6941624	Total Barium (Ba)	2013/06/29	NC	80 - 120	98	80 - 120	<0.020	ug/L	8.5	20
6941624	Total Beryllium (Be)	2013/06/29	98	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
6941624	Total Bismuth (Bi)	2013/06/29	97	80 - 120	102	80 - 120	<0.0050	ug/L	NC	20
6941624	Total Cadmium (Cd)	2013/06/29	100	80 - 120	100	80 - 120	<0.0050	ug/L	NC	20
6941624	Total Chromium (Cr)	2013/06/29	99	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
6941624	Total Cobalt (Co)	2013/06/29	96	80 - 120	101	80 - 120	<0.0050	ug/L	11.9	20
6941624	Total Copper (Cu)	2013/06/29	99	80 - 120	102	80 - 120	<0.050	ug/L	8.2	20
6941624	Total Iron (Fe)	2013/06/29	NC	80 - 120	106	80 - 120	<1.0	ug/L	8.6	20
6941624	Total Lead (Pb)	2013/06/29	95	80 - 120	99	80 - 120	<0.0050	ug/L	12.5	20
6941624	Total Lithium (Li)	2013/06/29	88	80 - 120	93	80 - 120	<0.50	ug/L	NC	20
6941624	Total Manganese (Mn)	2013/06/29	NC	80 - 120	101	80 - 120	<0.050	ug/L	11.2	20
6941624	Total Molybdenum (Mo)	2013/06/29	NC	80 - 120	100	80 - 120	<0.050	ug/L	6.7	20
6941624	Total Nickel (Ni)	2013/06/29	98	80 - 120	101	80 - 120	<0.020	ug/L	5.3	20
6941624	Total Selenium (Se)	2013/06/29	106	80 - 120	104	80 - 120	<0.040	ug/L	NC	20
6941624	Total Silver (Ag)	2013/06/29	105	80 - 120	90	80 - 120	<0.0050	ug/L	NC	20
6941624	Total Strontium (Sr)	2013/06/29	NC	80 - 120	95	80 - 120	<0.050	ug/L	6.6	20
6941624	Total Thallium (Tl)	2013/06/29	92	80 - 120	92	80 - 120	<0.0020	ug/L	NC	20
6941624	Total Tin (Sn)	2013/06/29	93	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
6941624	Total Titanium (Ti)	2013/06/29	104	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
6941624	Total Uranium (U)	2013/06/29	92	80 - 120	94	80 - 120	<0.0020	ug/L	7.3	20
6941624	Total Vanadium (V)	2013/06/29	97	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
6941624	Total Zinc (Zn)	2013/06/29	99	80 - 120	104	80 - 120	<0.10	ug/L	2.1	20

Maxxam Job #: B352619
Report Date: 2013/07/09

SRK CONSULTING
Client Project #: 1CT008.037 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	%Recovery	QC Limits	%Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6941624	Total Boron (B)	2013/06/29					<50	ug/L	NC	20
6941624	Total Silicon (Si)	2013/06/29					<100	ug/L	0.8	20
6941624	Total Zirconium (Zr)	2013/06/29					<0.10	ug/L	NC	20
6942601	Cyanide + Thiocyanate	2013/06/28	93	80 - 120	98	80 - 120	<0.00050	mg/L	NC	20
6946281	Dissolved Chloride (Cl)	2013/06/28	101	80 - 120	100	80 - 120	<0.50	mg/L	NC	20
6947746	Bromide (Br)	2013/07/02	107	78 - 120	102	80 - 120	<0.010	mg/L	NC	20
6951453	Fluoride (F)	2013/07/03	90	80 - 120	98	80 - 120	<0.010	mg/L	2.6	20
6962376	Dissolved Selenium (Se)	2013/07/09	102	80 - 120	100	80 - 120	<0.10	ug/L	NC	20

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) - Spike outside acceptance criteria (10% of analytes failure allowed).

Maxxam

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5 Ph: (604) 734-7276 Fax: (604) 731-2386, Toll Free: (800) 665-8566

CHAIN OF CUSTODY RECORD

Maxxam Job #: B352619 COC #: EB767813 Click here to get the COC number

Page: 1 of 1

Invoice To: Require Report? Yes ☑ No ☐

Company Name:	Teck Resources Ltd.
Contact Name:	Michelle Unger, Environmental Scientist
Address:	PC:
Phone / Fax#:	Ph: 250-427-8422 Fax: 250-427-8451
E-mail	michelle.unger@teck.com

Report To:

Company Name:	SRK Consulting
Contact Name:	Jay Cherian
Address:	PC:
Phone / Fax#:	Ph: 867-334-4412 Fax:
E-mail	jcherian@srk.com

PO #:	Teck PO 8470
Quotation #:	B13-142-1-KP
Project # :	1CT008.037
Proj. Name:	Sa Dena Hes - Spring Seeps
Location:	Watson Lake, Yukon
Sampled by:	J Cherian / S McPhee

REGULATORY REQUIREMENTS:

- ☐ CSR
- ☑ CCME
- ☐ BC Water Quality
- ☑ Other Low Detection Limit
- ☐ DRINKING WATER

SERVICE REQUESTED:

- ☑ Regular Turn Around Time (TAT) (5 days for most tests)
- ☐ RUSH (Please contact the lab) ☐ 1 Day ☐ 2 Day ☐ 3 Day

Date Required:

SPECIAL INSTRUCTIONS:

Return Cooler ☐ Ship Sample Bottles (please specify) ☐

CCME: MH-25, PH-1, PH-2, CC-1, CC-3

LDL: MH-15, MH-14, MH-13, MH-16, SDH-S5

ANALYSIS REQUESTED

	Sample Identification	Lab Identification (Lab Use Only)	Sample Type	Date/Time(24hr) Sampled	BTEX/VPH ☐ MTBE	VOC/VPH	EPH ☐ TEH	PAH ☐ LEPH/HEPH	CCME-PHC (Fractions 1-4 Plus BTEX)	CCME-PHC (Fractions 2-4)	CCME-PHC (Fraction 1 Plus BTEX)	TDS ☑	Phenols by 4AAP ☐ Phenols by GCMS	TOG ☐ MOG ☐ SMOG	Dissolved Metals (DM) Field Filtered? Y/N	Total Metals Field Acidified? Y/N	Nitrate ☐ Nitrite ☐ Ammonia ☑ Field Acidified? Y/N	Chloride ☐ Fluoride ☐ Sulphate ☑	Total Suspended Solids (TSS) ☑ TDS ☐	pH ☑ Conductivity ☑ Alkalinity ☑	BOD ☐ COD ☐	Coliform: Total & E.coli ☐ Fecal ☐	Anions ☑	Acidity	Cyanide - total	Colour	Bioassay - Trout 96 hr LC50	DOC (field filtered, field acidified)	HOLD ☐	Number of Containers	Samples are from a Drinking Water Source? YES ☐ NO ☑	Does source supply multiple households? YES ☐ NO ☑
1	MH-15	GS8454	Seepage	13/06/21 16:30								x			x	x	x	x	x	x	x			x	x				x		7		
2	MH-14	GS8455	Surface W	13/06/21 13:30											x	x	x	x	x	x	x					x	x				6		
3	MH-13	GS8456	Surface W	13/06/21 11:30								x			x	x	x	x	x	x	x			x		x	x		x		5		
4	MH-16	GS8457	Surface W	13/06/21 15:15											x	x	x	x	x	x	x					x					7		
5	PH-1	GS8458	Seepage	13/06/20 12:55								x			x	x	x	x	x	x	x			x	x	x			x		7		
6	PH-2	GS8459	Seepage	13/06/20 13:45								x			x	x	x	x	x	x	x			x	x	x			x		7		
7	CC-1	GS8460	Seepage	13/06/20 14:00								x			x	x	x	x	x	x	x			x	x	x			x		7		
8	MH-25	GS8461	Seepage	13/06/20 [illegible]											x	x	x	x	x	x	x					x					6		
9	CC-3	GS8462	Surface W	13/06/20 14:45											x	x	x	x	x	x	x										6		
10	SDH-S5	GS8463	Seepage	13/06/20 11:40											x	x	x	x	x	x	x				x						6		
11																																	
12																																	

B352619

Print name and sign | Print name and sign | Laboratory Use Only

*Relinquished By:	Date (yy/mm/dd):	Time (24 hr):	Received by :	Date (yy/mm/dd)	Time (24 hr):	Time Sensitive	Temperature on Receipt (°C)	Custody Seal	Yes	No
J Cherian	13/06/21	20:15	YOLANDA	2013/06/24	10:45	☐	A) 16 B) 17 C) 16	Present?	☐	☑
							Just sampled & rec'd on ice: ☐	Intact? NA	☐	☐

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

Your P.O. #: 8470
Your Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your C.O.C. #: EB850213, 08379793, 08379794

Attention: Jay Cherian
SRK CONSULTING
SRKCONSU-VAN
SUITE 2200
1066 W. HASTINGS ST.
VANCOUVER, BC
Canada V6E 3X2

Report Date: 2013/10/16

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B390313
Received: 2013/10/02, 12:40

Sample Matrix: Water
Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	5	N/A	2013/10/03	BBY6SOP-00037	SM-2310B
Alkalinity - Water	8	2013/10/03	2013/10/03	BBY6SOP-00026	SM2320B
Alkalinity - Water	21	2013/10/05	2013/10/05	BBY6SOP-00026	SM2320B
Alkalinity - Water	1	2013/10/08	2013/10/08	BBY6SOP-00026	SM2320B
Chloride by Automated Colourimetry	26	N/A	2013/10/03	BBY6SOP-00011	SM-4500-Cl-
Chloride by Automated Colourimetry	3	N/A	2013/10/04	BBY6SOP-00011	SM-4500-Cl-
Chloride by Automated Colourimetry	1	N/A	2013/10/07	BBY6SOP-00011	SM-4500-Cl-
Cyanide SAD (strong acid dissociable)	9	N/A	2013/10/07	BBY6SOP-00004	SM-4500CN I
Cyanide SAD (strong acid dissociable)	10	N/A	2013/10/08	BBY6SOP-00004	SM-4500CN I
Colour (True)	11	N/A	2013/10/03	BBY6SOP-00021	SM-2120B
Colour (True)	1	N/A	2013/10/07	BBY6SOP-00021	SM-2120B
Carbon (DOC) - field filtered/preserved	13	N/A	2013/10/03	BBY6SOP-00003	SM-5310C
Conductance - water	8	N/A	2013/10/03	BBY6SOP-00026	SM-2510B
Conductance - water	21	N/A	2013/10/05	BBY6SOP-00026	SM-2510B
Conductance - water	1	N/A	2013/10/08	BBY6SOP-00026	SM-2510B
Hardness Total (calculated as CaCO3)	23	N/A	2013/10/08	BBY7SOP-00002	EPA 6020A
Hardness Total (calculated as CaCO3)	5	N/A	2013/10/09	BBY7SOP-00002	EPA 6020A
Hardness Total (calculated as CaCO3)	1	N/A	2013/10/12	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	27	N/A	2013/10/08	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	2	N/A	2013/10/10	BBY7SOP-00002	EPA 6020A
Hardness (calculated as CaCO3)	1	N/A	2013/10/11	BBY7SOP-00002	EPA 6020A
Bromide as Bromine (Br) by ICPMS	7	N/A	2013/10/04	BBY7SOP-00002	EPA 6020A
Extrac. Pet HC when LEPH/HEPH required	7	2013/10/07	2013/10/07	BBY8SOP-00029	BC Env. Lab Manual
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	28	N/A	2013/10/08	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2013/10/10	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2013/10/11	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved)	2	N/A	2013/10/07	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved)	27	N/A	2013/10/08	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (dissolved)	1	N/A	2013/10/11	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	23	2013/10/02	2013/10/08	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	2013/10/02	2013/10/09	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	2013/10/07	2013/10/12	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	23	2013/10/07	2013/10/08	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	1	2013/10/07	2013/10/09	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	4	2013/10/08	2013/10/09	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	1	2013/10/11	2013/10/11	BBY7SOP-00002	EPA 6020A
Ammonia-N (Unpreserved)	1	N/A	2013/10/07	BBY6SOP-00009	SM-4500NH3G
Ammonia-N (Preserved)	24	N/A	2013/10/04	BBY6SOP-00009	SM-4500NH3G
Nitrate + Nitrite (N)	24	N/A	2013/10/03	BBY6SOP-00010	SM 4500NO3-I
Nitrate + Nitrite (N)	1	N/A	2013/10/08	BBY6SOP-00010	SM 4500NO3-I

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

Sample Matrix: Water
Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Nitrite (N) by CFA	24	N/A	2013/10/03	BBY6SOP-00010	EPA 353.2
Nitrite (N) by CFA	1	N/A	2013/10/08	BBY6SOP-00010	EPA 353.2
Nitrogen - Nitrate (as N)	24	N/A	2013/10/04	BBY6SOP-00010	SM 4500NO3-I
Nitrogen - Nitrate (as N)	1	N/A	2013/10/09	BBY6SOP-00010	SM 4500NO3-I
PAH in Water by GC/MS (SIM)	7	2013/10/07	2013/10/08	BBY8SOP-00021	EPA 8270D
Total LMW, HMW, Total PAH Calc	7	N/A	2013/10/08	BBY WI-00033	BC MOE Lab Method
Filter and HNO3 Preserve for Metals	29	N/A	2013/10/02	BBY6WI-00001	EPA 200.2
Filter and HNO3 Preserve for Metals	1	N/A	2013/10/14	BBY6WI-00001	EPA 200.2
pH Water	8	N/A	2013/10/03	BBY6SOP-00026	SM-4500H+B
pH Water	21	N/A	2013/10/05	BBY6SOP-00026	SM-4500H+B
pH Water	1	N/A	2013/10/08	BBY6SOP-00026	SM-4500H+B
Rainbow Trout 96 hr LC50 @ 100%	1	N/A	2013/10/03	BBY2SOP-00004	EPS 1/RM/13
Sulphate by Automated Colourimetry	28	N/A	2013/10/03	BBY6SOP-00017	SM4500-SO42- E
Sulphate by Automated Colourimetry	1	N/A	2013/10/04	BBY6SOP-00017	SM4500-SO42- E
Sulphate by Automated Colourimetry	1	N/A	2013/10/07	BBY6SOP-00017	SM4500-SO42- E
Total Dissolved Solids (Filt. Residue)	28	2013/10/03	2013/10/04	BBY6SOP-00033	SM 2540C
Total Dissolved Solids (Filt. Residue)	1	2013/10/05	2013/10/07	BBY6SOP-00033	SM 2540C
Total Dissolved Solids (Filt. Residue)	1	2013/10/07	2013/10/08	BBY6SOP-00033	SM 2540C
EPH less PAH in Water by GC/FID	7	N/A	2013/10/08	BBY WI-00033	BC MOE Lab Method
Total Suspended Solids	29	N/A	2013/10/04	BBY6SOP-00034	SM - 2540 D
Total Suspended Solids	1	N/A	2013/10/08	BBY6SOP-00034	SM - 2540 D

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ken Pomeroy, Project Manager
Email: KPomeroy@maxxam.ca
Phone# (604) 638-5020

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Total cover pages: 2

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		HR8539	HR8540	HR8541		HR8542		HR8543		HR8544		
Sampling Date		2013/09/25 15:15	2013/09/25 17:30	2013/09/24 16:45		2013/09/24 16:45		2013/09/24 12:30		2013/09/24 11:15		
	UNITS	**MH-01A**	**MH-06A**	**MH-12**	**RDL**	**MH-02**	**RDL**	**MH-22**	**RDL**	**MH-25**	**RDL**	**QC Batch**
Misc. Inorganics												
Acidity (pH 4.5)	mg/L							<0.50	0.50	<0.50	0.50	7205247
Acidity (pH 8.3)	mg/L							<0.50	0.50	46.2	0.50	7205247
Calculated Parameters												
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	N/A	FIELD	N/A	FIELD	N/A	FIELD	N/A	ONSITE
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00071	0.00085	0.00062	0.00050	0.00094	0.00050	0.00072	0.00050	0.00064	0.00050	7212808
Dissolved Organic Carbon (C)	mg/L			2.00	0.50	2.46	0.50					7205182
Alkalinity (Total as CaCO3)	mg/L	166	166	160	0.50	258	0.50	105	0.50	41.9	0.50	7209790
Alkalinity (PP as CaCO3)	mg/L	1.20	<0.50	2.30	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7209790
Bicarbonate (HCO3)	mg/L	200	202	190	0.50	314	0.50	129	0.50	51.2	0.50	7209790
Carbonate (CO3)	mg/L	1.44	<0.50	2.76	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7209790
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	7209790
Anions												
Dissolved Sulphate (SO4)	mg/L	32.1	20.3	11.6	0.50	277	5.0	41.6	0.50	234	5.0	7206486
Dissolved Chloride (Cl)	mg/L	0.84	0.50	<0.50	0.50	1.3	0.50	0.50	0.50	<0.50	0.50	7206295
MISCELLANEOUS												
True Colour	Col. Unit	5.0(1)	10.0(1)		5.0	<5.0(1)	5.0					7205265
Nutrients												
Ammonia (N)	mg/L	0.032	0.020	0.018	0.0050	0.033	0.0050	0.019	0.0050	0.023	0.0050	7209382
Physical Properties												
Conductivity	uS/cm	372	346	323	1.0	926	1.0	291	1.0	551	1.0	7209793
pH	pH Units	8.32	8.30	8.36		8.29		8.20		7.36		7209794
Physical Properties												
Total Suspended Solids	mg/L	<4.0	<4.0	<4.0	4.0	<4.0	4.0	<4.0	4.0	13.0	4.0	7205034
Total Dissolved Solids	mg/L	196(1)	178(1)	170(1)	10	624(1)	10	128(1)	10	382(1)	10	7205127

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		HR8545		HR8546		HR8547		HR8548		HR8549		
Sampling Date		2013/09/24 13:00		2013/09/24 13:30		2013/09/27 13:15		2013/09/27 15:00		2013/09/27 10:00		
	UNITS	**MH-08**	**QC Batch**	**MH-08A**	**QC Batch**	**MH-11**	**QC Batch**	**MH-29**	**QC Batch**	**CC-1**	**RDL**	**QC Batch**
Calculated Parameters												
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics												
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00068	7212808	0.00061	7212808	0.00081	7212808	0.00054	7218075	<0.00050	0.00050	7215945
Dissolved Organic Carbon (C)	mg/L	0.90	7205182	0.90	7205182	2.95	7205182	3.33	7205182	0.76	0.50	7205182
Alkalinity (Total as CaCO3)	mg/L	130	7209790	130	7206691	177	7209790	179	7209790	122	0.50	7209790
Alkalinity (PP as CaCO3)	mg/L	<0.50	7209790	<0.50	7206691	2.34	7209790	2.11	7209790	<0.50	0.50	7209790
Bicarbonate (HCO3)	mg/L	158	7209790	158	7206691	211	7209790	213	7209790	149	0.50	7209790
Carbonate (CO3)	mg/L	<0.50	7209790	<0.50	7206691	2.81	7209790	2.53	7209790	<0.50	0.50	7209790
Hydroxide (OH)	mg/L	<0.50	7209790	<0.50	7206691	<0.50	7209790	<0.50	7209790	<0.50	0.50	7209790
Anions												
Dissolved Sulphate (SO4)	mg/L	4.77	7209298	5.53	7206486	16.4	7206486	4.63	7206486	10.2	0.50	7206486
Dissolved Chloride (Cl)	mg/L	<0.50	7206295	0.61	7206295	0.81	7206295	0.83	7206295	0.72	0.50	7206295
MISCELLANEOUS												
True Colour	Col. Unit	<5.0(1)	7205265			10.0(1)	7205265				5.0	
Nutrients												
Ammonia (N)	mg/L	0.017	7209382	0.015	7209382	0.016	7209382	0.017	7209382	0.042	0.0050	7209382
Physical Properties												
Conductivity	uS/cm	259	7209793	254	7206695	360	7209793	342	7209793	253	1.0	7209793
pH	pH Units	8.30	7209794	8.08	7206694	8.35	7209794	8.34	7209794	8.23		7209794
Physical Properties												
Total Suspended Solids	mg/L	<4.0	7205034	<4.0	7205034	<4.0	7205034	<4.0	7205034	<4.0	4.0	7205034
Total Dissolved Solids	mg/L	142(1)	7205127	132(1)	7205127	184	7205127	174	7205127	126	10	7205127

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		HR8550	HR8601	HR8602	HR8603		HR8604		HR8605		
Sampling Date		2013/09/26 10:00	2013/09/26 11:15	2013/09/26 15:45	2013/09/26 16:15		2013/09/26 13:30		2013/09/29 16:15		
	UNITS	**1250 PORTAL**	**PH-01**	**MH-28**	**MH-28A**	**QC Batch**	**MH-04**	**QC Batch**	**MH-30**	**RDL**	**QC Batch**
Misc. Inorganics											
Acidity (pH 4.5)	mg/L	<0.50	<0.50			7205247				0.50	
Acidity (pH 8.3)	mg/L	0.97	1.54			7205247				0.50	
Calculated Parameters											
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics											
Strong Acid Dissoc. Cyanide (CN)	mg/L		<0.00050	0.00081	0.00069	7215945	0.00064	7215945		0.00050	
Dissolved Organic Carbon (C)	mg/L		0.71	3.02	2.38	7205182	1.22	7205182	4.01	0.50	7205182
Alkalinity (Total as CaCO3)	mg/L	109	125	177	168	7209790	139	7206691	127	0.50	7209790
Alkalinity (PP as CaCO3)	mg/L	<0.50	<0.50	1.91	1.07	7209790	<0.50	7206691	<0.50	0.50	7209790
Bicarbonate (HCO3)	mg/L	133	153	212	203	7209790	170	7206691	155	0.50	7209790
Carbonate (CO3)	mg/L	<0.50	<0.50	2.29	1.28	7209790	<0.50	7206691	<0.50	0.50	7209790
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	<0.50	7209790	<0.50	7206691	<0.50	0.50	7209790
Anions											
Dissolved Sulphate (SO4)	mg/L	83.2	33.1	23.6	19.5	7206486	21.9	7206486	2.34	0.50	7206486
Dissolved Chloride (Cl)	mg/L	0.77	0.67	1.8	0.86	7206295	3.8	7206295	0.82	0.50	7206295
MISCELLANEOUS											
True Colour	Col. Unit		<5.0 (1)			7205265	<5.0 (1)	7205265		5.0	
Nutrients											
Ammonia (N)	mg/L	0.013	0.029	0.053	0.020	7209382	0.021	7209382	0.042	0.0050	7209382
Physical Properties											
Conductivity	uS/cm	372	313	380	353	7209793	306	7206695	246	1.0	7209793
pH	pH Units	8.14	8.22	8.33	8.31	7209794	8.15	7206694	8.21		7209794
Physical Properties											
Total Suspended Solids	mg/L	<4.0	<4.0	<4.0	<4.0	7205034	<4.0	7205034	<4.0	4.0	7205034
Total Dissolved Solids	mg/L	216	168	186	184	7205127	150	7205127	122	10	7205127

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		HR8606		HR8607	HR8608		HR8609		HR8610		
Sampling Date		2013/09/29 11:30		2013/09/29 13:00	2013/09/29 15:30		2013/09/29 14:15		2013/09/28 12:30		
	UNITS	**MH-13**	**QC Batch**	**MH-14**	**MH-15**	**QC Batch**	**MH-16**	**QC Batch**	**MH-27**	**RDL**	**QC Batch**
Calculated Parameters											
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	FIELD	ONSITE	FIELD	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics											
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00064	7215945	0.00051		7215945	0.00077	7215945		0.00050	
Dissolved Organic Carbon (C)	mg/L				2.25	7205182				0.50	
Alkalinity (Total as CaCO3)	mg/L	181	7206691	191	191	7206691	190	7206691	168	0.50	7206691
Alkalinity (PP as CaCO3)	mg/L	<0.50	7206691	<0.50	<0.50	7206691	<0.50	7206691	<0.50	0.50	7206691
Bicarbonate (HCO3)	mg/L	221	7206691	233	234	7206691	232	7206691	205	0.50	7206691
Carbonate (CO3)	mg/L	<0.50	7206691	<0.50	<0.50	7206691	<0.50	7206691	<0.50	0.50	7206691
Hydroxide (OH)	mg/L	<0.50	7206691	<0.50	<0.50	7206691	<0.50	7206691	<0.50	0.50	7206691
Anions											
Dissolved Sulphate (SO4)	mg/L	11.6	7206486	8.80	4.26	7206486	7.84	7206486	20.2	0.50	7206486
Dissolved Chloride (Cl)	mg/L	<0.50	7209291	0.75	1.3	7206295	<0.50	7209291	1.3	0.50	7206295
MISCELLANEOUS											
True Colour	Col. Unit	10.0(1)	7205265	5.0(1)		7205265	5.0(1)	7205265		5.0	
Nutrients											
Ammonia (N)	mg/L	0.013	7209382	0.016	0.021	7209382	0.015	7209382	0.023	0.0050	7209382
Physical Properties											
Conductivity	uS/cm	346	7206695	364	355	7206695	362	7206695	351	1.0	7206695
pH	pH Units	8.19	7206694	8.16	8.19	7206694	8.24	7206694	8.10		7206694
Physical Properties											
Total Suspended Solids	mg/L	<4.0	7205034	<4.0	<4.0	7205034	<4.0	7205034	<4.0	4.0	7205034
Total Dissolved Solids	mg/L	176	7205127	182	224	7205127	216	7205127	208	10	7209818

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample analysed past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		HR8611		HR8628	HR8629	HR8630		
Sampling Date		2013/09/30 16:10		2013/09/30 14:30	2013/09/30 15:30	2013/09/30 12:00		
	UNITS	**MH-06A**	**QC Batch**	**MH-01A**	**MH-28A**	**MH-04**	**RDL**	**QC Batch**
Calculated Parameters								
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics								
Alkalinity (Total as CaCO3)	mg/L	168	7206691	168	167	138	0.50	7209790
Alkalinity (PP as CaCO3)	mg/L	<0.50	7206691	1.62	<0.50	<0.50	0.50	7209790
Bicarbonate (HCO3)	mg/L	205	7206691	201	204	168	0.50	7209790
Carbonate (CO3)	mg/L	<0.50	7206691	1.94	<0.50	<0.50	0.50	7209790
Hydroxide (OH)	mg/L	<0.50	7206691	<0.50	<0.50	<0.50	0.50	7209790
Anions								
Dissolved Sulphate (SO4)	mg/L	21.1	7206486	34.3	20.6	23.3	0.50	7206486
Dissolved Chloride (Cl)	mg/L	0.64	7206295	0.92	1.9	<0.50	0.50	7206295
Physical Properties								
Conductivity	uS/cm	350	7206695	380	352	307	1.0	7209793
pH	pH Units	8.11	7206694	8.33	8.29	8.26		7209794
Physical Properties								
Total Suspended Solids	mg/L	<4.0	7205034	<4.0	<4.0	<4.0	4.0	7205034
Total Dissolved Solids	mg/L	210	7205127	242	226	216	10	7205127
Rainbow Trout Bioassay								
LC50	% vol/vol	ATTACHED	7214619				N/A	

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		HR8631		HR8632	HR8633			HR8634		
Sampling Date		2013/09/30 15:20		2013/09/28 14:15	2013/09/28 15:20			2013/09/30		
	UNITS	**MH-28**	**QC Batch**	**MH-07**	**MW13-13**	**RDL**	**QC Batch**	**MH-02**	**RDL**	**QC Batch**
Misc. Inorganics										
Acidity (pH 4.5)	mg/L				<0.50	0.50	7205247			
Acidity (pH 8.3)	mg/L				<0.50	0.50	7205247			
Calculated Parameters										
Filter and HNO3 Preservation	N/A	FIELD	ONSITE	FIELD	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics										
Strong Acid Dissoc. Cyanide (CN)	mg/L			0.00054		0.00050	7215945			
Alkalinity (Total as CaCO3)	mg/L	175	7209790	249	86.2	0.50	7209790	269	0.50	7214620
Alkalinity (PP as CaCO3)	mg/L	<0.50	7209790	3.71	<0.50	0.50	7209790	<0.50	0.50	7214620
Bicarbonate (HCO3)	mg/L	214	7209790	295	105	0.50	7209790	328	0.50	7214620
Carbonate (CO3)	mg/L	<0.50	7209790	4.45	<0.50	0.50	7209790	<0.50	0.50	7214620
Hydroxide (OH)	mg/L	<0.50	7209790	<0.50	<0.50	0.50	7209790	<0.50	0.50	7214620
Anions										
Dissolved Sulphate (SO4)	mg/L	23.7	7206486	21.0	41.8	0.50	7206486	288	5.0	7213392
Dissolved Chloride (Cl)	mg/L	0.77	7209291	0.85	0.89	0.50	7206295	1.6	0.50	7213391
MISCELLANEOUS										
True Colour	Col. Unit			<5.0 (1)		5.0	7205265	5.0 (1)	5.0	7212894
Nutrients										
Ammonia (N)	mg/L			0.015	0.023	0.0050	7209382	0.0160 (1)	0.0050	7213377
Physical Properties										
Conductivity	uS/cm	373	7209793	483	259	1.0	7209793	974	1.0	7214628
pH	pH Units	8.19	7209794	8.37	8.08		7209794	8.23		7214629
Physical Properties										
Total Suspended Solids	mg/L	<4.0	7205034	<4.0	33.3	4.0	7205034	<4.0 (2)	4.0	7211806
Total Dissolved Solids	mg/L	252	7205127	318	178	10	7205127	664 (2)	10	7211794

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HR8547	HR8549		HR8550		HR8601	HR8604	HR8630	HR8633		
Sampling Date		2013/09/27 13:15	2013/09/27 10:00		2013/09/26 10:00		2013/09/26 11:15	2013/09/26 13:30	2013/09/30 12:00	2013/09/28 15:20		
	UNITS	**MH-11**	**CC-1**	**QC Batch**	**1250 PORTAL**	**QC Batch**	**PH-01**	**MH-04**	**MH-04**	**MW13-13**	**RDL**	**QC Batch**
ANIONS												
Bromide (Br)	mg/L	<0.010	<0.010	7207384	<0.010	7207372	0.010	<0.010	<0.010	0.012	0.010	7207384

LEPH & HEPH FOR CSR IN WATER (WATER)

Maxxam ID		HR8547	HR8550	HR8601	HR8602	HR8603	HR8604	HR8610		
Sampling Date		2013/09/27 13:15	2013/09/26 10:00	2013/09/26 11:15	2013/09/26 15:45	2013/09/26 16:15	2013/09/26 13:30	2013/09/28 12:30		
	UNITS	**MH-11**	**1250 PORTAL**	**PH-01**	**MH-28**	**MH-28A**	**MH-04**	**MH-27**	**RDL**	**QC Batch**
Calculated Parameters										
LEPH (C10-C19 less PAH)	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7203083
HEPH (C19-C32 less PAH)	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7203083
Ext. Pet. Hydrocarbon										
EPH (C10-C19)	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7212390
EPH (C19-C32)	mg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7212390
Surrogate Recovery (%)										
O-TERPHENYL (sur.)	%	101	100	100	100	101	101	101		7212390

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8539	HR8540		HR8541	HR8542	HR8543	HR8544		HR8545		
Sampling Date		2013/09/25 15:15	2013/09/25 17:30		2013/09/24 16:45	2013/09/24 16:45	2013/09/24 12:30	2013/09/24 11:15		2013/09/24 13:00		
	UNITS	**MH-01A**	**MH-06A**	**QC Batch**	**MH-12**	**MH-02**	**MH-22**	**MH-25**	**QC Batch**	**MH-08**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	203	191	7204297	177	483	152	222	7204297	145	0.50	7216192
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	ug/L	<3.0	3.3	7211928	3.7	<3.0	3.7	5.6	7211952	<3.0	3.0	7211952
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	7211928	<0.50	<0.50	3.33	<0.50	7211952	<0.50	0.50	7211952
Dissolved Arsenic (As)	ug/L	0.66	0.65	7211928	0.83	0.81 (1)	4.30	<0.10	7211952	1.93	0.10	7211952
Dissolved Barium (Ba)	ug/L	35.7	47.6	7211928	70.9	51.2	15.9	12.0	7211952	39.5	1.0	7211952
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	7211928	<0.10	<0.10	<0.10	<0.10	7211952	<0.10	0.10	7211952
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	7211928	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	1.0	7211952
Dissolved Boron (B)	ug/L	<50	<50	7211928	<50	<50	<50	<50	7211952	<50	50	7211952
Dissolved Cadmium (Cd)	ug/L	0.236	0.019	7211928	0.037	0.036	3.11	349	7211952	0.078	0.010	7219392
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	7211928	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	1.0	7211952
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	7211928	<0.50	0.62	<0.50	4.26	7211952	<0.50	0.50	7211952
Dissolved Copper (Cu)	ug/L	1.50	0.98	7211928	0.27	0.24	0.30	1.04	7211952	<0.20	0.20	7211952
Dissolved Iron (Fe)	ug/L	18.1	10.8	7211928	6.4	34.9	<5.0	12.2	7211952	<5.0	5.0	7211952
Dissolved Lead (Pb)	ug/L	12.1	0.57	7211928	<0.20	<0.20	0.86	49.4	7211952	<0.20	0.20	7211952
Dissolved Lithium (Li)	ug/L	<5.0	<5.0	7211928	<5.0	<5.0	6.4	<5.0	7211952	<5.0	5.0	7211952
Dissolved Manganese (Mn)	ug/L	80.0	44.2	7211928	1.7	397	<1.0	283	7211952	<1.0	1.0	7211952
Dissolved Mercury (Hg)	ug/L	<0.050	<0.050	7211928	<0.050	<0.050	<0.050	<0.050	7211952	<0.050	0.050	7211952
Dissolved Molybdenum (Mo)	ug/L	2.5	1.8	7211928	1.2	<1.0	10.2	<1.0	7211952	<1.0	1.0	7211952
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	7211928	<1.0	<1.0	3.3	2.8	7211952	<1.0	1.0	7211952
Dissolved Selenium (Se)	ug/L	1.18	0.73	7211928	0.59	0.11	14.6	5.46	7211952	1.86	0.10	7211952
Dissolved Silicon (Si)	ug/L	3070	2860	7211928	3910	4150	4390	3580	7211952	5820	100	7211952
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	7211928	<0.020	0.022	<0.020	0.057	7211952	<0.020	0.020	7211952
Dissolved Strontium (Sr)	ug/L	266	246	7211928	210	551	230	90.6	7211952	150	1.0	7211952
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	7211928	<0.050	<0.050	<0.050	<0.050	7211952	<0.050	0.050	7211952
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	7211928	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211952
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	7211928	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211952
Dissolved Uranium (U)	ug/L	1.45	0.98	7211928	0.91	1.74	4.10	<0.10	7211952	0.68	0.10	7211952
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	7211928	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211952
Dissolved Zinc (Zn)	ug/L	41.5	5.2	7211928	<5.0	34.2	561	36800	7211952	<5.0	5.0	7211952
Dissolved Zirconium (Zr)	ug/L	<0.50	<0.50	7211928	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	0.50	7211952
Dissolved Calcium (Ca)	mg/L	64.7	63.1	7202733	60.9	167	50.1	84.5	7202733	49.8	0.050	7216855
Dissolved Magnesium (Mg)	mg/L	10.0	8.09	7202733	5.97	16.0	6.63	2.74	7202733	4.94	0.050	7216855

RDL = Reportable Detection Limit
(1) - Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8539	HR8540		HR8541	HR8542	HR8543	HR8544		HR8545		
Sampling Date		2013/09/25 15:15	2013/09/25 17:30		2013/09/24 16:45	2013/09/24 16:45	2013/09/24 12:30	2013/09/24 11:15		2013/09/24 13:00		
	UNITS	**MH-01A**	**MH-06A**	**QC Batch**	**MH-12**	**MH-02**	**MH-22**	**MH-25**	**QC Batch**	**MH-08**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.769	0.901	7202733	0.602	2.73	0.645	0.596	7202733	0.557	0.050	7216855
Dissolved Sodium (Na)	mg/L	0.872	0.977	7202733	1.06	9.63	0.924	0.750	7202733	0.835	0.050	7216855
Dissolved Sulphur (S)	mg/L	10.6	6.6	7202733	3.8	85.4	14.7	78.0	7202733	<3.0	3.0	7216855

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8546		HR8547	HR8548	HR8549	HR8550		HR8601	HR8602		
Sampling Date		2013/09/24 13:30		2013/09/27 13:15	2013/09/27 15:00	2013/09/27 10:00	2013/09/26 10:00		2013/09/26 11:15	2013/09/26 15:45		
	UNITS	**MH-08A**	**QC Batch**	**MH-11**	**MH-29**	**CC-1**	**1250 PORTAL**	**QC Batch**	**PH-01**	**MH-28**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	133	7216192	205	190	130	190	7204297	165	211	0.50	7204297
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	ug/L	7.3	7211952	3.3	5.4	<3.0	<3.0	7211952	4.0	6.0	3.0	7211952
Dissolved Antimony (Sb)	ug/L	<0.50	7211952	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	<0.50	0.50	7211952
Dissolved Arsenic (As)	ug/L	1.99	7211952	0.53	0.69	0.34	1.83	7211952	0.55	0.59	0.10	7211952
Dissolved Barium (Ba)	ug/L	37.7	7211952	57.8	48.1	10.6	14.4	7211952	17.2	61.8	1.0	7211952
Dissolved Beryllium (Be)	ug/L	<0.10	7211952	<0.10	<0.10	<0.10	<0.10	7211952	<0.10	<0.10	0.10	7211952
Dissolved Bismuth (Bi)	ug/L	<1.0	7211952	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	<1.0	1.0	7211952
Dissolved Boron (B)	ug/L	<50	7211952	<50	<50	<50	<50	7211952	<50	<50	50	7211952
Dissolved Cadmium (Cd)	ug/L	0.122 (1)	7211952	0.062	0.069	0.088	0.120	7211952	0.722	0.069	0.010	7211952
Dissolved Chromium (Cr)	ug/L	<1.0	7211952	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	<1.0	1.0	7211952
Dissolved Cobalt (Co)	ug/L	<0.50	7211952	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	<0.50	0.50	7211952
Dissolved Copper (Cu)	ug/L	3.85 (1)	7211952	0.42	0.85	0.39	0.34	7211952	0.33	0.47	0.20	7211952
Dissolved Iron (Fe)	ug/L	14.7	7211952	33.0	19.7	<5.0	<5.0	7211952	9.4	8.3	5.0	7211952
Dissolved Lead (Pb)	ug/L	6.42 (1)	7211952	0.36	0.61	0.89	<0.20	7211952	1.57 (1)	1.28 (1)	0.20	7219392
Dissolved Lithium (Li)	ug/L	<5.0	7211952	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	<5.0	5.0	7211952
Dissolved Manganese (Mn)	ug/L	2.0	7211952	16.2	3.6	<1.0	<1.0	7211952	<1.0	1.0	1.0	7211952
Dissolved Mercury (Hg)	ug/L	<0.050	7211952	<0.050	<0.050	<0.050	<0.050	7211952	<0.050	<0.050	0.050	7211952
Dissolved Molybdenum (Mo)	ug/L	<1.0	7211952	1.0	<1.0	<1.0	<1.0	7211952	<1.0	1.0	1.0	7211952
Dissolved Nickel (Ni)	ug/L	<1.0	7211952	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	<1.0	1.0	7211952
Dissolved Selenium (Se)	ug/L	1.99	7211952	0.71	0.40	0.29	3.52	7211952	1.59	0.59	0.10	7211952
Dissolved Silicon (Si)	ug/L	5490	7211952	3420	3670	2520	3050	7211952	3260	4100	100	7211952
Dissolved Silver (Ag)	ug/L	<0.020	7211952	<0.020	<0.020	<0.020	<0.020	7211952	<0.020	<0.020	0.020	7211952
Dissolved Strontium (Sr)	ug/L	144	7211952	247	215	189	143	7211952	143	255	1.0	7211952
Dissolved Thallium (Tl)	ug/L	<0.050	7211952	<0.050	<0.050	<0.050	<0.050	7211952	<0.050	<0.050	0.050	7211952
Dissolved Tin (Sn)	ug/L	<5.0	7211952	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	<5.0	5.0	7211952
Dissolved Titanium (Ti)	ug/L	<5.0	7211952	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	<5.0	5.0	7211952
Dissolved Uranium (U)	ug/L	0.63	7211952	1.01	0.60	0.72	2.21	7211952	0.94	1.05	0.10	7211952
Dissolved Vanadium (V)	ug/L	<5.0	7211952	<5.0	<5.0	<5.0	7.0	7211952	<5.0	<5.0	5.0	7211952
Dissolved Zinc (Zn)	ug/L	10.7	7211952	5.9	<5.0	<5.0	<5.0	7211952	13.6	7.7	5.0	7211952
Dissolved Zirconium (Zr)	ug/L	<0.50	7211952	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	<0.50	0.50	7211952
Dissolved Calcium (Ca)	mg/L	45.1	7216855	69.0	66.5	48.5	66.9	7202733	59.9	74.7	0.050	7202733
Dissolved Magnesium (Mg)	mg/L	4.89	7202733	7.94	5.89	2.12	5.52	7202733	3.76	5.93	0.050	7202733

RDL = Reportable Detection Limit
(1) - Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8546		HR8547	HR8548	HR8549	HR8550		HR8601	HR8602		
Sampling Date		2013/09/24 13:30		2013/09/27 13:15	2013/09/27 15:00	2013/09/27 10:00	2013/09/26 10:00		2013/09/26 11:15	2013/09/26 15:45		
	UNITS	**MH-08A**	**QC Batch**	**MH-11**	**MH-29**	**CC-1**	**1250 PORTAL**	**QC Batch**	**PH-01**	**MH-28**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.488	7216855	0.725	0.361	0.366	0.639	7202733	0.583	0.495	0.050	7202733
Dissolved Sodium (Na)	mg/L	1.29 (1)	7216855	1.08	0.968	0.909	1.29	7202733	0.829	1.19	0.050	7202733
Dissolved Sulphur (S)	mg/L	<3.0	7202733	5.6	<3.0	<3.0	27.3	7202733	11.3	7.8	3.0	7202733

RDL = Reportable Detection Limit
(1) - Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8603	HR8604	HR8605	HR8606	HR8607	HR8608	HR8609		HR8610		
Sampling Date		2013/09/26 16:15	2013/09/26 13:30	2013/09/29 16:15	2013/09/29 11:30	2013/09/29 13:00	2013/09/29 15:30	2013/09/29 14:15		2013/09/28 12:30		
	UNITS	**MH-28A**	**MH-04**	**MH-30**	**MH-13**	**MH-14**	**MH-15**	**MH-16**	**QC Batch**	**MH-27**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	193	165	133	194	204	203	202	7204297	191	0.50	7204297
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	ug/L	3.1	<3.0	5.7	3.2	<3.0	3.4	<3.0	7211952	<3.0	3.0	7211928
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	0.50	7211928
Dissolved Arsenic (As)	ug/L	0.58	0.39	0.18	0.40	0.30	0.33	0.28	7211952	0.57	0.10	7211928
Dissolved Barium (Ba)	ug/L	48.7	20.9	172	124	146	160	150	7211952	49.8	1.0	7211928
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	7211952	<0.10	0.10	7211928
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	1.0	7211928
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	<50	7211952	<50	50	7211928
Dissolved Cadmium (Cd)	ug/L	0.077	0.289	0.016	0.018	0.010	0.011	<0.010	7211952	0.074	0.010	7211928
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	1.0	7211928
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	0.50	7211928
Dissolved Copper (Cu)	ug/L	0.45	0.26	0.33	0.37	0.22	<0.20	0.30	7211952	0.65	0.20	7211928
Dissolved Iron (Fe)	ug/L	43.9	<5.0	274	112	81.0	97.7	53.0	7211952	48.7	5.0	7211928
Dissolved Lead (Pb)	ug/L	0.86	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	7211952	0.55	0.20	7211928
Dissolved Lithium (Li)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211928
Dissolved Manganese (Mn)	ug/L	39.2	<1.0	7.8	7.5	12.2	10.8	7.7	7211952	33.5	1.0	7211928
Dissolved Mercury (Hg)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	7211952	<0.050	0.050	7211928
Dissolved Molybdenum (Mo)	ug/L	1.3	<1.0	1.0	<1.0	<1.0	1.5	<1.0	7211952	1.3	1.0	7211928
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7211952	<1.0	1.0	7211928
Dissolved Selenium (Se)	ug/L	0.76	0.92	0.28	0.49	0.62	0.39	0.52	7211952	0.70	0.10	7211928
Dissolved Silicon (Si)	ug/L	3130	3110	2650	3060	3140	3560	3130	7211952	3290	100	7211928
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7211952	<0.020	0.020	7211928
Dissolved Strontium (Sr)	ug/L	247	188	81.1	191	222	180	200	7211952	246	1.0	7211928
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	7211952	<0.050	0.050	7211928
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211928
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211928
Dissolved Uranium (U)	ug/L	1.12	0.83	0.94	1.25	0.85	0.76	0.94	7211952	0.97	0.10	7211928
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211952	<5.0	5.0	7211928
Dissolved Zinc (Zn)	ug/L	8.1	5.5	<5.0	<5.0	<5.0	<5.0	<5.0	7211952	8.4	5.0	7211928
Dissolved Zirconium (Zr)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7211952	<0.50	0.50	7211928
Dissolved Calcium (Ca)	mg/L	65.9	60.8	33.2	57.3	59.3	59.2	57.5	7202733	65.1	0.050	7202733
Dissolved Magnesium (Mg)	mg/L	6.97	3.31	12.2	12.3	13.7	13.5	14.3	7202733	6.99	0.050	7202733
Dissolved Potassium (K)	mg/L	0.911	0.507	0.319	0.449	0.578	0.471	0.514	7202733	0.745	0.050	7202733

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8603	HR8604	HR8605	HR8606	HR8607	HR8608	HR8609		HR8610		
Sampling Date		2013/09/26 16:15	2013/09/26 13:30	2013/09/29 16:15	2013/09/29 11:30	2013/09/29 13:00	2013/09/29 15:30	2013/09/29 14:15		2013/09/28 12:30		
	UNITS	**MH-28A**	**MH-04**	**MH-30**	**MH-13**	**MH-14**	**MH-15**	**MH-16**	**QC Batch**	**MH-27**	**RDL**	**QC Batch**
Dissolved Sodium (Na)	mg/L	1.05	0.915	0.776	0.946	1.37	1.00	1.22	7202733	0.992	0.050	7202733
Dissolved Sulphur (S)	mg/L	6.8	7.8	<3.0	3.3	3.1	<3.0	<3.0	7202733	7.4	3.0	7202733

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8611	HR8628	HR8629	HR8630	HR8631	HR8632	HR8633		HR8634		
Sampling Date		2013/09/30 16:10	2013/09/30 14:30	2013/09/30 15:30	2013/09/30 12:00	2013/09/30 15:20	2013/09/28 14:15	2013/09/28 15:20		2013/09/30		
	UNITS	**MH-06A**	**MH-01A**	**MH-28A**	**MH-04**	**MH-28**	**MH-07**	**MW13-13**	**QC Batch**	**MH-02**	**RDL**	**QC Batch**
Misc. Inorganics												
Dissolved Hardness (CaCO3)	mg/L	188	200	196	164	211	283	135	7204297	563	0.50	7211103
Dissolved Metals by ICPMS												
Dissolved Aluminum (Al)	ug/L	<3.0	5.1	3.1	<3.0	3.7	4.8	12.1	7211928	<3.0	3.0	7221937
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7211928	<0.50	0.50	7221937
Dissolved Arsenic (As)	ug/L	0.66	0.72	0.55	0.38	0.56	0.23	0.17	7211928	1.03 (1)	0.10	7228872
Dissolved Barium (Ba)	ug/L	48.2	34.9	49.1	20.4	60.5	64.7	12.3	7211928	57.7	1.0	7221937
Dissolved Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	7211928	<0.10	0.10	7221937
Dissolved Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7211928	<1.0	1.0	7221937
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	<50	<50	<50	7211928	<50	50	7221937
Dissolved Cadmium (Cd)	ug/L	0.023	0.124	0.076	0.290	0.056	0.744	0.821	7211928	0.052	0.010	7221937
Dissolved Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7211928	<1.0	1.0	7221937
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7211928	0.72	0.50	7221937
Dissolved Copper (Cu)	ug/L	0.72	1.41	0.50	0.46	0.39	0.55	0.49	7211928	0.66	0.20	7221937
Dissolved Iron (Fe)	ug/L	8.8	15.2	42.6	<5.0	6.1	28.1	8.3	7211928	64.9	5.0	7221937
Dissolved Lead (Pb)	ug/L	0.34	11.3	0.76	0.29	<0.20	3.25	2.87	7211928	0.25	0.20	7221937
Dissolved Lithium (Li)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211928	<5.0	5.0	7221937
Dissolved Manganese (Mn)	ug/L	41.8	89.4	40.8	<1.0	<1.0	31.6 (1)	32.5	7211928	563	1.0	7221937
Dissolved Mercury (Hg)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	7211928	<0.050	0.050	7221937
Dissolved Molybdenum (Mo)	ug/L	2.0	2.6	1.4	<1.0	1.1	<1.0	<1.0	7211928	<1.0	1.0	7221937
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.9	7211928	<1.0	1.0	7221937
Dissolved Selenium (Se)	ug/L	0.75	1.18	0.75	0.99	0.58	0.37	1.01	7211928	0.13	0.10	7221937
Dissolved Silicon (Si)	ug/L	2870	2850	3280	3370	4470	3940	2340	7211928	5130	100	7221937
Dissolved Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	7211928	<0.020	0.020	7221937
Dissolved Strontium (Sr)	ug/L	261	259	244	180	247	339	78.4	7211928	621	1.0	7221937
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	7211928	<0.050	0.050	7221937
Dissolved Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211928	<5.0	5.0	7221937
Dissolved Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211928	<5.0	5.0	7221937
Dissolved Uranium (U)	ug/L	1.05	1.46	1.04	0.76	0.96	0.89	0.40	7211928	1.75	0.10	7221937
Dissolved Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7211928	<5.0	5.0	7221937
Dissolved Zinc (Zn)	ug/L	5.3	39.4	9.0	5.6	6.3	190	19.5	7211928	49.3	5.0	7221937
Dissolved Zirconium (Zr)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7211928	<0.50	0.50	7221937
Dissolved Calcium (Ca)	mg/L	62.1	63.0	66.8	60.2	74.7	86.9	50.9	7202733	198	0.050	7211104
Dissolved Magnesium (Mg)	mg/L	8.06	10.3	7.11	3.32	5.94	16.1	2.02	7202733	17.0	0.050	7211104

RDL = Reportable Detection Limit
(1) - Dissolved greater than total. Reanalysis yields similar results.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR DISSOLVED METALS IN WATER (WATER)

Maxxam ID		HR8611	HR8628	HR8629	HR8630	HR8631	HR8632	HR8633		HR8634		
Sampling Date		2013/09/30 16:10	2013/09/30 14:30	2013/09/30 15:30	2013/09/30 12:00	2013/09/30 15:20	2013/09/28 14:15	2013/09/28 15:20		2013/09/30		
	UNITS	**MH-06A**	**MH-01A**	**MH-28A**	**MH-04**	**MH-28**	**MH-07**	**MW13-13**	**QC Batch**	**MH-02**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.864	0.739	0.805	0.442	0.470	0.853	0.662	7202733	2.52	0.050	7211104
Dissolved Sodium (Na)	mg/L	0.951	0.894	1.01	0.790	0.984	1.30	0.651	7202733	10.5	0.050	7211104
Dissolved Sulphur (S)	mg/L	7.5	11.9	7.6	7.2	7.9	7.2	15.0	7202733	97.6	3.0	7211104

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8539	HR8540	HR8541	HR8542		HR8543		HR8544	HR8545	HR8546		
Sampling Date		2013/09/25 15:15	2013/09/25 17:30	2013/09/24 16:45	2013/09/24 16:45		2013/09/24 12:30		2013/09/24 11:15	2013/09/24 13:00	2013/09/24 13:30		
	UNITS	**MH-01A**	**MH-06A**	**MH-12**	**MH-02**	**QC Batch**	**MH-22**	**QC Batch**	**MH-25**	**MH-08**	**MH-08A**	**RDL**	**QC Batch**
Calculated Parameters													
Total Hardness (CaCO3)	mg/L	223	208	175	573	7203840	154	7203840	247	142	144	0.50	7203840
Total Metals by ICPMS													
Total Aluminum (Al)	ug/L	54.4	55.7	16.8	17.7 (1)	7211974	5.2	7212381	221	4.5	4.4	3.0	7211974
Total Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	7211974	3.39	7212381	0.72	<0.50	<0.50	0.50	7211974
Total Arsenic (As)	ug/L	0.80	0.90	0.89	0.63	7211974	4.41	7212381	0.82	1.97	2.11	0.10	7211974
Total Barium (Ba)	ug/L	38.5	51.0	70.8	58.7	7211974	16.4	7212381	16.5	37.6	40.4	1.0	7211974
Total Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	7211974	<0.10	7212381	<0.10	<0.10	<0.10	0.10	7211974
Total Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	7211974	<1.0	7212381	<1.0	<1.0	<1.0	1.0	7211974
Total Boron (B)	ug/L	<50	<50	<50	<50	7211974	<50	7212381	<50	<50	<50	50	7211974
Total Cadmium (Cd)	ug/L	0.408	0.077	0.043	0.054	7211974	3.18	7212381	409	0.067	0.077	0.010	7211974
Total Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	7211974	<1.0	7212381	<1.0	<1.0	<1.0	1.0	7211974
Total Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	0.73	7211974	<0.50	7212381	5.02	<0.50	<0.50	0.50	7211974
Total Copper (Cu)	ug/L	3.06	2.62	0.54	0.30	7211974	0.21	7212381	2.47	<0.20	<0.20	0.20	7211974
Total Iron (Fe)	ug/L	230	175	26.7	104	7211974	8.4	7212381	555	<5.0	<5.0	5.0	7211974
Total Lead (Pb)	ug/L	44.3	7.71	0.27	0.42	7211974	0.81	7212381	419	<0.20	<0.20	0.20	7211974
Total Lithium (Li)	ug/L	<5.0	<5.0	<5.0	<5.0	7211974	6.1	7212381	<5.0	<5.0	<5.0	5.0	7211974
Total Manganese (Mn)	ug/L	110	147	3.7	469	7211974	<1.0	7212381	360	<1.0	<1.0	1.0	7211974
Total Mercury (Hg)	ug/L	<0.050	<0.050	<0.050	<0.050	7211974	<0.050	7212381	<0.050	<0.050	<0.050	0.050	7211974
Total Molybdenum (Mo)	ug/L	2.6	1.9	1.3	<1.0	7211974	10.7	7212381	<1.0	<1.0	<1.0	1.0	7211974
Total Nickel (Ni)	ug/L	<1.0	<1.0	1.7	<1.0	7211974	3.5	7212381	2.8	<1.0	<1.0	1.0	7211974
Total Selenium (Se)	ug/L	1.31	0.81	0.64	0.13	7211974	14.0	7212381	5.95	1.83	1.66	0.10	7211974
Total Silicon (Si)	ug/L	3210	3010	3740	4860	7211974	4680	7212381	4860	5720	5940	100	7211974
Total Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	7211974	<0.020	7212381	0.286	<0.020	<0.020	0.020	7211974
Total Strontium (Sr)	ug/L	297	275	212	644	7211974	238	7212381	107	157	160	1.0	7211974
Total Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	7211974	<0.050	7212381	0.109	<0.050	<0.050	0.050	7211974
Total Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	7212381	<5.0	<5.0	<5.0	5.0	7211974
Total Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	7212381	5.1	<5.0	<5.0	5.0	7211974
Total Uranium (U)	ug/L	1.82	1.24	0.94	2.03 (2)	7211974	3.72	7212381	0.12	0.65	0.72	0.10	7211974
Total Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	7212381	<5.0	<5.0	<5.0	5.0	7211974
Total Zinc (Zn)	ug/L	71.1	13.5	<5.0	38.0	7211974	563	7212381	39700	<5.0	<5.0	5.0	7211974
Total Zirconium (Zr)	ug/L	<0.50	<0.50	<0.50	<0.50	7211974	<0.50	7212381	<0.50	<0.50	<0.50	0.50	7211974
Total Calcium (Ca)	mg/L	70.2	68.9	59.0	199	7204298	50.2	7204298	93.4	48.0	48.5	0.050	7204298

RDL = Reportable Detection Limit
(1) - Duplicate RPD above control limit - Non-homogenous sample - Increased variability of results.
(2) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed).

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8539	HR8540	HR8541	HR8542		HR8543		HR8544	HR8545	HR8546		
Sampling Date		2013/09/25 15:15	2013/09/25 17:30	2013/09/24 16:45	2013/09/24 16:45		2013/09/24 12:30		2013/09/24 11:15	2013/09/24 13:00	2013/09/24 13:30		
	UNITS	**MH-01A**	**MH-06A**	**MH-12**	**MH-02**	**QC Batch**	**MH-22**	**QC Batch**	**MH-25**	**MH-08**	**MH-08A**	**RDL**	**QC Batch**
Total Magnesium (Mg)	mg/L	11.7	8.76	6.64	18.7	7204298	7.05	7204298	3.38	5.49	5.64	0.050	7204298
Total Potassium (K)	mg/L	0.907	1.02	0.557	3.16	7204298	0.612	7204298	0.638	0.484	0.497	0.050	7204298
Total Sodium (Na)	mg/L	1.09	1.22	1.10	11.7	7204298	0.882	7204298	0.681	0.900	0.976	0.050	7204298
Total Sulphur (S)	mg/L	10.7	7.9	<3.0	102	7204298	15.2	7204298	90.0	<3.0	<3.0	3.0	7204298

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8547	HR8548		HR8549	HR8601		HR8602	HR8603	HR8604	HR8605		
Sampling Date		2013/09/27 13:15	2013/09/27 15:00		2013/09/27 10:00	2013/09/26 11:15		2013/09/26 15:45	2013/09/26 16:15	2013/09/26 13:30	2013/09/29 16:15		
	UNITS	**MH-11**	**MH-29**	**QC Batch**	**CC-1**	**PH-01**	**QC Batch**	**MH-28**	**MH-28A**	**MH-04**	**MH-30**	**RDL**	**QC Batch**
Calculated Parameters													
Total Hardness (CaCO3)	mg/L	217	189	7203840	138	173	7203840	226	218	175	143	0.50	7203840
Total Metals by ICPMS													
Total Aluminum (Al)	ug/L	30.5	8.3	7211974	<3.0	<3.0	7212381	9.0	95.3	8.9	24.7	3.0	7211974
Total Antimony (Sb)	ug/L	<0.50	<0.50	7211974	<0.50	<0.50	7212381	<0.50	<0.50	<0.50	<0.50	0.50	7211974
Total Arsenic (As)	ug/L	0.69	0.62	7211974	0.36	0.58	7212381	0.58	0.84	0.42	0.33	0.10	7211974
Total Barium (Ba)	ug/L	63.6	50.3	7211974	11.1	17.2	7212381	64.2	56.7	20.9	192	1.0	7211974
Total Beryllium (Be)	ug/L	<0.10	<0.10	7211974	<0.10	<0.10	7212381	<0.10	<0.10	<0.10	<0.10	0.10	7211974
Total Bismuth (Bi)	ug/L	<1.0	<1.0	7211974	<1.0	<1.0	7212381	<1.0	<1.0	<1.0	<1.0	1.0	7211974
Total Boron (B)	ug/L	<50	<50	7211974	<50	<50	7212381	<50	<50	<50	<50	50	7211974
Total Cadmium (Cd)	ug/L	0.093	0.075	7211974	0.087	0.705	7212381	0.069	0.159	0.283	0.240	0.010	7211974
Total Chromium (Cr)	ug/L	<1.0	<1.0	7211974	<1.0	<1.0	7212381	<1.0	<1.0	<1.0	<1.0	1.0	7211974
Total Cobalt (Co)	ug/L	<0.50	<0.50	7211974	<0.50	<0.50	7212381	<0.50	<0.50	<0.50	<0.50	0.50	7211974
Total Copper (Cu)	ug/L	0.62	0.47	7211974	0.27	0.26	7212381	0.51	0.81	0.41	1.92	0.20	7211974
Total Iron (Fe)	ug/L	135	20.1	7211974	9.1	<5.0	7212381	8.2	244	11.7	402	5.0	7211974
Total Lead (Pb)	ug/L	2.70	<0.20	7211974	0.41	1.05	7212381	0.42	10.1	0.41	4.96	0.20	7211974
Total Lithium (Li)	ug/L	<5.0	<5.0	7211974	<5.0	<5.0	7212381	<5.0	<5.0	<5.0	<5.0	5.0	7211974
Total Manganese (Mn)	ug/L	30.0	3.7	7211974	<1.0	<1.0	7212381	1.8	79.4	1.1	14.8	1.0	7211974
Total Mercury (Hg)	ug/L	<0.050	<0.050	7211974	<0.050	<0.050	7212381	<0.050	<0.050	<0.050	<0.050	0.050	7211974
Total Molybdenum (Mo)	ug/L	1.6	<1.0	7211974	<1.0	<1.0	7212381	1.1	1.5	<1.0	1.0	1.0	7211974
Total Nickel (Ni)	ug/L	<1.0	<1.0	7211974	<1.0	<1.0	7212381	<1.0	<1.0	<1.0	1.7	1.0	7211974
Total Selenium (Se)	ug/L	0.67	0.42	7211974	0.31	1.56	7212381	0.55	0.80	0.82	0.44	0.10	7211974
Total Silicon (Si)	ug/L	3670	3680	7211974	2840	3690	7212381	4390	3540	3360	2840	100	7211974
Total Silver (Ag)	ug/L	<0.020	<0.020	7211974	<0.020	<0.020	7212381	<0.020	<0.020	<0.020	<0.020	0.020	7211974
Total Strontium (Sr)	ug/L	271	232	7211974	190	143	7212381	270	281	201	91.1	1.0	7211974
Total Thallium (Tl)	ug/L	<0.050	<0.050	7211974	<0.050	<0.050	7212381	<0.050	<0.050	<0.050	<0.050	0.050	7211974
Total Tin (Sn)	ug/L	<5.0	<5.0	7211974	<5.0	<5.0	7212381	<5.0	<5.0	<5.0	<5.0	5.0	7211974
Total Titanium (Ti)	ug/L	<5.0	<5.0	7211974	<5.0	<5.0	7212381	<5.0	<5.0	<5.0	<5.0	5.0	7211974
Total Uranium (U)	ug/L	1.11	0.65	7211974	0.67	0.85	7212381	1.09	1.28	0.88	0.95	0.10	7211974
Total Vanadium (V)	ug/L	<5.0	<5.0	7211974	<5.0	<5.0	7212381	<5.0	<5.0	<5.0	<5.0	5.0	7211974
Total Zinc (Zn)	ug/L	9.2	<5.0	7211974	<5.0	12.4	7212381	7.1	18.0	5.8	15.2	5.0	7211974
Total Zirconium (Zr)	ug/L	<0.50	<0.50	7211974	<0.50	<0.50	7212381	<0.50	<0.50	<0.50	<0.50	0.50	7211974
Total Calcium (Ca)	mg/L	72.6	65.2	7204298	51.8	63.2	7204298	79.2	74.4	63.7	35.6	0.050	7204298
Total Magnesium (Mg)	mg/L	8.80	6.41	7204298	2.14	3.76	7204298	6.90	7.90	3.80	13.1	0.050	7204298
Total Potassium (K)	mg/L	0.766	0.321	7204298	0.314	0.521	7204298	0.525	0.979	0.504	0.515	0.050	7204298

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8547	HR8548		HR8549	HR8601		HR8602	HR8603	HR8604	HR8605		
Sampling Date		2013/09/27 13:15	2013/09/27 15:00		2013/09/27 10:00	2013/09/26 11:15		2013/09/26 15:45	2013/09/26 16:15	2013/09/26 13:30	2013/09/29 16:15		
	UNITS	**MH-11**	**MH-29**	**QC Batch**	**CC-1**	**PH-01**	**QC Batch**	**MH-28**	**MH-28A**	**MH-04**	**MH-30**	**RDL**	**QC Batch**
Total Sodium (Na)	mg/L	1.29	1.01	7204298	0.769	0.699	7204298	1.22	1.23	0.962	1.01	0.050	7204298
Total Sulphur (S)	mg/L	5.6	<3.0	7204298	3.3	11.1	7204298	8.2	7.8	7.2	5.2	3.0	7204298

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8606	HR8607	HR8608	HR8609	HR8610		HR8611	HR8628	HR8629		
Sampling Date		2013/09/29 11:30	2013/09/29 13:00	2013/09/29 15:30	2013/09/29 14:15	2013/09/28 12:30		2013/09/30 16:10	2013/09/30 14:30	2013/09/30 15:30		
	UNITS	**MH-13**	**MH-14**	**MH-15**	**MH-16**	**MH-27**	**QC Batch**	**MH-06A**	**MH-01A**	**MH-28A**	**RDL**	**QC Batch**
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	211	223	215	226	212	7203840	224	243	217	0.50	7203840
Total Metals by ICPMS												
Total Aluminum (Al)	ug/L	8.9	13.9	15.2	13.8	37.9	7211974	29.1	58.4	30.0	3.0	7214171
Total Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	7211974	<0.50	<0.50	<0.50	0.50	7214171
Total Arsenic (As)	ug/L	0.54	0.46	0.43	0.45	0.70	7211974	0.83	0.95	0.68	0.10	7214171
Total Barium (Ba)	ug/L	137	155	169	159	52.1	7211974	55.0	39.1	52.4	1.0	7214171
Total Beryllium (Be)	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	7211974	<0.10	<0.10	<0.10	0.10	7214171
Total Bismuth (Bi)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	7211974	<1.0	<1.0	<1.0	1.0	7214171
Total Boron (B)	ug/L	<50	<50	<50	<50	<50	7211974	<50	<50	<50	50	7214171
Total Cadmium (Cd)	ug/L	0.028	0.017	<0.010	0.012	0.112	7211974	0.037	0.466	0.111	0.010	7214171
Total Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	7211974	<1.0	<1.0	<1.0	1.0	7214171
Total Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	7211974	<0.50	<0.50	<0.50	0.50	7214171
Total Copper (Cu)	ug/L	0.44	0.34	<0.20	0.24	0.55	7211974	1.10	3.40	0.94	0.20	7214171
Total Iron (Fe)	ug/L	242	280	211	245	153	7211974	114	299	159	5.0	7214171
Total Lead (Pb)	ug/L	<0.20	0.58	<0.20	<0.20	3.86	7211974	3.52	61.6	3.46	0.20	7214171
Total Lithium (Li)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	<5.0	<5.0	5.0	7214171
Total Manganese (Mn)	ug/L	9.7	15.9	13.8	12.0	54.5	7211974	149	132	61.5	1.0	7214171
Total Mercury (Hg)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	7211974	<0.050	<0.050	<0.050	0.050	7214171
Total Molybdenum (Mo)	ug/L	1.7	<1.0	1.7	1.3	1.3	7211974	2.4	2.8	1.5	1.0	7214171
Total Nickel (Ni)	ug/L	<1.0	1.1	<1.0	<1.0	<1.0	7211974	<1.0	<1.0(1)	<1.0	1.0	7214171
Total Selenium (Se)	ug/L	0.64	0.52	0.49	0.53	0.69	7211974	1.04	1.34	0.90	0.10	7214171
Total Silicon (Si)	ug/L	3370	3420	3740	3530	3530	7211974	3310	3390	3560	100	7214171
Total Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	7211974	<0.020	<0.020	<0.020	0.020	7214171
Total Strontium (Sr)	ug/L	223	240	191	222	276	7211974	298	305	271	1.0	7214171
Total Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	7211974	<0.050	<0.050	<0.050	0.050	7214171
Total Tin (Sn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	<5.0	<5.0	5.0	7214171
Total Titanium (Ti)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	<5.0(1)	<5.0	5.0	7214171
Total Uranium (U)	ug/L	1.52	0.94	0.83	1.00	1.22	7211974	1.18	1.67	1.08	0.10	7214171
Total Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	7211974	<5.0	<5.0	<5.0	5.0	7214171
Total Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	11.7	7211974	9.2	94.3	12.2	5.0	7214171
Total Zirconium (Zr)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	7211974	<0.50	<0.50	<0.50	0.50	7214171
Total Calcium (Ca)	mg/L	61.9	63.8	61.4	63.4	72.3	7204298	73.5	77.4	74.0	0.050	7204298
Total Magnesium (Mg)	mg/L	13.7	15.5	14.9	16.4	7.53	7204298	9.73	12.0	7.80	0.050	7204298

RDL = Reportable Detection Limit
(1) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed).

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8606	HR8607	HR8608	HR8609	HR8610		HR8611	HR8628	HR8629		
Sampling Date		2013/09/29 11:30	2013/09/29 13:00	2013/09/29 15:30	2013/09/29 14:15	2013/09/28 12:30		2013/09/30 16:10	2013/09/30 14:30	2013/09/30 15:30		
	UNITS	**MH-13**	**MH-14**	**MH-15**	**MH-16**	**MH-27**	**QC Batch**	**MH-06A**	**MH-01A**	**MH-28A**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.482	0.598	0.487	0.540	0.868	7204298	1.02	0.907	0.902	0.050	7204298
Total Sodium (Na)	mg/L	1.15	1.62	1.12	1.40	1.15	7204298	1.13	1.03	1.08	0.050	7204298
Total Sulphur (S)	mg/L	3.0	3.0	<3.0	<3.0	8.1	7204298	8.1	13.4	6.3	3.0	7204298

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8630		HR8631	HR8632		HR8633		HR8634		
Sampling Date		2013/09/30 12:00		2013/09/30 15:20	2013/09/28 14:15		2013/09/28 15:20		2013/09/30		
	UNITS	**MH-04**	**QC Batch**	**MH-28**	**MH-07**	**QC Batch**	**MW13-13**	**QC Batch**	**MH-02**	**RDL**	**QC Batch**
Calculated Parameters											
Total Hardness (CaCO3)	mg/L	181	7203840	203	282	7203840	137	7203840	575	0.50	7211341
Total Metals by ICPMS											
Total Aluminum (Al)	ug/L	5.5	7213117	4.7	11.5	7212381	1860	7214690	5.0	3.0	7223200
Total Antimony (Sb)	ug/L	<0.50	7213117	<0.50	<0.50	7212381	<0.50	7214690	<0.50	0.50	7223200
Total Arsenic (As)	ug/L	0.47	7213117	0.58	0.25	7212381	2.91	7214690	0.62	0.10	7223200
Total Barium (Ba)	ug/L	22.9	7213117	62.6	67.4	7212381	25.6	7214690	62.3	1.0	7223200
Total Beryllium (Be)	ug/L	<0.10	7213117	<0.10	<0.10	7212381	0.11	7214690	<0.10	0.10	7223200
Total Bismuth (Bi)	ug/L	<1.0	7213117	<1.0	<1.0	7212381	<1.0	7214690	<1.0	1.0	7223200
Total Boron (B)	ug/L	<50	7213117	<50	<50	7212381	<50	7214690	<50	50	7223200
Total Cadmium (Cd)	ug/L	0.318	7213117	0.055	0.855	7212381	1.07	7214690	0.136	0.010	7223200
Total Chromium (Cr)	ug/L	<1.0	7213117	<1.0	<1.0	7212381	3.0	7214690	<1.0	1.0	7223200
Total Cobalt (Co)	ug/L	<0.50	7213117	<0.50	<0.50	7212381	2.44	7214690	0.90	0.50	7223200
Total Copper (Cu)	ug/L	0.36	7213117	0.45	1.58	7212381	3.48	7214690	0.42	0.20	7223200
Total Iron (Fe)	ug/L	9.7 (1)	7213117	<5.0	48.9	7212381	2780	7214690	124	5.0	7223200
Total Lead (Pb)	ug/L	0.57	7213117	<0.20	10.3	7212381	20.0	7214690	0.66	0.20	7223200
Total Lithium (Li)	ug/L	<5.0	7213117	<5.0	<5.0	7212381	<5.0	7214690	<5.0	5.0	7223200
Total Manganese (Mn)	ug/L	1.1	7213117	<1.0	23.5	7212381	82.3	7214690	893	1.0	7223200
Total Mercury (Hg)	ug/L	<0.050	7213117	<0.050	<0.050	7212381	<0.050	7214690	<0.050	0.050	7223200
Total Molybdenum (Mo)	ug/L	<1.0	7213117	<1.0	<1.0	7212381	<1.0	7214690	<1.0	1.0	7223200
Total Nickel (Ni)	ug/L	<1.0	7213117	<1.0	<1.0	7212381	4.8	7214690	<1.0	1.0	7223200
Total Selenium (Se)	ug/L	0.99 (2)	7213117	0.56	0.31	7212381	0.84	7214690	<0.10	0.10	7223200
Total Silicon (Si)	ug/L	3610	7213117	4230	3760	7212381	4690	7214690	5020	100	7223200
Total Silver (Ag)	ug/L	<0.020	7213117	<0.020	<0.020	7212381	0.032	7214690	<0.020	0.020	7223200
Total Strontium (Sr)	ug/L	217	7213117	254	350	7212381	85.7	7214690	676	1.0	7223200
Total Thallium (Tl)	ug/L	<0.050	7213117	<0.050	<0.050	7212381	0.051	7214690	<0.050	0.050	7223200
Total Tin (Sn)	ug/L	<5.0	7213117	<5.0	<5.0	7212381	<5.0	7214690	<5.0	5.0	7223200
Total Titanium (Ti)	ug/L	<5.0	7213117	<5.0	<5.0	7212381	106	7214690	<5.0	5.0	7223200
Total Uranium (U)	ug/L	0.81	7213117	0.95	0.92	7212381	0.53	7214690	1.77	0.10	7223200
Total Vanadium (V)	ug/L	<5.0	7213117	<5.0	<5.0	7212381	<5.0	7214690	<5.0	5.0	7223200
Total Zinc (Zn)	ug/L	6.1	7213117	5.4	284	7212381	75.5	7214690	66.4	5.0	7223200
Total Zirconium (Zr)	ug/L	<0.50	7213117	<0.50	<0.50	7212381	<0.50	7214690	<0.50	0.50	7223200
Total Calcium (Ca)	mg/L	66.5	7204298	71.7	85.8	7204298	49.9	7204298	200	0.050	7211344

RDL = Reportable Detection Limit
(1) - Matrix Spike outside acceptance criteria (10% of analytes failure allowed).
(2) - Duplicate RPD above control limit - (10% of analytes failure allowed).

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		HR8630		HR8631	HR8632		HR8633		HR8634		
Sampling Date		2013/09/30 12:00		2013/09/30 15:20	2013/09/28 14:15		2013/09/28 15:20		2013/09/30		
	UNITS	**MH-04**	**QC Batch**	**MH-28**	**MH-07**	**QC Batch**	**MW13-13**	**QC Batch**	**MH-02**	**RDL**	**QC Batch**
Total Magnesium (Mg)	mg/L	3.53	7204298	5.81	16.4	7204298	2.95	7204298	18.3	0.050	7211344
Total Potassium (K)	mg/L	0.501	7204298	0.457	0.941	7204298	1.07	7204298	2.66	0.050	7211344
Total Sodium (Na)	mg/L	0.873	7204298	0.995	1.36	7204298	0.860	7204298	10.8	0.050	7211344
Total Sulphur (S)	mg/L	8.2	7204298	7.9	11.3	7204298	14.0	7204298	103	3.0	7211344

RDL = Reportable Detection Limit

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

NITRITE & NITRATE (WATER)

Maxxam ID		HR8539	HR8540	HR8541	HR8542	HR8543	HR8544	HR8545	HR8546	HR8547		
Sampling Date		2013/09/25 15:15	2013/09/25 17:30	2013/09/24 16:45	2013/09/24 16:45	2013/09/24 12:30	2013/09/24 11:15	2013/09/24 13:00	2013/09/24 13:30	2013/09/27 13:15		
	UNITS	**MH-01A**	**MH-06A**	**MH-12**	**MH-02**	**MH-22**	**MH-25**	**MH-08**	**MH-08A**	**MH-11**	**RDL**	**QC Batch**
ANIONS												
Nitrite (N)	mg/L	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	0.0074(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	0.0050	7206715
Calculated Parameters												
Nitrate (N)	mg/L	<0.020	<0.020	<0.020	<0.020	0.118	0.413	0.052	0.053	0.051	0.020	7203146
Nutrients												
Nitrate plus Nitrite (N)	mg/L	<0.020(1)	<0.020(1)	<0.020(1)	<0.020(1)	0.118(1)	0.420(1)	0.052(1)	0.053(1)	0.051(1)	0.020	7206708

Maxxam ID		HR8548	HR8549	HR8550	HR8601	HR8602	HR8603	HR8604	HR8605	HR8606		
Sampling Date		2013/09/27 15:00	2013/09/27 10:00	2013/09/26 10:00	2013/09/26 11:15	2013/09/26 15:45	2013/09/26 16:15	2013/09/26 13:30	2013/09/29 16:15	2013/09/29 11:30		
	UNITS	**MH-29**	**CC-1**	**1250 PORTAL**	**PH-01**	**MH-28**	**MH-28A**	**MH-04**	**MH-30**	**MH-13**	**RDL**	**QC Batch**
ANIONS												
Nitrite (N)	mg/L	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(2)	<0.0050(2)	0.0050	7206715
Calculated Parameters												
Nitrate (N)	mg/L	0.029	0.071	0.420	0.423	0.177	0.044	0.235	<0.020	0.022	0.020	7203146
Nutrients												
Nitrate plus Nitrite (N)	mg/L	0.029(1)	0.071(1)	0.420(1)	0.423(1)	0.177(1)	0.044(1)	0.235(1)	<0.020(2)	0.022(2)	0.020	7206708

RDL = Reportable Detection Limit
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Sample analysed past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

NITRITE & NITRATE (WATER)

Maxxam ID		HR8607	HR8608	HR8609	HR8610	HR8632	HR8633		HR8634		
Sampling Date		2013/09/29 13:00	2013/09/29 15:30	2013/09/29 14:15	2013/09/28 12:30	2013/09/28 14:15	2013/09/28 15:20		2013/09/30		
	UNITS	**MH-14**	**MH-15**	**MH-16**	**MH-27**	**MH-07**	**MW13-13**	**QC Batch**	**MH-02**	**RDL**	**QC Batch**
ANIONS											
Nitrite (N)	mg/L	<0.0050(1)	<0.0050(1)	<0.0050(1)	<0.0050(2)	<0.0050(2)	0.0115(2)	7206715	<0.0050(2)	0.0050	7215951
Calculated Parameters											
Nitrate (N)	mg/L	<0.020	<0.020	<0.020	0.072	0.104	0.586	7203146	<0.020	0.020	7211325
Nutrients											
Nitrate plus Nitrite (N)	mg/L	<0.020(1)	<0.020(1)	<0.020(1)	0.072(2)	0.104(2)	0.597(2)	7206708	<0.020(2)	0.020	7215929

RDL = Reportable Detection Limit
(1) - Sample analysed past recommended hold time.
(2) - Sample arrived to laboratory past recommended hold time.

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

CCME PAH IN WATER BY GC-MS (WATER)

Maxxam ID		HR8547	HR8550	HR8601	HR8602	HR8603	HR8604	HR8610		
Sampling Date		2013/09/27 13:15	2013/09/26 10:00	2013/09/26 11:15	2013/09/26 15:45	2013/09/26 16:15	2013/09/26 13:30	2013/09/28 12:30		
	UNITS	**MH-11**	**1250 PORTAL**	**PH-01**	**MH-28**	**MH-28A**	**MH-04**	**MH-27**	**RDL**	**QC Batch**
Polycyclic Aromatics										
Low Molecular Weight PAH`s	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7202707
High Molecular Weight PAH`s	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7202707
Total PAH	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7202707
Naphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7212385
2-Methylnaphthalene	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7212385
Quinoline	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7212385
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Acenaphthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Phenanthrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Anthracene	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7212385
Acridine	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Fluoranthene	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7212385
Pyrene	ug/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7212385
Benzo(a)anthracene	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7212385
Chrysene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Benzo(b&j)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	7212385
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Dibenz(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7212385
Surrogate Recovery (%)										
D10-ANTHRACENE (sur.)	%	110	114	111	116	108	108	109		7212385
D8-ACENAPHTHYLENE (sur.)	%	115	116	115	115	115	110	115		7212385
D8-NAPHTHALENE (sur.)	%	115	116	116	116	115	110	115		7212385
D9-Acridine	%	85	88	88	87	85	85	85		7212385
TERPHENYL-D14 (sur.)	%	74	64	86	78	85	88	75		7212385

RDL = Reportable Detection Limit

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General Comments

Sample HR8539-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8540-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8541-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8542-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8543-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8544-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8545-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8546-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8547-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8548-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8549-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8550-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8601-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

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Sample HR8602-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8603-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8604-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8605-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8606-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8607-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8608-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8609-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8610-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8611-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8628-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8629-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8630-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8631-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

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Sample HR8632-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8633-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8634-01: The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.

Sample HR8545, Elements by CRC ICPMS (dissolved): Test repeated.
Sample HR8601, Elements by CRC ICPMS (dissolved): Test repeated.
Sample HR8602, Elements by CRC ICPMS (dissolved): Test repeated.
Sample HR8634, Elements by CRC ICPMS (dissolved): Test repeated.
Sample HR8546, Na, K, Ca, Mg, S by CRC ICPMS (diss.): Test repeated.

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7205034	Total Suspended Solids	2013/10/04	108	80 - 120	99	80 - 120	<4.0	mg/L	NC	20
7205127	Total Dissolved Solids	2013/10/04	NC	80 - 120	108	80 - 120	<10	mg/L	5.8(1)	20
7205182	Dissolved Organic Carbon (C)	2013/10/03	NC	80 - 120	107	80 - 120	<0.50	mg/L	0.9	20
7205247	Acidity (pH 8.3)	2013/10/03			93	80 - 120	<0.50	mg/L	NC	20
7205247	Acidity (pH 4.5)	2013/10/03					<0.50	mg/L	NC	20
7205265	True Colour	2013/10/03					<5.0	Col. Unit	NC	20
7206295	Dissolved Chloride (Cl)	2013/10/03	NC	80 - 120	102	80 - 120	<0.50	mg/L	NC	20
7206486	Dissolved Sulphate (SO4)	2013/10/03	NC	80 - 120	102	80 - 120	<0.50	mg/L	0.8	20
7206691	Alkalinity (Total as CaCO3)	2013/10/03	100	80 - 120	94	80 - 120	0.69, RDL=0.50	mg/L	2.3	20
7206691	Alkalinity (PP as CaCO3)	2013/10/03					<0.50	mg/L	NC	20
7206691	Bicarbonate (HCO3)	2013/10/03					0.84, RDL=0.50	mg/L	2.3	20
7206691	Carbonate (CO3)	2013/10/03					<0.50	mg/L	NC	20
7206691	Hydroxide (OH)	2013/10/03					<0.50	mg/L	NC	20
7206695	Conductivity	2013/10/03			99	80 - 120	1.1, RDL=1.0	uS/cm	1.4	20
7206708	Nitrate plus Nitrite (N)	2013/10/03	103	80 - 120	103	80 - 120	<0.020	mg/L	1.0	25
7206715	Nitrite (N)	2013/10/03	101	80 - 120	100	80 - 120	<0.0050	mg/L	NC	20
7207372	Bromide (Br)	2013/10/04	103	78 - 120	110	80 - 120	<0.010	mg/L	NC	20
7207384	Bromide (Br)	2013/10/04	98	78 - 120	94	80 - 120	<0.010	mg/L	NC	20
7209291	Dissolved Chloride (Cl)	2013/10/04			100	80 - 120	<0.50	mg/L	NC	20
7209298	Dissolved Sulphate (SO4)	2013/10/04			99	80 - 120	<0.50	mg/L	NC	20
7209382	Ammonia (N)	2013/10/04	96	80 - 120	101	80 - 120	0.0089, RDL=0.0050	mg/L	NC	20
7209790	Alkalinity (Total as CaCO3)	2013/10/06	NC	80 - 120	97	80 - 120	<0.50	mg/L	0.6	20
7209790	Alkalinity (PP as CaCO3)	2013/10/06					<0.50	mg/L	NC	20
7209790	Bicarbonate (HCO3)	2013/10/06					<0.50	mg/L	0.6	20
7209790	Carbonate (CO3)	2013/10/06					<0.50	mg/L	NC	20
7209790	Hydroxide (OH)	2013/10/06					<0.50	mg/L	NC	20
7209793	Conductivity	2013/10/06			99	80 - 120	<1.0	uS/cm	0.4	20
7209818	Total Dissolved Solids	2013/10/07	NC	80 - 120	110	80 - 120	14, RDL=10	mg/L	1.5	20
7211794	Total Dissolved Solids	2013/10/08	NC	80 - 120	100	80 - 120	<10	mg/L	0	20
7211806	Total Suspended Solids	2013/10/08	116	80 - 120	105	80 - 120	<4.0	mg/L	NC	20
7211928	Dissolved Aluminum (Al)	2013/10/07	108	80 - 120	109	80 - 120	<3.0	ug/L	NC	20
7211928	Dissolved Antimony (Sb)	2013/10/07	104	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
7211928	Dissolved Arsenic (As)	2013/10/07	104	80 - 120	101	80 - 120	<0.10	ug/L	3.4	20
7211928	Dissolved Barium (Ba)	2013/10/07	NC	80 - 120	98	80 - 120	<1.0	ug/L	0.2	20
7211928	Dissolved Beryllium (Be)	2013/10/07	100	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
7211928	Dissolved Bismuth (Bi)	2013/10/07	94	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
7211928	Dissolved Cadmium (Cd)	2013/10/07	102	80 - 120	101	80 - 120	<0.010	ug/L	1.8	20
7211928	Dissolved Chromium (Cr)	2013/10/07	99	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
7211928	Dissolved Cobalt (Co)	2013/10/07	98	80 - 120	99	80 - 120	<0.50	ug/L	NC	20

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7211928	Dissolved Copper (Cu)	2013/10/07	99	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
7211928	Dissolved Iron (Fe)	2013/10/07	105	80 - 120	107	80 - 120	<5.0	ug/L	NC	20
7211928	Dissolved Lead (Pb)	2013/10/07	95	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
7211928	Dissolved Lithium (Li)	2013/10/07	89	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
7211928	Dissolved Manganese (Mn)	2013/10/07	98	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
7211928	Dissolved Mercury (Hg)	2013/10/07	100	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
7211928	Dissolved Molybdenum (Mo)	2013/10/07	NC	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
7211928	Dissolved Nickel (Ni)	2013/10/07	94	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
7211928	Dissolved Selenium (Se)	2013/10/07	103	80 - 120	105	80 - 120	<0.10	ug/L	2.1	20
7211928	Dissolved Silver (Ag)	2013/10/07	101	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
7211928	Dissolved Strontium (Sr)	2013/10/07	NC	80 - 120	97	80 - 120	<1.0	ug/L	0.6	20
7211928	Dissolved Thallium (Tl)	2013/10/07	99	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
7211928	Dissolved Tin (Sn)	2013/10/07	95	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
7211928	Dissolved Titanium (Ti)	2013/10/07	100	80 - 120	107	80 - 120	<5.0	ug/L	NC	20
7211928	Dissolved Uranium (U)	2013/10/07	94	80 - 120	95	80 - 120	<0.10	ug/L	1.5	20
7211928	Dissolved Vanadium (V)	2013/10/07	99	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
7211928	Dissolved Zinc (Zn)	2013/10/07	NC	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
7211928	Dissolved Boron (B)	2013/10/07					<50	ug/L	NC	20
7211928	Dissolved Silicon (Si)	2013/10/07					<100	ug/L	1	20
7211928	Dissolved Zirconium (Zr)	2013/10/07					<0.50	ug/L	NC	20
7211952	Dissolved Aluminum (Al)	2013/10/08	106	80 - 120	109	80 - 120	<3.0	ug/L	NC	20
7211952	Dissolved Antimony (Sb)	2013/10/08	106	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
7211952	Dissolved Arsenic (As)	2013/10/08	104	80 - 120	105	80 - 120	<0.10	ug/L	6.6	20
7211952	Dissolved Barium (Ba)	2013/10/08	NC	80 - 120	99	80 - 120	<1.0	ug/L	4.4	20
7211952	Dissolved Beryllium (Be)	2013/10/08	102	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
7211952	Dissolved Bismuth (Bi)	2013/10/08	98	80 - 120	93	80 - 120	<1.0	ug/L	NC	20
7211952	Dissolved Cadmium (Cd)	2013/10/08	100	80 - 120	99	80 - 120	<0.010	ug/L	NC	20
7211952	Dissolved Chromium (Cr)	2013/10/08	101	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
7211952	Dissolved Cobalt (Co)	2013/10/08	100	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
7211952	Dissolved Copper (Cu)	2013/10/08	96	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
7211952	Dissolved Iron (Fe)	2013/10/08	102	80 - 120	111	80 - 120	<5.0	ug/L	NC	20
7211952	Dissolved Lead (Pb)	2013/10/08	102	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
7211952	Dissolved Lithium (Li)	2013/10/08	108	80 - 120	109	80 - 120	<5.0	ug/L	NC	20
7211952	Dissolved Manganese (Mn)	2013/10/08	100	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
7211952	Dissolved Mercury (Hg)	2013/10/08	97	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
7211952	Dissolved Molybdenum (Mo)	2013/10/08	NC	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
7211952	Dissolved Nickel (Ni)	2013/10/08	99	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
7211952	Dissolved Selenium (Se)	2013/10/08	105	80 - 120	100	80 - 120	<0.10	ug/L	4.5	20
7211952	Dissolved Silver (Ag)	2013/10/08	105	80 - 120	88	80 - 120	<0.020	ug/L	NC	20

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7211952	Dissolved Strontium (Sr)	2013/10/08	NC	80 - 120	108	80 - 120	<1.0	ug/L	1.7	20
7211952	Dissolved Thallium (Tl)	2013/10/08	93	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
7211952	Dissolved Tin (Sn)	2013/10/08	104	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7211952	Dissolved Titanium (Ti)	2013/10/08	104	80 - 120	108	80 - 120	<5.0	ug/L	NC	20
7211952	Dissolved Uranium (U)	2013/10/08	104	80 - 120	106	80 - 120	<0.10	ug/L	1.4	20
7211952	Dissolved Vanadium (V)	2013/10/08	101	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7211952	Dissolved Zinc (Zn)	2013/10/08	105	80 - 120	108	80 - 120	<5.0	ug/L	NC	20
7211952	Dissolved Boron (B)	2013/10/08					<50	ug/L	NC	20
7211952	Dissolved Silicon (Si)	2013/10/08					<100	ug/L	2.1	20
7211952	Dissolved Zirconium (Zr)	2013/10/08					<0.50	ug/L	NC	20
7211974	Total Aluminum (Al)	2013/10/08	111	80 - 120	124(2, 3)	80 - 120	<3.0	ug/L	NC	20
7211974	Total Antimony (Sb)	2013/10/08	112	80 - 120	107	80 - 120	<0.50	ug/L	NC	20
7211974	Total Arsenic (As)	2013/10/08	104	80 - 120	103	80 - 120	<0.10	ug/L	12.3	20
7211974	Total Barium (Ba)	2013/10/08	NC	80 - 120	107	80 - 120	<1.0	ug/L	3.0	20
7211974	Total Beryllium (Be)	2013/10/08	101	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
7211974	Total Bismuth (Bi)	2013/10/08	109	80 - 120	108	80 - 120	<1.0	ug/L	NC	20
7211974	Total Cadmium (Cd)	2013/10/08	105	80 - 120	104	80 - 120	<0.010	ug/L	12.1	20
7211974	Total Chromium (Cr)	2013/10/08	107	80 - 120	107	80 - 120	<1.0	ug/L	NC	20
7211974	Total Cobalt (Co)	2013/10/08	104	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
7211974	Total Copper (Cu)	2013/10/08	103	80 - 120	108	80 - 120	<0.20	ug/L	NC	20
7211974	Total Iron (Fe)	2013/10/08	NC	80 - 120	113	80 - 120	<5.0	ug/L	3.1	20
7211974	Total Lead (Pb)	2013/10/08	112	80 - 120	112	80 - 120	<0.20	ug/L	NC	20
7211974	Total Lithium (Li)	2013/10/08	111	80 - 120	116	80 - 120	<5.0	ug/L	NC	20
7211974	Total Manganese (Mn)	2013/10/08	NC	80 - 120	105	80 - 120	<1.0	ug/L	5.1	20
7211974	Total Mercury (Hg)	2013/10/08	109	80 - 120	106	80 - 120	<0.050	ug/L	NC	20
7211974	Total Molybdenum (Mo)	2013/10/08	NC	80 - 120	106	80 - 120	<1.0	ug/L	NC	20
7211974	Total Nickel (Ni)	2013/10/08	105	80 - 120	111	80 - 120	<1.0	ug/L	NC	20
7211974	Total Selenium (Se)	2013/10/08	106	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
7211974	Total Silver (Ag)	2013/10/08	91	80 - 120	89	80 - 120	0.024, RDL=0.020	ug/L	NC	20
7211974	Total Strontium (Sr)	2013/10/08	NC	80 - 120	118	80 - 120	<1.0	ug/L	3.1	20
7211974	Total Thallium (Tl)	2013/10/08	111	80 - 120	110	80 - 120	<0.050	ug/L	NC	20
7211974	Total Tin (Sn)	2013/10/08	100	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
7211974	Total Titanium (Ti)	2013/10/08	112	80 - 120	106	80 - 120	<5.0	ug/L	NC	20
7211974	Total Uranium (U)	2013/10/08	128(2)	80 - 120	120	80 - 120	<0.10	ug/L	6.0	20
7211974	Total Vanadium (V)	2013/10/08	111	80 - 120	113	80 - 120	<5.0	ug/L	NC	20
7211974	Total Zinc (Zn)	2013/10/08	NC	80 - 120	100	80 - 120	<5.0	ug/L	0.4	20
7211974	Total Boron (B)	2013/10/08					<50	ug/L	NC	20
7211974	Total Silicon (Si)	2013/10/08					<100	ug/L	1.5	20
7211974	Total Zirconium (Zr)	2013/10/08					<0.50	ug/L	NC	20

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7212381	Total Aluminum (Al)	2013/10/08	107	80 - 120	114	80 - 120	<3.0	ug/L	NC	20
7212381	Total Antimony (Sb)	2013/10/08	101	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
7212381	Total Arsenic (As)	2013/10/08	103	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
7212381	Total Barium (Ba)	2013/10/08	100	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
7212381	Total Beryllium (Be)	2013/10/08	99	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
7212381	Total Bismuth (Bi)	2013/10/08	98	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
7212381	Total Cadmium (Cd)	2013/10/08	101	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
7212381	Total Chromium (Cr)	2013/10/08	100	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
7212381	Total Cobalt (Co)	2013/10/08	102	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
7212381	Total Copper (Cu)	2013/10/08	100	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
7212381	Total Iron (Fe)	2013/10/08	109	80 - 120	115	80 - 120	<5.0	ug/L	NC	20
7212381	Total Lead (Pb)	2013/10/08	98	80 - 120	99	80 - 120	<0.20	ug/L	NC	20
7212381	Total Lithium (Li)	2013/10/08	92	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7212381	Total Manganese (Mn)	2013/10/08	99	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
7212381	Total Mercury (Hg)	2013/10/08	96	80 - 120	96	80 - 120	<0.050	ug/L	NC	20
7212381	Total Molybdenum (Mo)	2013/10/08	101	80 - 120	105	80 - 120	<1.0	ug/L	NC	20
7212381	Total Nickel (Ni)	2013/10/08	103	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
7212381	Total Selenium (Se)	2013/10/08	107	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
7212381	Total Silver (Ag)	2013/10/08	101	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
7212381	Total Strontium (Sr)	2013/10/08	96	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
7212381	Total Thallium (Tl)	2013/10/08	97	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
7212381	Total Tin (Sn)	2013/10/08	98	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
7212381	Total Titanium (Ti)	2013/10/08	103	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
7212381	Total Uranium (U)	2013/10/08	95	80 - 120	94	80 - 120	<0.10	ug/L	NC	20
7212381	Total Vanadium (V)	2013/10/08	102	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
7212381	Total Zinc (Zn)	2013/10/08	108	80 - 120	102	80 - 120	<5.0	ug/L	NC	20
7212381	Total Boron (B)	2013/10/08					<50	ug/L	NC	20
7212381	Total Silicon (Si)	2013/10/08					<100	ug/L	NC	20
7212381	Total Zirconium (Zr)	2013/10/08					<0.50	ug/L	NC	20
7212385	D10-ANTHRACENE (sur.)	2013/10/08	115	60 - 130	116	60 - 130	113	%		
7212385	D8-ACENAPHTHYLENE (sur.)	2013/10/08	115	50 - 130	114	50 - 130	115	%		
7212385	D8-NAPHTHALENE (sur.)	2013/10/08	116	50 - 130	113	50 - 130	115	%		
7212385	D9-Acridine	2013/10/08	92	50 - 130	92	50 - 130	86	%		
7212385	TERPHENYL-D14 (sur.)	2013/10/08	86	60 - 130	103	60 - 130	100	%		
7212385	Naphthalene	2013/10/08	95	40 - 130	85	50 - 130	<0.10	ug/L	NC	40
7212385	2-Methylnaphthalene	2013/10/08	101	40 - 130	90	50 - 130	<0.10	ug/L	NC	40
7212385	Quinoline	2013/10/08	93	40 - 130	83	50 - 130	<0.50	ug/L	NC	40
7212385	Acenaphthylene	2013/10/08	103	40 - 130	91	50 - 130	<0.050	ug/L	NC	40
7212385	Acenaphthene	2013/10/08	106	40 - 130	94	50 - 130	<0.050	ug/L	NC	40

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7212385	Fluorene	2013/10/08	104	40 - 130	91	50 - 130	<0.050	ug/L	NC	40
7212385	Phenanthrene	2013/10/08	100	40 - 130	91	60 - 130	<0.050	ug/L	NC	40
7212385	Anthracene	2013/10/08	107	40 - 130	96	60 - 130	<0.010	ug/L	NC	40
7212385	Acridine	2013/10/08	87	40 - 130	78	50 - 130	<0.050	ug/L	NC	40
7212385	Fluoranthene	2013/10/08	100	40 - 130	91	60 - 130	<0.020	ug/L	NC	40
7212385	Pyrene	2013/10/08	103	40 - 130	93	60 - 130	<0.020	ug/L	NC	40
7212385	Benzo(a)anthracene	2013/10/08	92	40 - 130	87	60 - 130	<0.010	ug/L	NC	40
7212385	Chrysene	2013/10/08	93	40 - 130	90	60 - 130	<0.050	ug/L	NC	40
7212385	Benzo(b&j)fluoranthene	2013/10/08	99	40 - 130	97	60 - 130	<0.050	ug/L	NC	40
7212385	Benzo(k)fluoranthene	2013/10/08	96	40 - 130	91	60 - 130	<0.050	ug/L	NC	40
7212385	Benzo(a)pyrene	2013/10/08	98	40 - 130	94	60 - 130	<0.0090	ug/L	NC	40
7212385	Indeno(1,2,3-cd)pyrene	2013/10/08	98	40 - 130	97	60 - 130	<0.050	ug/L	NC	40
7212385	Dibenz(a,h)anthracene	2013/10/08	94	40 - 130	93	60 - 130	<0.050	ug/L	NC	40
7212385	Benzo(g,h,i)perylene	2013/10/08	97	40 - 130	96	60 - 130	<0.050	ug/L	NC	40
7212390	O-TERPHENYL (sur.)	2013/10/07	103	50 - 130	101	50 - 130	101	%		
7212390	EPH (C10-C19)	2013/10/07	101	50 - 130	97	50 - 130	<0.20	mg/L	NC	30
7212390	EPH (C19-C32)	2013/10/07	89	50 - 130	86	50 - 130	<0.20	mg/L	NC	30
7212808	Strong Acid Dissoc. Cyanide (CN)	2013/10/07	104	N/A	106	N/A	<0.00050	mg/L	NC	20
7212894	True Colour	2013/10/07					<5.0	Col. Unit	NC	20
7213117	Total Aluminum (Al)	2013/10/08	101	80 - 120	91	80 - 120	<3.0	ug/L	NC	20
7213117	Total Antimony (Sb)	2013/10/08	102	80 - 120	89	80 - 120	<0.50	ug/L	NC	20
7213117	Total Arsenic (As)	2013/10/08	101	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
7213117	Total Barium (Ba)	2013/10/08	NC	80 - 120	86	80 - 120	<1.0	ug/L	3.4	20
7213117	Total Beryllium (Be)	2013/10/08	93	80 - 120	85	80 - 120	<0.10	ug/L	NC	20
7213117	Total Bismuth (Bi)	2013/10/08	95	80 - 120	88	80 - 120	<1.0	ug/L	NC	20
7213117	Total Cadmium (Cd)	2013/10/08	93	80 - 120	89	80 - 120	<0.010	ug/L	2.7	20
7213117	Total Chromium (Cr)	2013/10/08	99	80 - 120	92	80 - 120	<1.0	ug/L	NC	20
7213117	Total Cobalt (Co)	2013/10/08	98	80 - 120	89	80 - 120	<0.50	ug/L	NC	20
7213117	Total Copper (Cu)	2013/10/08	96	80 - 120	92	80 - 120	<0.20	ug/L	NC	20
7213117	Total Iron (Fe)	2013/10/08	122 (2)	80 - 120	117	80 - 120	<5.0	ug/L	NC	20
7213117	Total Lead (Pb)	2013/10/08	91	80 - 120	84	80 - 120	<0.20	ug/L	NC	20
7213117	Total Lithium (Li)	2013/10/08	90	80 - 120	89	80 - 120	<5.0	ug/L	NC	20
7213117	Total Manganese (Mn)	2013/10/08	100	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
7213117	Total Mercury (Hg)	2013/10/08	95	80 - 120	87	80 - 120	<0.050	ug/L	NC	20
7213117	Total Molybdenum (Mo)	2013/10/08	NC	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
7213117	Total Nickel (Ni)	2013/10/08	96	80 - 120	94	80 - 120	<1.0	ug/L	NC	20
7213117	Total Selenium (Se)	2013/10/08	95	80 - 120	96	80 - 120	<0.10	ug/L	20.6 (2)	20
7213117	Total Silver (Ag)	2013/10/08	83	80 - 120	88	80 - 120	0.034, RDL=0.020	ug/L	NC	20
7213117	Total Strontium (Sr)	2013/10/08	NC	80 - 120	87	80 - 120	<1.0	ug/L	1	20

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7213117	Total Thallium (Tl)	2013/10/08	104	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
7213117	Total Tin (Sn)	2013/10/08	95	80 - 120	86	80 - 120	<5.0	ug/L	NC	20
7213117	Total Titanium (Ti)	2013/10/08	112	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7213117	Total Uranium (U)	2013/10/08	90	80 - 120	83	80 - 120	<0.10	ug/L	0.9	20
7213117	Total Vanadium (V)	2013/10/08	96	80 - 120	91	80 - 120	<5.0	ug/L	NC	20
7213117	Total Zinc (Zn)	2013/10/08	NC	80 - 120	89	80 - 120	<5.0	ug/L	NC	20
7213117	Total Boron (B)	2013/10/08					<50	ug/L	NC	20
7213117	Total Silicon (Si)	2013/10/08					<100	ug/L	0.7	20
7213117	Total Zirconium (Zr)	2013/10/08					<0.50	ug/L	NC	20
7213377	Ammonia (N)	2013/10/07	109	80 - 120	95	80 - 120	<0.0050	mg/L	NC	20
7213391	Dissolved Chloride (Cl)	2013/10/07	NC	80 - 120	103	80 - 120	<0.50	mg/L	0.6	20
7213392	Dissolved Sulphate (SO4)	2013/10/07	NC	80 - 120	100	80 - 120	<0.50	mg/L	5.4	20
7214171	Total Aluminum (Al)	2013/10/09	NC	80 - 120	109	80 - 120	<3.0	ug/L	0.8	20
7214171	Total Antimony (Sb)	2013/10/09	116	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
7214171	Total Arsenic (As)	2013/10/09	108	80 - 120	96	80 - 120	<0.10	ug/L	2.2	20
7214171	Total Barium (Ba)	2013/10/09	NC	80 - 120	103	80 - 120	<1.0	ug/L	1.5	20
7214171	Total Beryllium (Be)	2013/10/09	100	80 - 120	91	80 - 120	<0.10	ug/L	NC	20
7214171	Total Bismuth (Bi)	2013/10/09	104	80 - 120	107	80 - 120	<1.0	ug/L	NC	20
7214171	Total Cadmium (Cd)	2013/10/09	106	80 - 120	91	80 - 120	<0.010	ug/L	2.0	20
7214171	Total Chromium (Cr)	2013/10/09	110	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
7214171	Total Cobalt (Co)	2013/10/09	108	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
7214171	Total Copper (Cu)	2013/10/09	108	80 - 120	99	80 - 120	<0.20	ug/L	0.1	20
7214171	Total Iron (Fe)	2013/10/09	NC	80 - 120	118	80 - 120	<5.0	ug/L	3.5	20
7214171	Total Lead (Pb)	2013/10/09	NC	80 - 120	101	80 - 120	<0.20	ug/L	1.6	20
7214171	Total Lithium (Li)	2013/10/09	103	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
7214171	Total Manganese (Mn)	2013/10/09	NC	80 - 120	100	80 - 120	1.8, RDL=1.0	ug/L	0.4	20
7214171	Total Mercury (Hg)	2013/10/09	109	80 - 120	94	80 - 120	<0.050	ug/L	NC	20
7214171	Total Molybdenum (Mo)	2013/10/09	NC	80 - 120	106	80 - 120	<1.0	ug/L	NC	20
7214171	Total Nickel (Ni)	2013/10/09	129 (2)	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
7214171	Total Selenium (Se)	2013/10/09	107	80 - 120	95	80 - 120	<0.10	ug/L	15.8	20
7214171	Total Silver (Ag)	2013/10/09	108	80 - 120	107	80 - 120	0.027, RDL=0.020	ug/L	NC	20
7214171	Total Strontium (Sr)	2013/10/09	NC	80 - 120	103	80 - 120	<1.0	ug/L	0.4	20
7214171	Total Thallium (Tl)	2013/10/09	115	80 - 120	109	80 - 120	<0.050	ug/L	NC	20
7214171	Total Tin (Sn)	2013/10/09	109	80 - 120	112	80 - 120	<5.0	ug/L	NC	20
7214171	Total Titanium (Ti)	2013/10/09	124 (2)	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
7214171	Total Uranium (U)	2013/10/09	115	80 - 120	107	80 - 120	<0.10	ug/L	0.7	20
7214171	Total Vanadium (V)	2013/10/09	109	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7214171	Total Zinc (Zn)	2013/10/09	NC	80 - 120	79 (2, 3)	80 - 120	<5.0	ug/L	0.3	20
7214171	Total Boron (B)	2013/10/09					<50	ug/L	NC	20

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7214171	Total Silicon (Si)	2013/10/09					<100	ug/L	0.8	20
7214171	Total Zirconium (Zr)	2013/10/09					<0.50	ug/L	NC	20
7214620	Alkalinity (Total as CaCO3)	2013/10/08	NC	80 - 120	98	80 - 120	<0.50	mg/L	NC	20
7214620	Alkalinity (PP as CaCO3)	2013/10/08					<0.50	mg/L	NC	20
7214620	Bicarbonate (HCO3)	2013/10/08					<0.50	mg/L	NC	20
7214620	Carbonate (CO3)	2013/10/08					<0.50	mg/L	NC	20
7214620	Hydroxide (OH)	2013/10/08					<0.50	mg/L	NC	20
7214628	Conductivity	2013/10/08			101	80 - 120	<1.0	uS/cm	0.2	20
7214690	Total Aluminum (Al)	2013/10/09	108	80 - 120	111	80 - 120	<3.0	ug/L	NC	20
7214690	Total Antimony (Sb)	2013/10/09	114	80 - 120	109	80 - 120	<0.50	ug/L	NC	20
7214690	Total Arsenic (As)	2013/10/09	105	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
7214690	Total Barium (Ba)	2013/10/09	NC	80 - 120	104	80 - 120	<1.0	ug/L	0.6	20
7214690	Total Beryllium (Be)	2013/10/09	109	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
7214690	Total Bismuth (Bi)	2013/10/09	109	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
7214690	Total Cadmium (Cd)	2013/10/09	102	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
7214690	Total Chromium (Cr)	2013/10/09	97	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
7214690	Total Cobalt (Co)	2013/10/09	102	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
7214690	Total Copper (Cu)	2013/10/09	104	80 - 120	107	80 - 120	<0.20	ug/L	0.8	20
7214690	Total Iron (Fe)	2013/10/09	NC	80 - 120	113	80 - 120	<5.0	ug/L	3.1	20
7214690	Total Lead (Pb)	2013/10/09	103	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
7214690	Total Lithium (Li)	2013/10/09	110	80 - 120	107	80 - 120	<5.0	ug/L	NC	20
7214690	Total Manganese (Mn)	2013/10/09	NC	80 - 120	103	80 - 120	<1.0	ug/L	1.7	20
7214690	Total Mercury (Hg)	2013/10/09	103	80 - 120	103	80 - 120	<0.050	ug/L		
7214690	Total Molybdenum (Mo)	2013/10/09	114	80 - 120	112	80 - 120	<1.0	ug/L	NC	20
7214690	Total Nickel (Ni)	2013/10/09	105	80 - 120	108	80 - 120	<1.0	ug/L	NC	20
7214690	Total Selenium (Se)	2013/10/09	104	80 - 120	109	80 - 120	<0.10	ug/L	NC	20
7214690	Total Silver (Ag)	2013/10/09	97	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
7214690	Total Strontium (Sr)	2013/10/09	NC	80 - 120	105	80 - 120	<1.0	ug/L	3.2	20
7214690	Total Thallium (Tl)	2013/10/09	106	80 - 120	104	80 - 120	<0.050	ug/L	NC	20
7214690	Total Tin (Sn)	2013/10/09	101	80 - 120	103	80 - 120	<5.0	ug/L	NC	20
7214690	Total Titanium (Ti)	2013/10/09	90	80 - 120	105	80 - 120	<5.0	ug/L	NC	20
7214690	Total Uranium (U)	2013/10/09	103	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
7214690	Total Vanadium (V)	2013/10/09	109	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
7214690	Total Zinc (Zn)	2013/10/09	87	80 - 120	108	80 - 120	<5.0	ug/L	NC	20
7214690	Total Boron (B)	2013/10/09					<50	ug/L	NC	20
7214690	Total Silicon (Si)	2013/10/09					<100	ug/L	2.0	20
7214690	Total Zirconium (Zr)	2013/10/09					<0.50	ug/L	NC	20
7215929	Nitrate plus Nitrite (N)	2013/10/08	104	80 - 120	108	80 - 120	<0.020	mg/L	NC	25
7215945	Strong Acid Dissoc. Cyanide (CN)	2013/10/08	97	N/A	102	N/A	0.00053, RDL=0.00050	mg/L	NC	20

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7215951	Nitrite (N)	2013/10/08	104	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
7218075	Strong Acid Dissoc. Cyanide (CN)	2013/10/09	101	N/A	103	N/A	0.00054, RDL=0.00050	mg/L	NC	20
7219392	Dissolved Cadmium (Cd)	2013/10/10			100	80 - 120	<0.010	ug/L		
7219392	Dissolved Lead (Pb)	2013/10/10			99	80 - 120	<0.20	ug/L		
7221937	Dissolved Aluminum (Al)	2013/10/11			105	80 - 120	<3.0	ug/L		
7221937	Dissolved Antimony (Sb)	2013/10/11			105	80 - 120	<0.50	ug/L		
7221937	Dissolved Barium (Ba)	2013/10/11			100	80 - 120	<1.0	ug/L		
7221937	Dissolved Beryllium (Be)	2013/10/11			99	80 - 120	<0.10	ug/L		
7221937	Dissolved Bismuth (Bi)	2013/10/11			99	80 - 120	<1.0	ug/L		
7221937	Dissolved Cadmium (Cd)	2013/10/11			100	80 - 120	<0.010	ug/L		
7221937	Dissolved Chromium (Cr)	2013/10/11			102	80 - 120	<1.0	ug/L		
7221937	Dissolved Cobalt (Co)	2013/10/11			101	80 - 120	<0.50	ug/L		
7221937	Dissolved Copper (Cu)	2013/10/11			101	80 - 120	<0.20	ug/L		
7221937	Dissolved Iron (Fe)	2013/10/11			109	80 - 120	<5.0	ug/L		
7221937	Dissolved Lead (Pb)	2013/10/11			99	80 - 120	<0.20	ug/L		
7221937	Dissolved Lithium (Li)	2013/10/11			95	80 - 120	<5.0	ug/L		
7221937	Dissolved Manganese (Mn)	2013/10/11			102	80 - 120	<1.0	ug/L		
7221937	Dissolved Mercury (Hg)	2013/10/11			96	80 - 120	<0.050	ug/L		
7221937	Dissolved Molybdenum (Mo)	2013/10/11			94	80 - 120	<1.0	ug/L		
7221937	Dissolved Nickel (Ni)	2013/10/11			103	80 - 120	<1.0	ug/L		
7221937	Dissolved Selenium (Se)	2013/10/11			102	80 - 120	<0.10	ug/L		
7221937	Dissolved Silver (Ag)	2013/10/11			102	80 - 120	<0.020	ug/L		
7221937	Dissolved Strontium (Sr)	2013/10/11			98	80 - 120	<1.0	ug/L		
7221937	Dissolved Thallium (Tl)	2013/10/11			102	80 - 120	<0.050	ug/L		
7221937	Dissolved Tin (Sn)	2013/10/11			97	80 - 120	<5.0	ug/L		
7221937	Dissolved Titanium (Ti)	2013/10/11			108	80 - 120	<5.0	ug/L		
7221937	Dissolved Uranium (U)	2013/10/11			96	80 - 120	<0.10	ug/L		
7221937	Dissolved Vanadium (V)	2013/10/11			99	80 - 120	<5.0	ug/L		
7221937	Dissolved Zinc (Zn)	2013/10/11			99	80 - 120	<5.0	ug/L		
7221937	Dissolved Boron (B)	2013/10/11					<50	ug/L		
7221937	Dissolved Silicon (Si)	2013/10/11					<100	ug/L		
7221937	Dissolved Zirconium (Zr)	2013/10/11					<0.50	ug/L		
7223200	Total Aluminum (Al)	2013/10/11	109	80 - 120	109	80 - 120	<3.0	ug/L	NC	20
7223200	Total Antimony (Sb)	2013/10/11	114	80 - 120	109	80 - 120	<0.50	ug/L	NC	20
7223200	Total Arsenic (As)	2013/10/11	111	80 - 120	102	80 - 120	<0.10	ug/L	13.4	20
7223200	Total Barium (Ba)	2013/10/11	NC	80 - 120	107	80 - 120	<1.0	ug/L	2.2	20
7223200	Total Beryllium (Be)	2013/10/11	101	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
7223200	Total Bismuth (Bi)	2013/10/11	112	80 - 120	108	80 - 120	<1.0	ug/L	NC	20
7223200	Total Cadmium (Cd)	2013/10/11	104	80 - 120	104	80 - 120	<0.010	ug/L	7.6	20

Maxxam Job #: B390313
Report Date: 2013/10/16

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Location: SPRING SEEPS - WATSON LAKE, YUKON
Your P.O. #: 8470
Sampler Initials: JC

QUALITY ASSURANCE REPORT

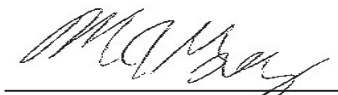
			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7223200	Total Chromium (Cr)	2013/10/11	105	80 - 120	105	80 - 120	<1.0	ug/L	NC	20
7223200	Total Cobalt (Co)	2013/10/11	102	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
7223200	Total Copper (Cu)	2013/10/11	103	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
7223200	Total Iron (Fe)	2013/10/11	NC	80 - 120	117	80 - 120	<5.0	ug/L	1.3	20
7223200	Total Lead (Pb)	2013/10/11	105	80 - 120	104	80 - 120	<0.20	ug/L	NC	20
7223200	Total Lithium (Li)	2013/10/11	100	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
7223200	Total Manganese (Mn)	2013/10/11	NC	80 - 120	104	80 - 120	<1.0	ug/L	1.7	20
7223200	Total Mercury (Hg)	2013/10/11	101	80 - 120	102	80 - 120	<0.050	ug/L	NC	20
7223200	Total Molybdenum (Mo)	2013/10/11	107	80 - 120	114	80 - 120	<1.0	ug/L	NC	20
7223200	Total Nickel (Ni)	2013/10/11	106	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
7223200	Total Selenium (Se)	2013/10/11	109	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
7223200	Total Silver (Ag)	2013/10/11	102	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
7223200	Total Strontium (Sr)	2013/10/11	NC	80 - 120	105	80 - 120	<1.0	ug/L	3.7	20
7223200	Total Thallium (Tl)	2013/10/11	109	80 - 120	105	80 - 120	<0.050	ug/L	NC	20
7223200	Total Tin (Sn)	2013/10/11	102	80 - 120	106	80 - 120	<5.0	ug/L	NC	20
7223200	Total Titanium (Ti)	2013/10/11	98	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
7223200	Total Uranium (U)	2013/10/11	102	80 - 120	97	80 - 120	<0.10	ug/L	0	20
7223200	Total Vanadium (V)	2013/10/11	105	80 - 120	107	80 - 120	<5.0	ug/L	NC	20
7223200	Total Zinc (Zn)	2013/10/11	NC	80 - 120	102	80 - 120	<5.0	ug/L	3.1	20
7223200	Total Boron (B)	2013/10/11					<50	ug/L	NC	20
7223200	Total Silicon (Si)	2013/10/11					<100	ug/L	0.8	20
7223200	Total Zirconium (Zr)	2013/10/11					<0.50	ug/L	NC	20
7228872	Dissolved Arsenic (As)	2013/10/16			101	80 - 120	<0.10	ug/L		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Sample arrived to laboratory past recommended hold time.
(2) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(3) - Blank Spike outside acceptance criteria (10% of analytes failure allowed).

Validation Signature Page

Maxxam Job #: B390313

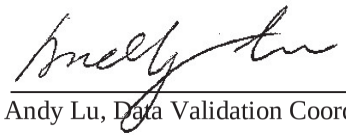
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Marriah Grey, Laboratory Supervisor, Ecotoxicology



David Huang, BBY Scientific Specialist



Andy Lu, Data Validation Coordinator

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam

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CHAIN OF CUSTODY RECORD

Maxxam Job #: B390313

Click here to get the COC number

COC #: EB850213

Page: 1 of 3

Invoice To: Require Report? Yes ☑ No ☐

Company Name: Teck Resources Ltd.
Contact Name: Michelle Unger, Environmental Scientist
Address:
PC:
Phone / Fax#: Ph: 250-427-8422 Fax: 250-427-8451
E-mail: michelle.unger@teck.com

Report To:

Company Name: SRK Consulting
Contact Name: Jay Cherian
Address:
PC:
Phone / Fax#: Ph: 867-334-4412 Fax:
E-mail: jcherian@srk.com

PO #:	Teck PO 8470
Quotation #:	B13-142-1-KP
Project # :	1CT008.040
Proj. Name:	Sa Dena Hes - Spring Seeps
Location:	Watson Lake, Yukon
Sampled by:	J Cherian / L MacDonald

REGULATORY REQUIREMENTS:

☐ CSR
☑ CCME
☐ BC Water Quality
☐ Other
☐ DRINKING WATER

SERVICE REQUESTED:

☑ Regular Turn Around Time (TAT) (5 days for most tests)
☐ RUSH (Please contact the lab) ☐ 1 Day ☐ 2 Day ☐ 3 Day
Date Required:

SPECIAL INSTRUCTIONS:
Return Cooler ☐ Ship Sample Bottles (please specify) ☑

ANALYSIS REQUESTED

Lab Use Only

	Sample Identification	Lab Identification	Sample Type	Date/Time(24hr) Sampled	BTEX/VPH ☐ MTBE ☐	VOC/VPH ☐	EPH ☑ TEH ☐	PAH ☑ LEPH/HEPH ☐	CCME-PHC (Fractions 1-4 Plus BTEX) ☐	CCME-PHC (Fractions 2-4) ☐	CCME-PHC (Fraction 1 Plus BTEX) ☐	Other ☐	Phenols by 4AAP ☐ Phenols by GCMS ☐	TOG ☐ MOG ☐ SMOG ☐	Dissolved Metals (DM)	Field Filtered? Y ☑ N	Total Metals	Field Acidified? Y ☑ N	Nitrate ☑ Nitrite ☑ Ammonia ☑	Chloride ☑ Fluoride ☐ Sulphate ☑	Total Suspended Solids (TSS) ☑ TDS ☑	pH ☑ Conductivity ☑ Alkalinity ☑	BOD ☐ COD ☐	Coliform: Total & E.coli ☐ Fecal ☐	Bromide ☑	Acidity	Cyanide - total	Colour	Bioassay - Trout 96 hr LC50	DOC (field filtered, field acidified)	HOLD ☐	Number of Containers	Samples are from a Drinking Water Source? YES ☐ NO ☑	Does source supply multiple hh? YES ☐ NO ☑
1	MH-01A	HR8539	Surface W	13/09/25 15:15											x	x	x	x	x	x	x	x					x	x				7		
2	MH-06A	HR8540	Surface W	13/09/25 17:30											x	x	x	x	x	x	x	x					x	x				7		
3	MH-12	HR8541	Surface W	13/09/24 16:45											x	x	x	x	x	x	x	x					x			x		8		
4	MH-02	HR8542	Surface W	13/09/24 16:45											x	x	x	x	x	x	x	x					x	x		x		8		
5	MH-22	HR8543	Seepage	13/09/24 12:30											x	x	x	x	x	x	x	x				x	x					7		
6	MH-25	HR8544	Seepage	13/09/24 11:15											x	x	x	x	x	x	x	x				x	x					7		
7	MH-08	HR8545	Surface W	13/09/24 13:00											x	x	x	x	x	x	x	x					x	x		x		8		
8	MH-08A	HR8546	Surface W	13/09/24 13:30											x	x	x	x	x	x	x	x					x			x		8		
9	MH-11	HR8547	Surface W	13/09/27 13:15			X	X								x	x	x	x	x	x	x			X		x	x		x		10		
10	MH-29	HR8548	Surface W	13/09/27 15:00											x	x	x	x	x	x	x	x					x			x		8		
11	CC-1	HR8549	Surface W	13/09/27 10:00											x	x	x	x	x	x	x	x			x		x			X		8		
12	1250 Portal	HR8550	Seepage	13/09/26 10:00			X	X							x	x		x	x	x	x	x			X	X						7		

B390313

Print name and sign

Print name and sign

Laboratory Use Only

*Relinquished By:	Date (yy/mm/dd):	Time (24 hr):	Received by:	Date (yy/mm/dd):	Time (24 hr):	Time Sensitive
J Cherian	13/09/30	22:30	Helen Zhen	2013/10/02	12 40	☐

Temperature on Receipt (°C): A) 4 B) 3 C) 3
Just sampled & rec'd on ice: ☐

Custody Seal: Present? Yes ☐ No ☑ NA
Intact? Yes ☐ No ☐ NA

*IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

4,3,3/2,3,3/1,1,1
1,1,2/2,3,2/3,1,2

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CHAIN OF CUSTODY RECORD

Maxxam Job #: B390313

Click here to get the COC number

COC #: 08379793

Page: 2 of 3

Invoice To: Require Report? Yes ☑ No ☐

Company Name: Teck Resources Ltd.
Contact Name: Michelle Unger, Environmental Scientist
Address:
PC:
Phone / Fax#: Ph: 250-427-8422 Fax: 250-427-8451
E-mail: michelle.unger@teck.com

Report To:

Company Name: SRK Consulting
Contact Name: Jay Cherian
Address:
PC:
Phone / Fax#: Ph: 867-334-4412 Fax:
E-mail: jcherian@srk.com

PO #:	Teck PO 8470
Quotation #:	B13-142-1-KP
Project # :	1CT006.040
Proj. Name:	Sa Dena Hes - Spring Seeps
Location:	Watson Lake, Yukon
Sampled by:	J Cherian / L MacDonald

REGULATORY REQUIREMENTS:

☐ CSR
☑ CCME
☐ BC Water Quality
☐ Other
☐ DRINKING WATER

SERVICE REQUESTED:

☑ Regular Turn Around Time (TAT)
(5 days for most tests)
☐ **RUSH** (Please contact the lab)
☐ 1 Day ☐ 2 Day ☐ 3 Day
Date Required:

SPECIAL INSTRUCTIONS:
Return Cooler ☐ Ship Sample Bottles (please specify) ☑

ANALYSIS REQUESTED

Lab Use Only

	Sample Identification	Lab Identification	Sample Type	Date/Time(24hr) Sampled	BTEX/VPH ☐	VOC/VPH ☐	EPH ☐	PAH ☐	CCME-PHC (Fractions 1-4 Plus BTEX) ☐	CCME-PHC (Fractions 2-4) ☐	CCME-PHC (Fraction 1 Plus BTEX) ☐	Other ☐	Phenols by 4AAP ☐	TOG ☐	Dissolved Metals (DM)	Field Filtered? Y ☐ N ☐	Field Acidified? Y ☐ N ☐	Total Metals	Field Acidified? Y ☐ N ☐	Nitrate ☐	Nitrite ☐	Ammonia ☐	Chloride ☐	Fluoride ☐	Sulphate ☐	Total Suspended Solids (TSS) ☐	pH ☐	Conductivity ☐	Alkalinity ☐	BOD ☐	COD ☐	Coliform: Total & E.coli ☐	Fecal ☐	Bromide ☐	Acidity	Cyanide - total	Colour	Bioassay - Trout 96 hr LC50	DOC (field filtered, field acidified)	HOLD ☐	Number of Containers	Samples are from a Drinking Water Source? YES ☐ NO ☐	Does source supply multiple households? YES ☐ NO ☐
1	PH-01	HR8601	Surface W	13/09/26 11:15			X	X							X	X	X	X	X	X	X	X	X	X	X	X	X					X	X	X	X		X		10		
2	MH-28	HR8602	Surface W	13/09/26 15:45			X	X							x	x	x	x	x	x	x	x													x			X		10		
3	MH-28A	HR8603	Surface W	13/09/26 16:15			X	X							x	x	x	x	x	x	x	x													x			x		10		
4	MH-04	HR8604	Surface W	13/09/26 13:30			X	X							x	x	x	x	x	x	x	x											X		x	x		x		10		
5	MH-30	HR8605	Surface W	13/09/29 16:15											x	x	x	x	x	x	x	x																X		7		
6	MH-13	HR8606	Surface W	13/09/29 11:30											x	x	x	x	x	x	x	x													X	X				8		
7	MH-14	HR8607	Surface W	13/09/29 13:00											x	x	x	x	x	x	x	x													X	X				8		
8	MH-15	HR8608	Surface W	13/09/29 15:30											x	x	x	x	x	x	x	x																X		7		
9	MH-16	HR8609	Surface W	13/09/29 14:15											x	x	x	x	x	x	x	x													X	X				8		
10	MH-27	HR8610	Surface W	13/09/28 12:30			X	X							x	x	x	x	x	x	x	x																		9		
11	MH-06A	HR8611	Surface W	13/09/30 16:10											X	X	X		X	X	X																X			5		
12	MH-28	HR8612	Surface W	13/09/30 15:20											X	X	X		X	X	X																			5		

B390313

Print name and sign

Print name and sign

Laboratory Use Only

*Relinquished By:	Date (yy/mm/dd):	Time (24 hr):	Received by :	Date (yy/mm/dd):	Time (24 hr):	Time Sensitive ☐	Temperature on Receipt (°C)	Custody Seal	Yes	No
J Cherian	13/09/30	22:30		2013/10/02	1240		A) 4 B) 3 C) 3	Present?	☐	☑
							Just sampled & rec'd on ice: ☐	Intact?	☐	☐ NA

*IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

4,3,3 / 2,3,3 / 1,1,1
1,1,2 / 2,3,2 / 3,1,2

Maxxam

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CHAIN OF CUSTODY RECORD

Maxxam Job #: B390313

Click here to get the COC number

COC #: 08379794

Page: 2 of 3

Invoice To: Require Report? Yes ☑ No ☐

Company Name: Teck Resources Ltd.
Contact Name: Michelle Unger, Environmental Scientist
Address:
PC:
Phone / Fax#: Ph: 250-427-8422 Fax: 250-427-8451
E-mail: michelle.unger@teck.com

Report To:

Company Name: SRK Consulting
Contact Name: Jay Cherian
Address:
PC:
Phone / Fax#: Ph: 867-334-4412 Fax:
E-mail: jcherian@srk.com

PO #:	Teck PO 8470
Quotation #:	B13-142-1-KP
Project #:	1CT008.040
Proj. Name:	Sa Dena Hes - Spring Seeps
Location:	Watson Lake, Yukon
Sampled by:	J Cherian / L MacDonald

REGULATORY REQUIREMENTS:

☐ CSR
☑ CCME
☐ BC Water Quality
☐ Other
☐ DRINKING WATER

SERVICE REQUESTED:

☑ Regular Turn Around Time (TAT) (5 days for most tests)
☐ **RUSH** (Please contact the lab) ☐ 1 Day ☐ 2 Day ☐ 3 Day
Date Required:

SPECIAL INSTRUCTIONS:
Return Cooler ☐ Ship Sample Bottles (please specify) ☑

ANALYSIS REQUESTED

Lab Use Only

	Sample Identification	Lab Identification	Sample Type	Date/Time(24hr) Sampled	BTEX/VPH ☐ MTBE ☐	VOC/VPH ☐	EPH ☑ TEH ☐	PAH ☑ LEPH/HEPH ☐	CCME-PHC (Fractions 1-4 Plus BTEX) ☐	CCME-PHC (Fractions 2-4) ☐	CCME-PHC (Fraction 1 Plus BTEX) ☐	Other ☐	Phenols by 4AAP ☐ Phenols by GCMS ☐	TOG ☐ MOG ☐ SMOG ☐	Dissolved Metals (DM) Field Filtered? Y ☑ N	Total Metals Field Acidified? Y ☑ N	Field Acidified? Y ☑ N	Nitrate ☑ Ammonia ☑	Chloride ☑ Fluoride ☐ Sulphate ☑	Total Suspended Solids (TSS) ☑ TDS ☑	pH ☑ Conductivity ☑ Alkalinity ☑	BOD ☐ COD ☐	Coliform: Total & E.coli ☐ Fecal ☐	Bromide ☑	Acidity	Cyanide - total	Colour	Bioassay - Trout 96 hr LC50	DOC (field filtered, field acidified)	HOLD ☐	Number of Containers	Samples are from a Drinking Water Source? YES ☐ NO ☑	Does source supply multiple households? YES ☐ NO ☑
1	MH-01A	HR8628	Surface W	13/09/30 14:30											X	X	X		X	X	X										5		
2	MH-28A	HR8629	Surface W	13/09/30 15:30											X	X	X		X	X	X										5		
3	MH-04	HR8630	Surface W	13/09/30 12:00											X	X	X		X	X	X			X							5		
4	MH-28	HR8631	Surface W	13/09/30 15:20											X	X	X		X	X	X										5		
5	MH-07	HR8632	Surface W	13/09/28 14:15											X	X	X	X	X	X	X					X	X				7		
6	MW13-13	HR8633	Ground W	13/09/28 15:20											X	X	X	X	X	X	X			X	X						5		
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

B390313

Print name and sign | Print name and sign | Laboratory Use Only

*Relinquished By:	Date (yy/mm/dd):	Time (24 hr):	Received by:	Date (yy/mm/dd):	Time (24 hr):	Time Sensitive	Temperature on Receipt (°C)	Custody Seal	Yes	No
J Cherian	13/09/30	22:30	Helen Zhen	2013/10/02	12:40	☐	A) 4 B) 3 C) 3	Present?	☐	☑
							Just sampled & rec'd on ice: ☐	Intact?	☐	☐ NA

*IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

4,3,3/2,3,3/1,1,1
1,1,2/2,3,2/3,1,2

Maxxam Analytics Inc

Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5 Ph: (604) 734-7276 Fax: (604) 731-2386, Toll Free: (800) 665-8566

CHAIN OF CUSTODY RECORD

Maxxam Job #: B390313 **COC #:** Click here to get the COC number EB850213 Page: 4 of 3

Invoice To: Require Report? Yes ☑ No ☐

Company Name:	Teck Resources Ltd.
Contact Name:	Michelle Unger, Environmental Scientist
Address:	
PC:	
Phone / Fax#:	Ph: 250-427-8422 Fax: 250-427-8451
E-mail	michelle.unger@teck.com

Report To:

Company Name:	SRK Consulting
Contact Name:	Jay Cherian
Address:	
PC:	
Phone / Fax#:	Ph: 867-334-4412 Fax:
E-mail	jcherian@srk.com

PO #:	Teck PO 8470
Quotation #:	B13-142-1-KP
Project # :	1CT008.040
Proj. Name:	Sa Dena Hes - Spring Seeps
Location:	Watson Lake, Yukon
Sampled by:	J Cherian / L MacDonald

REGULATORY REQUIREMENTS:
- ☐ CSR
- ☑ CCME
- ☐ BC Water Quality
- ☐ Other
- ☐ DRINKING WATER

SERVICE REQUESTED:
- ☑ Regular Turn Around Time (TAT) (5 days for most tests)
- ☐ RUSH (Please contact the lab) ☐ 1 Day ☐ 2 Day ☐ 3 Day

Date Required:

SPECIAL INSTRUCTIONS:
Return Cooler ☐ Ship Sample Bottles (please specify) ☑

ANALYSIS REQUESTED

	Sample Identification	Lab Identification (Lab Use Only)	Sample Type	Date/Time(24hr) Sampled
1	MH-02 HR8634	~~HR8342~~ HR8634	Surface W	13/09/28 11:00
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

	BTEX/VPH ☐	VOC/VPH ☐	EPH ☑	PAH ☑	CCME-PHC (Fractions 1-4 Plus BTEX) ☐	CCME-PHC (Fractions 2-4) ☐	CCME-PHC (Fraction 1 Plus BTEX) ☐	Other ☐	Phenols by 4AAP ☐	TOG ☐	Dissolved Metals (DM)	Total Metals	Nitrate ☑	Chloride ☑	pH ☑	BOD ☐	Coliform: Total & E.coli ☐	Bromide ☑	Acidity	Cyanide - total	Colour	Bioassay - Trout 96 hr LC50	DOC (field filtered, field acidified)	HOLD ☐	Number of Containers
	MTBE ☐		TEH ☐	LEPH/HEPH ☐					Phenols by GCMS ☐	SMOG ☐	Field Filtered? Y ☐ N ☑	Field Acidified? Y ☐ N ☑	Field Acidified? Y ☐ N ☑	Ammonia ☑	Sulphate ☑	TDS ☑	Alkalinity ☑	COD ☐	Fecal ☐							
1											X	X	X	X	X	X	X				X	X				7
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Samples are from a Drinking Water Source? NO ☑ YES ☐

Does source supply multiple households? NO ☑ YES ☐



Print name and sign

*Relinquished By:	Date (yy/mm/dd):	Time (24 hr):
J Cherian	13/09/30	22:30

Print name and sign

Received by :	Date (yy/mm/dd):	Time (24 hr):

Time Sensitive ☐

Laboratory Use Only

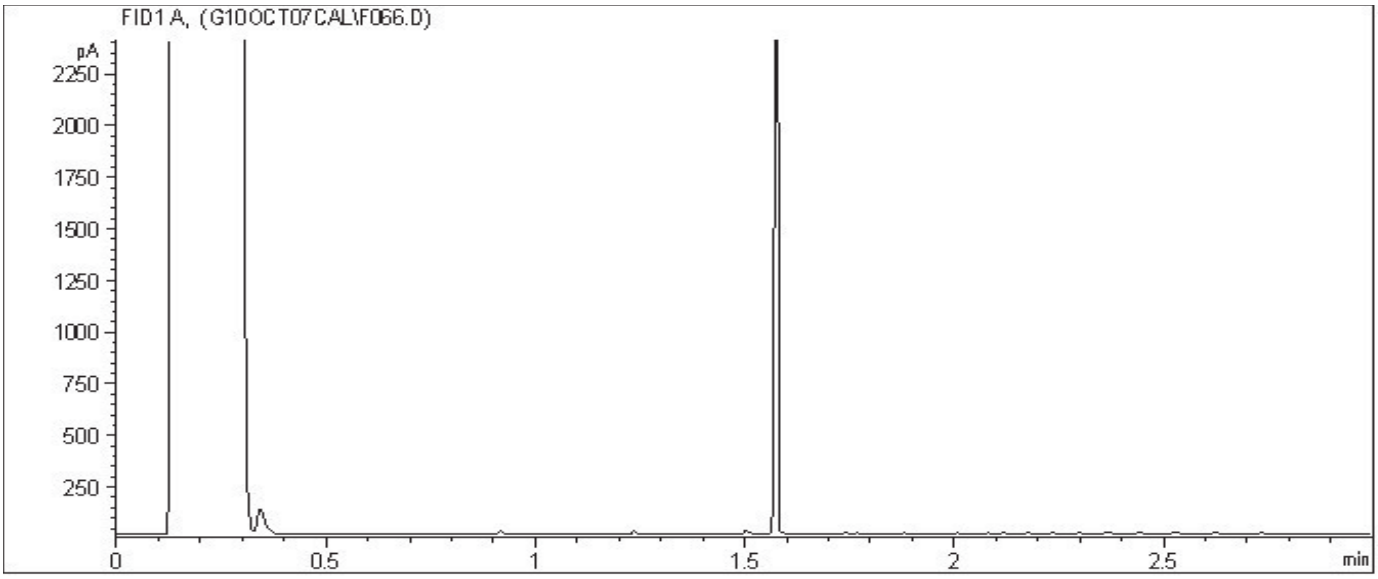
Temperature on Receipt (°C)	Custody Seal	Yes	No
A) B) C)	Present?	☐	☐
Just sampled & rec'd on ice: ☐	Intact?	☐	☐

*IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORDS. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

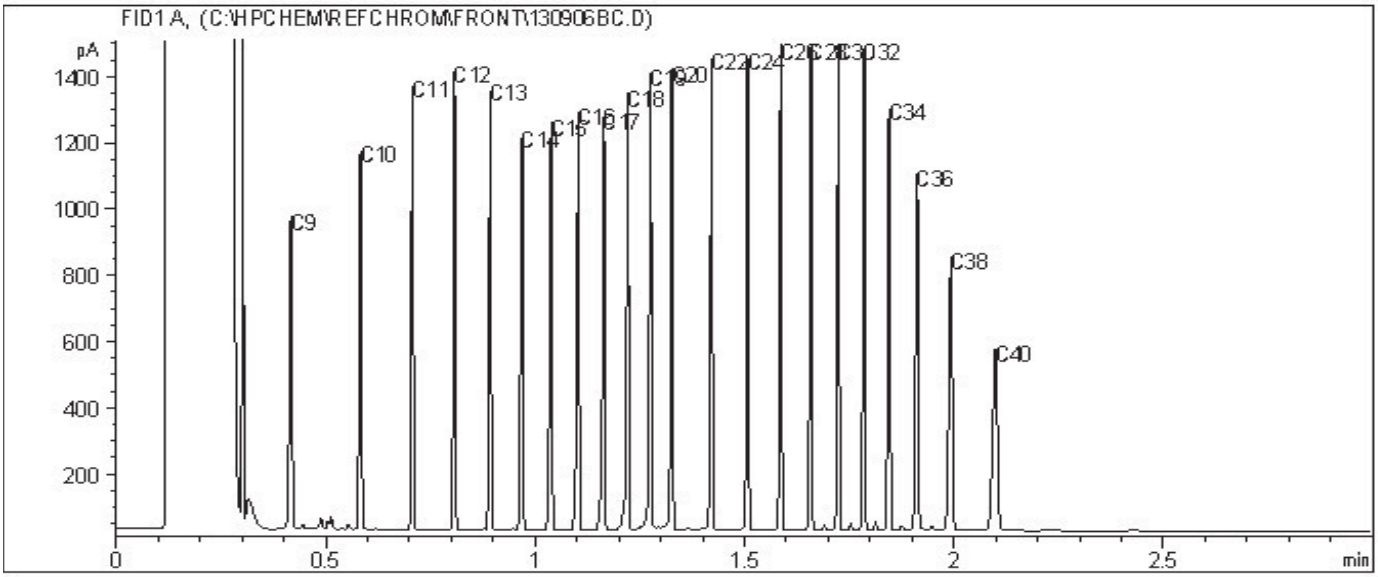
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8547

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: MH-11

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

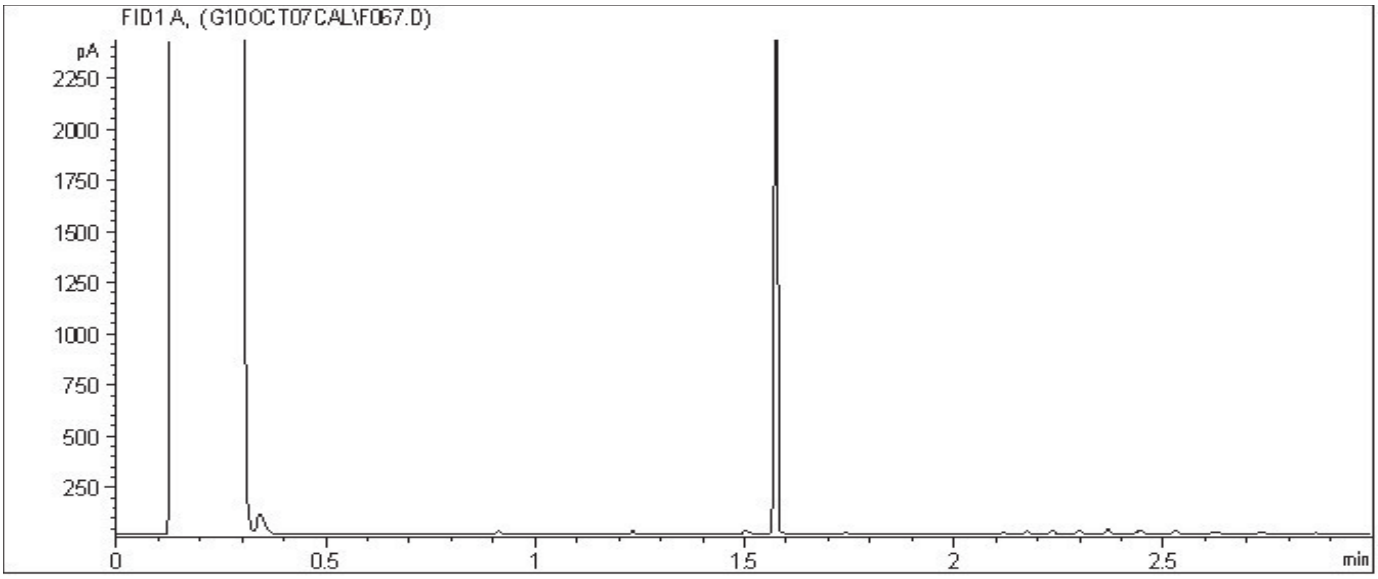
Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

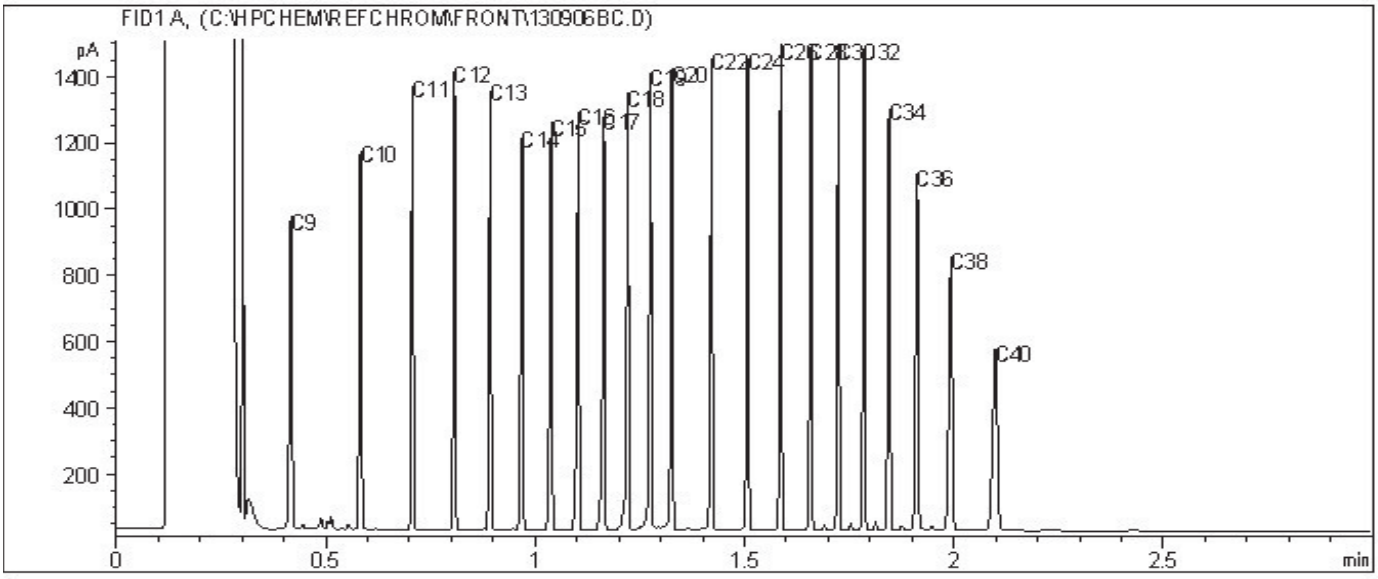
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8550

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: 1250 PORTAL

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

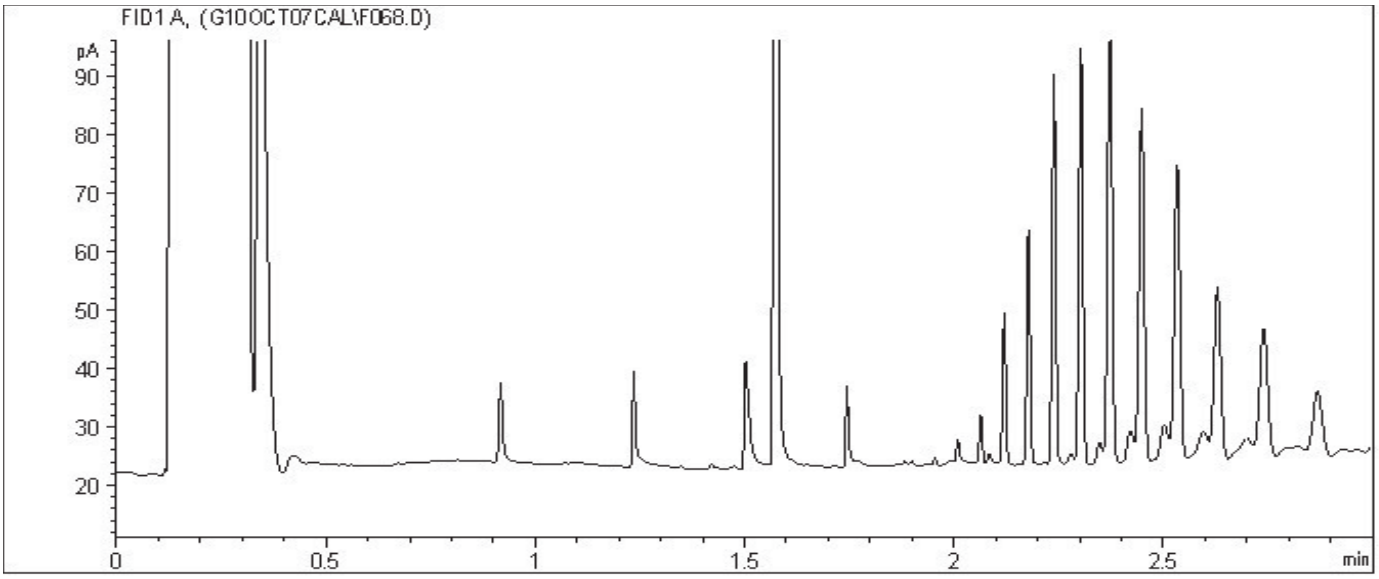
Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

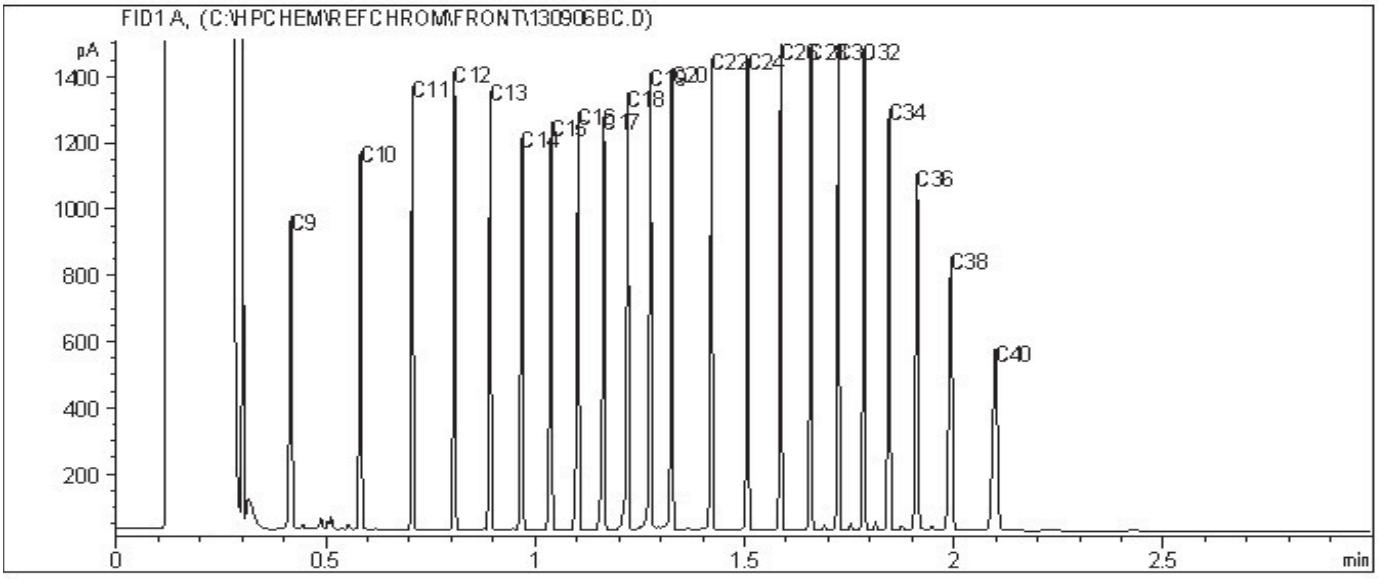
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8601

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: PH-01

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

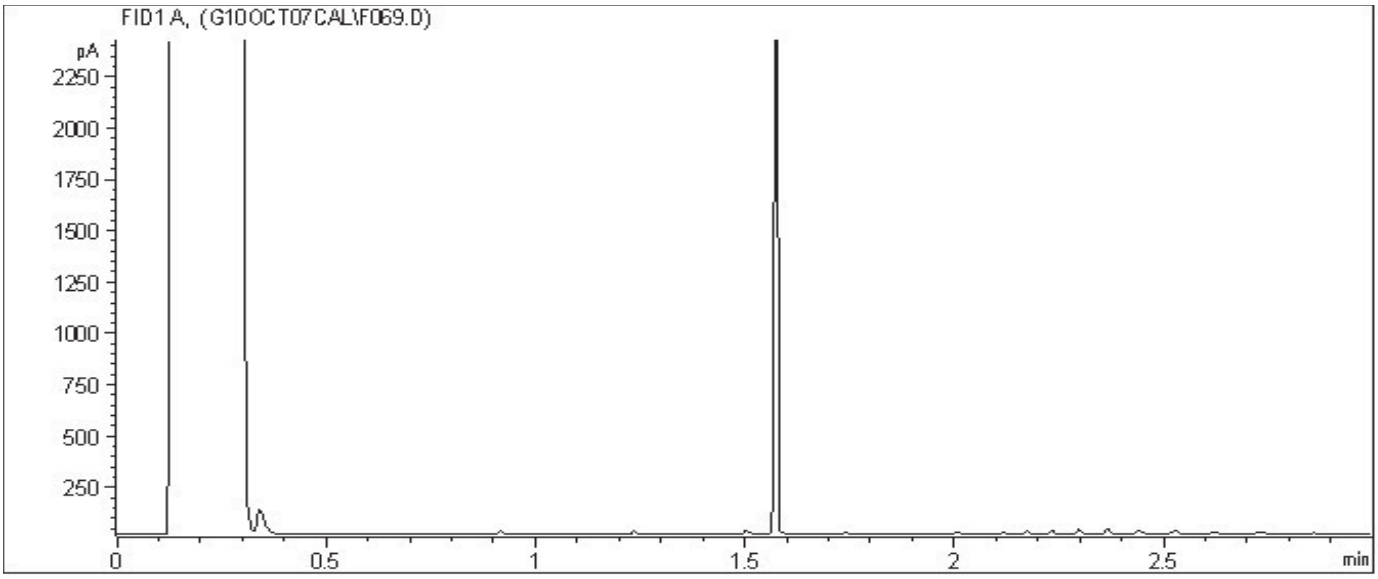
Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

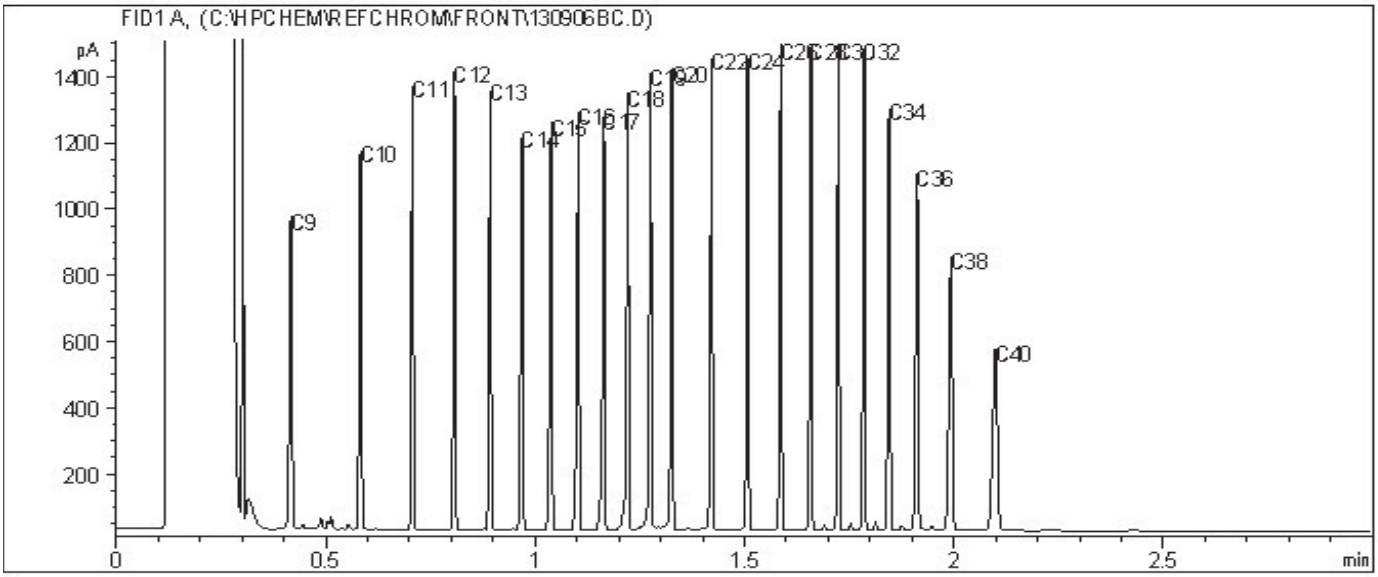
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8602

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: MH-28

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

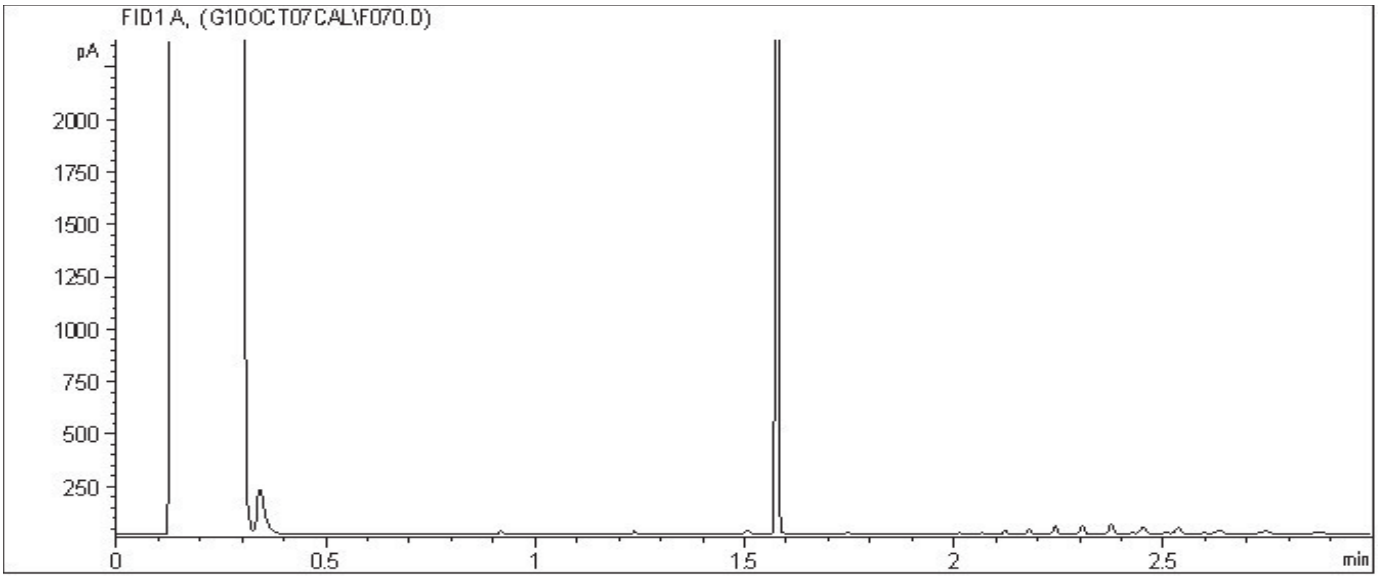
Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

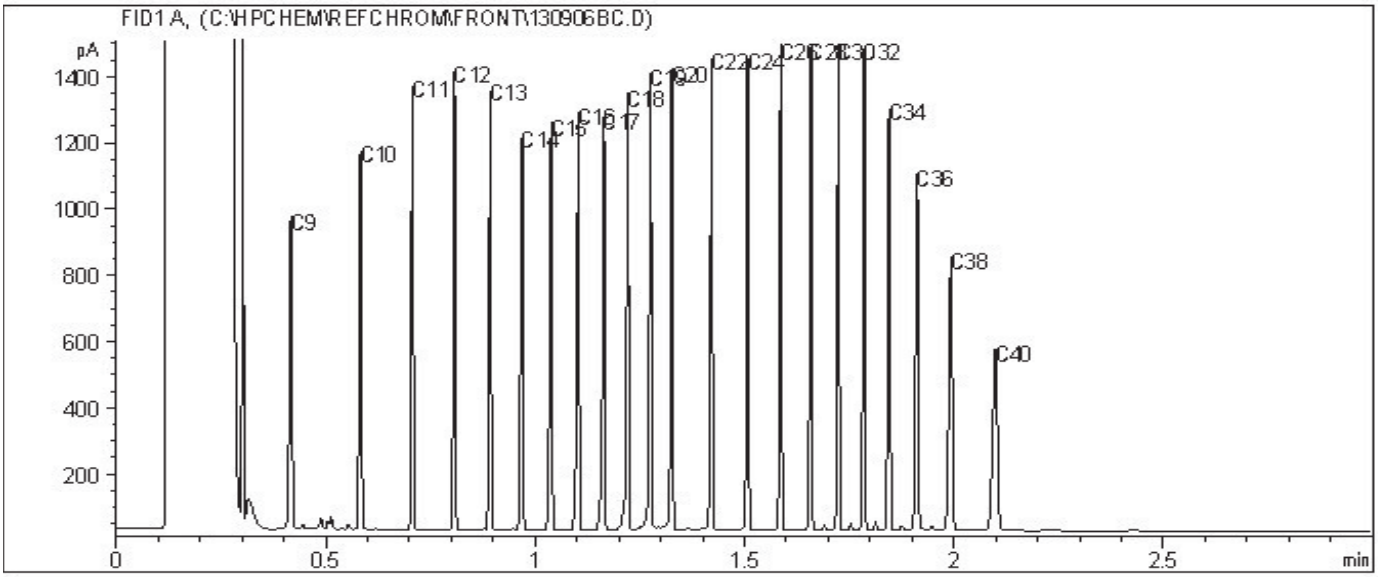
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8602 Lab-Dup

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: MH-28

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

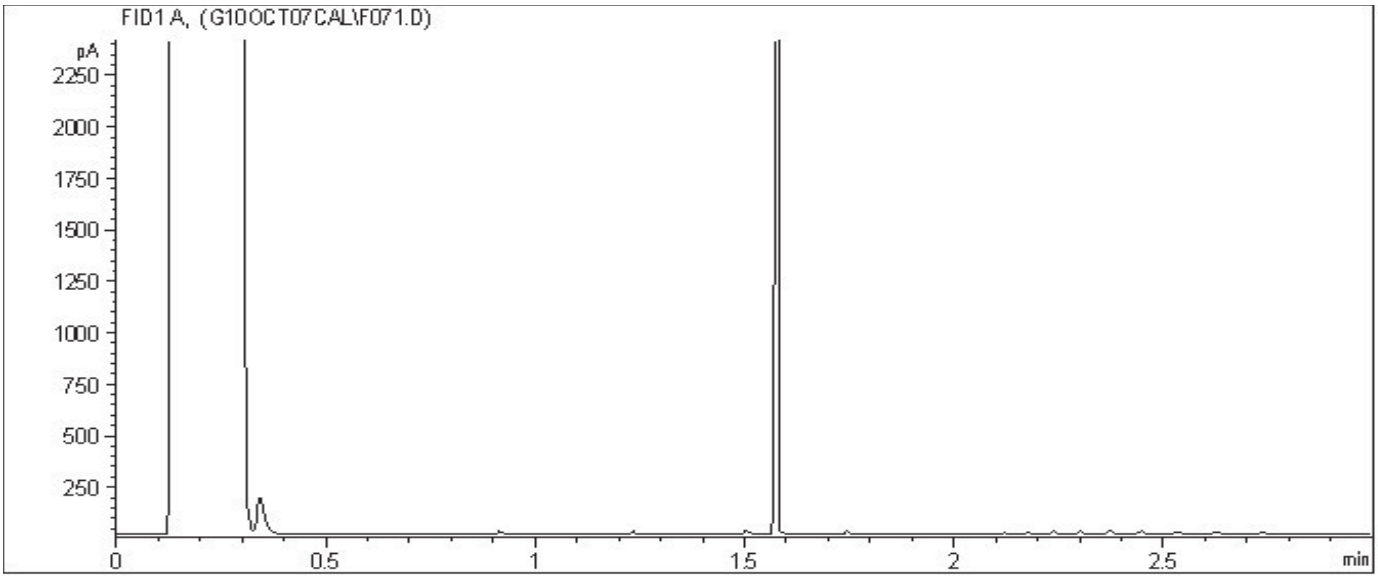
Gasoline:	C4	- C12	Diesel:	C8	- C22
Varsol:	C8	- C12	Lubricating Oils:	C20	- C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

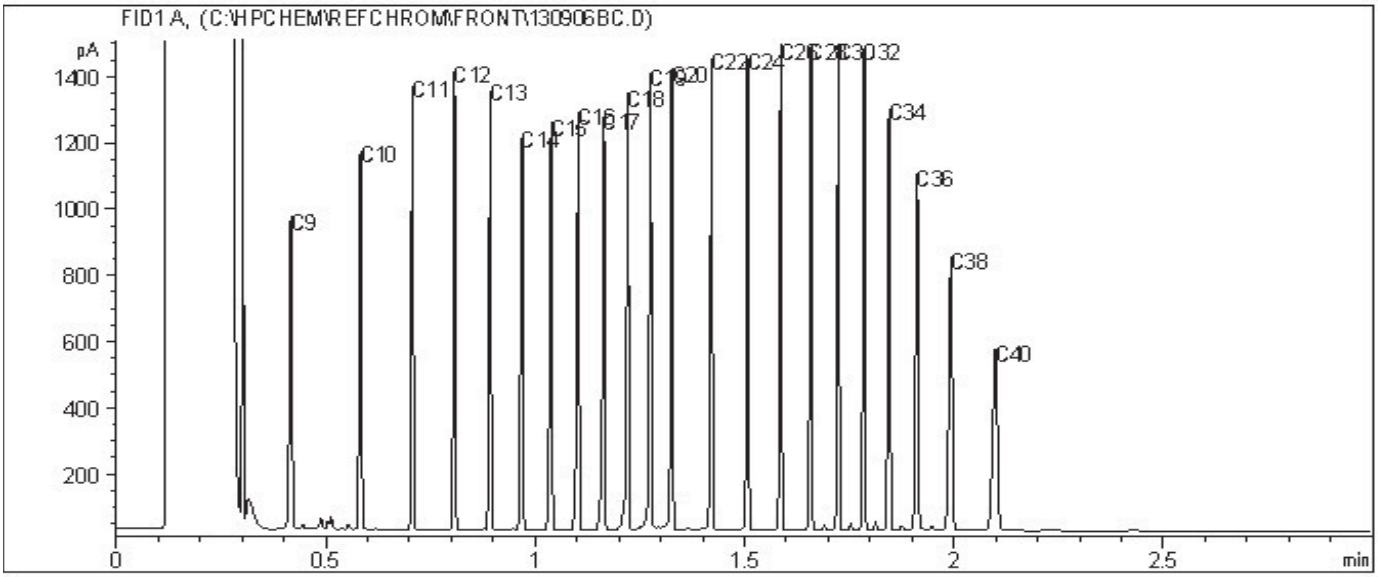
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8603

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: MH-28A

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

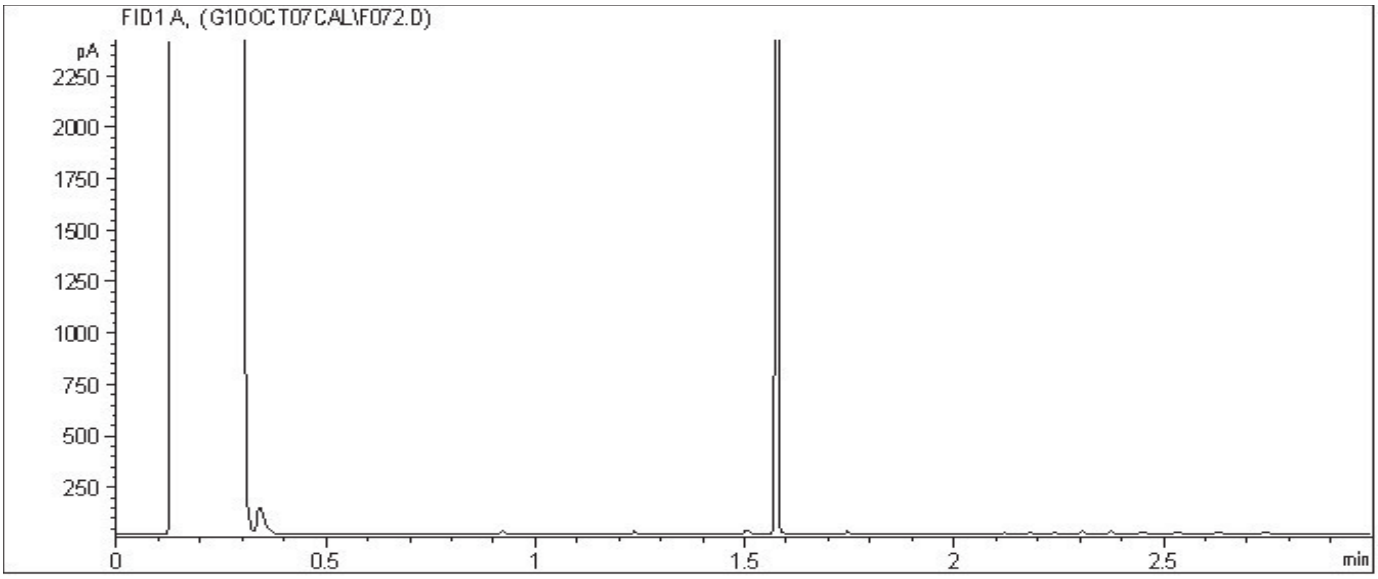
Gasoline:	C4	- C12	Diesel:	C8	- C22
Varsol:	C8	- C12	Lubricating Oils:	C20	- C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

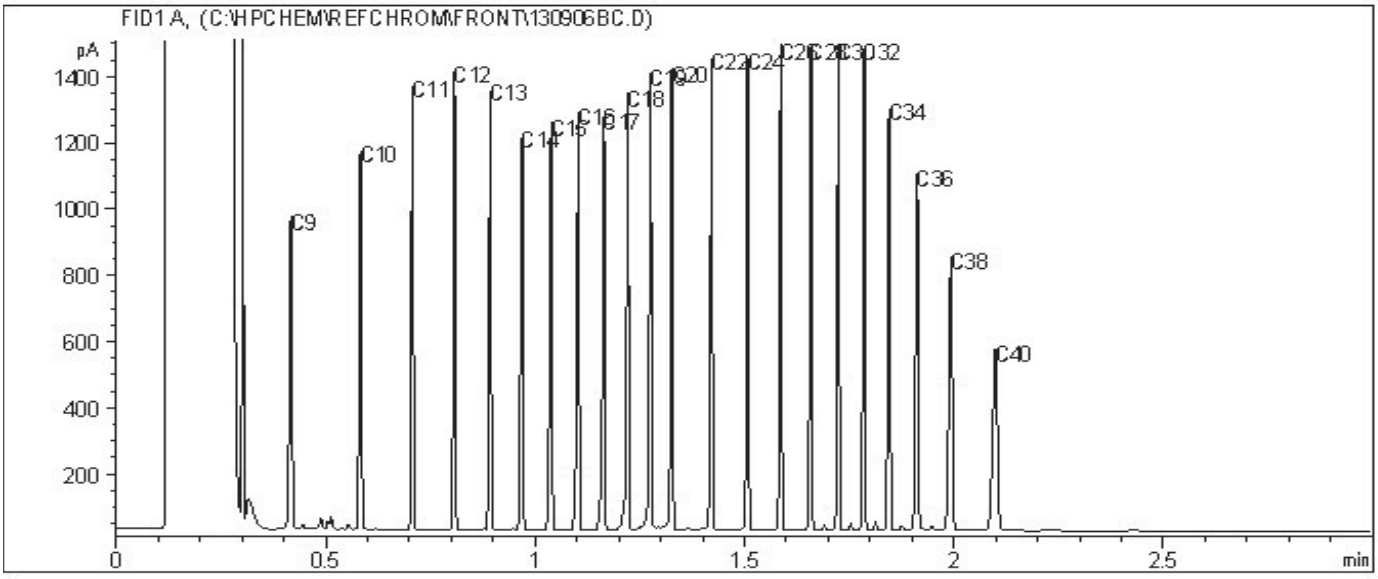
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8604

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: MH-04

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

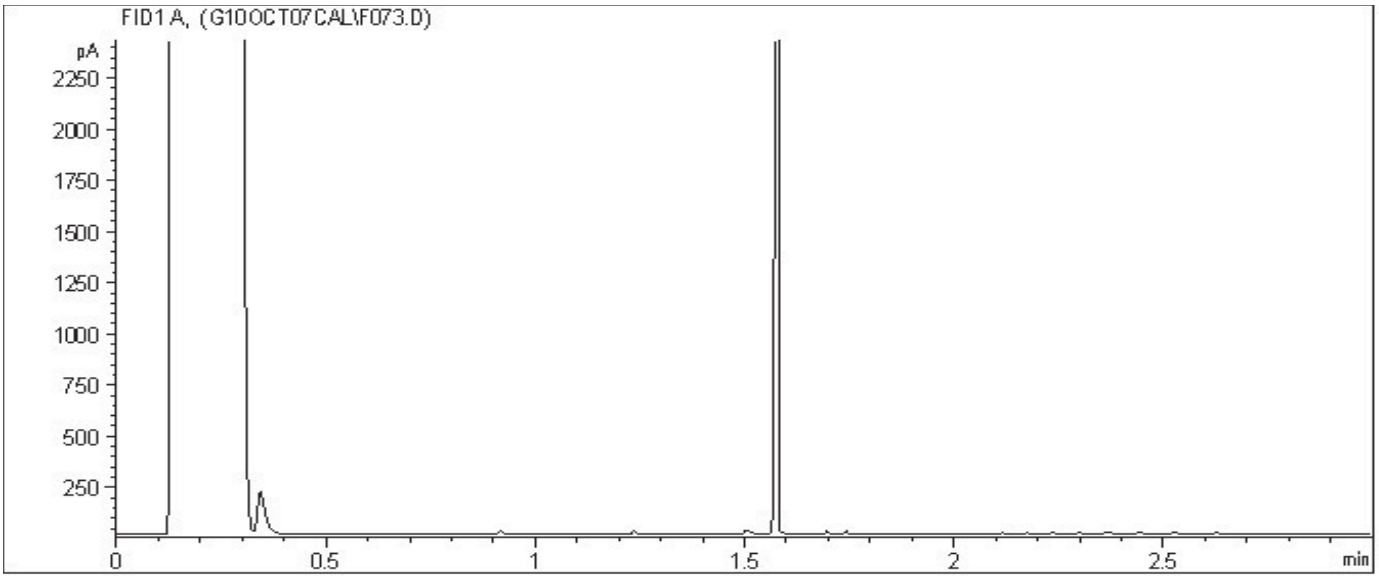
Gasoline:	C4 - C12	Diesel:	C8 - C22
Varsol:	C8 - C12	Lubricating Oils:	C20 - C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

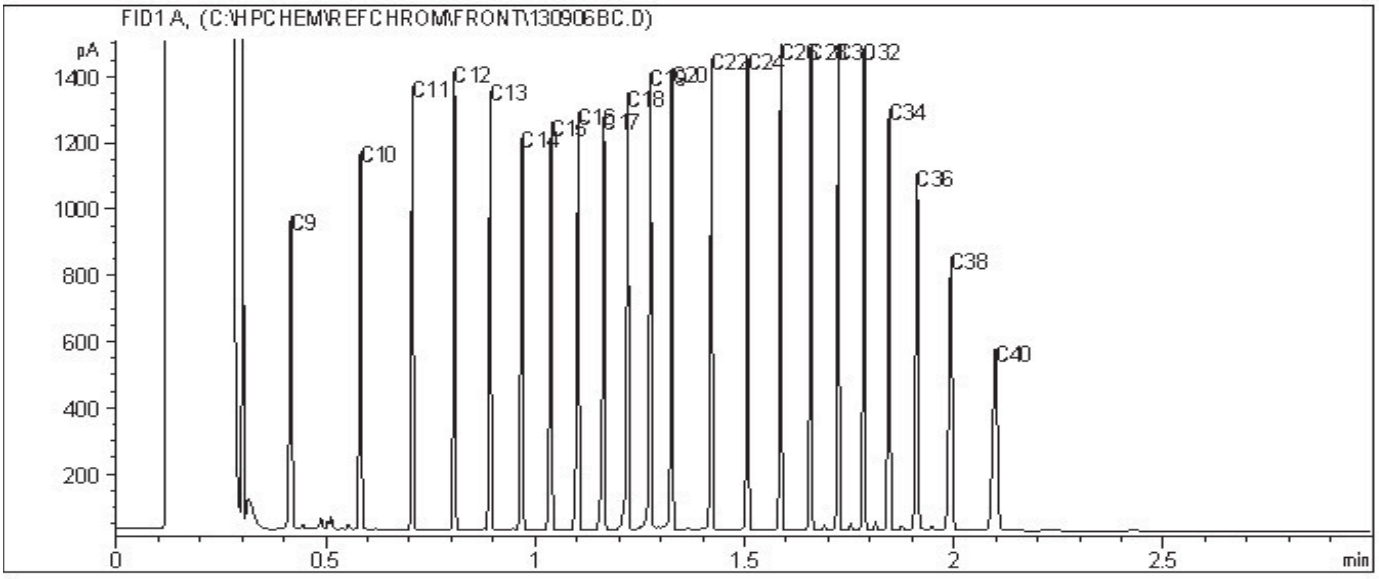
Report Date: 2013/10/16
Maxxam Job #: B390313
Maxxam Sample: HR8610

SRK CONSULTING
Client Project #: 1CT008.040 SA DENA HES
Site Reference: SPRING SEEPS - WATSON LAKE, YUI
Client ID: MH-27

Extrac. Pet HC when LEPH/HEPH required Chromatogram



Carbon Range Distribution - Reference Chromatogram



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline:	C4	- C12	Diesel:	C8	- C22
Varsol:	C8	- C12	Lubricating Oils:	C20	- C40

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.