ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

ANALYTICAL REPORT

PARKS CANADA

ATTN: TERN BARTOLOVIC

PO BOX 2579

JASPER AB T0E 1E0

Reported On: 04-JUN-08 10:36 AM
Revision: 1

Lab Work Order #: L630710 **Date Received:** 17-MAY-08

Project P.O. #:
Job Reference:
Legal Site Desc:
CofC Numbers: C013037

Other Information:

Comments:

CHARLES LEBLANC
General Manager, Edmonton

For any questions about this report please contact your Account Manager:

JESSICA SPIRA

ALS Canada Ltd. (formerly ETL Chemspec Analytical Ltd.)
Part of the ALS Laboratory Group
9936-67 Avenue, Edmonton, AB T6E 0P5
Phone: +1 780 413 5227 Fax: +1 780 437 2311 www.alsglobal.com
A Campbell Brothers Limited Company

ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L630710-1 SULPHER CREEK (POTABLE SUPPLY) 4L Sampled By: NOT PROVIDED on 16-MAY-08 @ 11:15 Matrix: WATER								
Particle Size Analysis	See attached					03-JUN-08		

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
PSA-CO	Water	Particle Size Distribution		Performed at Core Labs

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

C013037

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
CO	Core Laboratories Canada Ltd. - Calgary, Alberta, Canada		

GLOSSARY OF REPORT TERMS
Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.
The reported surrogate recovery value provides a measure of method efficiency. The Laboratory control limits are determined under column heading D.L.
mg/kg (units) - unit of concentration based on mass, parts per million.
mg/L (units) - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.
Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.

COULTER® LS Particle Size Analyzer

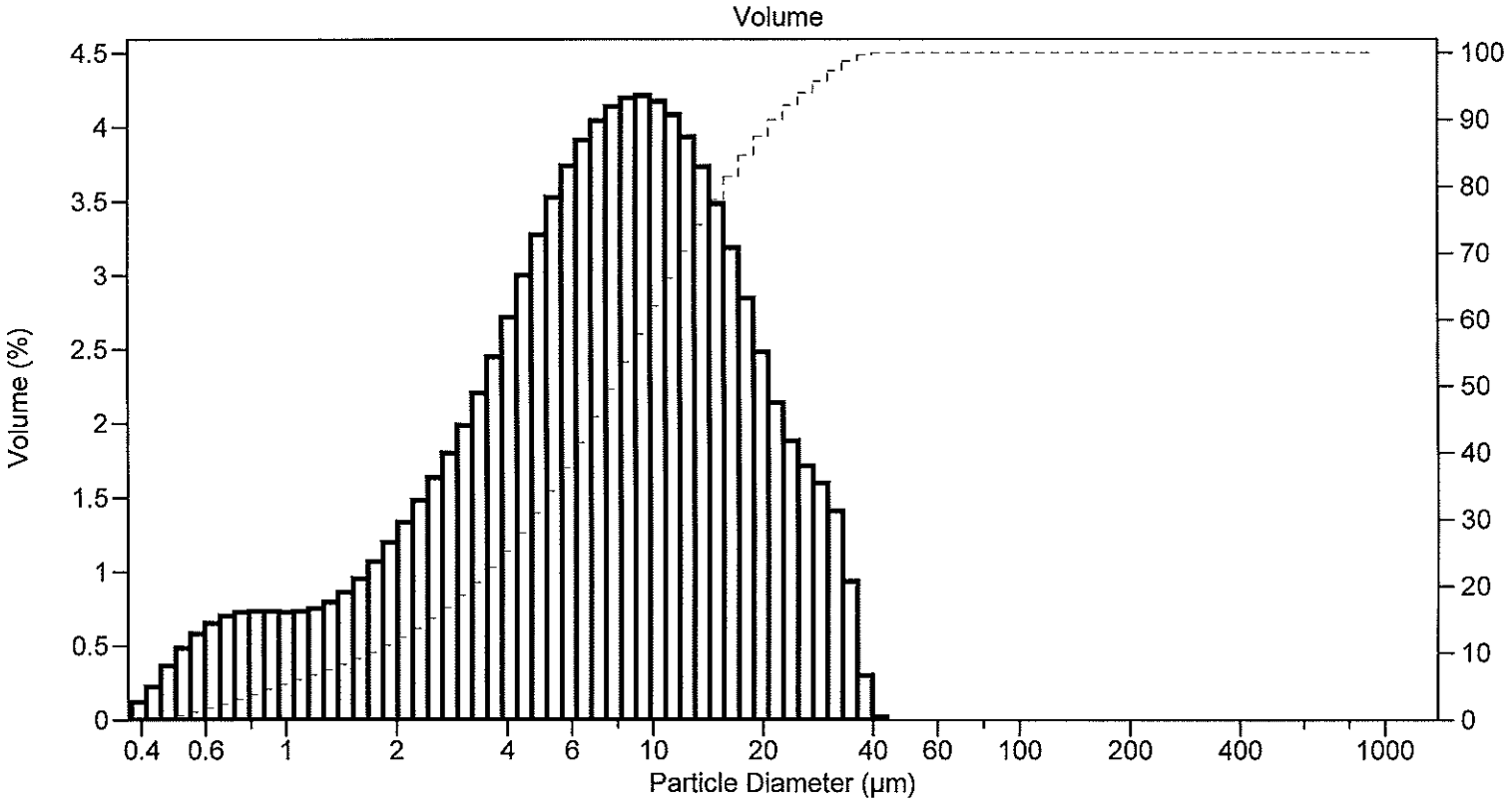
1 457 16-May-08 ALS Laboratory Group L630710-1

3 Jun 2008

CORE LABORATORIES CANADA LTD.

File name: 52135-08-3050C- 19
Sample ID: ALS Laboratory Group
Run number: 1
Optical model: Fraunhofer.rfz
LS 100Q Fluid Module

Group ID: ALS Laboratory Group
Operator: GR



Volume Statistics (Arithmetic) 52135-08-3050C- 19

Calculations from 0.375 µm to 948.3 µm

Volume:	100%		
Mean:	9.585 µm	S.D.:	7.732 µm
Median:	7.503 µm	Skewness:	1.255 Right skewed
Mode:	9.370 µm	Kurtosis:	1.262 Leptokurtic

% >	10	25	50	75	90
µm	20.70	13.24	7.503	3.818	1.645

52135-08-3050C- 19

5
10
16
25
40
50
75
84
90
95
100

52135-08-3050C- 19

Channel Number	Channel Diameter (Lower) µm	Channel Diameter (Center) µm	Channel Diameter (Upper) µm	Diff. Volume %	Cum. < Volume %	Channel Number	Channel Diameter (Lower) µm	Channel Diameter (Center) µm	Channel Diameter (Upper) µm	Diff. Volume %	Cum. < Volume %
1	0.375	0.393	0.412	0.12	0	76	409.6	429.2	449.7	0	100
2	0.412	0.431	0.452	0.22	0.12	77	449.7	471.1	493.6	0	100
3	0.452	0.474	0.496	0.37	0.34	78	493.6	517.2	541.9	0	100
4	0.496	0.520	0.545	0.49	0.71	79	541.9	567.7	594.8	0	100
5	0.545	0.571	0.598	0.58	1.19	80	594.8	623.3	653.0	0	100
6	0.598	0.627	0.656	0.65	1.78	81	653.0	684.2	716.8	0	100
7	0.656	0.688	0.721	0.70	2.43	82	716.8	751.1	786.9	0	100
8	0.721	0.755	0.791	0.73	3.13	83	786.9	824.5	863.9	0	100
9	0.791	0.829	0.868	0.74	3.86	84	863.9	905.1	948.3	0	100
10	0.868	0.910	0.953	0.73	4.59		948.3				100
11	0.953	0.999	1.047	0.73	5.33						
12	1.047	1.097	1.149	0.73	6.06						
13	1.149	1.204	1.261	0.75	6.79						
14	1.261	1.321	1.384	0.79	7.54						
15	1.384	1.451	1.520	0.86	8.34						
16	1.520	1.592	1.668	0.95	9.20						
17	1.668	1.748	1.832	1.07	10.2						
18	1.832	1.919	2.011	1.20	11.2						
19	2.011	2.107	2.207	1.34	12.4						
20	2.207	2.313	2.423	1.48	13.8						
21	2.423	2.539	2.660	1.64	15.2						
22	2.660	2.787	2.920	1.80	16.9						
23	2.920	3.059	3.205	1.99	18.7						
24	3.205	3.358	3.519	2.20	20.7						
25	3.519	3.687	3.863	2.45	22.9						
26	3.863	4.047	4.240	2.72	25.3						
27	4.240	4.443	4.655	3.00	28.0						
28	4.655	4.877	5.110	3.28	31.0						
29	5.110	5.354	5.610	3.53	34.3						
30	5.610	5.878	6.158	3.74	37.8						
31	6.158	6.452	6.760	3.91	41.6						
32	6.760	7.083	7.421	4.04	45.5						
33	7.421	7.775	8.147	4.14	49.5						
34	8.147	8.536	8.943	4.20	53.7						
35	8.943	9.370	9.818	4.21	57.9						
36	9.818	10.29	10.78	4.17	62.1						
37	10.78	11.29	11.83	4.08	66.3						
38	11.83	12.40	12.99	3.93	70.3						
39	12.99	13.61	14.26	3.73	74.3						
40	14.26	14.94	15.65	3.48	78.0						
41	15.65	16.40	17.18	3.19	81.5						
42	17.18	18.00	18.86	2.85	84.7						
43	18.86	19.76	20.71	2.48	87.5						
44	20.71	21.69	22.73	2.14	90.0						
45	22.73	23.81	24.95	1.88	92.1						
46	24.95	26.14	27.39	1.71	94.0						
47	27.39	28.70	30.07	1.60	95.7						
48	30.07	31.50	33.01	1.41	97.3						
49	33.01	34.58	36.24	0.93	98.7						
50	36.24	37.97	39.78	0.30	99.7						
51	39.78	41.68	43.67	0.021	99.98						
52	43.67	45.75	47.94	0	100						
53	47.94	50.22	52.62	0	100						
54	52.62	55.13	57.77	0	100						
55	57.77	60.52	63.41	0	100						
56	63.41	66.44	69.61	0	100						
57	69.61	72.94	76.42	0	100						
58	76.42	80.07	83.89	0	100						
59	83.89	87.90	92.09	0	100						
60	92.09	96.49	101.1	0	100						
61	101.1	105.9	111.0	0	100						
62	111.0	116.3	121.8	0	100						
63	121.8	127.6	133.7	0	100						
64	133.7	140.1	146.8	0	100						
65	146.8	153.8	161.2	0	100						
66	161.2	168.9	176.9	0	100						
67	176.9	185.4	194.2	0	100						
68	194.2	203.5	213.2	0	100						
69	213.2	223.4	234.0	0	100						
70	234.0	245.2	256.9	0	100						
71	256.9	269.2	282.1	0	100						
72	282.1	295.5	309.6	0	100						
73	309.6	324.4	339.9	0	100						
74	339.9	356.1	373.1	0	100						
75	373.1	390.9	409.6	0	100						

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CHAIN OF CUSTODY / ANALYTICAL REQUEST FORM

CANADA TOLL FREE 1-800-668-9878

www.alsenviro.com

COC # C013037

Page 1 of 1

REPORT TO: Tern Bartolovic	REPORT FORMAT / DISTRIBUTION	SERVICE REQUESTED
COMPANY: Miette Hotsprings	STANDARD X OTHER	X REGULAR SERVICE (DEFAULT)
CONTACT:	PDF EXCEL CUSTOM FAX	RUSH SERVICE (2-3 DAYS)
ADDRESS: Box 2579	EMAIL 1: tern.bartolovic@pc.gc.ca	PRIORITY SERVICE (1 DAY or ASAP)
Jasper AB T0E 1E0	EMAIL 2:	EMERGENCY SERVICE (<1 DAY / WEEKEND) - CONTACT ALS
PHONE: 780-866-3939 FAX: 780-866-2112		ANALYSIS REQUEST
INVOICE TO: SAME AS REPORT ? (YES) NO	INDICATE BOTTLES: FILTERED / PRESERVED (F/P) → → →	
COMPANY:	CLIENT / PROJECT INFORMATION:	
CONTACT:	JOB #:	
ADDRESS:	PO /AFE:	
	Legal Site Description:	
PHONE: FAX:	QUOTE #: 11042	
Lab Work Order # (lab use only): L630710		SAMPLER (Initials):

Sample #	SAMPLE IDENTIFICATION (This description will appear on the report)	DATE	TIME	SAMPLE TYPE	Partical Size	HAZARDOUS ?	HIGHLY CONTAMINATED ?	NUMBER OF CONTAINERS
01	Sulpher Creek (potable supply) 4L	16-May-08	11:15am	Water	✓			1

GUIDELINES / REGULATIONS	SPECIAL INSTRUCTIONS / HAZARDOUS DETAILS

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY*.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the reverse page of the white report copy.

RELINQUISHED BY:	DATE & TIME:	RECEIVED BY:	DATE & TIME:	SAMPLE CONDITION (lab use only)	
			17-May-08	TEMPERATURE: 17°C	SAMPLES RECEIVED IN GOOD CONDITION? YES / NO (If no provide details): 1x cooler
RELINQUISHED BY:	DATE & TIME:	RECEIVED BY:	DATE & TIME: 10:00		

REFER TO BACK PAGE FOR REGIONAL LOCATIONS AND SAMPLING INFORMATION

WHITE - REPORT COPY, PINK - FILE COPY, YELLOW - CLIENT COPY

GENF14.00