ENERGY LABORATORIES
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ANALYTICAL SUMMARY REPORT

June 07, 2013

Nelson Engineering Inc
430 S Cache
Jackson, WY 83001

Workorder No.: C13051132

Project Name: Melody Ranch ISD

Energy Laboratories, Inc. Casper WY received the following 2 samples for Nelson Engineering Inc on 5/31/2013 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C13051132-001	Melody Ranch ISD	05/30/13 12:42	05/31/13	Drinking Water	Haloacetic Acids E524.2 SDWA THMs
C13051132-002	Trip Blank 7389	05/30/13 0:00	05/31/13	Aqueous	E524.2 SDWA THMs

The results as reported relate only to the item(s) submitted for testing. The analyses presented in this report were performed at Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Radiochemistry analyses were performed at Energy Laboratories, Inc., 2325 Kerzell Lane, Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these test results, please call.

Report Approved By:

Kathryn Hamre
Report Proofing Specialist

Digitally signed by
Kathy Hamre
Date: 2013.06.07 12:35:00 -06:00

CLIENT: Nelson Engineering Inc
Project: Melody Ranch ISD
Sample Delivery Group: C13051132

Report Date: 06/07/13

CASE NARRATIVE

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Nelson Engineering Inc
Project: Melody Ranch ISD
Lab ID: C13051132-001
Client Sample ID Melody Ranch ISD

Report Date: 06/07/13
Collection Date: 05/30/13 12:42
DateReceived: 05/31/13
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS - TRIHALOMETHANES							
Bromodichloromethane	ND	ug/L		0.50		E524.2	06/04/13 14:44 / jlk
Bromoform	ND	ug/L		0.50		E524.2	06/04/13 14:44 / jlk
Chlorodibromomethane	ND	ug/L		0.50		E524.2	06/04/13 14:44 / jlk
Chloroform	ND	ug/L		0.50		E524.2	06/04/13 14:44 / jlk
Trihalomethanes, Total	ND	ug/L		0.50	80	E524.2	06/04/13 14:44 / jlk
Surr: Dibromofluoromethane	113	%REC		70-130		E524.2	06/04/13 14:44 / jlk
Surr: p-Bromofluorobenzene	89.0	%REC		70-130		E524.2	06/04/13 14:44 / jlk
Surr: Toluene-d8	97.0	%REC		70-130		E524.2	06/04/13 14:44 / jlk
HALOACETIC ACIDS							
Dibromoacetic acid	0.48	ug/L		0.25		E552.2	06/05/13 14:03 / eli-b
Dichloroacetic acid	ND	ug/L		0.75		E552.2	06/05/13 14:03 / eli-b
Monobromoacetic acid	ND	ug/L		0.50		E552.2	06/05/13 14:03 / eli-b
Monochloroacetic acid	ND	ug/L		0.75		E552.2	06/05/13 14:03 / eli-b
Trichloroacetic acid	ND	ug/L		0.50		E552.2	06/05/13 14:03 / eli-b
Bromochloroacetic acid	ND	ug/L		0.50		E552.2	06/05/13 14:03 / eli-b
Total Regulated Haloacetic Acids	0.48	ug/L		0.25	60	E552.2	06/05/13 14:03 / eli-b
Surr: 2,3-Dibromopropionic acid	119	%REC		70-130		E552.2	06/05/13 14:03 / eli-b

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Nelson Engineering Inc
Project: Melody Ranch ISD
Lab ID: C13051132-002
Client Sample ID Trip Blank 7389

Report Date: 06/07/13
Collection Date: 05/30/13
DateReceived: 05/31/13
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS - TRIHALOMETHANES							
Bromodichloromethane	ND	ug/L		0.50		E524.2	06/04/13 14:08 / jlk
Bromoform	ND	ug/L		0.50		E524.2	06/04/13 14:08 / jlk
Chlorodibromomethane	ND	ug/L		0.50		E524.2	06/04/13 14:08 / jlk
Chloroform	ND	ug/L		0.50		E524.2	06/04/13 14:08 / jlk
Trihalomethanes, Total	ND	ug/L		0.50	80	E524.2	06/04/13 14:08 / jlk
Surr: Dibromofluoromethane	114	%REC		70-130		E524.2	06/04/13 14:08 / jlk
Surr: p-Bromofluorobenzene	90.0	%REC		70-130		E524.2	06/04/13 14:08 / jlk
Surr: Toluene-d8	87.0	%REC		70-130		E524.2	06/04/13 14:08 / jlk

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Nelson Engineering Inc
Project: Melody Ranch ISD

Report Date: 06/07/13
Work Order: C13051132

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E524.2									Batch: R174392	
Sample ID: 060413_LCS_4	8	Laboratory Control Sample				Run: SATURNCA_130604B			06/04/13 12:18	
Bromodichloromethane		9.32	ug/L	0.50	93	70	130			
Bromoform		9.44	ug/L	0.50	94	70	130			
Chlorodibromomethane		8.80	ug/L	0.50	88	70	130			
Chloroform		11.0	ug/L	0.50	110	70	130			
Trihalomethanes, Total		38.5	ug/L	0.50	96	70	130			
Surr: Dibromofluoromethane				0.50	98	70	130			
Surr: p-Bromofluorobenzene				0.50	88	70	130			
Surr: Toluene-d8				0.50	91	70	130			
Sample ID: 060413_MBLK_6	8	Method Blank				Run: SATURNCA_130604B			06/04/13 13:31	
Bromodichloromethane		ND	ug/L	0.50						
Bromoform		ND	ug/L	0.50						
Chlorodibromomethane		ND	ug/L	0.50						
Chloroform		ND	ug/L	0.50						
Trihalomethanes, Total		ND	ug/L	0.50						
Surr: Dibromofluoromethane				0.50	112	70	130			
Surr: p-Bromofluorobenzene				0.50	96	70	130			
Surr: Toluene-d8				0.50	90	70	130			
Sample ID: C13051132-001AMS	8	Sample Matrix Spike				Run: SATURNCA_130604B			06/04/13 19:35	
Bromodichloromethane		78.0	ug/L	5.0	78	70	130			
Bromoform		59.6	ug/L	5.0	60	70	130			S
Chlorodibromomethane		74.0	ug/L	5.0	74	70	130			
Chloroform		106	ug/L	5.0	106	70	130			
Trihalomethanes, Total		318	ug/L	5.0	80	70	130			
Surr: Dibromofluoromethane				0.50	106	70	130			
Surr: p-Bromofluorobenzene				0.50	88	70	130			
Surr: Toluene-d8				0.50	95	70	130			
Sample ID: C13051132-001AMSD	8	Sample Matrix Spike Duplicate				Run: SATURNCA_130604B			06/04/13 20:11	
Bromodichloromethane		87.2	ug/L	5.0	87	70	130	11	20	
Bromoform		76.0	ug/L	5.0	76	70	130	24	20	R
Chlorodibromomethane		78.4	ug/L	5.0	78	70	130	5.8	20	
Chloroform		114	ug/L	5.0	114	70	130	6.5	20	
Trihalomethanes, Total		355	ug/L	5.0	89	70	130	11	20	
Surr: Dibromofluoromethane				0.50	105	70	130			
Surr: p-Bromofluorobenzene				0.50	86	70	130			
Surr: Toluene-d8				0.50	89	70	130			

Qualifiers:

RL - Analyte reporting limit.
R - RPD exceeds advisory limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Nelson Engineering Inc
Project: Melody Ranch ISD

Report Date: 06/07/13
Work Order: C13051132

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E552.2									Analytical Run: B_71772	
Sample ID: CK5-71772	8	Continuing Calibration Verification Standard							06/05/13 14:32	
Dibromoacetic acid		3.30	ug/L	0.25	83	70	130			
Dichloroacetic acid		10.4	ug/L	0.75	87	70	130			
Monobromoacetic acid		6.64	ug/L	0.50	83	70	130			
Monochloroacetic acid		10.7	ug/L	0.75	89	70	130			
Trichloroacetic acid		3.68	ug/L	0.50	92	70	130			
Bromochloroacetic acid		7.16	ug/L	0.50	90	70	130			
Total Regulated Haloacetic Acids		34.7	ug/L	0.25		0	0			
Surr: 2,3-Dibromopropionic acid				1.2	92	70	130			
Method: E552.2									Batch: B_71772	
Sample ID: MB-71772	8	Method Blank				Run: SUB-B205909			06/04/13 16:12	
Dibromoacetic acid		ND	ug/L	0.25						
Dichloroacetic acid		ND	ug/L	0.75						
Monobromoacetic acid		ND	ug/L	0.50						
Monochloroacetic acid		ND	ug/L	0.75						
Trichloroacetic acid		ND	ug/L	0.50						
Bromochloroacetic acid		ND	ug/L	0.50						
Total Regulated Haloacetic Acids		ND	ug/L	0.25						
Surr: 2,3-Dibromopropionic acid				1.2	113	70	130			
Sample ID: LCS-71772	7	Laboratory Control Sample				Run: SUB-B205909			06/04/13 16:40	
Dibromoacetic acid		3.50	ug/L	0.25	88	70	130			
Dichloroacetic acid		12.1	ug/L	0.75	101	70	130			
Monobromoacetic acid		7.39	ug/L	0.50	92	70	130			
Monochloroacetic acid		11.7	ug/L	0.75	98	70	130			
Trichloroacetic acid		4.32	ug/L	0.50	108	70	130			
Bromochloroacetic acid		7.85	ug/L	0.50	98	70	130			
Surr: 2,3-Dibromopropionic acid				1.2	108	70	130			
Sample ID: B13052527-001AMS	5	Sample Matrix Spike				Run: SUB-B205909			06/04/13 18:06	
Dibromoacetic acid		4.35	ug/L	0.25	109	70	130			
Monobromoacetic acid		8.22	ug/L	0.50	103	70	130			
Monochloroacetic acid		13.2	ug/L	0.75	98	70	130			
Bromochloroacetic acid		10.7	ug/L	0.50	109	70	130			
Surr: 2,3-Dibromopropionic acid				1.2	125	70	130			
Sample ID: B13052533-007CDUP	5	Sample Duplicate				Run: SUB-B205909			06/04/13 22:31	
Dibromoacetic acid		ND	ug/L	0.25					40	
Monobromoacetic acid		ND	ug/L	0.50					40	
Bromochloroacetic acid		1.99	ug/L	0.50				4.6	40	
Total Regulated Haloacetic Acids		31.7	ug/L	0.50				0.8	40	
Surr: 2,3-Dibromopropionic acid				1.2	132	70	130			S
Sample ID: CK3-71772	8	Continuing Calibration Verification Standard				Run: SUB-B205909			06/05/13 10:42	
Dibromoacetic acid		0.959	ug/L	0.25	96	70	130			
Dichloroacetic acid		2.89	ug/L	0.75	96	70	130			

Qualifiers:

RL - Analyte reporting limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Nelson Engineering Inc
Project: Melody Ranch ISD

Report Date: 06/07/13
Work Order: C13051132

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E552.2										Batch: B_71772
Sample ID: CK3-71772	8	Continuing Calibration Verification Standard				Run: SUB-B205909				06/05/13 10:42
Monobromoacetic acid		1.88	ug/L	0.50	94	70	130			
Monochloroacetic acid		2.98	ug/L	0.75	99	70	130			
Trichloroacetic acid		0.972	ug/L	0.50	97	70	130			
Bromochloroacetic acid		1.92	ug/L	0.50	96	70	130			
Total Regulated Haloacetic Acids		9.68	ug/L	0.25		0	0			
Surr: 2,3-Dibromopropionic acid				1.2	111	70	130			
Sample ID: B13052527-001AMS		Sample Matrix Spike				Run: SUB-B205909				06/05/13 11:39
Trichloroacetic acid		20.2	ug/L	2.0	143	70	130			S
Sample ID: B13052533-007CDUP		Sample Duplicate				Run: SUB-B205909				06/05/13 13:06
Trichloroacetic acid		16.2	ug/L	2.0				0.5	40	
Sample ID: B13052527-001AMS		Sample Matrix Spike				Run: SUB-B205910				06/04/13 18:06
Dichloroacetic acid		24.4	ug/L	0.75	96	70	130			
Sample ID: B13052533-007CDUP	2	Sample Duplicate				Run: SUB-B205910				06/04/13 22:31
Dichloroacetic acid		13.7	ug/L	0.75				3.7	40	
Monochloroacetic acid		1.84	ug/L	0.75				31	40	

Qualifiers:

RL - Analyte reporting limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

Nelson Engineering Inc

C13051132

Login completed by: Timothy I. Houghteling
Date Received: 5/31/2013
Reviewed by: BL2000\kmiller
Received by: dw
Reviewed Date: 6/3/2013
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	2.9°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Contact and Corrective Action Comments:

None

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name: Nelson Engineering	Project Name, PWS, Permit, Etc.: Melody Ranch ISD	Sample Origin State: WY	EPA/State Compliance: Yes ☒ No ☐
Report Mail Address (Required): PO Box 1599 Jackson WY 83001	Contact Name: Suzanne Lagerman; Phone/Fax: (307) 733-2087 P (307) 733-4179 F	Cell: (307) 413-9043	Sampler: (Please Print) Suzanne Lagerman
☐ ~~No Hard Copy~~ Email: slagerman@nelsonengineering.net	Invoice Contact & Phone: Same as above	Purchase Order:	Quote/Bottle Order: 39807
Invoice Address (Required): PO Box 1599 Jackson WY 83001			
☐ ~~No Hard Copy~~ Email: slagerman@nelsonengineering.net			

Special Report/Formats:
☒ DW ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP Format: _____
☐ State: WY ☐ LEVEL IV
☐ Other: _____ ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Halogacetic Acids	SDWA THMs	SEE ATTACHED	Standard Turnaround (TAT)	RUSH
1 Halo 1	5-30-13	12:37pm	W	X				X
2 Halo 2	5-30-13	12:38pm	W	X				X
3 Halo 3	5-30-13	12:39pm	W	X				X
4 THM 1	5-30-13	12:40pm	W		X			X
5 THM 2	5-30-13	12:41pm	W		X			X
6 THM 3	5-30-13	12:42pm	W		X			X
7								
8 Trip Blank 7389								
9								
10								

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: Fedex
Cooler ID(s): 2442
Receipt Temp: 2.4 °C
On Ice: (Y) N
Custody Seal On Bottle Y (N) On Cooler (Y) N
Intact (Y) N
Signature Match (Y) N

LABORATORY USE ONLY
C13051132

Custody Record MUST be Signed

Relinquished by (print): Suzanne Lagerman	Date/Time: 5-30-13 12:58pm	Signature:	Received by (print):	Date/Time: Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time: Signature:
Sample Disposal: Return to Client: _____	Lab Disposal: X		Received by Laboratory:	Date/Time: 5-31-13 10:15 Signature:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.