



# ANALYTICAL SUMMARY REPORT

November 01, 2018

Lehrkinds Big Spring  
201 1st Ave N  
Lewistown, MT 59457-1725

Work Order: B18101757

Project Name: MT0001229

Energy Laboratories Inc Billings MT received the following 1 sample for Lehrkinds Big Spring on 10/19/2018 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B18101757-001	Spigot By Distilled	10/18/18 13:00	10/19/18	Drinking Water	Metals by ICP/ICPMS, Drinking Water Alkalinity Color Mercury, Drinking Water Fluoride Chloride Sulfate/Anions by Ion Chromatography Nitrogen, Nitrate + Nitrite Odor pH Metals Digestion by E200.2 Mercury Digestion by E245.1 Preparation for TDS A2540 C Solids, Total Dissolved Turbidity

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, 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.

The results as reported relate only to the item(s) submitted for testing.

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

Report Approved By:



**LABORATORY ANALYTICAL REPORT**

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Client Sample ID:** Spigot By Distilled  
**PWS #:** MT0001229 **Name:** LEHRKINDS BIG SPRING WATER  
**Facility ID:** TP001  
**Sampling Point/Location:** EP502 / Spigot By Distilled  
**Project ID:** MT0001229  
**Collector's Name:** Don Cates  
**Compliance Sample:** YES

**Lab ID:** B18101757-001  
**Report Date:** 11/01/18  
**Collection Date:** 10/18/18 13:00  
**Date Received:** 10/19/18  
**Matrix:** Drinking Water  
**Federal ID#:** MT00005

**Contact Phone #:** (406) 538-3433

**Sample Type:** RT

FRDS Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>PHYSICAL PROPERTIES</b>							
1925 pH	7.8	s.u.	H	0.1		A4500-H B	10/20/18 11:50 / pjw
pH Measurement Temp	13	°C				A4500-H B	10/20/18 11:50 / pjw
1905 Color	ND	c.u.	H	5		A2120 B	10/22/18 16:08 / rco
1920 Odor	1	T.O.N.				A2150 B	10/19/18 09:55 / pjw
Odor Measurement Temp	60	°C				A2150 B	10/19/18 09:55 / pjw
pH at Time of Color Analysis	8.0	s.u.		0.1		A2120 B	10/22/18 16:08 / rco
0100 Turbidity	ND	NTU		0.1		A2130 B	10/20/18 11:32 / pjw
1930 Solids, Total Dissolved TDS @ 180 C	292	mg/L		10		A2540 C	10/25/18 11:41 / klj
<b>INORGANICS</b>							
1927 Alkalinity, Total as CaCO3	163	mg/L		4		A2320 B	10/24/18 21:00 / cke
1928 Bicarbonate as HCO3	199	mg/L		4		A2320 B	10/24/18 21:00 / cke
1929 Carbonate as CO3	ND	mg/L		4		A2320 B	10/24/18 21:00 / cke
1017 Chloride	ND	mg/L		1		E300.0	10/23/18 19:43 / rco
1055 Sulfate	84	mg/L		1		E300.0	10/23/18 19:43 / rco
1025 Fluoride	0.6	mg/L		0.1		A4500-F C	10/25/18 11:24 / mmc
<b>NUTRIENTS</b>							
1038 Nitrogen, Nitrate+Nitrite as N	0.17	mg/L		0.01	10	E353.2	10/22/18 10:37 / mjm
<b>METALS, TOTAL</b>							
1002 Aluminum	ND	mg/L		0.03		E200.7	10/23/18 12:19 / rh
1074 Antimony	ND	mg/L		0.001	0.006	E200.8	10/24/18 00:15 / by
1005 Arsenic	ND	mg/L		0.001	0.01	E200.8	10/24/18 00:15 / by
1010 Barium	ND	mg/L		0.05	2	E200.7	10/23/18 12:19 / rh
1075 Beryllium	ND	mg/L		0.001	0.004	E200.7	10/23/18 12:19 / rh
1015 Cadmium	ND	mg/L		0.001	0.005	E200.8	10/24/18 00:15 / by
1016 Calcium	68	mg/L		1		E200.7	10/23/18 12:19 / rh
1020 Chromium	ND	mg/L		0.005	0.1	E200.8	10/24/18 00:15 / by
1022 Copper	0.010	mg/L		0.005	1.3	E200.7	10/23/18 12:19 / rh
1028 Iron	ND	mg/L		0.02		E200.7	10/23/18 12:19 / rh
1030 Lead	ND	mg/L		0.001	0.015	E200.8	10/24/18 00:15 / by
1031 Magnesium	20	mg/L		1		E200.7	10/23/18 12:19 / rh
1032 Manganese	ND	mg/L		0.001		E200.8	10/24/18 00:15 / by
1035 Mercury	ND	mg/L		0.0001	0.002	E245.1	10/30/18 15:35 / trc
1036 Nickel	ND	mg/L		0.01		E200.8	10/24/18 00:15 / by

**Report Definitions:** RL - Analyte reporting limit.

QCL - Quality control limit.

H - Analysis performed past recommended holding time.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



**LABORATORY ANALYTICAL REPORT**

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Client Sample ID:** Spigot By Distilled  
**PWS #:** MT0001229 **Name:** LEHRKINDS BIG SPRING WATER  
**Facility ID:** TP001  
**Sampling Point/Location:** EP502 / Spigot By Distilled  
**Project ID:** MT0001229  
**Collector's Name:** Don Cates  
**Compliance Sample:** YES

**Contact Phone #:** (406) 538-3433

**Sample Type:** RT

**Lab ID:** B18101757-001  
**Report Date:** 11/01/18  
**Collection Date:** 10/18/18 13:00  
**Date Received:** 10/19/18  
**Matrix:** Drinking Water  
**Federal ID#:** MT00005

FRDS Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
<b>METALS, TOTAL</b>							
1042 Potassium	ND	mg/L		1		E200.7	10/23/18 12:19 / rh
1045 Selenium	ND	mg/L		0.001	0.05	E200.8	10/24/18 00:15 / by
1049 Silica	6.0	mg/L		0.2		E200.7	10/23/18 12:19 / rh
SILI Silicon	2.8	mg/L		0.1		E200.7	10/23/18 12:19 / rh
1050 Silver	ND	mg/L		0.001		E200.8	10/24/18 00:15 / by
1052 Sodium	2	mg/L		1		E200.7	10/23/18 12:19 / rh
1085 Thallium	ND	mg/L		0.0005	0.002	E200.8	10/24/18 00:15 / by
1095 Zinc	ND	mg/L		0.01		E200.7	10/23/18 12:19 / rh

**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 Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2120 B										Batch: R309685
<b>Lab ID:</b> MB-R309685		Method Blank								Run: MISC-WC_181022C 10/22/18 16:08
Color		ND	c.u.							
<b>Lab ID:</b> LCS-R309685		Laboratory Control Sample								Run: MISC-WC_181022C 10/22/18 16:08
Color		24.0	c.u.	5.0	96	90	110			
<b>Lab ID:</b> B18101757-001ADUP	2	Sample Duplicate								Run: MISC-WC_181022C 10/22/18 16:08
Color		4.00	c.u.	5.0					10	
pH at Time of Color Analysis		8.00	s.u.	0.10						

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2130 B										Batch: 181020A-TURB-W
<b>Lab ID:</b> MBLK (DI H2O)		Method Blank					Run: HACH2100N_181020A			10/20/18 11:30
Turbidity		ND	NTU	0.08						
<b>Lab ID:</b> Turb - 20 NTU		Laboratory Control Sample					Run: HACH2100N_181020A			10/20/18 11:30
Turbidity		20.4	NTU	0.10	102	90	110			
<b>Lab ID:</b> Turb - 1.0 NTU		Laboratory Control Sample					Run: HACH2100N_181020A			10/20/18 11:31
Turbidity		1.06	NTU	0.10	106	90	110			
<b>Lab ID:</b> B18101757-001ADUP		Sample Duplicate					Run: HACH2100N_181020A			10/20/18 11:33
Turbidity		0.0850	NTU	0.10					10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2150 B										Batch: R309773
<b>Lab ID:</b> MB-R309773	2	Method Blank					Run: MISC-WC_181019F			10/19/18 09:55
Odor		ND	T.O.N.							
Odor Measurement Temp		60	°C							

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2320 B</b> <span style="float: right;">Batch: R309834</span>										
<b>Lab ID: MBLK</b>		Method Blank					Run: Metrohm 3_181024A			10/24/18 20:49
Alkalinity, Total as CaCO3		6	mg/L	0.7						
<b>Lab ID: LCS</b>		Laboratory Control Sample					Run: Metrohm 3_181024A			10/24/18 20:54
Alkalinity, Total as CaCO3		102	mg/L	4.0	96	90	110			
<b>Lab ID: B18101757-001ADUP</b>	3	Sample Duplicate					Run: Metrohm 3_181024A			10/24/18 21:07
Alkalinity, Total as CaCO3		163	mg/L	4.0				0.1	10	
Bicarbonate as HCO3		199	mg/L	4.0				0.1	10	
Carbonate as CO3		ND	mg/L	4.0					10	
<b>Lab ID: B18101762-002AMS</b>		Sample Matrix Spike					Run: Metrohm 3_181024A			10/24/18 21:32
Alkalinity, Total as CaCO3		136	mg/L	4.0	100	80	120			
<b>Lab ID: B18101763-001ADUP</b>	3	Sample Duplicate					Run: Metrohm 3_181024A			10/24/18 21:43
Alkalinity, Total as CaCO3		45.9	mg/L	4.0				3.0	10	
Bicarbonate as HCO3		56.0	mg/L	4.0				3.0	10	
Carbonate as CO3		ND	mg/L	4.0					10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A2540 C										Batch: 126932
<b>Lab ID:</b> MB-126932		Method Blank					Run: BAL #SD-15_181024A			10/25/18 11:39
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
<b>Lab ID:</b> LCS-126932		Laboratory Control Sample					Run: BAL #SD-15_181024A			10/25/18 11:39
Solids, Total Dissolved TDS @ 180 C		989	mg/L	10	99	90	110			
<b>Lab ID:</b> B18101710-009A DUP		Sample Duplicate					Run: BAL #SD-15_181024A			10/25/18 11:40
Solids, Total Dissolved TDS @ 180 C		2780	mg/L	20				0.6	5	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.





# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> A4500-F C								Analytical Run: Metrohm 3_181025A		
<b>Lab ID:</b> ICV		Initial Calibration Verification Standard								10/25/18 11:01
Fluoride		1.01	mg/L	0.10	101	90	110			
<b>Method:</b> A4500-F C										Batch: R309862
<b>Lab ID:</b> MBLK		Method Blank								10/25/18 11:07
Fluoride		ND	mg/L	0.05				Run: Metrohm 3_181025A		
<b>Lab ID:</b> LFB		Laboratory Fortified Blank								10/25/18 11:13
Fluoride		1.25	mg/L	0.10	100	90	110	Run: Metrohm 3_181025A		
<b>Lab ID:</b> B18101757-001AMS		Sample Matrix Spike								10/25/18 11:30
Fluoride		1.82	mg/L	0.10	98	80	120	Run: Metrohm 3_181025A		
<b>Lab ID:</b> B18101757-001AMSD		Sample Matrix Spike Duplicate								10/25/18 11:36
Fluoride		1.78	mg/L	0.10	95	80	120	2.2	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A4500-H B</b>								Analytical Run: PHSC_101-B_181020A		
<b>Lab ID: pH 8</b>	2	Initial Calibration Verification Standard								10/20/18 10:37
pH		8.01	s.u.	0.10	100	98	102			
pH Measurement Temp		19.2	°C			0	0			
<b>Method: A4500-H B</b>								Batch: R309585		
<b>Lab ID: B18101633-013ADUP</b>	2	Sample Duplicate					Run: PHSC_101-B_181020A			10/20/18 11:32
pH		6.85	s.u.	0.10				0.1	3	
pH Measurement Temp		12.0	°C							
<b>Lab ID: B18101760-002ADUP</b>	2	Sample Duplicate					Run: PHSC_101-B_181020A			10/20/18 12:01
pH		7.61	s.u.	0.10				0.1	3	
pH Measurement Temp		14.1	°C							

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E200.7</b>								Analytical Run: ICP203-B_181023A			
<b>Lab ID: ICV</b>	12 Continuing Calibration Verification Standard								10/23/18 10:14		
Aluminum		2.44	mg/L	0.10	98	95	105				
Barium		2.46	mg/L	0.10	98	95	105				
Beryllium		1.21	mg/L	0.010	97	95	105				
Calcium		25.1	mg/L	1.0	100	95	105				
Copper		2.39	mg/L	0.010	95	95	105				
Iron		2.55	mg/L	0.020	102	95	105				
Magnesium		25.8	mg/L	1.0	103	95	105				
Potassium		26.1	mg/L	1.0	104	95	105				
Silicon		4.96	mg/L	0.10	99	95	105				
Sodium		25.7	mg/L	1.0	103	95	105				
Zinc		2.47	mg/L	0.010	99	95	105				
Silica		10.6	mg/L	0.21							
<b>Method: E200.7</b>								Batch: R309717			
<b>Lab ID: MB-6500DIS181023A</b>	12 Method Blank				Run: ICP203-B_181023A			10/23/18 10:21			
Aluminum		ND	mg/L	0.03							
Barium		ND	mg/L	0.0010							
Beryllium		ND	mg/L	0.0005							
Calcium		ND	mg/L	0.07							
Copper		ND	mg/L	0.004							
Iron		ND	mg/L	0.02							
Magnesium		ND	mg/L	0.02							
Potassium		ND	mg/L	0.1							
Silicon		ND	mg/L	0.07							
Sodium		ND	mg/L	0.1							
Zinc		ND	mg/L	0.002							
Silica		ND	mg/L	0.2							
<b>Lab ID: LFB-6500DIS181023A</b>	11 Laboratory Fortified Blank				Run: ICP203-B_181023A			10/23/18 10:29			
Aluminum		4.90	mg/L	0.10	98	85	115				
Barium		0.959	mg/L	0.10	96	85	115				
Beryllium		0.461	mg/L	0.010	92	85	115				
Calcium		49.3	mg/L	1.0	99	85	115				
Copper		0.947	mg/L	0.010	95	85	115				
Iron		4.97	mg/L	0.020	99	85	115				
Magnesium		51.3	mg/L	1.0	103	85	115				
Potassium		51.5	mg/L	1.0	103	85	115				
Silicon		9.66	mg/L	0.10	97	85	115				
Sodium		50.8	mg/L	1.0	102	85	115				
Zinc		0.970	mg/L	0.010	97	85	115				
<b>Lab ID: B18101755-001CMS2</b>	12 Sample Matrix Spike				Run: ICP203-B_181023A			10/23/18 12:11			
Aluminum		5.01	mg/L	0.036	100	70	130				
Barium		1.04	mg/L	0.050	94	70	130				
Beryllium		0.442	mg/L	0.0010	88	70	130				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.7</b>										
Batch: R309717										
<b>Lab ID:</b>	<b>B18101755-001CMS2</b>	12	Sample Matrix Spike							
										Run: ICP203-B_181023A
										10/23/18 12:11
Calcium		127	mg/L	1.0	98	70	130			
Copper		0.954	mg/L	0.0050	95	70	130			
Iron		4.98	mg/L	0.020	100	70	130			
Magnesium		73.8	mg/L	1.0	102	70	130			
Potassium		54.9	mg/L	1.0	101	70	130			
Silicon		22.5	mg/L	0.10	96	70	130			
Sodium		70.3	mg/L	1.0	98	70	130			
Zinc		1.00	mg/L	0.010	100	70	130			
Silica		48.2	mg/L	0.21	96	70	130			
<b>Lab ID:</b>	<b>B18101755-001CMSD</b>	12	Sample Matrix Spike Duplicate							
										Run: ICP203-B_181023A
										10/23/18 12:15
Aluminum		5.08	mg/L	0.036	102	70	130	1.5	20	
Barium		1.06	mg/L	0.050	95	70	130	1.5	20	
Beryllium		0.446	mg/L	0.0010	89	70	130	1.0	20	
Calcium		126	mg/L	1.0	97	70	130	0.6	20	
Copper		0.965	mg/L	0.0050	97	70	130	1.2	20	
Iron		5.03	mg/L	0.020	101	70	130	0.8	20	
Magnesium		74.5	mg/L	1.0	103	70	130	1.0	20	
Potassium		56.1	mg/L	1.0	103	70	130	2.2	20	
Silicon		22.8	mg/L	0.10	98	70	130	1.0	20	
Sodium		71.4	mg/L	1.0	100	70	130	1.5	20	
Zinc		1.01	mg/L	0.010	101	70	130	0.6	20	
Silica		48.7	mg/L	0.21	98	70	130	1.0	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E200.8</b>								Analytical Run: ICPMS206-B_181022A			
<b>Lab ID: QCS</b>	10 Initial Calibration Verification Standard							10/23/18 19:45			
Antimony		0.0503	mg/L	0.050	101	90	110				
Arsenic		0.0491	mg/L	0.0050	98	90	110				
Cadmium		0.0249	mg/L	0.0010	100	90	110				
Chromium		0.0503	mg/L	0.010	101	90	110				
Lead		0.0499	mg/L	0.010	100	90	110				
Manganese		0.255	mg/L	0.010	102	90	110				
Nickel		0.0503	mg/L	0.010	101	90	110				
Selenium		0.0505	mg/L	0.0050	101	90	110				
Silver		0.0253	mg/L	0.0050	101	90	110				
Thallium		0.0493	mg/L	0.10	99	90	110				
<b>Method: E200.8</b>								Batch: R309707			
<b>Lab ID: LRB</b>	10 Method Blank							Run: ICPMS206-B_181022A		10/22/18 17:45	
Antimony		ND	mg/L	0.0004							
Arsenic		ND	mg/L	0.0002							
Cadmium		ND	mg/L	0.00003							
Chromium		ND	mg/L	0.0002							
Lead		ND	mg/L	0.00005							
Manganese		ND	mg/L	0.00010							
Nickel		ND	mg/L	0.0006							
Selenium		ND	mg/L	0.0003							
Silver		ND	mg/L	0.00002							
Thallium		0.0001	mg/L	0.00007							
<b>Lab ID: LFB</b>	10 Laboratory Fortified Blank							Run: ICPMS206-B_181022A		10/23/18 08:11	
Antimony		0.0438	mg/L	0.050	88	85	115				
Arsenic		0.0472	mg/L	0.0050	94	85	115				
Cadmium		0.0461	mg/L	0.0010	92	85	115				
Chromium		0.0464	mg/L	0.010	93	85	115				
Lead		0.0472	mg/L	0.010	94	85	115				
Manganese		0.0452	mg/L	0.010	90	85	115				
Nickel		0.0468	mg/L	0.010	94	85	115				
Selenium		0.0470	mg/L	0.0050	94	85	115				
Silver		0.0183	mg/L	0.0050	91	85	115				
Thallium		0.0474	mg/L	0.10	95	85	115				
<b>Lab ID: B18101755-001CMS</b>	10 Sample Matrix Spike							Run: ICPMS206-B_181022A		10/24/18 00:01	
Antimony		0.0438	mg/L	0.0010	88	70	130				
Arsenic		0.0498	mg/L	0.0010	96	70	130				
Cadmium		0.0481	mg/L	0.0010	96	70	130				
Chromium		0.0484	mg/L	0.0050	97	70	130				
Lead		0.0489	mg/L	0.0010	98	70	130				
Manganese		0.0484	mg/L	0.0010	97	70	130				
Nickel		0.0465	mg/L	0.010	93	70	130				
Selenium		0.0461	mg/L	0.0010	92	70	130				

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring

**Report Date:** 11/01/18

**Project:** MT0001229

**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E200.8</b>										
Batch: R309707										
<b>Lab ID:</b>	<b>B18101755-001CMS</b>	10	Sample Matrix Spike							
							Run: ICPMS206-B_181022A			10/24/18 00:01
Silver		0.0191	mg/L	0.0010	95	70	130			
Thallium		0.0487	mg/L	0.00050	97	70	130			
<b>Lab ID:</b>	<b>B18101755-001CMSD</b>	10	Sample Matrix Spike Duplicate							
							Run: ICPMS206-B_181022A			10/24/18 00:06
Antimony		0.0451	mg/L	0.0010	90	70	130	3.0	20	
Arsenic		0.0508	mg/L	0.0010	98	70	130	2.0	20	
Cadmium		0.0481	mg/L	0.0010	96	70	130	0.1	20	
Chromium		0.0485	mg/L	0.0050	97	70	130	0.0	20	
Lead		0.0493	mg/L	0.0010	99	70	130	0.8	20	
Manganese		0.0482	mg/L	0.0010	96	70	130	0.4	20	
Nickel		0.0463	mg/L	0.010	93	70	130	0.4	20	
Selenium		0.0497	mg/L	0.0010	99	70	130	7.6	20	
Silver		0.0189	mg/L	0.0010	95	70	130	0.8	20	
Thallium		0.0483	mg/L	0.00050	97	70	130	0.8	20	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method:</b> E245.1								Analytical Run: HGCV202-B_191030A			
<b>Lab ID:</b> ICV		Initial Calibration Verification Standard								10/30/18 14:03	
Mercury		0.00198	mg/L	0.00010	99	90	110				
<b>Method:</b> E245.1										Batch: 127069	
<b>Lab ID:</b> MB-127069		Method Blank								Run: HGCV202-B_191030A	10/30/18 15:20
Mercury		ND	mg/L	0.00005							
<b>Lab ID:</b> LCS-127069		Laboratory Control Sample								Run: HGCV202-B_191030A	10/30/18 15:22
Mercury		0.00201	mg/L	0.00010	100	85	115				
<b>Lab ID:</b> B18101755-001CMS		Sample Matrix Spike								Run: HGCV202-B_191030A	10/30/18 15:25
Mercury		0.00197	mg/L	0.00010	99	70	130				
<b>Lab ID:</b> B18101755-001CMSD		Sample Matrix Spike Duplicate								Run: HGCV202-B_191030A	10/30/18 15:27
Mercury		0.00193	mg/L	0.00010	97	70	130	1.9	30		

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18

**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method: E300.0</b>		Analytical Run: IC METROHM 2_181022A									
<b>Lab ID: ICV</b>	2	Initial Calibration Verification Standard								10/22/18 11:27	
Chloride		100	mg/L	1.0	100	90	110				
Sulfate		397	mg/L	1.0	99	90	110				
<b>Method: E300.0</b>		Batch: R309694									
<b>Lab ID: ICB</b>	2	Method Blank								Run: IC METROHM 2_181022A	10/22/18 11:43
Chloride		ND	mg/L	0.05							
Sulfate		ND	mg/L	0.03							
<b>Lab ID: LFB</b>	2	Laboratory Fortified Blank								Run: IC METROHM 2_181022A	10/22/18 11:58
Chloride		25.1	mg/L	1.0	100	90	110				
Sulfate		99.5	mg/L	1.0	99	90	110				
<b>Lab ID: B18101763-001AMS</b>	2	Sample Matrix Spike								Run: IC METROHM 2_181022A	10/23/18 21:16
Chloride		27.3	mg/L	1.0	106	90	110				
Sulfate		111	mg/L	1.0	106	90	110				
<b>Lab ID: B18101763-001AMSD</b>	2	Sample Matrix Spike Duplicate								Run: IC METROHM 2_181022A	10/23/18 21:32
Chloride		28.8	mg/L	1.0	112	90	110	5.3	20	S	
Sulfate		117	mg/L	1.0	112	90	110	5.1	20	S	

**Qualifiers:**

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.

ND - Not detected at the reporting limit.





# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Lehrkinds Big Spring  
**Project:** MT0001229

**Report Date:** 11/01/18  
**Work Order:** B18101757

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E353.2</b>								Analytical Run: FIA203-B_181022A		
<b>Lab ID: ICV</b>		Initial Calibration Verification Standard								10/22/18 09:49
Nitrogen, Nitrate+Nitrite as N		0.573	mg/L	0.010	101	90	110			
<b>Method: E353.2</b>								Batch: R309667		
<b>Lab ID: MBLK</b>		Method Blank						Run: FIA203-B_181022A		10/22/18 09:50
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.007						
<b>Lab ID: LFB</b>		Laboratory Fortified Blank						Run: FIA203-B_181022A		10/22/18 09:51
Nitrogen, Nitrate+Nitrite as N		0.978	mg/L	0.010	98	90	110			
<b>Lab ID: B18101739-002CMS</b>		Sample Matrix Spike						Run: FIA203-B_181022A		10/22/18 10:28
Nitrogen, Nitrate+Nitrite as N		1.18	mg/L	0.010	95	90	110			
<b>Lab ID: B18101739-002CMSD</b>		Sample Matrix Spike Duplicate						Run: FIA203-B_181022A		10/22/18 10:29
Nitrogen, Nitrate+Nitrite as N		1.17	mg/L	0.010	94	90	110	0.7	10	

**Qualifiers:**

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Work Order Receipt Checklist

Lehrkinds Big Spring

B18101757

Login completed by: Richard L. Shular

Date Received: 10/19/2018

Reviewed by: BL2000\raschim

Received by: qej

Reviewed Date: 10/22/2018

Carrier name: Return-UPS Ground

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on all 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: 5.2°C Blue Ice
- Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted
- Water - pH acceptable upon receipt? Yes  No  Not Applicable

## 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.

## Contact and Corrective Action Comments:

The collection time indicated on the container label for sample Spigot By Distilled is 1:00pm and on the Chain of Custody it is 2:00pm. Proceeded with the collection date/time as indicated on the sample container.





Trust our People. Trust our Data.  
www.energylab.com

Billings, MT 800.735.4489 • Casper, WY 888.235.0515 • Gillette, WY 866.666.7175 • Helena, MT 877.472.0711

# BOTTLE ORDER 127497



## SHIPPED TO: Lehrkinds Big Spring

Contact: Don Cates  
201 1st Ave N

Lewistown MT 59457

Phone:

Project:

Order Created by: Wynn Pippin  
Shipped From: Billings, MT

Ship Date: 10/16/2018  
VIA: Ground

Bottle Size/Type	Bottles Per Samp	Method	Tests	Critical Hold Time	Preservative	Notes	Num of Samp
<b>Source Water</b>							
1 Liter Plastic	1	A2540 C	Solids, Total Dissolved				1
		A2120 B	Color	48.00 hrs			
		A2130 B	Turbidity	48.00 hrs			
		A4500-H B	pH	0.25 hrs			
		E300.0	Chloride Sulfate/Anions by Ion Chromatography				
		A4500-F C	Fluoride				
		A2320 B	Alkalinity				
250 mL Plastic	1	E353.2	Nitrogen, Nitrate + Nitrite		<input type="checkbox"/> H2SO4		1
250 mL Plastic	1	E200.7_8	Metals by ICP/ICPMS, Drinking Water		<input checked="" type="checkbox"/> HNO3		1
1 Liter Amber Glass Narrow Mouth	2	A2150 B	Odor	24.00 hrs			1

### Comments

Also send 4-gallons of Spring water, and 2 gallons of distilled water.

HNO3 - Nitric Acid

H2SO4 - Sulfuric Acid

NaOH - Sodium Hydroxide

**We strongly suggest that the samples are shipped the same day as they are collected.**

ZnAc - Zinc Acetate

HCl - Hydrochloric Acid

H3PO4 - Phosphoric Acid

**Material Safety Data Sheets(MSDS) Available @ EnergyLab.com ->Services -> MSDS Sheets**

**Corrosive Chemicals: Nitric, Sulfuric, Phosphoric, Hydrochloric Acids and Sodium Hydroxide. Zinc Acetate is a skin irritant.**

Subcontracting of sample analyses to an outside laboratory may be required. If so, Energy Laboratories will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.