



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 09, 2018

John Shomaker

John Shomaker & Assoc.
2611 Broadbent Parkway NE
Albuquerque, NM 87107
TEL: (505) 345-3407
FAX (505) 345-9920

RE: Enduring Resources

OrderNo.: 1810E84

Dear John Shomaker:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/30/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink on a yellow rectangular background. The signature appears to be 'Andy Freeman'.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1810E84

Date Reported: 11/9/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: John Shomaker & Assoc.

Client Sample ID: End of Pumping Test

Project: Enduring Resources

Collection Date: 10/27/2018 12:00:00 PM

Lab ID: 1810E84-001

Matrix: AQUEOUS

Received Date: 10/30/2018 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Fluoride	ND	2.0		mg/L	20	10/31/2018 7:06:53 PM	R55330
Chloride	1100	100	*	mg/L	200	11/2/2018 12:53:12 AM	R55350
Bromide	2.9	0.10		mg/L	1	10/31/2018 6:54:02 PM	R55330
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	10/31/2018 7:06:53 PM	R55330
Sulfate	5100	100	*	mg/L	200	11/2/2018 12:53:12 AM	R55350
Nitrate+Nitrite as N	ND	1.0		mg/L	5	10/31/2018 7:19:44 PM	R55330
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	15000	25		µmhos/c	5	11/6/2018 11:35:09 AM	R55452
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO ₃)	294.4	20.00		mg/L Ca	1	11/1/2018 6:52:04 PM	R55345
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	11/1/2018 6:52:04 PM	R55345
Total Alkalinity (as CaCO ₃)	294.4	20.00		mg/L Ca	1	11/1/2018 6:52:04 PM	R55345
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	9430	200	*D	mg/L	1	11/5/2018 4:12:00 PM	41330
SM4500-H+B / 9040C: PH							Analyst: JRR
pH	8.00		H	pH units	1	11/1/2018 6:52:04 PM	R55345
EPA METHOD 6010B: DISSOLVED METALS							Analyst: ELS
Calcium	150	5.0		mg/L	5	11/5/2018 11:22:57 AM	A55387
Magnesium	9.2	1.0		mg/L	1	11/5/2018 10:34:44 AM	A55387
Potassium	56	1.0		mg/L	1	11/5/2018 10:34:44 AM	A55387
Sodium	3200	50		mg/L	50	11/5/2018 11:25:00 AM	A55387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1810E84

Date Reported: 11/9/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: John Shomaker & Assoc.

Client Sample ID: Final Swab Run

Project: Enduring Resources

Collection Date: 10/29/2018 3:15:00 PM

Lab ID: 1810E84-002

Matrix: AQUEOUS

Received Date: 10/30/2018 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	203.7	20.00		mg/L Ca	1	11/1/2018 7:08:25 PM	R55345
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	11/1/2018 7:08:25 PM	R55345
Total Alkalinity (as CaCO3)	203.7	20.00		mg/L Ca	1	11/1/2018 7:08:25 PM	R55345

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 7
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1810E84
09-Nov-18

Client: John Shomaker & Assoc.
Project: Enduring Resources

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R55330	RunNo:	55330					
Prep Date:		Analysis Date:	10/31/2018	SeqNo:	1840845	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R55330	RunNo:	55330					
Prep Date:		Analysis Date:	10/31/2018	SeqNo:	1840846	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.4	90	110			
Bromide	2.5	0.10	2.500	0	98.0	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.0	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R55350	RunNo:	55350					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841478	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R55350	RunNo:	55350					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841479	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			
Sulfate	9.6	0.50	10.00	0	95.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1810E84
09-Nov-18

Client: John Shomaker & Assoc.
Project: Enduring Resources

Sample ID	Ics-1 99.0uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R55452		RunNo: 55452					
Prep Date:			Analysis Date: 11/6/2018		SeqNo: 1845908		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.00	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1810E84
09-Nov-18

Client: John Shomaker & Assoc.
Project: Enduring Resources

Sample ID	MB-A	SampType:	MBLK	TestCode:	EPA Method 6010B: Dissolved Metals					
Client ID:	PBW	Batch ID:	A55387	RunNo:	55387					
Prep Date:		Analysis Date:	11/5/2018	SeqNo:	1842957	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	LCS-A	SampType:	LCS	TestCode:	EPA Method 6010B: Dissolved Metals					
Client ID:	LCSW	Batch ID:	A55387	RunNo:	55387					
Prep Date:		Analysis Date:	11/5/2018	SeqNo:	1842960	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Calcium	50	1.0	50.00	0	101	80	120			
Magnesium	50	1.0	50.00	0	99.3	80	120			
Potassium	49	1.0	50.00	0	98.6	80	120			
Sodium	49	1.0	50.00	0	98.2	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1810E84

09-Nov-18

Client: John Shomaker & Assoc.**Project:** Enduring Resources

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R55345	RunNo:	55345					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841411	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	lcs-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R55345	RunNo:	55345					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841412	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.04	20.00	80.00	0	96.3	90	110			

Sample ID	mb-2 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R55345	RunNo:	55345					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841435	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	lcs-2 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R55345	RunNo:	55345					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841436	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	76.80	20.00	80.00	0	96.0	90	110			

Sample ID	mb-3 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R55345	RunNo:	55345					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841459	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	lcs-3 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R55345	RunNo:	55345					
Prep Date:		Analysis Date:	11/1/2018	SeqNo:	1841460	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.04	20.00	80.00	0	96.3	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1810E84
09-Nov-18

Client: John Shomaker & Assoc.
Project: Enduring Resources

Sample ID	MB-41330	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	41330	RunNo:	55401					
Prep Date:	11/2/2018	Analysis Date:	11/5/2018	SeqNo:	1843398	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-41330	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	41330	RunNo:	55401					
Prep Date:	11/2/2018	Analysis Date:	11/5/2018	SeqNo:	1843399	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	100	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SHO

Work Order Number: 1810E84

RcptNo: 1

Received By: Jazzmine Burkhead 10/30/2018 3:54:00 PM

Completed By: Jazzmine Burkhead 10/30/2018 4:03:16 PM

Reviewed By: ENM 10/30/18

Labeled by: DAD 10/30/18

Chain of Custody1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? Client

Log In3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 5.0°C ? Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐13. Is it clear what analyses were requested? Yes ☒ No ☐14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved bottles checked for pH: 2

Adjusted? NO

Checked by: DAD 10/30/18

Special Handling (if applicable)15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good	Not Present			

Chain-of-Custody Record

Client: John Shomaker + Associates

Mailing Address: 2611 Brookhurst Pl

Albuquerque NM 87107

Phone #: 505-345-3407

email or Fax#: JShomaker@Shomaker.com

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC☐ Other☐ EDD (Type)Turn-Around Time: ☐ Standard ☐ Rush

Project Name: Endoring Resources

Project #: 5J-4301 P001

Project Manager: John Shomaker

Sampler: John Shomaker

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CFI): 54

Container Type and #

Preservative Type

HEAL No. 1810F84

Date Time Matrix Sample Name

10/30/18 15:15 ag Final Swab Run

Date Time Relinquished by:

10/30/18 15:54 [Signature]

Date Time Relinquished by:

[Signature]

Remarks:

[Signature]

Date Time

10/30/18 15:54

Date Time

[Signature]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMBs (8021)

TPH: 8015D (GRO / DRO / MRO)

8081 Pesticides/8082 PCBs

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₂, NO₃, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

X Alkalinity

2 of 2

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 300691

CONDITIONS

Operator: NEW MEXICO ENERGY MINERALS & NATURAL RESOURCE 1220 S St Francis Dr Santa Fe , NM 87504	OGRID: 264235
	Action Number: 300691
	Action Type: [IM-SD] Well File Support Doc (ENG) (IM-AWF)

CONDITIONS

Created By	Condition	Condition Date
pgoetze	None	1/7/2024