Republic Backhoe Service, LLC

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December 30, 2019

District I

1625 N. French Drive

Hobbs, NM 88240

Subject: Site Assessment/Soil Remediation Work Plan for Lucy Federal #2, Lea County, New Mexico.

On behalf of Read and Stevens, Inc. Republic Backhoe Service, LLC. (RBS) prepared this Release Notification, Site Assessment / Work Plan, and Closure Report associated with Lucy Federal #2. The site is located in Unit L, Section 14, Township 20 South, Range 24 East, NMNM78273, Lea County, New Mexico, on private land. Attachment #1 and #2 illustrates the vicinity and location of the site. Eolian and Piedmont deposits from the Holocene to the Pleistocene age make up the subsurface of the area (mrdata.usgs.gov, Table 7). The surface is comprised of Pyote and Maljamar soils, which consist of light brown fine sand. In places, it is loamy fine sand. The subsoil is fine loam about 18 inches thick. It is reddish yellow in the upper part and light brown in the lower part. The substratum, at a depth of 48 to 60 inches, is pink fine sandy loam. Indurated caliche is found at depths greater than 4 feet (Soil Survey Lea County 1974). The site is not within a 100-year floodplain (FEMA FIRMette Map, Attachment #5). The surface is privately owned by Kenneth Smith.

Table 1. below, summarizes information regarding the release. Nature and Volume of Release

		Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 100 bbls	Volume Recovered (bbls) 4 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Regulatory Guidelines

New Mexico Oil Conversation Division (NMOCD) regulates surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). In accordance to NMAC 19.15.29 the Lucy Federal #2 is assessed by the following guidelines: Table 2 below.

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🕅 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🕅 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🔀 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🕅 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🕱 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🗵 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🗴 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes X No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🕱 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🗵 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗴 Yes 🗌 No

Groundwater Depth

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within 2,000 meters (Attachment #4). The search was inconclusive. Depth to ground water is 185' bgs (Information obtained from private landowner Kenneth Smith).

Wellhead Protection Area

A search of a groundwater database maintained by NMOSE identified registered wells within 2,000 meters of the release at the site (Attachment #3). The search determined that the nearest registered water well is 1,050'.

Closure Criteria

According to ground water depth findings and distance of nearest wells, the following table explains the NMOCD permissible levels for the site: Table 3 below.

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	Closure Criteria for So	oils Impacted by a Release	
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/1 TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 C1 B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 C1 B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 C1 B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

*Or other test methods approved by the division.

**Numerical limits or natural background level, whichever is greater.

***This applies to releases of produced water or other fluids, which may contain chloride.

[19.15.29.12 NMAC - N, 8/14/2018]

Site Assessment/Delineation

On October 02, 2019, RBS went to the location to delineate the site. The release poses no threat to ground water as laboratory results concluded that no TPH/Benzene/BTEX/Chloride concentrations were found at 4' (bgs). Furthermore, soil samples collected and analyzed at 5' (bgs) show constituent level significantly lower than NMOCD permissible levels. A backhoe was used to dig a total of 23 trenches at the site. Samples were collected at 2 feet (bgs), 3 feet (bgs), 4 feet (bgs), 6 feet (bgs), 8 feet (bgs), 10 feet (bgs), and 12 feet (bgs). The following table summarizes the laboratory analytical results from the soil samples collected during the site assessment. Table 4 below.

Site Assessment Soil Samples: Laboratory Analytical Result (Table 4)

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Laboratory Analysis (Table 4)

Name	Date	Depth	Chloride	ТРН	BTEX	Lithology	Soil	Pad/Pasture	GPS
A-2	10/08/2019	2	3160			Sandy	ML	Pad	32.570980
A-4	10/08/2019	4	128			Loam	CL		-103.538071
A-6	10/08/2019	6	96			Caliche	GM		
A-8	10/08/2019	8	64			Caliche	GM		
A-10	10/08/2019	10	32			Caliche	GM		
B-2	10/08/2019	2	2560			Sandy	ML	Pad	32.571018
B3-3	10/21/2019	3	528			Loam	CL		-103.538281
B-4	10/08/2019	4	48			Caliche	GM		
B-6	10/08/2019	6	48			Caliche	GM		
B-8	10/08/2019	8	96			Caliche	GM		
B-10	10/08/2019	10	<16			Caliche	GM		
BB-2	10/17/2019	2	2880	<10	<0.30	Sandy	ML	Pad	32.571018
BB-4	10/17/2019	4	320	<10	<0.30	Loam	CL	1.00	-103.538281
BB-5	10/17/2019	5	80	<10	< 0.30	Caliche	GM		
BB-10	10/17/2019	10	112	<10	<0.30	Caliche	GM		
C-2	10/08/2019	2	4640			Sandy	ML	Pad	32.571018
C-4	10/08/2019	4	440			Loam	CL	rau	-103.538522
C-4	10/08/2019	6	64			Caliche	GM		-103,336322
C-8	10/08/2019	8	32			Caliche	GM		
C-10	10/08/2019	10	16			Caliche	GM		
CC-2	10/17/2019	2	208	<10	<0.30	Sandy	ML	Pad	32.571018
CC-2 CC-4	10/17/2019	4	16	<10	<0.30	Loam	CL	Pau	
CC-4 CC-5	10/17/2019	5	16	<10	<0.30	Caliche	GM		-103.538522
	10/17/2019	10	32			Caliche			
CC-10 D-2	10/17/2019	2	32 3320	<10	<0.30		GM ML	Dad	32.571081
D-2 D-4						Sandy		Pad	
	10/08/2019	4 6	496 160			Loam	CL GM		-103.538403
D-6	10/08/2019					Calcihe			
D-8	10/08/2019	8	272			Caliche	GM		
D-10	10/08/2019	10	384			Caliche	GM	D _1	00.574.004
DD-2	10/17/2019	2	1120	<10	<0.30	Sandy	ML	Pad	32.571081
DD-4	10/17/2019	4	560	<10	<0.30	Loam	CL		-103.538403
DD-5	10/17/2019	5	544	<10	<0.30	Caliche	GM		
DD-10			208	<10	<0.30	Caliche	GM		
E-2	10/08/2019	2	4080			Sandy	ML	Pad	32.571021
E-4	10/08/2019	4	720			Laom	CL		-103.538135
E-6	10/08/2019	6	160			Caliche	GM		
E-8	10/08/2019	8	16			Caliche	GM		
E-10	10/08/2019	10	32			Caliche	GM		
F-2	10/08/2019	2	4200			Sandy	ML	Pasture	32.570950
F-4	10/08/2019	4	1010			Loam	CL		-103.538260
F-6	10/08/2019	6	1310			Caliche	GM		
F-8	10/08/2019	8	928			Caliche	GM		
F-10	10/08/2019	10	64			Caliche	GM		
G-2	10/08/2019	2	1920			Sandy	ML	Pad	32.570979
G-4	10/08/2019	4	208			Loam	CL		-103.538460
G-6	10/08/2019	6	32			Caliche	GM		

Name	Date	Depth	Chloride	TPH	BTEX	Lithology	Soil	Pad/Pasture	GPS
G-8	10/08/2019	8	16			Caliche	GM		
G-10	10/08/2019	10	16			Caliche	GM		
H-2	10/14/2019	2	16			Sandy	ML	Pasture	32.570967
H-4	10/14/2019	4	<16			Loam	CL		-103.538360
H-6	10/14/2019	6	32			Caliche	GM		
H-8	10/14/2019	8	272			Caliche	GM		
H-10	10/14/2019	10	64	-		Caliche	GM		
I-2	10/14/2019	2	1400			Sandy	ML	Pasture	32.570889
I-3	10/21/2019	3	480			Loam	CL		-103.538508
I-4	10/14/2019	4	48			Loam	CL		
I-6	10/14/2019	6	96			Caliche	GM		
I-8	10/14/2019	8	16			Caliche	GM		
I-10	10/14/2019	10	64			Caliche	GM		
J-2	10/14/2019	2	320			Sandy	ML	Pad	32.571033
J-4	10/14/2019	4	176			Loam	CL		-103.538595
J-6	10/14/2019	6	208			Caliche	GM		
J-8	10/14/2019	8	32			Caliche	GM		
J-10	10/14/2019	10	16			Caliche	GM		
K-2	10/14/2019	2	96			Sandy	ML	Pad	32.571251
K-4	10/14/2019	4	16			Loam	CL		-103.538897
K-6	10/14/2019	6	161			Caliche	GM		
K-8	10/14/2019	8	304			Caliche	GM		
K-10	10/14/2019	10	32			Caliche	GM		
L-2	10/14/2019	2	32			Sandy	ML	Pasture	32.571302
L-4	10/14/2019	4	128			Loam	CL		-103.538947
L-6	10/14/2019	6	16			Caliche	GM		100.0000 17
L-8	10/14/2019	8	<16			Caliche	GM		
L-10	10/14/2019	10	<16			Caliche	GM		
M-2	10/14/2019	2	368			Sandy	ML	Pad	32.571406
M-4	10/14/2019	4	16			Loam	CL		-103.538907
M-6	10/14/2019	6	48			Caliche	GM		100.00000
M-8	10/14/2019		32			Caliche	GM		
M-10	10/14/2019		32			Caliche	GM		
M-12	10/14/2019	10	48			Caliche	GM		
N1-2	10/14/2019	2	1960			Sandy	ML	Pasture	32.571268
N1-3	10/21/2019	3	480			Loam	CL	, ascare	-103.539008
N1-3	10/14/2019		16			Loam	CL		100.000000
N1-6	10/14/2019		64			Caliche	GM		
N1-8	10/14/2019		32			Caliche	GM		
N1-8 N1-10	10/14/2019	10	16			Caliche	GM		
N1-12	10/14/2019	10	16			Caliche	GM		
N1-12 N2-2	10/14/2019		1600			Sandy	ML	Pasture	32.571383
N2-3	10/21/2019	3	520			Loam	CL	. usere	-103.539020
N2-4	10/14/2019	4	16			Loam	CL		100.000020
N2-4	10/14/2019	6	16			Caliche	GM		
N2-8	10/14/2019		32			Caliche	GM		
N2-10	10/14/2019	10	32			Caliche	GM		
N2-10 N2-12			16			Caliche	GM		
	10/14/2019							Bad	22 571062
0-2	10/14/2019	2	<16			Sandy	ML	Pad	32.571062

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Name	Date	Depth	Chloride	TPH	BTEX	Lithology	Soil	Pad/Pasture	GPS
0-4	10/14/2019	4	48			Loam	CL		-103.538567
O-6	10/14/2019	6	48			Caliche	GM		
0-8	10/14/2019	8	48			Caliche	GM		
O-10	10/14/2019	10	48			Caliche	GM		
0-12	10/14/2019	12	48			Caliche	GM		
P-2	10/14/2019	2	<16			Sandy	ML	Pad	32.571070
P-4	10/14/2019	4	48			Loam	CL		-103.538313
P-6	10/14/2019	6	32			Caliche	GM		
P-8	10/14/2019	8	48			Caliche	GM		
P-10	10/14/2019	10	48			Caliche	GM		
P-12	10/14/2019	12	48			Caliche	GM		
Q-2	10/14/2019	2	<16			Sandy	ML	Pad	32.571069
Q-4	10/14/2019	4	64			Loam	CL		-103.538074
Q-6	10/14/2019	6	48			Caliche	GM		
Q-8	10/14/2019	8	32			Caliche	GM		
Q-10	10/14/2019	10	48			Caliche	GM		
Q-12	10/14/2019	12	48			Caliche	GM		
R-2	10/14/2019	2	16			Sandy	ML	Pasture	32.571027
R-4	10/14/2019	4	48			Loam	CL		-103.537980
R-6	10/14/2019	6	32			Caliche	GM		
R-8	10/14/2019	8	48			Caliche	GM		
R-10	10/14/2019	10	48			Caliche	GM		
R-12	10/14/2019	12	48			Caliche	GM		
S-1	10/14/2019	1	16			Sandy	ML	Pasture	32.570891
S-4	10/14/2019	4	48			Loam	CL		-103.538242
S-6	10/14/2019	6	32			Caliche	GM		
S-8	10/14/2019	8	48			Caliche	GM		
S-10	10/14/2019	10	48			Caliche	GM		
S-12	10/14/2019	12	32			Caliche	GM		

Closure Soil Samples: Laboratory Analytical Results (Table 5)

Closure Samples:

Name	Date	Depth	Chloride	ТРН	BTEX	Lithology	Soil	Pad/Pasture	GPS
N3-2	11/22/2019	2	352			Sandy	ML	Pasture	32.571331
N3-5	11/22/2019	5	784			Loam	CL		-103.538997
N3-10	11/22/2019	10	960			Caliche	GM		
N4-2	11/22/2019	2	176			Sandy	ML	Pasture	32.571335
N4-5	11/22/2019	5	96			Loam	CL		-103.539046
N4-10	11/22/2019	10	240			Caliche	GM		
1A-2	11/25/2019	2	16			Sandy	ML	Pasture	32.570890
1A-5	11/25/2019	5	80			Loam	CL		-103.538297
1A-10	11/25/2019	10	64			Caliche	GM		
2A-2	11/25/2019	2	432			Sandy	ML	Pasture	32.570942
2A-5	11/25/2019	5	96			Loam	CL		-103.538322
2A-10	11/25/2019	10	80			Caliche	GM		
3A-2	11/25/2019	2	80			Sandy	ML	Pasture	32.570905
3A-5	11/25/2019	5	992			Loam	CI		-103.538461
3A-10	11/25/2019	10	<16			Caliche	GM		
4A-3	11/25/2019	3	352			Sandy	ML	Pasture	32.570958
4A-5	11/25/2019	5	768			Loam	CL	- ascare	-103.538536
4A-10	11/25/2019	10	16			Caliche	GM		
5A-2	11/25/2019	2	80			Sandy	ML	Pasture	32.570907
5A-5	11/25/2019	5	64			Loam	CL	Tustare	-103.538559
5A-10	11/25/2019	10	<16			Caliche	GM		-103.336333
6A-2	11/25/2019	2	48			Sandy	ML	Pasture	32.570961
6A-5	11/25/2019	5	48			Loam	CL	Fasture	-103.538625
6A-10	11/25/2019	10	40 64			Caliche	GM		-105.558025
7A-2	11/25/2019	2	112				ML	Pad	32.571146
7A-2 7A-5	11/25/2019	5	112			Sandy	CL	Pau	
		_				Loam			-103.538752
7A-10	11/25/2019	10	<16			Caliche	GM	Desture	22 570050
8A-4	11/25/2019	4	592			Loam	CL	Pasture	32.570858
8A-5	11/25/2019	5	352			Loam	CL		-103.538496
8A-10	11/25/2019	10	16			Caliche	GM		
9A-2	11/25/2019	2	16			Sandy	ML	Pasture	32.570851
9A-5	11/25/2019		16			Loam	CL		-103.538251
9A-10	11/25/2019		16			Caliche	GM		
10A-2	11/25/2019	2	80			Sandy	ML	Pasture	32.570892
10A-5	11/25/2019	5	<16			Loam	CL		-103.538193
10A-10	11/25/2019	10	720			Caliche	GM		
11A-2	11/25/2019	2	192			Sandy	ML	Pasture	32.570934
11A-5	11/25/2019	5	320			Loam	CL		-103.538115
11A-10	11/25/2019	10	304			Caliche	GM		
12A-2	11/25/2019	2	<16			Sandy	ML	Pasture	32.570942
12A-5	11/25/2019	5	176			Loam	CL		-103.537981
12A-10	11/25/2019	10	192			Caliche	GM		
13A-2	11/25/2019	2	304			Sandy	ML	Pasture	32.570989
13A-5	11/25/2019	5	272			Loam	CL		-103.537968
13A-10	11/25/2019	10	224			Caliche	GM		

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Name	Date	Depth	Chloride	TPH	BTEX	Lithology	Soil	Pad/Pasture	GPS
14A-2	11/25/2019	2	304			Sandy	ML	Pasture	32.571071
14A-5	11/25/2019	5	336			Loam	CL		-103.537962
14A-10	11/25/2019	10	32			Caliche	GM		
15A-2	11/25/2019	2	16			Sandy	ML	Pasture	32.571099
15A-5	11/25/2019	5	<16			Loam	CL		-103.538004
15A-10	11/25/2019	10	<16			Caliche	GM		
16A-3	11/25/2019	3	48			Loam	CL	Pasture	32.570951
16A-5	11/25/2019	5	496			Loam	CL		-103.538035
16A-10	11/25/2019	10	256			Caliche	GM		
17A-4	11/25/2019	4	320			Loam	CL	Pasture	32.570945
17A-5	11/25/2019	5	848			Loam	CL		-103.538428
17A-10	11/25/2019	10	2720			Caliche	GM		

Soil Description (Table 6)

			Porosity [-	-]	
Description	USCS	min	max	Specific value	Reference
Well graded gravel, sandy gravel, with little or no fines	GW	0.21	0.32		[1].
Poorly graded gravel, sandy gravel, with little or no fines	GP	0.21	0.32		[1].
Silty gravels, silty sandy gravels	GM	0.15	0.22		[1].
Gravel	(GW-GP)	0.23	0.38		[2].
Clayey gravels, clayey sandy gravels	GC	0.17	0.27		[1].
Glatial till, very mixed grained	(GC)	-	-	0.20	[4 cited in 5]
Well graded sands, gravelly sands, with little or no fines	sw	0.22	0.42		[1]. [2].
Coarse sand	(SW)	0.26	0.43		[2].
Fine sand	(SW)	0.29	0.46		[2].
Poorly graded sands, gravelly sands, with little or no fines	SP	0.23	0.43		[1]. [2].
Silty sands	SM	0.25	0.49		[1], [2],
Clayey sands	SC	0.15	0.37		[1].
Inorganic silts, silty or clayey fine sands, with slight plasticity	ML	0.21	0.56		[1].
Uniform inorganic silt	(ML)	0.29	0.52		[3].
Inorganic clays, silty clays, sandy clays of low plasticity	CL	0.29	0.41		[1].
Organic silts and organic silty clays of low plasticity	OL	0.42	0.68		[1]. [3].
Silty or sandy clay	(CL-OL)	0.20	0.64		[3].
Inorganic silts of high plasticity	MH	0.53	0.68		[1].
Inorganic clays of high plasticity	СН	0.39	0.59		[1].
Soft glacial clay	-	-	-	0.55	[4 cited in 5]
Stiff glacial clay	-	-	-	0.38	[4 cited in 5]
Organic clays of high plasticity	ОН	0.50	0.75		[1], [3],
Soft slightly organic clay	(OH-OL)	-	-	0.66	[4] cited in [5]
Peat and other highly organic soils	Pt	-	-		[4 cited in 5]
soft very organic clay	(Pt)	-	-	0.75	[4] cited in [5]

1. Swiss Standard SN 670 010b, Characteristic Coefficients of soils, Association of Swiss Road

Swiss standard and SN 670 010b, Characteristic Coencist of Solis, Association of Swiss Road and Traffic Engineers
 Das, B., Advanced Soli Mechanics. Taylor & Francis, London & New York, 2008.
 Hough, B., Basic soli engineering. Ronald Press Company, New York, 1969.
 Terzaghi, K., Peck, R., and Mesri, G., Soli Mechanics in Engineering Practice. Wiley, New York, 1996.

5. Obrzud R. & Truty, A.THE HARDENING SOIL MODEL - A PRACTICAL GUIDEBOOK Z Soil.PC 100701 report, revised 31.01.2012

Citation : Geotechdata.info, Soil void ratio, http://geotechdata.info/parameter/soil-void-ratio.html (as of November 16, 2013).

Subsurface Geology (Table 7)

Narrower Wider JSON XML

Scientific data near [32.57192,-103.53942]

Search area extends approximately 1.0 km east-west and 1.0 km north-south.

Geographic context		
Counties, states, countries, continents, or ocean	S	
Lea	county	
New Mexico	state	
United States	country	
North America	continent	
Land	continent	
Map quadrangles, from USGS or Canadian NTS		
Lea	quadrangle 1:24,000 scale	
Hobbs	quadrangle 1:100,000 scale	
Hobbs	quadrangle 1:250,000 scale	
Watershed boundaries (USGS hydrologic units)		
Upper Pecos-Black	hydrologic unit	
Upper Pecos	hydrologic accounting unit	
Upper Pecos	hydrologic subregion	
Rio Grande	hydrologic region	

Geology of US states				
Digital geologic maps of the US states with consistent lithology, age	, GIS database structure,	and format	Database Home	
Unit	State	Lithology		
Eolian and piedmont deposits	NM	Holocene to midd	le Pleistocene	

Excavation Logs (Table 8)

Site Name: Lucy Fed#2 Date: 10/12/2019 Sample N1

Soil Profile

Description	ft. bgs	
Top Soil	1	
	2	
	3	
Caliche	4	
	5	
	б	
	7	
	8	
	9	
	10	
	11	
Caliche	12	
	13	
	14	

Geld-'

Site Name: Lucy Fed #2 Date: 10/07/2019 Sample D

Soil Profile

Description

ft. bgs

	n an
Top Soil	1
	2
	3
Caliche T	4
	5
	6
	7
	8
	9
Caliche	10
	11
	12
	13
	14

Gardel **`** -

Remediation/Closure

Commencement Date: October 02, 2019

Completion Date: December 05, 2019

The following remedial activities are in accordance with 19.15.29.12 NMAC, remediation of releases on oil well pads. The remedial activities took place on the Lucy Federal #2 pad and surrounding pasture near the release. The release poses no threat to ground water.

The preliminary site delineation began on October 4, 2019, and concluded that the vertical extent of the release was approximately 2 feet to 4 feet (bgs). Samples at 4 feet, 6 feet, 10 feet, and 12 feet (bgs) further confirmed these results. Sample F was contaminated at 4 feet (GPS 32.570950, -103.538260). An estimated 1,820 cubic yards were excavated from the location and hauled to an NMOCD approved disposal site (See Attachment 6)

On October 15, 2019, a conversation was had with the NMOCD Environmental Bureau Chief, Jim Griswold, in regards to completing remediation, and backfilling the excavated area on the pad in order to commence rebuilding of the tank battery at the location. Per this conversation, bottom hole samples were taken in the location where the battery was to be rebuilt to ensure NMOCD regulations are met, which included Chloride, BTEX, and THP testing results.

After reviewing bottom hole samples BB, CC, and DD, which were collected on the pad where the tank battery is intended to be rebuilt, it was determined that NMOCD closure critieria had been met. That area of the pad was then back filled, and the tank battery was rebuilt on the location.

On November 11, 2019, notice was given to NMOCD of intent to complete closure samples for the remainder of the excavated area in the pasture surrounding the location. After receiving results for closure samples N3, N4, and 1A through 17A it was determined that results met NMOCD closure criteria (See Table 5). An area of approximately 14,290 sq. feet was backfilled with approximately 1,520 yards of caliche, and covered with 1080 yards of top soil. Back fill material was hauled in from the land owner's property (See Attachment 7)

On October 4, 2019, trucks began hauling caliche to the location. Caliche hauling ended on October 22, 2019. Trucks began hauling top soil on October 24, 2019. Top soil hauling ended on November 18, 2019. The pasture will be seeded in the spring of 2020 with warm mixture seed, and was approved by the private landowner.

Eric Garcia Republic Backhoe Service, LLC

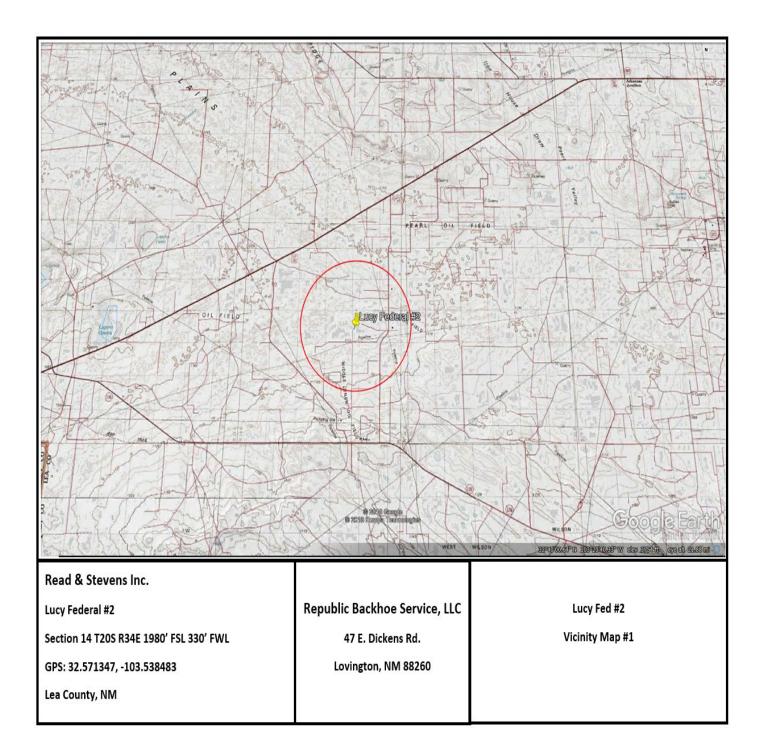
Received by OCD: 1/2/2020 10:54:15 AM

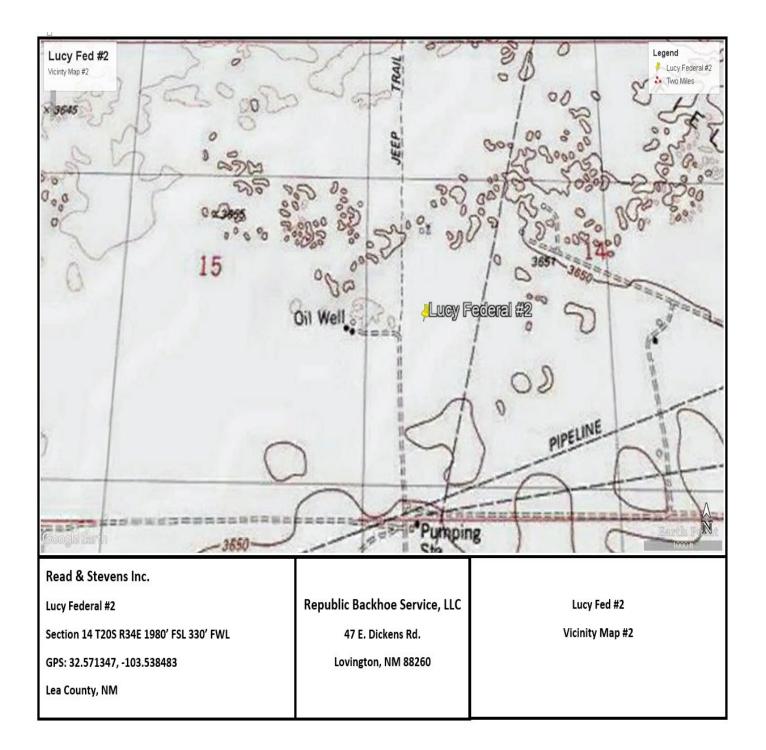
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Attachment #1 and #2:

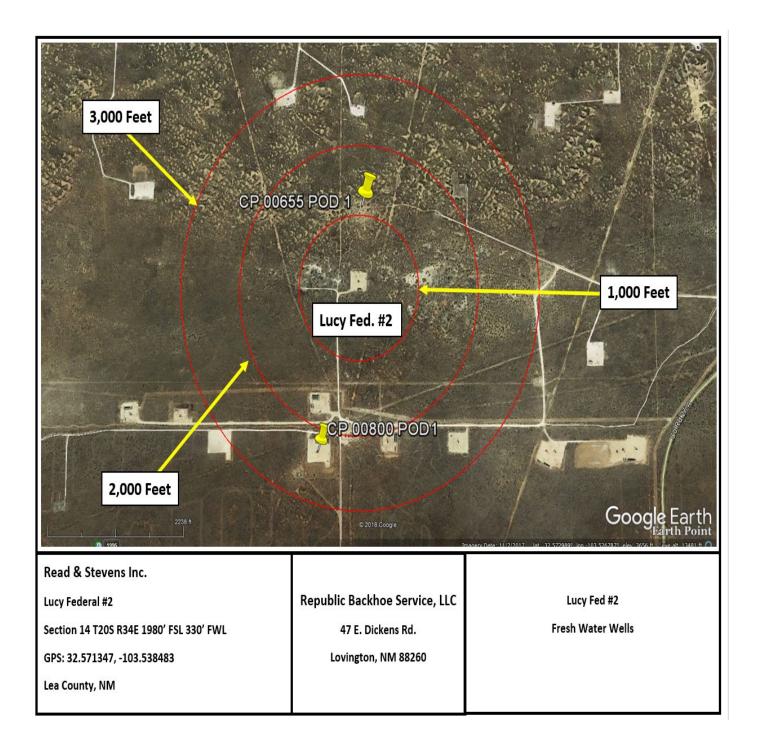
Vicinity Maps





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Attachment #3: Nearest Pod Locations



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Attachment #4: Average Depth to Water



New Mexico Office of the State Engineer Water Column/Average Depth to Water

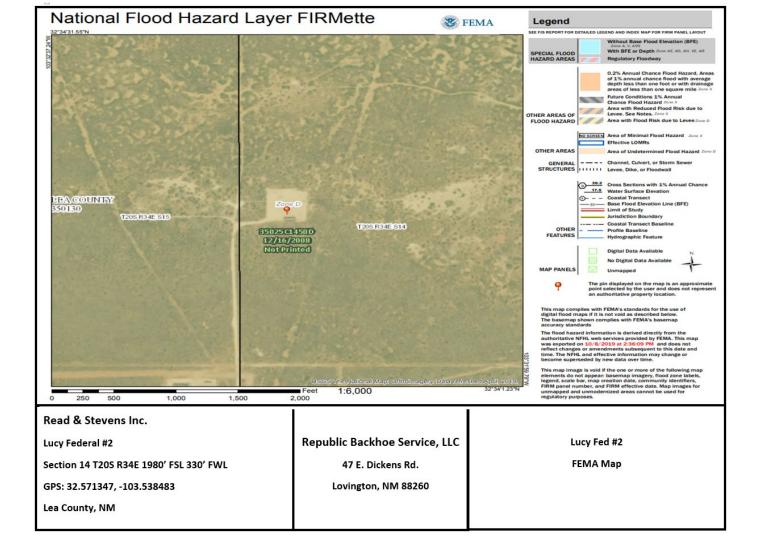
(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD been repl O=orphan C=the file closed)	aced, ned,							3=SW 4=S gest) (1	E) NAD83 UTM	f in me	eters)	(In	feet)
POD Number	Code	POD Sub-	County		Q (Tura	Png	x	Y		DistanceDenth	WallDer	Water othWater Column
<u>CP 00655 POD1</u>	Coue	CP	LE				205	34E	637294	3605108*		443	210	di water Column
CP 00800 POD1		CP	LE	2	2 2	2 22	20S	34E	637007	3603994*	-	707	220	
										A	Averag	e Depth to Water:		
												Minimum Depth:		
												Maximum Depth:		
Record Count: 2														
UTMNAD83 Radius	<u>Search (in</u>	meters) <u>:</u>											
Easting (X): 637	201.235		North	ing ((Y):	3604	674.11	1		Radius: 2	500			
*UTM location was derived :	from PLSS -	see Help	,											
The data is furnished by the N accuracy, completeness, reliabi	MOSE/ISC	and is ac	cepted by th						derstanding t	that the OSE/I	SC ma	ke no warranties, exp	ressed or i	implied, concerning th

10/8/19 11:33 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

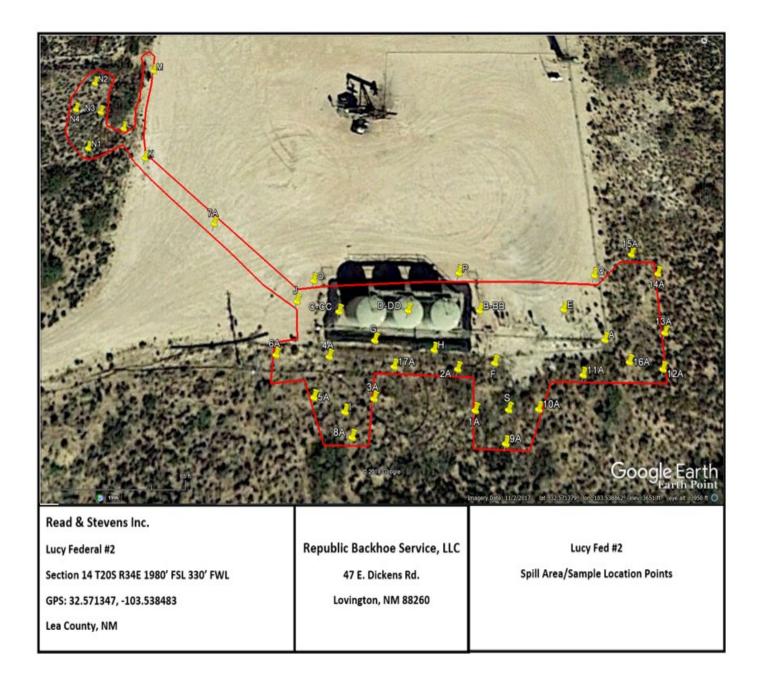
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Attachment #5: National Flood Hazard Layer Firmette



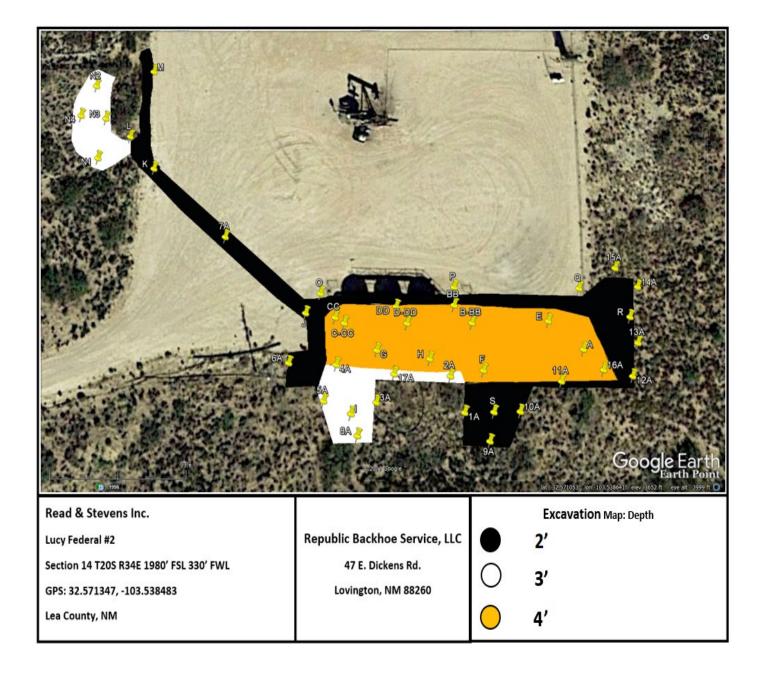
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Attachment #6 Site Map



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Attachment #7 Excavation Map



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Attachment #8 C-141

Leceived by OCD: 10/3/2019 3:35:24 PM

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NRM1927736783
District RP	1RP-5728
Facility ID	
Application ID	pRM1927737297

Release Notification

Responsible Party

Responsible Party Read & Stevens, Inc.	OGRID 18917	
Contact Name Kelly Barajas	Contact Telephone 575-624-3760	
Contact email kbarajas@read-stevens.com	Incident # (assigned by OCD)	
Contact mailing address PO Box 1518, Roswell, NM	88202	

Location of Release Source

Latitude 32.57121 N

Longitude -103.53794 W (NAD 83 in decimal degrees to 5 decimal places)

Site Name Lucy Federal #2	Site Type Oil Lease	
Date Release Discovered 10/02/2019 12:00 AM	AP1# (if applicable) 30-025-40055	

Unit Letter	Section	Township	Range	County
L	14	205	34E	Lea County, NM

Surface Owner: State Federal Tribal Private (Name: rlm/10/4/2019

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls) 100 bbls	Volume Recovered (bbls) 4 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Lightning striked by the water tanks and caused an explosion and fire.

OCD Only

Received by: Ramona Marcus

orm C-141	State of New Mexico	г	Incident ID	
ge 2	Oil Conservation Division		District RP	NRM1927736783 1RP-5728
			Facility ID	11(1-5/20
			Application ID	pRM1927737297
Was this a major release as defined by 19.15.29.7(A) NMAC? Ves No	If YES, for what reason(s) does the response Volumed released exceeds the the fire.			
Notice was given to	otice given to the OCD? By whom? To we Robert Hamlet of the NMOCD / phone at 2:23 pm, and email at 2	Artesia by Nichole	e Calahan of R	
The responsible	Initial R	Response	a safety hazard that way	uld result in injury
	recoverable materials have been removed a ed above have not been undertaken, explain		iely.	1 10/18-1 (S-2012)
Per 19.15.29.8 B. (4) NM has begun, please attach	AAC the responsible party may commence a narrative of actions to date. If remedia int area (see 19.15.29.11(A)(5)(a) NMAC),	remediation immediat	ccessfully complete	d or if the release occurred
regulations all operators are public health or the enviror failed to adequately investi addition, OCD acceptance and/or regulations.	ormation given above is true and complete to the e required to report and/or file certain release no ment. The acceptance of a C-141 report by the gate and remediate contamination that pose a the of a C-141 report does not relieve the operator of	otifications and perform o OCD does not relieve the reat to groundwater, surfa of responsibility for comp	orrective actions for n e operator of liability ace water, human heal liance with any other	eleases which may endanger should their operations have lth or the environment. In federal, state, or local laws
Printed Name: Joe To	Basajas 401: Gul stevens.com Jovar	Title: Manager Date: 10/3/2019	r, Production a	nd Operations
email: jtovar@read-	The second	Telephone: 575-3		

Date: 10/04/2019

Form C-141 Page 3	State of New Mexico Oil Conservation Division	Incident ID District RP Facility ID Application ID	
This	Site Assessment/Char information must be provided to the appropriate district office no k	acterization ater than 90 days after the release discovery date.	
	pth to groundwater beneath the area affected by the re	elcase? 18:	5(ft bgs
	oundwater or surface water? he release within 300 feet of a continuously flowing v		Yes 🖌 No Yes 🖌 No
Are the lateral extents of t ordinary high-water mark)	he release within 200 feet of any lakebed, sinkhole, or ??	r playa lake (measured from the	Yes 🗹 No
Are the lateral extents of to or church?	he release within 300 feet of an occupied permanent r	esidence, school, hospital, institution,	Yes 🖌 No
Are the lateral extents of the by less than five household	he release within 500 horizontal feet of a spring or a p ds for domestic or stock watering purposes?	private domestic fresh water well used	res 🗹 No
Are the lateral extents of the	he release within 1000 feet of any other fresh water w	ell or spring?	les 🗸 No
Are the lateral extents of th water well field?	ne release within incorporated municipal boundaries o	or within a defined municipal fresh	es 🗹 No
Are the lateral extents of th	ne release within 300 feet of a wetland?	L 1	es 🗸 No
	e release overlying a subsurface mine?		es 🗸 No
	e release overlying an unstable area such as karst geo	logy?	'es 🗹 No
	e release within a 100-year floodplain?		es 🗹 No
Did the release impact area	s not on an exploration, development, production, or	storage site?	es 🗌 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

\checkmark	Scaled site map showing impacted area, surfa-	ce features, subsurface features, delineation points, and monitoring wells.	
5	Field data	the reattires, subsurface reatures, defineation points, and monitoring wells.	

- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141 Page 4	State of New Mexico Oil Conservation Division	Incident ID District RP Facility ID Application ID
public health or the environ failed to adequately investi addition, OCD acceptance and/or regulations.	ament. The acceptance of a C-141 report by the gate and remediate contamination that page a th	e best of my knowledge and understand that pursuant to OCD rules and tifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have reat to groundwater, surface water, human health or the environment. In of responsibility for compliance with any other federal, state, or local laws
OCD Only Received by:		Date:

Form C-141	State of New Mexico	
Page 5	Oil Conservation Division	Incident ID
	on conservation Division	District RP
		Facility ID
		Application ID
	Remediation I	Plan
Remediation Plan Che	cklist: Each of the following items must be included in	n the plan
		· me piun.
Detailed description	of proposed remediation technique	
Estimated volume of	GPS coordinates showing delineation points f material to be remediated	
	Table 1 specifications subject to 19.15.29.12(C)(4) NM	
	or remediation (note if remediation plan timeline is more	AC
	the second	e than 90 days OCD approval is required)
Deferral Requests Only	. Fach of the following items must be seen for	
	Each of the following items must be confirmed as po	
Contamination must deconstruction.	be in areas immediately under or around production equ	ipment where remediation could cause a major facility
Extents of contamina	ation must be fully delineated.	
Contamination does	not cause an imminent risk to human health, the environ	ment, or groundwater.
which may endanger pub liability should their oper surface water, human hea responsibility for complia	nformation given above is true and complete to the best operators are required to report and/or file certain release lic health or the environment. The acceptance of a C-14 rations have failed to adequately investigate and remedia alth or the environment. In addition, OCD acceptance of ance with any other federal, state, or local laws and/or re re Tours Title: me Tours Date: 12 Corend-Stouens Cem Telephone	e notifications and perform corrective actions for released the report by the OCD does not relieve the operator of the contamination that pose a threat to groundwater, a C-141 report does not relieve the operator of egulations.
OCD Only		
Received by:	Date:	
Approved	Approved with Attached Conditions of Approval	Denied Deferral Approved
ignature:	Date:	

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Form C-141				
	State of New Mexico	(Incident ID	
Page 6	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
		L	- pprivation 15	
	Clos	ure		
including a scaled site map,	attach information demonstrating they have his demonstration should be in the form of a co sampling diagrams, relevant field notes, photo of final sampling, and a narrative of the remo	omprehensive report (electronic submittals	in .pdf format are preferred
Closure Report Attachm	ent Checklist: Each of the following items	must be included in	the closure report.	
	ling diagram as described in 19.15.29.11 NM		,,	
Photographs of the ren must be notified 2 days pri	nediated site prior to backfill or photos of the or to liner inspection)	e liner integrity if app	plicable (Note: appro	priate OCD District office
Laboratory analyses of	final sampling (Note: appropriate ODC Dist	rict office must be no	otified 2 days prior to	final sampling)
Description of remedia				(internet)
	mation given above is true and complete to the are required to report and/or file certain releases the environment. The accentence of the file certain releases the contract of the certain releases and the certain relases and the certain releases and the certain releases			
may endanger public health of should their operations have human health or the environm compliance with any other fer restore, reclaim, and re-veget accordance with 19.15.29.13 Printed Name:	The acceptance of a C-14 failed to adequately investigate and remediate ment. In addition, OCD acceptance of a C-14 sector of	41 report by the OCD e contamination that H1 report does not reli The responsible part is that existed prior to hen reclamation and is e: Misconcer.	Deform corrective as does not relieve the pose a threat to grou ieve the operator of r ty acknowledges they o the release or their re-vegetation are con	ctions for releases which e operator of liability ndwater, surface water, esponsibility for y must substantially final land use in nplete.
may endanger public health of should their operations have human health or the environr compliance with any other fer restore, reclaim, and re-veget accordance with 19.15.29.13 Printed Name:	Toward Televice Telev	41 report by the OCD e contamination that H1 report does not reli The responsible part is that existed prior to hen reclamation and is e: Misconcer.	Deform corrective as does not relieve the pose a threat to grou ieve the operator of r ty acknowledges they o the release or their re-vegetation are con	ctions for releases which e operator of liability ndwater, surface water, esponsibility for y must substantially final land use in nplete.
may endanger public health of should their operations have human health or the environ compliance with any other fer restore, reclaim, and re-veget accordance with 19.15.29.13 Printed Name: <u>Jore</u> Signature: <u>Jore</u> email: <u>jtouar@</u>	Toward Televice Telev	the notifications and p 41 report by the OCD e contamination that p 11 report does not reli The responsible part is that existed prior to then reclamation and p e: Mponger fill 12-31-19 thone: $5^{1}5-$	perform corrective as 0 does not relieve the pose a threat to grou ieve the operator of r ty acknowledges they o the release or their re-vegetation are corr <i>Caluction</i> , 390-242	ctions for releases which e operator of liability ndwater, surface water, esponsibility for y must substantially final land use in nplete.
may endanger public health of should their operations have human health or the environr compliance with any other fer restore, reclaim, and re-veget accordance with 19.15.29.13 Printed Name:	Tower Tripper	Is notifications and p 41 report by the OCD e contamination that p 11 report does not reli The responsible part as that existed prior to then reclamation and p e: Mpenger // 12-3/-19 thone: 575-	perform corrective as 0 does not relieve the pose a threat to grou ieve the operator of r ty acknowledges they to the release or their re-vegetation are con <i>Caluction</i> , 390-292	tions for releases which coperator of liability ndwater, surface water, esponsibility for y must substantially final land use in nplete.
may endanger public health of should their operations have human health or the environr compliance with any other for restore, reclaim, and re-veget accordance with 19.15.29.13 Printed Name:	does not relieve the responsible party of liability of li	Is characteristications and p 41 report by the OCD c contamination that p 11 report does not reliant The responsible part is that existed prior to then reclamation and p c parts of the prior to then reclamation and p c parts of the prior to the propagation of the prior to the prior to the prior to the prior to the prior to the prior to the prior to the prior to	ations have failed to	tions for releases which coperator of liability ndwater, surface water, esponsibility for y must substantially final land use in nplete.

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Attachment #8 Seed Mixture

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Bamort S	eed Co	ompa	any In	IC.		1
1037 CK 1018 Muleshoe, TX 7934	Bamert Seed Company In 1897 CR 1018 Muleshoe, TX 79347 (800) 262-9892				Permit # TX00905	
Warm Season SSR Grass Mix				Sales # 5	\$0-65264	20
Description Bluestern, Little "Cimairon" (Schizachynum scoparium)	Pure Seed	Germ 97.00%	Domant 0.00%	Hard Seed	Origin TX	1
Bluestern, Yellow 'WW Spar' (Andropogon ischaemum)	6.69%	98.00%	0.00%	0.00%	7	5
Buffalograss, "Texoka" Primed KNO3 (Bouteloua dactyloides)	5.88%	98.00%	0.00%	0.00%	TX	E
Dropseed, Sand (Sporobolus cryptandrus) Fescue, Tall "KY 31" (Festuca anundracea	5.88%	62.00%	35.00%	0.00%	TX	
ounreo.)	1.99%	96.00%	0.00%	0.00%	OR	100
Grama, Blue (Bouteloua gracilis) Grama, Sideoats *El Reno* (Bouteloua	24.47%	92.00%	0.00%	0.00%	TX	17
curtipendula) Kleingrass, "Selection 75" (Panicum	and a second sec	85.00%	0.00%	0.00%	ТХ	1 and
coloratum) Switchgrass, "Blackwell" (Panicum virgatum)	1992	87.00%	0.00%	0.00%	TX	
Purty: 90.00% Inert Matter: 9.72%			14.00%	0.00%	TX	
	 Other Crop Seed: 0.06% Test Date: 04/2018 		Weed Seed: 0.21% Net Wh: 25 lbs		13	
					1 al	
						T
	100					2
	The state	Letter	-			Shi
A BE GAN			MAX.	10-1	1	- JA
	a all		C/ Sta	C	Contraction of the	
A TOLER STATE	1		1		- To and	Contract of the second

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Attachment #9 Photos





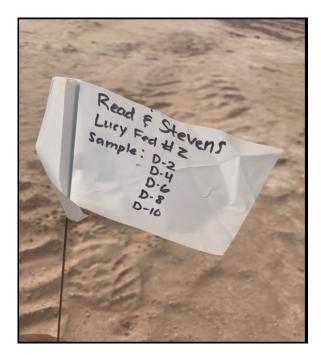


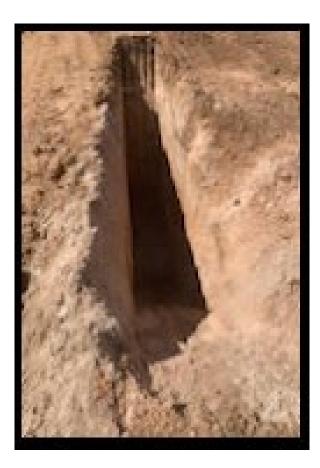
Received by OCD: 1/2/2020 10:54:15 AM

Sample C

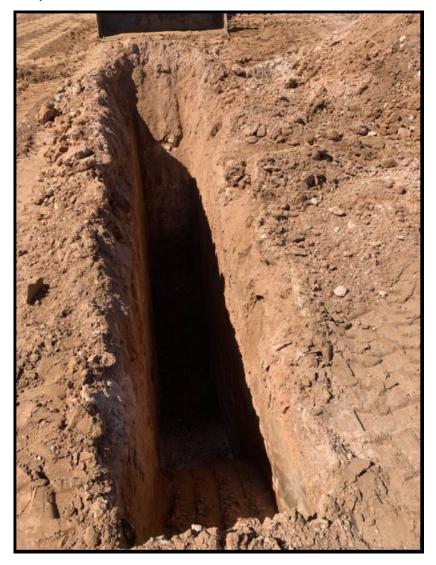


Sample D





Sample E



Sample F



Sample G



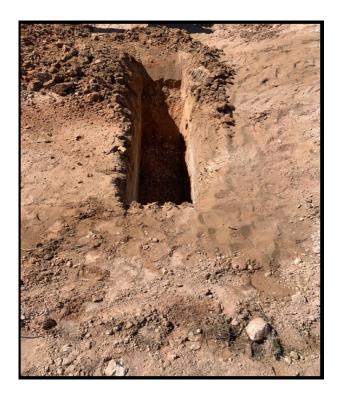








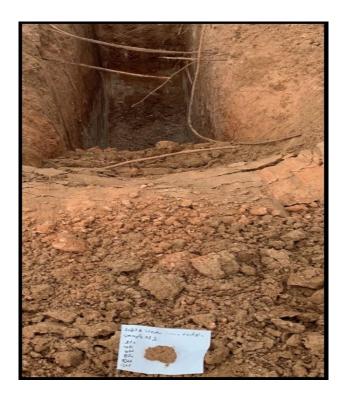












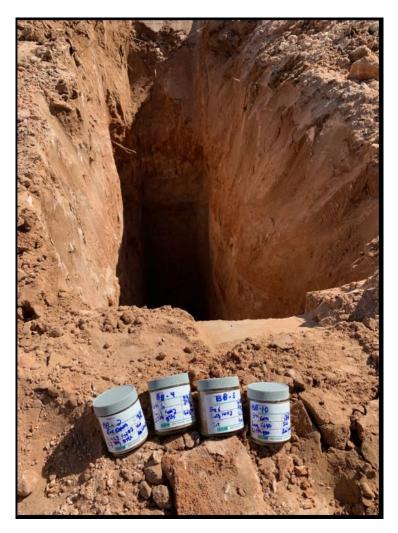








Closure Samples:

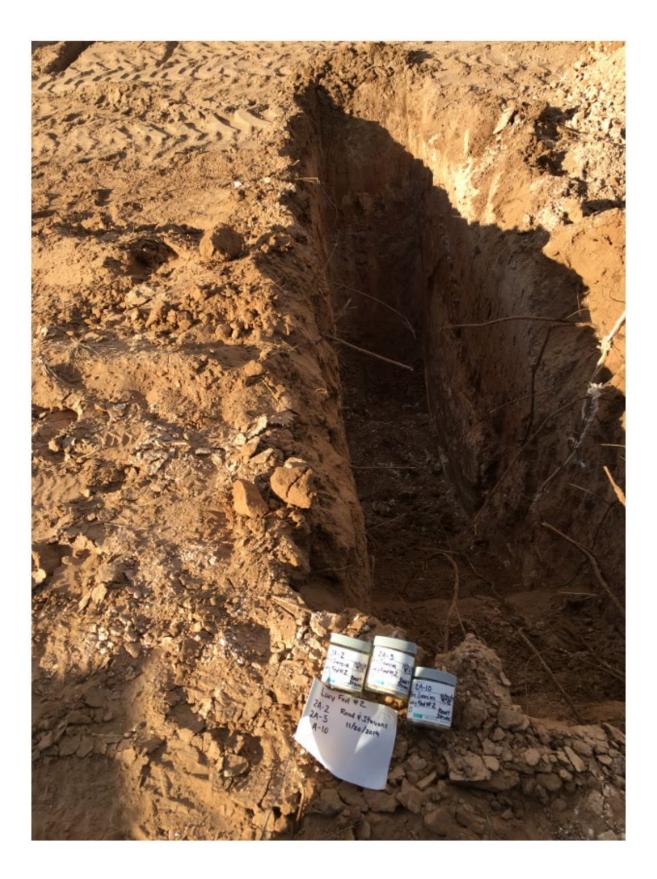
















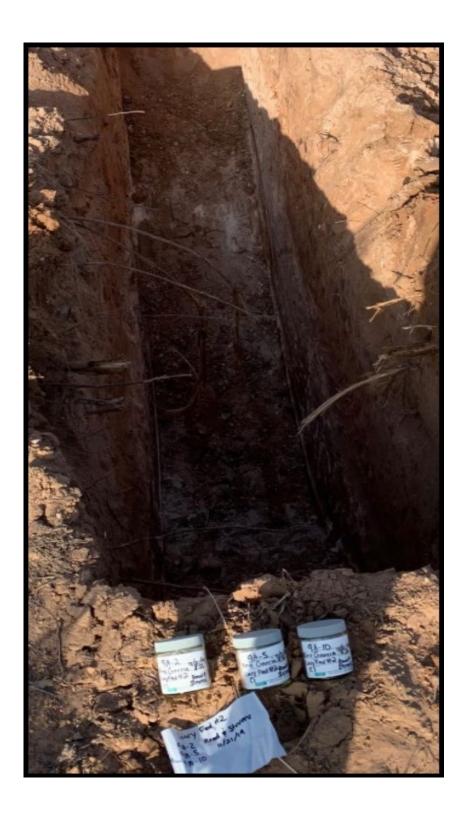




Sample 7A







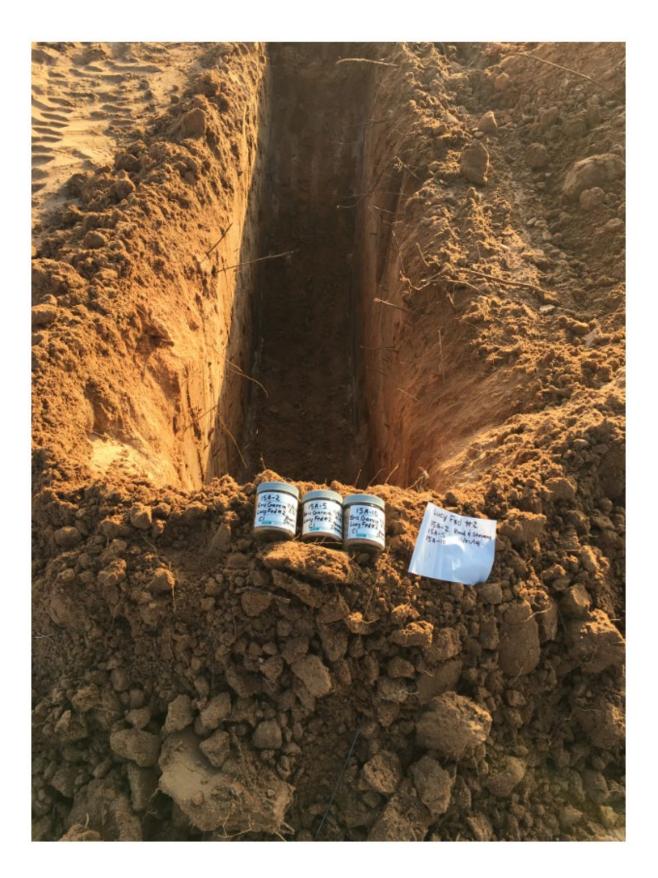






















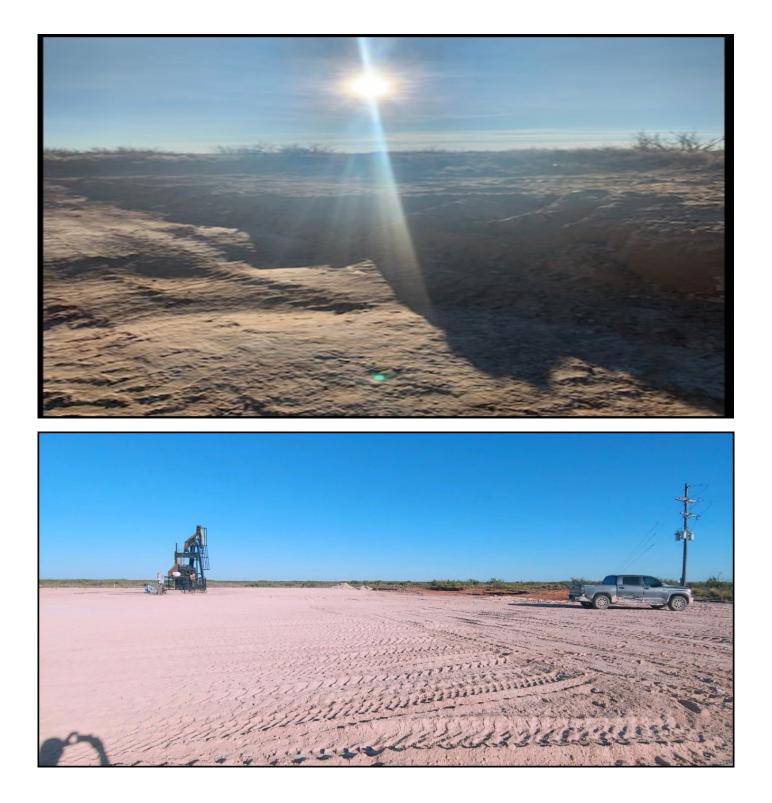
























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Attachment #10 Laboratory Analysis



October 17, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 10/14/19 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: H - 2 (H903474-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: H - 4 (H903474-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: H - 6 (H903474-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: H - 8 (H903474-04)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	10/16/2019	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: H - 10 (H903474-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: I - 2 (H903474-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1400	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: I - 4 (H903474-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: I - 6 (H903474-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: I - 8 (H903474-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2019	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: I - 10 (H903474-10)

Chloride, SM4500Cl-B	SM4500CI-B mg/kg			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: J - 2 (H903474-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: J - 4 (H903474-12)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: J - 6 (H903474-13)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: J - 8 (H903474-14)

Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2019	ND	416	104	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: J - 10 (H903474-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: K - 2 (H903474-16)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: K - 4 (H903474-17)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: K - 6 (H903474-18)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: K - 8 (H903474-19)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/16/2019	ND	416	104	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: K - 10 (H903474-20)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: L - 2 (H903474-21)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: L - 4 (H903474-22)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: L - 6 (H903474-23)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/16/2019	ND	416	104	400	3.77	

Sample ID: L - 8 (H903474-24)

Chloride, SM4500Cl-B	mg/	′kg	Analyzed	l By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2019	ND	416	104	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/11/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: L - 10 (H903474-25)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2019	ND	416	104	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

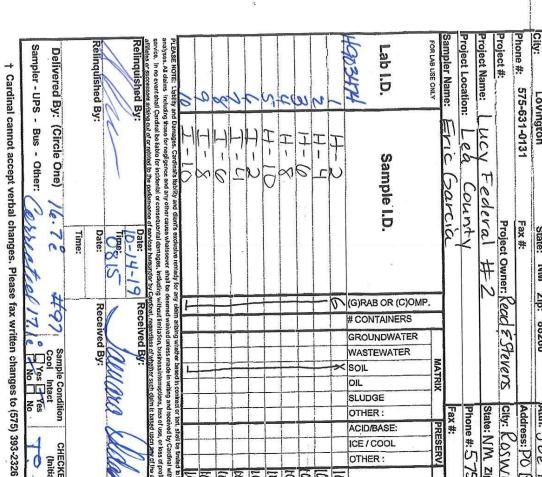
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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Republic Backhoe Service Address: Project Manager: Eric Garcia Lovington 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 47 E. Dickens Rd Project Owner: Kead EStevens State: NM including without limitation, businessinter Zip: 88260 made in writing and MATRIX her such claim is bas OIL SLUDGE lions, loss of use P.O. #: city: Roswel OTHER : Phone # 575-390-2425 State: N/M. Zip: Address: PO Vox 1518 company: Read & Stevens Attn: Joe lovar Fax #: ACID/BASE: PRESERV CHECKED BY: (Initials) ICE / COOL or loss of profits incur 第3]日時はと話を OTHER : 11/01 within 30 days after (A) 8 121 11/01 97:14 8:45 10/11/19 8:00 0 2/11/19/11:00 DATE SAMPLING 1910:50 1/19 8:30 88202 red by client, its subsidiaries, 1910:30 19 8:20 1911:10 19 8:10 had by the client for the Phone Result: Fax Result: REMARKS: email results to; ericqarcia(22) hotmail.com TIME Chloride ł Yes
 No
 Add'I Phone #
 Yes
 No
 Add'I Fax #: ANALYSIS REQUEST

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Page 9 of 11

101 East 1 (575) 393- Company Name: Republic Project Manager: Eric Gar Address: 47 E. Di Address: Lovington Phone #: 575-631-0131 Project #: ////////////////////////////////////	Marland, Hobbs, NM 882 2326 FAX (575) <u>393-2470</u> 2 Backhoe Service cia ckens Rd. State: NM Fax #: Project Owner	eccléStevers city: Roswell state: NM Zip: 8	ANALYSIS REQUEST
Project Location:	. a	Phone #: 575 -390-2425	
Sampler Name:	Eric Garcia	Fax #:	7
FOR LAB USE ONLY		ER MATRIX ER MATRIX PRESERV	
Lab I.D.	Sample I.D.	(G)RAB OR ((# CONTAINE GROUNDWA WASTEWATE SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE ITHE ITHE	
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14	J- 8-	E	
5	4-10	11/19	
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81	N- 0-	1/19	
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PLEASE NOTE: Liability and L	PLEASE NOTE: Lability and Damages. Cardina's lability and diant's exclusive remady for any define study where	Vietim asting windfur based in contract or tot, shall be furthed to the amount paid by the client or the vietim asting windfur based in contract or tot, shall be furthed to the amount paid by the client or the vietim asting windfur based in contract or tot, shall be furthed to the amount paid by the client or the vietim asting windfur based in contract or tot, shall be furthed to the amount paid by the client or the vietim asting windfur based in contract or tot, shall be furthed to the vietim asting windfur based in contract or tot, shall be furthed to the vietim asting windfur based in contract or tot, shall be furthed to the vietim asting windfur based in contract or tot, shall be furthed to the vietim asting windfur based in contract or tot, shall be furthed to the vietim asting windfur based	olde
analyses. All daims including the sorvice. In no event shall Card	thoso for negligence and any other cause whatsoever shall we dhal be table for incidental or consequental damages, incidenta y dhal be table for incidental or consequental damages.	analyses. At daims including those for negligence and any other cause whatsoever shall be defined working unasa move unaver by some move or you wanter the source of the s	
Relinquished By:	our or or rejering to the ponormance of	Received By: Phone Result:	
Relinquished By:	Date: Time:	Received By: ericgar	results to; Garcia 622 hotmail.com
Delivered By: Sampler - UPS -	(Circle One) 16.7c	H97 Sample Condition CHECKED BY: Cool Intact (Initials) Ves TYes	

Received by OCD: 1/2/2020 10:54:15 AM

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Page 10 of 11

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) <u>393-2476</u>

(5/5) 393-2326 FAX (5/5) 393-24/6	15-2410		
Company Name: Republic Backhoe Service			ANALYSIS REQUEST
Project Manager: Eric Garcia	P.O. 非		
Address: 47 E. Dickens Rd.	Comp	company: Read & Stevens	1
City: Lovington State:	NM Zip: 88260 Attn:	Attn: Joe Tovar	
Phone #: 575-631-0131 Fax #:	Addre	Address: PO Bax 1518	
	Project Owner: Read & Stevens City:	city: Roswell	
Project Name: LUCY Federal	井2 State:	State: NM Zip: 88202	
Project Location: Led County	Phone	Phone # 575-390-2425	
Fric G	Fax #:		
	MATRIX PR	ESERV. SAMPLING	2
	RS TER	-104	
Lab I.D. Sample I.D.	(G)RAB OR (C # CONTAINEF GROUNDWAT WASTEWATE SOIL OIL SLUDGE OTHER : ACID/BASE:	ICE / COOL OTHER : DATE TIME Chlor	
21 1-2	6 1	X Sh. 5 h/1/10 12:42 X	
		10/11/19 3:55	
9-1 Ce		11/10	
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		1/1/00	
		10/11/19/11	
		10/1/19	
		10/1/19 1	
PLEASE NOTE: Liability and Damages. Cardinals lability and clinits exclusive terms for any same analysis made on connarce or tool, state as transfor brue sensuring and cycline clinits and connect the applicable states including by Cardinal that this days after composition of the applicable spectra. In no event shall, Cardinal that has had to including the connection of the applicable sensitive. In no event shall, Cardinal that has not for maging and connect that the applicable sensitive. In no event shall, Cardinal that has not for maging and connection that the applicable sensitive. In no event shall, Cardinal that has not for maging and connection that the applicable sensitive.	reminady for any claim artsing withothar Bassofin contend or tost, sitt wer shall be deemed waivod unless made in writing and recoived ges, hickuding without limitation, businessin interruptions, less of use resulted have been a concerned and a state and the based un	ingli be knilled bithe amedun; pade by the Guent for me J by Cardinal within 30 days after completion of the app 29, or loss of profits incurred by Crient, its subsidiaries, upon any of the above alarted pageneers of otherwise	licable
Relinquished By: Date: MH9	Received By:	ANNI Phone Result: Fax Result:	Yes I No Add'I Phone #:
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Time:		eric	ericgarcia 622 hotmail.com
Delivered By: (Circle One) 16.72	HOT Sample Condition	CHECKED BY: (Initials)	ſ
Sampler - UPS - Bus - Other: Cobble	Tel 17.10 THO NO.	70.	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Page 99 of 180



October 18, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 10/14/19 8:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: N 1 - 2 (H903475-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1960	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: N 1 - 4 (H903475-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: N 1 - 6 (H903475-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: N 1 - 8 (H903475-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	432	108	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: N 1 - 10 (H903475-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: N 1 - 12 (H903475-06)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: M - 2 (H903475-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: M - 4 (H903475-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: M - 6 (H903475-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	432	108	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: M - 8 (H903475-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: M - 10 (H903475-11)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: M - 12 (H903475-12)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: 0 - 2 (H903475-13)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/17/2019	ND	432	108	400	3.77	

Sample ID: 0 - 4 (H903475-14)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 0 - 6 (H903475-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: 0 - 8 (H903475-16)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: 0 - 10 (H903475-17)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: 0 - 12 (H903475-18)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: P - 2 (H903475-19)

Chloride, SM4500Cl-B	mg/	′kg	Analyzed	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/17/2019	ND	416	104	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: P - 4 (H903475-20)

Chloride, SM4500Cl-B	mg/kg Analyzed By: A0		d By: AC	AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: P - 6 (H903475-21)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/17/2019	ND	416	104	400	3.77		

Sample ID: P - 8 (H903475-22)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77		

Sample ID: P - 10 (H903475-23)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: P - 12 (H903475-24)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: Q - 2 (H903475-25)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: Q - 4 (H903475-26)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: Q - 6 (H903475-27)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77		

Sample ID: Q - 8 (H903475-28)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: Q - 10 (H903475-29)

Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: Q - 12 (H903475-30)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: R - 2 (H903475-31)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: R - 4 (H903475-32)

Chloride, SM4500CI-B	B mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: R - 6 (H903475-33)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	416	104	400	3.77	

Sample ID: R - 8 (H903475-34)

Chloride, SM4500Cl-B	4500Cl-B mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: R - 10 (H903475-35)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: R - 12 (H903475-36)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: S - 1 (H903475-37)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: S - 4 (H903475-38)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: S - 6 (H903475-39)

Chloride, SM4500Cl-B	14500Cl-B mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: S - 8 (H903475-40)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: S - 10 (H903475-41)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: S - 12 (H903475-42)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: N 2 - 2 (H903475-43)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: N 2 - 4 (H903475-44)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	400	100	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/14/2019	Sampling Date:	10/12/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: N 2 - 6 (H903475-45)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: N 2 - 8 (H903475-46)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: N 2 - 10 (H903475-47)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	400	100	400	0.00	

Sample ID: N 2 - 12 (H903475-48)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	400	100	400	0.00	

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Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine

Eric Garcia 47 E. Dickens Rd. 31-0131 Fax #: Project Owner: Read & Grevers Lea County Eric County Eric County Sample I.D. B R INDUSTER B R INDUSTER

Received by OCD: 1/2/2020 10:54:15 AM

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aboratories

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Received by OCD: 1/2/2020 10:54:15 AM

Sampler - UPS - Bus - Other: Relinquished By: Relinguished By City: Address: ervice. In no event shall Cardinal be I Company Name: Republic Backhoe Service Delivered By: (Circle One) Phone #: Project Manager: Eric Garcia Lab I.D. roject #: 403475 FOR LAB USE ONLY roject Name: impler Name: oject Location: † Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 NOTE: Liability and Laboratories 6 (U) 575-631-0131 5 N a 00 Lovington (575) 393-2326 FAX (575) 393-2476 101 East Marland, HobMs, NM 88240 0 47 E. Dickens Rd. 2-12 C 1 しい M-1031 5 2100 1 NCV -ea -6 Cardinal's Rab 5 Sample I.D. 0 Federal zarcia County oster 6 6 Time: Date: Date: Time: Project Owner: Kead & Stevens Fax #: State: #2 4 NN including without limitation, busin Zip: Received By: Received By (G)RAB OR (C)OMP. 0 # CONTAINERS 88260 GROUNDWATER Cool Intact Yes Yes No No Sample Condition WASTEWATER SOIL MATRIX OIL Cititat to based upon SLUDGE loss of use, or loss of profits OTHER : city: Kaswel P.O. #: Phone # 575-390-2425 State: N/M. Zip: 88202 Address: PO Bax 1518 Attn: Joe Tovar company: Kead & Stevens ax #: ACID/BASE: PRESERV. (Initials) ICE / COOL OTHER : 6/12/19/12:00 p 0 10/12/19/16:00 0 In 30 days after completion of the applicable 1/12/19 8:50 0/12/19 SAMPLING DATE 12/19/10:50 12/19/10:40 12/19/10:20 12/19/16:10 2/19/0:30 1912:10 by dient, its subsidiaries, 18:110A Phone Result: Fax Result: CHAIN-OF-CUSTODY AND ANALYSIS REQUEST REMARKS email results to TIME ericgarcialedahotmail.com Chloride D Yes No Add'l Phone #: No Add'l Fax #: ANALYSIS REQUEST

Page 113 of 180

Page 14 of 17

Inspublic Backhoe Service Paguable Backhoe Service Eric Garcia PO. # 47 E. Dickoms Rd PO. # Ington State: NM Zp: 88220 Attr. T. C. C. C. C. C. Project Owner: Red. Currently Project Owner: Red. LUCY Federal Currently Project Owner: Red. Sample: I.D. Borner: Red. Sample: I.D. Bornerer. Sample: I.D. <th>Interview NM BB240 rAX (575) 393-2476 State: NM Zip: 88260 Attm: <math>Tcl: Company: Road & State: NM Fax # Company: Road & State: NM Zip: 88260 Attm: <math>Tcl: Covert Fax # Company: Road & State: NM Zip: 88260 Attm: <math>Tcl: Covert Fax # Company: Road & State: NM Zip: 88260 Attm: Tcl: Covert Fax # Company: Road & State: NM Zip: 88260 Attm: Tcl: Covert Project Owner: Road & State: NM Zip: 88260 Attm: Tcl: Covert State: NM Addread Fax # Fax # Fax # Fax # Project Owner: Road & State: NM Zip: 88260 Attm: Tcl: Covert State: NM Addread Fax # Fax # Fax # Fax # Fax # Covert Fax # Fax # Fax # Fax # Covert Fax # Fax # Fax # Fax # Covert Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # <td< math=""></td<></math></math></math></th> <th>cgarc</th> <th>Sampler - UPS - Bus - Other</th> <th>Relinquished By:</th> <th>10un</th> <th>winduished by:</th> <th>efficiences in the execution of the particular o</th> <th>analyses. All daints including those for neglig</th> <th></th> <th>2 N-</th> <th>200</th> <th>a/</th> <th>>R</th> <th>2</th> <th></th> <th></th> <th></th> <th>38</th> <th>C N LEOLH</th> <th>Inally</th> <th>Lab I.D.</th> <th></th> <th>FOR LAB USE ONLY</th> <th>Sampler Name:</th> <th>Project Location: Le</th> <th>Project Name: LUC</th> <th>Project #:</th> <th>Phone #: 575-631-0131</th> <th>City: Lovington</th> <th>ess:</th> <th>anager:</th> <th></th> <th>101 Eas (575) 39</th>	Interview NM BB240 rAX (575) 393-2476 State: NM Zip: 88260 Attm: $Tcl: Company: Road & State: NM Fax # Company: Road & State: NM Zip: 88260 Attm: Tcl: Covert Fax # Company: Road & State: NM Zip: 88260 Attm: Tcl: Covert Fax # Company: Road & State: NM Zip: 88260 Attm: Tcl: Covert Fax # Company: Road & State: NM Zip: 88260 Attm: Tcl: Covert Project Owner: Road & State: NM Zip: 88260 Attm: Tcl: Covert State: NM Addread Fax # Fax # Fax # Fax # Project Owner: Road & State: NM Zip: 88260 Attm: Tcl: Covert State: NM Addread Fax # Fax # Fax # Fax # Fax # Covert Fax # Fax # Fax # Fax # Covert Fax # Fax # Fax # Fax # Covert Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # Fax # GROUNDWATER Fax # Fax # Fax # $	cgarc	Sampler - UPS - Bus - Other	Relinquished By:	10un	winduished by:	efficiences in the execution of the particular o	analyses. All daints including those for neglig		2 N-	200	a/	>R	2				38	C N LEOLH	Inally	Lab I.D.		FOR LAB USE ONLY	Sampler Name:	Project Location: Le	Project Name: LUC	Project #:	Phone #: 575-631-0131	City: Lovington	ess:	anager:		101 Eas (575) 39
40 210: 88260 Address: P.O. #: P.O. #: Company: Company: C.e.d. (S.V.u.P.) Address: P.O. #: P.O. #: Contrainers: P.O. #: P.O. #: O.O. #: P.O. #:	Interview PO. #: PO. #: PO. #:	International state International state International state	Other: Norrictul 1		Time: SIS	1419	or incidental or consequental damages, including with the performance of services hereunder by Card	pence and any other cause whatsoever shall be deel		-	·b	20			5									C.	a County	y Federal.	Project Owner:		State: NM	Jickens Rd.	arcia	Republic Backhoe Service	t Marland, Hobies, NM 882
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Laboratories

Page 115 of 180

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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101 East Marland, Holder, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name:	S/5) 393-2320 FAA (3/3) 393-2470 Republic Backhoe Service				ANALYSIS REQUEST
Project Manager: Éric Garcia Address: 47 E. Dicke	Èric Garcia 47 E. Dickens Rd.	P.O. #	P.O. #: company: Read & Stevens	3	
i	Lovington State:	NM Zip: 88260 Attu	Attn: Joe Tovar		
e #:	31 1		Address: PO Bax 1518		_
. 1		Read & Stevens	city: Raswell		
Project Name:	ucy Federal		state: N/M ZIP: 88202		
Project Location:	Lea County		Phone # 575-390-2425		
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Received by OCD: 1/2/2020 10:54:15 AM

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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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Sample Condition Cool Intact Yes Yes No No No

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older	emount paid by the client for the 10 days after completion of the applice	ad or tort, shall be limited to the and received by Cardinal within a	key aleim arlang whether based in conir deemed walved unless made in writing :	PLEASE NOTE: Labdity and Damages. Cordinal's lability and clant's exclusive remarks for each discharge mething whether based in contract or fort, shall be funded by the smount pad by the don't for the applicable analyzes. All claims including these for negligence and any other cause wheteever shall be depend welved unless made in witing and neovined by Cardinal witinh and days after composition of the applicable analyzes. All claims including these for negligence and any other cause wheteever shall be depended unless made in witing and neovined by Cardinal witinh and days after composition of the applicable analyzes.	holding those for neglig	analyses. All daims
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	88202	State: N/M Zip:	2	y Federal 井	e Lucy	Project Name:
		city: Kaswel	Project Owner: Keck EStevers	Project Owner		Project #:
	0X 1218	Address: PO Sox 15			575-631-0131	Phone #:
	Tovar	Attn: Joe T	Zip: 88260	State: NM	Lovington	City:
3	lé Stevens	company: Read & Stevens		47 E. Dickens Rd.	47 E. DI	Address:
		P.O. #:		rcia	Project Manager: Èric Garcia	Project Man
ANALYSIS REQUEST	建也能是他们 这	關鍵語言:[1]年4		Republic Backhoe Service	3. TO	Company Name:
			6	(575) 393-2326 FAX (575) 393-2476	(575) 393	
			40	101 East Marland, Holder, NM 88240	101 East	

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Laboratories



October 17, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 10/17/19 9:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: BB - 2 (H903529-01)

BTEX 8021B	mg	′kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.63	81.3	2.00	4.43	
Toluene*	<0.050	0.050	10/17/2019	ND	1.67	83.3	2.00	3.54	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.7	2.00	3.07	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.89	81.5	6.00	2.55	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	214	107	200	2.23	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	214	107	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	103	% 41-142	,						
Surrogate: 1-Chlorooctadecane	92.1	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: BB - 4 (H903529-02)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.63	81.3	2.00	4.43	
Toluene*	<0.050	0.050	10/17/2019	ND	1.67	83.3	2.00	3.54	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.7	2.00	3.07	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.89	81.5	6.00	2.55	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	214	107	200	2.23	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	214	107	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	99.4	% 41-142							
Surrogate: 1-Chlorooctadecane	91.4	% 37.6-14	7						

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PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

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REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: BB - 5 (H903529-03)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.63	81.3	2.00	4.43	
Toluene*	<0.050	0.050	10/17/2019	ND	1.67	83.3	2.00	3.54	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.7	2.00	3.07	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.89	81.5	6.00	2.55	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	214	107	200	2.23	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	214	107	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	99.3	% 41-142							
Surrogate: 1-Chlorooctadecane	87.7	% 37.6-14	7						

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: BB - 10 (H903529-04)

BTEX 8021B	mg/	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.63	81.3	2.00	4.43	
Toluene*	<0.050	0.050	10/17/2019	ND	1.67	83.3	2.00	3.54	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.7	2.00	3.07	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.89	81.5	6.00	2.55	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	214	107	200	2.23	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	214	107	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	104 9	% 41-142							
Surrogate: 1-Chlorooctadecane	96.6	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: DD - 2 (H903529-05)

BTEX 8021B	mg/	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.63	81.3	2.00	4.43	
Toluene*	<0.050	0.050	10/17/2019	ND	1.67	83.3	2.00	3.54	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.7	2.00	3.07	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.89	81.5	6.00	2.55	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.2	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	214	107	200	2.23	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	214	107	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	104 9	% 41-142							
Surrogate: 1-Chlorooctadecane	92.1	% 37.6-14	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: DD - 4 (H903529-06)

BTEX 8021B	mg/	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.63	81.3	2.00	4.43	
Toluene*	<0.050	0.050	10/17/2019	ND	1.67	83.3	2.00	3.54	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.7	2.00	3.07	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.89	81.5	6.00	2.55	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 \$	73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	214	107	200	2.23	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	214	107	200	0.219	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	105 9	% 41-142	,						
Surrogate: 1-Chlorooctadecane	93.4	% 37.6-14	7						

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

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REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: DD - 5 (H903529-07)

BTEX 8021B	mg/	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.59	79.3	2.00	0.819	
Toluene*	<0.050	0.050	10/17/2019	ND	1.58	78.8	2.00	1.02	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.3	2.00	0.941	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.82	80.4	6.00	0.635	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	10/17/2019	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	213	107	200	0.0685	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	217	109	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	87.9	% 41-142							
Surrogate: 1-Chlorooctadecane	93.6	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: DD - 10 (H903529-08)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.59	79.3	2.00	0.819	
Toluene*	<0.050	0.050	10/17/2019	ND	1.58	78.8	2.00	1.02	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.3	2.00	0.941	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.82	80.4	6.00	0.635	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	<i>98.3</i>	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/17/2019	ND	400	100	400	3.92	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	213	107	200	0.0685	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	217	109	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	87.4	% 41-142	,						
Surrogate: 1-Chlorooctadecane	92.5	% 37.6-14	7						

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REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: CC - 2 (H903529-09)

BTEX 8021B	mg/	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.59	79.3	2.00	0.819	
Toluene*	<0.050	0.050	10/17/2019	ND	1.58	78.8	2.00	1.02	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.3	2.00	0.941	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.82	80.4	6.00	0.635	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.7	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/17/2019	ND	400	100	400	3.92	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	213	107	200	0.0685	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	217	109	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	93.7	% 41-142							
Surrogate: 1-Chlorooctadecane	98.7	% 37.6-14	7						

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REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: CC - 4 (H903529-10)

BTEX 8021B	mg	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.59	79.3	2.00	0.819	
Toluene*	<0.050	0.050	10/17/2019	ND	1.58	78.8	2.00	1.02	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.3	2.00	0.941	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.82	80.4	6.00	0.635	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.8	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	400	100	400	3.92	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	213	107	200	0.0685	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	217	109	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	91.9	% 41-142							
Surrogate: 1-Chlorooctadecane	97.3	% 37.6-14	7						

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REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: CC - 5 (H903529-11)

BTEX 8021B	mg,	'kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.59	79.3	2.00	0.819	
Toluene*	<0.050	0.050	10/17/2019	ND	1.58	78.8	2.00	1.02	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.3	2.00	0.941	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.82	80.4	6.00	0.635	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 73.3-12	9						
Chloride, SM4500Cl-B	mg,	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/17/2019	ND	400	100	400	3.92	
TPH 8015M	mg,	'kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	213	107	200	0.0685	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	217	109	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	87.0	% 41-142							
Surrogate: 1-Chlorooctadecane	92.4	% 37.6-14	7						

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REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/17/2019	Sampling Date:	10/16/2019
Reported:	10/17/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: CC - 10 (H903529-12)

BTEX 8021B	mg/	′kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/17/2019	ND	1.59	79.3	2.00	0.819	
Toluene*	<0.050	0.050	10/17/2019	ND	1.58	78.8	2.00	1.02	
Ethylbenzene*	<0.050	0.050	10/17/2019	ND	1.61	80.3	2.00	0.941	
Total Xylenes*	<0.150	0.150	10/17/2019	ND	4.82	80.4	6.00	0.635	
Total BTEX	<0.300	0.300	10/17/2019	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.6	% 73.3-12	9						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/17/2019	ND	400	100	400	3.92	
TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/17/2019	ND	213	107	200	0.0685	
DRO >C10-C28*	<10.0	10.0	10/17/2019	ND	217	109	200	4.96	
EXT DRO >C28-C36	<10.0	10.0	10/17/2019	ND					
Surrogate: 1-Chlorooctane	81.9	% 41-142							
Surrogate: 1-Chlorooctadecane	89.6	% 37.6-14	7						

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine

101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476	(575) 393-247	76					0
Company Name: Republic Backhoe Service	Service		01471A		ANALYSIS	ISIS REQUEST	
Project Manager: Eric Garcia			P.O. #:				
Address: 47 E. Dickens Rd.			company: Read & Sta	SUNN	,		
City: Lovington	State: NM	Zip: 88260	TI				
Phone #: 575-631-0131	Fax #	D 18	ess: PN R	10			
Project #:	Project Owner: Keal	1 EStevan	Since I			8.,	
Project Name: LUCY Fedo	eral #2		many 1	62			(
Project Location: Leg Cour	2100		Phone #575-390-2	SCHI			
Sampler Name: Fric Gard	riar		Fax #:	_			
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING	es			
Lab I.D. Sample I.D.	Þ	DWATER VATER		orid EX H	R		3
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PLEASE NOTE: Unability and Damages. Cardinats tability and clients exclusive remark for any claim action whether based to contend on too shall be trained to be assured and be too durate to the	ont's exclusive remedy for	any claim arising whether based in content	to/ 16/19 10.	10:45 8 3 4			
analyses. AI datins, including those for negligence and any other cause whatsever shall be deemed waived uness made in whiting and received by Cardinal within 30 days after complotion of the applicable service. In no event shall Cardinal be table for incidential or consequential damages, including without limitation unless made in whiting and received by Cardinal within 30 days after complotion of the applicable affiliates or successore ansing out of or real-tool to the performance of services by Cardinal, reporties of untertaines, performance of services beaunder by Cardinal, reportiess of untertaines to the service babye shade reasons or otherwise	cause whatsoever shall be c quental damages, including of services hereunder by C	or y count scan y without a vasou in contrast, or tort, sn deemed waived unless made in writing and received g without limitation, businessinterruptions, less of use Cardinal, requiridess of whether such claim is based u	ur, uort, sinall de antued ib the amount paid by it inocoïved by Cardinal within 30 days after com ossi of use, or loss of profits incurted by ctient, i s based upon any of the above stated reasons	r completion of the applicable . #ont, its subsidiaries, #ont, its subsidiaries,			
Relinquished By:	10-17-19	Received By:	///// Fa	Phone Result: Fax Result: Yes No	No Add'l Phone #: No Add'l Fax #:	ione#: x#:	
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Received by OCD: 1/2/2020 10:54:15 AM

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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-aboratories

Page 15 of 16

Received by OCD: 1/2/2020 10:54:15 AM

Delivered By: Sampler - UPS -		Refinguished By:	4000	Relinquished By:	affiliates or successore ans	analyses. AI claims including	DI TAOT NOTE: I LENIS							21	11	From 1	140,3529	Lab I.D.		FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name:	Project #:	Phone #: 575	City: Lov	Address:	Project Manager:	Company Name:	
- Bus - Other: Correct	Time:	y: Date:	Time:	Date:	inali Cardinal be lable for incidental or consequential damage is ansing out of or related to the performance of services have	nd Damages. Cardinal's lability and client's exclusive re ng those for negligence and any other cause whatseev								CC - 1U	5-20			Sample I.D.			Enc Garcia 1	" Lea County	Lucy tederal #		575-631-0131 Fax #:	Lovington State:	47 E. Dickens Rd.	4	Republic Backhoe Service	101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476
ACI Sample Condition Cool Intects		Received By:	10	17-19 Received By:	servex. In no event shall Cardinal be lable for incidental or consequential damages, including without limitation, businessintenuptions, less of use, or loss of profits incurned by client, its subsidiaries, entitates or successive arising out of or related to the performance of services haveurdor by Cyrdinal, regardless of whether such client is tasked upon any of the above stated reasons or otherwise.	PLEASE. NOTE: LEASING and Damages. Convinant leability and client's exolusive remary for any cliem artising whether based in contract or tort, shell be finited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed whethed unless made in writing and received by Condinal within 30 days after completion of the opplicable	1								X Q	# G S S O S	CONT		S	MATRIX		9	نع	Project Owner: Kead EStevan c	A	NM Zip: 88260 A	c	P		M 88240 3-2476
n CHECKED BY: (Initials)		emzil	REMARKS:	-	s of use, or loss of profits incurred by client, its sui ased upon any of the above stated reasons or off	tort, shall be finited to the amount paid by the clip coived by Cardinal within 30 days after completion	1 14 W/16/191	16/6/19	1 10/14/19	16/11/19	1 10/10/19	10/10/19	1 10/10/m	11/10/10/19/11:1	11/10/10/10/11:0	A KO O WATE	CE/CC DTHER DATE	ASE: DOL		PRESERV SAMPLING	Fax #:	Phone #575-390-242	state: N/N Zip: 8820	city: Koswell	Address: PU Box 1518	Attn: Joe Tovar	company: Read & Stevens	P.O.#	。 第二章 第二章 第二章 第二章 第二章 第二章 第二章 第二章 第二章 第二章	
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Laboratories



October 24, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 10/21/19 13:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/21/2019	Sampling Date:	10/19/2019
Reported:	10/24/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: B3 - 3 (H903587-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	10/23/2019	ND	448	112	400	0.00	

Sample ID: I- 3 (H903587-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	10/23/2019	ND	448	112	400	0.00	

Sample ID: N1- 3 (H903587-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	10/23/2019	ND	448	112	400	0.00	

Sample ID: N-2 - 3 (H903587-04)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	520	16.0	10/23/2019	ND	448	112	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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*=Accredited Analyte

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Celey D. Keine

Page 4 of 4 -aboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

(57	(575) 393-2326 FAX (575) 393-2476			
Company Name: R	Republic Backhoe Service		BILLTO	ANALYSIS REQUESI
Project Manager: E	Éric Garcia		P.O. #:	
Address: 4	47 E. Dickens Rd.		company: Read EStevens	
City: Lovington	rton State: NM	Zip: 88260	Attn: Joe Tovar	
Phone #: 575-631-0131	1-0131 Fax #:	0	Address: PG Box 1518	
Project #:	Project Owner: Read	E Stevens	city: Ruswell	
Project Name:	ucy Federal #2		state: N M Zip: 88202	
Project Location:			Phone #: 575-390 2425	
-	5			e
		MATRIX	PRESERV. SAMPLING	
I		RS TER		
Lab I.D. H903(87	Sample I.D.	(G)RAB OR (C # CONTAINER GROUNDWAT WASTEWATE SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	<u>Chlo</u>
2	\$3-3 T- Z	6	10/19/19 9:40 X	
N	C1-3		P	
4	V-2-3		10/19/19 10: US	
	A contract of the denote and the two and t	anu claim arts no whether based in contract	or tool, shall be findled to the amount paid by the client for the	
analyses. All claims including the service. In no event shall Card	analyses. At claims including those for negligence and any other cause whatsever shib deemed votor unders made in writing and recovered by cardinal writing and recovered by cardinal by the structure of the stru	b deemed waived unless made in writing and ng without limitation, business interruptions, l Coordinal scenarilase of whether such claim i	erned vravod undess made in wristig and received by Joannia willing and received by a set of the set of the set Nithout limitation, business interruptions, less of uses, of loss of profits futurined by clonit, its subsidiate variant wavevrates of vivaether such relating is based upon any of the above stated datacets or of therwise.	окрупности 05.
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Relinquished By:	Dote: Oc-1/-19 Time:	Received By:		ericgarcia() abotmail.com
Delivered By:	Delivered By: (Circle One) 25.92	197 Sample Condition Cool Intact	ion CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	Bus - Other: Woshurtud	26 J' THO I NO	1.6	

Received by OCD: 1/2/2020 10:54:15 AM

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Page 136 of 180



October 08, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 10/08/19 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/08/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: B - 2 (H903410-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	10/08/2019	ND	416	104	400	0.00	

Sample ID: B - 4 (H903410-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: B - 6 (H903410-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: B - 8 (H903410-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/08/2019	ND	400	100	400	7.69	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/08/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: B - 10 (H903410-05)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: C - 2 (H903410-06)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4640	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: C - 4 (H903410-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	440	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: C - 6 (H903410-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: C - 8 (H903410-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/08/2019	ND	400	100	400	7.69	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/08/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: C - 10 (H903410-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: D - 2 (H903410-11)

Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3320	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: D - 4 (H903410-12)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: D - 6 (H903410-13)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	10/08/2019	ND	400	100	400	7.69	

Sample ID: D - 8 (H903410-14)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	10/08/2019	ND	400	100	400	7.69	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/08/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: D - 10 (H903410-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	10/08/2019	ND	400	100	400	7.69	

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Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine

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Page 143 of 180

CARDINAL Laboratories

Page 7 of 8

Received by OCD: 1/2/2020 10:54:15 AM

City: Address: Company Name: Republic Backhoe Service PLEASE NOTE: Lability and Damages. Cardinate Hability and diants exclusive remedy for any cleam estang whether based in context or tort, shall be traited to the emount pad by the clean for the analyses. At cleans, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardnal within 30 days efter composition of the applicable analyses. At cleans, including those for incidental or consequential demages, including without limitation, busivess interruptions, less of use, or loss of profits incurred by client, its subsidiaries, anvitor. In no event shall gardnai be fable for incidental or consequential demages, including without limitation, busivess interruptions, less of use, or loss of profits incurred by client, its subsidiaries, Project Manager: Eric Garcia Sampler - UPS - Bus - Other: Relinquished By: **Relinquished By:** Phone 株: roject Name: FOR LAB USE ONLY roject Location: roject #: HQ & HO Delivered By: (Circle One) illates or stocessors ansing out of or related to the ampler Name: Lab I.D. † Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 575-631-0131 Lovington W C 101 East Marland, Hobbs, NM 88240 LUCY 575) 393-2326 FAX (575) 393-2476 Eric 47 E. Dickens Rd D-le CI Lea 4-4 1 X Sample I.D. Federa Lounty Sarcia omalla 16.10 Fax # Project Owner: Time; os Date: Time: 10-8-19 State: キン lunder by Cu NM Zip: (G)RAB OR (C)OMP. 164 **Received By:** Received By: # CONTAINERS 88260 GROUNDWATER Cool Intact WASTEWATER Sample Condition MATRIX SOIL 1 OIL SLUDGE P.O. #: OTHER : Phone #575-390-2425 State: NM Zip: 88202 city: Roswel Attm: Joe Toyour Address: PO Box 1518 Company: Read and Steven Fax #: ACID/BASE: PRESERV. 40 CHECKED BY: (Initials) ICE / COOL OTHER : こう 二日 二日 二十二 10/7/9 4:15 10/2/19 10/2/19 10/7/19 0/7/19 õ 20 DATE SAMPLING 12/19 17/19/3:30 7/19/3:40 2/19/3:50 Phone Result: Fax Result: REMARKS: email results to ericgarcia lez Shotmail.com TIME Chloride Yes D No Rush!! Add'l Phone #: Add'l Fax #: ANALYSIS REQUEST

Page 144 of 180

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 8 of 8



October 10, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 10/08/19 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceg.texas.gov/field/qa/lab accred certif.html.

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Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/10/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: F - 2 (H903411-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4200	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: F - 4 (H903411-02)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: F - 6 (H903411-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: F - 8 (H903411-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	928	16.0	10/09/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/10/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: F - 10 (H903411-05)

Chloride, SM4500Cl-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: A - 2 (H903411-06)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3160	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: A - 4 (H903411-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: A - 6 (H903411-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: A -8 (H903411-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/09/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/10/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: A - 10 (H903411-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: E - 2 (H903411-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4080	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: E - 4 (H903411-12)

Chloride, SM4500Cl-B	hloride, SM4500Cl-B mg/kg			Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: E - 6 (H903411-13)

Chloride, SM4500Cl-B	500Cl-B mg/kg			Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: E - 8 (H903411-14)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/09/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/10/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: E - 10 (H903411-15)

Chloride, SM4500Cl-B	mg/kg			Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: G - 2 (H903411-16)

Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1920	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: G - 4 (H903411-17)

Chloride, SM4500Cl-B mg/kg			Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: G - 6 (H903411-18)

Chloride, SM4500Cl-B	3 mg/kg			Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/09/2019	ND	432	108	400	0.00	

Sample ID: G - 8 (H903411-19)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/09/2019	ND	416	104	400	0.00	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	10/08/2019	Sampling Date:	10/07/2019
Reported:	10/10/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: G - 10 (H903411-20)

Chloride, SM4500CI-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/09/2019	ND	416	104	400	0.00	

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Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

Celey D. Keine

Received by OCD: 1/2/2020 10:54:15 AM

Company Name: Republic Backhoe Service City: Address: Phone #: Project Manager: Eric Garcia **Relinquished By:** analyses. Al claims including those for negligence and any other cause whatsoever shall be deemed sarvice. In no event shall Cardinal be jable for incidental or consequental damages, including without **Relinquished By:** LEASE NOTE: Liability and 190341 FOR LAB USE ONLY roject Location: roject Name: Sampler - UPS roject #: Lab I.D. Delivered By: (Circle One) ampler Name: † Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 575-631-0131 Lovington Ω 6 00 101 East Marland, Hobbs, NM 88240 LUCY (575) 393-2326 FAX (575) 393-2476 Fric FI A-4 F-47 E. Dickens Rd. Bus - Other: Lea 1 ١) 1 1 r es. Cardinal's ltability and diont's exclusive remedy for any claim 000 N 2 6 1 7 stated to the po 0 Sample I.D. Federa Lount Sarcia 6.1c 1101490 Fax #: Project Owner: Tump: jos Time: Date: Date: - 8-19 State: キン NM noer by L including without limitation, business in Zip: 1.64 (G)RAB OR (C)OMP. S Received By: Received By: # CONTAINERS 88260 GROUNDWATER unless made in writing and received by Cardinal WASTEWATER Ves Yes Sample Condition of whether such daim is based upon any of the MATRIX SOIL ł OIL contract or lort, shau SLUDGE loss of use, or loss of OTHER : State: NM Zip: 88202 Fax #: Phone #575-390-2425 city: Roswel Address: PO Box 1518 P.O. #: Attn: Joe Toyour company: Read and Stever ACID/BASE: PRESERV. CHECKED BY: (Initials) ICE / COOL 語。2 編 座 1 に 語 d OTHER : i within 30 days after completion of the applicable profits incurred by client, its subsidiaries, 10/7/19/9:30 0/2/19/11:00 2 10 10/7/19/10:20 0/7/19 10:00 0 0/7/19 11:15 0/7/19/9:15 SAMPLING DATE 17/19 2/19/10:55 2/19/10:52 Phone Result: Fax Result: REMARKS: email results to: by the client for the ericqarcialed a hotmail.com TIME Chloride t D Yes ANALYSIS REQUEST Add'l Phone : Add'l Fax #:

Page 152 of 180

CARDINAL Bage 8 of 9

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Received by OCD: 1/2/2020 10:54:15 AM

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476		
Company Name: Republic Backhoe Service Project Manager: Eric Garcia	P.O. #:	
Address: 47 E. Dickens Rd.	Company: Read and	nel Ctevenn
Lovington State: NM	Zip: 88260 Attn: Joe Toyour	14
№ 株· 575-631-0131 F	0	
Project #: Project Owner:		
me: Lucy Feder	NM Zip:	88202
n:	3	52H2-9b2-
Sampler Name: Eric Garcia	Fax #:	
	SERV.	SAMPLING 2
ĸ	RS TER ER	
Lab I.D. Sample I.D.	ER : /BASE: COOL	hlor
H903411	# CON GROU WAST SOIL OIL SLUD OTHE ACID/	TIME
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12 E-LI		(a)5:10
13 E-0	10/7/9	(a) 5:20
14 E- S	0/7/9	1953S
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16 6-2		1916:50
12 6-4	12	196:15
N2 6-6		1916:25111
19 G-8	2	
20 6-10	⊥ ⊥ o/7/	196:50121
PLEAGE NOTE: Lability and Damages. Cardinats liability and cloint's exclusive remedy for any claim atlang whether based in contract or tort, shall be finited to the analyses. At claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardnai within	claim artaing whether based in contract or tort, shall be finited to the amou amed waived unless made in writing and received by Cardinal within 30 day	nt pad by the client for the applicable and the second s
dnal be isble for incidental or consequentsi damages, including w out of or related to the ponformence of services hereunder by Cer	hithout limitation, business interruptions, loss of use, or loss of profits incurred to the interview of the second state of the second s	
61-8	Keceiven by:	Phone Result: U Yes U No Add'I Phone #: Fax Result: U Yes D No Add'I Fax #:
Relinquished By: Date: Date:	Received By:	omail. results to.
Time:		
Delivered By: (Circle One) 1/6,12	e Condition CH	,
Sampler - UPS - Bus - Other: Physicilia 1		
† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	fax written changes to (575) 393-2326	

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1

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



December 02, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 11/25/19 11:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/21/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 8 A - 4 (H903997-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 8 A - 5 (H903997-02)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 8 A - 10 (H903997-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 9 A - 2 (H903997-04)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

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Celey D. Keine



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/21/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 9 A - 5 (H903997-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 9 A - 10 (H903997-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 10 A - 2 (H903997-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 10 A - 5 (H903997-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 10 A - 10 (H903997-09)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	11/27/2019	ND	432	108	400	0.00	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/21/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 11 A - 2 (H903997-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 11 A - 5 (H903997-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 11 A - 10 (H903997-12)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 12 A - 2 (H903997-13)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 12 A - 5 (H903997-14)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/27/2019	ND	432	108	400	0.00	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

11/25/2019	Sampling Date:	11/21/2019
12/02/2019	Sampling Type:	Soil
LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
NONE GIVEN	Sample Received By:	Tamara Oldaker
READ & STEVENS - LEA CO NM		
	12/02/2019 LUCY FEDERAL #2 NONE GIVEN	12/02/2019Sampling Type:LUCY FEDERAL #2Sampling Condition:NONE GIVENSample Received By:

Sample ID: 12 A - 10 (H903997-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 13 A - 2 (H903997-16)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 13 A - 5 (H903997-17)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 13 A - 10 (H903997-18)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 14 A - 2 (H903997-19)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	11/27/2019	ND	432	108	400	0.00	

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*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/21/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 14 A - 5 (H903997-20)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 14 A - 10 (H903997-21)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 15 A - 2 (H903997-22)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 15 A - 5 (H903997-23)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 15 A - 10 (H903997-24)

Chloride, SM4500Cl-B	mg/	kg	Analyzed	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

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*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/21/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 16 A - 3 (H903997-25)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 16 A - 5 (H903997-26)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 16 A - 10 (H903997-27)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 17 A - 4 (H903997-28)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 17 A - 5 (H903997-29)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	11/27/2019	ND	400	100	400	7.69	

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*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/21/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 17 A - 10 (H903997-30)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	11/27/2019	ND	400	100	400	7.69	

Cardinal Laboratories

*=Accredited Analyte

PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

Celey D. Keine

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

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	1218	s: 00	575-631-0131 Fax #:	Phone #:
		88260 Attn: Joe Toy	Lovington State: NM Zip:	City:
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ANAI VSIS RECIIEST		<i>できたがも1日をのまままで</i>	y Name: Republic Backhoe Service	Company Name:
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Page 10 of 12

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

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	l.	stevens city: Roswell	Project Owner: Lead & Ste	-	-{
	1518			-0131 Fax 供	Phone #: 0/0-031-0131
		Attn: Joe Toyar	NM Zip: 88260	State:	1
,	Stevens	Company: Reads		47 E. Dickens Rd.	Address: 4
		P.O. #		Eric Garcia	Project Manager: E
		OIL TTAKE		Republic Backhoe Service	

Page 11 of 12

Taboratories Page 12 of 12

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: Republic Backhoe Service	
Project Manager: Eric Garcia	P.O. # ANALYSIS REQUEST
Address: 47 E. Dickens Rd.	nanv. Dood c
City: Lovington State: NM Zip: 88260	JIEVENS
- 13	Address: D/) BAX 1518
Project Owner: legal & Stevens	SX
-ucy tederal #2	State: NM ZID: 882/12
Project Location: Leg County	Phone #:575-390-2495
Eric C	Fax#
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Received By:	Phone Result: Yes No
Time	Fax Result: Yes No Add'l Fax #: REMARKS: Remarks: Remarks: Remarks: Remarks:
Relinquished By: Date: Received By:	Kalling
Time:	email results to: ericgarciale2@hotmail.com
Delivered By: (Circle One) 19.82 #C71 Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other: Contract 20. 3 Yes Tres	(Initials)
† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326	75) 393-2326

Received by OCD: 1/2/2020 10:54:15 AM

Page 165 of 180



December 02, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 11/25/19 11:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/20/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 1 A - 2 (H903996-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 1 A - 5 (H903996-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 1 A - 10 (H903996-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 2 A - 2 (H903996-04)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	11/27/2019	ND	400	100	400	7.69	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/20/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 2 A - 5 (H903996-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/27/2019	ND	400	100	400	7.69	

Sample ID: 2 A - 10 (H903996-06)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 3 A - 2 (H903996-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 3 A - 5 (H903996-08)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 3 A - 10 (H903996-09)

Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/20/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 4 A - 3 (H903996-10)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 4 A - 5 (H903996-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 4 A - 10 (H903996-12)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 5 A - 2 (H903996-13)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 5 A - 5 (H903996-14)

Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/27/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/20/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 5 A - 10 (H903996-15)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 6 A - 2 (H903996-16)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 6 A - 5 (H903996-17)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 6 A - 10 (H903996-18)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 7 A - 2 (H903996-19)

Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	11/27/2019	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/25/2019	Sampling Date:	11/20/2019
Reported:	12/02/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: 7 A - 5 (H903996-20)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/27/2019	ND	432	108	400	0.00	

Sample ID: 7 A - 10 (H903996-21)

Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/27/2019	ND	432	108	400	0.00	

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Celey D. Keine



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

Celey D. Keine

Received by OCD: 1/2/2020 10:54:15 AM

Sampler - UPS - Bus - Other: Relinquished By: Relinquished By: Delivered By: (Circle One) City: H903494 Address: lyses, Al daims EASE NOTE Lab I.D. Phone #: Project Manager: Eric Garcia Company Name: Republic Backhoe Service FOR LAB USE ONLY roject Location: ico. In no event shall Cardinal be table roject Name: roject #: ampler Name: † Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 \mathcal{L} 6 N P Lovington 575-631-0131 2A-10 3A-2 3A-5 3A-10 - BL out of or related to the Eric LU CV 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 1A-10 A-2 A-5 47 E. Dickens Rd Lea D D 5 f igence and any 2 Sample I.D. Zarcia ounty Federal 38.61 Correr cause whatsoever shall be deemed y Date: 11-25-19 Time: 40 Date: Time: intal damages, including without limitation, busines Project Owner: lead & Stevens Fax #: State: #2 NM ても井 20 Received By: Received By: Zip: V (G)RAB OR (C)OMP. # CONTAINERS 88260 Cool Intact Yes Yes GROUNDWATER Sample Condition WASTEWATER made in writing and roce SOIL MATRIX 070 OIL SLUDGE loss of use, OTHER : City: KOSWel Phone #575-390-2425 State: NM Zip: Attn: Joe Toyar P.O. #: Fax #: Address: PO Box 1518 Company: Read & Stevens ed by Cardinal within 30 days after complotion for the of by Cardinal within 30 days after complotion of the applicable use, or bass of profits incurred by client, its subsidiaries, ACID/BASE PRESERV d CHECKED BY: (Initials) ICE / COOL 1.1 OTHER : 24:11/01/02/ 20/19/10: 415 DATE 1001 SAMPLING 1. 2 3 0 C0238 1910:50 Sh. 50 D REMARKS: 00:11 email results to: encgarciale2@hotmail.con 9:15 Phone Result: CHAIN-OF-CUSTODY AND ANALYSIS REQUEST 8:00 TIME Chlonide D Yes Add'l Phone #: Add'l Fax #: ANALYSIS REQUEST .

Page 173 of 180

ARDINAL Laboratories

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name:		
Project Manager: Eric Garcia	ANALYSIS REQUEST	
Address: 47 E. Dickens Rd.		
The state	10	
	ss: DA RAY	
Project Owner: lad ES	tevens city: Roswell	
ucy federal #2	State: N/M ZID: 8827/7	
Project Location: Leg Columty	Phone #1/7/- 20/2/2/	í
Sampler Name: Eric Garcia		
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Relinquished By: Sampler - UPS - Bus - Other: Relinquished By: nalysos, All dalms H903996 City: Delivered By: (Circle One) arvice. In no event shall Cardinal be table for Inci Project Name: EASE NOTE: Liability and Project Location: Phone #: Address: Project Manager: Eric Garcia Company Name: Republic Backhoe Service Sampler Name: roject #: Lab I.D. FOR LAB USE ONLY † Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 including those for negligence and any 575-631-0131 Lovington FUCN Eric 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 Leg 47 E. Dickens Rd. TI Sample I.D. ī Zarcia ounty federal 19.80 osturl Time: 40 cause whatsoever shall be de luontal damages, including without Date: Time: Date: //-25-19 Fax 拱 Project Owner: Lead & Stevens State: 1 #2 NN ing lor an 20. Received By: Zip: Received By: T(G)RAB OR (C)OMP. #CONTAINERS 88260 GROUNDWATER Cool Intact Yes HYes Sample Condition 1055 WASTEWATER ar based in contract or text, shall be *Invited* to the amount paid by the client for the *i* - made in writing and received by Cardnal within 30 days after completion of the applicable SOIL MATRIX er such claim is based upon any of the OIL ions, loss of use, or loss of prafits incurrod by cliont, its subsidieries. Spirn is bused upon any of the above stated reasons or otherwise. SLUDGE City: Koswel OTHER : Phone #575-396-2425 State: NM Zip: P.O. #: Fax #: Address: PO Box 1518 Attn: Joe Tovar company: Read & Stevens ACID/BASE: PRESERV. 40 CHECKED BY: (Initials) ICE / COOL 理:川京時山:四 OTHER : DATE 20/19/4:00 SAMPLING 20238 Phone Result: Fax Result: REMARKS: email results to: ericgarciale2@hotmail.com CHAIN-OF-CUSTODY AND ANALYSIS REQUEST TIME Chlonide Yes Add'l Phone #: Add'l Fax #: ANALYSIS REQUEST .

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Laboratories

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November 26, 2019

ERIC GARCIA REPUBLIC BACKHOE SERVICES 47 E. DICKENS RD LOVINGTON, NM 88260

RE: LUCY FEDERAL #2

Enclosed are the results of analyses for samples received by the laboratory on 11/22/19 11:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Sigh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/22/2019	Sampling Date:	11/19/2019
Reported:	11/26/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: N 3 - 2 (H903973-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	11/26/2019	ND	416	104	400	0.00	

Sample ID: N 3 - 5 (H903973-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	11/26/2019	ND	416	104	400	0.00	

Sample ID: N 3 - 10 (H903973-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	11/26/2019	ND	416	104	400	0.00	

Sample ID: N 4 - 2 (H903973-04)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/26/2019	ND	416	104	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

whe Sigh

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



REPUBLIC BACKHOE SERVICES ERIC GARCIA 47 E. DICKENS RD LOVINGTON NM, 88260 Fax To: NONE

Received:	11/22/2019	Sampling Date:	11/19/2019
Reported:	11/26/2019	Sampling Type:	Soil
Project Name:	LUCY FEDERAL #2	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	READ & STEVENS - LEA CO NM		

Sample ID: N 4 - 5 (H903973-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	11/26/2019	ND	416	104	400	0.00	

Sample ID: N 4 - 10 (H903973-06)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	11/26/2019	ND	416	104	400	0.00	

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whe Sigh

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whotscover shall be deemed waved unless made in writing and received by claims, including those for angligence and including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall note performance of the reproduced except in full with written approval of Cardinal Laborations.

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

PLEASE NOTE: Lability and Damages, Candinats liability and clients exclusive remody for any clean artising whother based in contract or tost, shall be finited to the amount paid by the client for the analyses. At claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be fable for incidental demages, including without limitation, businessintemptions, less of use, or loss of profits incurred by client, its subsidiaries, service. In no event shall Cardinal be fable for incidental demages, including without limitation, businessintemptions, less of use, or loss of profits incurred by client, its subsidiaries, Relinquished By City: Company Name: Republic Backhoe Service Sampler - UPS - Bus - Other: Relinquished By: Phone #: 490397: Project Location: Project Name: LUCY Project #: Address: Project Manager: Eric Garcia Delivered By: (Circle One) FOR LAB USE ONLY ampler Name: Lab I.D. † Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 575-631-0131 Lovington 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 N4-5 N4-5 N3-2 INIC 47 E. Dickens Rd N4-10 00 Sample I.D. redeval #2 Darcie ounty 17.42 orrected Date: //-23-/ Time; 20 Project Owner: Fax #: Time: Date: State: under by NM C Received By: 17.82 Zip: **Received By:** (G)RAB OR (C)OMP. 5 Ħ # CONTAINERS 88260 GROUNDWATER Yes Yes Sample Condition of whether such claim is based upon any of the above stated WASTEWATER SOIL MATRIX × OIL SLUDGE OTHER : P.O. #: Phone #: 575-390-2425 State: NM Zip: 88202 City: KOSWE Address: PO Box 1518 Company: Read and Steven -ax #: Attn: Joe lovar ACID/BASE: PRESERV. 10 CHECKED BY: (Initials) ICE / COOL (o) 44 [[[] OTHER : SAMPLING 04:11/14/14 11:40 19/19/11:10 DATE 19/19/12:00 19/19/11:20 19/19/11:50 19/19 11:00 Phone Result: Fax Result: REMARKS: CHAIN-OF-CUSTODY AND ANALYSIS REQUEST email results to evicgarcial a hotmail com TIME Chloride Yes Add'l Phone #: Add'l Fax #: ANALYSIS REQUES

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