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Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
6/24/2019		SWD	pMAM1917749803

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & Engineering Bureau –
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: LilyStream Water Solutions, LLC **OGRID Number:** 373500
Well Name: Berry Eaves SWD #2 **API:** 30-015-xxxxx
Pool: Proposed: SWD; Devonian-Silurian **Pool Code:** 97869

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐NSL ☐NSP (PROJECT AREA) ☐NSP (PRORATION UNIT) ☐SD

SWD-2169

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☐DHC ☐CTB ☐PLC ☐PC ☐OLS ☐OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐WFX ☐PMX ■SWD ☐IPI ☐EOR ☐PPR

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ■ Offset operators or lease holders
B. ■ Royalty, overriding royalty owners, revenue owners
C. ■ Application requires published notice
D. ■ Notification and/or concurrent approval by SLO
E. ■ Notification and/or concurrent approval by BLM
F. ■ Surface owner
G. ■ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

☐ Notice Complete
☐ Application Content Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Joel Lowry
Print or Type Name

Joel Lowry
Signature

5/10/2019
Date

432-466-4450
Phone Number

joel@lowryenvironmental.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. *PURPOSE:* _____ *Secondary Recovery* _____ *Pressure Maintenance* **XXX** *Disposal* _____ *Storage*
Application qualifies for administrative approval? **XXX** *Yes* _____ *No*

II. *OPERATOR:* **LilyStream Water Solutions, LLC**
ADDRESS: **1308 West Ave. N, Lovington, NM, 88260**
CONTACT PARTY: **Joel Lowry** *PHONE:* **432-466-4450**

III. *WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injections. Additional sheets may be attached if necessary.*

Applicable Well Data is provided as Attachment #1.

IV. *Is this an expansion of an existing project?* _____ *Yes* **XXX** *No*
If yes, give the Division order number authorizing the project: **N/A**

V. *Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.*

A map identifying all wells and leases within a two mile radius is provided as Figure 1 in Attachment #2.
A map identifying all wells and leases within the one-mile expanded Area of Review is provided as Figure 2 in Attachment #2.

VI. *Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.*

A tabulation of data on all wells of public record within the expanded area of review which penetrate the proposed injection zone is provided as Attachment #3.

VII. *Attach data on the proposed operation, including:*

1. *Proposed average and maximum daily rate and volume of fluids to be injected;*
2. *Whether the system is open or closed;*
3. *Proposed average and maximum injection pressure;*
4. *Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,*
5. *If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).*

Proposed operation details are provided as Attachment #4.
Analysis from source zone produced water is provided as Attachment #4a.
Analysis from injection zone produced water is provided as Attachment #4b.

***VIII.** *Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.*

Geological data on the proposed injection zone is provided as Attachment #5.

IX. *Describe the proposed stimulation program, if any.*

Acid may be utilized to clean and open the formation in accordance with industry standards, as necessary.

***X.** *Attached appropriate logging and test data on the well. (If well logs have been filed with the Division, the need not be resubmitted).*

As this is a new drill, logging and test data is not available. Well Log and test data will be filed with the NMOCD upon completion of the well. NMOCD District I Office will be notified prior to conducting MIT.

***XI.** *Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.*

A map depicting fresh water wells within a one mile radius and associated chemical analysis, if applicable, is provided as Attachment #6.

XII *Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal one and any underground sources of drinking water.*

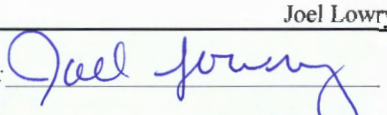
An Affirmative Statement is provided as Attachment #7.

XIII *Applicants must complete the "Proof of Notice" section on the reverse side of this form.*

"Proof of Notice" documentation is provided as Attachment #8.

XIV. *Certification: I hereby certify that the information submitted with the application is true and correct to the best of my knowledge and belief.*

NAME: Joel Lowry *TITLE:* Agent of Lilystream Water Solutions, LLC

SIGNATURE: 

EMAIL ADDRESS: joel@lowryenvironmental.com

If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submitta

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

ATTACHMENT #1

Well Data

Attachment #1 **III. Well Data**

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1)

General Well Information	
Operator	LilyStream Water Solutions, LLC
Lease Name & Well No.	Berry Eaves SWD #2
Location	200' FSL & 225' FWL, UL D, Sec. 18, T21S, R33E

(2)

Casing Information								
String	Size (in.)	Grade	Weight	Setting Depth (ft bgs)	Cement (sx)	Hole Size (in.)	Estimated Top of Cement	Method of Determination
Surface	20	J-55	94.0 lb/ft.	1,662	2,600	26	Surface	Circulation
Intermediate 1	13.375	P-110	80.7 lb/ft	5,802	3,700	17.5	Surface	Circulation
Production	9.625	P-110	53.5 lb/ft.	12,107	3,200	12.25	Surface	Circulation
Liner	7.625	P-110	39.0 lb/ft.	11807 to 15637	390	8.5	11807' (TOL)	CBL

(3)

Description of Tubing			
Size	Weight	Lining Material	Setting Depth (ft.)
5.5"	23.0 lb/ft	Internal Plastic Coated	11,747
5"	18.0 lb/ft	Internal Plastic Coated	15,537

(4)

Packer Information	
Type	Setting Depth (ft.)
LOK-SET ™ or Equivalent	15,537

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

	Injection Information	
(1)	Name of Injection Formation:	Devonian-Silurian
(2)	Injection Interval:	15637 to 16887 ft.
	Perforated or Open-Hole:	Open Hole
(3)	Purpose of Well:	New Drill for Salt Water Disposal
(4)	Other Perforated Intervals:	None

(5)

Estimated Depth of Various Formations Including Oil and Gas Zones (ft. bgs)	
T. Rustler	1,637
T. Salt	1,705
B. Salt	3,307
T. Capitan	3,690
T. Delaware	5,702
T. Bone Spring	8,917
T. Wolfcamp	11,707
T. Strawn	13,117
T. Atoka	13,317
T. Morrow	13,717
T. Missippian	14,742
T. Woodford Shale	15,470
T. Devonian	15,637
T. Montoya	16,887

There are no known oil and gas zones beneath the proposed injection zone.

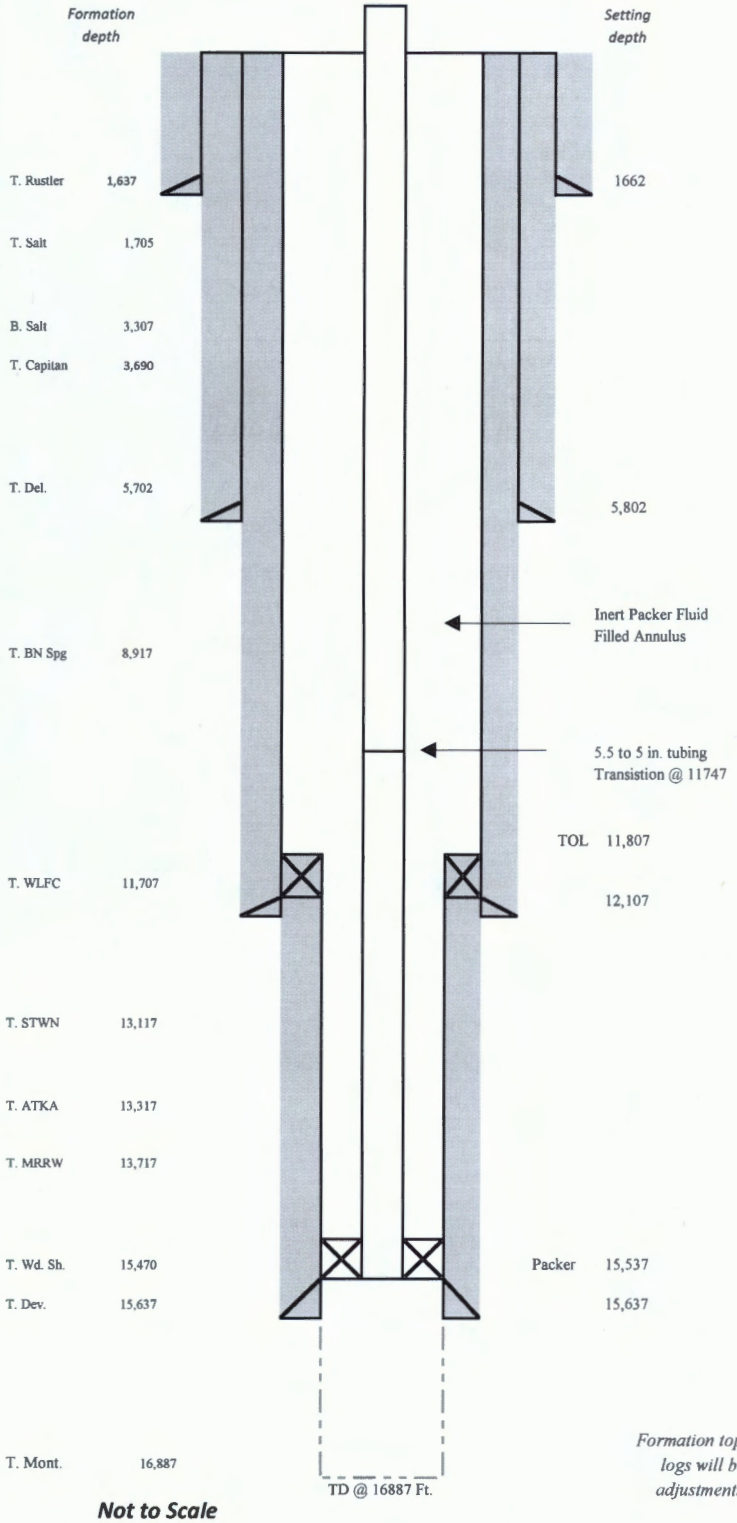
INJECTION WELL DATA SHEET

OPERATOR: **LilyStream Water Solutions, LLC**

WELL NAME & NUMBER: **Berry Eaves SWD #2**

WELL LOCATION					
200' FSL & 225' FWL	**D**	**18**	**21S**	**33E**
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



Not to Scale

WELL CONSTRUCTION DATA

Surface Casing

Hole Size **26** in. Casing Size: **20** in.

Setting Depth: **Surface** ft. to **1,662** ft.

Cemented with: **2600** sx. or _____ ft^3

Top of Cement: **Surface** Method Determined **Circulation**

1st Intermediate Casing

Hole Size **17.5** in. Casing Size: **13.375** in.

Setting Depth: **Surface** ft. to **5,802** ft.

Cemented with: **3700** sx. or _____ ft^3

Top of Cement: **Surface** Method Determined **Circulation**

Production Casing

Hole Size **12.25** in. Casing Size: **9.625** in.

Setting Depth: **Surface** ft. to **12,107** ft.

Cemented with: **3200** sx. or _____ ft^3

Top of Cement: **Surface** Method Determined **Circulation**

Liner

Hole Size **8.5** in. Casing Size: **7.625** in.

Setting Depth: **11,807** ft. to **15,637** ft.

Cemented with: **390** sx. or _____ ft^3

Top of Cement: **11807** TOL Method Determined **CBL**

Open Hole Injection Interval

15,637 ft. to **16,887** ft

Formation tops have been extrapulated from control wells in the vicinity. During drilling activites, mud and other logs will be utilized to confirm depths and thicknesses of geologic formations. Should logging data indicate adjustments are required to the casing and cement program, applicable Sundry Notices will be filed with the NMOCD.

INJECTION WELL DATA SHEET

Tubing Size: **5.5" tapered to 5"** Lining Matrial: **Internal Plastic Coated (ICP)**

Type of Packer: **LOK-SET ™ or Equivalent**

Packer Setting Depth: **15,537** Ft.

Other Type of Tubing/Casing Seal (if applicable): **Not Applicable**

Additional Data

1. Is this a new well drilled for injection? **XXX** Yes _____ No

   If no, for what purpose was the well oringally drilled? **N/A**

2. Name of the Injection Formation: **Devonian-Silurian**

3. Name of Field or Pool (if applicable): **SWD; Devonian-Silurian**

4. Has the well ever been perforated in any other zones (s)" List all such perforated intervals and give plugging detail, i.e. sacks of cent or plugs(s) used. **N/A**

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

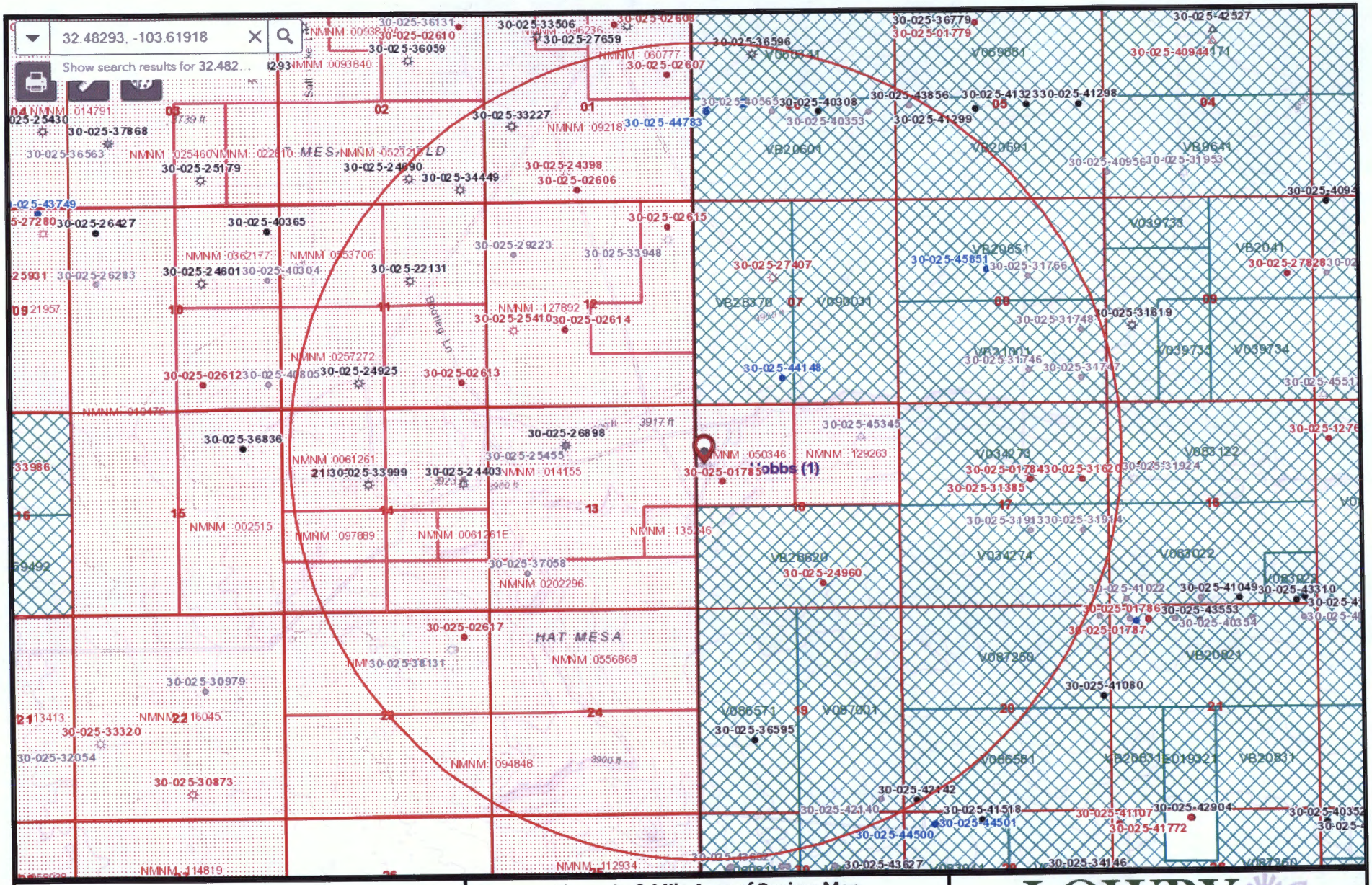
name	*depth*
T. Rustler	**1,637**
T. Salt	**1,705**
B. Salt	**3,307**
T. Capitan	**3,690**
T. Delaware	**5,702**
T. Bone Spring	**8,917**
T. Wolfcamp	**11,707**
T. Strawn	**13,117**
T. Atoka	**13,317**
T. Morrow	**13,717**
T. Missippian	**14,742**
T. Woodford	**15,470**
T. Devonian	**15,637**
T. Montoya	**16,887**

There are no known oil and gas zones underlying the proposed injection interval

ATTACHMENT #2

Figure 1 - 2-Mile Area of Review Map

Figure 2 - 1-Mile Area of Review Map



LEGEND:

- Proposed SWD Location
- 2-Mile Radius

Figure 1 - 2-Mile Area of Review Map

LilyStream Water Solutions, LLC

Berry Eaves SWD #2

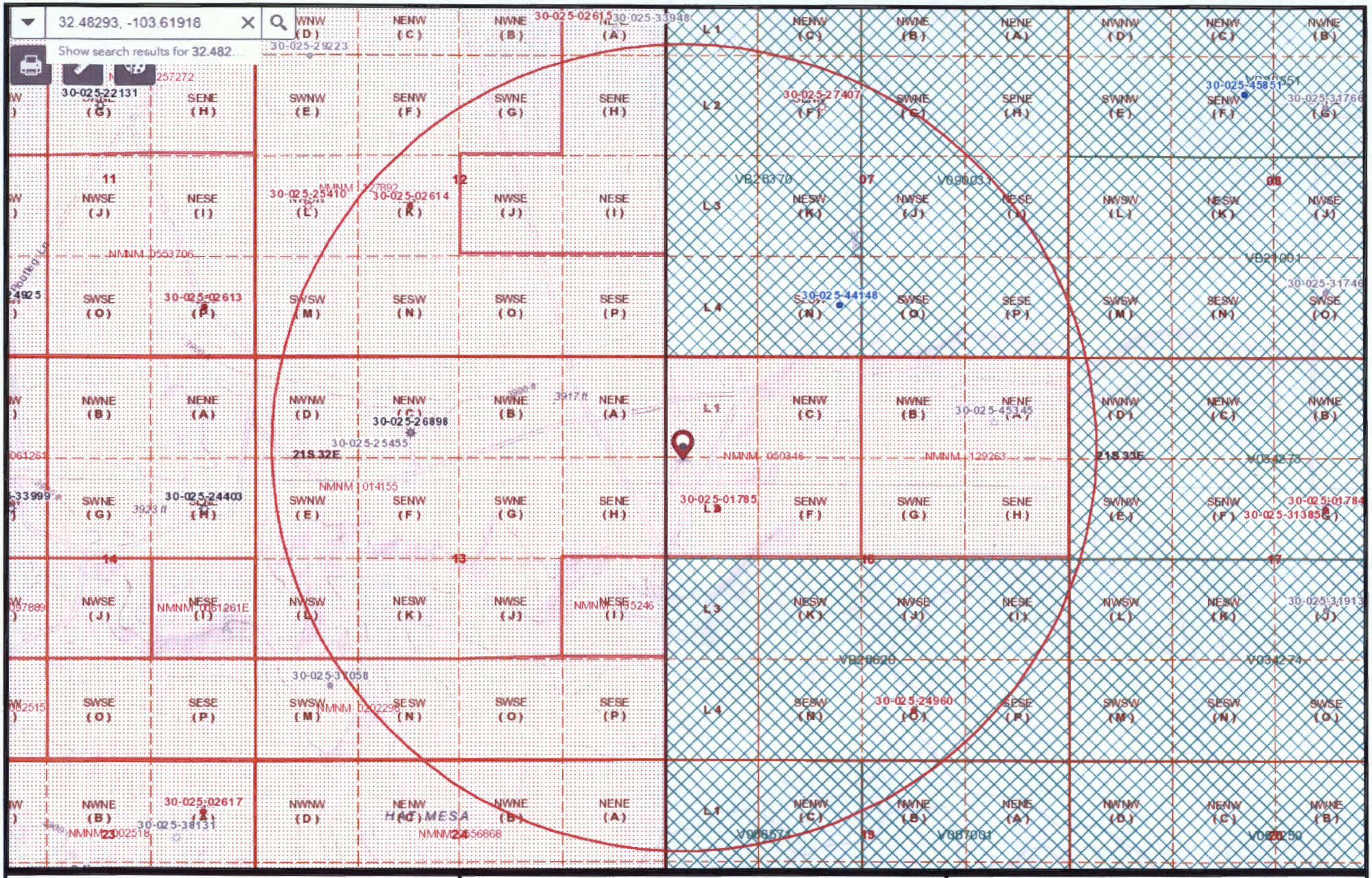
API No. Pending

Legals: UL D, Sec. 18,T21S, R33E

Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/11/2019



LEGEND:

- Proposed SWD Location
- 1-Mile Radius

Figure 2 - 1-Mile Area of Review Map

LilyStream Water Solutions, LLC

Berry Eaves SWD #2

API No. Pending

Legals: UL D, Sec. 18,T21S, R33E

Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/11/2019

ATTACHMENT #3

Tabulation of Data Wells within AOR

TABULATION OF DATA

Summary of Wells within AOR and Surrounding Vicinity									
API No.	Well Name	Type	Status	Section	Township	Range	Unit Letter	OCRID Name	Pool ID
30-025-01785	PRE-ONGARD WELL #001	Oil	P	18	21S	33E	E	PRE-ONGARD WELL OPERATOR	No Data
30-025-02606	PRE-ONGARD WELL #001	Oil	P	1	21S	32E	N	PRE-ONGARD WELL OPERATOR	No Data
30-025-02613	PRE-ONGARD WELL #001	Oil	P	11	21S	32E	P	PRE-ONGARD WELL OPERATOR	No Data
30-025-02614	PRE-ONGARD WELL #001	Oil	P	12	21S	32E	K	PRE-ONGARD WELL OPERATOR	No Data
30-025-02615	PRE-ONGARD WELL #001	Oil	P	12	21S	32E	A	PRE-ONGARD WELL OPERATOR	No Data
30-025-02617	PRE-ONGARD WELL #001	Oil	P	23	21S	32E	A	PRE-ONGARD WELL OPERATOR	No Data
30-025-24398	PRE-ONGARD WELL #001	Gas	P	1	21S	32E	N	PRE-ONGARD WELL OPERATOR	[78240] HAT MESA, MORROW (GAS)
30-025-24403	HAT MESA #001	Gas	A	14	21S	32E	H	REGENERATION ENERGY, CORPORATION	[78240] HAT MESA, MORROW (GAS)
30-025-24960	PRE-ONGARD WELL #001	Oil	P	18	21S	33E	O	PRE-ONGARD WELL OPERATOR	No Data
30-025-25410	PRE-ONGARD WELL #001	Gas	P	12	21S	32E	L	PRE-ONGARD WELL OPERATOR	[78240] HAT MESA, MORROW (GAS)
30-025-25455	PRE-ONGARD WELL #001	Oil	C	13	21S	32E	C	PRE-ONGARD WELL OPERATOR	No Data
30-025-26898	FEDERAL HM 13 #001	Gas	A	13	21S	32E	C	ADVANCE ENERGY PARTNERS HAT MESA, LLC	[78240] HAT MESA, MORROW (GAS)
30-025-27407	EAST HAT MESA UNIT #001	Gas	P	7	21S	33E	F	PENROC OIL CORP	[78240] HAT MESA, MORROW (GAS)
30-025-29223	PRE-ONGARD WELL #001	Oil	C	12	21S	32E	E	PRE-ONGARD WELL OPERATOR	No Data
30-025-33948	MINUS 12 FEDERAL COM #001	Gas	C	12	21S	32E	A	NEARBURG PRODUCING CO	No Data
30-025-36595	DAGGER STATE UNIT #003	Oil	A	19	21S	33E	K	ADVANCE ENERGY PARTNERS HAT MESA, LLC	[78240] HAT MESA, MORROW (GAS); [98033] WC-025 G-10 S213328O, WOLFCAMP
30-025-37058	DERBY 13 FEDERAL #001	Oil	C	13	21S	32E	M	SAMSON RESOURCES CO	[78240] HAT MESA, MORROW (GAS)
30-025-44148	TOQUE STATE COM #501H	Oil	N	7	21S	33E	N	ASCENT ENERGY, LLC.	[97895] WC-025 G-08 S213304D, BONE SPRING
30-025-45345	LIBBY BERRY FEE SWD #003C	SWD	Withdrawn	18	21S	33E	A	3BEAR FIELD SERVICES, LLC	[97869] SWD, DEVONIAN-SILURIAN

No Wells within AOR penetrate the proposed injection zone.

ATTACHMENT #4

Proposed Operations

A. Source Zone Produced Water Analysis

B. Injection Zone Produced Water Analysis

VII. Proposed Operations

Attach data on the proposed operation, including:

	Proposed Operation		
(1)	Average Rate:	20,000 bbls	
	Maximum Rate:	30,000 bbls	
(2)	Open or Closed:	Open	
(3)	Average Injection Pressure:	1,500 - 2,000	psi
	Maximum Injection Pressure:	3,127	psi

(4) ***Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and***

The anticipated sources of produced water proposed to be injected into the Devonian and Silurian formations are from the Delaware, Wolfcamp and Bone Springs Formations, which are known to be compatible with formation water from the Devonian Formation. Laboratory analysis of water samples collected from the respective formations is provided as **Attachment #4a.**

(5) ***If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water***

Laboratory analysis of water samples collected from the Devonian and Fusselman Formations are provided as **Attachment #4b.**

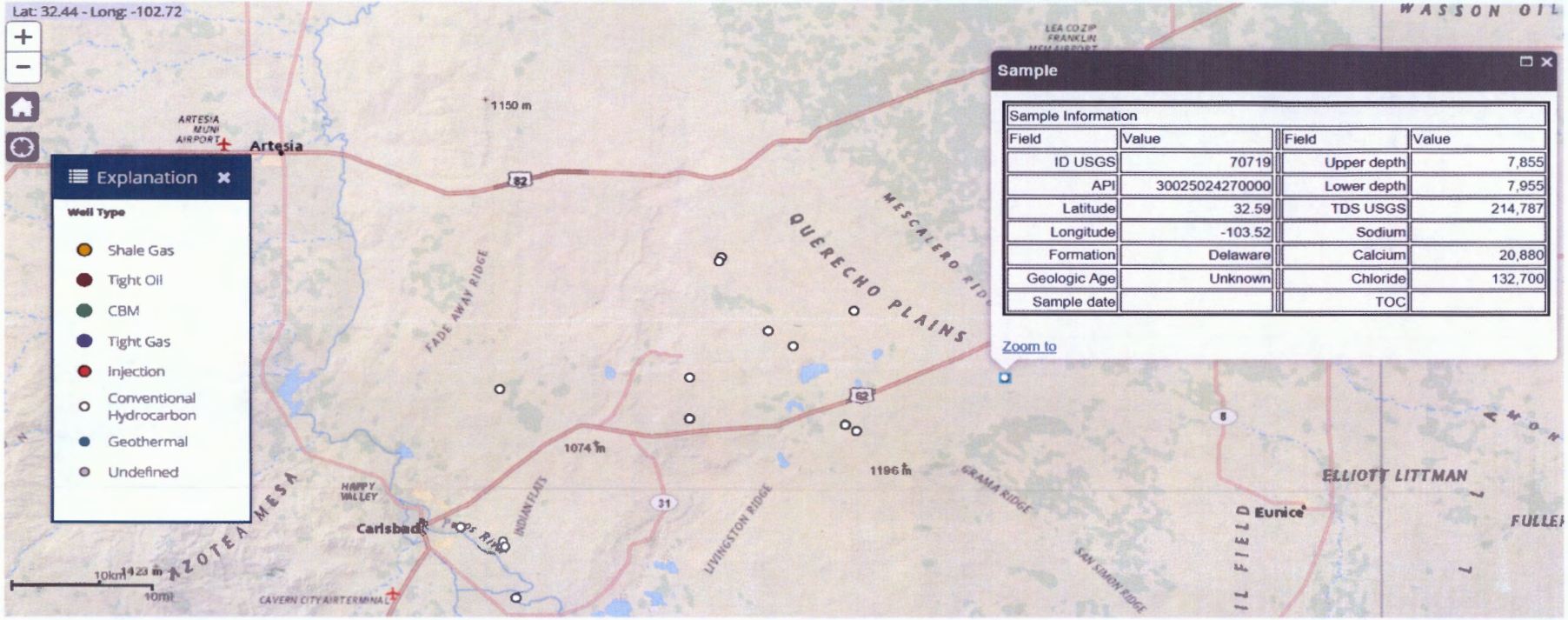
Safety, Spill Prevention and Release Response

Above-ground storage tanks (ASTs) associated with the SWD operation will be placed into a steel-walled, lined containment system. The well, injection equipment and ASTs will be equipment with metering and pressure sensing devices in an effort to monitor and ensure the integrity of the equipment and prevent accidental releases to the environment.

In the event of an accidental releases to the environment, a Release Notification (NMOCD Form C-141) will be prepared, characterizing the release and proposing remediation activates designed to mitigate environmental impacts, as necessary. In the event of an accidental discharge of greater than 25 bbls, the NMOCD will be notified immediately.

Attachment 4A - Source Zone Produced Water

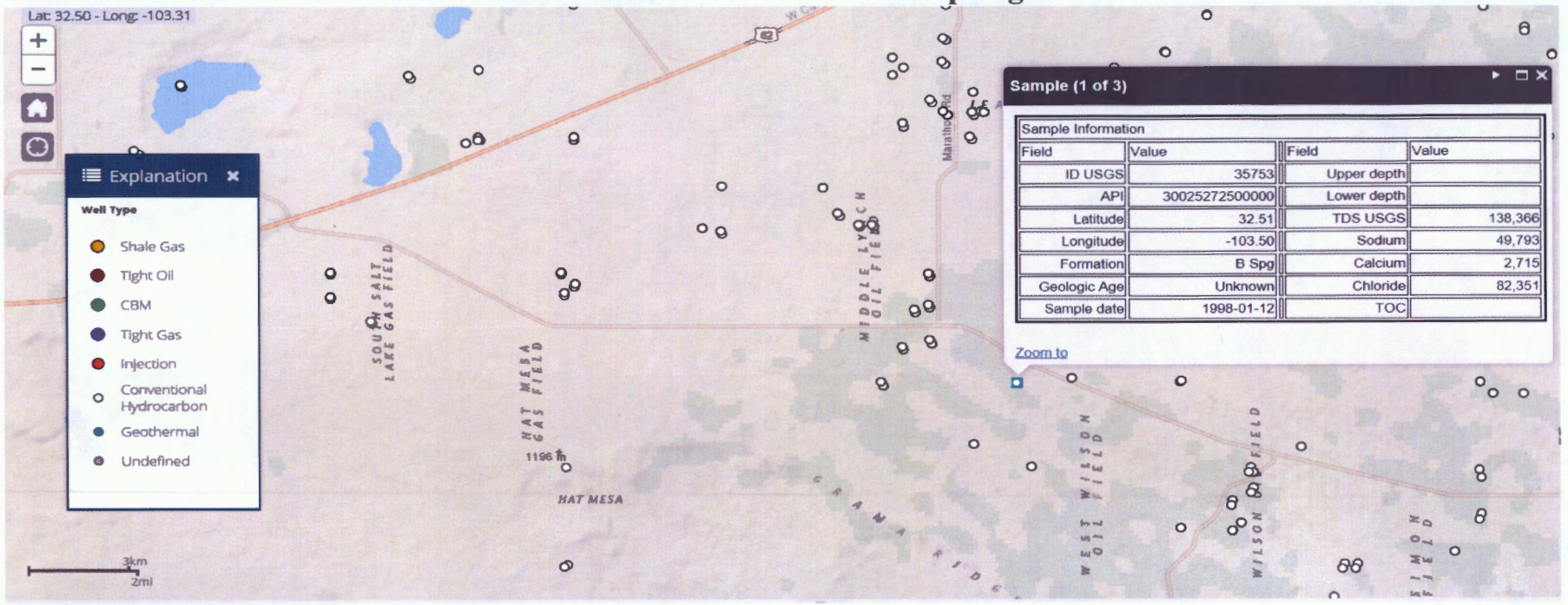
Delaware



Field	Value	Field	Value
ID USGS	70719	Upper depth	7,855
API	30025024270000	Lower depth	7,955
Latitude	32.59	TDS USGS	214,787
Longitude	-103.52	Sodium	
Formation	Delaware	Calcium	20,880
Geologic Age	Unknown	Chloride	132,700
Sample date		TOC	

Attachment 4A - Source Zone Produced Water

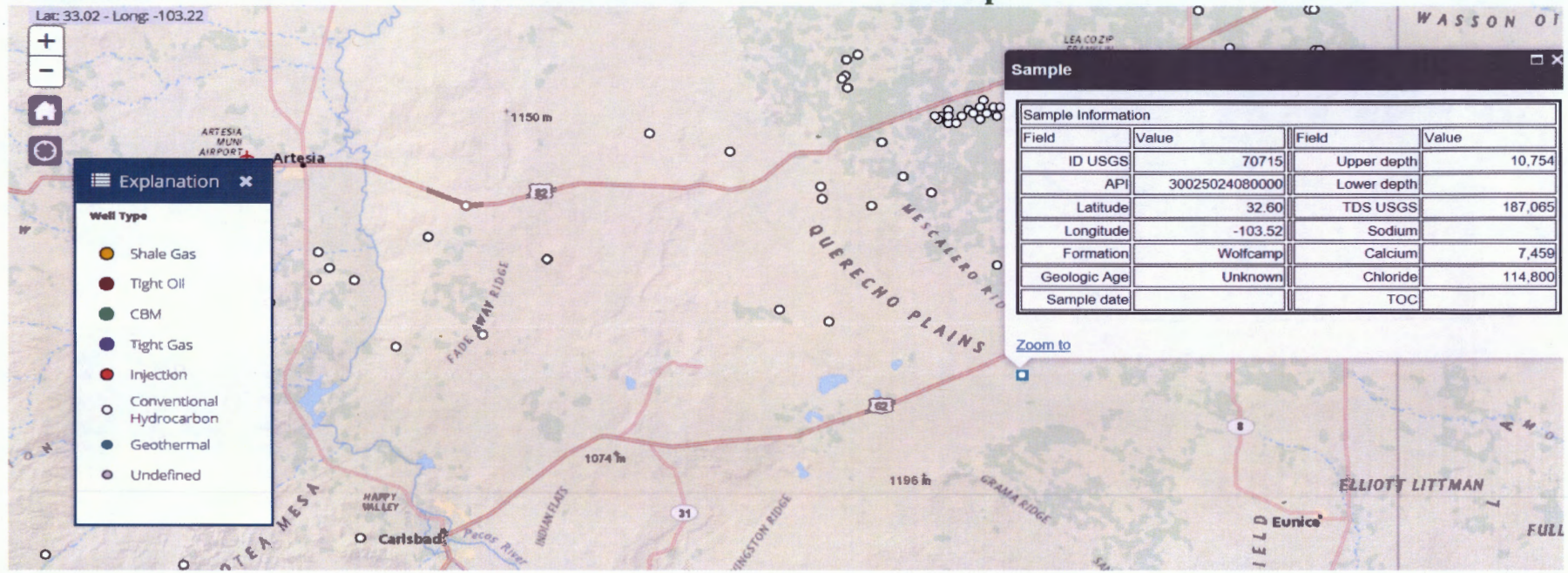
Bone Spring



Sample Information			
Field	Value	Field	Value
ID USGS	35753	Upper depth	
API	30025272500000	Lower depth	
Latitude	32.51	TDS USGS	138,366
Longitude	-103.50	Sodium	49,793
Formation	B Spg	Calcium	2,715
Geologic Age	Unknown	Chloride	82,351
Sample date	1998-01-12	TOC	

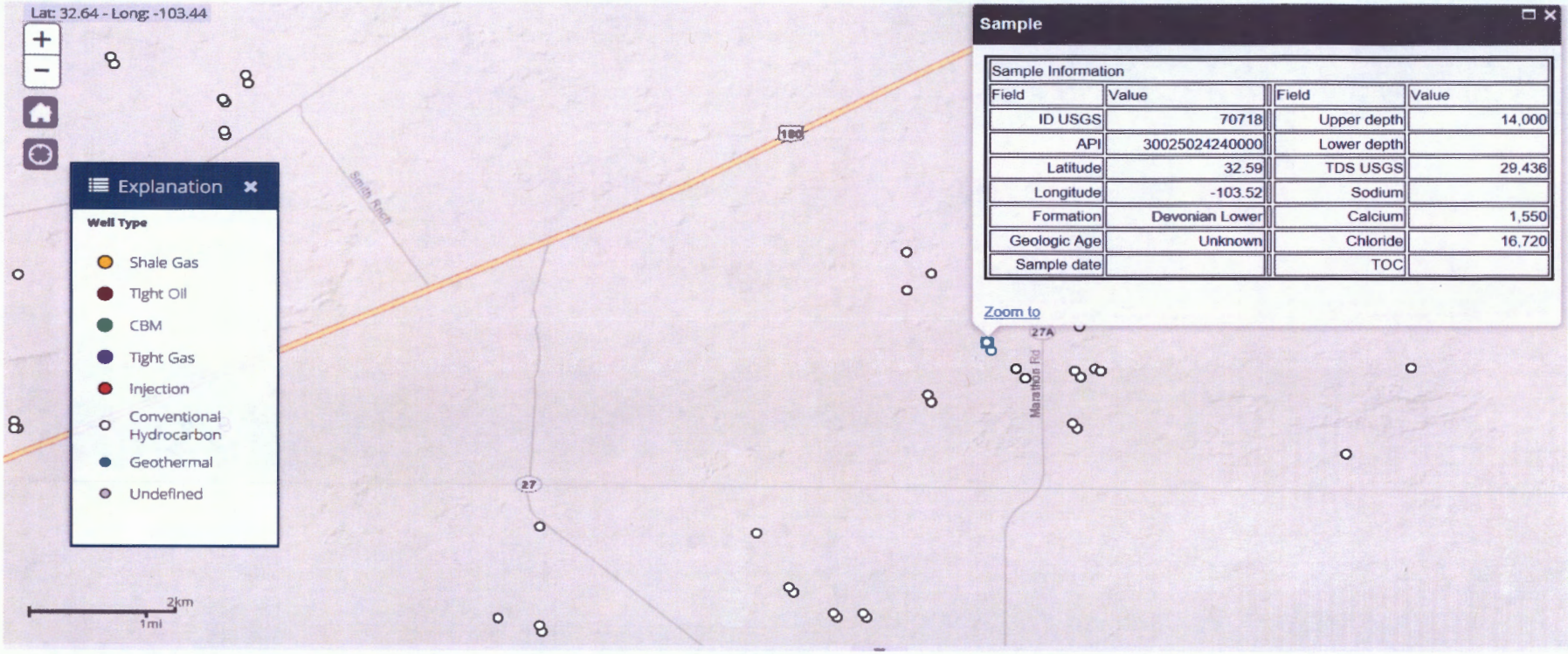
Attachment 4A - Source Zone Produced Water

Wolfcamp

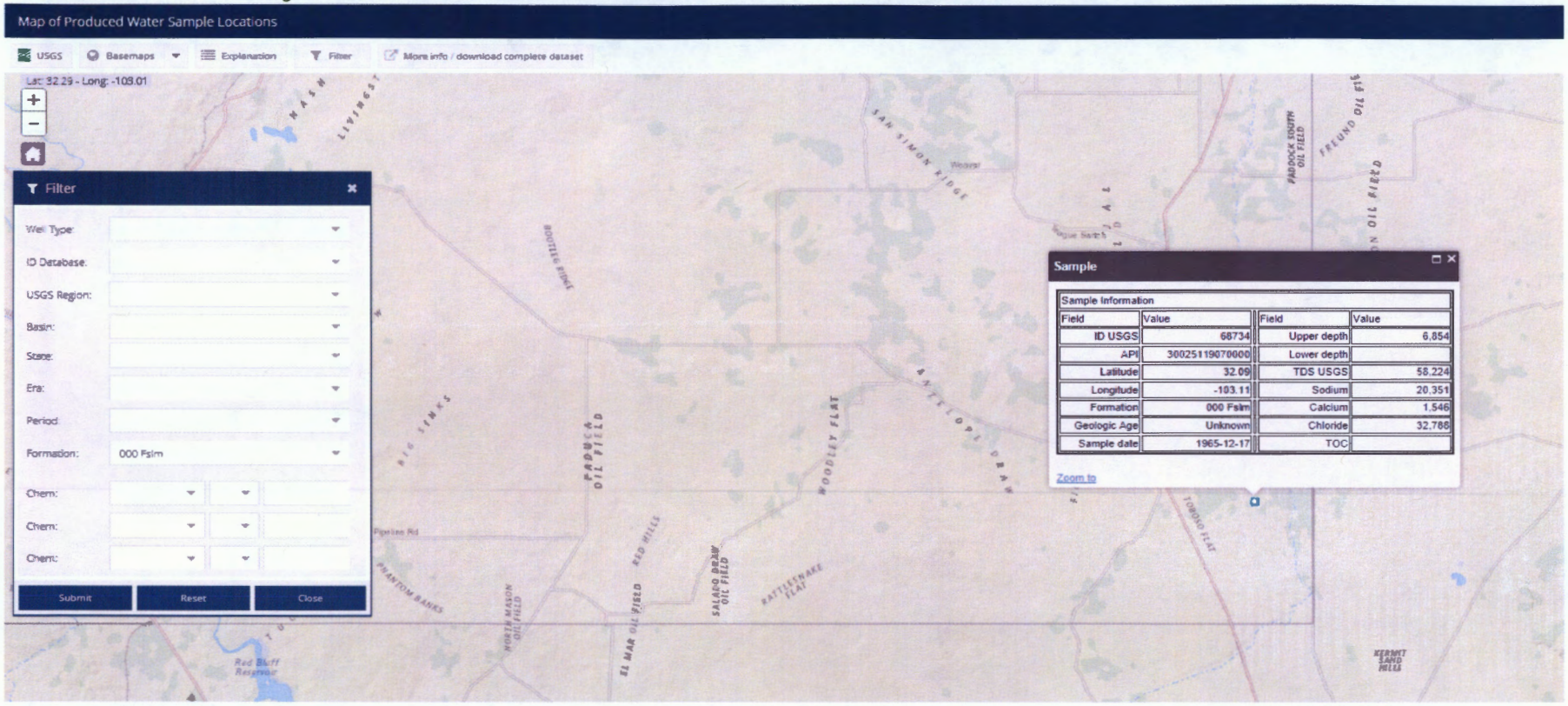


Sample Information			
Field	Value	Field	Value
ID USGS	70715	Upper depth	10,754
API	30025024080000	Lower depth	
Latitude	32.60	TDS USGS	187,065
Longitude	-103.52	Sodium	
Formation	Wolfcamp	Calcium	7,459
Geologic Age	Unknown	Chloride	114,800
Sample date		TOC	

Attachment 4B - Injection Zone Produced Water Devonian



Attachment 4B - Injection Zone Produced Water Fusselman



ATTACHMENT #5

A. Geological Description

B. Seismic Information

VIIIa Geologic Description

a. Attach appropriate geologic data on the injection zone including appropriate lithological detail, geologic name, thickness, and depth.

The proposed injection interval consists of sedimentary rock formations deposited during the Devonian and Silurian Periods. The Devonian Formation consists of porous dolomites, chert intervals and limestone (McGlasson, E.H. 1967). The thickness of the Devonian and Silurian Formations is estimated to be approximately 1,000 feet (ft.) locally. Sections of porous dolomite and limestone are believed to be present at the proposed injection site. The proposed injection interval is overlain by the Woodford Shale, which ranges in thickness from 100 to 300 ft. consists of organic-rich dark shales, black cherts, siltstone, sandstone and greenish-colored shales (Broadhead, R.F., 2010). Inferred depths of the proposed injection zone were estimated utilizing completions data from wells within the vicinity.

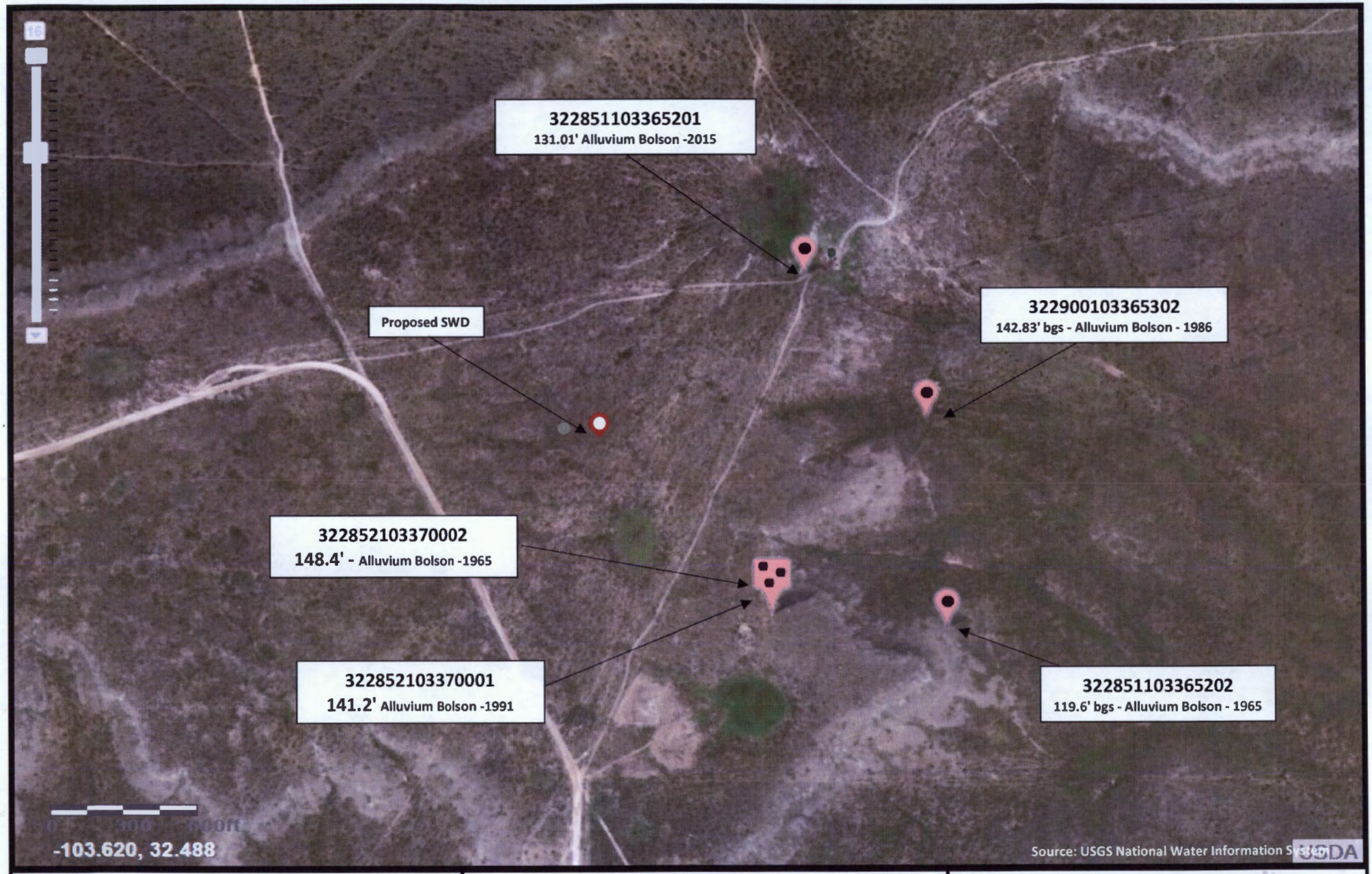
During the advancement of the proposed well, mud logging data will be utilized to ensure that the thickness of the Devonian and Silurian Formation is adequately defined, allowing for the proper placement of the packer, casing shoe and determination of the open-hole injection interval. Should logging data indicate depth adjustments are required for the casing program, applicable Sundry Notices will be filed with the NMOCD.

b. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/kg or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

A search of the USGS database suggests the historic presence of **five (5)** wells within the vicinity of the Site. **Each** of the wells were completed within Alluvium Bolson Deposits. Data from wells with available information suggested static water levels ranged from **119.6 ft. bgs** as measured within a well approximately **0.3 Mi southeast** of the Site to **148.4 ft. bgs** as measured in a well approximately **0.2 Mi. southeast** of the Site. Records suggest the historic presence USGS wells within a 1-Mile radius of the proposed injection well.

A search of the NMOSE database suggests the historic presence of **two (2)** wells within a 1-mile radius of the Site. The wells were drilled to depths of **160 ft. bgs and 170 ft. bgs**. If available and producing, **two (2)** of the identified fresh water wells will be sampled. Analytical results, if applicable, are provided in Attachment #6.

Sources of drinking water in the area are likely limited to Alluvium and Bolson Deposits. Other known sources of water may include the Ochoan Series, which is expected to be encountered at a depth of **1,637 ft. bgs** and the Capitan Reef which is expected to be encounted at a depth of **3,690 ft. bgs**. Groundwater within the Ochoan Series and Capitan Reef, is not a viable source of drinking water. No usable water is expected to be encountered beyond **1,637 ft.** bgs. Available data suggests the Ogallala Formation, if present, does not contain fresh water locally.



LEGEND:

- Proposed SWD Location
- USGS Water Well (Reported)

Figure 3a - USGS Groundwater Resource Map

LilyStream Water Solutions, LLC

Berry Eaves SWD #2

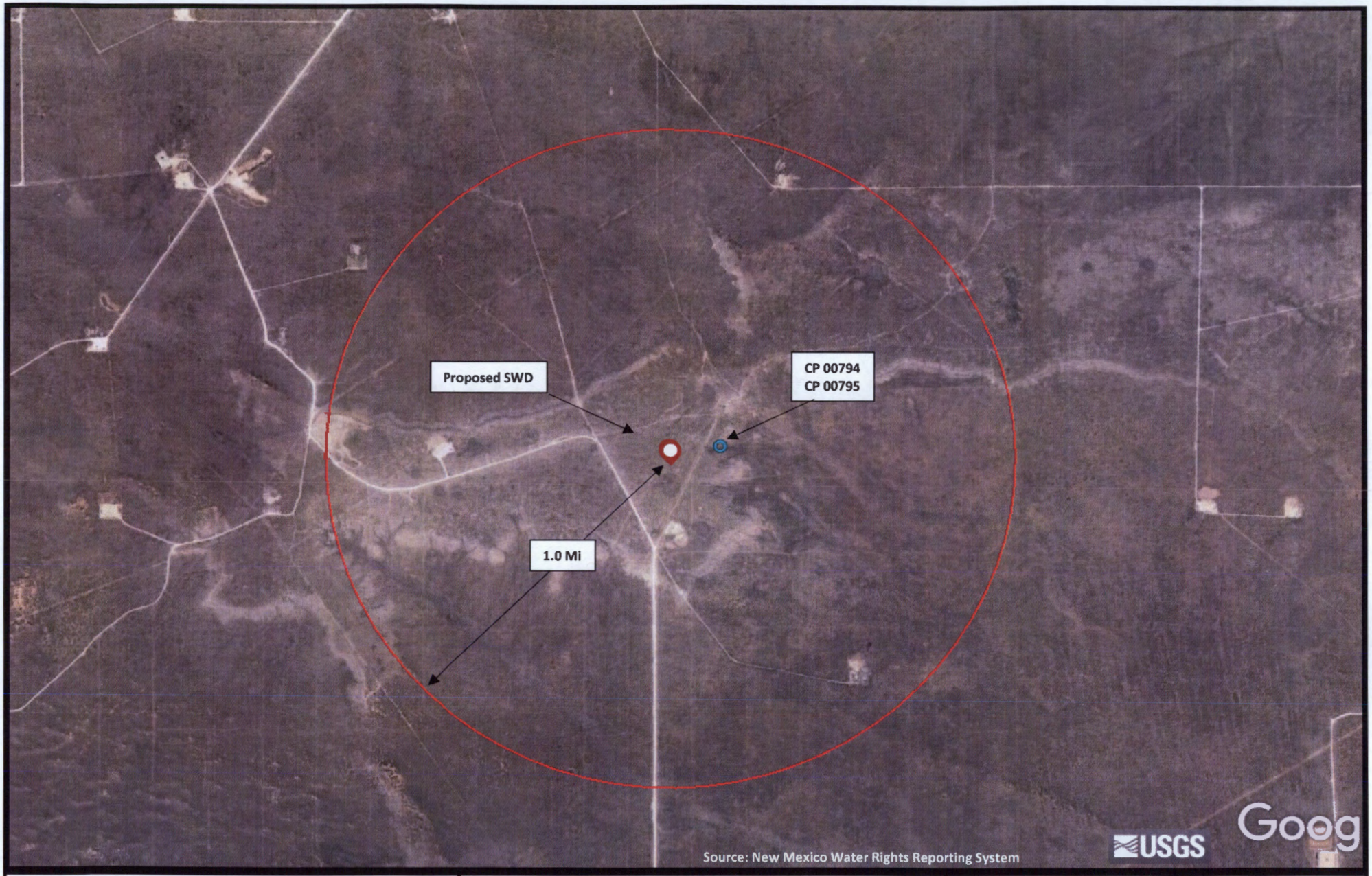
API No. Pending

Legals: UL D, Sec. 18,T21S, R33E

Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/11/2019



LEGEND:

- Proposed SWD Location
- OSE Water Well (Reported)

Figure 3b - OSE Groundwater Resource Map

LilyStream Water Solutions, LLC

Berry Eaves SWD #2

API No. Pending

Legals: UL D, Sec. 18,T21S, R33E

Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/11/2019

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 has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00794 POD1		CP	LE	4	1	1	18	21S	33E	629976	3594865*	241	160		
CP 00795 POD1		CP	LE	4	1	1	18	21S	33E	629976	3594865*	241	170		

Average Depth to Water: --
Minimum Depth: --
Maximum Depth: --

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 629742 Northing (Y): 3594806 Radius: 1608

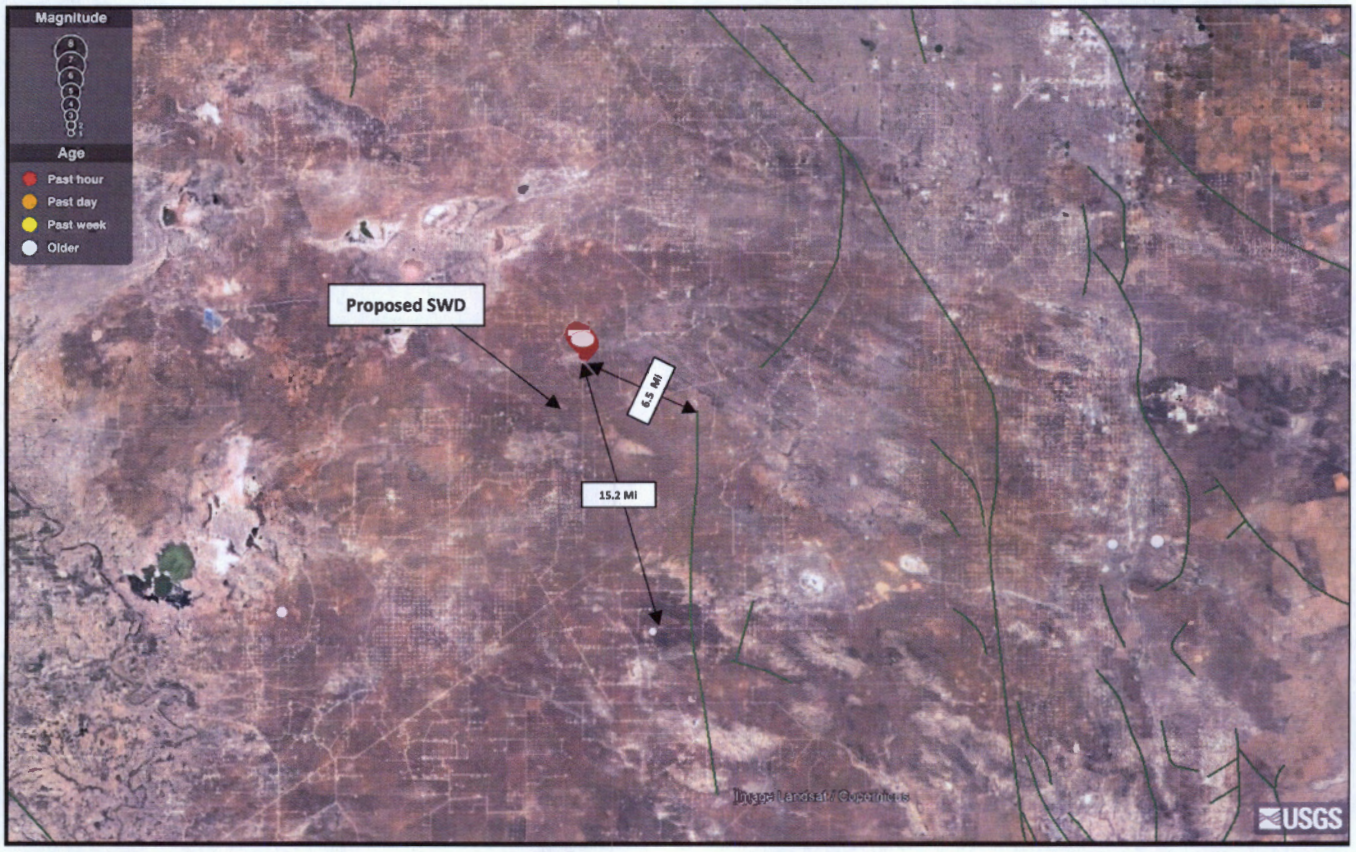
***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

VIIIb Seismic Information

The proposed injection well is located in **Unit Letter "D", Section 18, Township 21 South, Range 33 East** in Lea County, New Mexico. A review of USGS data available on the ComCat Earthquake Catalog indicates the nearest seismic event exceeding a magnitude of 0.1 occurred approximately **15.2 Mi** south-southeast of Site. The seismic event was reported as a magnitude 2.9 occurring in December of 1984.

The nearest fault trace is located approximately **6.5 Mi southeast** of the proposed injection well. The fault trace is indicative of a normal fault striking North-South.



Faults traces are depicted as green linear features. Seismic events with available data are depicted as grey dots of which the size is representative of the magnitude. Details regarding the depicted faults are provided on the following page.

Sources:

Bureau of Economic Geology. Accessed February 2019. Permian Basin Geologic Synthesis Project. https://gis.utlands.utsystem.edu/ags/rest/services/GeologicFeatures/MapServer

U.S. Geological Survey (USGS). February 2019. Earthquakes Hazard Program: ComCat Earthquake Catalog. https://earthquake.usgs.gov/learn/kml.php

VIIIb Seismic Information

A recent publication prepared by Snee and Zoback (2018) entitled "State of Stress in the Permian Basin, Texas and New Mexico" discusses the fault slip potential of fault traces complied from Ewing et al. (1990), Green and Jones (1997), Ruppel et al. (2005) as well the USGS Quaternary Faults and Fold Database. A map detailing their findings with the proposed injection well location superimposed is provided below:

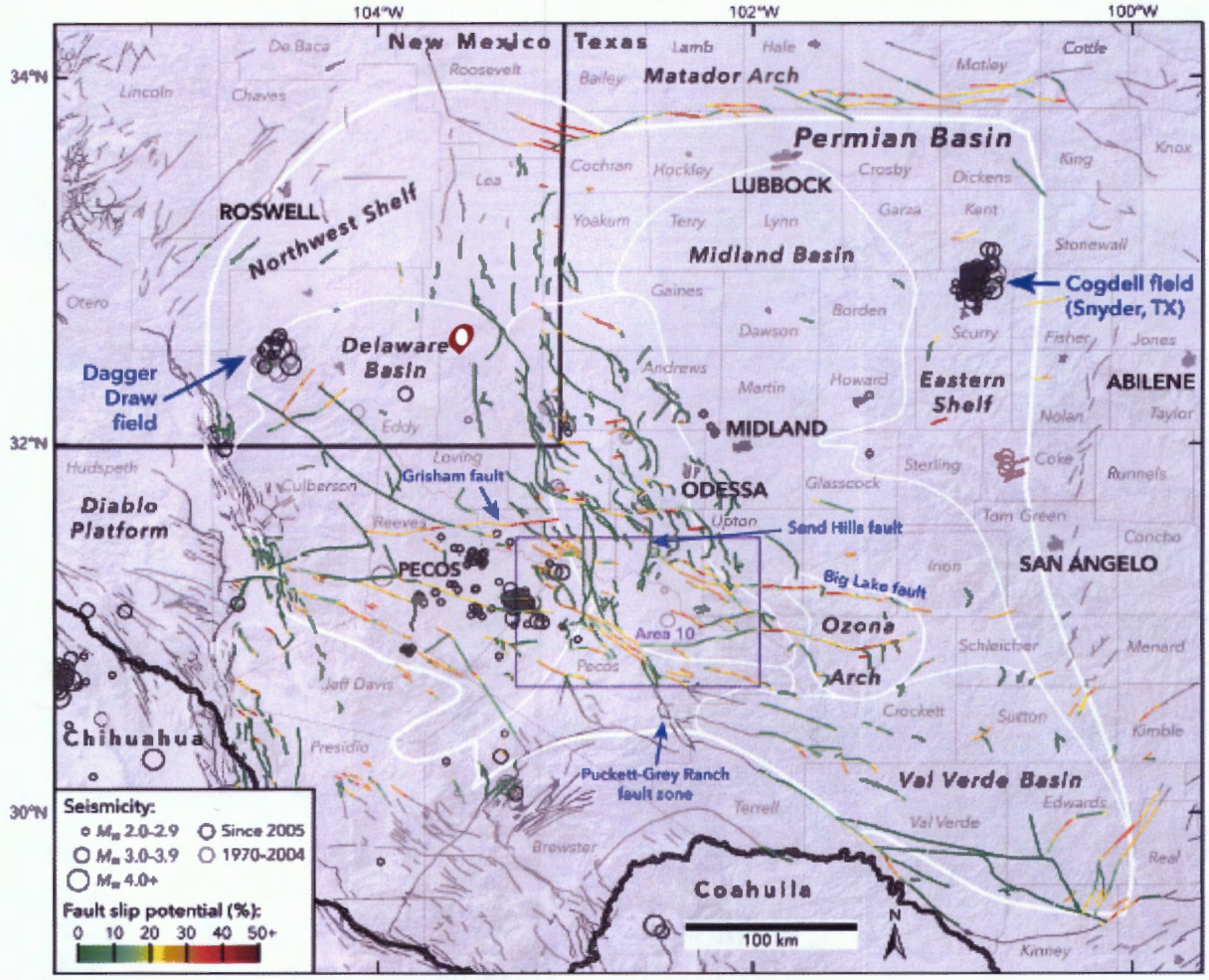


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

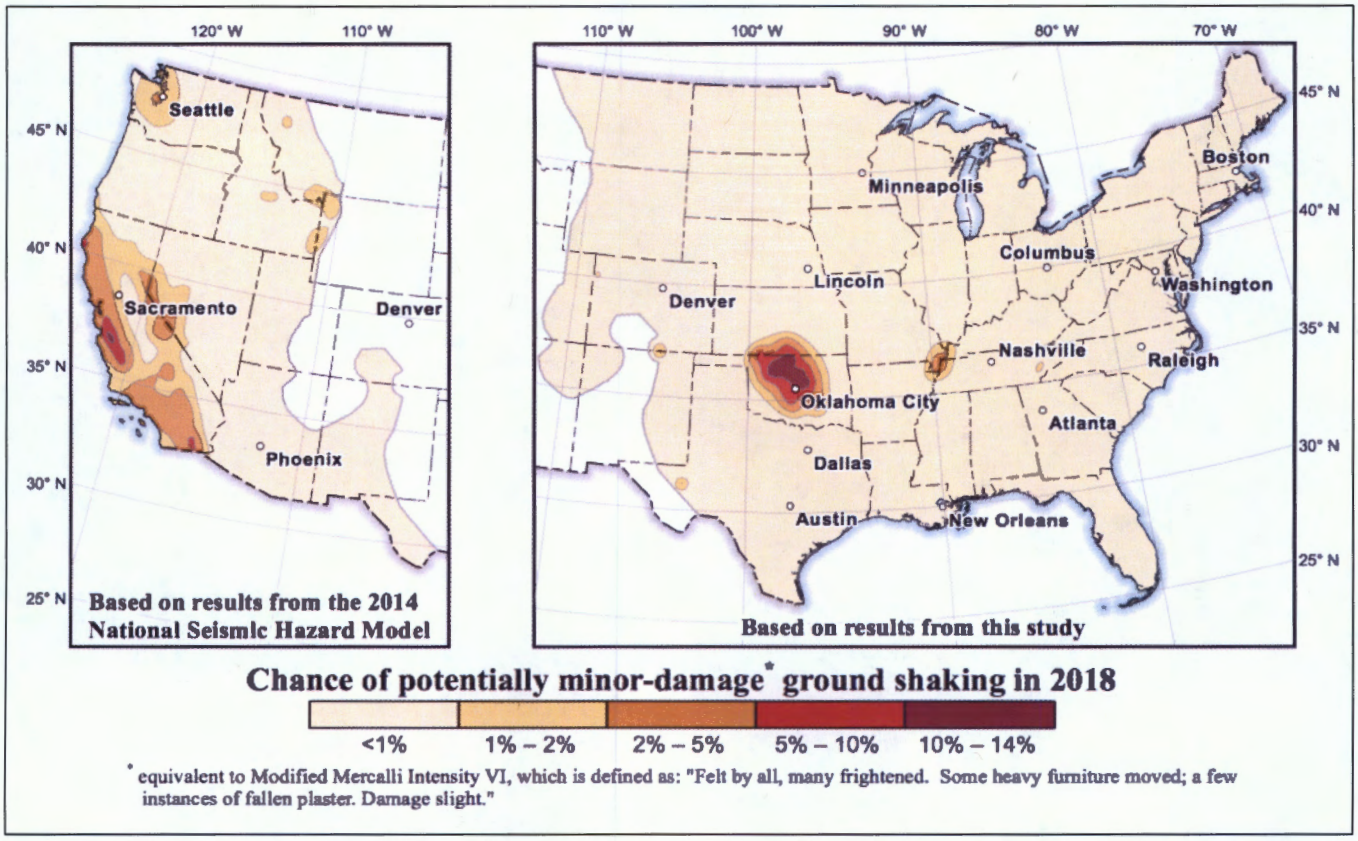
Based on the proposed injection well's distance to known faults, relative low faulting and seismic activity in the area, review of historical earthquake data and the presence of confining layers above and beneath the proposed injection zone, it is unlikely that the proposed injection activities will contribute to a fault-slip event.

Source:

Snee, Jens-Erik Lund, and Mark D. Zoback. 2018 "State of Stress in the Permian Basin, Texas and New Mexico; Implication for Induced Seismicity." The Leading Edge 37 (February 2018).

VIIIb Seismic Information

Data from the 2018 USGS One-Year probabilistic seismic hazard forecast suggests there was a less than 1% chance of potentially minor-damage from induced and natural ground shaking in 2018, as depicted on the map below:



Source:

U.S. Geological Survey (USGS). February 2019. Earthquakes Hazard Program: Short-term Induced Seismicity Models. https://earthquake.usgs.gov/hazards/induced/index.php#2018

ATTACHMENT #6

Fresh Water Laboratory Analysis (*if applicable*)

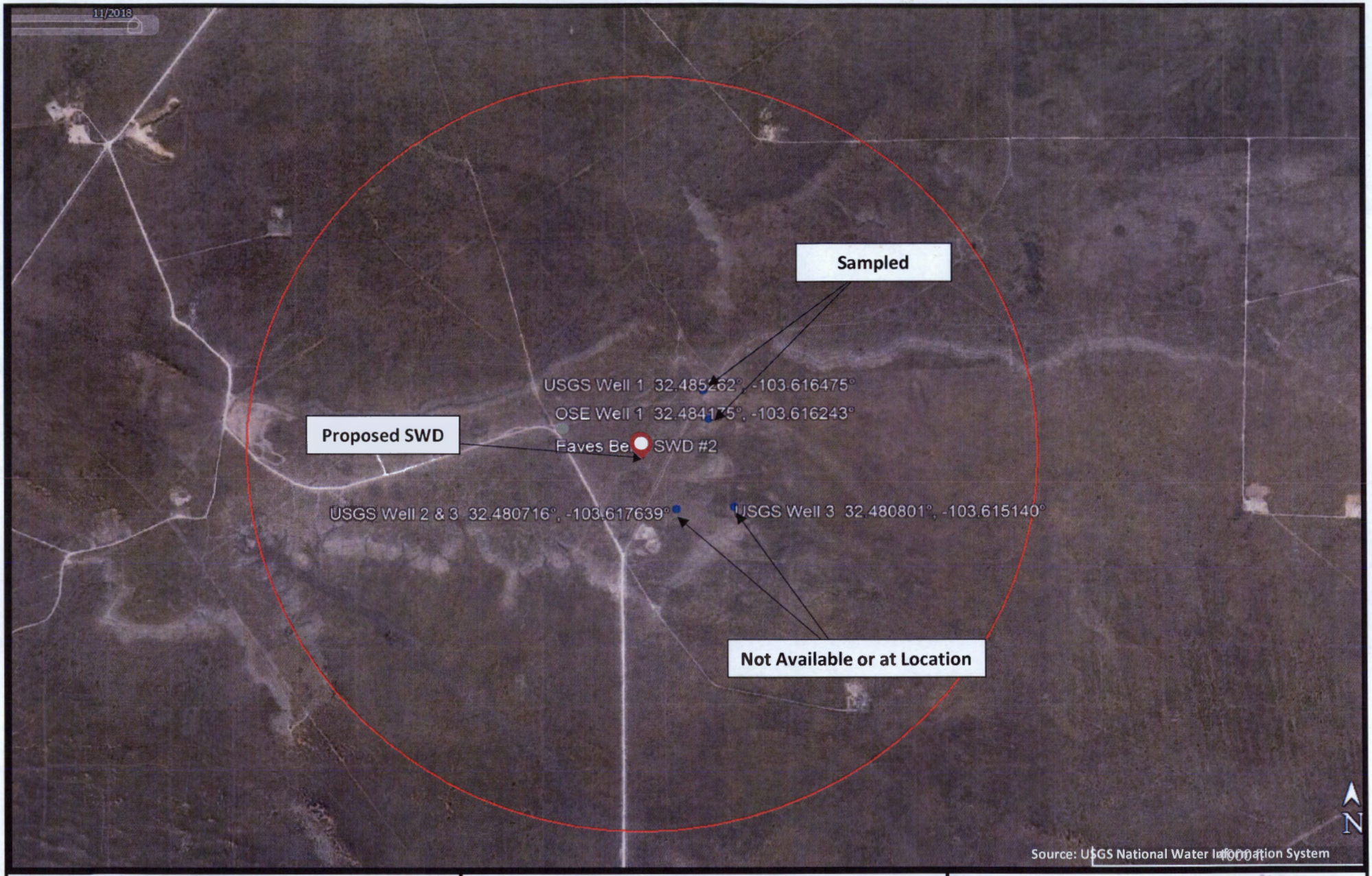
Fresh Water Sample Location Map (*if applicable*)

Re: Fresh Water Analysis
LilyStream Water Solutions, LLC
Berry Eaves SWD #2
GPS: 32.482931, -103.619185

On May 14, 2019, environmental personnel visited the Site in an effort to collect groundwater samples from fresh water wells in the vicinity of the proposed salt water disposal well. Available information suggests the historic presence of four (4) wells within a 1-Mile Radius of the Site. Two (2) of the wells were not available and/or at the provided location. Two (2) of the wells were sampled for concentrations of chloride and TDS. Laboratory analytical results will be provided to the NMOCD upon receipt.

Joel W. Lowry

LOWRY
environmental



LEGEND:

- Proposed SWD Location
- Suggested Fresh Water Well

Fresh Water Sample Location Map

LilyStream Water Solutions, LLC

Berry Eaves SWD #2

API No. Pending

GPS: 32.482931, -103.619185

Eddy County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 5/15/2019

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

May 24, 2019

Joel Lowry

Lowry Environmental
PO Box 896
Lovington, NM 88260
TEL: (432) 466-4450
FAX:

RE: Berry Eaves 2 OrderNo.: 1905837

Dear Joel Lowry:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/16/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1905837**
Date Reported: **5/24/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lowry Environmental
Project: Berry Eaves 2
Lab ID: 1905837-001 **Matrix:** AQUEOUS

Client Sample ID: OSE #1
Collection Date: 5/14/2019 12:20:00 PM
Received Date: 5/16/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	40	5.0		mg/L	10	5/19/2019 7:57:56 PM	R59996
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	441	20.0		mg/L	1	5/22/2019 2:49:00 PM	45077

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lowry Environmental
Project: Berry Eaves 2
Lab ID: 1905837-002 **Matrix:** AQUEOUS

Client Sample ID: USGS #1
Collection Date: 5/14/2019 12:40:00 PM
Received Date: 5/16/2019 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	55	5.0		mg/L	10	5/22/2019 9:47:29 PM	R60097
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	587	20.0	*	mg/L	1	5/22/2019 2:49:00 PM	45077

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905837**

24-May-19

Client: Lowry Environmental

Project: Berry Eaves 2

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R59996**	RunNo: **59996**
Prep Date:	Analysis Date: **5/19/2019**	SeqNo: **2025016** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R59996**	RunNo: **59996**
Prep Date:	Analysis Date: **5/19/2019**	SeqNo: **2025017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.9	90	110			

Sample ID: **1905837-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **OSE #1**	Batch ID: **R59996**	RunNo: **59996**
Prep Date:	Analysis Date: **5/19/2019**	SeqNo: **2025047** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	5.0	50.00	39.71	102	61.7	139			

Sample ID: **1905837-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **OSE #1**	Batch ID: **R59996**	RunNo: **59996**
Prep Date:	Analysis Date: **5/19/2019**	SeqNo: **2025048** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	5.0	50.00	39.71	103	61.7	139	0.225	20	

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R60097**	RunNo: **60097**
Prep Date:	Analysis Date: **5/22/2019**	SeqNo: **2029622** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R60097**	RunNo: **60097**
Prep Date:	Analysis Date: **5/22/2019**	SeqNo: **2029623** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1905837**

24-May-19

Client: Lowry Environmental

Project: Berry Eaves 2

Sample ID: **MB-45077** SampType: **MBLK** TestCode: **SM2540C MOD: Total Dissolved Solids**

Client ID: **PBW** Batch ID: **45077** RunNo: **60075**

Prep Date: **5/21/2019** Analysis Date: **5/22/2019** SeqNo: **2028641** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-45077** SampType: **LCS** TestCode: **SM2540C MOD: Total Dissolved Solids**

Client ID: **LCSW** Batch ID: **45077** RunNo: **60075**

Prep Date: **5/21/2019** Analysis Date: **5/22/2019** SeqNo: **2028642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Sample ID: **1905837-001ADUP** SampType: **DUP** TestCode: **SM2540C MOD: Total Dissolved Solids**

Client ID: **OSE #1** Batch ID: **45077** RunNo: **60075**

Prep Date: **5/21/2019** Analysis Date: **5/22/2019** SeqNo: **2028655** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	444	20.0						0.678	10	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **LOWRY ENVIRONMENT** Work Order Number: **1905837** RcptNo: **1**

Received By: **Jevon Campisi** **5/16/2019 8:45:00 AM** Jevon Campisi

Completed By: **Leah Baca** **5/16/2019 10:19:15 AM** Leah Baca

Reviewed By: LB 5/16/19

Labeled by DAD 5/16/19

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by: DAD 5/16/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Yes			

Chain-of-Custody Record

Client: Lowry Environmental & Associates

Mailing Address: PO Box 896
Lovington, NM 88260

Phone #: 432-466-4450

email or Fax#: joel@lowryenvironmental

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☑ Other NMOCD Eq.

☐ EDD (Type) _____

Turn-Around Time: 5 day Turn
☑ Standard ☐ Rush

Project Name: Berry Eaves 2

Project #:

Project Manager: Joel Lowry

Sampler: Joel Lowry

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.8 °C

HEAL No. 1905837

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride	TDS
5/14/19	17:20	GW	OSE #1	1-500ml	LCE											X	X
"	12:40	GW	USGS #1	1-500mL	LCE											X	X

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/15	7:03	Joel Lowry				
5/15/19	1900			Courier	5-16-19	8:45

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

ATTACHMENT #7

Affirmative Statement

XII. AFFIRMATIVE STATEMENT

Re: LilyStream Water Solutions, LLC
Berry Eaves SWD #2
Legals: UL D, Sec. 18, T21S, R33E

Available geologic and engineering data has been examined and we find no evidence of open faults or any hydrologic connection between the disposal interval and any underground sources of drinking water.

Joel W. Lowry

LOWRY environmental

ATTACHMENT #8

Proof of Notice Documentation

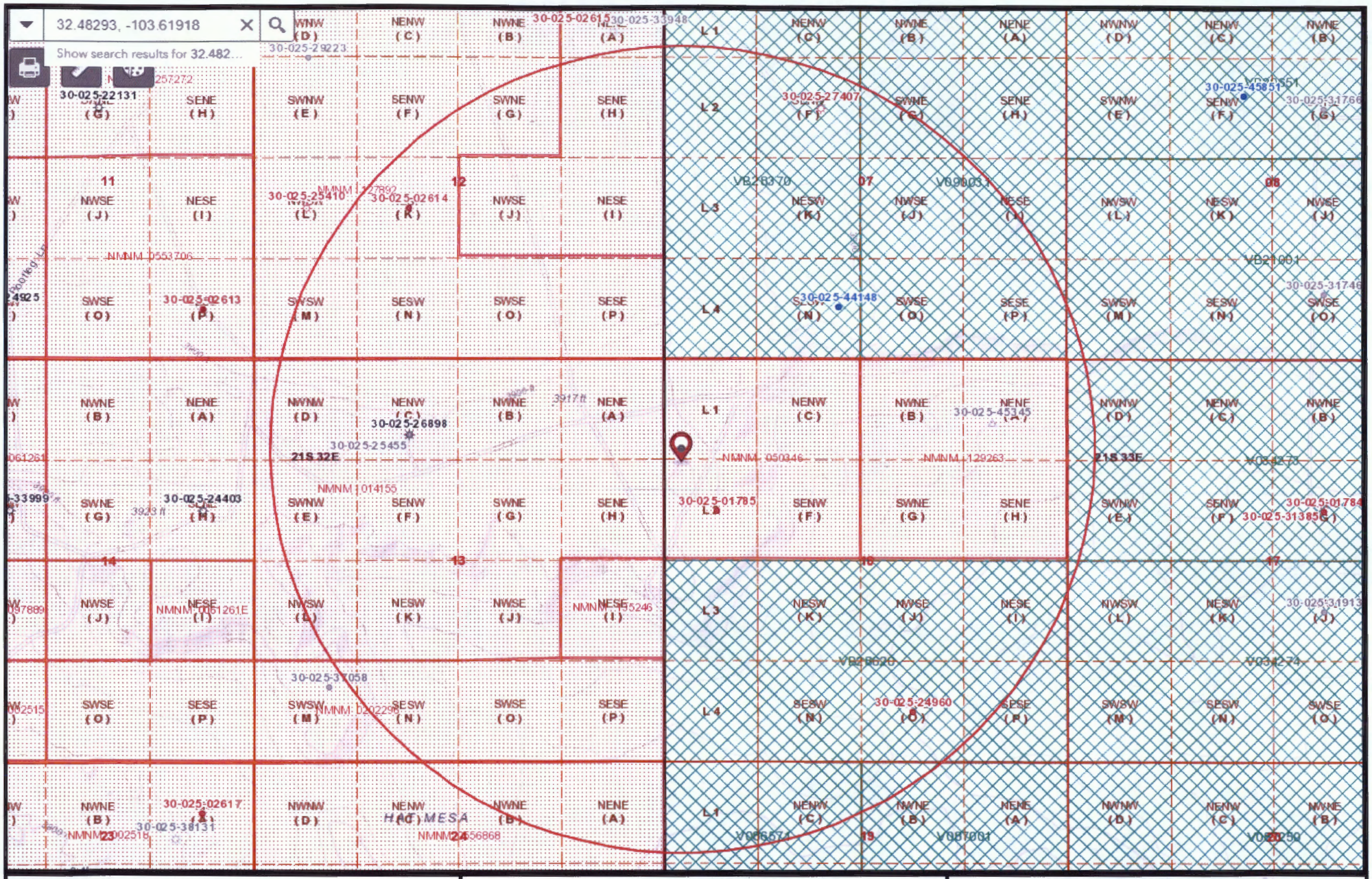


Figure 4 - Leasehold Operator Map

LilyStream Water Solutions, LLC

Berry Eaves SWD #2

API No. Pending

Legals: UL D, Sec. 18,T21S, R33E

Lea County, New Mexico

LOWRY environmental

Drafted by: jwl Checked by: client Date: 2/11/2019

XIV. PROOF OF NOTICE

Surface Owner:

Danny Berry
PO Box 160
Eunice, NM 88231
7017 2620 0001 0356 8491

Leasehold Operators and/or Unleased Mineral Owners within a One-Mile Radius:

Centennial Resources Production LLC
1001 17th St STE 1800
Denver, CO 80202
7017 2620 0001 0356 8446

COG Operating LLC
600 W. Illinois Avenue
Midland, TX 79701
7017 2620 0001 0356 8477

Ascent Energy LLC
1621 18th St STE 200
Denver CO 80202
7017 2620 0001 0356 9153

Conocophillips Co
P.O. Box 7500
Bartlesville, OK 74005
7017 2620 0001 0356 9160

Cimarex Energy Co. of Colorado
600 N. Marienfeld Street, Suite 600
Midland, TX 79701
7017 2620 0001 0356 9177

Cimarex Energy Co.
600 N. Marienfeld Street, Suite 600
Midland, TX 79701
7017 2620 0001 0356 9184

Panan Energy Inc
P.O. Box 1718
Fort Worth, TX 76101
7017 2620 0001 0356 8521

EOG Resources Inc
P.O. Box 4362
Houston, TX 77210
7017 2620 0001 0356 9191

Marathon Oil Permian LLC
5555 San Felipe St.
Houston, TX 77056
7017 2620 0001 0356 9207

Advance Energy Partners Hat Mesa
11490 Westheimer Rd, STE 950
Houston, TX 77077
7017 2620 0001 0356 9221

Merrion Oil & Gas Corp
610 Reilly Ave
Farmington, NM 87401
7017 2620 0001 0356 9214

Leland A Hodges
P.O. Box 1718
Fort Worth, TX 76101
7017 2620 0001 0356 9238

VML Resources Inc
P.O. Box 1718
Fort Worth, TX 76101
7017 2620 0001 0356 8552

New Tex Oil Company
P.O. Box 2390
Hobbs, NM 88241
7017 2620 0001 0356 8569

XIV. PROOF OF NOTICE

Panoramic Energy Inc
8501 N. Monticello
Granbury, TX 76049
7017 2620 0001 0356 8460

Monarch Res Inc
115 W 7th St #1310
Fort Worth, TX 76102
7017 2620 0001 0356 8507

Bureau of Land Management
310 Dinosaur Trail
Santa Fe, NM 87508
7017 2620 0001 0356 8484

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501
7017 2620 0001 0356 8453

Regulatory Agency:

NMOCD - Santa Fe
1220 S. St. Francis Dr.
Santa Fe, NM 87505

NMOCD - District 1
1625 N. French Drive
Hobbs, NM 88240
7017 2620 0001 0356 8514

June 11, 2019

NOTIFICATION TO INTERESTED PARTIES

Via U.S. Certified Mail - Return Receipt Requested

RE: Application for Authroization to Inject
Berry Eaves SWD #2
Township 21S, Range 33E, N.M.P.M
Section 18, 200' FSL & 225' FWL
Lea County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of a C-108 Application submitted by LilyStream Water Solutions, LLC, Lovington, New Mexico, to the New Mexico Oil Conservation Division to drill and complete for produced water disposal the Berry Eaves SWD #2.

The well is located in Section 18, Township 21S, Range 33E, 200' FSL and 225' FWL, Lea County, New Mexico.

As required by NMOCD, we are notifying you because you have been indentified as an operator or surface owner and therefor an affected party by this action. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

The well will be a commercial SWD well taking produced water from oil and gas operations in the surrounding area. Please contact Joel Lowry with Lowry Environmental and Associates, LLC, at 432.466.4450 , with any questions or concerns regarding this well or application.

Respectfully,

Joel W. Lowry
LOWRY
environmental

XIV. PROOF OF NOTICE

7017 2620 0001 0356 8484

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.
SANTA FE, NM 87508

OFFICIAL USE

Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: Bureau of Land Management
Street and Apt. No., or PO Box No.: 310 Dinosaur Trail
City, State, ZIP+4®: Santa Fe, NM 87508

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 8491

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Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: Danny Berry
Street and Apt. No., or PO Box No.: PO Box 1160
City, State, ZIP+4®: Eunice, NM 88231

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 8507

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FORT WORTH, TX 76102

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☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: Monarch Res Inc
Street and Apt. No., or PO Box No.: 115 W 7th St #1310
City, State, ZIP+4®: Fort Worth, TX 76102

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 9153

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DENVER, CO 80202

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☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: Ascent Energy LLC
Street and Apt. No., or PO Box No.: 1621 18th St Ste 200
City, State, ZIP+4®: Denver CO 80202

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 9160

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For delivery information, visit our website at www.usps.com®.
BARTLESVILLE, OK 74005

OFFICIAL USE

Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: Conocophillips Co.
Street and Apt. No., or PO Box No.: P.O. Box 7500
City, State, ZIP+4®: Bartlesville, OK 74005

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 9177

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MIDLAND, TX 79701

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Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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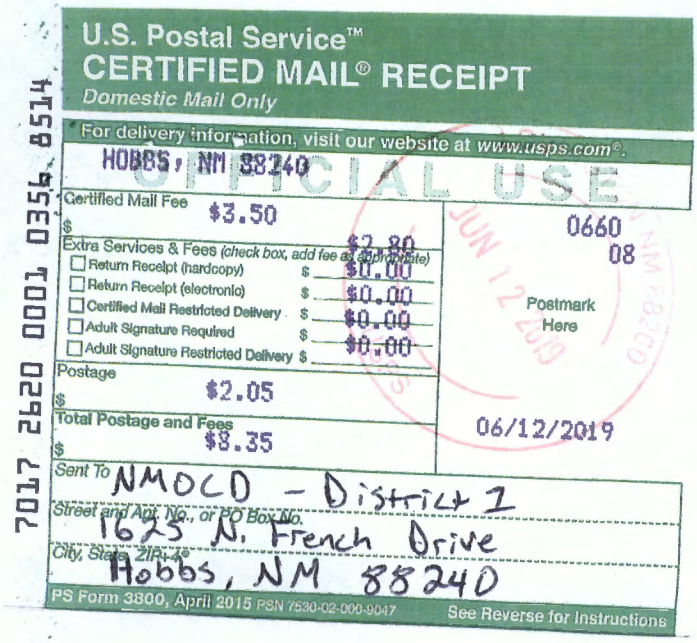
JUN 12 2019

06/12/2019

Sent To: Cimarex Energy Co. of Colorado
Street and Apt. No., or PO Box No.: 600 N. Marienfeld Street, Suite 600
City, State, ZIP+4®: Midland, TX 79701

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

XIV. PROOF OF NOTICE



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HOBBS, NM 88240

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Extra Services & Fees (check box, add fee as appropriate)
- Return Receipt (hardcopy) $2.80
- Return Receipt (electronic) $0.00
- Certified Mail Restricted Delivery $0.00
- Adult Signature Required $0.00
- Adult Signature Restricted Delivery $

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Total Postage and Fees $8.35

0660 08

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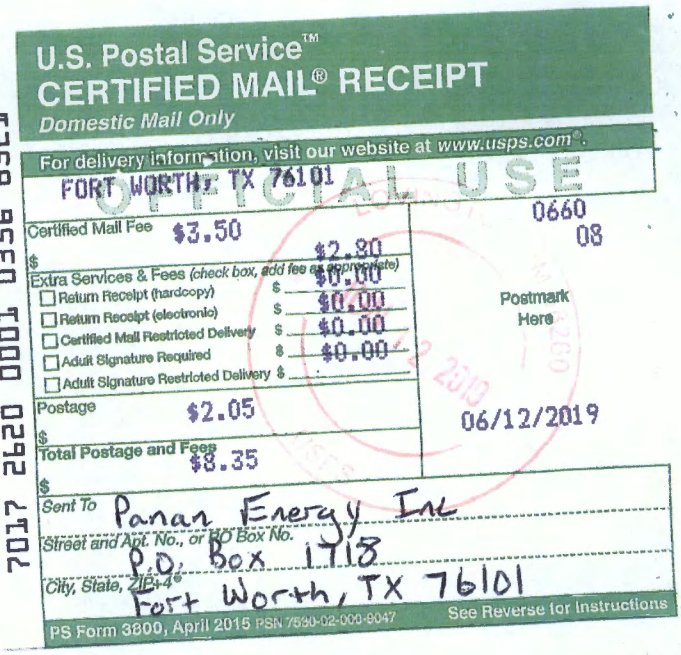
06/12/2019

Sent To NMOCD - District I
Street and Apt. No., or PO Box No. 1625 N. French Drive
City, State, ZIP+4® Hobbs, NM 88240

7017 2620 0001 0356 8514

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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FORT WORTH, TX 76101

Certified Mail Fee $3.50
Extra Services & Fees (check box, add fee as appropriate)
- Return Receipt (hardcopy) $2.80
- Return Receipt (electronic) $0.00
- Certified Mail Restricted Delivery $0.00
- Adult Signature Required $0.00
- Adult Signature Restricted Delivery $

Postage $2.05

Total Postage and Fees $8.35

0660 08

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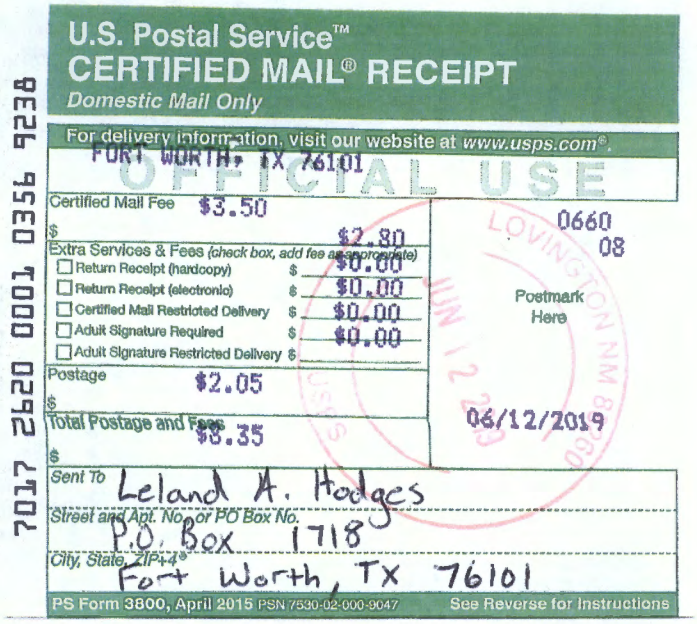
06/12/2019

Sent To Panan Energy Inc
Street and Apt. No., or PO Box No. P.O. Box 1718
City, State, ZIP+4® Fort Worth, TX 76101

7017 2620 0001 0356 8521

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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FORT WORTH, TX 76101

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- Certified Mail Restricted Delivery $0.00
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- Adult Signature Restricted Delivery $

Postage $2.05

Total Postage and Fees $8.35

0660 08

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06/12/2019

Sent To Leland A. Hodges
Street and Apt. No., or PO Box No. P.O. Box 1718
City, State, ZIP+4® Fort Worth, TX 76101

7017 2620 0001 0356 9238

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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FORT WORTH, TX 76101

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Extra Services & Fees (check box, add fee as appropriate)
- Return Receipt (hardcopy) $2.80
- Return Receipt (electronic) $0.00
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- Adult Signature Required $0.00
- Adult Signature Restricted Delivery $

Postage $2.05

Total Postage and Fees $8.35

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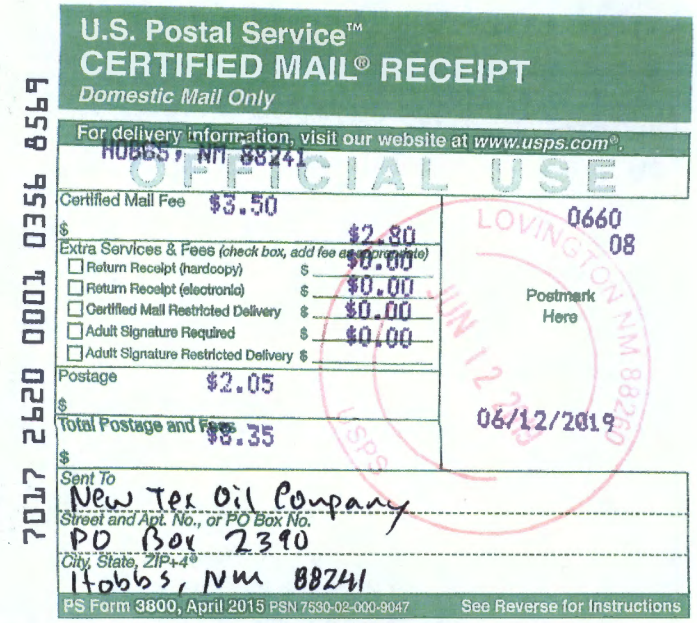
06/12/2019

Sent To VML Resources Inc
Street and Apt. No., or PO Box No. PO Box 1718
City, State, ZIP+4® Fort Worth, TX 76101

7017 2620 0001 0356 8552

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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HOBBS, NM 88241

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- Return Receipt (electronic) $0.00
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- Adult Signature Required $0.00
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Postage $2.05

Total Postage and Fees $8.35

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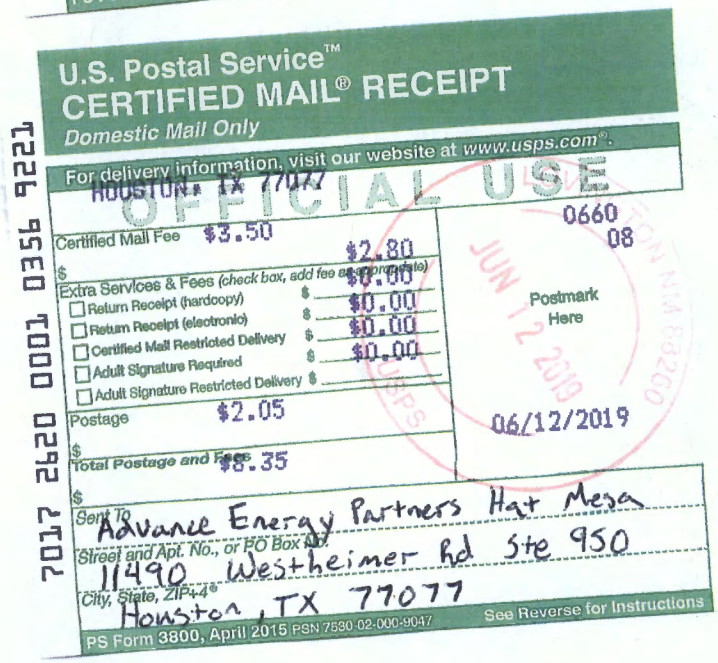
06/12/2019

Sent To New Tex Oil Company
Street and Apt. No., or PO Box No. PO Box 2390
City, State, ZIP+4® Hobbs, NM 88241

7017 2620 0001 0356 8569

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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HOUSTON, TX 77077

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- Return Receipt (electronic) $0.00
- Certified Mail Restricted Delivery $0.00
- Adult Signature Required $0.00
- Adult Signature Restricted Delivery $

Postage $2.05

Total Postage and Fees $8.35

0660 08

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06/12/2019

Sent To Advance Energy Partners Hat Mesa
Street and Apt. No., or PO Box No. 11490 Westheimer Rd Ste 950
City, State, ZIP+4® Houston, TX 77077

7017 2620 0001 0356 9221

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

XIV. PROOF OF NOTICE

7017 2620 0001 0356 9207

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HOUSTON, TX 77056

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☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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06/12/2019

Sent To: Marathon Oil Permian LLC
Street and Apt. No., or PO Box No.: 5555 San Felipe St.
City, State, ZIP+4®: Houston, TX 77056

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 9214

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FARMINGTON, NM 87401

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Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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06/12/2019

Sent To: Merrion Oil & Gas Corp
Street and Apt. No., or PO Box No.: 610 Reilly Ave
City, State, ZIP+4®: Farmington, NM 87401

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 8446

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DENVER, CO 80202

OFFICIAL USE

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☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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06/12/2019

Sent To: Centennial Res. Prod, LLC
Street and Apt. No., or PO Box No.: 1001 17th St. Ste 1800
City, State, ZIP+4®: Denver CO 80202

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 8453

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SANTA FE, NM 87501

OFFICIAL USE

Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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06/12/2019

Sent To: New Mexico State Land Office
Street and Apt. No., or PO Box No.: 310 Old Santa Fe Trail
City, State, ZIP+4®: Santa Fe, NM 87501

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 8460

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GRANBURY, TX 76049

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Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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06/12/2019

Sent To: Panoramic Energy Inc
Street and Apt. No., or PO Box No.: 8501 N. Monticello
City, State, ZIP+4®: Granbury, TX 76049

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 8477

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MIDLAND, TX 79701

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Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	$2.80
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

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06/12/2019

Sent To: COG Operating LLC
Street and Apt. No., or PO Box No.: 600 W. Illinois Ave
City, State, ZIP+4®: Midland TX 79701

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

XIV. PROOF OF NOTICE

7017 2620 0001 0356 9184

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MIDLAND, TX 79701

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Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: Cimarex Energy Co.

Street and Apt. No., or PO Box No.: 600 N. Marienfeld Street, Suite 600

City, State, ZIP+4®: Midland, TX 79701

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 2620 0001 0356 9191

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HOUSTON, TX 77210

OFFICIAL USE

Certified Mail Fee	$3.50
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	$0.00
☐ Return Receipt (electronic)	$0.00
☐ Certified Mail Restricted Delivery	$0.00
☐ Adult Signature Required	$0.00
☐ Adult Signature Restricted Delivery	$
Postage	$2.05
Total Postage and Fees	$8.35

0660 08

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JUN 12 2019

06/12/2019

Sent To: EOG Resources Inc

Street and Apt. No., or PO Box No.: P.O. Box 4362

City, State, ZIP+4®: Houston, TX 77210

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
June 15, 2019
and ending with the issue dated
June 15, 2019.

Publisher

Sworn and subscribed to before me this
15th day of June 2019.

Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE
JUNE 15, 2019

LillyStream Water Solutions, LLC, 1308 W. Ave D, Lovington, NM 88260, is filing Form C-108 for an application for Authority to Inject with the New Mexico Oil and Conservation Division requesting administrative approval for a salt water disposal well. The proposed newly drilled well, the Berry Eaves SWD No. 2 is located at 200' FSL & 225' FWL, Section 18, Township 21S Range 33E, N.M.P.M., Lea County, New Mexico: go West 5 approximately 5 miles from intersection of NM HWY 176 and Lea County Road 27 (Skeen) then turn South on existing lease road following Southernly 4.2 miles. (API # to be assigned). Produced water from area oil and gas producing wells will be commercially disposed into the Devonian and Silurian formations from 15,637' to 16,887' below surface. Expected maximum injection rate is 30,000 bpd, and the expected maximum injection pressure is 3,127 psi. Questions concerning the application can be directed to the applicant's agent Lowry Environmental, LLC, PO Box 896, Lovington, NM 88260, by phone (432) 466-4450 or email joel@lowryenvironmental.com. Objections or request for hearing must be directed to the Oil Conservation Division, (505) 476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within 15 days.
#34315

67115859 00229638

CADEN JAMESON
LILLYSTREAM WATER SOLUTIONS
1308 W AVE N
LOVINGTON, NM 88260

McMillan, Michael, EMNRD

From: McMillan, Michael, EMNRD
Sent: Wednesday, June 26, 2019 2:05 PM
To: 'Joel Lowry'
Subject: Berry Eaves SWD Well No.2

Joel:
Your administrative application for the Berry Eaves SWD Well No.2 is suspended
I did not see an affidavit of publication in your application.

Mike

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

McMillan, Michael, EMNRD

From: Joel Lowry <joel@lowryenvironmental.com>
Sent: Wednesday, June 26, 2019 3:13 PM
To: McMillan, Michael, EMNRD
Subject: [EXT] LilyStream's RE: Berry Eaves SWD Well No.2 - Affidavit of Publication
Attachments: Eaves Berry SWD 2 - Affidavit of Publication.pdf

Mr. McMillan,

Please find attached the Affidavit of Publication for the Berry Eaves SWD #2. I apologize for it having not made it in. We waited on its receipt to submit the application. I must have mistakenly excluded it.

Respectfully,

Joel Lowry
Environmental Professional
LOWRY environmental
PO Box 896
Lovington, NM 88260
Direct 432-466-4450

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From: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Sent: Wednesday, June 26, 2019 2:05 PM
To: Joel Lowry <joel@lowryenvironmental.com>
Subject: Berry Eaves SWD Well No.2

Joel:
Your administrative application for the Berry Eaves SWD Well No.2 is suspended
I did not see an affidavit of publication in your application.

Mike

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448

McMillan, Michael, EMNRD

From: Joel Lowry <joel@lowryenvironmental.com>
Sent: Wednesday, June 26, 2019 3:13 PM
To: McMillan, Michael, EMNRD
Subject: [EXT] LilyStream's RE: Berry Eaves SWD Well No.2 - Affidavit of Publication
Attachments: Eaves Berry SWD 2 - Affidavit of Publication.pdf

Mr. McMillan,

Please find attached the Affidavit of Publication for the Berry Eaves SWD #2. I apologize for it having not made it in. We waited on its receipt to submit the application. I must have mistakenly excluded it.

Respectfully,

Joel Lowry
Environmental Professional

LOWRY environmental

PO Box 896
Lovington, NM 88260
Direct 432-466-4450

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From: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Sent: Wednesday, June 26, 2019 2:05 PM
To: Joel Lowry <joel@lowryenvironmental.com>
Subject: Berry Eaves SWD Well No.2

Joel:
Your administrative application for the Berry Eaves SWD Well No.2 is suspended
I did not see an affidavit of publication in your application.

Mike

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448

Michael.mcmillan@state.nm.us

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
June 15, 2019
and ending with the issue dated
June 15, 2019.

Publisher

Sworn and subscribed to before me this
15th day of June 2019.

Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE
JUNE 15, 2019

LilyStream Water Solutions, LLC, 1308 W. Ave D, Lovington, NM 88260, is filing Form C-108 for an application for Authority to Inject with the New Mexico Oil and Conservation Division requesting administrative approval for a salt water disposal well. The proposed newly drilled well, the Berry Eaves SWD No. 2 is located at 200' FSL & 225' FWL, Section 18, Township 21S Range 33E, N.M.P.M., Lea County, New Mexico: go West 5 approximately 5 miles from intersection of NM HWY 176 and Lea County Road 27 (Skeen) then turn South on existing lease road following Southernly 4.2 miles. (API # to be assigned). Produced water from area oil and gas producing wells will be commercially disposed into the Devonian and Silurian formations from 15,697' to 16,867' below surface. Expected maximum injection rate is 30,000 bpd, and the expected maximum injection pressure is 3,127 psi. Questions concerning the application can be directed to the applicant's agent Lowry Environmental, LLC, PO Box 696, Lovington, NM 88260, by phone (432) 466-4450 or email joel@lowryenvironmental.com. Objections or request for hearing must be directed to the Oil Conservation Division, (505) 476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within 15 days.
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