

Initial Application Part I

*This application is placed in file for record. It MAY or MAY NOT have been
reviewed to be determined Administratively Complete*

RECEIVED: <u>05/31/2019</u>	REVIEWER:	TYPE: <u>SWD</u>	APP NO: <u>PMAM/9157 41145</u>
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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: <u>Trove Energy and Water, LLC</u>	OGRID Number: <u>372488</u>
Well Name: <u>PSE Federal SWD No.2</u>	API: <u>30-025-xxxxx</u>
Pool: <u>Proposed: SWD; Devonian-Silurian</u>	Pool Code: <u>97869</u>

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

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

FOR OCD ONLY

- ☐ 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.

Ben Stone

Print or Type Name

Signature

5/31/2019

Date

903-488-9850

Phone Number

ben@sosconsulting.us

e-mail Address

McMillan, Michael, EMNRD

From: ben@sosconsulting.us
Sent: Friday, May 31, 2019 9:04 AM
To: Goetze, Phillip, EMNRD; McMillan, Michael, EMNRD; Jones, William V, EMNRD
Subject: [EXT] C-108 for SWD; Trove Energy and Water's PSE Federal SWD No.2...
Attachments: C-108_Trove_PSE-Fed SWD#2_AsSubmitted_20190531.pdf

Gentlemen:

This is a replacement for a previously filed C-108 – I believe I had requested that one withdrawn. Devon asked us to respot and they subsequently vetted and approved this new location.

Please let me know if additional info is needed.

Thanks,
Ben

Link to above file: <https://sosconsulting.sharefile.com/d-s9415a7ee44f419b9>



Visit us on the web at www.sosconsulting.us!

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May 31, 2019

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

Attn: Ms. Adrienne Sandoval, Director

Re: Application of Trove Energy and Water, LLC to permit for salt water disposal the proposed PSE Federal SWD No.2, to be located in Section 6, Township 23 South, Range 32 East, NMPM, Lea County, New Mexico.

Dear Ms. Sandoval,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request for salt water disposal. The well will be operated as a commercial endeavor offering operators in the area additional options for produced water disposal.

Trove Energy and Water is a developing salt water disposal services to operators in southeast New Mexico and seeks to optimize efficiency, both economically and operationally, of all its operations. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

This application for a proposed Devonian SWD interval includes the currently mandated increased One-Mile Area of Review including pertinent and available seismic information for the area and region. Published legal notice will run April 2, 2019 in the Hobbs News-Sun and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included with this application. The application also includes a wellbore schematic, area of review maps, affected party plat and other required information for a complete Form C-108. The well is located on federal surface and minerals and the Bureau of Land Management CFO and offset operators have been notified of this application.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

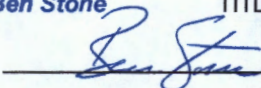
Ben Stone, Partner
SOS Consulting, LLC
Agent for Trove Energy and Water, LLC

Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: *Salt Water Disposal* and the application *QUALIFIES* for administrative approval.
- II. OPERATOR: *Trove Energy and Water, LLC*
ADDRESS: *1919 North Turner, Hobbs, NM 88240*
- CONTACT PARTY: *Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850*
- III. WELL DATA: *All well data and applicable wellbore diagrams are ATTACHED.*
- IV. *This is not an expansion of an existing project.*
- V. *A map is attached* that identifies all wells and leases within two miles of any proposed injection well with a *ONE-Mile* radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- *VI. A tabulation is attached of data on all wells of public record within the area of review which penetrate the proposed injection zone. *There are NO (0) Wells in the subject AOR which Penetrate the proposed Devonian interval.* The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged well illustrating all plugging detail. *NO P&A Wells penetrate.*
- VII. *The following data is ATTACHED* 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.).
- *VIII. *Appropriate geologic data on the injection zone is ATTACHED* 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.
- IX. *Stimulation program – a conventional acid job may be performed to clean and open the formation.*
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). *Well Logs will be filed with OCD.*
- *XI. *There are NO water wells/ PODs within one mile of the proposed salt water disposal well.*
- XII. *An affirmative statement is ATTACHED that available geologic and engineering data has been examined and no evidence was found* of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. *"Proof of Notice" section on the next page of this form has been completed and ATTACHED. There are 7 offset operators or lessees and/or mineral owners within 1 mile and federal minerals - all have been noticed. Well location is Federal.*
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: *Ben Stone* TITLE: *SOS Consulting, LLC agent for Trove Energy and Water, LLC*

SIGNATURE: 

DATE: *5/31/2019*

E-MAIL ADDRESS: *ben@sosconsulting.us*

- * 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 submittal:

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

FORM C-108 – APPLICATION FOR AUTHORIZATION TO INJECT (cont.)

III. WELL DATA – *The following information and data is included (See ATTACHED Wellbore Schematic):*

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) Lease name; Well No., Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

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.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE *pursuant to the following criteria is ATTACHED.*

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108 - Items III, IV, V

Item III - Subject Well Data

Wellbore Diagram - PROPOSED

Item IV – Tabulation of AOR Wells

NO wells penetrate the proposed injection interval.

Item V – Area of Review Maps

1. Two Mile AOR Map with One-Mile Fresh Water Well Radius
2. One-Half Mile AOR Map

All Above Exhibits follow this page.



WELL SCHEMATIC - PROPOSED PSE Federal SWD Well No.2

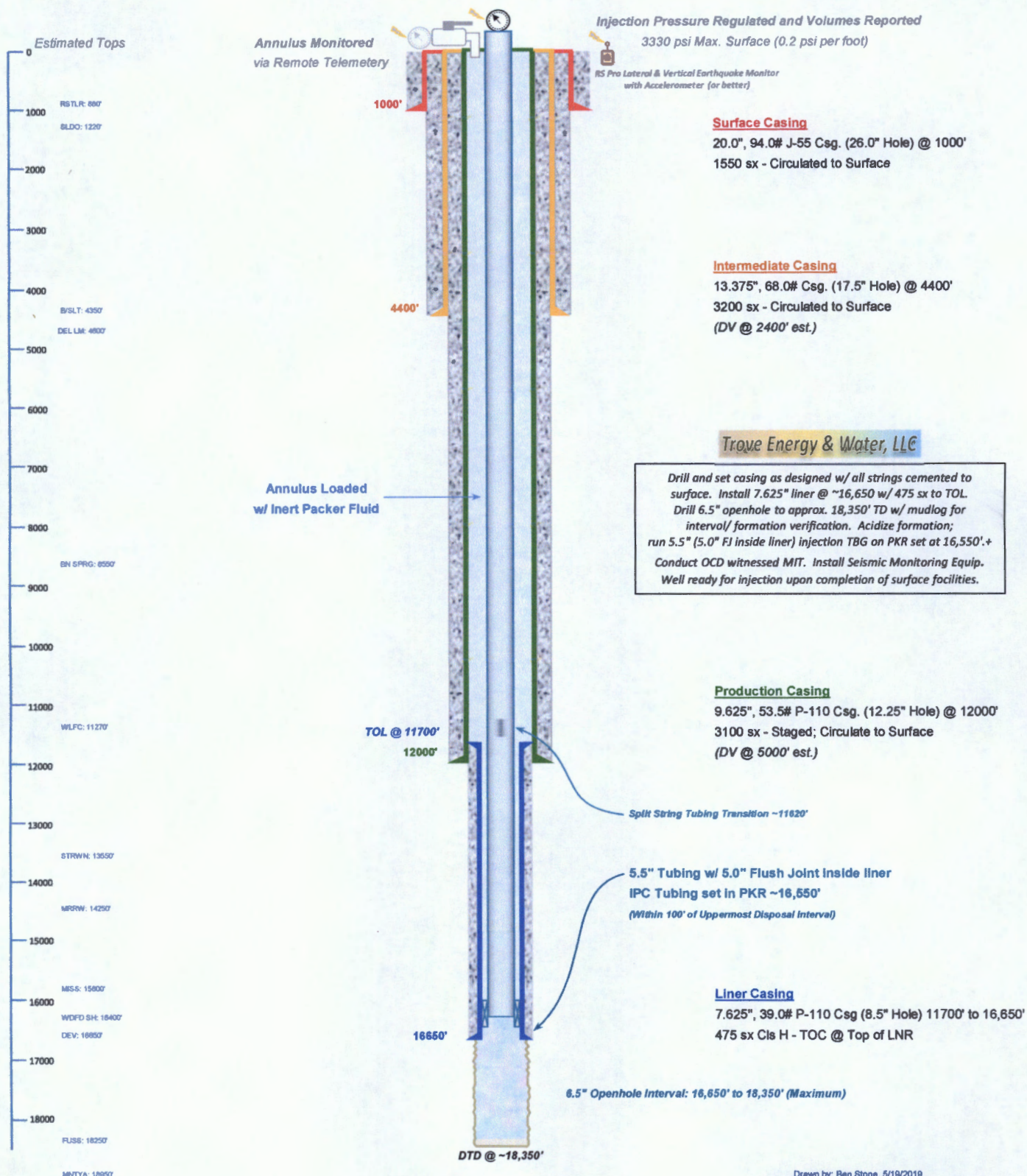
API 30-025-xxxxx

830' FSL & 150' FEL, SEC. 6-T23S-R32E
LEA COUNTY, NEW MEXICO

SWD; Devonian-Silurian (97869)

Spud Date: 2/15/2020

SWD Config Dt: 4/01/2020

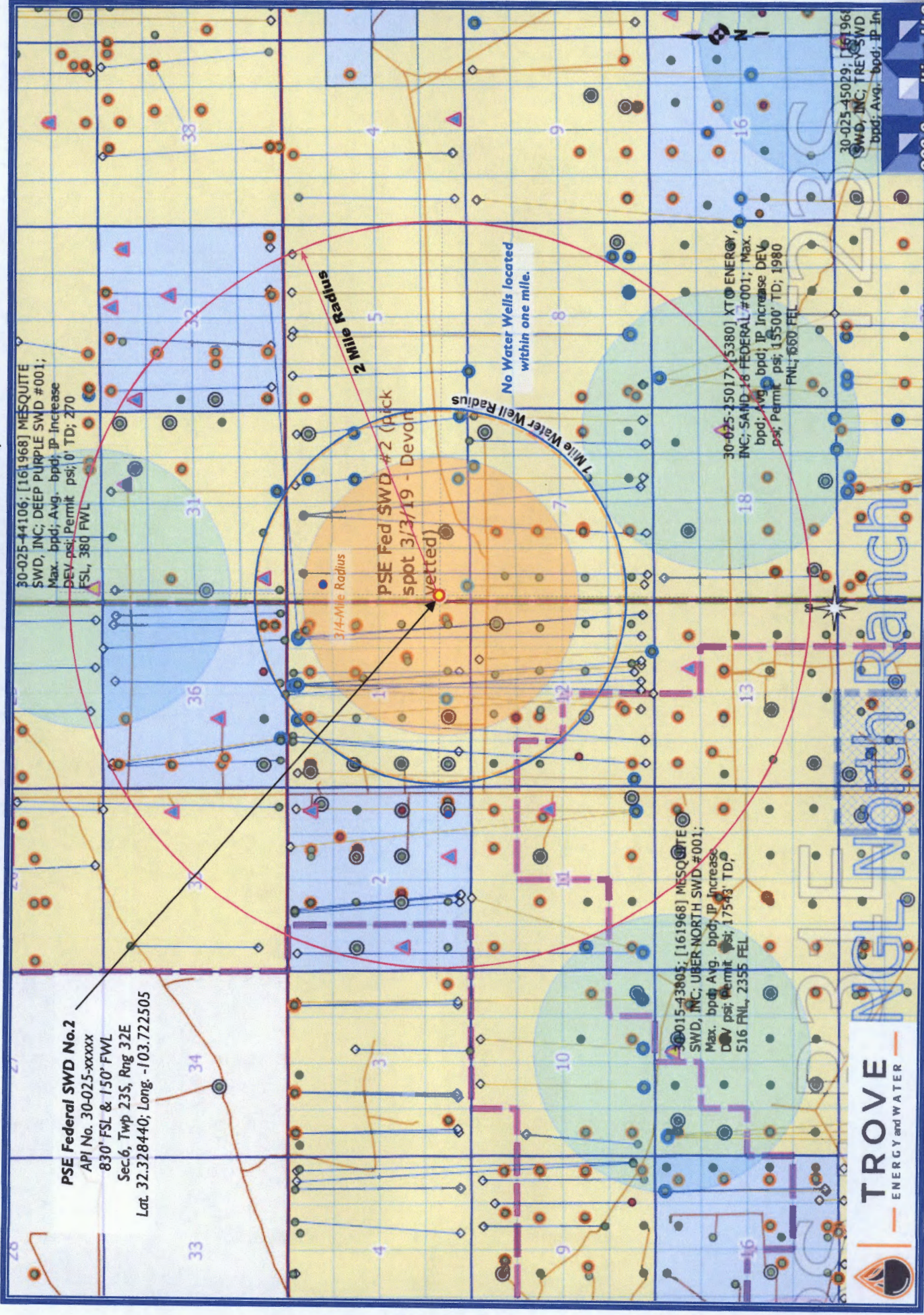


Drawn by: Ben Stone, 5/19/2019

SOS Consulting, LLC

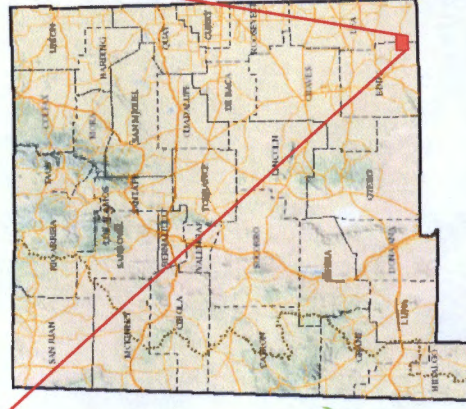
PSE Federal SWD No.2 - Area of Review / 2 Miles

(Attachment to NMOCD Form C-108 - Item V)



(Attachment to NMOCD Form C-108, Application for Authority to Inject.)

PSE Federal SWD No. 2
 API No. 30-025-xxxx
 830' FSL & 150' FWL
 Sec 6, Twp 23S, Rng 32E
 Lat. 32.328440; Long. -103.722505
 30-015-44434 30-015-42082 30-015-42081 30-015-42080 30-015-42079 30-015-42078 30-015-42077 30-015-42076 30-015-42075 30-015-42074 30-015-42073 30-015-42072 30-015-42071 30-015-42070 30-015-42069 30-015-42068 30-015-42067 30-015-42066 30-015-42065 30-015-42064 30-015-42063 30-015-42062 30-015-42061 30-015-42060 30-015-42059 30-015-42058 30-015-42057 30-015-42056 30-015-42055 30-015-42054 30-015-42053 30-015-42052 30-015-42051 30-015-42050 30-015-42049 30-015-42048 30-015-42047 30-015-42046 30-015-42045 30-015-42044 30-015-42043 30-015-42042 30-015-42041 30-015-42040 30-015-42039 30-015-42038 30-015-42037 30-015-42036 30-015-42035 30-015-42034 30-015-42033 30-015-42032 30-015-42031 30-015-42030 30-015-42029 30-015-42028 30-015-42027 30-015-42026 30-015-42025 30-015-42024 30-015-42023 30-015-42022 30-015-42021 30-015-42020 30-015-42019 30-015-42018 30-015-42017 30-015-42016 30-015-42015 30-015-42014 30-015-42013 30-015-42012 30-015-42011 30-015-42010 30-015-42009 30-015-42008 30-015-42007 30-015-42006 30-015-42005 30-015-42004 30-015-42003 30-015-42002 30-015-42001 30-015-41999 30-015-41998 30-015-41997 30-015-41996 30-015-41995 30-015-41994 30-015-41993 30-015-41992 30-015-41991 30-015-41990 30-015-41989 30-015-41988 30-015-41987 30-015-41986 30-015-41985 30-015-41984 30-015-41983 30-015-41982 30-015-41981 30-015-41980 30-015-41979 30-015-41978 30-015-41977 30-015-41976 30-015-41975 30-015-41974 30-015-41973 30-015-41972 30-015-41971 30-015-41970 30-015-41969 30-015-41968 30-015-41967 30-015-41966 30-015-41965 30-015-41964 30-015-41963 30-015-41962 30-015-41961 30-015-41960 30-015-41959 30-015-41958 30-015-41957 30-015-41956 30-015-41955 30-015-41954 30-015-41953 30-015-41952 30-015-41951 30-015-41950 30-015-41949 30-015-41948 30-015-41947 30-015-41946 30-015-41945 30-015-41944 30-015-41943 30-015-41942 30-015-41941 30-015-41940 30-015-41939 30-015-41938 30-015-41937 30-015-41936 30-015-41935 30-015-41934 30-015-41933 30-015-41932 30-015-41931 30-015-41930 30-015-41929 30-015-41928 30-015-41927 30-015-41926 30-015-41925 30-015-41924 30-015-41923 30-015-41922 30-015-41921 30-015-41920 30-015-41919 30-015-41918 30-015-41917 30-015-41916 30-015-41915 30-015-41914 30-015-41913 30-015-41912 30-015-41911 30-015-41910 30-015-41909 30-015-41908 30-015-41907 30-015-41906 30-015-41905 30-015-41904 30-015-41903 30-015-41902 30-015-41901 30-015-41899 30-015-41898 30-015-41897 30-015-41896 30-015-41895 30-015-41894 30-015-41893 30-015-41892 30-015-41891 30-015-41890 30-015-41889 30-015-41888 30-015-41887 30-015-41886 30-015-41885 30-015-41884 30-015-41883 30-015-41882 30-015-41881 30-015-41880 30-015-41879 30-015-41878 30-015-41877 30-015-41876 30-015-41875 30-015-41874 30-015-41873 30-015-41872 30-015-41871 30-015-41870 30-015-41869 30-015-41868 30-015-41867 30-015-41866 30-015-41865 30-015-41864 30-015-41863 30-015-41862 30-015-41861 30-015-41860 30-015-41859 30-015-41858 30-015-41857 30-015-41856 30-015-41855 30-015-41854 30-015-41853 30-015-41852 30-015-41851 30-015-41850 30-015-41849 30-015-41848 30-015-41847 30-015-41846 30-015-41845 30-015-41844 30-015-41843 30-015-41842 30-015-41841 30-015-41840 30-015-41839 30-015-41838 30-015-41837 30-015-41836 30-015-41835 30-015-41834 30-015-41833 30-015-41832 30-015-41831 30-015-41830 30-015-41829 30-015-41828 30-015-41827 30-015-41826 30-015-41825 30-015-41824 30-015-41823 30-015-41822 30-015-41821 30-015-41820 30-015-41819 30-015-41818 30-015-41817 30-015-41816 30-015-41815 30-015-41814 30-015-41813 30-015-41812 30-015-41811 30-015-41810 30-015-41809 30-015-41808 30-015-41807 30-015-41806 30-015-41805 30-015-41804 30-015-41803 30-015-41802 30-015-41801 30-015-41799 30-015-41798 30-015-41797 30-015-41796 30-015-41795 30-015-41794 30-015-41793 30-015-41792 30-015-41791 30-015-41790 30-015-41789 30-015-41788 30-015-41787 30-015-41786 30-015-41785 30-015-41784 30-015-41783 30-015-41782 30-015-41781 30-015-41780 30-015-41779 30-015-41778 30-015-41777



Lea County, New Mexico

C-108 - Item VI

Area of Review Well Data

**THERE ARE NO WELLS WHICH PENETRATE THE
PROPOSED DEVONIAN FORMATION IN THE
ONE-HALF MILE AREA of REVIEW**

C-108 ITEM X

LOGS and AVAILABLE TEST DATA

**A Standard Suite of Logs will be run after
drilling the well and submitted to the Division.**

C-108 ITEM VII – PROPOSED OPERATION

Trove PSE Federal SWD #2

COMMERCIAL SWD FACILITY

Upon approval of all permits for SWD, operations would begin within 30 days. Completion of the well operations will take approximately 6-8 weeks. Facility construction including installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval but at a different location from the well. In any event, it is not expected for the facility construction phase of the project to last more than 60 days, depending on availability of contractors and equipment. Facility design is currently in the planning phase with a company which specializes in such construction.

DRILL AND CONFIGURE FOR SALT WATER DISPOSAL

Interval Determination

Prior to commencing disposal, Trove Energy and Water shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Engineering Bureau, showing evidence agreeable that only the permitted formation is open for disposal including a summary of depths (picks) for contacts of the formations which the Division shall use to amend any order for a final description of the depth for the injection interval. If significant hydrocarbon shows occur while drilling, the operator shall notify Hobbs district office and Trove will seek written permission prior to commencing disposal.

Casing and Logging

Trove's design is to circulate all casing strings to surface. If cement does not circulate on any casing string, the Trove will run a cement bond log (CBL) or other log to determine top of cement and shall notify the Hobbs district office with the top of cement (emergency phone number if after normal business hours) prior to continuing with any further cement activity with the proposed well. If cement does not tie back in to next higher casing shoe, the operator shall perform remedial cement job(s) to bring cement, at a minimum, 200 feet above the next higher casing shoe. The operator shall run a CBL (or equivalent) for the 7-5/8-inch liner to demonstrate placement cement and the cement bond with the tie-in with 9-5/8-inch casing string. All logs on the well will be copied to the Hobbs district office; CBL logs and mudlogs will be provided prior to commencing disposal. Additionally, prior to commencing disposal the operator shall obtain a bottom-hole pressure of the open-hole completion. This information shall be provided with the sundry notice of commencement of disposal operations.

Monitoring and Reporting

Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the completion workover including all work otherwise described above, any change to the procedure noted herein and to perform mechanical integrity pressure test per OCD test procedures. (Notify NMOCD 24 hours prior.) The casing/tubing annulus will be monitored for communication with injection fluid or loss of casing integrity.

C-108 ITEM VII – PROPOSED OPERATION

(continued)

OPERATIONAL SUMMARY

The SWD facility will not be fenced so that trucks may access for load disposal 24/7.

Ultimately, Trove's plans would include tying the SWD into a pipeline, when and if available, so the well and injection equipment will be a closed system and equipped with pressure limiting devices and volume meters. The annulus, loaded with an inert, anti-corrosion packer fluid, will be monitored for pressure.

SCADA System

The facility and tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation. Operational details including rates, pressures, valve, tank and levels will be continually monitored and either controlled remotely or personnel dispatched for further action.

In addition to operational SCADA system control and monitoring, Trove is considering installing RS Pro Lateral & Vertical Earthquake Monitors with Accelerometer, or better for continuous monitoring. Data will be remotely accessible; monitored and shared as needed. An alternative solution being considered would employ a third party to provide seismic monitoring using public and private seismometers as available.

Rates, Pressures, Releases

Anticipated daily maximum volume is 30,000 bpd and an average of 22,500 bpd at a maximum surface injection pressure of 3330 psi (.2 psi/ft gradient) – maximum pressure will be adjusted if the top of interval is modified after well logs are run.

Potential releases will be contained and cleaned up immediately. The operator shall repair or otherwise correct the situation within 48 hours before resuming operations. OCD will be notified within 24 hours of any release greater than 5 bbls. If required, remediation will start as soon as practicable. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC; as necessary and appropriate and OCD form C-141 will be submitted promptly.

C-108 ITEM VII – PRODUCED WATER ANALYSES

Item VII.4 – Water Analysis of Source Zone Water

Glorieta/ Yeso
Bone Spring
Wolfcamp

Item VII.5 – Water Analysis of Disposal Zone Water

Devonian

Water Analyses follow this page.

C-108 ITEM VII – PRODUCED WATER ANALYSES

Item VII.4 – Water Analysis of Source Zone Water

Glorieta/ Yeso

Bone Spring

Wolfcamp

Item VII.5 – Water Analysis of Disposal Zone Water

Devonian

Analyses follow this page.

C-108 Item VII.5 - Produced Water Data
Trove Energy & Water, LLC - PSE Area SWD Project

SOURCE ZONE

GLO/YESO

API No	3001524754	Lab ID	
Well Name	PLATT PA 009	Sample ID	1146
		Sample No	
Location	ULSTR 26 18 S 26 E 330 S 990 W	Lat / Long	32.71216 -104.35742
		County	Eddy
Operator (when sampled)	Yates Petroleum Corp.		
	Field ATOKA	Unit	M
Sample Date	8/4/1984	Analysis Date	
	Sample Source Wellhead	Depth (if known)	
	Water Typ Produced Water		
ph	7.5	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	1800
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	120382	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	113000	conductivity_temp_F	
sodium_mgL	71415	carbonate_mgL	0
calcium_mgL	2560	bicarbonate_mgL	476
iron_mgL	0	sulfate_mgL	2001
barium_mgL		hydroxide_mgL	
magnesium_mgL	0	h2s_mgL	0
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	
Remarks			

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data
Trove Energy & Water, LLC - PSE Area SWD Project

SOURCE ZONE

GLO/YESO

API No	3001524619	Lab ID	
Well Name	PLATT PA 008	Sample ID	1207
		Sample No	
Location	ULSTR 26 18 S 26 E 430 S 2260 W	Lat / Long	32.71245 -104.35329
		County	Eddy
Operator (when sampled)	Yates Petroleum Corporation		
	Field ATOKA	Unit	N
Sample Date	1/19/1985	Analysis Date	
	Sample Source well head	Depth (if known)	
	Water Typ Produced Water		
ph	6	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	11500
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	136324	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	121000	conductivity_temp_F	
sodium_mgL	61571	carbonate_mgL	
calcium_mgL	4160	bicarbonate_mgL	104
iron_mgL	0	sulfate_mgL	3720
barium_mgL		hydroxide_mgL	
magnesium_mgL	7340	h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	
Remarks			

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data
Trove Energy & Water, LLC - PSE Area SWD Project

SOURCE ZONE

BONE SPRING

API No	3001520225	Lab ID	
Well Name	BIG EDDY UNIT	Sample ID	5847
	012	Sample No	
Location	ULSTR 21 20 S 31 E	Lat / Long	32.56399 -103.87994
	660 N 660 W	County	Eddy
Operator (when sampled)	MALLON OIL COMPANY		
	Field	BIG EDDY	Unit D
Sample Date	8/27/1999	Analysis Date	8/31/1999
	Sample Source	Depth (if known)	
	Water Typ		
ph	5.2	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity	1.125	hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	181697	resistivity_ohm_cm_temp	
tds_mgL_180C		conductivity	
chloride_mgL	123750	conductivity_temp_F	
sodium_mgL	73895.6	carbonate_mgL	
calcium_mgL	5625	bicarbonate_mgL	13.725
iron_mgL	337.5	sulfate_mgL	787.5
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	0
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	
Remarks			

(Produced water data courtesy of NMT Octane NM WAIDS database.)



C-108 Item VII.5 - Produced Water Data
Trove Energy & Water, LLC - PSE Area SWD Project

SOURCE ZONE

WOLFCAMP

API No	3001520138	Lab ID	
Well Name	MAHUN STATE 001	Sample ID	5688
		Sample No	
Location	ULSTR 16 22 S 22 E 1800 N 1980 W	Lat / Long	32.39340 -104.70979
		County	Eddy
Operator (when sampled)			
	Field ROCKY ARROYO	Unit	F
Sample Date	5/17/1968	Analysis Date	
	Sample Source DST	Depth (if known)	
	Water Type		
ph	8.6	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	35495	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	19000	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	830
iron_mgL		sulfate_mgL	2500
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	
Remarks			

(Produced water data courtesy of NMT Octane NM WAIDS database.)



**C-108 Item VII.5 - Produced Water Data
Trove Energy & Water, LLC - PSE Area SWD Project**

DISPOSAL ZONE

DEVONIAN

API No.	3001510280	Lab ID	
Well Name	JURNEGAN POINT 001	Sample ID	6170
		Sample No	
Location	ULSTR 05 24 S 25 E	Lat / Long	32.24037 -104.42375
	660 S 660 W	County	Eddy
Operator (when sampled)			
	Field WILDCAT	Unit	M
Sample Date	12/14/1964	Analysis Date	
	Sample Source DST	Depth (if known)	
	Water Type		
ph	7	alkalinity_as_caco3_mgL	
ph_temp_F		hardness_as_caco3_mgL	
specificgravity		hardness_mgL	
specificgravity_temp_F		resistivity_ohm_cm	
tds_mgL	229706	resistivity_ohm_cm_temp_	
tds_mgL_180C		conductivity	
chloride_mgL	136964	conductivity_temp_F	
sodium_mgL		carbonate_mgL	
calcium_mgL		bicarbonate_mgL	198
iron_mgL		sulfate_mgL	2511
barium_mgL		hydroxide_mgL	
magnesium_mgL		h2s_mgL	
potassium_mgL		co2_mgL	
strontium_mgL		o2_mgL	
manganese_mgL		anionremarks	
Remarks			

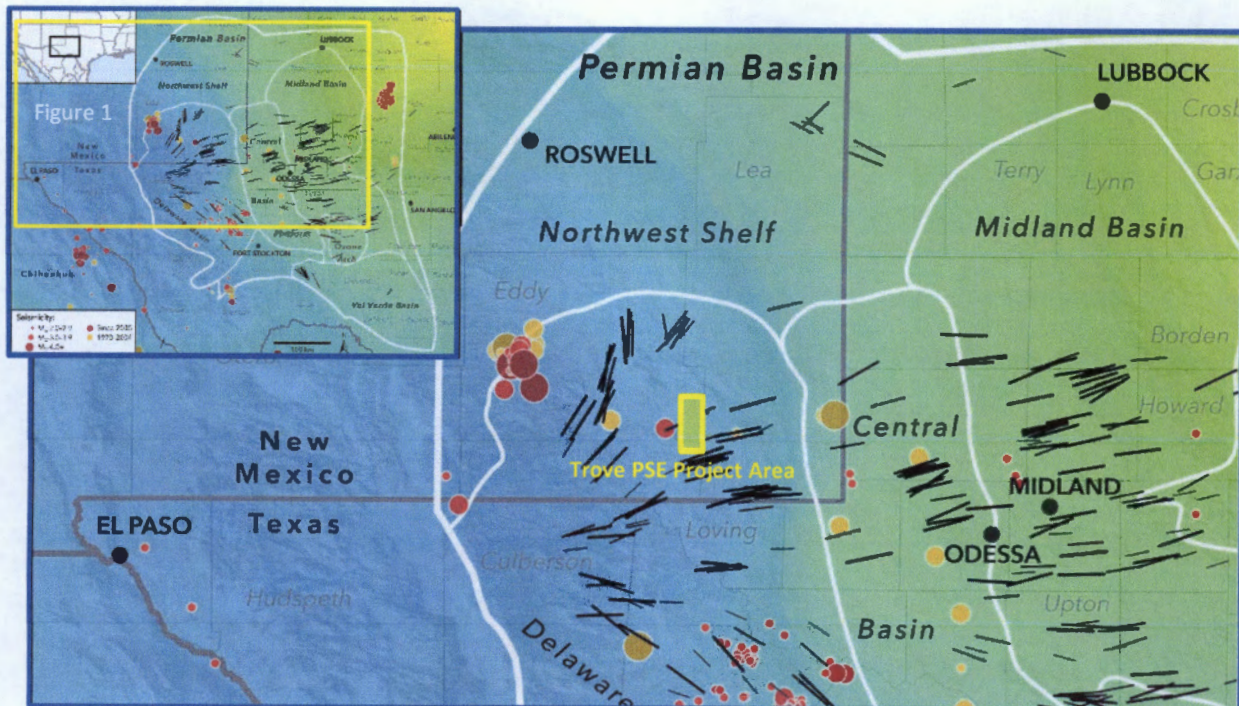
(Produced water data courtesy of NMT Octane NM WAIDS database.)



Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT

Map Source: State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity (Figure 1); Jens-Erik Lund Snee/ Mark Zoback, February 2018



TROVE PSE PROJECT VICINITY

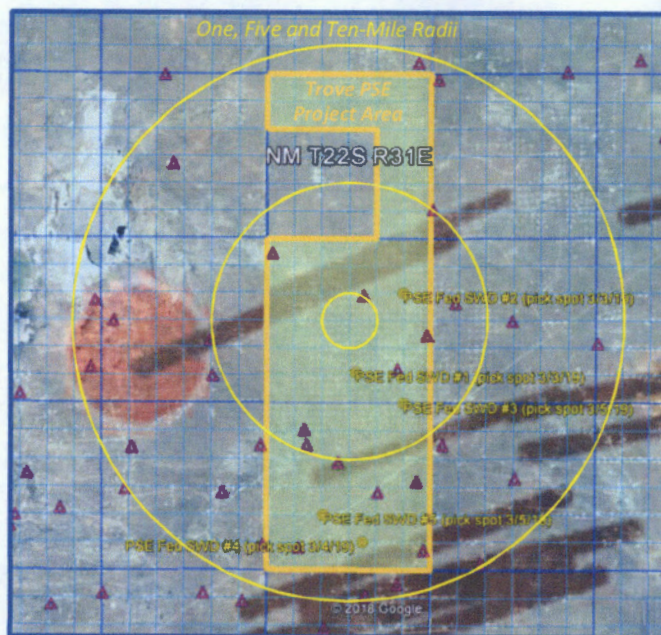


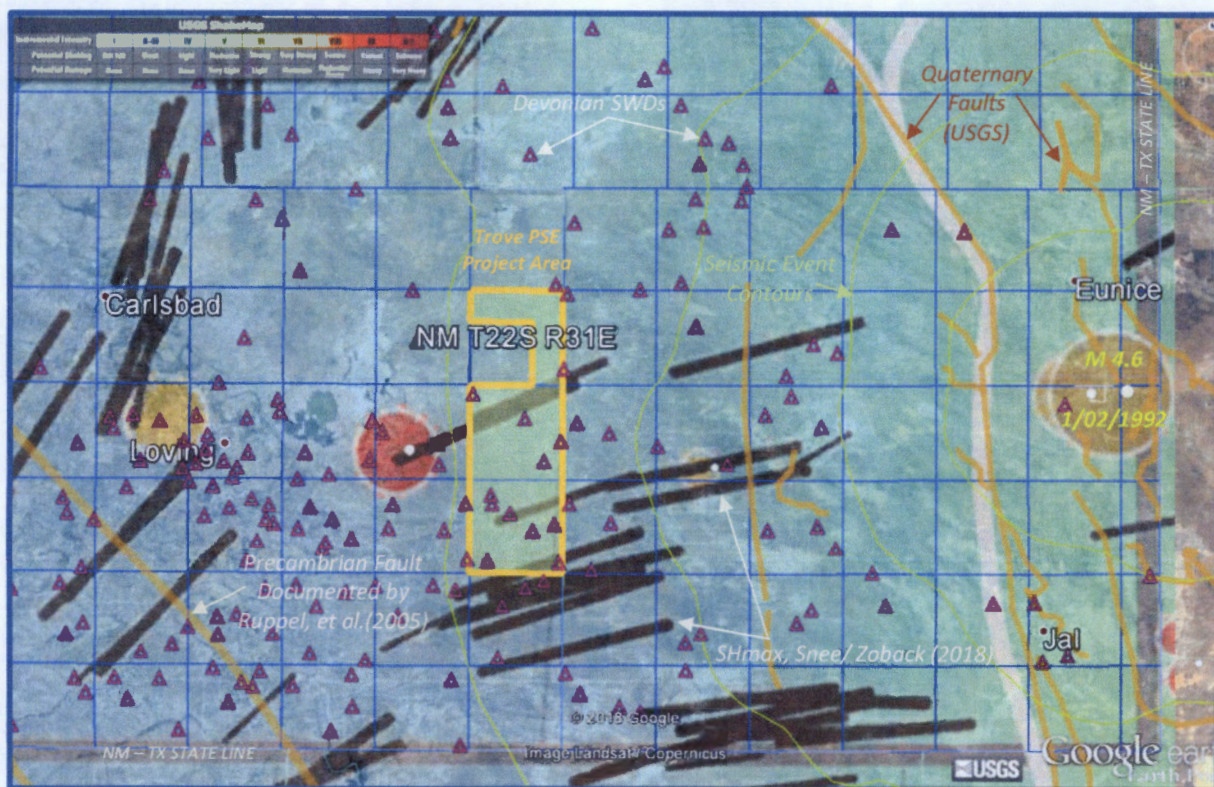
Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of the maximum horizontal stress (SHmax), with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the $A\phi$ parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

Geological Data

In the following map, a layer with USGS historical earthquake data is overlaid and, a layer showing lines to represent Precambrian faults as documented by Ruppel, et al. (2005). Finally, a layer showing all currently permitted SWDs completed or proposed to be completed in the Devonian (Silurian) formation.

The USGS earthquakes shown are well known to the area. The 2012 quake located approximately 13 miles due east of Loving is also shown (8.5 miles). This was perhaps the most significant of the area in recent years but was determined to not be related to oil and gas activity.

The Precambrian faults and existing Devonian SWDs are discussed in more detail on the next page.

REGIONAL VIEW - DEVONIAN SWD LOCATIONS, PRECAMBRIAN FAULTS, S_{Hmax} , USGS MAGNITUDE

C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

The primary Precambrian faults in the area as documented by Ruppel, et al. (2005) is represented on this map by the thick, pink colored lines. The most significant of these is the fault associated with the Rio Grande Rift, running southeast to northwest and, runs adjacent to a portion of Hwy 285 however; only a small portion the associated fault which runs parallel approximately 15 miles northeast is depicted below. The Trove PSE Project SWD Area is located some 38 miles from the fault. Other documented faults (USGS, 2000) are shown for eastern Lea County and extending into west Texas. Other Devonian SWDs in the area are also shown (small purple triangles) completed or proposed to be completed in the Devonian (Silurian) formation.

The previously referenced study by Snee and Zoback (shown on previous exhibits) evaluated the strike-slip probability using probabilistic FSP (Fault Slip Potential) analysis of known faults in the Permian Basin. The study predicts that the Precambrian fault shown here has less than a 10% probability of being critically stressed to the point of creating an induced seismicity event. The main reason for the low probability is due to the relationship of the strike of the fault to the regional S_{Hmax} orientation; the proposed SWD being well removed from the area.

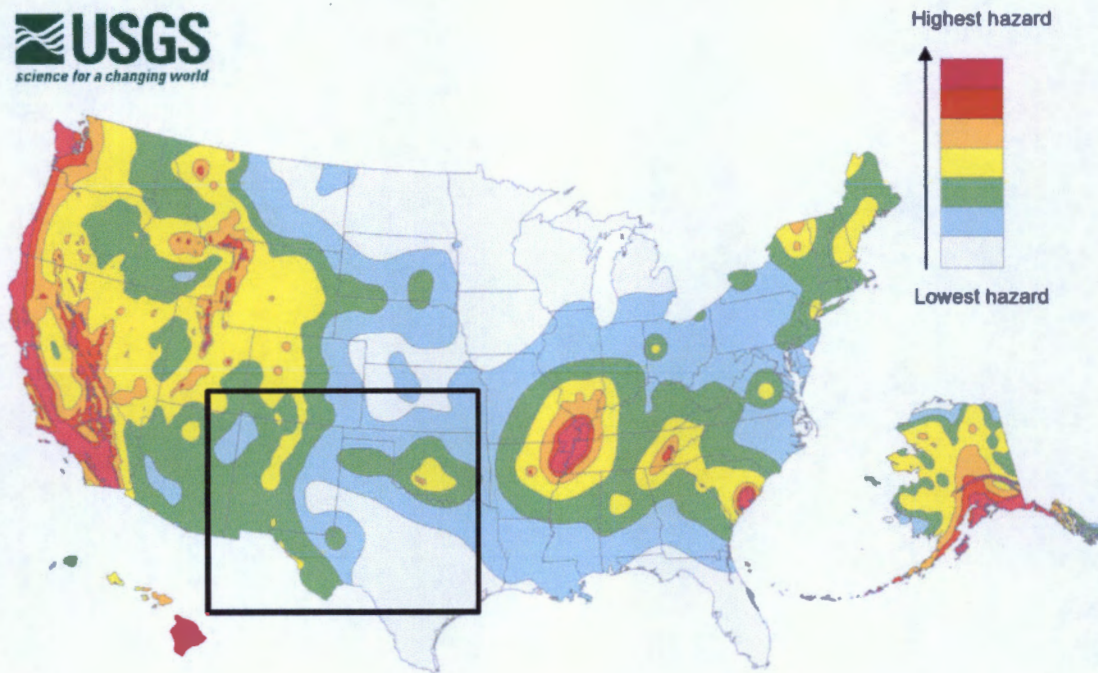


VICINITY - PERMITTED DEVONIAN SWDs, COMPOSITE FAULTS

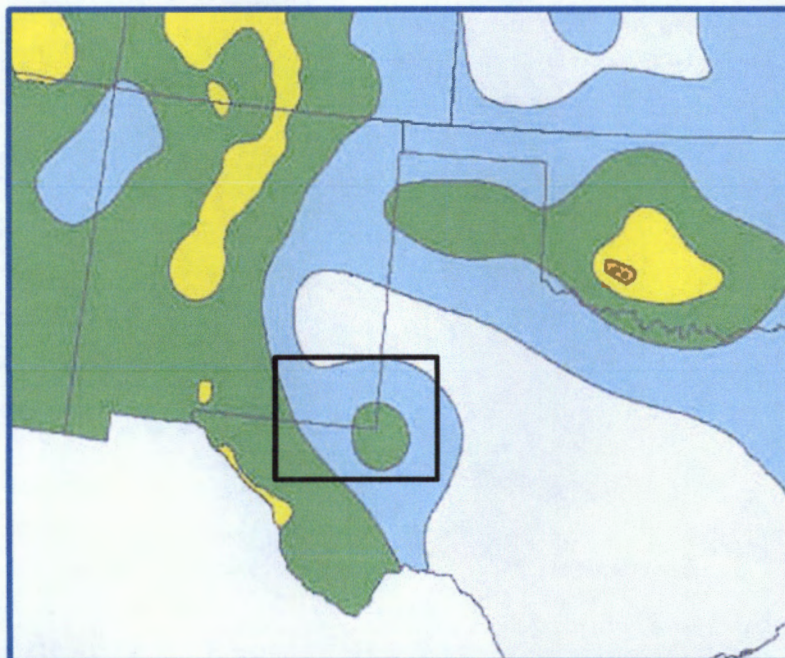
C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)



2014 map data: The USGS notes in its report that fracking may be to blame for a sizeable uptick in earthquakes in places like Oklahoma. "Some states have experienced increased seismicity in the past few years that may be associated with human activities such as the disposal of wastewater in deep wells," the report says. USGS hopes to use that data in future maps but it isn't included in this one. "Injection-induced earthquakes are challenging to incorporate into hazard models because they may not behave like natural earthquakes and their rates change based on man-made activities," the report says.

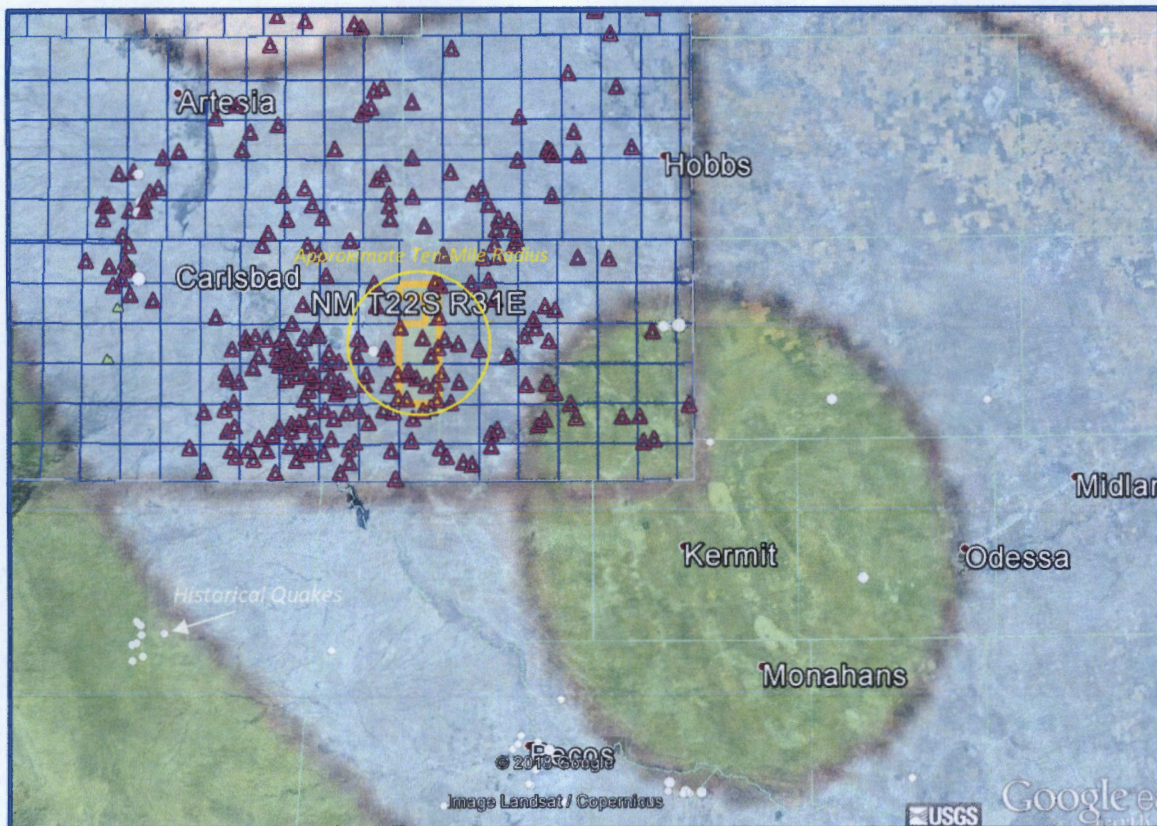


C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2014 REGIONAL MAP DATA OVERLAY IN GOOGLE EARTH W/ HISTORICAL EARTHQUAKES



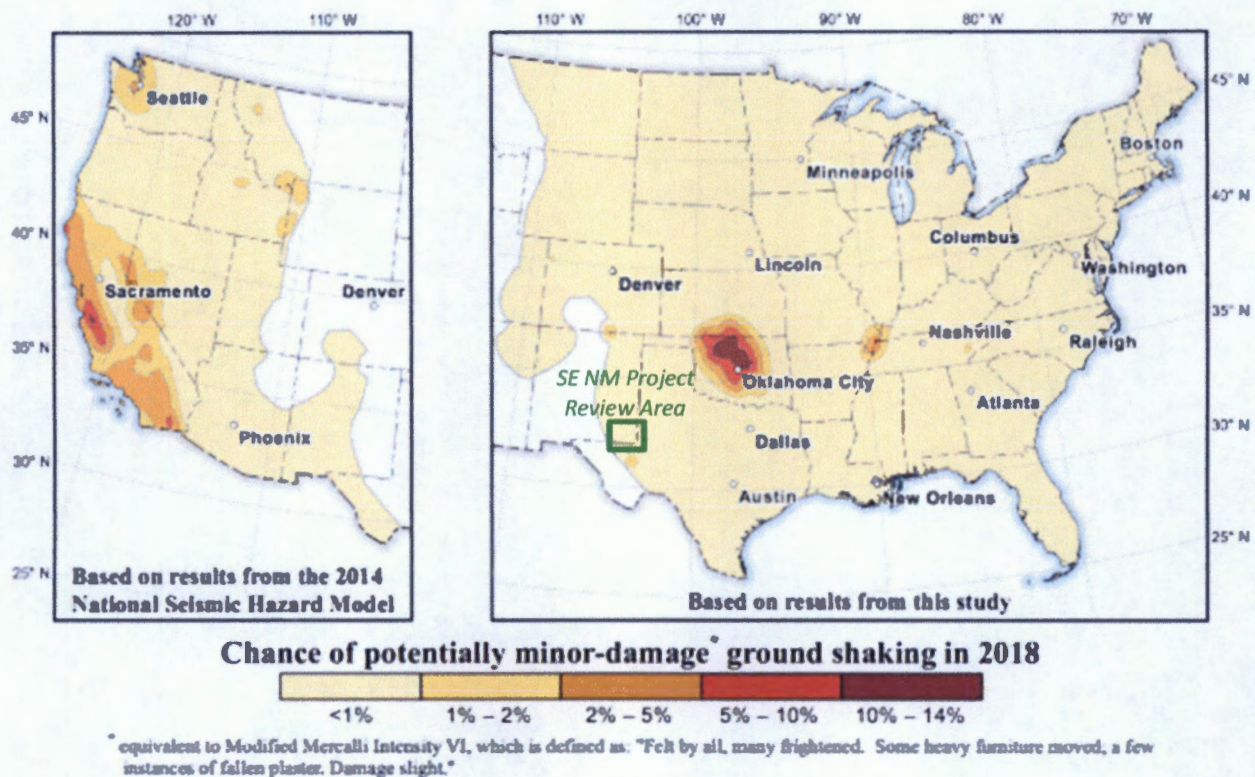
An updated USGS map for 2018 is on the next page. While methodology remained essentially the same according to USGS, the interpreted results and color-coding did have some modification. However, the subject area in southeast New Mexico on both maps remains very low and on the 2018 map, the area is assigned a value of <1% of “potentially minor-damage ground shaking”.

C-108 - Item VIII

Geological Data

EARTHQUAKE / SEISMIC INFORMATION SUPPLEMENT (cont.)

USGS 2018 ONE-YEAR MODEL



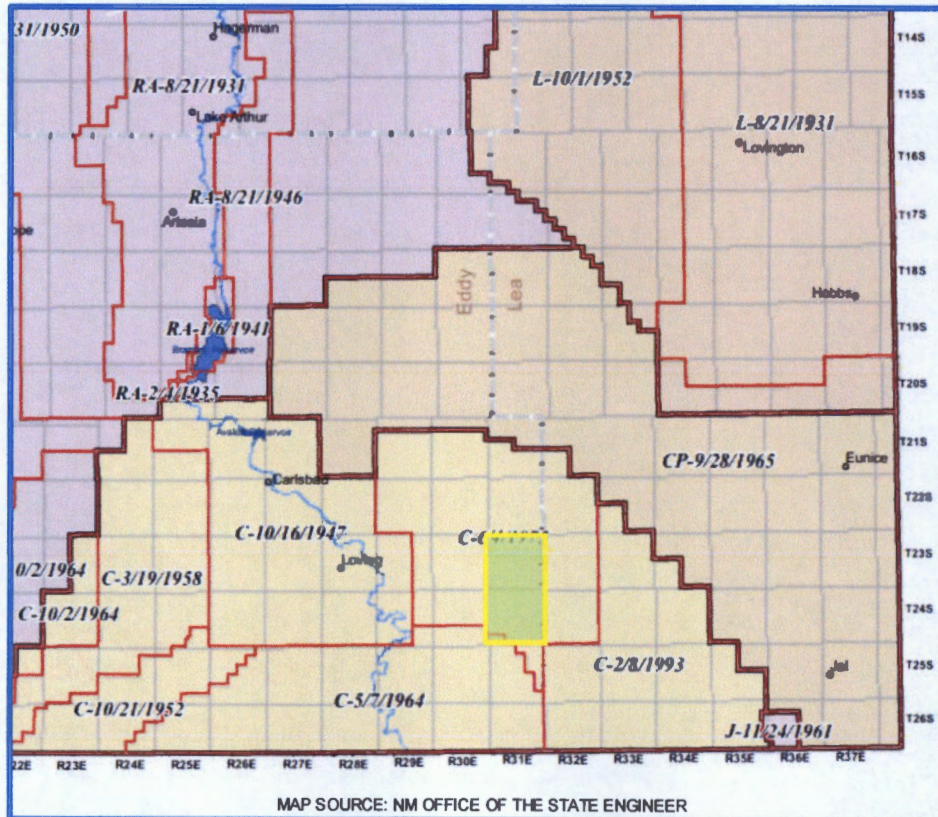
Map showing chance of damage from an earthquake in the Central and Eastern United States during 2018. Percent chances are represented as follows: pale yellow, less than 1 percent; dark yellow, 1 to 2 percent; orange, 2 to 5 percent; red, 5 to 10 percent; dark red, 10 to 12 percent. See Hazard from the western United States from the [2014 National Seismic Hazard Maps \(Petersen et al., 2014\)](#) for comparison.

The USGS has produced the 2018 one-year probabilistic seismic hazard forecast for the central and eastern United States from induced and natural earthquakes. For consistency, the updated 2018 forecast is developed using the same probabilistic seismicity-based methodology as applied in the two previous forecasts.

Based on publicly available data for the subject area, it is reasonable to believe the risk of induced seismic activity due to disposal injection into this well is extremely low.

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Carlsbad Basin.

Fresh water in the area is generally available from Rustler mainly from Dewey Lake, Magenta and Culebra Members. State Engineer's records show water wells in the area with a depth to groundwater of 400 to 713 feet with an average depth to groundwater of 584 feet.

There are NO water wells (PODs) located within one mile of the proposed SWD.

C-108 Item XI

Water Wells Within One Mile

PSE Federal SWD No.2 - Water Well Locator Map

There are NO water wells/PODs within a one-mile radius of the proposed SWD.



Data from NM Office of the State Engineer displayed in OSE-GIS System.

C-108 ITEM XI – WATER WELLS IN AOR

Depth to Ground 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 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	POD Sub- Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02216	CUB	LE		2	2	4	21	23S	32E	625035	3573261*	585	400	185
C 02349	CUB	ED		2	3	03		23S	32E	625678	3578004*	525		
C 03529 POD1	C	LE		2	4	3	29	23S	32E	622651	3571212	550		
C 03749 POD1	CUB	LE		3	4	4	07	23S	32E	616974	3575662	865	639	226
C 03851 POD1	CUB	LE		3	3	4	20	23S	32E	622880	3572660	1392	713	679

Average Depth to Water: 584 feet

Minimum Depth: 400 feet

Maximum Depth: 713 feet

Record Count: 5

PLSS Search:

Township: 23S

Range: 32E

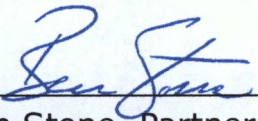
*UTM location was derived from PLSS - see Help

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.

C-108 ITEM XII

Geologic Affirmation

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.



Ben Stone, Partner
SOS Consulting, LLC

Project: Trove Energy and Water, LLC
PSE Project Area
Reviewed 3/4/2019

C-108 ITEM XIII – PROOF OF NOTIFICATION

IDENTIFICATION AND NOTIFICATION OF INTERESTED PARTIES

Exhibits for Section

Affected Parties Map

List of Interested Parties

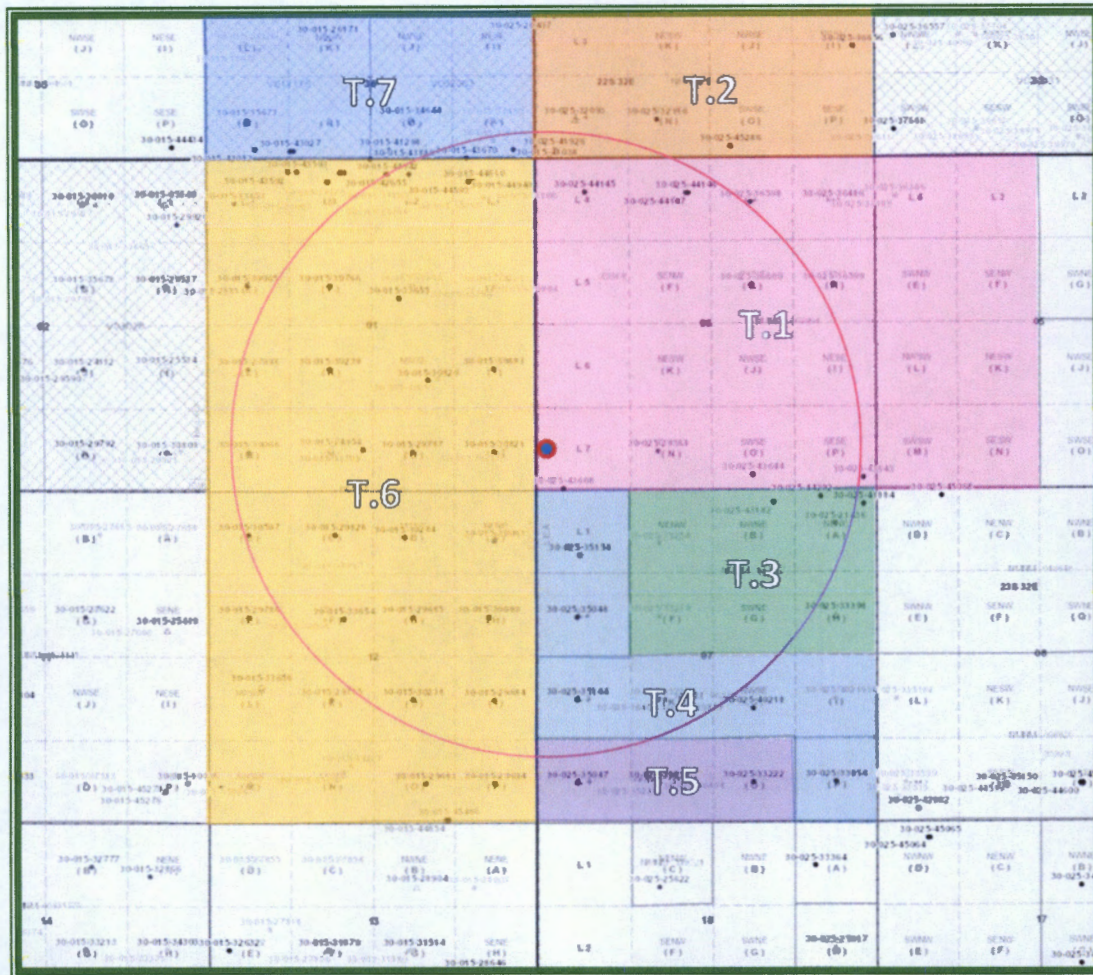
Notification Letter to Interested Parties

Proof of Certified Mailing

Published Legal Notice

PSE Federal SWD Well No.2 – Affected Parties Plat

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



LEGEND

- | | |
|---|---|
| T.1 – NMNM-063994 – Devon Energy Production Co. | T.5 – NMNM-086151 – Devon Energy Production Co. |
| T.2 – NMNM-106916 – Echo Production, Inc. | T.6 – NMNM-022080 – ZPZ Delaware I, LLC |
| T.3 – NMNM-132067 – Devon Energy Production Co. | T.7 – V0-6206-0003 – COG Operating, LLC |
| T.4 – NMNM-062223 – HBP; Foundation Energy Mgt. | |

C-108 ITEM XIII – PROOF OF NOTIFICATION AFFECTED PARTIES LIST

SOS Consulting is providing electronic delivery of C-108 applications.

**ALL APPLICABLE AFFECTED PARTIES ARE PROVIDED A LINK IN THE NOTICE LETTER
TO A SECURE SOS/ CITRIX SHAREFILE® SITE TO VIEW AND DOWNLOAD
A FULL COPY OF THE SUBJECT C-108 APPLICATION IN PDF FORMAT.**

"AFFECTED PERSON" MEANS THE DIVISION DESIGNATED OPERATOR; IN THE ABSENCE OF AN OPERATOR, A LESSEE WHOSE INTEREST IS EVIDENCED BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILES THE APPLICATION; OR IN THE ABSENCE OF AN OPERATOR OR LESSEE, A MINERAL INTEREST OWNER WHOSE INTEREST IS EVIDENCED BY A WRITTEN CONVEYANCE DOCUMENT EITHER OF RECORD OR KNOWN TO THE APPLICANT AS OF THE DATE THE APPLICANT FILED THE APPLICATION FOR PERMIT TO INJECT.; PER OCD RULES NMAC 19.15.26.7, A. AND 19.15.26.8, B.2

SURFACE OWNER

- 1 U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220
Certified: 7018 1130 0000 8738 0946

OFFSET MINERALS LESSEES and OPERATORS (All Notified via USPS Certified Mail)

BLM Leases NMNM-063994, 132067, 086151 (T.1, T.3 and T.5 on Map)

Lessee & Operator

- 2 DEVON ENERGY PRODUCTION CO., LP
333 W. Sheridan Avenue
OKC, OK 73102-5010
Certified: 7018 1130 0000 8738 0939

Operator

- 3 FOUNDATION ENERGY MANAGEMENT, LLC (T.3 and T.5)
5057 Keller Springs Rd., Ste.650
Addison, TX 75001
Certified: 7018 1130 0000 8738 0922

BLM Lease NMNM-106916 (T.2 on Map)

Lessee & Operator

- 4 ECHO PRODUCTION, INC.
616 5th Street
Graham, TX 76450
Certified: 7018 1130 0000 8738 0915

Operators

- DEVON ENERGY PRODUCTION CO., LP
333 W. Sheridan Avenue
OKC, OK 73102-5010
- 5 REGENERATION ENERGY
P.O. Box 210
Artesia, NM 88210
Certified: 7018 1130 0000 8738 0908

BLM Lease NMNM-062223 (T.4 Map)

Held by Production - Lessee & Operator

FOUNDATION ENERGY MANAGEMENT, LLC
5057 Keller Springs Rd., Ste.650
Addison, TX 75001

C-108 ITEM XIII – PROOF OF NOTIFICATION
AFFECTED PARTIES LIST (cont.)

BLM Lease NMNM-062223 (T.6 Map)

Lessee

ZPZ DELAWARE I, LLC
1515 Calle Sur, Ste.174
Hobbs, NM 88240

Operators

- 6 POGO OIL & GAS OPERATING, INC.
1515 Calle Sur, Ste.174
Hobbs, NM 88240
Certified: 7018 1130 0000 8738 0892

DEVON ENERGY PRODUCTION CO., LP
333 W. Sheridan Avenue
OKC, OK 73102-5010

State Lease V0-6206-0003 (T.7 Map)

Lessee & Operator

- 7 COG OPERATING, LLC
Attn: NM Land/ Leases
600 W. Illinois Avenue
Midland, TX 79701
Certified: 7018 1130 0000 8738 0885

OFFSET MINERALS OWNERS (Notified via USPS Certified Mail)

U.S. DEPARTMENT OF INTERIOR
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220

- 8 STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504
Certified: 7018 1130 0000 8738 0878

REGULATORY

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed original and copy)
1220 S. St. Francis Dr.
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
811 South First St.
Artesia, NM 88210

May 30, 2019

NOTIFICATION TO INTERESTED PARTIES
via U.S. Certified Mail – Return Receipt Requested

To Whom It May Concern:

Trove Energy and Water, LLC, Hobbs, New Mexico, is preparing applications to the New Mexico Oil Conservation Division to drill and complete for salt water disposal the PSE Federal SWD Well No.2. The proposed commercial operation will be for produced water disposal from area operators. As indicated in the notice below, the well will be located in Section 6, Township 23 South, Range 32 East in Lea County, New Mexico.

The published notice states that the interval will be from 16,650 feet to 18,350 feet into the Devonian and Silurian formations.

Following is the notice published in the Hobbs News-Sun, Hobbs, New Mexico on or about June 2, 2019.

LEGAL NOTICE

Trove Energy and Water, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the PSE Federal SWD Well No.2 will be located 830' FSL & 150' FWL, Section 6, Township 23 South, Range 32 East, Lea County, New Mexico; approximately 22.0 miles east/northeast of Loving, NM.

Produced water from area production will be commercially disposed into the Devonian and Silurian formations at a maximum interval depth of 16,650' to 18,350' at a maximum surface pressure of 3330 psi and a rate limited only by such pressure. Mudlogging and e-logs will confirm final interval depths.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice or the OCD receive date, whichever is later. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

You have been identified as a party who may be interested as an offset lessee or operator.

You are entitled to a full copy of the application. A full copy in PDF format will be posted on the SOS Consulting **ShareFile** site and available for future download (posting may lag behind the notice effort).

Use the URL link: <https://sosconsulting.sharefile.com/d-se459e88f470473b8>
(Please Note: The ShareFile service is powered by Citrix Systems and is completely secure.*)

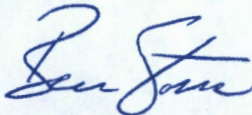
The link to this file will be active for 60 days from the date of this letter. Your company can access and download the file a maximum of five (5) times. (One copy may be downloaded and shared as needed among your company.)

If preferred, you may call SOS Consulting, LLC at 903-488-9850, or email info@sosconsulting.us, and the same PDF file copy will be expedited to you via email.

Please use a subject like **"PSE Fed SWD #2 May 2019 PDF Copy Request"**.

Thank you for your attention in this matter.

Best regards,



Ben Stone, SOS Consulting, LLC
Agent for Trove Energy and Water, LLC

Cc: Application File

SOS Consulting is committed to providing superior quality work using technology to assist clients and affected parties in obtaining the documentation required. SOS will continue to utilize methods which are less energy and resource intensive including, the reduction of paper copies.

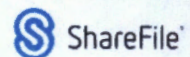
We hope you'll partner with us and appreciate these efforts.

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CITRIX



C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

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☐ Return Receipt (electronic) \$ 2.80

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage \$.55

Total Postage and Fees \$ 6.85

Sent To

Street and Bureau of Land Management

City, State Oil & Gas Division

PS Form 620 E. Greene St.

Instructions

Postmark Here
MAY 31 2019
COMO TX 75531

7018 1130 0000 8738 0939

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☐ Adult Signature Restricted Delivery \$

Postage \$.55

Total Postage and Fees \$ 6.85

Sent To

Street and DEVON ENERGY PROD. CO., LP

City, State 333 W. Sheridan Avenue

PS Form OKC, OK 73102-5010

Instructions

Postmark Here
MAY 31 2019
COMO TX 75531

7018 1130 0000 8738 0922

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☐ Adult Signature Restricted Delivery \$

Postage \$.55

Total Postage and Fees \$ 6.85

Sent To

Street and FOUNDATION ENERGY MGT, LLC

City, State 5057 Keller Springs Rd., Ste.650

PS Form Addicks, TX 75001

Instructions

Postmark Here
MAY 31 2019
COMO TX 75531

7018 1130 0000 8738 0915

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☐ Return Receipt (electronic) \$ 2.80

☐ Certified Mail Restricted Delivery \$

☐ Adult Signature Required \$

☐ Adult Signature Restricted Delivery \$

Postage \$.55

Total Postage and Fees \$ 6.85

Sent To

Street and ECHO PRODUCTION, INC.

City, State 616 5th Street

PS Form Graham, TX 76450

Instructions

Postmark Here
MAY 31 2019
COMO TX 75531

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts – cont.)

7018 1130 0000 8738 0892

U.S. Postal Service™
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Certified Mail Fee	\$ 3.50
Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$ 2.80
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$.55
Total Postage and Fees	\$ 6.85

Sent To _____
Street and _____
City, State, _____
PS Form _____

REGENERATION ENERGY
P.O. Box 210
Artesia, NM 88210

Postmark Here
MAY 31 2019
USPS

7018 1130 0000 8738 0892

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CERTIFIED MAIL® RECEIPT
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Extra Services & Fees (check box, add fee as appropriate)	
☐ Return Receipt (hardcopy)	\$ 2.80
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$
Postage	\$.55
Total Postage and Fees	\$ 6.85

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Street and _____
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POGO OIL & GAS OPERATING, INC.
1515 Calle Sur, Ste.174
Hobbs, NM 88240

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STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail

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Affidavit of Publication

No. 25147

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that he is the Publisher of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/day on the same

day as follows:

First Publication May 30, 2019

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Seventh Publication

Subscribed and sworn before me this

30th day of May 2019



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires:

5/12/2023

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

Trove Energy and Water, LLC, 1919 North Turner, Hobbs, NM 88240, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the PSE Federal SWD Well No.2 will be located 830' FSL & 150' FWL, Section 6, Township 23 South, Range 32 East, Eddy County, New Mexico; approximately 22.0 miles east/ northeast of Loving, NM.

Produced water from area production will be commercial-ly disposed into the Devonian and Silurian formations at a maximum interval depth of 16,650' to 18,350' at a maximum surface pressure of 3330 psi and a rate limited only by such pressure. Mudlogging and e-logs will confirm final interval depths.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice or the OCD receive date, whichever is later. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850 or, email info@sosconsulting.us.

Published in the Artesia Daily Press, Artesia, N.M., May 30, 2019 Legal No. 25147.

ORIGIN ID: TYRA (903) 488-9850
BENJAMIN STONE
SOS CONSULTING, LLC
1950 CR 2331

SHIP DATE: 31MAY19
ACTWTG1: 0.50 LB
CAD: 100120607/MET4100

COMO, TX 75431
UNITED STATES US

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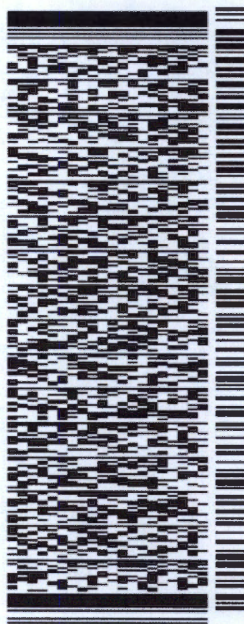
TO **PHILLIP GOETZE**
NM OIL CONSERVATION DIVISION
1220 S SAINT FRANCIS DR

SANTA FE NM 87505

REF: TROVE PSE SMD #2 C-108

(505) 476-3448
INV.
PO:

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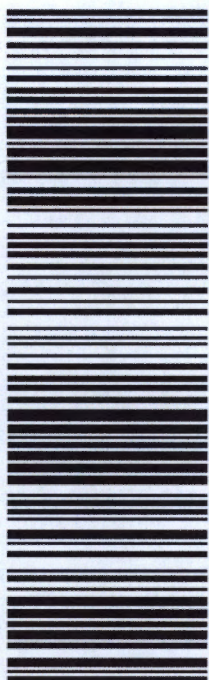
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