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dual with managerial and/o	or supervisory capacity.
7/19/2018	
Date	
903-488-985	70
	NSERVATION DIVISION DIVISION DE CONTROL DE C

Signature

ben@sosconsulting.us e-mail Address



Tears of quality Service

July 19, 2018

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

Attn: Ms. Heather Riley, Director

Re: Application of Percussion Petroleum, LLC to drill and permit for salt water disposal the Chalk Bluff State SWD Well No.2, located in Section 32, Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico.

Dear Ms. Riley,

Please find the enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to permit for disposal, the proposed Chalk Bluff State SWD No.2. Percussion will utilize this well for private disposal of produced water coming from their operations in the area.

Percussion Petroleum seeks to optimize efficiency, both economically and operationally, of its operations in southeast New Mexico. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

Published legal notice will run July 20, 2018 in the Artesia Daily Press and all offset operators and other Interested parties have been notified individually. The legal notice affidavit will be forwarded when received. This 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 state land and minerals; a copy of the application has been sent to the State Land Office, Oil and Gas Section. There are other state and BLM lands/ minerals within the one-half mile radius notice area.

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 Percussion Petroleum, LLC

Cc: Application attachment and file

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

	PURPOSE:	Salt Water Disposal and the application	QUALIFIES for administrative approval.
--	----------	---	--

II. OPERATOR: Percussion Petroleum Operating, LLC
ADDRESS: 919 Milam, Ste.2475, Houston, TX 77002

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-half 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 7 Wells (2 P&A) in the subject AOR; NO wells penetrate the target interval. The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of P&A'd wells NO P&A wells penetrate interval.
- 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;
 - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 - 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 DEVONIAN formation 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 is 1 domestic water wells within one mile of the proposed salt water disposal well. Analysis will be forwarded.
- 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 lessees and/or operators within ½ mile; Well location and minerals are STATE w/ federal and state offsetting leases.
- 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 Percussion Petroleum Operating, LLC
SIGNATURE: DATE: 7/19/2018

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:

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.

C-108 - Items III, IV, V

Item III - Subject Well Data

Wellbore Diagram – PROPOSED

Proposal and information contained in this application are for a new SWD well to be drilled and completed in the Devonian.

Item IV - Tabulation of AOR Wells

Tabulation includes all construction data for all wells within a one-half mile radius.

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.



SRVR: 173

QN: 738

SA: 1404

GLOR: 2714

ABO: 4745

WLFCP: 6100

CSCQ: 7350

STRWN: 8397

ATKA: 8960

DEV: 10250

2000

- 3000

... 4000

7000

10000

11000

WELL SCHEMATIC - PROPOSED Chalk Bluff State SWD Well No.2

API 30-015-xxxxx

1730' FSL & 1880' FWL, SEC. 32-T17S-R27E EDDY COUNTY, NEW MEXICO

Annuius Monitored

or open to atomosphere

Annulus Loaded

w/ Inert Packer Fluid

1200 1325

SWD; Devonian-Silurian (97869)

Est. Spud Date: 10/01/201 Config SWD Dt (Est): ~11/01/:

Injection Pressure Regulated and Volumes Reported 2050 psi Max. Surface (0.2 psi/ft)

Surface Casing

9.625", 32.0# J-55 STC Csg. (12.25" Hole) @ 1200' 450 sx - Circ to surface.

Percussion Petroleum

Drill NEW SWD: Spud w/ 12.25" bit & set 9.625"
Csg ~1200'; cmt to surface. Drill w/ 8.5" bit & set
7.0" csg ~ 10250'; cmt to Surface. Drill 6.125"
Openhole interval to ~11,000'.
Run 3.5" IPC Tbg & set PKR 10150'+.
Conduct MIT. Commence Disposal Operations.

3.5" FJ/ IC Tubing (or smaller)
PKR ~10150'+

Note: PRK Set 100' Above Final Uppermost OH Interval.

NEW Production Casing

7.e 1 5.5", 17.0# N-80/ K-55 Csg. (8.5" Hole) @ 10250' 1500 sx - 2 stage DV @ ~5800' - Circ. to Surface

Openhole Injection 10,250'-11,000'

DTD @ 11000°

SOS Consulting, LLC

C-108 - Item VI

Area of Review Well Data Tabulation

TOP OF PROPOSED INJECTION INTERVAL - 10,250'

(Summary: 7 wells; 2 P&A'd; NO wells penetrate.)

Listed Clockwise from North of Proposed Well (See AOR Map)

1. 30-015-34316 - DOES NOT PENETRATE - TD 3511'

RED LAKE 32 STATE G #001

Well Type Oil

Well Status Active

ULSTR G-32-17S-27E

ogrid_name PERCUSSION PETROLEUM OPERATING, LLC

pool_id_list [51120] RED LAKE, GLORIETA-YESO; [97253] RED LAKE, SAN ANDRES

30-015-29421 – DOES NOT PENETRATE – TD 3009'

SANDY CROSSING 32 STATE COM #001

Well Type Gas
Well Status Active

ULSTR I-32-17S-27E

ogrid_name PERCUSSION PETROLEUM OPERATING, LLC
pool_id_list [51300] RED LAKE, QUEEN-GRAYBURG-SA

30-015-36067 – DOES NOT PENETRATE – DTD 6314' (PBTD 5860')

SOONERS STATE #001

Well Status Oil

Well Status Active

ULSTR J-32-17S-27E

ogrid_name LIME ROCK RESOURCES II-A, L.P. pool_id_list [51120] RED LAKE, GLORIETA-YESO

30-015-01233 – DOES NOT PENETRATE – TD 2822'

PRE-ONGARD WELL #001

Well Type Oil

Well Status Plugged (Site Released

ULSTR N-32-17S-27E

ogrid_name PRE-ONGARD WELL OPERATOR

C-108 - Item VI

Area of Review Well Data Tabulation (cont.)

5. 30-015-29995 - DOES NOT PENETRATE - TD 2455'

CARTER COLLIER 5 FEDERAL #009

Well Type Oil
Well Status Active

ULSTR 2-32-17S-27E

ogrid_name LIME ROCK RESOURCES II-A, L.P.

pool_id_list [51300] RED LAKE, QUEEN-GRAYBURG-SA

6. 30-015-29651 - DOES NOT PENETRATE - TD 3393'

CHALK FEDERAL #006

Well Type Oil
Well Status Active

ULSTR 3-32-17S-27E

ogrid_name VANGUARD OPERATING, LLC

pool_id_list [51300] RED LAKE, QUEEN-GRAYBURG-SA

7. 30-015-05964 – DOES NOT PENETRATE – TD 335'

PRE-ONGARD WELL #002

Well Type Oil

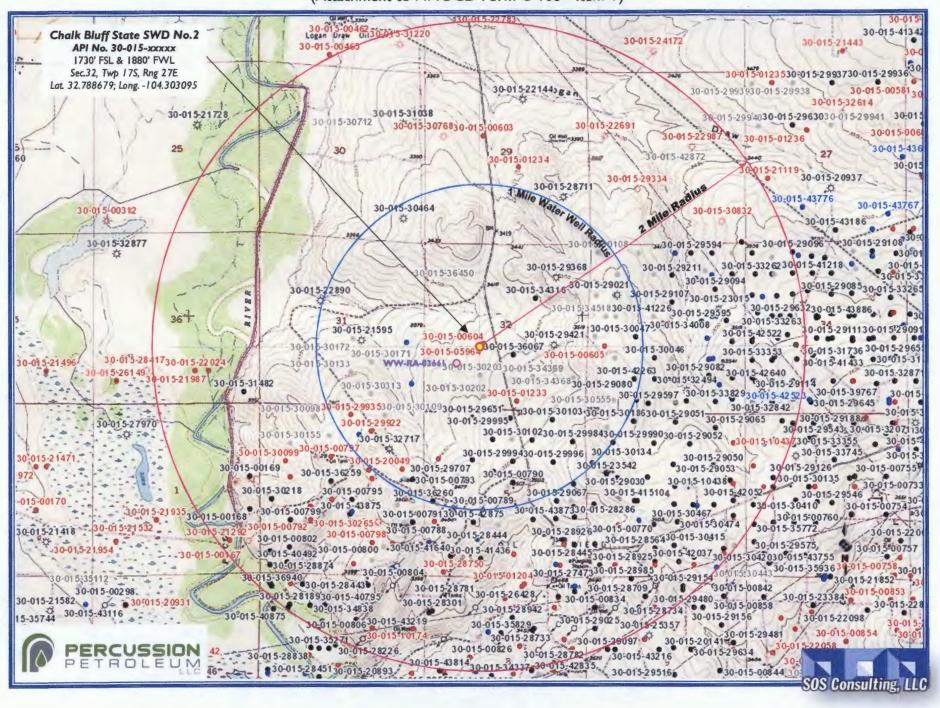
Well Status Plugged (Site Released

ULSTR 3-32-17S-27E

ogrid_name PRE-ONGARD WELL OPERATOR

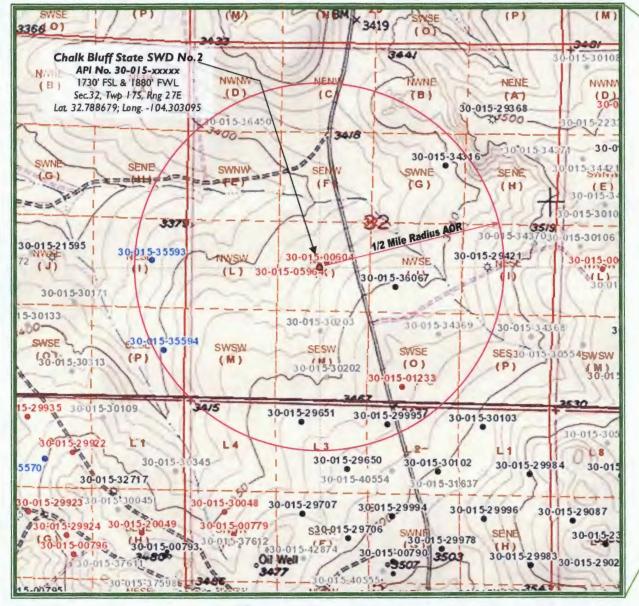
Chalk Bluff State SWD No.2 - Area of Review / 2 Miles

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

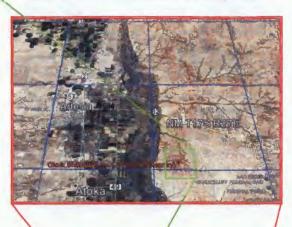


Chalk Bluff State SWD No.2 - Area of Review / Overview Map

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



6.7 miles Southeast of Artesia, NM





Eddy County, New Mexico



C-108 ITEM VII - PROPOSED OPERATION

Chalk Bluff SWD No.2

Private Use SWD Facility

Upon approval of all permits for SWD, drilling 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 not to interfere with well operations. In any event, it is not expected for the construction phase of the project to last more than 60 days, depending on availability of contractors and equipment.

Configure for Salt Water Disposal

Drilling Operations: MIRU 1500 hp drilling rig; Spud well and drill to 1200'+ with 12-1/4" open hole; Run and cement to surface 9-5/8" 36# J-55 casing; Drill out 9-5/8" casing with 8-1/2" open hole; Drill to top of Devonian (est 10,250' MD) with FW mud; Run 7" 26# L-80 casing to 10,250' MD.

Cement casing with 2 stage cement job – DV tool above Cisco – ensure good cement is across the Yeso interval; Drill out 7" casing with 6-1/8" open hole to 11,000 ft; RD MO drilling rig.

Completion Operations: MIRU WOR; PU/MU 3-1/2" mandrel nickel plated packer for 7" casing; GIH to 10,225' MD – set packer – test backside to 1000 psi; Inject acid and diverters to open up formation below casing.

Conduct witnessed MIT pressure test; Start injecting production water.

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.

Operational Summary

The Chalk Bluff SWD No.2 well will be for Percussion's area production from Gloieta/Yeso wells.

The SWD facility will not be fenced. Primary water transportation will be via pipeline but offloading hookups will be available so that trucks may access for load disposal in needed.

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.

The tanks will be equipped with telemetry devices and visual alarms to alert the operator and customers of full tanks or an overflow situation.

Anticipated daily maximum volume is 8,000 bpd and an average of 5,000 bpd at a maximum surface injection pressure of 2050 psi (.2 psi/ft gradient – maximum pressure will be adjusted IIf 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.

C-108 ITEM VII - PRODUCED WATER ANAYLSES

Item VII.4 - Water Analysis of Source Zone Water

Glorieta/ Yeso Bone Spring

Item VII.5 - Water Analysis of Disposal Zone Water

Devonian

Water Analyses follow this page.

SOURCE ZONE

GLO/YESO						Lab ID		
API No	3001524754					Sample	e ID	1146
Well Name	PLATT PA		009			Sample	No	
		400			00 74040	40.	0.5740	
Location		18 S	26 E 90 W	Lat / Long	32,/1216		1.35742 Eddy	
	330	S 99	90 W			County	Eddy	
Operator	(when sampled	•	es Petroleum	Corp.				
	Field		OKA			Unit M		
San	nple Date	8/4	/1984	Analysis Date				
	Sam	ple Sourc	e Wellhead		Depth (if	known)		
	Wat	er Typ	Produced W	/ater				
ph			7.5	alkalinit	ty_as_caco3_n	ngL		
ph_ter	mp_F			hardnes	ss_as_caco3_i	mgL		
specifi	cgravity			hardnes	ss_mgL		1800	1
specifi	cgravity_temp_F	:		resistivi	ity_ohm_cm			
tds_m	gL		120382	resistivi	ity_ohm_cm_te	emp_		
tds_m	gL_180C			conduc	tivity			
chlorid	le_mgL		113000	conduc	tivity_temp_F			
sodiun	n_mgL		71415	carbona	ate_mgL		0)
calciu	m_mgL		2560	bicarbo	nate_mgL		476	3
iron_n	ngL		0	sulfate	_mgL		2001	!
bariun	n_mgL			hydroxid	de_mgL			
magne	esium_mgL		0	h2s_mg	gL		0)
potass	sium_mgL			co2_mg	gL			
stronti	um_mgL			o2_mgl	L			
manga	anese_mgL			anionre	emarks			

Remarks



SOURCE ZONE

GLO/YESO		

API No 3001524619 Sample ID

Lab ID

1207

Well Name PLATT PA 008 Sample No

Location ULSTR 26 18 S 26 E Lat / Long 32,71245 -104,35329

430 S 2260 W 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 o2_mgL strontium_mgL

Remarks

manganese_mgL

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

anionremarks



SOURCE ZONE

ВО	NE SPRING	3								Lab I D		
											.In	E0.47
	API No	300152	20225							Sample		5847
	Well Name	BIG E	DDY UN	IIΤ		012				Sample	INO	
	Location	ULSTR	21	20	S 31	E	Lat /	Long	32,56399	-103	.87994	
			660	N	660	W				County	Eddy	
	Operator	(when s	sample	d)	MALLO	N OIL COM	MPANY					
			Fiel	ld	BIG ED	DY				Unit D		
	Sar	nple Date	е		8/27/199	9	Analysis Da	ate	8/	/31/1999		
					_							
				-	Source				Depth ((if known)		
			vva	ter Ty	γp							
	ph					5.2	ě	alkalinit	y_as_caco3	_mgL		
	ph_ter	mp_F					ŀ	nardnes	ss_as_caco3	_mgL		
	specif	cgravity				1,125	ł	nardnes	ss_mgL			
	specif	cgravity	_temp_	F			r	esistivi	ty_ohm_cm			
	tds_m	gL				181697	r	resistivi	ty_ohm_cm_	temp		
	tds_m	g L_ 1800					ď	conduct	tivity			
	chloric	le_mgL				123750	ď	conduct	tivity_temp_l	F		
	sodiur	n_mgL				73895.6	ď	carbona	ite_mgL			
	calciu	m_mgL				5625	ŀ	bicarbo	nate_mgL		13,725	
	iron_n	ngL				337.5	5	sulfate_	mgL		787.5	
	bariun	n_mgL					ŀ	nydroxid	de_mgL			
	magne	esium_m	ıgL				ŀ	12s_m g	jL		0	
	potass	sium_mg	ıL				(co2_mg	}L			
	stronti	um_mgL					(o2_mgL				
		_ 0										

(Produced water data courtesy of NMT Octane NM WA/DS database.)

manganese_mgL

Remarks

anionremarks



DISPOSAL ZONE

DEVONIAN	Lab ID
----------	--------

API No. 3001510280 **Sample ID** 6170

Well Name JURNEGAN POINT 001

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.)



C-108 – Item VIII

Geologic Information

The Devonian and Silurian consist of carbonates including light colored dolomite and chert intervals interspersed with some tight limestone intervals. Several thick sections of porous dolomite capable of taking water are believed present within the subject formations in the area. If the base of Devonian and top of Silurian rocks come in as expected the well will only be drilled deep enough for adequate logging rathole; expected TD at 11,000'.

The well will TD approximately 750' below the estimated top of the Devonian. Mud logging through the interval will ensure the target interval remains in Devonian and Silurian. Once Devonian is determined, the casing shoe depth will be set at an approximate maximum upper depth of 10250' BGL. Injection will occur through the resulting openhole interval. Should mud or other logs indicate depth adjustment is required to exploit the desired formation as described; sundries with appropriate data will be filed with the OCD.

The Devonian is overlain by the Woodford Shale and Mississippian Lime and underlain by the Middle and Lower Ordovician; Simpson, McKee and Ellenburger.

Fresh water in the area is generally available from the Pecos Valley complex of Quaternary alluvial sand and gravel deposits. State Engineer's records show water wells in the area with a average depth to groundwater 120 feet.

There is one (1) water well located within one mile of the proposed SWD; it has been sampled and analyses will be forwarded upon receipt.

C-108 ITEM XI - WATER WELLS IN AOR

2 PODs, Resulted in 1 Water Well Spots (based on coordinates) Within ONE MILE of Proposed SWD - Analyses will be forwarded.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre R per annum)

basin Use Diversion Owner

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed)

(quarters are smallest to largest) (NAD83 UTM in meters)

Source 6416 4 Sec Twe Rng Shaflow 3 2 3 32 17S 27E

565186 3628038*

RA 03661 RA 03664

DOM

O HUMBLE OIL & REFINING 0 HUMBLE OIL & REFINING CO **County POD Number** ED RA 03661 CH RA 03664

Shallow 3 2 3 32 17S 27E

565186 3628038*

Record Count: 2

PLSS Search:

Section(s): 29, 31, 32

Township: 17S

Range: 27E

Sorted by: File Number

No PODs found.

PLSS Search:

Section(s): 5, 6

Township: 18S

Range: 27E

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.

2/27/18 2:12 PM

Page 1 of 1

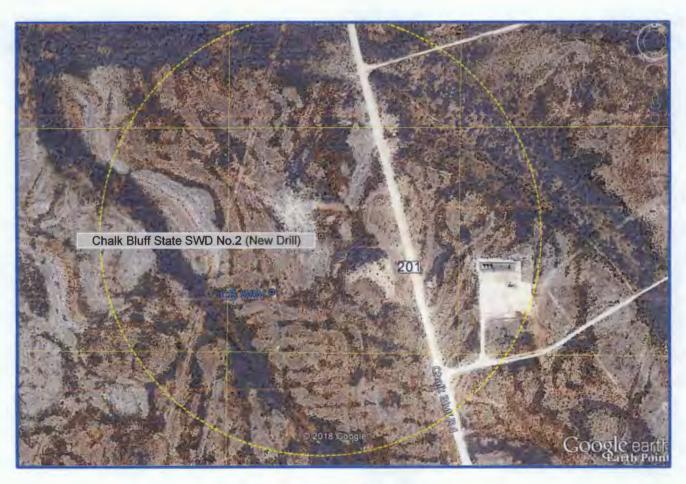
ACTIVE & INACTIVE POINTS OF DIVERSION

C-108 Item XI

Water Wells Within One Mile

Chalk Bluff State SWD No. 2 - Water Well Locator Map

There is one water well within a one-mile radius of the proposed SWD. It is located approximately 425 feet to the southwest of the SWD well.



Data from the Office of the State Engineer.



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)

POD

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number RA 03661

999 Code basin County 64 16 4 Sec Tws Rng 3 2 3 32 17S 27E

565186 3628038* **Well Water Column** 140

Depth Depth Water

100 300

RA 03664

3 2 3 32 17S 27E

565186 3628038°

Average Depth to Water: 120 feet

> Minimum Depth: 100 feet Maximum Depth: 140 feet

Record Count: 2

PLSS Search:

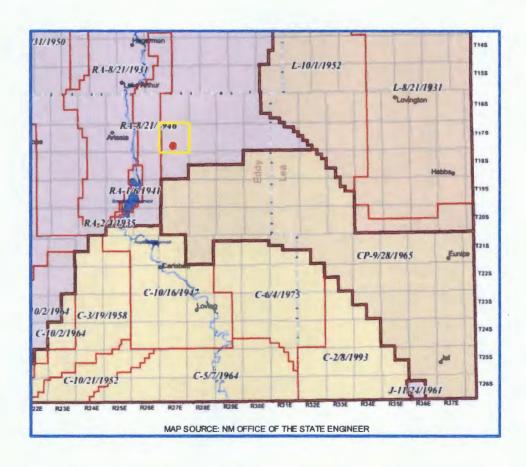
Section(s): 29, 31, 32

Township: 17S

Range: 27E

C-108 - Item XI

Groundwater Basins - Water Column / Depth to Groundwater



The subject well is located within the Roswell Artesian Basin.

Fresh water in the area is generally available from the karstic San Andres limestone formation which is a prime example of an artesian recharged aguifer.

State Engineer's records show there is fresh water wells in the area with an depth of 140 feet and average depth to water at 175 feet.

There is 1 water well located within one mile of the proposed SWD. Samples will be taken of at least one and analysis forwarded when available.



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

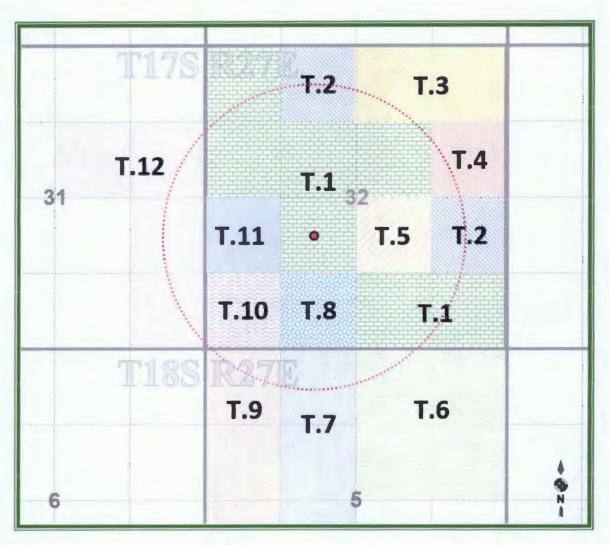
Project: Percussion Petroleum Operating, LLC

Chalk Bluff State SWD No.2 (Devonian)

Reviewed 7/19/2018

Chalk Bluff State SWD No.2 - Affected Parties Plat

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





LEGEND -

T.1 -VA-0787-0003 - St. Devote, LLC

T.2 - BO-8814-0014 - ExxonMobil Corp.

T.3 - E0-5313-0000 - Chevron USA, Inc.

T.4 - B1-1339-0003 - ExxonMobil Corp.

T.5 - BO-8318-0093 - ExxonMobil Corp.

T.6 - NMNM-0064384 - ZPZ Delaware I, LLC

T.7 - NMNM-097122 - Steve Sell

T.8 - BO-6869-0042 - ExxonMobil Corp.

T.9 - NMLC-049648A - ExxonMobil Corp.

T.10 - BO-9391-0003 - ExxonMobil Corp

T.11 - BO-6869-0040 - ExxonMobil Corp

T.12 - NMNM-081238 - Vanguard Operating





July 19, 2018

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

To Whom It May Concern:

Percussion Petroleum Operating, LLC, Houston, Texas, has made application to the New Mexico Oil Conservation Division to drill and complete for salt water disposal the Chalk Bluff State SWD No.2. The proposed SWD will be for private produced water disposal from Percussion's area operations. As indicated in the notice below, the well is located in Section 32, Township 17 South, Range 27 East in Eddy County, New Mexico.

The published notice states that the interval will be from 10,250 feet to 11,000 feet.

Following is the notice published in the Artesia Daily Press, New Mexico on or about July 20, 2018.

LEGAL NOTICE

Percussion Petroleum Operating, LLC – 919 Milam, Ste.2475, Houston, Texas 77002, is filing Form C -108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to drill and complete the Chalk Bluff State SWD No.2 for salt water disposal; located 1730' FSL and 1880' FWL, Section 32, Township 17 South, Range 27 East, Eddy County, New Mexico; approximately 6.7 miles southeast of Artesia, NM.

Produced water from Percussion's area production will be privately disposed into the Devonian formation at a maximum interval depth of 10,250 feet to 11,000 feet at a maximum surface pressure of 2050 psi and a rate limited only by such pressure.

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. 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 is posted on the SOS Consulting **ShareFile** site and is available for immediate download.

Use the URL link https://sosconsulting.sharefile.com/d-s697e0433cab4bc09

(Please Note: The ShareFile service is powered by Citrix Systems and is completely secure.*)

The link to this file will be active for 30 days from the date of this letter. Your company can access and download the file a maximum of five (5) times. (Copies may be downloaded and shared as needed among your company.)

Alternatively, 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, "Chalk Bluff SWD #2 July 2018 PDF Copy Request".

Thank you for your attention in this matter.

Best regards,

Ben Stone, SOS Consulting, LLC

Agent for Percussion Petroleum Operating, LLC

Cc: Application File

SOS Consulting is committed to providing superior quality work using technology to assist clients and interested parties in obtaining the documentation required. SOS will continue to utilize methods for reducing papers copies and are less energy and resource intensive.

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

* You will be asked for your email, name and company.

This will not be used by anyone except keeping track of the file downloads.

You will not be solicited by SOS or anyone else. Data is stored on Citrix Systems servers only.



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.

SURFACE OWNERS

STATE OF NEW MEXICO
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504
Certified: 7017 2400 0000 2597 5454

Gertinea. 7017 2400 0000 2007 0404

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

Private Lease (T.1 on Affected Parties Map)

Lessse

ST DEVOTE, LLC (Subsidiary of Applicant) 919 Milam, Ste.2475 Houston, TX 77002

Operator

PERCUSSION PETROLEUM, LLC (Applicant) 919 Milam, Ste.2475 Houston, TX 77002

<u>State and Federal Leases BO-8814-0014, B1-1339-0003, BO-8318-0093, BO-6869-0042, NMLC-049648A, BO-9391-0003 and BO-6869-0040 (T.2, T.4, T.5, T.8, T.9, T.10 and T.11 on Affected Parties Map)</u>

Lessee

EXXONMOBIL CORP.
P.O. Box 4358
Houston, TX 77210-4358
Certified: 7017 2400 0000 2597 5461

Operators

PERCUSSION PETROLEUM, LLC 919 Milam, Ste.2475 Houston, TX 77002

LIME ROCK RESOURCES II-A, LP 1111 Bagby Street Houston, TX 77002 Certified: 7017 2400 0000 2597 5478

State Lease E0-5313-0000 (T.3 on Affected Parties Map)

Lessee

CHEVRON USA, INC. Attn: Linda McMurray, Permitting Team

6301 Deauville Blvd. Midland, TX 79706

Certified: 7017 2400 0000 2597 5485

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

State Lease E0-5313-0000 (T.3 on Affected Parties Map - cont.)

Operator

PERCUSSION PETROLEUM, LLC 919 Milam, Ste.2475 Houston, TX 77002

BLM Lease NMNM-0064384 (T.6 on Affected Parties Map)

Lessee

5

6

7

8

ZPZ DELAWARE I, LLC 303 Veterans Airpark Ln., Ste.1000 Midland, TX 79704 Certified: 7017 2400 0000 2597 5492

Operator

LIME ROCK RESOURCES II-A, LP 1111 Bagby Street Houston, TX 77002

BLM Lease NMNM-097122 (T.7 on Affected Parties Map)

Lessee

STEVE SELL P.O. Box 5061 Midland, TX 79704 Certified: 7017 2400 0000 2597 5508

Operator

EOG Y RESOURCES 104 South 4th Street Artesia, NM 77002 Certified: 7017 2400 0000 2597 5515

BLM Lease NMNM-081238 (T.12 on Affected Parties Map)

Lessee and Operator

VANGUARD OPERATING, LLC 5847 San Felipe, Ste.3000 Houston, TX 77057 Certified: 7017 2400 0000 2597 5522

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
 Certified: 7017 2400 0000 2597 5539

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

OFFSET MINERALS OWNERS - (cont.) (Notified via USPS Certified Mail)

STATE OF NEW MEXICO Oil, Gas and Minerals Division 310 Old Santa Fe Trail Santa Fe, NM 87504

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 S. First St.
Artesia, NM 88210

STATE OF NEW MEXICO (FedEx'ed copy)
Oil, Gas and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87504

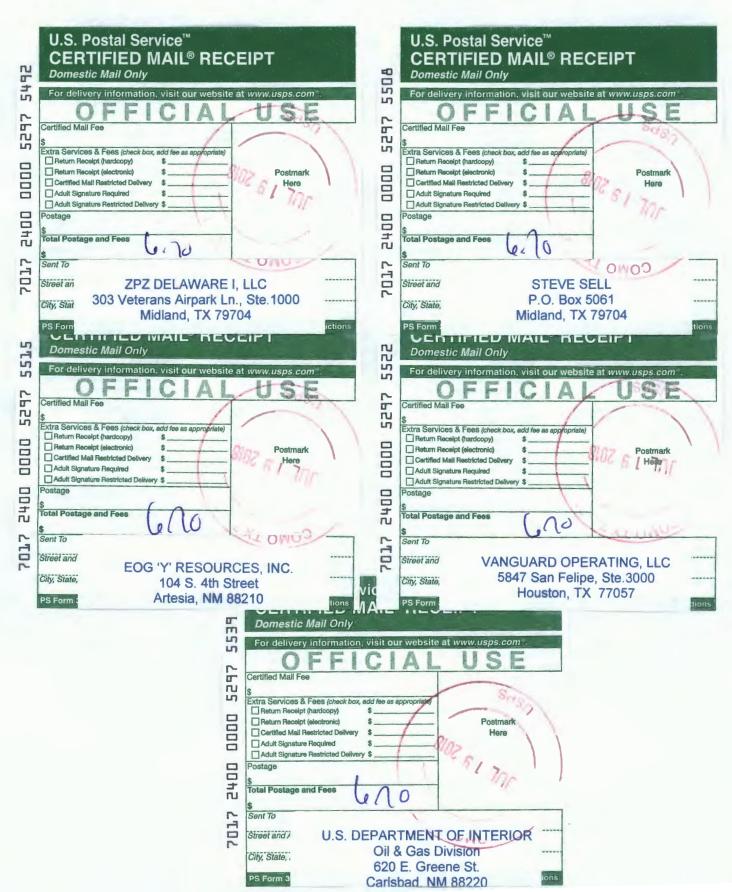
C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)



C-108 - Item XIV

Proof of Notice (Certified Mail Receipts - cont.)



C-108 - Item XIV

Proof of Notice – Legal Notice Newspaper of General Circulation

Legal Notice

Percussion Petroleum Operating, LLC – 919 Milam, Ste. 2475, Houston, Texas 77002, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to drill and complete the Chalk Bluff State SWD No.2 for salt water disposal; located 1730' FSL and 1880' FWL, Section 32, Township 17 South, Range 27 East, Eddy County, New Mexico; approximately 6.7 miles southeast of Artesia, NM.

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Published in the Artesia Daily Press, Artesia, N.M., July 20, 2018 Legal No. 24763.

The above is the "Proof Copy" sent from the Artesia Daily Press.

The affidavit of publication will be forwarded as soon as it is received.



After printing this label:

- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

McMillan, Michael, EMNRD

From:

McMillan, Michael, EMNRD

Sent:

Tuesday, July 24, 2018 12:53 PM

To:

Ben Stone

Cc:

Goetze, Phillip, EMNRD

Subject:

Percussion Petroleum Operating Chalk Bluff SWD Well No. 2

Ben:

The OCD received your administrative SWD application for the percussion Petroleum Operating Chalk Bluff SWD Well No. 2.

Your application has been suspended until the OCD receives the affidavit of publication.

Mike

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

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No.	24763
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Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

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Published in the Artesia Daily Press, Artesia, N.M., July 20, 2018 Legal No. 24763.

Affidavit of Publication

24763 State of New Mexico County of Eddy: Danny Scott being duly s sworn sayes that she is the 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 Consecutive weeks/day on the same day as follows: July 20, 2018 First Publication Second Publication Third Publication Fourth Publication Fifth Publication Sixth Publication Seventh Publication Subscribed and sworn before me this 23rd day of July 2018 OFFICIAL SEAL atisha Romine NOTARY PUBLIC-STATE OF NEW MEXICO My commission expires: 5/12/2019

atisho Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

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Published in the Artesia Daily Press, Artesia, N.M., July 20, 2018 Legal No. 24763.



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)

3 2 3 32 17S 27E

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number RA 03661

RA 03664

POD Sub-QQQ Code basin County 64 16 4 Sec Tws Rng RA

RA

3 2 3 32 17S 27E

X 565186 3628038* 3628038* 565186

DepthWellDepthWater Column 330

300

Average Depth to Water:

120 feet

Water

Minimum Depth:

100 feet

Maximum Depth:

140 feet

Record Count: 2

PLSS Search:

Section(s): 28-33

Township: 17S

Range: 27E

*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.

12/12/18 4:22 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

C-108 - Item XI

Water Wells Within One Mile

AFFIRMATIVE STATEMENT

State Engineer's records indicate that there is one water well located in the NW/SW of Section 32. This information was relayed to Mr. Lelan Anders of Percussion Petroleum Operating, LLC so that a water sample could be obtained, and analysis conducted.

On March 9, 2018, Mr. Eli Trevino, Percussion production foreman conducted a foot search and located the subject water well. It was found to be abandoned with no way to obtain a sample. Pictures were taken and shown below. There are no other known water wells in the area, no windmills are visible.

This information was relayed to me by Mr. Anders via email on 4/03/2018.

Ben Stone

Agent for Percussion Petroleum Operating, LLC



