

DATE IN 1/13/2015	SUSPENSE	ENGINEER WSS	LOGGED IN 1/23/2015	TYPE IPI	APP NO. PMAM1502352114
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8 PAG

ABOVE THIS LINE FOR DIVISION USE ONLY

-483

## NEW MEXICO OIL CONSERVATION DIVISION

- 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

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM  
 [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

- IPI  
 - Owl SWD operating, LLC  
 308339  
 well  
 - Top hat AS State #1  
 30-025-27684  
 Pool

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or **X** Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☐ Offset Operators, Leaseholders or Surface Owner  
 [C] ☐ Application is One Which Requires Published Legal Notice  
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached

2015 JAN 13 P 4: 05  
 RECEIVED OGD

#### [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **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

Agent for Owl SWD Operating, LLC 1/08/15  
 Title  
 ben@sosconsulting.us  
 e-mail Address



January 8, 2015

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

Attn: Mr. Will Jones, Engineering Bureau

*Re: Request of Owl SWD Operating, LLC for an injection pressure increase on its Tophat AJQ State No.1 SWD, located in Section 25, Township 23 South, Range 33 East, NMMP, Lea County, New Mexico.*

Dear Mr. Jones,

Owl SWD Operating, LLC recently conducted a step rate test on the subject well. The well is permitted by SWD-1357 and is currently injecting at the original permitted pressure of 1067 psi (2 psi/ft.).

Cardinal Surveys Company conducted the step rate test on December 8, 2014. The test progressed to a maximum surface injection pressure of 1532 psi and indicated that formation parting pressure was never obtained.

Owl SWD Operating seeks to optimize efficiency, both economically and operationally, of its operations and approval of an increase in surface injection pressure on its Tophat SWD well would be in line with that goal. Based on the results of the step rate test, we hereby request that the well be allowed to inject at a surface pressure of 1482 psi, keeping the well set 50 psi below what the data indicates and thereby preventing any damage to the formation.

I respectfully request that the approval of this injection pressure increase proceed swiftly and if you require additional information or have any questions, please do not hesitate to call or email me.

Best regards,

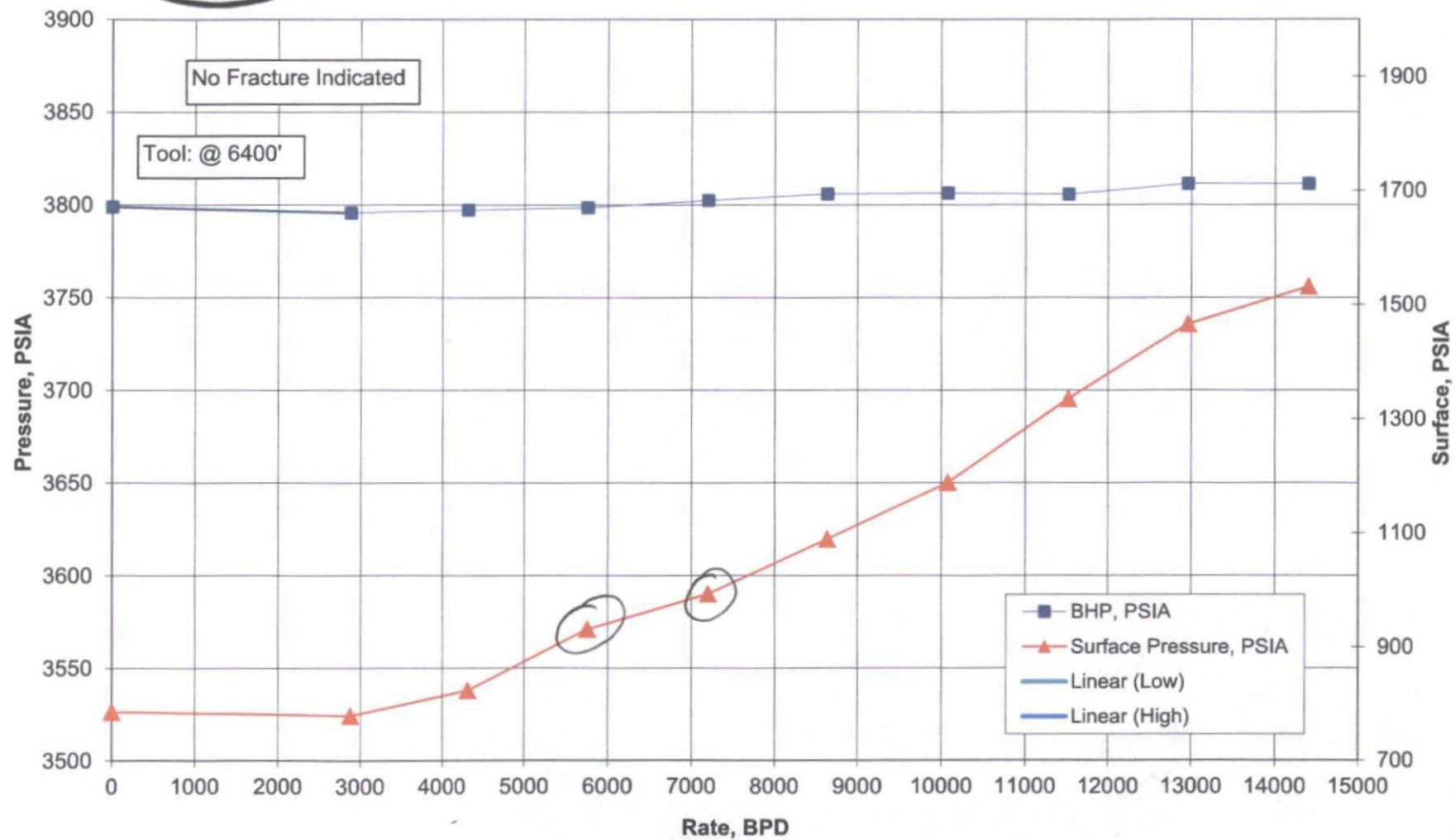
Ben Stone, Partner  
SOS Consulting, LLC  
Agent for Owl SWD Operating, LLC

$$\frac{1482 \text{ psi}}{5494 \text{ ft}} = 0.269 \text{ or } 0.27 \text{ psi/ft}$$

Cc: Application attachment and file



Oilfield Water Logistics Top Hat AJQ ST. NO. 1SWD  
Step Rate Test 12-08-2014



# Step Rate Test

OilField Water Logistics  
Top Hat AJQ #1 SWD  
Field: N/A  
Lea County NM

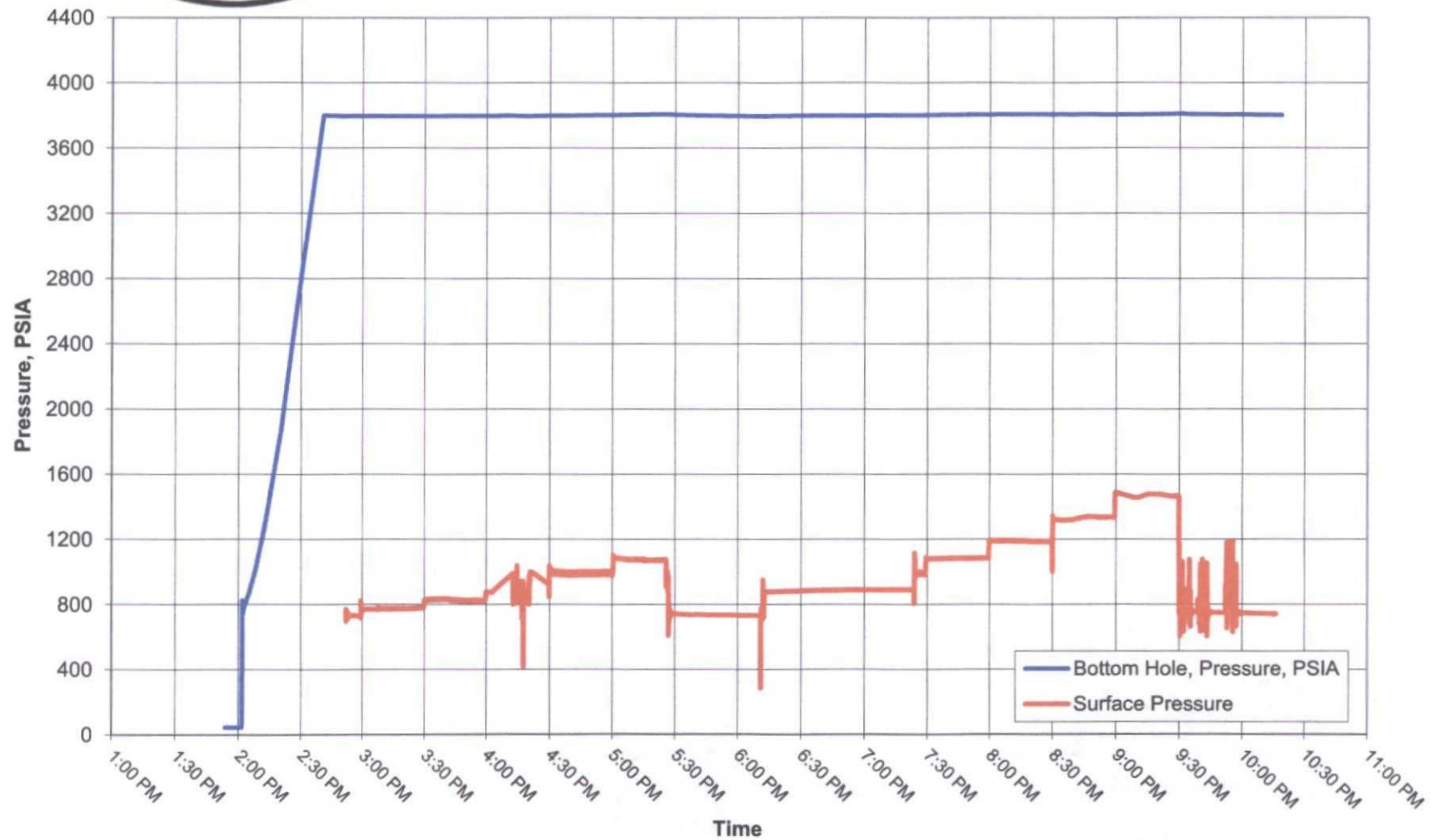


Tubing Size: 3 1/2" Packer at 5242'  
Approved Interval: 5333' to 7458'  
Perfed: 5494' to 7458'

	S Time	E Time	D Time Min	Last Rate BPD	Step B. H. Pressure BPD	PSIA	Surf PSIA	Cum BBL	Delta BBL
1	2:40 PM	3:00 PM	20	0	0	3798.9	786	0	0
2	3:00 PM	3:30 PM	30	2880	2880	3795.6	779	52	52
3	3:30 PM	4:00 PM	30	4320	1440	3797.2	823	137	85
4	4:00 PM	4:30 PM	30	5760	1440	3798.5	931	242	105
5	4:30 PM	5:00 PM	30	7200	1440	3802.4	993	396	154
6	7:30 PM	8:00 PM	30	8640	1440	3805.9	1089	575	179
7	8:00 PM	8:30 PM	30	10080	1440	3806.3	1188	779	204
8	8:30 PM	9:00 PM	30	11520	1440	3805.6	1335	1009	230
9	9:00 PM	9:30 PM	30	12960	1440	3811.3	1466	1273	264
10	9:30 PM	10:00 PM	30	14400	1440	3811.3	1532	1585	312
11	10:00 PM	10:15 PM	15	0	-14400	3802.5	742	1585	0



Oilfield Water Logistics Top Hat AJQ St # 1 SWD  
Step Rate Test 12-08-14



State of New Mexico  
Energy, Minerals and Natural Resources Department

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Susana Martinez  
Governor

John Bemis  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey  
Division Director  
Oil Conservation Division



Administrative Order SWD-1357  
September 28, 2012

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of 19.15.26.8B NMAC, Delaware Water Company, LLC seeks an administrative order to re-enter and utilize its Tophat AJQ State Well No. 1 (API 30-025-27684) located 1980 feet from the North line and 660 feet from the East line, Unit letter H of Section 35, Township 23 South, Range 33 East, NMPM, Lea County, New Mexico, for produced water disposal purposes.

**THE DIVISION DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of 19.15.26.8B NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Delaware Water Company, LLC, is hereby authorized to re-enter and utilize its Tophat AJQ State Well No. 1 (API 30-025-27684) located 1980 feet from the North line and 660 feet from the East line, Unit letter H of Section 35, Township 23 South, Range 33 East, NMPM, Lea County, New Mexico, for disposal of oil field produced water (UIC Class II only) into the Bell Canyon and Cherry Canyon members of the Delaware Mountain Group through perforations from 5333 feet to 7458 feet through internally coated tubing and a packer set within 100 feet of the permitted interval.

Within 1 year of commencing disposal, the operator shall run an injection survey (tracer/temperature or equivalent) and supply a copy of this survey to the Division. If this survey is not run as required (or an extension of time granted by the Division) the disposal permit granted here-in shall expire *ipso-facto*.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 1067 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.


The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

  
JAMI BAILEY  
Director

JB/wvjj

cc: Oil Conservation Division – Hobbs District Office  
State Land Office – Oil, Gas, and Minerals Division