

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Problity SWD, LLC P.O. Box 7307, Midland, TX 79708		² OGRID Number 296278
		³ API Number 30-015-24144
⁴ Property Code TBD	⁵ Property Name Pardue SWD	⁶ Well No. 1

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
E	30	23-S	28-E		1980	North	983	West	Eddy

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

⁹ Pool Information

SWD; Bell Canyon-Cherry Canyon	Pool Code 96802
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Additional Well Information

¹¹ Work Type P	¹² Well Type S	¹³ Cable/Rotary R	¹⁴ Lease Type P	¹⁵ Ground Level Elevation 3089.3'
¹⁶ Multiple N	¹⁷ Proposed Depth 4680' PBTB	¹⁸ Formation Cherry Canyon	¹⁹ Contractor TBD	²⁰ Spud Date 2/15/2017
¹⁴ Depth to Ground water ~88'	¹⁵ Distance from nearest fresh water well ~2150'		¹⁶ Distance to nearest surface water 3.5 miles from Pecos River	

We will be using a closed-loop system in lieu of lined pits

²¹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.5"	13.375"	48.0#	568'	625 'C'	Circ. to Surf.
Intermediate	12.5"	9.625"	47.0#	2330'	803 'C'	Circ. to Surf.
Production	8.5"	7.0"	23.0#	10500'	1375 'C'	Circ. to Surf. (Calc'd)

Casing/Cement Program: Additional Comments

4.5", 13.5# LNR, 10195'-12678' w/ 375 sx to TOL.

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Hydraulic or Man./ Dbl. Blind Ram	3000 psi	5000 psi	Shaffer/ Hydril or equivalent

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC and/or 19.15.14.9 (B) NMAC , if applicable.
Signature: 

Printed name: **Ben Stope**

Title: **Agent for Problity SWD, LLC**

E-mail Address: **ben@sosconsulting.us**

Date: **1/11/2017**

Phone: **903-488-9850**

OIL CONSERVATION DIVISION

Approved By:


Title: **Acting Dist II Supervisor/Genl.**

Approved Date: **1-20-2017**

Expiration Date: **10-1-2017**

Conditions of Approval Attached **-**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-24144		² Pool Code 96802		³ Pool Name SWD; Bell Canyon-Cherry Canyon	
⁴ Property Code TBD		⁵ Property Name Pardue SWD			⁶ Well Number 1
⁷ OGRID No. 296278		⁸ Operator Name Probity SWD, LLC			⁹ Elevation 3089.3 feet

¹⁰ Surface Location

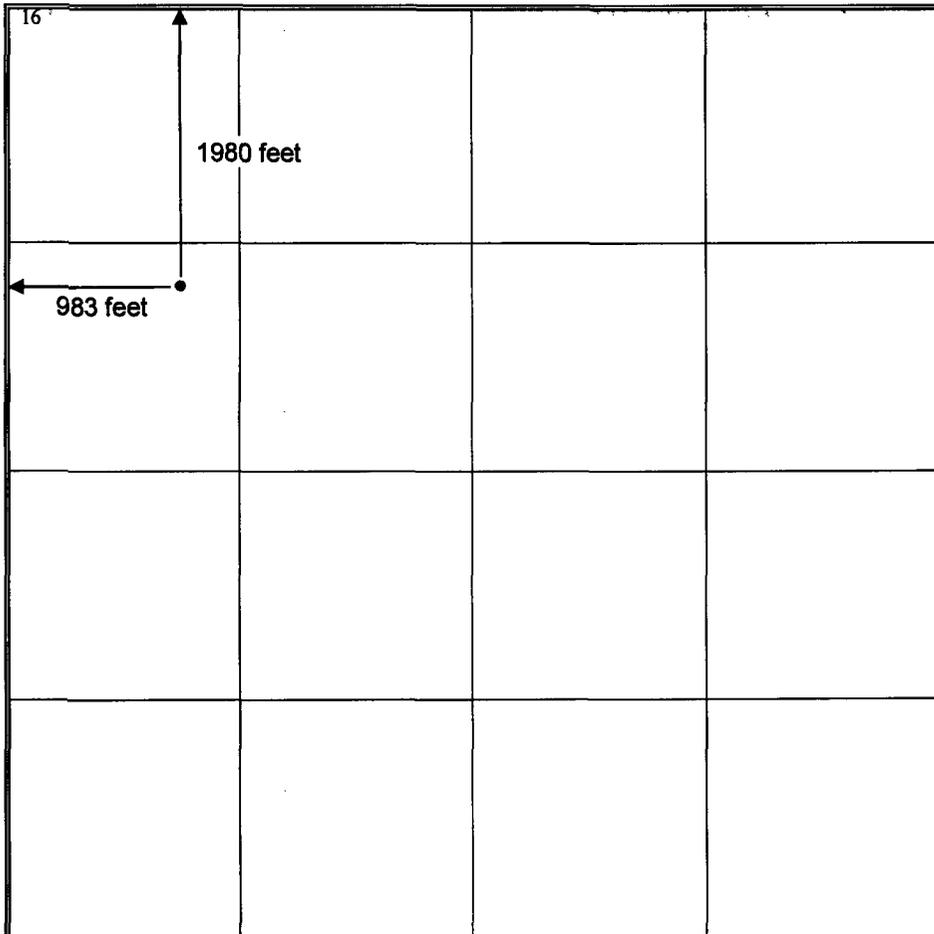
UL of lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	30	23-S	28-E		1980	North	983	West	Eddy

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres n/a	¹³ Joint or Infill n/a	¹⁴ Consolidation Code n/a	¹⁵ Order No. SWD-1585
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷ **OPERATOR CERTIFICATION**
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Benjamin E. Stone Date: 1/10/2017

Printed Name: **Benjamin E. Stone**

SOS Consulting, LLC; agent for:
Probity SWD, LLC

¹⁸ **SURVEYOR CERTIFICATION**
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: April 3, 1982

Signature and Seal of Professional Surveyor:
John W. West

NM Cert. No.676
Certificate Number

**Probity SWD, LLC
 Pardue SWD Well No.1
 Section 30, Twp 23-S, Rng 28-E
 Eddy County, New Mexico**

Well Plug Back / SWD Configure Program

Objective: Per OCD order SWD-1585, plug back and convert the existing wellbore by setting plugs, establish new PBTD of 4680', perforate, acidize and run new tubulars to configure for salt water disposal.

1. Geologic Information - The Delaware Group in this immediate region is from generally 2450 feet to approximately 6300 feet. The Bell Canyon is between 2450 – 3400 feet, the Cherry Canyon is between 3400 – 4700 feet. The Brushy Canyon completes the group between 4700 – 6300 feet but was determined to be too tight for satisfactory injection in this well. Production quality porosity in these intervals is accompanied by low resistivity yielding high water saturations.

Fresh water in the area is generally available from the alluvial aquifer in the Carlsbad basin. State Engineer's records show water wells in the area to have an average depth of 88 feet and a minimum of 14 feet.

Formation Tops

B/Salt	2400
Bell Canyon	2450
Cherry Canyon	3303
Bone Spring	5945
1 st Bone Spring	6915
3 rd Bone Spring	8920
Wolfcamp	9270
Canyon	10450
Strawn	11187
Atoka	11450

2. Completion Procedure

- a) MIRU pulling unit and associated equipment. Install B.O.P. POOH w/ tubing & downhole equip.
- b) Set CIBP @ 12,050' & cap w/ 35' (4 sx) cement.
- c) Run Cement Bond Log from 6500' to surface.* *(An exception is being requested from the permit condition (SWD-1585) to conduct this log from the top of the liner as 1000' below the target zone should be an acceptable length to prove bond below zone. If denied, CBL conducted as prescribed.)*
- d) Spot plugs: 10,300' w/ 45 sx; 9800' w/ 30 sx; 6000' w/ 30 sx.
- e) Set 7" CIBP @ 4715' & cap w/ 35' (10 sx) cement. Tag PBTD ~4680'.
- f) RU wireline and perforate between max top 2500' and max bottom 4590'. (Specific intervals determined on location per log analysis.)
- g) Acidize w/ ~1000 gals HCl per 20 holes. Swab / circulate hole clean.
- h) RIH with 7" retrievable packer or equivalent on 3.5" IPC tubing; set PKR @ 2400'+, pump clean fresh water containing corrosion inhibitor, biocide and oxygen scavenger down annulus, set packer. Prepare to run MIT test and notify OCD to witness 24 hours in advance.
- i) [Concurrent Activity] Build injection facility and start water disposal. Per SWD-1585; limit surface injection pressure to 500 psi.

Well Plug Back / SWD Configuration Program (cont.)

3. **Tubular program** - The well casing is set as described above. (See attached Proposed Well Schematic.) 3.5" (2.875" optionally) internally coated tubing will be run and set in a packer located at approximately 2400'+ (within 100' of the uppermost injection – top perf at 2500').

4. **Cementing Program** - Existing Surface and Intermediate casing strings were all circulated to surface during the original well drilling and completion operations as follows:

Surface	13.375"	48.0#	17.5" hole	568'	625 sx 'C'	Circ to Surf
Intermediate	9.625"	47.0#	12.25" hole	2330'	1650 sx 'C'	Circ to Surf
Production	7.0"	23.0#	7.875" hole	10500'	1375 sx 'H'	Calc. to Circ.
Liner	4.5"	13.5#	6.125" hole	10195'-12678'	375 sx 'H'	Top of Lnr
Set CIBP @ 4715' and cap w/ 10 sx cement for estimated 4680' PBTP						

5. **Pressure Control** - BOP diagram is attached to this application. All BOP and related equipment shall comply with well control requirements as described NMOCB rules and regulations. Minimum working pressure of the BOP and related equipment required for the drillout shall be 3000 psi. OCD will be notified a minimum of 4 hours prior to BOP pressure tests. The test shall be performed by an independent service company utilizing a test plug (no cup or J-packer). The results of the test shall be recorded on a calibrated test chart submitted to the OCD Artesia district office. The BOP test(s) will be conducted at:

- a) Installation;
- b) after equipment or configuration changes;
- c) at 30 days from any previous test, and;
- d) anytime operations warrant, such as well conditions

6. **Mud Circulation System** – N/A; pressure control for open perf intervals.

7. **Auxiliary Well Control and Monitoring** - Not Applicable

8. **H₂S Safety** - There is a low risk of H₂S in this area. The operator will comply with the provisions of company H₂S contingency plan as applicable. All personnel will wear monitoring devices and wind direction socks will be placed on location.

9. **Logging, Coring and Testing** – Probity SWP, LLC is not anticipating running additional logs. The well may potentially be step rate tested in the future if additional injection pressures are required. Note: SWD-1585 requires an injection profile be conducted within 2 years of commencing operations.

10. **Potential Hazards** - No abnormal pressures or temperatures are expected. No pressure build up is expected to occur. All personnel will be familiar with the safe operation of the equipment being used to plug back and perforate this well. The maximum anticipated bottom hole pressure is 5200 psi and the maximum anticipated bottom hole temperature is 150° F.

11. **Waste Management** - All liquid wastes or cement slough or wash associated with the plug back operations will be transported to a commercial surface waste disposal facility permitted by the Environmental Bureau of the New Mexico Oil Conservation Division. Household trash will be managed and disposed of by service companies.

Well Plug Back / SWD Configuration Program (cont.)

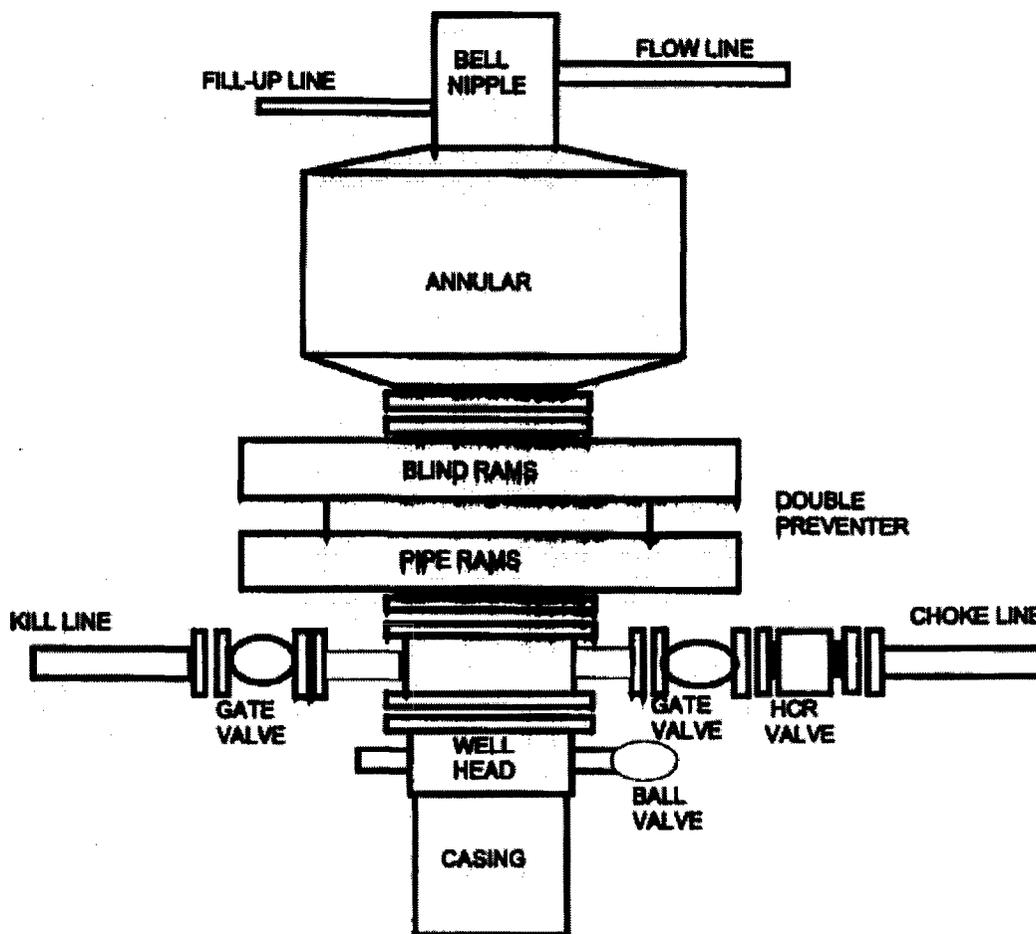
12. Anticipated Start Date – Ready now – MRRU 2/15/2017. Completion of the well operations will take one week to 10 days. Installation of the tank battery, berms, plumbing and other and associated equipment would be occurring during the same interval and may extend for an additional 3 weeks but in any 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. At the time of this submittal, the anticipated start date is:

February 15, 2017.

13. Configure for Salt Water Disposal – SWD Permit No. SWD-1585. Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well for SWD and will detail the following tasks: plug setting and 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. Anticipated daily volume is ~3,500 bpd at a maximum surface injection pressure of 500 psi.

BLOWOUT PREVENTER DIAGRAM

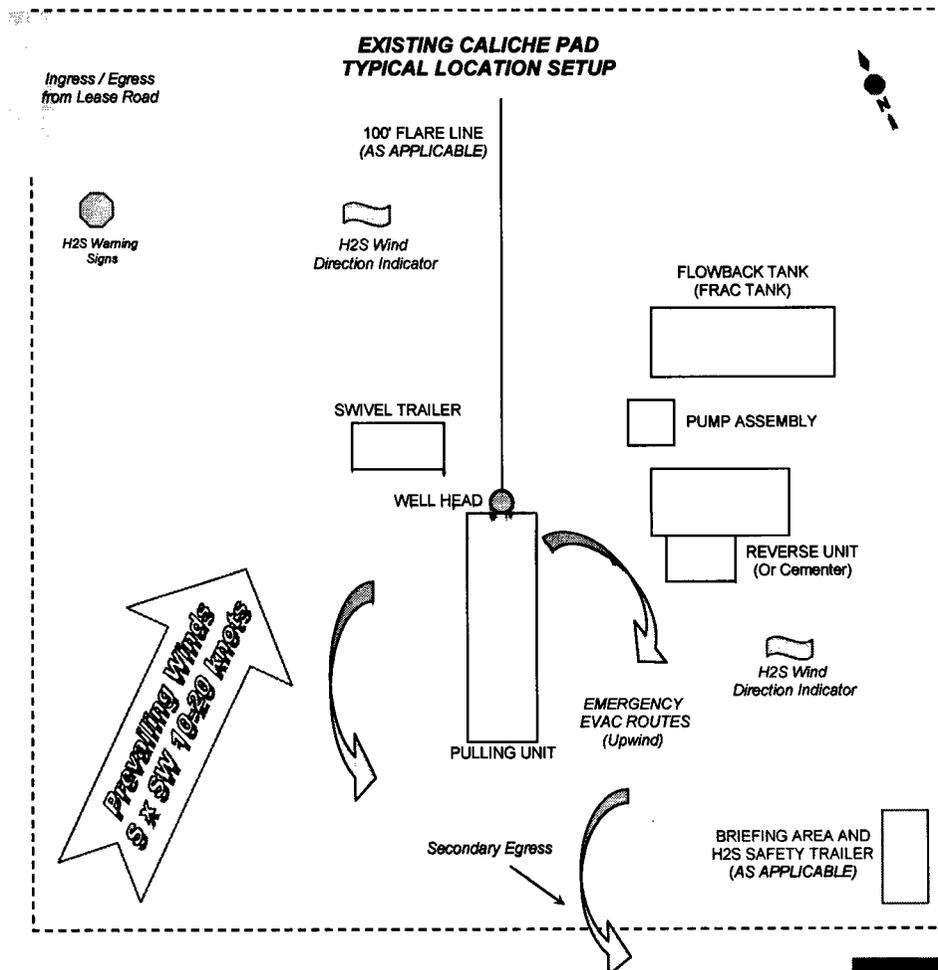
3000 PSI WORKING PRESSURE



Standard Operating Procedure & Site Setup - Re-entry/ Plug Back

ALL OPERATIONS CONDUCTED WITHIN EXISTING PAD SITE
NOT EXCEEDING SURVEYED SITE. ORIENTATION PER BEST FIT.

1. Set up H2S wind direction indicators; brief all personnel on Emergency Evacuation Routes.
2. All contractors conduct safety meeting prior to current task at Briefing Area.
3. If H2S levels >10ppm detected, implement H2S Plan *accordingly*. (E.g., cease operations, shut in well, employ H2S safety trailer & personnel safety devices, install flare line, etc. - Refer to Plan.)
4. All equipment inspected daily. Repair / replace as required.
5. Visual on returns (losses) and/or spent cement / acid; cuttings & waste hauled to specified facility.
6. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD and BLM within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
7. Subsequent sundry / forms filed as needed – MJT (OCD Witness) SWD operations commence.



CURRENT CONFIGURATION

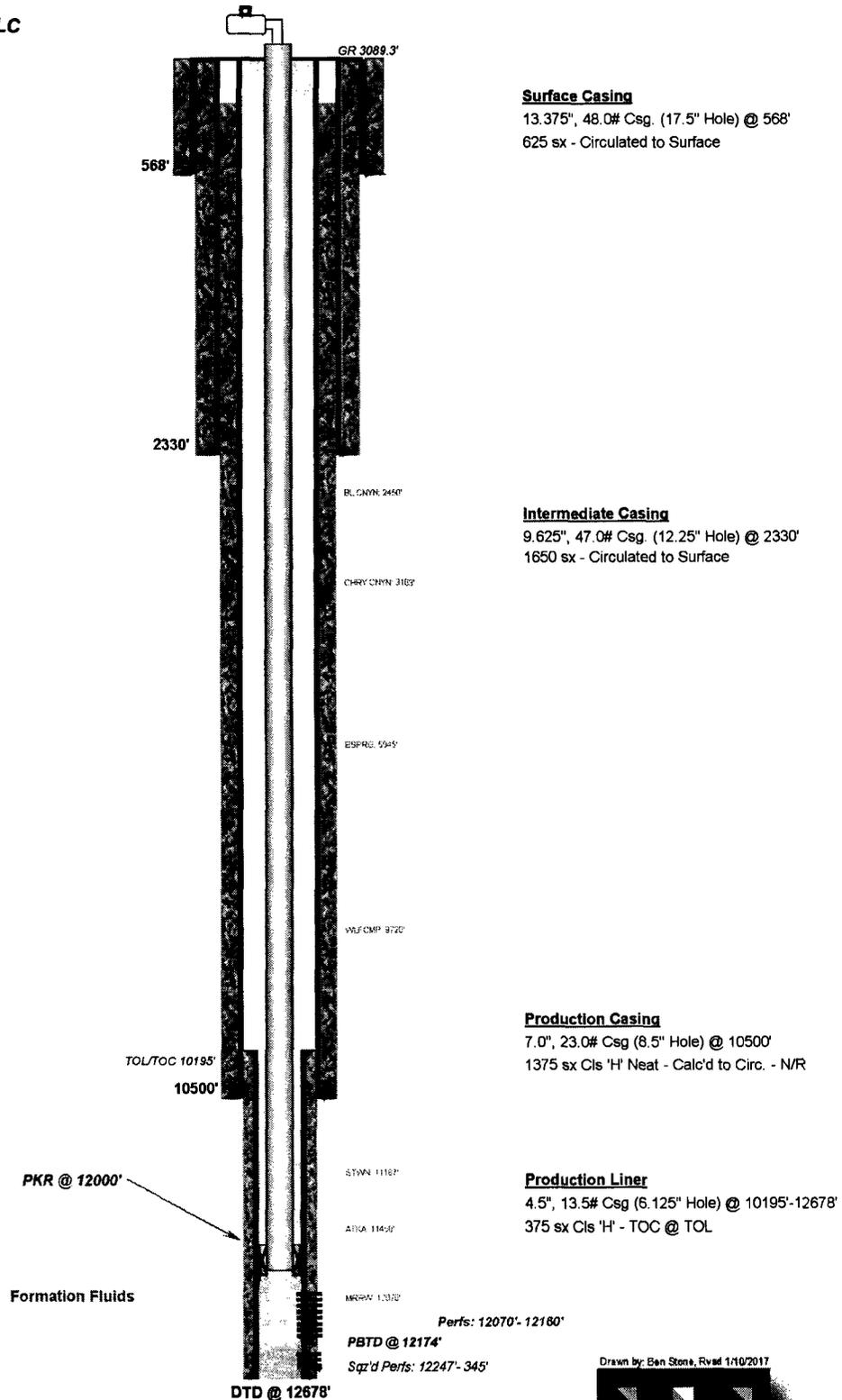
ACTIVE - ON P&A LIST
Parque 30 Com Well No. 1

Non-Economic Gas Well
Aspen Oil, Inc.
Scheduled for P&A

API 30-015-24144
1980' FNL & 983' FWL, SEC. 30-T23S-R28E
EDDY COUNTY, NEW MEXICO

Spud Date: 4/21/1981
P&A Date: TBD

Change of Operator
Complete to Probity SWD, LLC
1/10/17



Surface Casing
13.375", 48.0# Csg. (17.5" Hole) @ 568'
625 sx - Circulated to Surface

Intermediate Casing
9.625", 47.0# Csg. (12.25" Hole) @ 2330'
1650 sx - Circulated to Surface

Production Casing
7.0", 23.0# Csg (8.5" Hole) @ 10500'
1375 sx Cls 'H' Neat - Calc'd to Circ. - N/R

Production Liner
4.5", 13.5# Csg (6.125" Hole) @ 10195'-12678'
375 sx Cls 'H' - TOC @ TOL

Drawn by: Ben Stone, Rvw'd 1/10/2017





PROPOSED CONFIGURATION

ACTIVE - ON P&A LIST
Pardue 30 SWD Well No.1

API 30-015-24144
1980' FNL & 983' FWL, SEC. 30-T23S-R28E
EDDY COUNTY, NEW MEXICO

Spud Date: 4/21/1981
Config Date: ~2/15/2017

SWD-1585 - SWD; Bell Canyon-Cherry Canyon (96802)

Annulus Monitored
or open to atmosphere

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

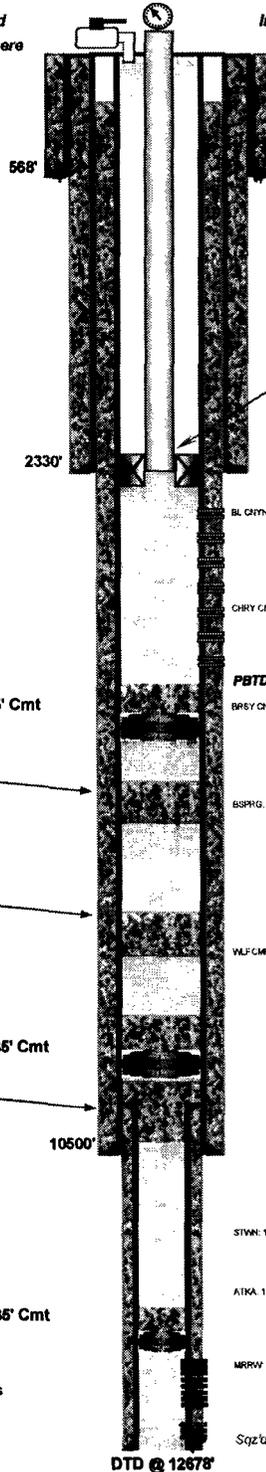
Surface Casing

13.375", 48.0# Csg. (17.5" Hole) @ 568'
625 sx - Circulated to Surface

Probitly SWD, LLC

Configure for SWD as follows:

- Pull Prod TBG & PKR - Set 4.5" CIBP @ 12,050' w/35' Cmt.
- Spot Cmt Plugs as Illustrated to Seal 4.5" Completion.
- Set 7.0" CIBP @ 10,100' w/35' Cmt Qp.
- Spot Cmt Plugs as Illustrated Across Adjacent Formations.
- Set 7.0" CIBP @ 4715' w/ 35' Cmt Qp PBTD @ ~4680'.
- Perforate Selected Intervals from Log Analysis in Bell Canyon & Cherry Canyon Formations.
- Max Top 2500' to Max Bottom 4590'
- RIH w/ 3.5" TBG & Set PKR @ 2400'+
- MIT to 300 psi / 30 mins. - OCD to Witness.
- Install Wellhead and Equipment and Commence Injection.



3.5" IC TBG Set in PKR @ 2385'+

PACKER MUST BE BELOW 2400'

Intermediate Casing

9.625", 47.0# Csg. (12.25" Hole) @ 2330'
1650 sx - Circulated to Surface

Set CIBP @ 4715' w/ 35' Cmt

Spot 30 sx Cmt
5900'-6000'

Spot 30 sx Cmt
9800'-9700'

Set CIBP @ 10,100' w/ 35' Cmt

Spot 45 sx Cmt
10,300'-10,100'

Set CIBP @ 12,050' w/ 35' Cmt

Formation Fluids

Production Casing

7.0", 23.0# Csg (8.5" Hole) @ 10500'
1375 sx CIs 'H' Neat - Calc'd to Circ. - N/R

Production Liner

4.5", 13.5# Csg (6.125" Hole) @ 10195'-12678'
375 sx CIs 'H' - TOC @ TOL

Perfs: 12070'-12160'

Sqz'd Perfs: 12247'-345'

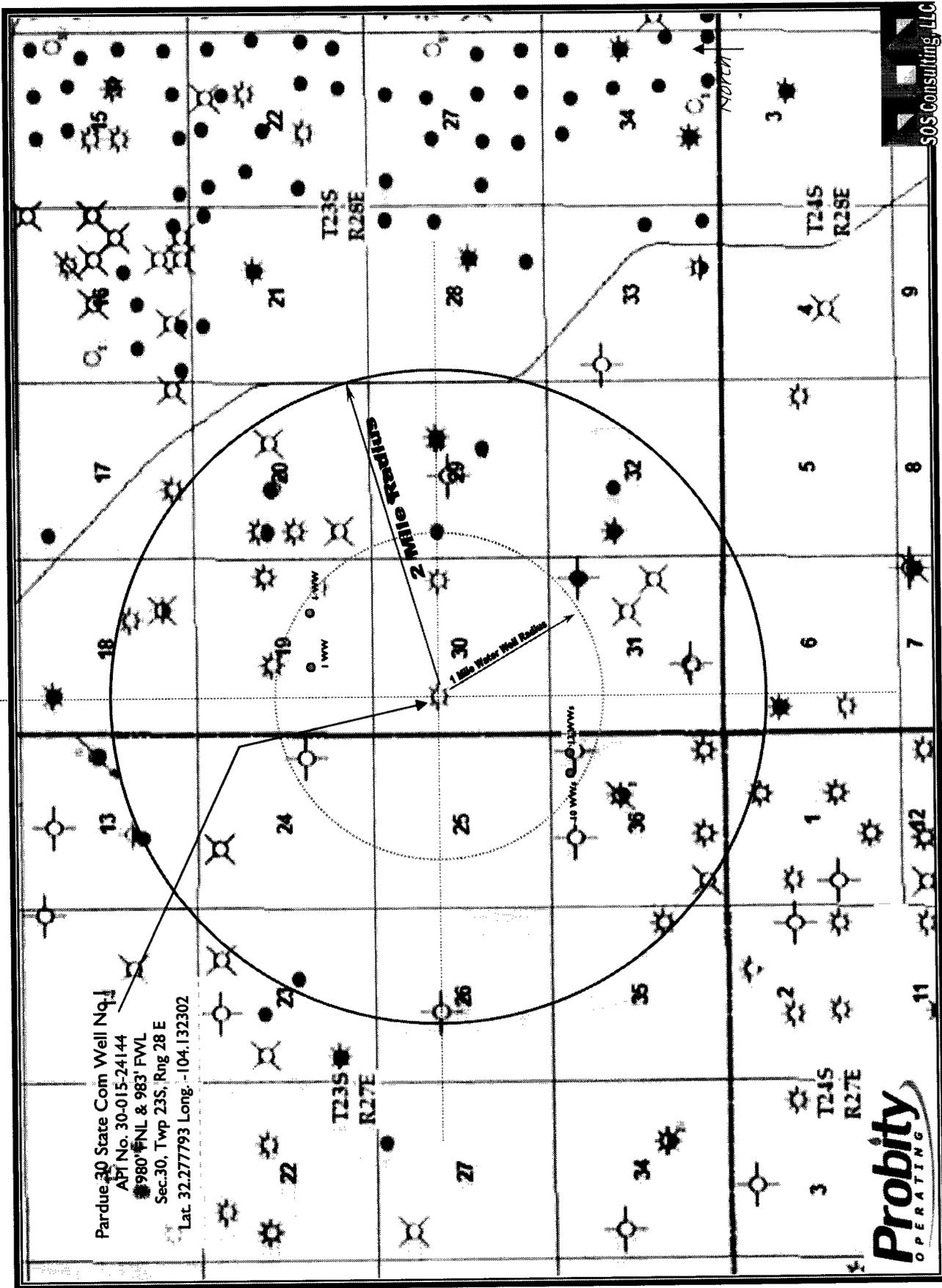
DTD @ 12678'

Drawn by: Ben Stone, Rvd'd 1/10/2017



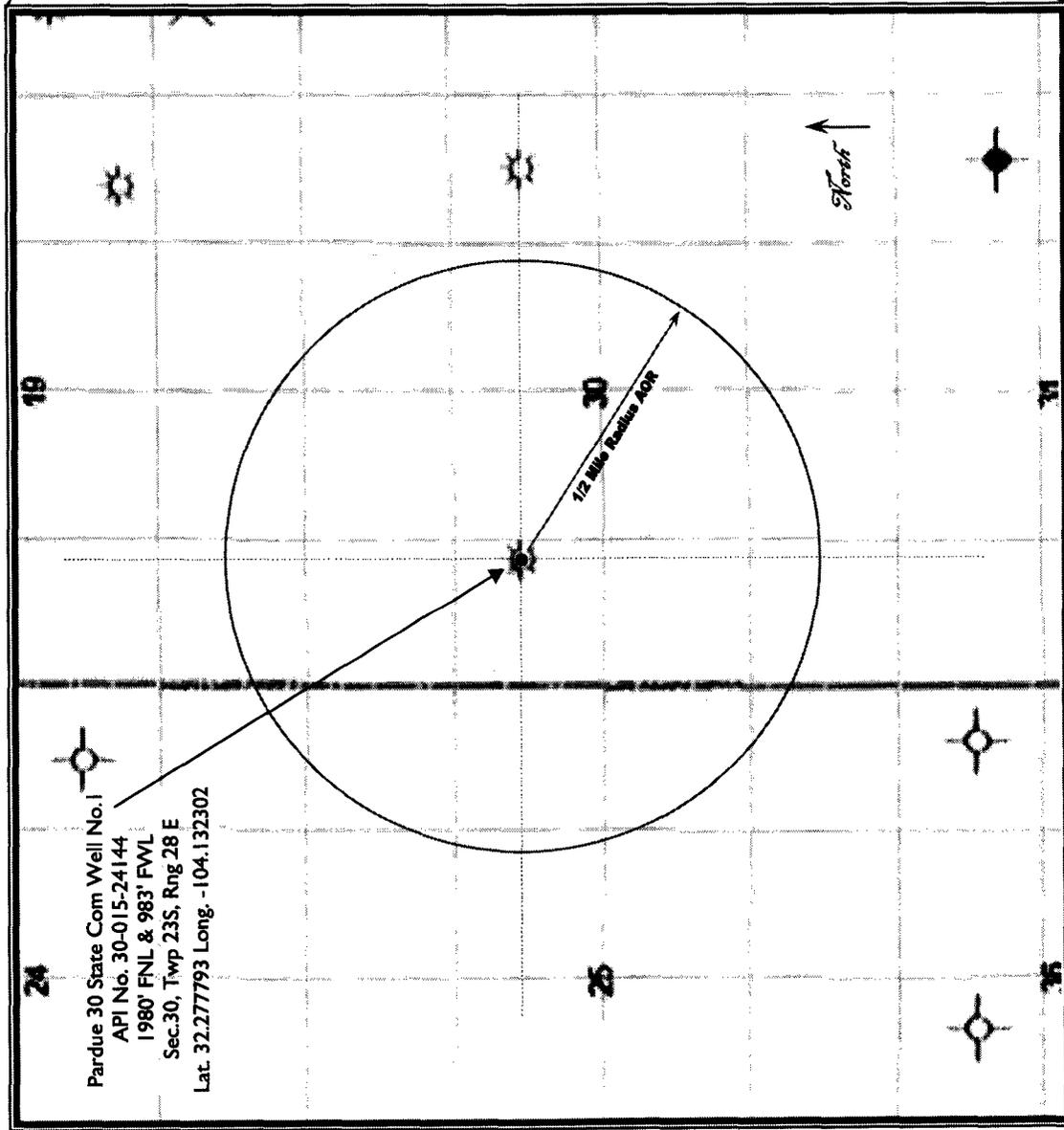
Pardue 30 State Com Well No. 1 SWD - Area of Review / 2 Miles (Water Wells 1 Mile)

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

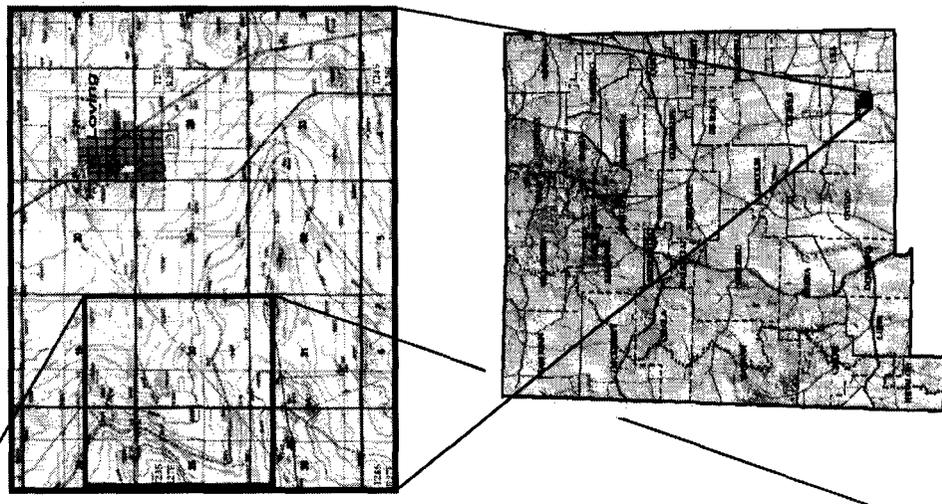


Pardue '30' State Com Well No. 1 SWD - Area of Review Map

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



2.0 miles West / Southwest of Loving, NM



Eddy County, New Mexico



State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

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

David R. Catanach, Division Director
Oil Conservation Division



Administrative Order SWD-1585
October 1, 2015

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division rule 19.15.26.8(B) NMAC, Probity SWD, LLC (the "operator") seeks an administrative order to re-complete the Pardue 30 Com. Well No. 1 located 1980 feet from the North line and 983 feet from the West line, Lot 2 (Unit letter E) of Section 30, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, for the commercial disposal of produced water.

THE DIVISION DIRECTOR FINDS THAT:

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

IT IS THEREFORE ORDERED THAT:

The applicant, Probity SWD, LLC (OGRID 296278), is hereby authorized to utilize its Pardue 30 Com. Well No. 1 (API 30-015-24144) located 1980 feet from the North line and 983 feet from the West line, Lot 2 (Unit letter E) of Section 30, Township 23 South, Range 28 East, NMPM, Eddy County, for commercial disposal of oil field produced water (UIC Class II only) in the Bell Canyon and Cherry Canyon formations of the Delaware Mountain group, through perforations from 2500 feet to 4590 feet. Injection will occur through internally-coated, 3½-inch or smaller tubing and a packer set within 100 feet of the uppermost perforation.

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. This includes the completion and construction of the well as proposed in the application and, if necessary, as modified by the District Supervisor.

Prior to commencing injection, the operator shall provide to Division's District II office a cement bond log (or equivalent) showing placement of cement for the 7-inch intermediate casing from the top of liner to surface.

Within two years after commencing disposal, the operator shall conduct an injection survey, consisting of a temperature log or equivalent, over the entire injection interval using representative disposal rates. Copies of the survey results shall be provided to the Division's District II office and Santa Fe Bureau office. Failure to comply with this requirement shall result ipso facto in the loss of disposal authority approved by this order.

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 procedures and schedules shall follow the requirements in Division rule 19.15.26.11(A) 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 500 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 II office of the date and time of the installation of disposal equipment and of any MIT 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 II 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 II 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 order after notice and hearing if the operator is in violation of rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) 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.

10-1-2017
R.P.

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.


DAVID R. CATANACH
Director

DRC/prg

cc: Oil Conservation Division – Artesia District Office