STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___xxx__Disposal _____Storage
Application qualifies for administrative approval? ____xxx_____Yes _____No

II. OPERATOR: _____BC OPERATING, INC._____

ADDRESS: _____4000 N. BIG SPRING, MIDLAND, TEXAS 79705_____

CONTACT PARTY: _____JASON WACKER_____PHONE: ___432-631-2142___

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

IV. Is this an expansion of an existing project? _____Yes ___XXX__No
If yes, give the Division order number authorizing the project: _____

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

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: ___JASON WACKER_____TITLE: _VP OF ENGINEERING & OPERATIONS_

SIGNATURE: _____ DATE: ___3/28/2016_____

E-MAIL ADDRESS: _____JWACKER@BCOPERATING.COM_____

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

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

III. WELL DATA

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

(1) 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

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.

Additional Questions on C-108

VII.

1. **Proposed average and maximum daily rate and volume of fluids to be injected;**
   Average 500-1000 BWPD, Max 10,000 BWPD

2. **Whether the system is open or closed;**
   Open System

3. **Proposed average and maximum injection pressure;**
   Average 400 PSI, Max 580 PSI

4. **Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,**
   Bone Spring and Wolfcamp produced water. Water is compatible

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.). Attached**

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

The proposed disposal interval is located in the Delaware Mountain Group – Bell Canyon to Upper Cherry Canyon Formation. Injection interval consists of sandstone and shale. This Permian age horizon is 4,000' thick. The top of the Delaware formation is at a depth of about 2,600' with the base at a depth of about 6,600' at the top of the Bone Spring Lime. There are no fresh water zones underlying the proposed injection zone. Usable water depth is from surface to the base of the Rustler/top of salt at 375'.

IX. Describe the proposed stimulation program, if any.

15,000 gallons 15% HCL acid job with packer

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

Nadel and Gussman Permian, L.L.C. has reviewed and examined available geologic and engineering data in the area of interest for the Grande State #1 SWD and have found no evidence of faults or other hydrologic connections between the Delaware disposal zone and the underground sources of drinking water.

Jason Goss, Engineer

Side 1

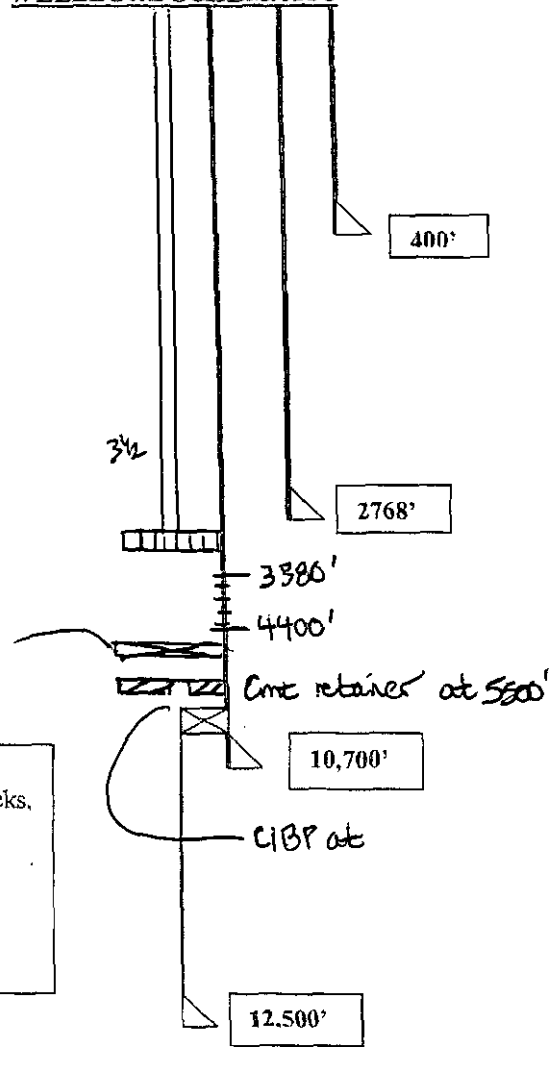
INJECTION WELL DATA SHEET

OPERATOR: NADEL AND GUSSMAN PERMIAN, LLC

WELL NAME & NUMBER: GRANDE STATE #1 API 30-015-31910

WELL LOCATION:	660' FNL, 1980' FWL	C	32	23S	29E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



4.5" 13.5# P110 liner, 6.15" hole, cemented to top of liner w/ 295 sacks, circulated 55 sacks off of liner top. Top of liner is 10,277'

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13-3/8"

Cemented with: 375 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRCULATED

Intermediate Casing

Hole Size: 12.25 Casing Size: 9-5/8"

Cemented with: 1425 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRCULATE

Production Casing

Hole Size: 8-3/4" Casing Size: 5-1/2"

Cemented with: 1420 sx. *or* _____ ft³

Top of Cement: 5650' Method Determined: CBL

Total Depth: SURFACE

Injection Interval

3,380 feet to ~~4,900~~ 4400'

PERFORATED

INJECTION WELL DATA SHEET

Tubing Size: 3.5", 9.3#, J-55 ✓ Lining Material: Internally plastic coated

Type of Packer: Weatherford Arrow Set 1X Injection Packer

Packer Setting Depth: 50ft above top perf ✓

Other Type of Tubing/Casing Seal (if applicable): NONE

Additional Data

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

   If no, for what purpose was the well originally drilled? ATOKA GAS WELL, BONE SPRING OIL WELL, TD 12,500 VERTICAL WELL

2. Name of the Injection Formation: DELAWARE GROUP-BELL CANYON ~~Bell & Cherry Canyons~~

3. Name of Field or Pool (if applicable): SWD BELL CANYON

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

   YES. ATOKA 12,278' – 12,282'. PLUG BACK: CIBP SET AT 12,250 WITH 35' OF CEMENT. ATOKA PERFS: 12,122 – 12,140', PLUGGED BACK W/ 25 SACK PLUG AT 11,804 -12,154. SET PLUG AT LINER TOP 100 SACKS. BONE SPRINGS PERFS 7968-8052.

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

   BELOW: DELAWARE 6500', BONE SPRING 1ST SAND 7600, BONE SPRING 2ND SAND 7968, WOLFCAMP 10,970, ATOKA 12,122 Bushy Canyon

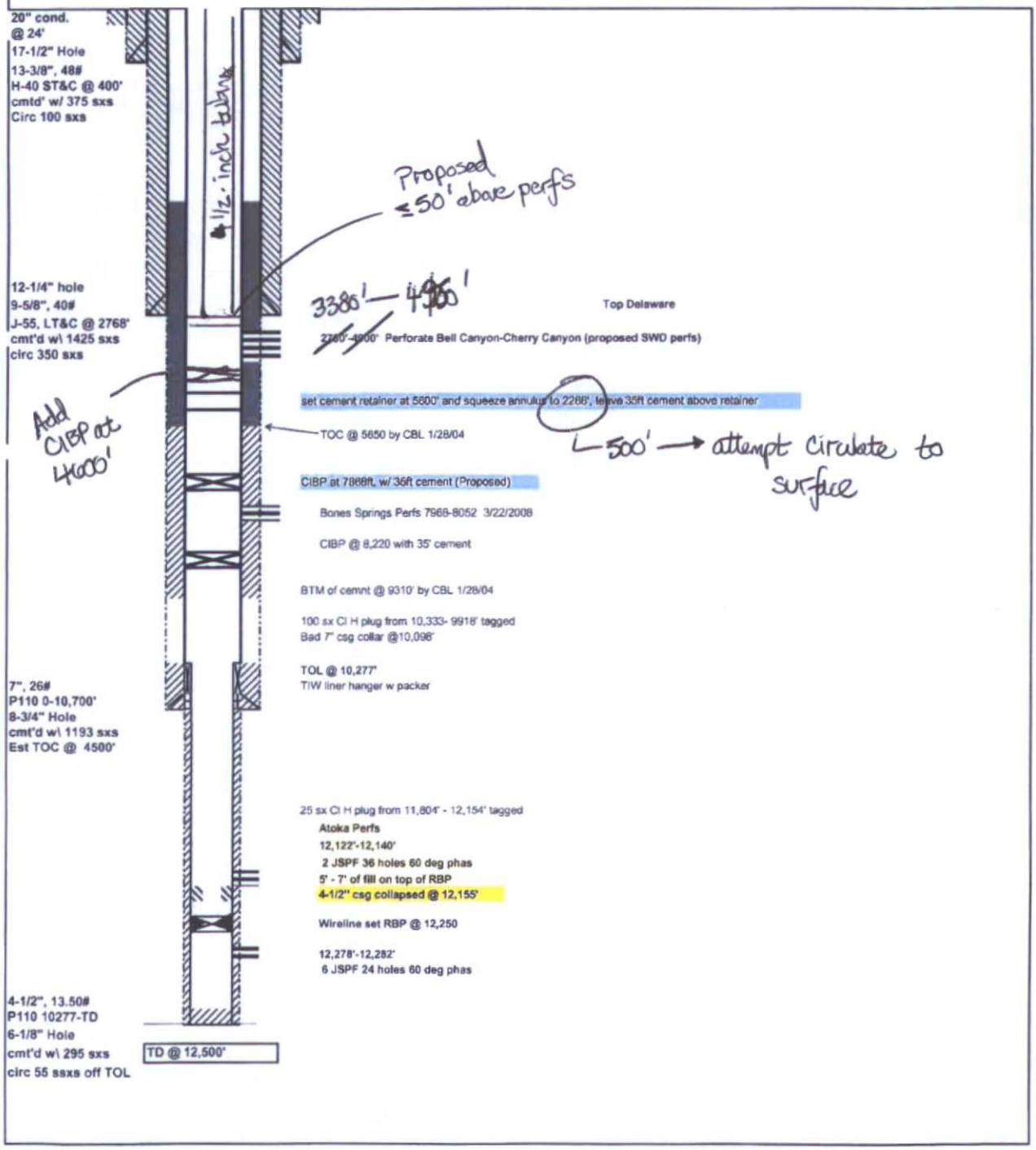
   ABOVE: NONE

Nadel & Gussman Permian, L.L.C.

LEASE:	Grande State	WELL NO.	1	API #:	30 - 015 - 31910
FIELD:	Laguna Salado (Atoka)	COUNTY:	Eddy	STATE:	New Mexico
LOCATION:	660 FNL 1980 FWL	LEGAL:	Sec. 32 T 23 S R 29 E	GL:	2993'
SPUD DATE:	11/5/2003	DRAWN BY:	JSG	DF:	3008'
		DATE:	8/6/2015	KB:	3009' (17 ' AGL)

Grande State Well No. 1

Proposed Injection



Nadel & Gussman Permian, L.L.C.

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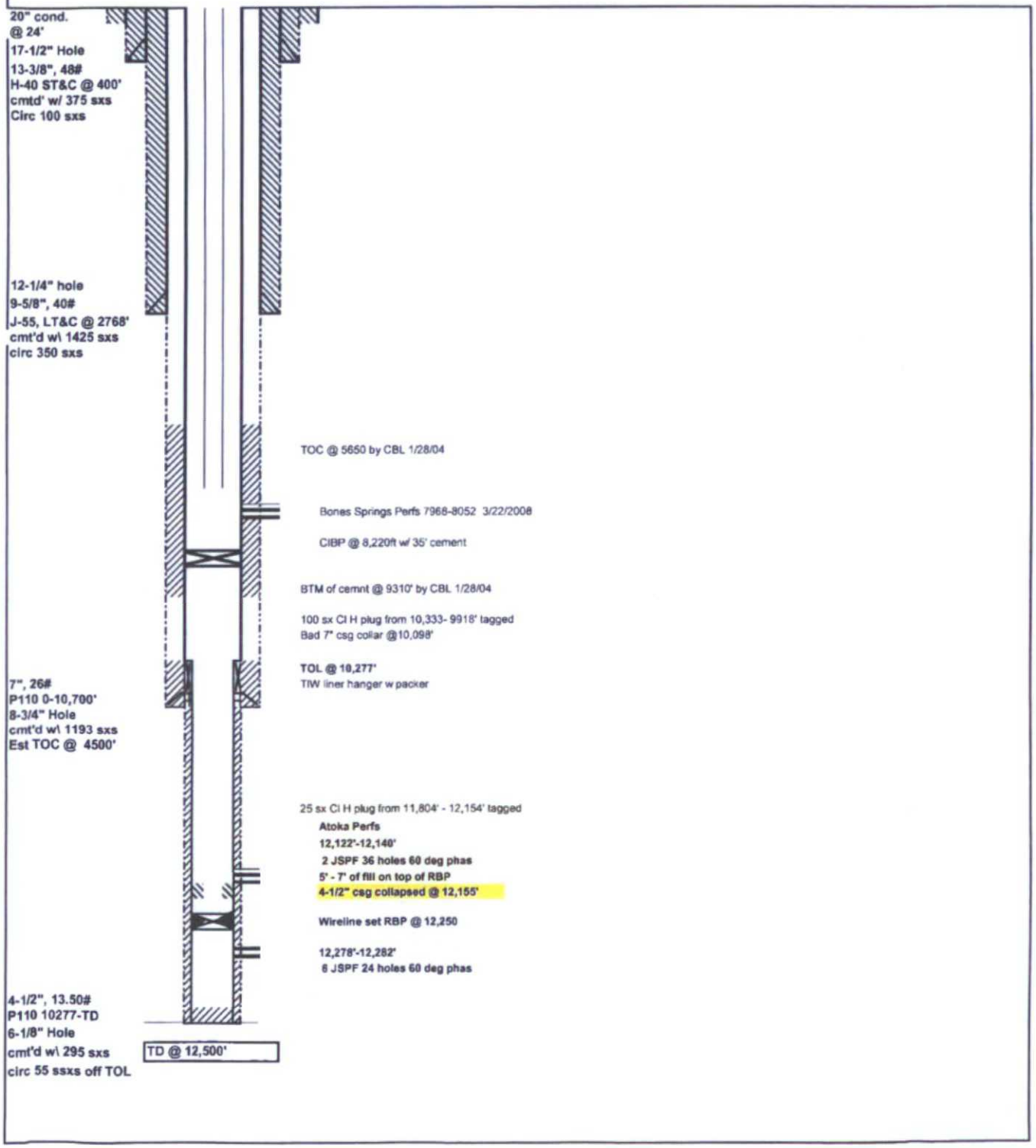
SPUD DATE:	11/5/2003	DRAWN BY:	JSG	DF:	3008'
		DATE:	8/4/2015	KB:	3009' (17 ' AGL)

Grande State Well No. 1



KEM 8/4/2015

Grande State #1 – Proposed Conversion Procedure

Plan to plug back well to complete in Delaware as Injector pending NMOCD disposal approval.

1. Pull production tubing.
2. Wireline set CIBP at 7,868'and dump 35ft cement. Uppermost perf (2nd BS Sand 7,968-8052')
3. Shoot squeeze holes at 5600'. Set cement retainer at 5500' and squeeze cement into annulus with a minimum height of 2,000'. → 3550'-3600' | doesn't tie with
4. Perforate Delaware ~~2780~~ 4900' and stimulate for injection.
5. Set packer at 2730 with injection tubing and run OCD integrity test.

3380' per NMSLO recommendations

III. WELL DATA

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

Grande State #1, Sec. 32-T23S-R29E, 660' FNL & 1980' FWL, Eddy County, New Mexico

(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.

Casing Size	Setting Depth	Sacks of Cement	Hole Size	Top of Cement	Determined
13-3/8"	400'	375	17-1/2"	Surface	Circulate
9-5/8"	2,768'	1,425	12-1/4"	Surface	Circulate
7"	10,277'	1,193	8-3/4"	5,650'	CBL
4.5"	10,277-12,500	295	6-1/8"	10,277	Circ. off liner top

(3) A description of the tubing to be used including its size, lining material, and setting depth.

3-1/2" OD, Internally Plastic Coated Tubing set @ 3,330'

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Weatherford Arrow set 1X injection packer, nickel plated with on/off tool
Set within 50-100 feet above top Delaware perforations

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.

Delaware – Lower Bell Canyon to Upper Cherry Canyon
Pool Name: SWD (Bell Canyon)

(2) The injection interval and whether it is perforated or open-hole.

3,380' to 4,900' (Perforated)

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

The well was originally drilled as an Atoka gas 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.

Atoka Perfs, 12,278' – 12,282', plugged back, CIBP set at 12,250' with 35' of Cement
Atoka perfs, 12,122'-12,410', 25 sack plug at 11,804 – 12,154'
Bone Spring Perfs: 7968-8052

(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. Next Higher: None / Next Lower: Delaware 6,450'

Additional Questions on C-108

VII.

1. **Proposed average and maximum daily rate and volume of fluids to be injected;**
   Average 500-1000 BWPD, Max 10,000 BWPD

2. **Whether the system is open or closed;**
   Open System

3. **Proposed average and maximum injection pressure;**
   Average 400 PSI, Max 675 PSI

4. **Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,**
   Bone Spring and Wolfcamp produced water. Water is compatible

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.). Attached**

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

The proposed disposal interval is located in the Delaware Mountain Group – Lower Bell Canyon to Upper Cherry Canyon Formation. Injection interval consists of sandstone and shale. This Permian age horizon is 4,000' thick. The top of the Delaware formation is at a depth of about 2,600' with the base at a depth of about 6,600' at the top of the Bone Spring Lime. There are no fresh water zones underlying the proposed injection zone. Usable water depth is from surface to the base of the Rustler/top of salt at 375'.

IX. Describe the proposed stimulation program, if any.

15,000 gallons 15% HCl acid job with packer

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

Nadel and Gussman Permian, L.L.C. has reviewed and examined available geologic and engineering data in the area of interest for the Grande State #1 SWD and have found no evidence of faults or other hydrologic connections between the Delaware disposal zone and the underground sources of drinking water.

Jason Goss, Engineer

Formation Tops

Rustler	375
Salado/ Top Salt	600'
Base Salt	2600'
Delaware Mountain Group / Bell Canyon	2790'
Cherry Canyon	3900'
Brushy Canyon	4900'
Bone Spring Lime	6500'
Bone Spring 1st Sand	7540'
Bone Spring 2nd Sand	8300'

Bone Spring

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: ***Impact Chemical***

Well Number:	Kyle 34 Fed #2H WH	Sample Temp:	70
Lease:	Nadel & Gussman	Date Sampled:	4/10/2015
Location:		Sampled by:	Sherry Hogue
Date Run:	4/21/2015	Employee #:	
Lab Ref #:	15-apr-w68267	Analyzed by:	GR

Dissolved Gases

			Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H2S)		3.40	16.00	.21
Carbon Dioxide	(CO2)		230.00	22.00	10.45
Dissolved Oxygen	(O2)	**NOT ANALYZED**			

Cations

Calcium	(Ca++)		10,886.16	20.10	541.60
Magnesium	(Mg++)		1,742.16	12.20	142.80
Sodium	(Na+)		56,575.73	23.00	2,459.81
Barium	(Ba++)	**NOT ANALYZED**			
Manganese	(Mn+)		1.53	27.50	.06
Strontium	(Sr++)	**NOT ANALYZED**			

Anions

Hydroxyl	(OH-)	.00	17.00	.00
Carbonate	(CO3=)	.00	30.00	.00
BiCarbonate	(HCO3-)	146.64	61.10	2.40
Sulfate	(SO4=)	320.00	48.80	6.56
Chloride	(Cl-)	111,021.99	35.50	3,127.38
Total Iron	(Fe)	46.91	18.60	2.52
Total Dissolved Solids		180,974.52		
Total Hardness as CaCO3		34,358.26		
Conductivity MICROMHOS/CM		209,000		

pH 5.200 Specific Gravity 60/60 F. 1.126

CaSO4 Solubility @ 80 F. 21.88MEq/L, CaSO4 scale is unlikely

CaCO3 Scale Index

70.0	-.704	100.0	-.304	130.0	.446
80.0	-.604	110.0	.016	140.0	.446
90.0	-.304	120.0	.016	150.0	.876

Impact Chemical

Delaware

Impact Water Analysis Analytical Report

IMPACT! Chemical Technologies, Inc.

Company:	Nadel & Gussman	Location:	Mosaic 34 Federal 1
Source :	WH	Date Sampled:	May 7, 2015
Number :	43546	Account Manager:	David Garcia
County:		Foreman:	

ANALYSIS	mg/L		EQ. WT.		MEQ/L
1. pH	5.74				
2. Specific Gravity 60/60 F	1.212				
3. Hydrogen Sulfide	3.4	PPM			
4. Carbon Dioxide	720.0	PPM			
5. Dissolved Oxygen	ND				
6. Hydroxyl (OH^-)	0	/	17.0	=	0.00
7. Carbonate (CO_3^{-2})	0	/	30.0	=	0.00
8. Bicarbonate (HCO_3^-)	49	/	61.1	=	0.80
9. Chloride (Cl^-)	179,959	/	35.5	=	5,069.27
10. Sulfate (SO_4^{-2})	140	/	48.8	=	2.87
11. Calcium (Ca^{+2})	28,720	/	20.1	=	1,428.86
12. Magnesium (Mg^{+2})	4,529	/	12.2	=	371.23
13. Sodium (Na^+)	75,276	/	23.0	=	3,272.85
14. Barium (Ba^{+2})	1.75				
15. Total Iron (Fe)	18.61				
16. Manganese	9.55				
17. Strontium	1,105.00				
18. Total Dissolved Solids	289,808				
19. Resistivity @ 75 °F (calculated)	0.027	Ω-m			

20. $CaCO_3$ Saturation Index

@ 80 °F	-0.9490
@ 100 °F	-0.6390
@ 120 °F	-0.3790
@ 140 °F	-0.0190
@ 160 °F	0.3310

21. $CaSO_4$ Supersaturation Ratio

@ 70 °F	0.4092
@ 90 °F	0.5418
@ 110 °F	0.3990
@ 130 °F	0.3896
@ 150 °F	0.3893

PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	MEQ/L	= mg/L
$Ca(HCO_3)_2$	81.04		0.80	65
$CaSO_4$	68.07		2.87	195
$CaCl_2$	55.50		1,425.19	79,098
$Mg(HCO_3)_2$	73.17		0.00	0
$MgSO_4$	60.19		0.00	0
$MgCl_2$	47.62		371.23	17,678
$NaHCO_3$	84.00		0.00	0
$NaSO_4$	71.03		0.00	0
NaCl	58.46		3,272.85	191,331

Analyst: Tamara Davault Date: May 8, 2015

Wolfcamp

Impact Water Analysis Analytical Report

IMPACT! CHEMICAL TECHNOLOGIES, INC.

Company:	Nadel & Gussman	Location:	El Presidente St. #3H
Source :	Wellhead	Date Sampled:	July 15, 2015
Number :	45813	Account Manager:	David Garcia
County:		Foreman:	

	ANALYSIS	mg/L		EQ. WT.		MEQ/L
1.	pH	6.70				
2.	Specific Gravity 60/60 F	1.067				
3.	Hydrogen Sulfide	10.2	PPM			
4.	Carbon Dioxide	120.0	PPM			
5.	Dissolved Oxygen	ND				
6.	Hydroxyl (OH^-)	0	/	17.0	=	0.00
7.	Carbonate (CO_3^{-2})	0	/	30.0	=	0.00
8.	Bicarbonate (HCO_3^-)	244	/	61.1	=	3.99
9.	Chloride (Cl^-)	57,987	/	35.5	=	1,633.44
10.	Sulfate (SO_4^{-2})	664	/	48.8	=	13.61
11.	Calcium (Ca^{+2})	2,792	/	20.1	=	138.91
12.	Magnesium (Mg^{+2})	389	/	12.2	=	31.92
13.	Sodium (Na^+)	34,045	/	23.0	=	1,480.21
14.	Barium (Ba^{+2})	2.71				
15.	Total Iron (Fe)	7.92				
16.	Manganese	0.51				
17.	Strontium	594.40				
18.	Total Dissolved Solids	96,727				
19.	Resistivity @ 75 °F (calculated)	0.082	Ω-m			

20. $CaCO_3$ Saturation Index

@ 80 °F	-0.3041
@ 100 °F	0.0059
@ 120 °F	0.2659
@ 140 °F	0.6259
@ 160 °F	0.9759

21. $CaSO_4$ Supersaturation Ratio

@ 70 °F	0.2391
@ 90 °F	0.2384
@ 110 °F	0.2406
@ 130 °F	0.2438
@ 150 °F	0.2469

PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	MEQ/L	= mg/L
$Ca(HCO_3)_2$	81.04		3.99	323
$CaSO_4$	68.07		13.61	926
$CaCl_2$	55.50		121.31	6,733
$Mg(HCO_3)_2$	73.17		0.00	0
$MgSO_4$	60.19		0.00	0
$MgCl_2$	47.62		31.92	1,520
$NaHCO_3$	84.00		0.00	0
$NaSO_4$	71.03		0.00	0
NaCl	58.46		1,480.21	86,533

Analyst: Sylvia Garcia Date: July 17, 2015

WELLS INSIDE AREA REVIEW OF GRANDE STATE #1

**** 1 well inside area of review that penetrate the Delaware Formation**

Well	Type	Date drill	Location	Depth	Completion	Status	
Macho Grande State #2H	Horizontal Oil well	1/17/2015	T-23-S, R-28-E, Sec 32 (29) 200' FNL, 700' FEL UL A, Eddy Co. NM	15,425' MD 10,970' TVD	Wolfcamp 10,970'	Active see diagram	Nadel and Gussman Permian, LLC

outside of ½ mile 30-015-39345

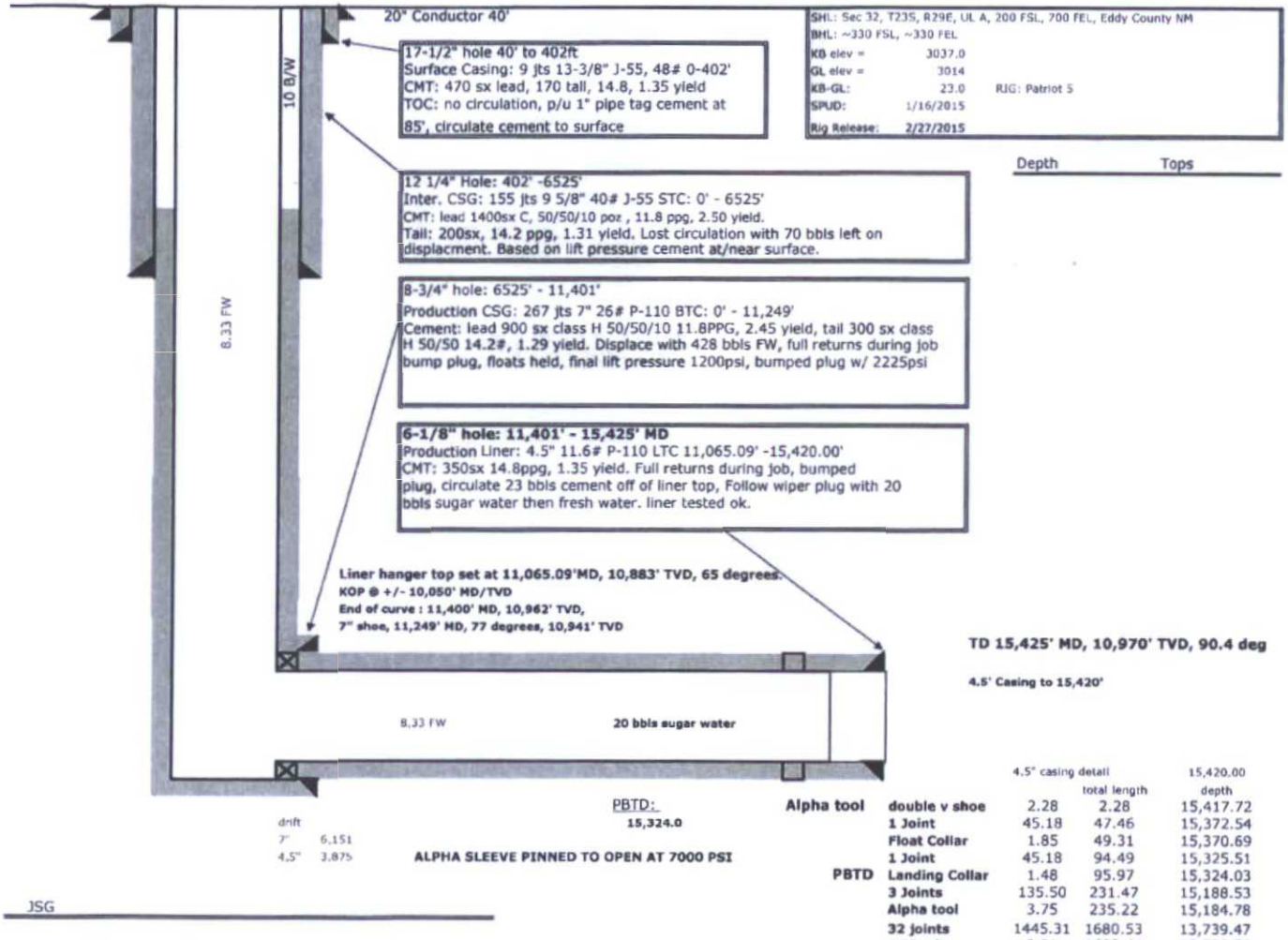
330N 330E

NADEL & GUSSMAN PERMIAN

Macho Grande State #2H
Wellbore Diagram as Drilled

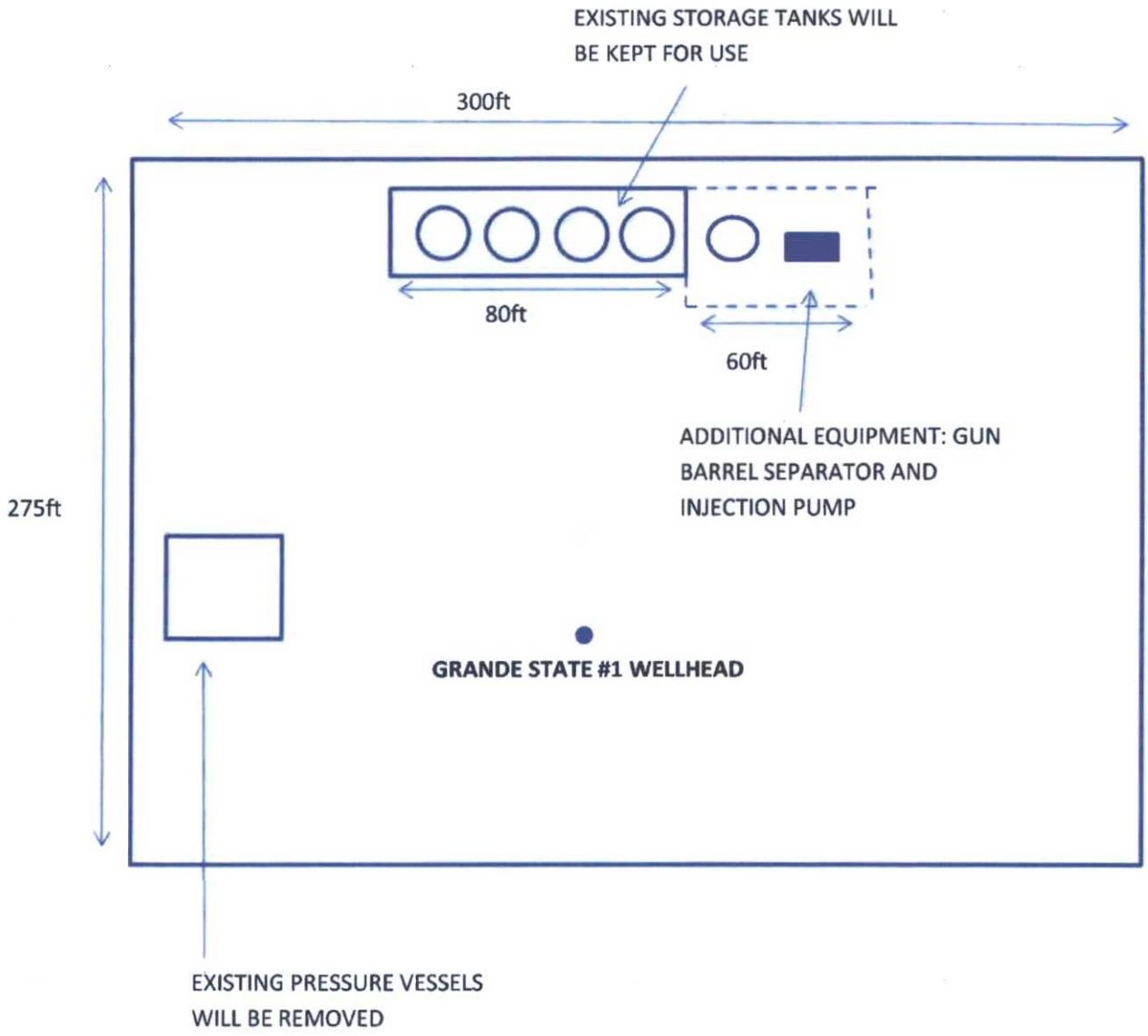
Wolfcamp A
Eddy County New Mexico
API # 30-015-42659

6/10/2015

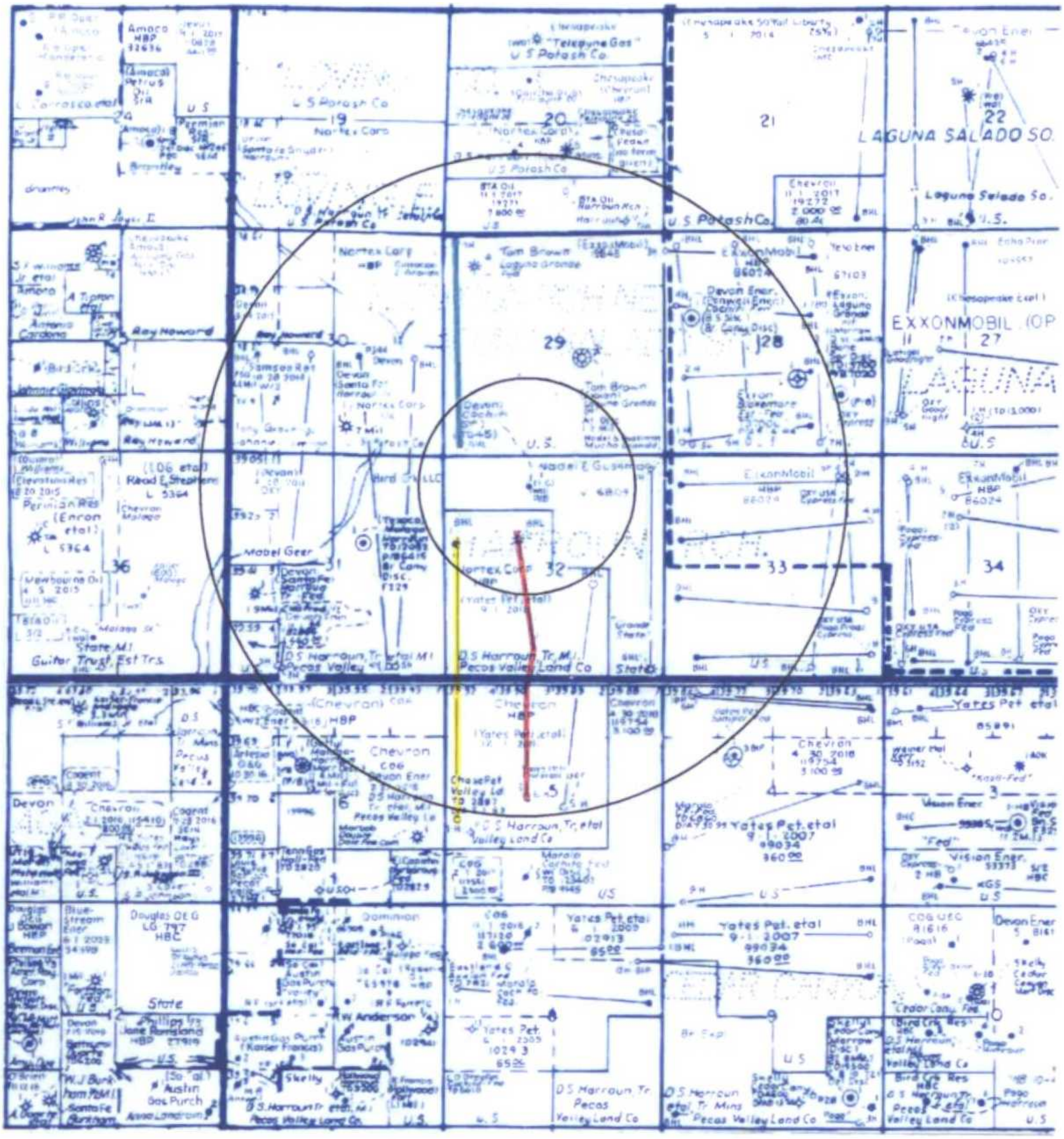


JSG

		4.5" casing detail	total length	15,420.00 depth
Alpha tool	double v shoe	2.28	2.28	15,417.72
	1 Joint	45.18	47.46	15,372.54
	Float Collar	1.85	49.31	15,370.69
	1 Joint	45.18	94.49	15,325.51
PBTD	Landing Collar	1.48	95.97	15,324.03
	3 Joints	135.50	231.47	15,188.53
	Alpha tool	3.75	235.22	15,184.78
	32 joints	1445.31	1680.53	13,739.47
	4.5" mkr	9.91	1690.44	13,729.56
	23 joints	992.73	2683.17	12,736.83
	4.5" marker	9.81	2692.98	12,727.02
	39 joints	1639.81	4332.79	11,087.21
Liner	Spacer nipple	5.9	4338.69	11,081.31
	combo collar	1.46	4340.15	11,079.85
	flex lock	14.76	4354.91	11,065.09
	zxp liner top pkr	20.75	4375.66	11,044.34
	total	4375.66		



EXISTING GRANDE STATE #1 - PAD



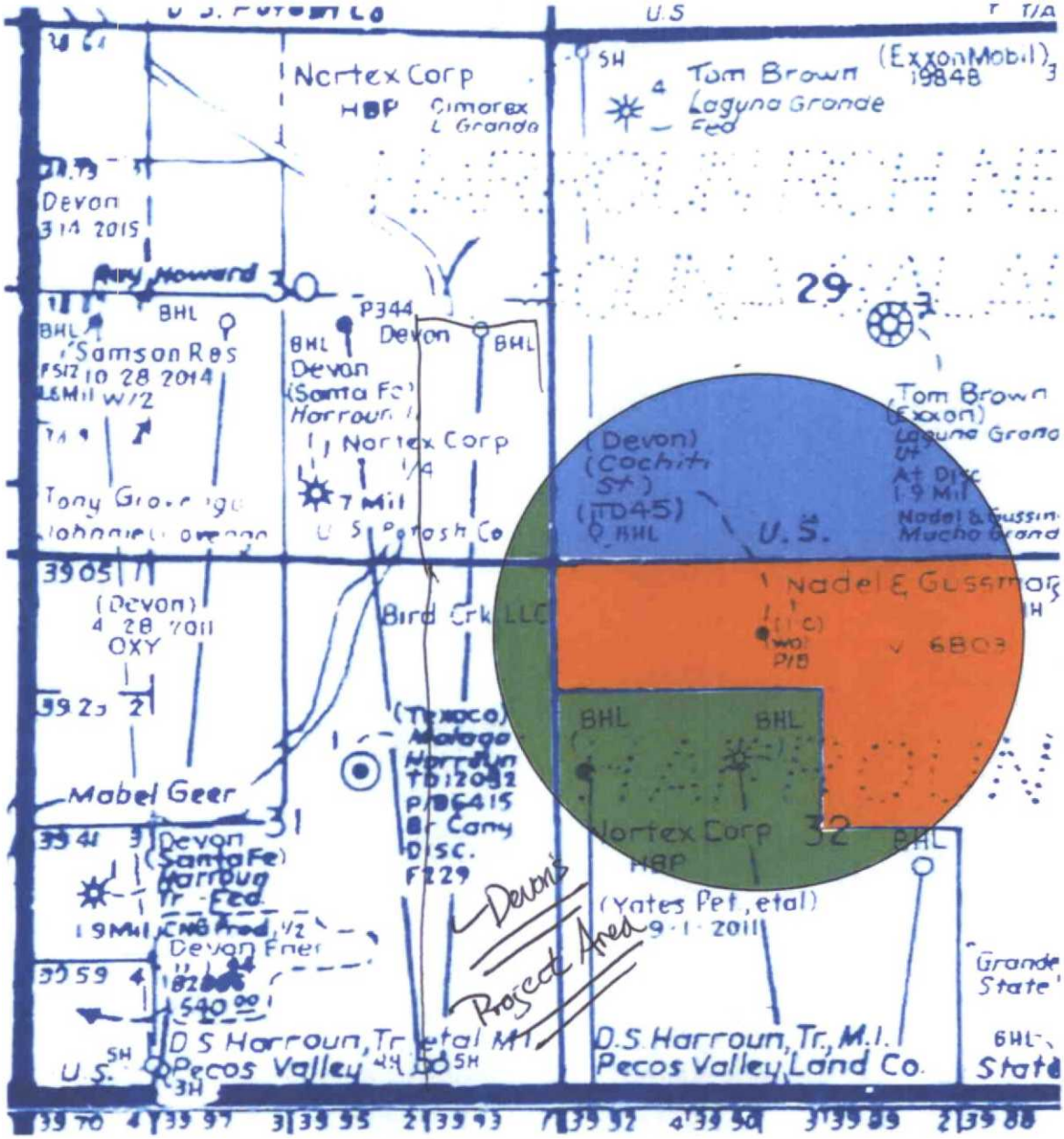
Section 29-T23S-R29E:

- **Laguna Grande 29 Federal #5H (Permitted not drilled)**
  Cimarex Energy Co.
  600 N. Marienfeld, Suite 600
  Midland, TX 79701

Section 5-T24S-R29E:

- **Chevron BOT #1H**
  Yates Petroleum Corporation
  105 South Fourth Street
  Artesia, NM 88210

- **Chevron BOT #6H**
  Yates Petroleum Corporation
  105 South Fourth Street
  Artesia, NM 88210



Section 32-T23S-R29E:

- **V0-6803**
  Nadel and Gussman Permian, L.L.C.
  601 N. Marienfeld, Suite 508
  Midland, TX 79701

- **Fee**

Section 29-T23S-R29E:

- **NMNM 19848**
  Exxonmobil Oil Corporation
  P.O. Box 4358
  Houston, TX 77210-4358

Section 30-T23S-R29E:

- **Fee**

Section 31-T23S-R29E:

- **Fee**

– Devon - Designated Division Operator

NADEL AND GUSSMAN PERMIAN, L.L.C.
601 N. Marienfeld, Suite 508
Midland, TX 79701
Office: (432) 682-4429
Fax: (432) 682-4325

August 6, 2015

Surface Owner / Offset Operators

Re: Notification of Application for Authorization to Inject
Grande State **#1** SWD Well

Ladies and Gentlemen:

Nadel and Gussman Permian, LLC is seeking administrative approval to utilize its Grande State #1 (API – 30-015-31910) as a Salt Water Disposal well. As required by the New Mexico Oil Conservation Division Rules, we are notifying you of the following proposed salt water disposal well. This letter is a notice only. No action is required unless you have questions or objections.

Well:	Grande State #1
Proposed Disposal Zone:	Delaware Formation (from 2,780'- 4,900')
Location:	660' FNL & 1980' FWL, Sec. 32, T23S, R29E, Eddy Co., NM
Applicants Name:	Nadel and Gussman Permian, LLC
Applicants Address:	601 N. Marienfeld, Suite 508, Midland, Texas 79701

This application for water disposal well will be filed with the New Mexico Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. And their phone number is 505-476-3460.

Please call me if you have any questions at 432-682-4429.

Sincerely,

Jason Goss

DISTRIBUTION LIST

John Draper Brantley Jr. and Bettie-Anne Brantley
706 W. Riverside Drive
Carlsbad, NM 88220

Henry McDonald
P.O. Box 597
Loving, NM 88256

Valley Land Ranch, LLC
P.O. Box 597
Loving, NM 88256

Cimarex Energy Co.
600 N. Marienfeld, Suite 600
Midland, TX 79701

Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

State of New Mexico
District II
811 S. First St.
Artesia, NM 88210

State of New Mexico
1220 South St. Francis Dr.
Santa Fe, NM 87505

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Grande St. #1SWD

Sent To: State of New Mexico
Street, Apt. No., or PO Box No.: South St. Francis Drive
City, State, ZIP+4: Santa Fe, NM 87505

PS Form 3800, August 2006 — See Reverse for Instructions

Sent To: State of New Mexico District III
Street, Apt. No., or PO Box No.: 1000 S. First Street
City, State, ZIP+4: Artesia, NM 88210

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Grande St. #1SWD

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

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Brantley

Sent To: John Draper Brantley Jr. and Bettie Anne
Street, Apt. No.; or PO Box No.: 1606 N. Riverside Drive
City, State, ZIP+4: Carlsbad, NM 88220

PS Form 3800, August 2006 — See Reverse for Instructions

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Sent To: Yates Petroleum Corporation
Street, Apt. No., or PO Box No.: 105 South Fourth Street
City, State, ZIP+4: Artesia, NM 88210

PS Form 3800, August 2006 — See Reverse for Instructions

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Street, Apt. No., or PO Box No.: PO Box 597
City, State, ZIP+4: Loving, NM 88256

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Sent To: Henry McDonald
Street, Apt. No., or PO Box No.: PO Box 597
City, State, ZIP+4: Loving, NM 88256

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LEGAL NOTICE

Nadel and Gussman Permian, L.L.C., 601 N. Marienfeld, Suite 508, Midland, TX 79701 has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to utilize its Grande State #1 (API – 30-015-31910) as a Salt Water Disposal well. Grande State #1 is located at 660' FNL and 1980' FWL, Unit Letter C, Section 32, Township 23 South, Range 29 East, Eddy County, New Mexico. The well will dispose of water produced from oil and gas wells into the Delaware Formation at 2,780' to 4,900' at a maximum rate of 10,000 barrels of water per day at a maximum pressure of 580 psi.
Interested parties must file objections or requests for hearing with the Oil Conservations Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.
Additional information can be obtained by contacting Jason Goss, Nadel and Gussman Permian, LLC, at (432) 682-4429.

Published in the Artesia Daily Press, Artesia, N.M., August 6, 2015 Legal No. 23597.

C-108 Review Checklist: Received 08/10/2015 Add. Request: 12/30/15 * Protested by Devon / Case No. 15442 Reply Date: 41 116 Suspended: 12/10/15 [Ver 16]

ORDER TYPE: WFX / PMX / SWD Number: 1623 Order Date: 4/18/16 Legacy Permits/Orders: NA

① NMSLO provided comment on upper limit of injection interval - possible migration into salt interval

Well No. 1 Well Name(s): Grande State

API: 30-0 15-31910 Spud Date: 11/1/2003 [RE] New or Old: New (UIC Class II Primacy 03/07/1982)

Footages 660 FNL / 1980 FWL Lot — or Unit C Sec 32 Tsp 23S Rge 29E County Eddy

General Location: 5¼ miles E/SE of Loving Pool: SWD; Bell Canyon / Cherry Canyon Pool No.: 96802

BLM 100K Map: Carlsbad Operator: BC Operating, Inc. [original applicant - Nadel & Gussman] OGRID: 160825 BC acquired 1/20/2016 Contact: Jason Wacker, BC

COMPLIANCE RULE 5.9: Total Wells: 219 Inactive: 4 Fincl Assur: Yes Compl. Order? No **IS 5.9 OK?** Yes **Date:** 4/10/16

WELL FILE REVIEWED ✓ Current Status: Currently Bone Spring Producer; 1st attempt P&A followed with re-entry to Atoka

WELL DIAGRAMS: NEW: Proposed ⊙ or **RE-ENTER:** Before Conv. ✓ After Conv. ✓ Logs in Imaging: DLL/MGRD/SDL/DSN/CBL

Planned Rehab Work to Well: CIBP at 7866' [BS perfs]; perf at 5600' and squeeze 7-in to 2268'; use cmt retainer; new perfs as BH plug

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned __ or Existing ✓ Surface	17½ / 13⅜	0 to 400	Stage Tool	375	Circ to surface
Planned __ or Existing ✓ Interm/Prod	12¼ / 9⅝	0 to 2768	None	1425	Circ. to surface
Planned __ or Existing ✓ Interm/Prod	8¾ / 7	0 to 10700	None	1193	TOC 5650 / CBL
Planned __ or Existing ✓ Prod/Liner	6⅛ / 4½	10277 to 12500	None	295	Calc. TOL
Planned __ or Existing __ Liner	—	—	—	—	—
Planned ✓ or Existing ✓ OH / PERF	Old - Atoka / Bone Spring	Proposed: 3380' - 4900'	Inj Length 1520' (970')		

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units (4350)	Tops
Adjacent Unit: Litho. Struc. Por.		Salt / Bottom	2631
Confining Unit: Litho. Struc. Por.	590	Delaware	2790
Proposed Inj Interval TOP:	3380	Bell Canyon	2790
Proposed Inj Interval BOTTOM:	4900 4350	Cherry Canyon	3900
Confining Unit: Litho. Struc. Por.	4900 - 550	Brushy Canyon	4900
Adjacent Unit: Litho. Struc. Por.		Bone Spring	6500

Completion/Operation Details:

Drilled TD 12500 PBTD CIBP at 8220'

NEW TD NA NEW PBTD CIBP at 4550'

NEW Open Hole ○ or NEW Perfs ✓

Tubing Size 3½ in. Inter Coated? Yes

Proposed Packer Depth 50' above top perf

Min. Packer Depth 3280 (100-ft limit)

Proposed Max. Surface Press. 580 psi

Admin. Inj. Press. 676 (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P No Noticed? NA BLM Sec Ord No **WIPP** No Noticed? NA **Salt/Salado** T: 600' B: 2631' **NW:** Cliff House fm —

FRESH WATER: Aquifer Shallow Alluvial / Rustler Max Depth < 300' **HYDRO AFFIRM STATEMENT** By Qualified Person ✓

NMOSE Basin: Carlsbad **CAPITAN REEF:** thru __ adj __ NA ✓ **No. GW Wells in 1-Mile Radius?** 1 FW Analysis? Not available

Disposal Fluid: Formation Source(s) Bone Spring / Wolfcamp Analysis? Yes On Lease ○ Operator Only ✓ or Commercial ○

Disposal Interval: Inject Rate (Avg/Max BWPD): 1000 / 10000 Protectable Waters? No Source: Wtr sample System: Closed or Open ✓

HC Potential: Producing Interval? No (for interval) Formerly Producing? No Method: Logs/DST/P&A/Other 2-Mile Radius Pool Map ✓

AOR Wells: 1/2-M Radius Map? Yes [See Brushy Canyon map] Well List? Yes Total No. Wells Penetrating Interval: 0 Horizontals? 0

Penetrating Wells: No. Active Wells 0 Num Repairs? — on which well(s)? * Applicant incorrectly located Diagrams? [Yes]

Penetrating Wells: No. P&A Wells 0 Num Repairs? — on which well(s)? one well within AOR; well has cmt covering interval Diagrams? —

NOTICE: Newspaper Date 8/6/15 Mineral Owner NMSLO Surface Owner Brantleys N. Date 08/6/15

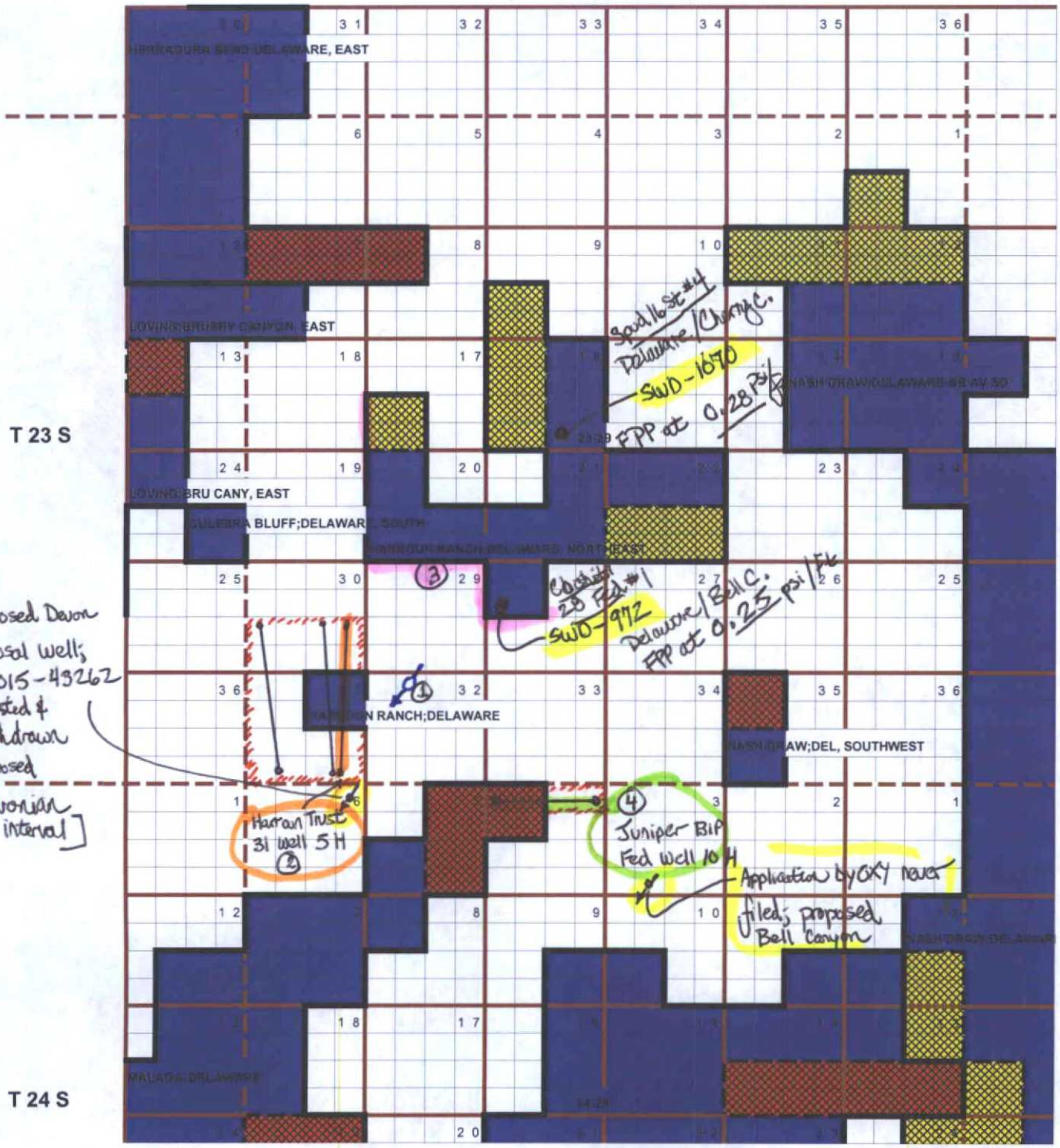
RULE 26.7(A): Identified Tracts? Yes Affected Persons: Cimarex / Yates / McDonald / Valley Land Ranch OCD received Devon to be noticed - 12/30/15 N. Date 8/6/15

Order Conditions: Issues: Cement on prod. casing - to surface; Brushy Canyon production; future conversion

① NMSLO salt interval / casing - injection interval

Add Order Cond: Contract interval; require cmt to surface on 7-in; injection survey; limit conversion by requiring application

Delaware Pools / Production History and SWD(s)
Grande State No. 1



① Grande State No. 1 - proposed SWD/ currently Bone Spring Compl.

② Devon's Harroun Trust 31 Wells (three 1.5-mile horizontal wells) Wells 2H, 4H, and 5H [closest] in lower Brushy Canyon near top of Bone Spring ~TVD 6400 ft

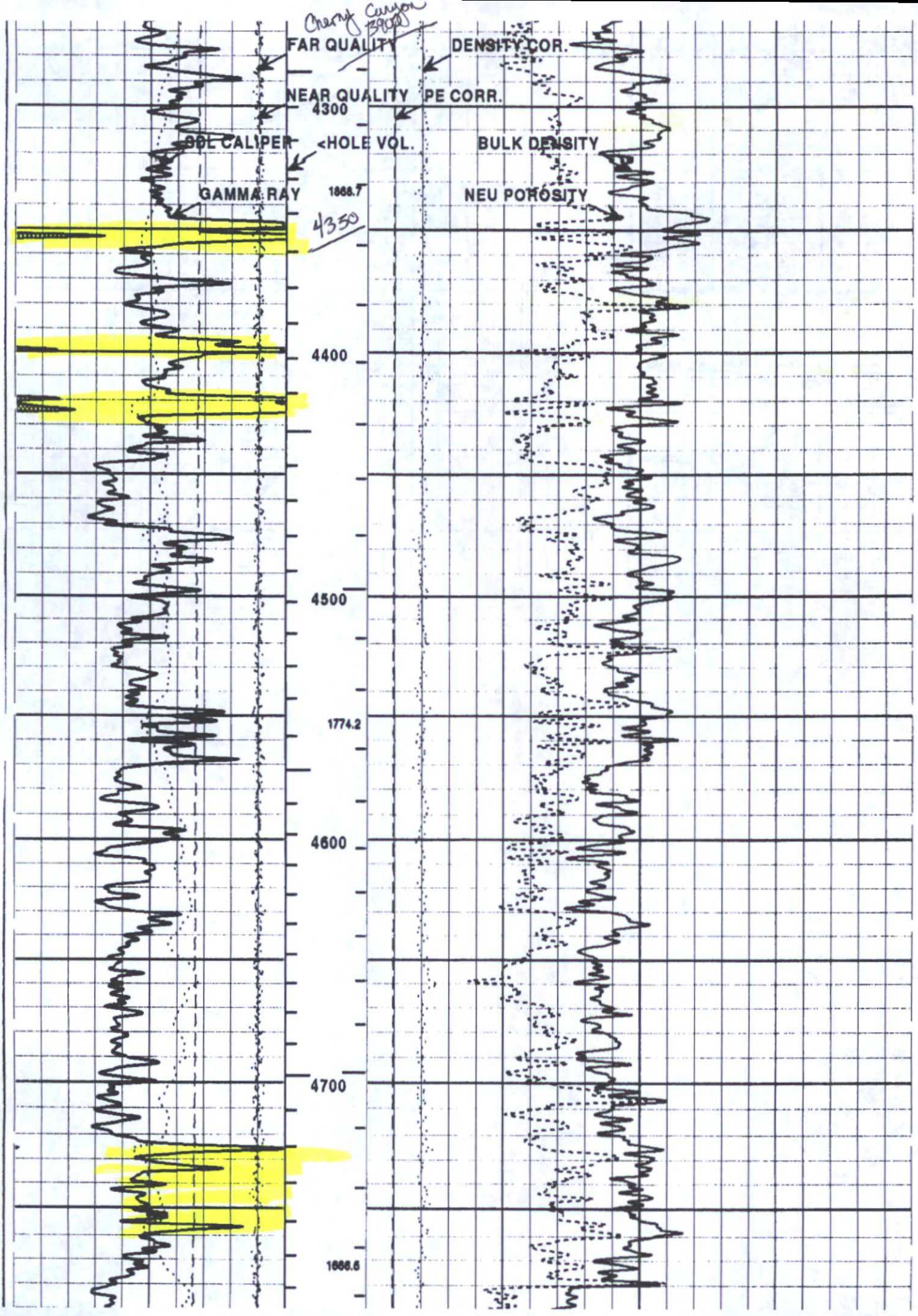
③ Harroun Ranch; Delaware, NE - older pool Vertical wells - two zones Brushy Canyon at ~ 6400' and

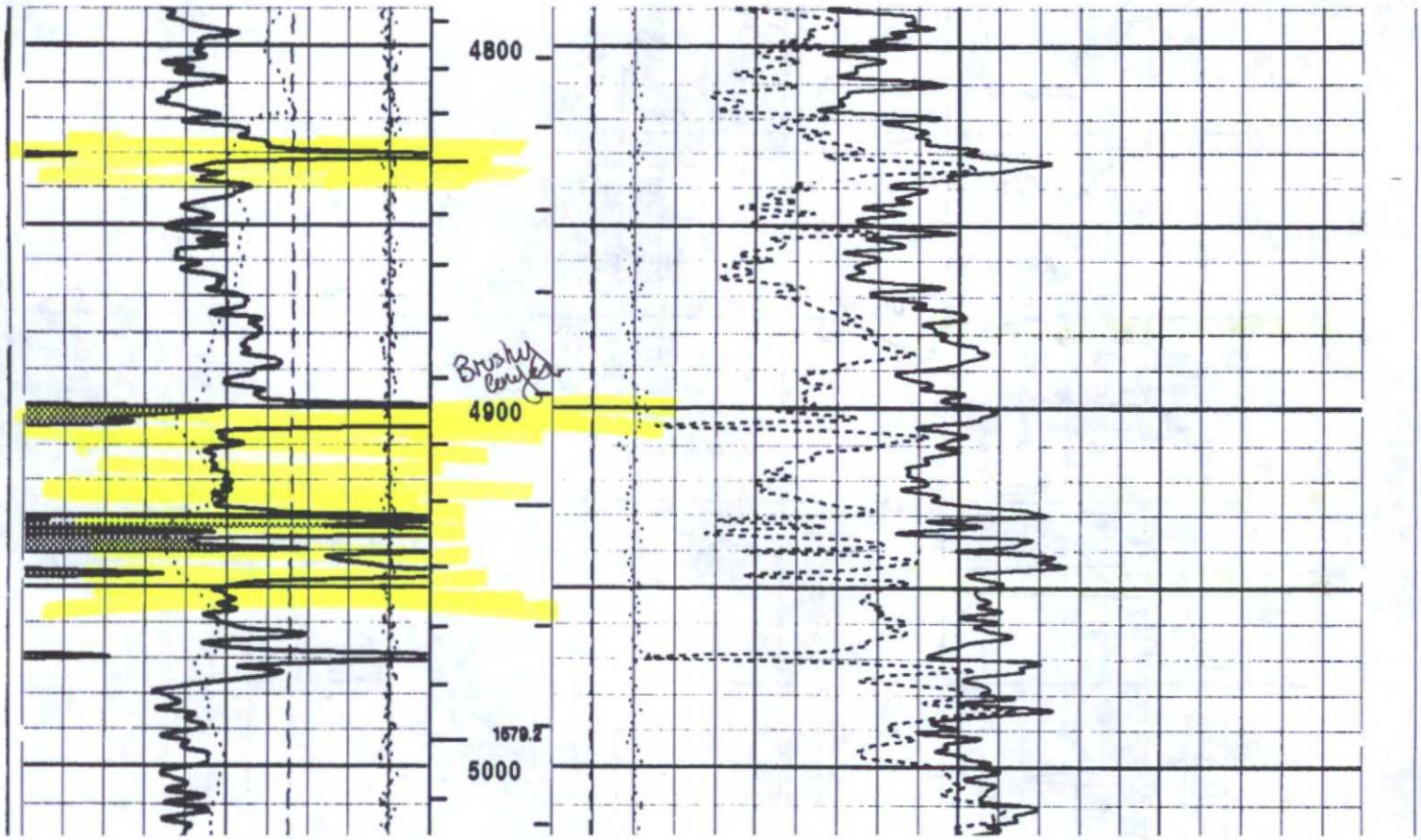
④ Yates' Juniper BIP Fed. well 10H; one-mile horizontal on north side of Malaga; Delaware pool; older pool with verticals commingling with Bone Spring Brushy Canyon at TVD ~6670'

Production Summary Report
API: 30-015-31910
GRANDE STATE #001

		Production					Injection				
Year	Pool	Month	Oil(BBLS)	Gas(MCF)	Water(BBLS)	Days P/I	Water(BBLS)	Co2(MCF)	Gas(MCF)	Other	Pressure
2008	[11520] CEDAR CANYON;BONE SPRING	Mar	287	0	452	3	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Apr	368	0	0	3	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	May	116	0	0	3	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Jun	1257	8480	0	12	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Jul	1264	5825	0	30	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Aug	825	4603	422	31	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Sep	590	3396	212	25	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Oct	745	3907	230	30	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Nov	528	2808	292	30	0	0	0	0	0
2008	[11520] CEDAR CANYON;BONE SPRING	Dec	539	3371	163	31	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Jan	585	3325	243	31	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Feb	473	2746	278	28	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Mar	488	3662	179	31	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Apr	377	2722	160	30	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	May	191	2612	157	31	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Jun	540	2175	128	30	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Jul	120	1481	47	20	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Aug	593	2865	163	25	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Sep	220	1225	2	19	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Oct	473	1780	168	0	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Nov	312	1115	113	28	0	0	0	0	0
2009	[11520] CEDAR CANYON;BONE SPRING	Dec	281	518	110	20	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Jan	57	1423	0	18	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Feb	550	1928	0	28	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Mar	286	2274	0	30	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Apr	108	1118	0	14	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	May	348	1630	58	17	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Jun	336	2086	0	30	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Jul	347	1889	0	31	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Aug	297	2193	0	31	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Sep	294	1838	0	30	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Oct	276	1983	0	31	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Nov	148	1793	92	30	0	0	0	0	0
2010	[11520] CEDAR CANYON;BONE SPRING	Dec	355	1912	0	31	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Jan	210	2101	70	31	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Feb	112	1376	47	27	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Mar	192	3134	0	31	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Apr	155	2570	0	30	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	May	150	1051	0	21	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Jun	12	18	0	2	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Jul	0	8	0	2	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Aug	307	1076	0	10	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Sep	0	35	0	2	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Oct	319	910	0	2	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Nov	493	2200	0	30	0	0	0	0	0
2011	[11520] CEDAR CANYON;BONE SPRING	Dec	251	1100	0	31	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Jan	284	1283	0	17	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Feb	168	573	0	26	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Mar	224	984	0	30	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Apr	39	1607	0	30	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	May	402	1607	0	30	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Jun	174	1601	0	27	0	0	0	0	0

2012	[11520] CEDAR CANYON;BONE SPRING	Jul	235	1258	0	31	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Aug	162	1401	0	28	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Sep	182	1271	0	30	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Oct	261	1450	0	28	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Nov	96	1549	0	30	0	0	0	0	0
2012	[11520] CEDAR CANYON;BONE SPRING	Dec	98	1429	0	31	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Jan	105	861	0	27	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Feb	315	866	0	25	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Mar	177	1645	0	26	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Apr	185	1553	0	30	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	May	197	1697	0	29	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Jun	189	1662	0	25	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Jul	28	1236	0	31	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Aug	0	869	0	16	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Sep	0	0	0	0	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Oct	0	0	0	0	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Nov	0	0	0	0	0	0	0	0	0
2013	[11520] CEDAR CANYON;BONE SPRING	Dec	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Jan	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Feb	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Mar	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Apr	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	May	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Jun	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Jul	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Aug	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Sep	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Oct	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Nov	0	0	0	0	0	0	0	0	0
2014	[11520] CEDAR CANYON;BONE SPRING	Dec	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Jan	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Feb	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Mar	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Apr	647	15	52	3	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	May	545	248	0	14	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Jun	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Jul	0	0	0	2	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Aug	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Sep	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Oct	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Nov	0	0	0	0	0	0	0	0	0
2015	[11520] CEDAR CANYON;BONE SPRING	Dec	0	0	0	0	0	0	0	0	0
2016	[11520] CEDAR CANYON;BONE SPRING	Jan	0	0	0	0	0	0	0	0	0


Cherry Canyon
FAR QUALITY
DENSITY COR.
NEAR QUALITY
PE CORR.
4300
SDL CALIPER
<HOLE VOL.
BULK DENSITY
GAMMA RAY
1868.7
NEU POROSITY
4350
4400
4500
1774.2
4600
4700
1666.6


4800
Brushy Canyon
4900
1579.2
5000

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters) (acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 64 16 4	Sec	Twn	Rng	X	Y	Distance
C 03587	CUB	MON	0	MOSAIC POTASH CARLSBAD INC	ED	C 03587 POD1			Shallow	1 4 3	29	23S	29E	593337	3570754	329
C 03377	C	STK	3	B F & G FARMS	ED	C 03377 POD1				3 3 2	29	23S	29E	593596	3571587	1188
C 02182	C	PRO	0	SANTA FE ENERGY	ED	C 02182			Shallow	4	30	23S	29E	592328	3571048*	1193

Record Count: 3

POD Search:

POD Basin: Carlsbad

UTMNAD83 Radius Search (in meters):

Easting (X): 593345.8 **Northing (Y):** 3570425.35 **Radius:** 1609

Sorted by: Distance

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

File Number: _____
Sub Basin: _____

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, or 72-12-1.3 NEW MEXICO STATUTES

Date rec'd April 14, 2008

2-25202
$50

1. APPLICANT

Name: B F & G. Farms	Name:
Address: P.O. Box 1225	Address:
City: Loving	City:
State: NM Zip:	State: Zip:
Phone: 575-885-4965	Phone:
Contact: Jim Gibson	

2. LOCATION OF WELL (A or B required, C required, if applicable, D required)

State Plane ___ NM West Zone ___ NM Central Zone ___ NM East Zone
UTM ✓ UTM Zone 13N ___ UTM Zone 12N

A. NAD 83 (Select Appropriate Coordinate System and Zone) →
NOTE: State Plane units – feet, UTM units - meters
X = 593,596, Y= 3,571,587.

B. Latitude: 32 d 16 m 37.63 s
Longitude: -104 d 00 m 22.02 s
(Enter Lat/Long to at least 1/10th of a second)

Grant (If Applicable) _____

C. Subdivision _____ Recorded in County of Eddy
Lot No. _____, Block No. _____

D. On land owned by: Applicant

E. Tract No. _____, Map No. _____ of the _____ Hydrographic Survey

F. Is this well within a municipality? _____ if yes, where? _____

H. Give State Engineer File Number if existing well: Unknown

I. SW 1/4 SW 1/4 NE 1/4 Section 29 Township 23 S Range 29 E

J. Other _____

3. USE OF WATER (check use applied for)

___ Domestic use for one household

✓ Livestock watering

___ Domestic well to accompany a house or other dwelling unit constructed for sale.

___ *Domestic use to serve* _____ *households*

___ Drinking and sanitary uses that are incidental to the operations of a governmental, commercial, or non-profit facility

___ *Prospecting, mining or drilling operations to discover or develop natural resources*

___ Construction of public works, highways and roads

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2008 APR 14 P 2:10

Trn Desc: Stock _____ File Number: C-3377
Log Due Date: _ _____ Trn Number: ~~405213~~ 469618
Form: wr-01

File Number: _____
Sub Basin: _____

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, or 72-12-1.3 NEW MEXICO STATUTES

4. WELL INFORMATION

Name of well driller and driller license number:
_____ WD#: _____.

Approximate depth _____ feet; Outside diameter of casing _____ inches.

___ Replacement well

___ Repair or Deepen:
- ___ Clean out well to original depth
- ___ Deepen well from _____ to _____ feet
- ___ Other _____

___ Supplemental well

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:
Existing well not listed in NMOSE records

ACKNOWLEDGEMENT

(I, We) Jim Gibson _____ / _____ affirm that the
(Please Print)
foregoing statements are true to the best of (my, our) knowledge and belief.

Jim Gibson / _____
Applicant Signature Applicant Signature

ACTION OF THE STATE ENGINEER

This application is approved subject to the attached general and specific conditions of approval.

Witness my hand and seal this 16th day of April, 20 08.

John R D'Antonio, Jr., P.E State Engineer

By: _____
Claudia Stapleton, Water Resource Tech

Trn Desc: Stock _____ File Number: C-3377
Log Due Date: ____ _____ Trn Number: ~~405213~~
Form: wr-01

Submit To Appropriate District Office
Two Copies
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 and Natural Resources

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

2

Form C-105
Revised August 1, 2011

1. WELL API NO.
30-015-40827

2. Type of Lease
☑ STATE ☐ FEE ☐ FED/INDIAN

3. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:

☑ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

☐ **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

5. Lease Name or Unit Agreement Name
Harroun Trust 31

6. Well Number:
5H

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FEB 17 2014
NMOCD ARTESIA

7. Type of Completion:
☑ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER

8. Name of Operator
Devon Energy Production Company, L.P.

9. OGRID
6137

10. Address of Operator
333 West Sheridan Avenue, Oklahoma City, OK 73102

11. Pool name or Wildcat
Harroun Ranch; Delaware

12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	P	31	23S	29E		330	South	1299	East	Eddy
BH:	A	30	23S	29E		2314	South	689	East	Eddy

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
7/14/13	8/8/13	8/12/13	12/11/13	2957' GL

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run
13433' MD, 6432.5' TVD	13430' Horizontal in Brushy Canyon < 1 mile from SHL	Yes	Spectral Gamma Ray Dual Spaced Neutron Spectral Density Log

22. Producing Interval(s), of this completion - Top, Bottom, Name
6765'-13382', Delaware

23. **CASING RECORD** (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	48#	400'	17-1/2"	638 sx Cl C; circ 8 bbls	
9-5/8"	40#	2778'	12-1/4"	1380 sx Cl C; circ 10 bbls	
5-1/2"	17#	13433'	8-3/4"	3005 sx H; circ 36 bbls	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8" L-80	6225.3'	

26. Perforation record (interval, size, and number)
6765' - 13382', total 768 holes

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
6765'-13382'	Acidize and frac in 16 stages. See detailed summary attached.

28. **PRODUCTION**

Date First Production	Production Method (*Flowing, gas lift, pumping - Size and type pump*)	Well Status (*Prod. or Shut-in*)
12/11/13	Flowing	Producing

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
1/11/14	24			512	1678	1794	3277

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (*Corr.*)
0 psi	0 psi					

29. Disposition of Gas (*Sold, used for fuel, vented, etc.*)
Sold

30. Test Witnessed By

31. List Attachments
Directional Survey, Logs

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.

33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude Longitude NAD 1927 1983

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Printed Name Megan Moravec Title Regulatory Compliance Analyst Date 2/13/2014

E-mail Address megan.moravec@dvn.com

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
Rustler - 202'			
Top Salt - 544'			
Base Salt - 2533'			
Delaware - 2783'			
Bell Canyon - 2816'			
Cherry Canyon - 3662'			
Brushy Canyon - 4930'			

OIL OR GAS SANDS OR ZONES

No. 1, from N/A to N/A No. 3, from N/A to N/A

No. 2, from N/A to N/A No. 4, from N/A to N/A

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet .....

No. 2, from ..... to ..... feet .....

No. 3, from ..... to ..... feet .....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology		From	To	Thickness In Feet	Lithology

08/10/15 DATE IN	SUSPENSE	PRG ENGINEER	8/10/2015 LOGGED IN	SWD TYPE	pMAM1522259180 APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

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]

- SWD
- Wedel and Guss Mfg Permian LLC 15561 5

[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

wey
- Grande State #1
30-015-31910
POD
- SWD; Bell Canyon

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

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2015 AUG 10 P 4:19

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ 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

Case No. 15442
Dismissed March 31, 2016

[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.

JASON GOSS		ENGINEER	8/6/2015
Print or Type Name	Signature	Title	Date

JGOSS@NAGUSS.COM
e-mail Address

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD
Sent: Monday, November 30, 2015 4:25 PM
To: 'Jason Goss'
Cc: Lowe, Leonard, EMNRD; McMillan, Michael, EMNRD; Jones, William V, EMNRD; Holm, Anchor E. (aholm@slo.state.nm.us)
Subject: RE: Grande State #1 - SWD Permit

RE: Grande State No. 1 (Application No. pMAM1522259180; API 30-015-31910) UL C, Sec 32, T23S, R29E, NMPM

Jason:

Upon preliminary review of this application, there are at least two issues regarding the submittal:

1. Notification within ½ Mile: The application states that the mineral estate in Unit A of Section 31 is fee, but Devon Energy Production Company, LP has production in Unit A through its Harroun Trust 31 No. 5H (30-015-40827). Unit letter A, along with the fee acreage located in Unit P of Section 30, is dedicated acreage for the well (see C-102 dated 2/24/2014) in the Harroun Ranch; Delaware Pool (Pool Code 30212); therefore, Devon is a designated operator for these two tracts that are within ½ mile of the proposed SWD well. Devon will be required to be notified with a copy of the application and a return receipt submitted by N&G.
2. Injection Interval: This raises the question about the injection interval. What will be the lower confining layer/zone to make sure that there is no migration of injection fluid from Cherry Canyon into Brushy Canyon? Has N&G any information on the hydrocarbon potential in the Cherry Canyon including consideration for a horizontal completion? There is productive Delaware (both oil and gas) within a mile of the proposed SWD well, and this may require a hearing due to existing interest.
3. Production on State Lease: N&G claims that the well, as completed in the Bone Spring (since 2008), is not economical. Has the NM State Land Office been notified of the intent to convert this well which is on a State lease? The proposed conversion may result in the loss of the lease (VO-6803) and possible revenues from State Trust lands. OCD will require some expanded discussion on why the well is no longer economical.

At this point, the application is incomplete due to notification. This must be addressed first to make the application complete. Meanwhile, N&G might want to consider a response to the resource potential in Delaware, the supporting economic determination of the well's current status, and the confinement of injection fluids within the proposed interval. If no protest is received from Devon, and there is sufficient evidence to support the propose disposal in the Cherry Canyon, then the application could be considered using the administrative review process. Contact me with any questions on this matter. PRG

Phillip R. Goetze, PG
Engineering and Geological Services Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Direct: 505.476.3466
e-mail: phillip.goetze@state.nm.us

From: Jason Goss [mailto:jgoss@naguss.com]
Sent: Monday, November 30, 2015 1:09 PM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: Grande State #1 - SWD Permit

Hello Mr. Goetze,

Would you happen to have a estimate for when this permit will be under review?

Thanks

Jason Goss
Nadel and Gussman Permian
432-682-4429 office

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD
Sent: Thursday, December 10, 2015 2:39 PM
To: Jason Goss (jgoss@naguss.com)
Cc: Jones, William V, EMNRD; Lowe, Leonard, EMNRD; McMillan, Michael, EMNRD; Michael Feldewert (mfeldewert@hollandhart.com); Jordan L. Kessler (JLKessler@hollandhart.com); Holm, Anchor E. (aholm@slo.state.nm.us)
Subject: Protest of Application to Inject - Grande State No. 1

RE: Grande State No. 1 (Application No. pMAM1522259180; API 30-015-31910) UL C, Sec 32, T23S, R29E, NMPM

Mr. Goss:

OCD was notified through counsel that Devon Energy Production Company is protesting this application for approval of a salt water disposal well. This party is identified as an affected person for the location. Therefore, you are being notified that if Nadel and Gussman Permian, LLC wishes for this application to be considered, it must either go to hearing or may be reviewed administratively if the protest is withdrawn as a result of a negotiated resolution with this party. The application will be retained by OCD, but suspended from further administrative review. Please contact OCD once you have made a decision regarding the application within the next 30 days. If the protest remains after 30 days, OCD will initiate the process for the application to be reviewed at hearing. Please call/e-mail me with any questions regarding this matter. Thank you. PRG

Contact Information:

Michael H. Feldewert
Santa Fe Office
Holland & Hart
Phone: 505-988-4421
Fax: 505-983-6043
E-mail: mfeldewert@hollandhart.com

Phillip R. Goetze, PG
Engineering and Geological Services Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Direct: 505.476.3466
e-mail: phillip.goetze@state.nm.us

Goetze, Phillip, EMNRD

From: Michael Feldewert <MFeldewert@hollandhart.com>
Sent: *Thursday, December 10, 2015 10:55 AM*
To: Goetze, Phillip, EMNRD; Jones, William V, EMNRD
Cc: Davidson, Florene, EMNRD; Jordan L. Kessler; Walker, Samuel
Subject: Nadel and Gussman Permian LLC proposed Grande State #1 SWD: Protest by Devon Energy
Attachments: Pages from PDF File.3.pdf

Gentlemen: Please take note that Devon Energy Production Company objects to the attached application filed by Nadel and Gussman seeking to inject into the Delaware Formation (I have only attached the first five pages). Thank you for your attention to this matter and please copy my office with any further communications on this application.

Michael H. Feldewert
Santa Fe Office
505-988-4421
505-983-6043 (fax)
mfeldewert@hollandhart.com

HOLLAND&HART

Goetze, Phillip, EMNRD

From: Goetze, Phillip, EMNRD
Sent: Thursday, March 17, 2016 10:42 AM
To: Gary Larson (glarson@hinklelawfirm.com); Scott Hall (shall@montand.com)
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD; Davidson, Florene, EMNRD; Holm, Anchor E. (aholm@slo.state.nm.us); Brooks, David K, EMNRD; Lowe, Leonard, EMNRD
Subject: FW: BC Operating - Grande State #1 SWD Proposed Plugback

RE: Case No. 15442; Submitted Statement of the State Land Office

Gentlemen:

The State Land Office has provided the following written comments assessing the latest C-108 application for this proposed disposal well. The SLO is not a protestant in this case, but is an "affected person" based on the original application filed for administrative review. OCD does consider these comments relevant and has made this document part of the case record. This notification is to provide your clients the opportunity to review SLO input for consideration in the upcoming case. Please contact me with any questions regarding this matter. PRG

Phillip R. Goetze, PG
Engineering and Geological Services Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Direct: 505.476.3466
e-mail: phillip.goetze@state.nm.us

From: Holm, Anchor [mailto:aholm@slo.state.nm.us]
Sent: Thursday, March 17, 2016 9:55 AM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Cc: Martin, Ed <emartin@slo.state.nm.us>; Warnell, Terry G. <twarnell@slo.state.nm.us>
Subject: BC Operating - Grande State #1 SWD Proposed Plugback

Phil,

Yesterday, I received the revised copy of the C-108 SWD Application for the Grande State #1 (30-015-31910) by BC Operating. Their Proposed SWD interval is from 2,780' to 4,900'. In this wellbore the bottom of salt was recorded at a depth of 2600', which must be protected from solution by disposed produced waters. Typically, a minimum buffer of at least 300 feet is desired by the State Land Office in order to protect the surface Trust Lands from potential subsidence caused by salt water disposal.

Therefore, the State Land Office recommends that the top of injection be lowered to a depth of **at least 2,900'.** Also, in the well located on the same lease about ½ mile east of the proposed SWD, the bottom of salt was reported at 2,775'. This suggests that a **top of injection of 3,075'** may be more prudent.

An additional concern is the construction of the Grande State #1 wellbore. It did not have the annulus outside the 7" casing cemented above 5,650'. The 9-7/8" surface casing was set at 2,768', only a short distance below the bottom of Salt reported in the subject wellbore. However, the offset well having a top of salt reported at 2,775', which is deeper than the surface casing setting depth in the Grande State #1 wellbore.

Therefore, the State Land Office recommends that the proposed cement squeeze of this annulus be modified from a target top of cement at a depth of 2,266' to a requirement to **circulate cement to surface.** The reasoning is that the cement job at the shoe of the surface casings in this area frequently do not fully protect the salt from being dissolved by SWD operations. By placing additional hydraulic head on the surface casing shoe during the squeeze cement job, the strength of the seal at the shoe will be significantly improved.

Respectfully,

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