MODRALL SPERLING

LAWYERS

August 24, 2018

Jennifer L. Bradfute
505.848.1845
Fax: 505.848.1882
jlb@modrall.com

Florene Davidson
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC TO APPROVE SALT WATER DISPOSAL WELLS IN LEA AND EDDY COUNTY, NEW MEXICO.

Dear Ms. Davidson: Case 16440

Enclosed please find three copies of the following:

1. NGL Water Solutions Permian, LLC's Application – McCloy West No. _____ .

Thank you for your assistance. Please contact me if you have any questions.

Sincerely,

Zina Crum
Legal Assistant to
Jennifer L. Bradfute

JLB/zc
Enclosure

Modrall Sperling
Roehl Harris & Sisk
P.A.

Bank of America
Centre
500 Fourth Street
NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico
87103-2168

Tel: 505.848.1800

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION

APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC TO APPROVE SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO.

CASE NO. 16440

APPLICATION

NGL Water Solutions Permian, LLC ("NGL"), OGRID No. 372338, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, NGL states as follows:

(1) NGL proposes to drill the McCloy West SWD #1 well at a surface location 1,019 feet from the South line and 2,388 feet from the East line of Section 14, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.

(2) NGL seeks authority to inject salt water into the Devonian and Silurian formations at a depth of 17,350' – 18,451'.

(3) NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.

(4) NGL anticipates using an average pressure of 2,620 psi for this well, and it requests that a maximum pressure of 3,470 psi be approved for the well.

(5) A proposed C-108 for the subject well is attached hereto in Attachments A.

(6) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, NGL requests that this application be set for hearing before an Examiner of the Oil Conservation Division on October 4, 2018; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.

By: _____

Jennifer Bradfute
Deana Bennett
Post Office Box 2168
Bank of America Centre
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
Attorneys for Applicant

CASE NO. 16440 : Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Devonian and Silurian formations through the McCloy West SWD #1 well. NGL proposes to drill this well at a surface location 1,019 feet from the South line and 2,388 feet from the East line of Section 14, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico. The target injection interval is the Devonian and Silurian formations at a depth of 17,350' – 18,451'. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 28 miles west of Jal, New Mexico.

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 ___X___Disposal _____Storage
Application qualifies for administrative approval? ___X___Yes _____No

II. OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

ADDRESS: 1509 W WALL ST // STE 306 // MIDLAND, TX 79701

CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x1989

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 ___X___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: Christopher B. Weyand TITLE: Consulting Engineer

SIGNATURE: _____ DATE: 8/21/2018

E-MAIL ADDRESS: chris@lonquist.com

* If the information required under Sections VI, VIII, X, and [illegible] submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submi[illegible]

DISTRIBUTION: Original and one copy to Santa Fe with one cop[illegible] fice

EXHIBIT
tabbies
A

Side 2

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

Side 1

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: MCCLOY WEST SWD #1

WELL LOCATION: 1,019 FSL & 2,388' FEL | O | 14 | 24S | 32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24.000" Casing Size: 20.000"

Cemented with: 1,554 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500" Casing Size: 13.375"

Cemented with: 2,441 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250" Casing Size: 9.625"

Cemented with: 2,910 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulation

Production Liner

Hole Size: 8.500"

Casing Size: 7.625"

Cemented with: 382 sx.

or _____ ft^3

Top of Cement: 11,700'

Method Determined: Calculation

Total Depth: 18,451'

Injection Interval

17,350 feet to 18,451 feet

(Open Hole)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0'- 11,600' and 5.500", 17 lb/ft, P-110 TCPC from 11,600'- 17,300'
Lining Material: Duoline

Type of Packer: 7.625" x 5.5" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

Packer Setting Depth: 17,300'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

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

   If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Devonian, Silurian, Fusselman and Montoya (Top 100')

3. Name of Field or Pool (if applicable): SWD; Silurian-Devonian

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. No, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   Delaware: 4,921'
   Bone Spring: 8,941'
   Wolfcamp: 12,111'

McCloy Ranch Drilling Prognosis	Structural tops from regional	Priority #3 - McCloy West SWD 1, KMZ #10		
Well		McCloy West SWD 1		
UIC/TXWDB no.		Permit no	DONE	
County/Area		Lea Co NM	TD MNTY	28 mi W of Jal NM
Loc		32.269761407/-103.743502539		
API/ logs	McCloy Centra	30-025-xxxxx	18451	
Depths		Depth	Elev	Thickness
KB Elev		prelim elev	3646	
Surface Elev			3618	28
Quaternary				
Top Fresh water				
Cenozoic Alluvium		28	3618	154
Cretaceous				
Triassic		182	3464	400
Permian Dewey Lake		582	3064	530
Rustler				
Rustler Anhydrite		1112	2534	330
Salado Siliciclastics				
Salado Anh (base Silic)		1442	2204	1900
Top Salt (Tx) NM		1442	2204	
Castile		3342	304	1487
Base Salt (Bx) NM		4829	-1183	92
Prog Datum		4921	-1275	
Delaware Mtn Group (shale mkr)	-1275	4921	-1275	2
Lamar Limestone		4923	-1277	38
Bell Canyon (Ramsey sand)	-1300	4961	-1315	1030
Cherry Canyon		5991	-2345	1730
Brushy Canyon		7721	-4075	1220
Bone Spring (Leonard)	-5200	8941	-5295	3170
Bone Spring Lime 1		xxxx	#VALUE!	
Bone Spring Sd 1		xxxx	#VALUE!	
Bone Spring Lime 2		xxxx	#VALUE!	
Bone Spring Sd 2		xxxx	#VALUE!	
Bone Spring Lime 3		xxxx	#VALUE!	
Bone Spring Sd 3		xxxx	#VALUE!	
Wolfcamp	-8550	12111	-8465	1458
Penn	-9950	13569	-9923	354
Strawn (NM)		13923	-10277	233
Atoka (NM)	-10245	14156	-10510	777
Datum (NM)				
Morrow	-10620	14933	-11287	88
Morrow Lime (NM)		15021	-11375	200
Morrow Clastic (NM)		15221	-11575	730
Mid Morrow				
Lwr Morrow				
Mississippian		15951	-12305	574
Barnett		16525	-12879	256
Miss Lst	-12900	16781	-13135	372
Woodford		17153	-13507	189
Devonian (Sil-Dev)	-13190	17342	-13696	374
Silurian		17716	-14070	180
Fusselman	-13900	17896	-14250	455
Montoya	-14445	18351	-14705	364
Simpson	-14380	3646		500
Ellenburger	-15300	3646		650
Cambrian/Granite Wash				150
Precambrian				
TD		18451	Projected TD	
Fm at TD		203MNTY		

NGL Energy Partners LP

NGL McCloy West SWD #1

Vertical Injection - Devonian, Silurian, Fusselman

Location - Eddy County NM | **TD** 17650' GL/KB | **Directions to Site -**

Geologic Tops (MD ft)	Section	Problems	Bit/BHA	Mud	Casing	Logging	Cement (HOLD)	Injection String
Triassic - 182' Permian Dewey Lake - 582' Rustler Anhydrite - 1112' **Surface TD - 1250'**	**Surface** Drill 24" 0' - 1250 Set and Cement 20" Casing	Loss Circulation Hole Cleaning Wellbore stability in the Red Beds Anhydrite in the Rustler	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	Spud Mud MW< 9.0	1250' of 20" 106.5# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Thixotropic Cement 13.2 ppg Class C 3hr TT 25% Excess 1000psi CSD after 10hrs	11600' of 7" P110 26# TCPC 5700' of 5-1/2" P110 17# TCPC Duoline Internally Coated Injection Tubing
Top Salt - 1442' Castile - 3342' Base Salt - 4829' Delaware Mtn Group - 4921' **ECP DV Tool - 4900'** **1st Int TD - 4920'**	**1st Intermediate** Drill 3670' of 17-1/2" Hole 1250' - 4920' Set and Cement 13-3/8" Casing	Seepage Losses Possible H2S Anhydrite Salt Sections	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface		5M A Section Casing Bowl 4920' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	13.2 ppg Class C 4hr TT 10% Excess 1000psi CSD after 10 hrs Cement to Surface	
Lamar Limestone - 4923' Bell Canyon - 4961' Cherry Canyon - 5991' Brushy Canyon - 7721' **DV Tool - 8940'** Bone Spring - 8941' **3rd Int Liner Top - 11700'** Wolfcamp - 12111' **2nd Int TD - 12200'**	**2nd Intermediate** Drill 7280' of 12-1/4" Hole 4920' - 12200' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	Hard Drilling in the Brushy Canyon Seepage to Complete Loss Water Flows Some Anhydrite H2S possible Production in the Bone Spring and Wolfcamp Ballooning is possible in Cherry Canyon and Brushy if Broken Down	12-1/4" PDC 8" MM 9jts: 8" DC 8" Drilling Jars 21 jts: 5" HWDP 5" DP to Surface	8.5 ppg OBM High Vis Sweeps UBD/MPD usig ADA	10M B Section 12200' of 9-5/8" 53.5# P110 BTC **Special Drift to 8.535"** Externally Coat 4000' Between DV Tools DV tool at at 8940' ECP DV Tool 15' Inside Previous Casing Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	MWD GR Triple combo + CBL of 13-3/8" Casing	**Stage 3:** 13.2 ppg Class C 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 2:** 13.2 ppg Class H 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 1:** 13.2 ppg Class H 6hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface	
Penn - 13569' Strawn - 13923' Atoka - 14156' Morrow - 14933' Miss Lst - 16781' Woodford - 17153' **Perm Packer - 17300'** **3rd Int TD - 17350'**	**3rd Intermediate** Drill 5150' of 8-1/2" Hole 12200' - 17350' Set 7-5/8" Liner and Cement in Single Stage	High Pressure (up to 15ppg) and wellbore instability (fracturing) expected in the Wolfcamp Production in the Wolfcamp Atoka and Morrow Hard Drilling in the Morrow Clastic	8-1/2" PDC 6-3/4" MM 9 jts: 6" DC 21 jts: 5" HWDP 5" DP to Surface	12.5 ppg OBM UBD/MPD using ADA	5650' of 7-5/8" 39# Q125 - DTL (FJ4) FJ (Gas Tight) VersaFlex Packer Hanger Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9-5/8" Casing	15.6 ppg Class H 8hr TT 10% Excess 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Inconel 925 trim
Devonian - 17342' Silurian - 17716' Fusselman - 17896' Montoya - 18351' TD - 18451'	**Injection Interval** Drill 1100' of 6-1/2" hole 17350' - 18451'	Chert is possible Loss of Circulation is expected H2S encountered on the Striker 3 well BHT estimated at 280F	6-1/2" PDC 4-3/4"MM 9 jts: 4-3/4" DC 4-3/4" Drilling Jars 18 jts: 4" FH HWDP 4" FH DP to Surface	Fresh Water - possible flows	Openhole completion	MWD GR Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCl (or heavier brine if necessary)	

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-10
Revised August 1
201
Submit one copy to appropriat
District Offic

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name

[4] Property Code	[5] Property Name	[6] Well Number
	MCCLOY WEST SWD	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
	NGL WATER SOLUTIONS	3578.00'±

[10] Surface Location

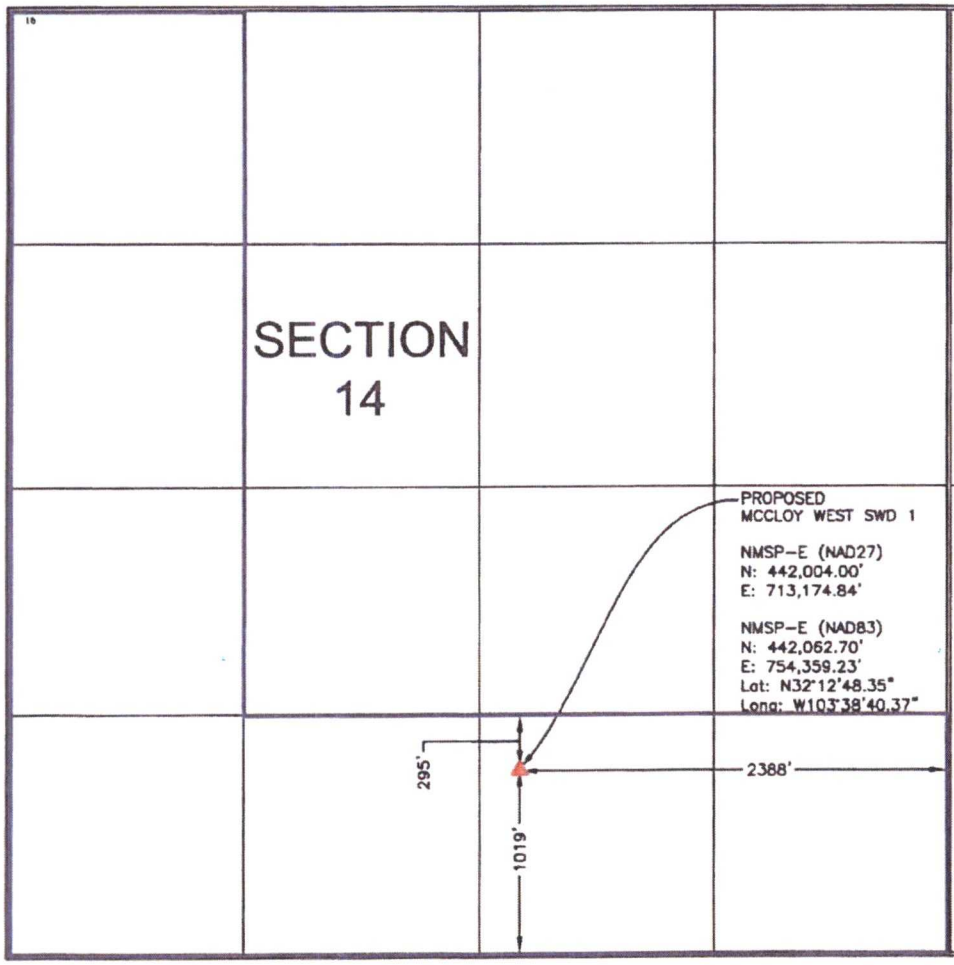
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	14	24 S	32 E	N/A	1019'	SOUTH	2388'	EAST	EDDY

[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	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

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 the best of my knowledge and belief, and that this organization either owns 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 locatio 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 Date

Printed Name

E-trail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat wa 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.

8/17/18
Date of Survey

Signature and Seal of Professional Surveyor

COREY A. CLARK
NEW MEXICO
23001
PROFESSIONAL SURVEYOR

23001
Certificate Number