Initial Application Part I

Received: **07/18/2019**

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
07/18/2019	MAM	SWD	pMAM1919951708

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & 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

Applicant: CHEVRON USA INC. **OGRID Number:** 4323
Well Name: MADELINE SWD #1 **API:** - NEW -
Pool: SWD;SILURIAN **Pool Code:** 98249

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

SWD-2197

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ☒ Offset operators or lease holders
B. ☐ Royalty, overriding royalty owners, revenue owners
C. ☒ Application requires published notice
D. ☐ Notification and/or concurrent approval by SLO
E. ☒ Notification and/or concurrent approval by BLM
F. ☒ Surface owner
G. ☒ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

3) **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.

KAYLA MCCONNELL
Print or Type Name

Kayla McConnell
Signature

7/2/2019
Date

432-687-7375
Phone Number

GNCV@CHEVRON.COM
e-mail Address

Mid-Continent Business Unit
Chevron North America Exploration
and Production Company
6301 Deauville Blvd.
Midland, TX 79706

Kayla McConnell
Well Permitting & Compliance
Tel: 432-687-7375
gncv@chevron.com

July 2, 2019

New Mexico Oil Conservation Division
1220 South Francis Drive
Santa Fe, New Mexico 87504

Re: Application for Authorization to Inject
MADELINE SWD #1
1026' FNL 1131' FWL
Sec. 12 T26S R32E
Lea County, NM

Chevron U.S.A. Inc. hereby seeks administration approval for Authorization to Inject into the Madeline SWD #1 (API# pending), which is located 1026' FNL & 1131' FWL, Section 12, T26S, R32E, Lea County, New Mexico.

The proposed open hole injection interval will be in the Silurian - fusselman formations, from 17540' to 18770', with a maximum anticipated injection rate to 80,000 BWPD and a maximum injection pressure of 2700 psig.

Attached is an OCD form C-108 along with supporting documentation for the referenced well. A copy of the application has been sent to applicable surface land owner and offset operators. Legal Notice was published in the Hobbs Daily News-Sun, the Affidavit of Publication is attached.

Your consideration and approval of this application will be greatly appreciated. If additional information is required, please contact me at 432-687-7375, or by email at gncv@chevron.com

Respectfully,

Kayla McConnell

Kayla McConnell
Chevron U.S.A. Inc.
Permitting Specialist

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

MADELINE SWD #1
SEC. 12 T26S R32E
LEA COUNTY, NM

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance XXXX Disposal _____Storage
Application qualifies for administrative approval? _____Yes _____No

II. OPERATOR: CHEVRON USA INC.

ADDRESS: 6301 DEAUVILLE BLVD, MIDLAND, TEXAS 79706

CONTACT PARTY: KAYLA MCCONNELL PHONE: 432.687.7375

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 XXXX 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. ATTACHED

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. ATTACHED

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected; MAX: 80,000 BWPD AVG: 50,000 BWPD
2. Whether the system is open or closed; CLOSED
3. Proposed average and maximum injection pressure; ANTICPATED AVG PRESSURE: 1000 PSI, ANTICIPATED MAX PRESSURE: 2700 PSI
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, ATTACHED
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. ATTACHED

IX. Describe the proposed stimulation program, if any. WILL BE COMPLETED USING HCI ACID. VOLUME WILL BE SPOTTED VIA WORKSTRING.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). NEW DRILL - NO LOGS AVALIABLE

*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. NO KNOWN FR WTR WELLS EXIST

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. ATTACHED

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

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: KAYLA MCCONNELL TITLE: PERMITTING SPECIALIST

SIGNATURE: Kayla McConnell DATE: 6-2-19

E-MAIL ADDRESS: GNCV@CHEVRON.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.

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON USA INC.

WELL NAME & NUMBER: MADELINE SWD #1

WELL LOCATION:	1026' FNL 1131' FWL	D	12	26S	32E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

SEE ATTACHED SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24" Casing Size: 20"

Cemented with: 1271 sx. *or* ft^3

Top of Cement: Surface Method Determined:

Intermediate Casing

Hole Size: 18 – 1/8" Casing Size: 16"

Cemented with: 2213 sx. *or* ft^3

Top of Cement: Surface Method Determined:

Intermediate 2 Casing

Hole Size: 14 – 3/8" Casing Size: 13 – 3/8"

Cemented with: 896 sx. *or* ft^3

Top of Cement: 4,425' Method Determined:

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON USA INC.

WELL NAME & NUMBER: MADELINE SWD #1

WELL LOCATION:	1026' FNL 1131' FWL	D	12	26S	32E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

SEE ATTACHED SCHEMATIC

WELL CONSTRUCTION DATA

Production Liner 1

Hole Size: 12 – 1/4" Casing Size: 9 – 5/8"

Cemented with: 1654 sx. *or* _____ ft^3

Top of Cement: 11,855' Method Determined: _____

Production Tieback

Hole Size: N/A Casing Size: 9 – 5/8"

Cemented with: 3236 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: _____

Production Liner 2

Hole Size: 8 – 1/2" Casing Size: 7"

Cemented with: 100 sx. *or* _____ ft^3

Top of Cement: 16,750' Method Determined: _____

INJECTION WELL DATA SHEET

OPERATOR: CHEVRON USA INC.

WELL NAME & NUMBER: MADELINE SWD #1

WELL LOCATION:	1026' FNL 1131' FWL	D	12	26S	32E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

SEE ATTACHED SCHEMATIC

WELL CONSTRUCTION DATA

Production Open Hole

Hole Size: 6 – 1/8" Casing Size: N/A

Cemented with: N/A sx. *or* _____ ft^3

Top of Cement: _____ Method Determined: _____

Total Depth: 18,770'

Injection Interval

17,540' feet to 18,770' Open Hole

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size:_____ Lining Material: _____

Type of Packer: Baker Premium Packer Semi-permanent

Packer Setting Depth: 17,500'

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

Additional Data

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

   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: SILURIAN/FUSSELMAN

3. Name of Field or Pool (if applicable): SWD;SILURIAN

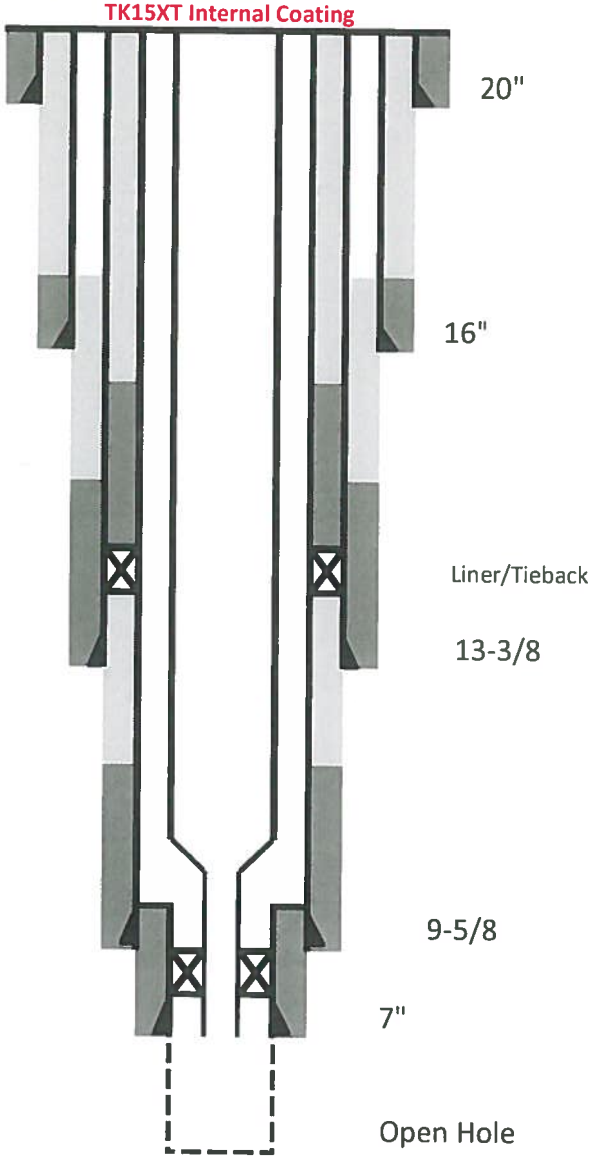
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: BELL CANYON 4730', CHERRY CANYON 5740'

   BRUSHY CANYON 7320', BONE SPRING LIME 8930', BONE SPRING 9835',

   WOLFCAMP 11955', STRAWN 14595', ATOKA 14855', MORROW 15215'

7" x 4-1/2 Tapered Tubing String
TK15XT Internal Coating



Hole Size	Casing	Mud Program
24" +/-800'	20" 94# K55 BTC	Spud Mud 8.3-10.4 ppg
18-1/8" +/-4,725'	16" 97# L80 BTC	Brine Water 10-10.4 ppg
14-3/4" +/- 12,155'	13-3/8" 72# TN-110SS 523 Alt Drift 12.25"	OBM 8.7-10.0 ppg
12-1/4" +/- 17,050'	9-5/8" 53.5# TN-95IC Blue Tieback Alt Drift 8.5" 9-5/8" 53.5# TN-110HS Blue Liner Alt Drift 8.5"	OBM 12.2-15.6 ppg
8-1/2" +/- 17,550'	7" 26# L80 Blue Liner	WBM 8.9-9.6 ppg
6-1/8" +/- 18,770'	N/A	Cut Brine 8.4-9.4 ppg

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-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	98249	SWD;SILURIAN

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

[7] OGRID No.	[8] Operator Name	[9] Elevation
4323	CHEVRON U.S.A. INC.	3287'

[10] Surface Location

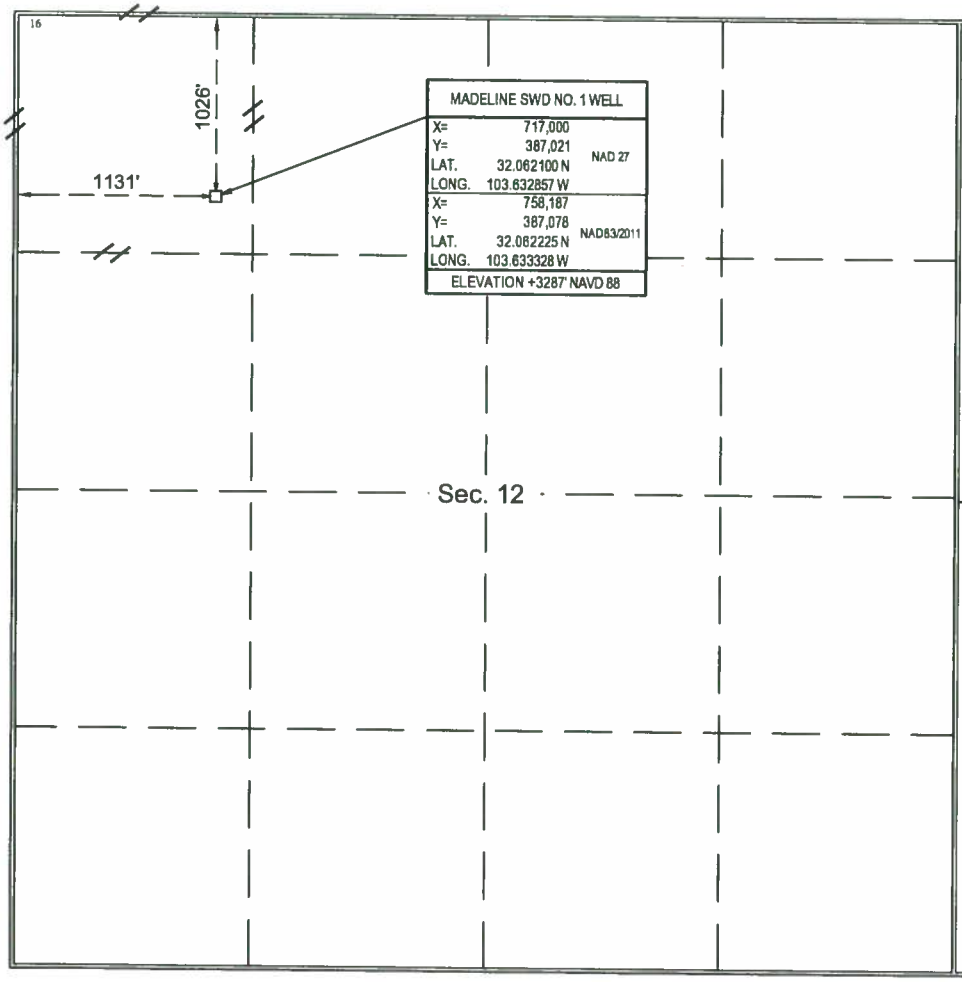
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	12	26 SOUTH	32 EAST, N.M.P.M.		1026'	NORTH	1131'	WEST	LEA

[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
D	12	26 SOUTH	32 EAST, N.M.P.M.		1026'	NORTH	1131'	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40			

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.

Kayla McConnell 3/27/2019
Signature Date

KAYLA MCCONNELL
Printed Name

GNCV@CHEVRON.COM
E-mail Address

[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.

02/26/2019
Date of Survey

Signature and Seal of Professional Surveyor:

STEVEN M. COLEMAN NEW MEXICO 22921 PROFESSIONAL SURVEYOR

Steven M. Coleman

22921
Certificate Number

V. AOR

CHEVRON U.S.A. Inc.
MADELINE SWD NO. 1
SECTION 12, T26S-R32E
SECTIONS 7 & 18, T26S-R33E
SHL 1026' FNL & 1131' FWL

Existing Well Data & Map

API	Well Name	Well Number	Operator	Final Status	TD	SHL to SHL Distance
Wells Within 1 Mile						
30025429630000	MESA 8105 JV-P	26H	BTA OIL PRODUCERS LLC	ABANDON LOCATION		710
30025429620000	MESA 8105 JV-P	023H	BTA OIL PRODUCERS LLC	WELL PERMIT		740
30025430790000	MESA 8105 JV-P	009H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14600	780
30025429600000	MESA 8105 JV-P	010H	BTA OIL PRODUCERS LLC	WELL PERMIT		1015
30025429610000	MESA 8105 JV-P	015H	BTA OIL PRODUCERS LLC	WELL PERMIT		1040
30025428460000	MESA 8105 JV-P	008H	BTA OIL PRODUCERS LLC	WELL PERMIT		1335
30025428570000	MESA 8105 JV-P	022H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14554	1505
30025428470000	MESA 8105 JV-P	011H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14944	2065
30025429510000	MESA 8105 JV-P	024H	BTA OIL PRODUCERS LLC	WELL PERMIT		2345
30025429640000	MESA 8105 JV-P	027H	BTA OIL PRODUCERS LLC	WELL PERMIT		2380
30025428450000	MESA 8105 JV-P	007H	BTA OIL PRODUCERS LLC	WELL PERMIT		2540
30025428480000	MESA 8105 JV-P	012H	BTA OIL PRODUCERS LLC	ABANDON LOCATION		2800
30025428490000	MESA 8105 JV-P	013H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14926	3555
30025082550000	CLIFFORD	1	HOMESTEAD OIL & GAS	D&A-O	4868	3785
30025428500000	MESA 8105 JV-P	014H	BTA OIL PRODUCERS LLC	WELL PERMIT		4385
30025429520000	MESA 8105 JV-P	025H	BTA OIL PRODUCERS LLC	WELL PERMIT		4420
30025429650000	MESA 8105 JV-P	028H	BTA OIL PRODUCERS LLC	WELL PERMIT		4460
Wells Within 3 Miles						
30025437230000	MESA 8105 JV-P	029H	BTA OIL PRODUCERS LLC	WELL PERMIT		6095
30025437260000	MESA 8105 JV-P	032H	BTA OIL PRODUCERS LLC	WELL PERMIT		6260
30025306620000	MESA 'B' 8105 JV-P	1	BTA OIL PRODUCERS	GAS PRODUCER	13900	6295
30025421280000	MESA B 8115 JV-P COM	005H	BTA OIL PRODUCERS LLC	OIL PRODUCER	13777	6300
30025448860000	MESA B 8115 7	006H	BTA OIL PRODUCERS LLC	WELL PERMIT		6455
30025448870000	MESA B 8115 7	007H	BTA OIL PRODUCERS LLC	WELL PERMIT		6480
30025437250000	MESA 8105 JV-P	031H	BTA OIL PRODUCERS LLC	OIL PRODUCER	20008	6630
30025441130000	SD EA 18 19 P13 FED COM	008H	CHEVRON U S A INCORPORATED	WELL PERMIT		7345
30025441300000	SD EA 18 19 P13 FEDERAL	010H	CHEVRON U S A INCORPORATED	WELL PERMIT		7390
30025441310000	SD EA 18 19 P13 FEDERAL	011H	CHEVRON U S A INCORPORATED	WELL PERMIT		7405
30025437240000	MESA 8105 JV-P	030H	BTA OIL PRODUCERS LLC	OIL PRODUCER	20030	7430
30025421270000	8115 JV-P MESA B COM	4H	BTA OIL PRODUCERS LLC	PILOT HOLE	12704	7540
30025421270100	8115 JV-P MESA B COM	4H	BTA OIL PRODUCERS LLC	OIL-WO	13760	7540
30025421260000	MESA B 8115 JV-P COM	003H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14089	7725
30025412080000	PINTAIL 3 FEDERAL SWD	1	COG OPERATING LIMITED LIABILITY CORP	SWDOP	6613	8275
30025441320000	SD EA 18 19 P14 FEDERAL	012H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH	23000	8575
30025441330000	SD EA 18 19 FEDERAL P14	013H	CHEVRON U S A INCORPORATED	WELL PERMIT		8595
30025441390000	SD EA 18 19 P14 FED	014H	CHEVRON U S A INCORPORATED	WELL PERMIT		8620
30025441340000	SD EA 18 19 FEDERAL P14	015H	CHEVRON U S A INCORPORATED	WELL PERMIT		8640
30025448880000	MESA B 8115 7	008H	BTA OIL PRODUCERS LLC	WELL PERMIT		8845
30025448890000	MESA B 8115 7	009H	BTA OIL PRODUCERS LLC	WELL PERMIT		8875
30025423540000	SALADO DRAW SWD 13	1	CHEVRON U S A INCORPORATED	SWDOP	18675	9355
30025423540100	SALADO DRAW SWD	13 1	MESQUITE SWD INCORPORATED	WELL PERMIT		9355
30025423540000	SALADO DRAW SWD 13	1	CHEVRON U S A INCORPORATED	SWDOP	18675	9355
30025430890000	SD WE 23 FEDERAL P7	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14002	9500
30025430870000	SD WE 14 FEDERAL P7	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13816	9505
30025430860000	SD WE 14 FEDERAL P7	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13803	9510
30025430880000	SD WE 23 FEDERAL P7	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14043	9510
30025424620000	MESA B SWD 8115 JV-P	2	BTA OIL PRODUCERS LLC	SWDOP	7019	9525
30025440880000	SD EA 18 19 P15 FED COM	016H	CHEVRON U S A INCORPORATED	WELL START		9990
30025204480000	LITTLEFIELD-FRAL DR	2	GULF OIL CORPORATION	DRY & ABANDONED	4645	10260
30025426590000	SALADO DRAW 18 26 33 F	1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14042	11045
30025426610000	SALADO DRAW 19 26 33 F	1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13830	11055
30025426600000	SALADO DRAW 18 26 33 F	2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14135	11065
30025426627000	SALADO DRAW 19 26 33 F	2H	CHEVRON U S A INCORPORATED	DRY & ABANDONED	9124	11080
30025426620000	SALADO DRAW 19 26 33 F	2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13647	11080
30025204430000	LITTLEFIELD-FRAL DQ	2	GULF OIL CORPORATION	DRY & ABANDONED	4805	11380
30025422780000	SALADO DRAW 18 26 33 F	3H	CHEVRON U S A INCORPORATED	PILOT HOLE	9500	11610
30025422780100	SALADO DRAW 18 26 33 F	3H	CHEVRON U S A INCORPORATED	OIL-WO	13890	11610
30025422800000	SALADO DRAW 19 26 33 F	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14055	11625
30025422790000	SALADO DRAW 18 26 33 F	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13900	11640
30025422810000	SALADO DRAW 19 26 33 F	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13976	11655
30025427990000	SD EA 19 FEDERAL P6	7H	CHEVRON U S A INCORPORATED	DRY & ABANDONED	9348	12575
30025427990100	SD EA 19 FEDERAL P6	7H	CHEVRON U S A INCORPORATED	OIL-WO	13846	12575
30025427970000	SD EA 19 FEDERAL P6	5H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13928	12585
30025427980000	SD EA 19 FEDERAL P6	6H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13742	12585
30025427950000	SD EA 18 FEDERAL P6	5H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14214	12595
30025427960000	SD EA 18 FEDERAL P6	6H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14185	12595

CHEVRON U.S.A. Inc.
MADELINE SWD NO. 1
SECTION 12, T26S-R32E
SECTIONS 7 & 18, T26S-R33E
SHL 1026' FNL & 1131' FWL

Existing Well Data & Map

30025082710000	GULF-FEDERAL		3	HILL & MEEKER	D&A-O	4767	14010
30025082700000	GULF-FEDERAL		2	HILL & MEEKER	DRY & ABANDONED	4704	14370
30025432960000	SD WE 24 FED P23	2H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19261	14725
30025432970000	SD WE 24 FED P23	3H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19261	14725
30025432980000	SD WE 24 FED P23	4H		CHEVRON U S A INCORPORATED	OIL PRODUCER	18709	14725
30025433180000	SD WE 24 FEDERAL P23	1H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19366	14725
30025082690000	GULF-FEDERAL		1	KERN COUNTY LAND COMPANY	ABD-OW	4790	14865
30025082680000	FED-LITTLEFIELD DR		1	CONTINENTAL OIL COMPANY	OIL PRODUCER	4719	14950
30025084210000	LITTLEFIELD-FRAL DQ		1	ANTWEIL MORRIS R	OIL PRODUCER	4790	14970
30025401620000	RED HILLS WEST SWD		1	MEWBOURNE OIL COMPANY	SWDCOM	6322	15010
30025434630000	SD WE 23 FEDERAL P25	4H		CHEVRON U S A INCORPORATED	TREATD	19269	15100
30025434620000	SD WE 23 FED P25	003H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19419	15105
30025436740000	SD WE 24 FEDERAL P24	005H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19338	15145
30025436730000	SD WE 24 FEDERAL P24	006H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19286	15150
30025436750000	SD WE 24 FEDERAL P24	007H		CHEVRON U S A INCORPORATED	OIL PRODUCER	19371	15155
30025084200000	LITTLEFIELD-FRAL DQ		1	ANTWEIL MORRIS R	ABD-OW	4710	15170
30025425600000	ZIA HILLS 25E FEDERAL CO	401H		CONOCOPHILLIPS COMPANY	AT TOTAL DEPTH	19873	15390
30025433640000	ZIA HILLS 25E FEDERAL CO	402H		CONOCOPHILLIPS COMPANY	WELL START		15425
30025433770000	ZIA HILLS 25E FEDERAL CO	403H		CONOCOPHILLIPS COMPANY	WELL PERMIT		15455
30025425590000	WAR HAMMER 25 FEDERA	009H		CONOCOPHILLIPS COMPANY	WELL PERMIT		15490
30025433630000	ZIA HILLS 25E FEDERAL CO	404H		CONOCOPHILLIPS COMPANY	WELL PERMIT		15490
30025425610000	WAR HAMMER 25 FEDERA	10H		CONOCOPHILLIPS COMPANY	WELL PERMIT		15530
30025425580000	WAR HAMMER 25 FEDERA	11H		CONOCOPHILLIPS COMPANY	ABANDON LOCATION		15565
30025425570000	WAR HAMMER 25 FEDERA	12H		CONOCOPHILLIPS COMPANY	ABANDON LOCATION		15595
30025082860000	WILDER-FEDERAL		15	CONTINENTAL OIL COMPANY	ABD-OW	4675	15685
30025433910000	WAR HAMMER 25 FEDERA	5H		CONOCOPHILLIPS COMPANY	WELL PERMIT		15840
30025420290000	WAR HAMMER 25 FEDERA	001H		CONOCOPHILLIPS COMPANY	OIL PRODUCER	20027	15855
30025082800000	WILDER-FEDERAL	9-X		CONTINENTAL OIL COMPANY	ABD-OW	4696	15860
30025433920000	WAR HAMMER 25 FEDERA	6H		CONOCOPHILLIPS COMPANY	WELL PERMIT		15870
30025420280000	WAR HAMMER 25 FEDERA	002H		CONOCOPHILLIPS COMPANY	PILOT HOLE	13575	15885
30025420280100	WAR HAMMER 25 FEDERA	002H		CONOCOPHILLIPS COMPANY	OIL-WO	19670	15885
30025420270000	WAR HAMMER 25 FEDERA	003H		CONOCOPHILLIPS COMPANY	OIL PRODUCER	18902	15915
30025420580000	WAR HAMMER 25 FEDERA	4H		CONOCOPHILLIPS COMPANY	ABANDON LOCATION		15950
30025082870000	WILDER-FEDERAL		23	CONTINENTAL OIL COMPANY	ABD-OW	4684	15960
30025082980000	WILDER-FEDERAL		26	CONTINENTAL OIL COMPANY	ABD-OW	4700	16010
30025082720000	MELLISSA-FEDERAL		1	WORLDWIDE PETROLEUM CORPORATION	ABD-OW	4744	16140
30025084360000	BROWN-FEDERAL		1	PENROSE PRODUCTION COMPANY	ABD-OW	4704	16420
30025082850000	WILDER-FEDERAL		14	CONTINENTAL OIL COMPANY	OIL PRODUCER	4654	16950
30025082770000	WILDER-FEDERAL		6	CONTINENTAL OIL COMPANY	ABD-OW	4665	17000
30025082940000	WILDER-FEDERAL		21	CONTINENTAL OIL COMPANY	ABD-OW	4652	17000
30025082970000	WILDER-FEDERAL		25	CONTINENTAL OIL COMPANY	ABD-OW	5900	17155
30025082790000	WILDER-FEDERAL		8	CONTINENTAL OIL COMPANY	OIL PRODUCER	4677	17165
30025082810000	WILDER-FEDERAL		10	CONTINENTAL OIL COMPANY	ABD-OW	4697	17425
30025084300000	PAYNE-FEDERAL		2	CONTINENTAL OIL COMPANY	ABD-OW	4742	17465
30025084340000	PAYNE-FEDERAL		8	CONTINENTAL OIL COMPANY	ABD-OW	4830	17700
30025082750000	WILDER-FEDERAL		3	CONTINENTAL OIL COMPANY	OIL PRODUCER	4644	18315
30025082760000	WILDER-FEDERAL		4	CONTINENTAL OIL COMPANY	OIL PRODUCER	4645	18365
30025082900000	WILDER-FEDERAL		17	CONTINENTAL OIL COMPANY	OIL PRODUCER	4691	18365
30025082930000	WILDER-FEDERAL		20	CONTINENTAL OIL COMPANY	ABD-OW	4643	18510
30025082930001	EL MAR NORTH UNIT		26	SAHARA OPERATING COMPANY	CANCEL		18510
30025082780000	WILDER-FEDERAL		7	CONTINENTAL OIL COMPANY	ABD-OW	4719	18515
30025084310000	PAYNE-FEDERAL		3	CONTINENTAL OIL COMPANY	ABD-OW	4719	18715
30025417200000	WAR HAMMER 25 M		1	CONOCOPHILLIPS COMPANY	WELL PERMIT		18730
30025082840000	WILDER-FEDERAL		13	CONTINENTAL OIL COMPANY	OIL PRODUCER	4690	18755
30025084320000	PAYNE-FEDERAL		4	CONTINENTAL OIL COMPANY	ABD-OW	4749	19135
30025082740000	WILDER-FEDERAL		2	CONTINENTAL OIL COMPANY	ABD-OW	4656	19680
30025082880000	WILDER-FEDERAL		5	CONTINENTAL OIL COMPANY	OIL PRODUCER	4640	19680
30025082910000	WILDER		18	CONTINENTAL OIL COMPANY	OIL PRODUCER	4639	19820
30025082820000	WILDER-FEDERAL		11	CONTINENTAL OIL COMPANY	OIL PRODUCER	4679	19825
30025082730000	WILDER-FEDERAL 25		1	CONTINENTAL OIL COMPANY	OIL PRODUCER	4636	19965
30025084330000	PAYNE-FEDERAL		5	CONTINENTAL OIL COMPANY	ABD-OW	4699	19980
30025082830000	WILDER-FEDERAL		12	CONTINENTAL OIL COMPANY	ABD-OW	4683	20045
30025084350000	PAYNE-FEDERAL		11	CONTINENTAL OIL COMPANY	ABD-OW	4786	20275
30025249080000	N EL MAR UNIT	WI-58		CONTINENTAL OIL COMPANY	WATER INJECTION WELL	4750	21070
30025254220000	NORTH EL MAR UNIT	WI-62		CONTINENTAL OIL COMPANY	WATER INJECTION WELL	4750	22560
42301003920001	EL MAR (DELAWARE) UNIT	1223 W		TEXACO INCORPORATED	ABD-SWD	4685	24565
42301003920002	EL MAR /DELAWARE/UNIT	WI-1223		BURLINGTON RESOURCES O&G CO LP	WI-EOR	4685	24565
42301005270001	EL MAR /DELAWARE/UNIT	1234W		BURLINGTON RESOURCES OIL & GAS COMPANY	WI-EOR	4660	25830
42301320400000	EXCELSIOR 12 SWD		2	EOG RESOURCES INCORPORATED	SWDOP	8000	26460
42301327300000	SUN 54-2	201D		XTO ENERGY INCORPORATED	SWD	7642	26600
42301005280001	EL MAR (DELAWARE) UNIT	WI-1241W		BURLINGTON RESOURCES O&G CO LP	W-INJW	4650	27430
42301004130001	EL MAR (DELAWARE) UNIT	WI-1723W		BURLINGTON RESOURCES O&G CO LP	WI-EOR	4724	30020
42301333140000	CHALLENGER FORTRESS 7		1	HILLSTONE DACO PERMIAN LLC	SWDCOM	7315	31605

CHEVRON U.S.A. Inc.
MADELINE SWD NO. 1
SECTION 12, T26S-R32E
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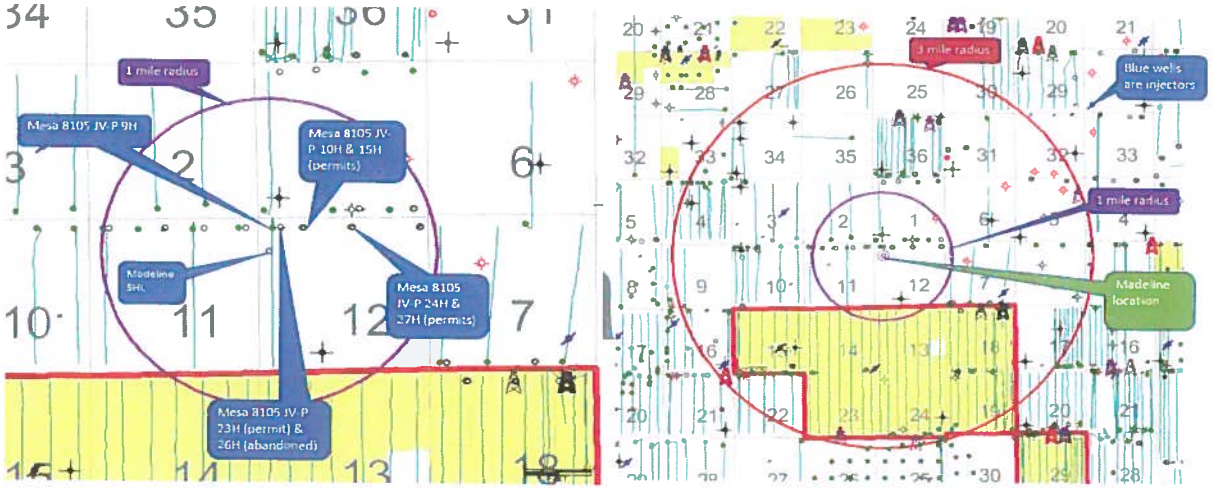
Existing Well Data & Map



BAKER HUGHES

Permian Basin Area Laboratory
2101 Market Street,
Midland, Texas 79703

Upstream Chemicals

REPORT DATE: 5/20/2019

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER:	CHEVRON	ACCOUNT REP:	HECTOR M ESPINOZA
DISTRICT:	NEW MEXICO	SAMPLE ID:	201901014293
AREA/LEASE:	SALADO DRAW	SAMPLE DATE:	2/15/2019
SAMPLE POINT NAME	SALADO DRAW 24 CTB WTP	ANALYSIS DATE:	2/27/2019
SITE TYPE:	FACILITY	ANALYST:	JL
SAMPLE POINT DESCRIPTION:	TRANSFER PUMP		

CHEVRON, SALADO DRAW, SALADO DRAW 24 CTB WTP

FIELD DATA		ANALYSIS OF SAMPLE					
		ANIONS:	mg/L	meq/L	CATIONS:	mg/L	meq/L
Initial Temperature (°F):	250	Chloride (Cl^-):	118901.2	3354.1	Sodium (Na^+):	61261.6	2665.9
Final Temperature (°F):	80	Sulfate (SO_4^{2-}):	1145.5	23.9	Potassium (K^+):	1049.8	26.8
Initial Pressure (psi):	100	Borate (H_3BO_3):	248.7	4.0	Magnesium (Mg^{2+}):	1313.8	108.1
Final Pressure (psi):	15	Fluoride (F^-):	ND		Calcium (Ca^{2+}):	8145.6	406.5
		Bromide (Br^-):	ND		Strontium (Sr^{2+}):	820.6	18.7
pH:		Nitrite (NO_2^-):	ND		Barium (Ba^{2+}):	2.7	0.0
pH at time of sampling:	5.8	Nitrate (NO_3^-):	ND		Iron (Fe^{2+}):	58.2	2.1
		Phosphate (PO_4^{3-}):	ND		Manganese (Mn^{2+}):	2.0	0.1
		Silica (SiO_2):	ND		Lead (Pb^{2+}):	ND	
					Zinc (Zn^{2+}):	0.0	0.0
ALKALINITY BY TITRATION:	mg/L	meq/L					
Bicarbonate (HCO_3^-):	780.8	12.8			Aluminum (Al^{3+}):	0.0	0.0
Carbonate (CO_3^{2-}):	ND				Chromium (Cr^{3+}):	ND	
Hydroxide (OH^-):	ND				Cobalt (Co^{2+}):	ND	
			ORGANIC ACIDS:	mg/L	meq/L	Copper (Cu^{2+}):	0.0	0.0
aqueous CO_2 (ppm):	900.0		Formic Acid:	ND		Molybdenum (Mo^{2+}):	ND	
aqueous H_2S (ppm):	0.0		Acetic Acid:	ND		Nickel (Ni^{2+}):	ND	
aqueous O2 (ppb):	ND		Propionic Acid:	ND		Tin (Sn^{2+}):	ND	
			Butyric Acid:	ND		Titanium (Ti^{2+}):	ND	
Calculated TDS (mg/L):	193482		Valeric Acid:	ND		Vanadium (V^{2+}):	ND	
Density/Specific Gravity (g/cm³):	1.1221					Zirconium (Zr^{2+}):	ND	
Measured Specific Gravity	1.1315					Lithium (Li):	11.5	
Conductivity (mmhos):	ND							
Resistivity:	ND					Total Hardness:	26714	N/A
MCF/D:	No Data							
BOPD:	No Data							
BWPD:	No Data		Anion/Cation Ratio:		1.05	ND = Not Determined		

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA, FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

Conditions		Barite ($BaSO_4$)		Calcite ($CaCO_3$)		Gypsum ($CaSO_4 \cdot 2H_2O$)		Anhydrite ($CaSO_4$)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.96	1.428	1.09	158.445	-0.05	0.000	-0.18	0.000
99°F	24 psi	0.84	1.370	1.13	160.970	-0.04	0.000	-0.09	0.000
118°F	34 psi	0.72	1.297	1.20	165.819	-0.04	0.000	-0.01	0.000
137°F	43 psi	0.61	1.209	1.28	170.861	-0.04	0.000	0.08	94.778
156°F	53 psi	0.51	1.106	1.36	175.536	-0.04	0.000	0.17	181.202
174°F	62 psi	0.42	0.987	1.46	180.440	-0.04	0.000	0.27	254.078
193°F	72 psi	0.33	0.854	1.55	184.759	-0.04	0.000	0.36	314.704
212°F	81 psi	0.25	0.707	1.64	188.500	-0.05	0.000	0.46	364.372
231°F	91 psi	0.18	0.546	1.72	191.786	-0.05	0.000	0.56	404.452
250°F	100 psi	0.11	0.370	1.80	194.709	-0.06	0.000	0.65	436.340

Conditions		Celestite ($SrSO_4$)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate ($FeCO_3$)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.71	371.955	-0.79	0.000	-9.29	0.000	0.56	27.628
99°F	24 psi	0.71	374.720	-0.80	0.000	-9.37	0.000	0.65	30.149
118°F	34 psi	0.72	375.859	-0.81	0.000	-9.38	0.000	0.77	32.757
137°F	43 psi	0.72	376.444	-0.82	0.000	-9.36	0.000	0.88	34.764
156°F	53 psi	0.72	377.223	-0.83	0.000	-9.33	0.000	0.98	36.224
174°F	62 psi	0.73	378.670	-0.84	0.000	-9.28	0.000	1.08	37.410
193°F	72 psi	0.73	381.026	-0.85	0.000	-9.22	0.000	1.17	38.212
212°F	81 psi	0.74	384.330	-0.85	0.000	-9.17	0.000	1.23	38.760
231°F	91 psi	0.76	388.457	-0.86	0.000	-9.13	0.000	1.28	39.134
250°F	100 psi	0.77	393.145	-0.86	0.000	-9.08	0.000	1.32	39.384

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales

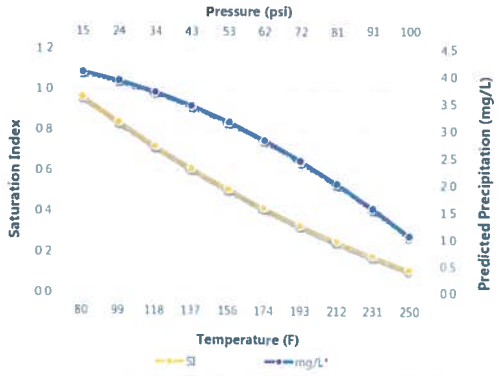
Note 3: Saturation Index predictions on this sheet use pH and alkalinity; $\%CO_2$ is not included in the calculations

ScaleSoftPitzer™
SSP2010

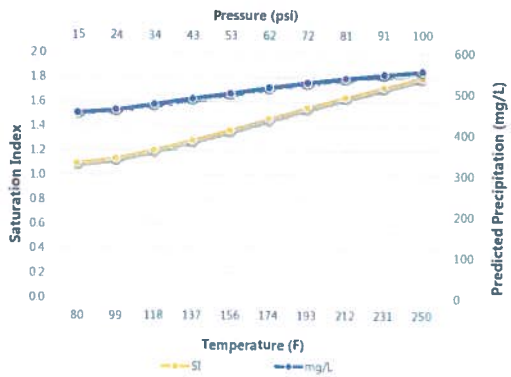
Comments:

SAMPLE ID: 43511 CHEVRON, SALADO DRAW, SALADO DRAW 24 CTB WTP

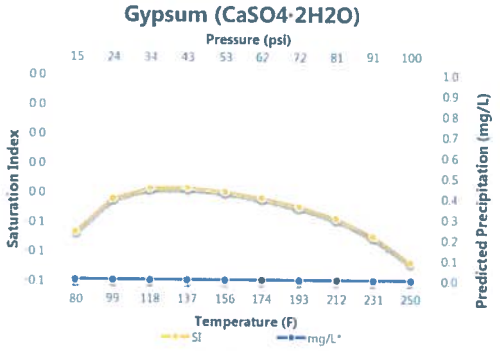
Barite (BaSO4)



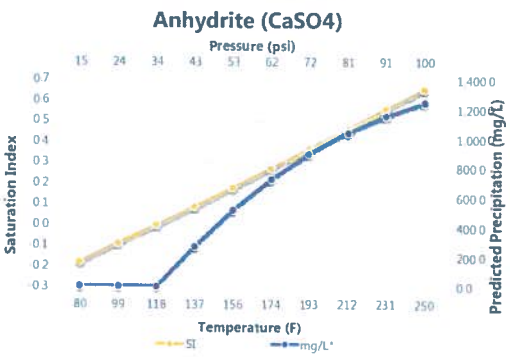
Calcite (CaCO3)



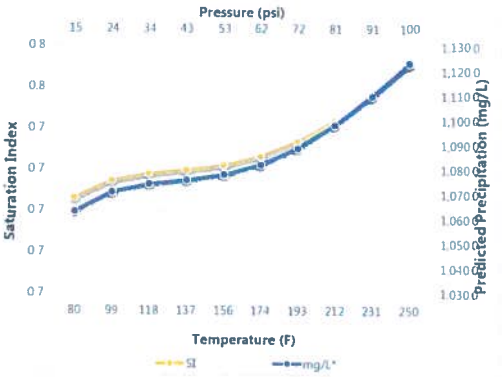
Gypsum (CaSO4·2H2O)



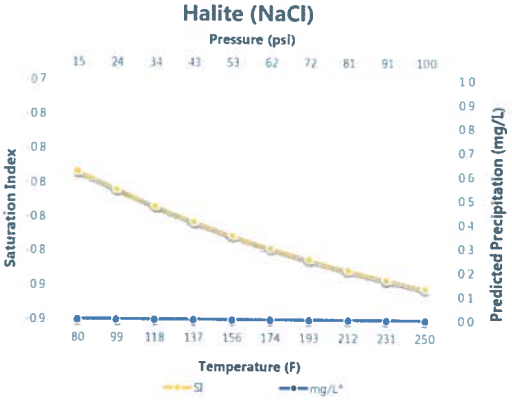
Anhydrite (CaSO4)



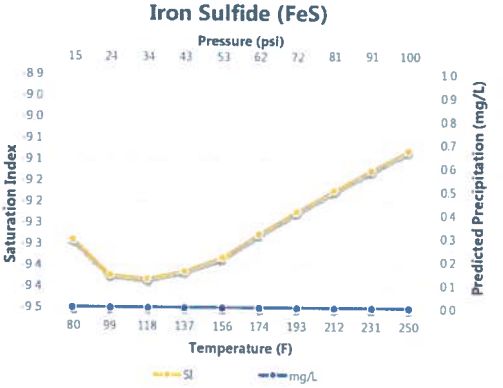
Celestite (SrSO4)



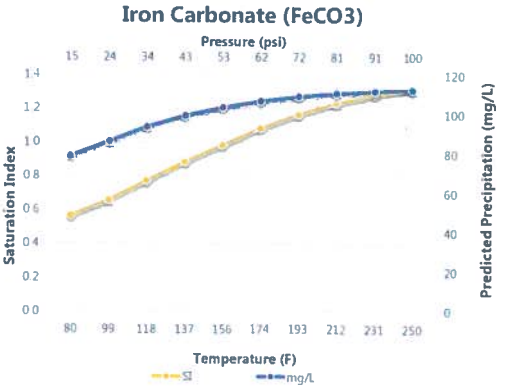
Halite (NaCl)



Iron Sulfide (FeS)



Iron Carbonate (FeCO3)



SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA, FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

VII. 5 Chemical Analysis of the Disposal Zone Formation Water

Well Name	API	Lat	Long	Sect	Twn	Range	County	ST	Field	Formation	samplesource	tds_mgL	chloride_mgL
ANTELOPE RIDGE UNIT	3002521082	32.259	-103.461	34	23 S	34 E	Lea	NM	ANTELOPE RIDGE	DEVONIAN	UNKNOWN	80187	47900
FARNSWORTH FEDERAL	3002511950	32.078	-103.162	4	26 S	37 E	Lea	NM	CROSBY	DEVONIAN	UNKNOWN	31931	20450
ARNOTT RAMSAY NCT B	3002511863	32.092	-103.178	32	25 S	37 E	Lea	NM	CROSBY	DEVONIAN			100382
COPPER	3002511818	32.099	-103.165	28	25 S	37 E	Lea	NM	CROSBY	DEVONIAN	UNKNOWN	27506	15270
STATE NJ A	3002511398	32.165	-103.127	2	25 S	37 E	Lea	NM	JUSTIS NORTH	DEVONIAN	DST	105350	59300
WEST DOLLARHIDE DEVONIAN	3002512297	32.172	-103.076	32	24 S	38 E	Lea	NM	DOLLARHIDE	DEVONIAN	WELLHEAD	50858	30200
STATE B COM	3002509716	32.179	-103.221	36	24 S	36 E	Lea	NM	CUSTER	DEVONIAN	UNKNOWN	176234	107400
E C HILL D FEDERAL	3002510950	32.265	-103.144	34	23 S	37 E	Lea	NM	TEAGUE	DEVONIAN	UNKNOWN	236252	147000
E C HILL B FEDERAL	3002510945	32.266	-103.144	34	23 S	37 E	Lea	NM	TEAGUE	DEVONIAN	UNKNOWN	112959	67390
CLINE FEDERAL	3002510717	32.302	-103.136	14	23 S	37 E	Lea	NM	CLINE	DEVONIAN	PRODUCTION TEST	118979	71280
BELL LAKE UNIT	3002508483	32.328	-103.507	6	23 S	34 E	Lea	NM	BELL LAKE NORTH	DEVONIAN	HEATER/TREATER	71078	42200
											Average	101133	64434

The data table above represents all water analysis of wells within 30 miles of proposed SWD well in Lea County, New Mexico. The data was supplied by Martha Cather from the PRRC (Petroleum Recovery Resource Center) at New Mexico Tech in Socorro, New Mexico. The water analysis was performed on water samples from the 'Devonian', which covers both Silurian and Devonian aged rocks.

For most wells the chloride count and total dissolved solids count (tds in milligrams) was available. The sodium count, which was not available for these wells, is always about half the chloride count, and is included in the total dissolved solids count. With this assumption, the dissolved sodium and chloride count comprises ~90% of the total dissolved solids. The average value for the chloride count in the 11 wells below is 64,000 mlg, which equates to ~100,000 mgl sodium and chloride. Some of the Devono-Silurian wells have total dissolved solid counts as high as 236,000 mlg.

As previously seen in the water analysis from the Wolfcamp, the dissolved sodium and chloride content is ~104,000 mgl which is similar to the salinity of the Silurian formation that will receive the injected water.

1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler		740	740
Castile		2,905	2,905
Lamar		4,695	4,695
Bell Canyon		4,730	4,730
Cherry Canyon		5,740	5,740
Brushy Canyon		7,320	7,320
Bone Spring Lime		8,930	8,930
Upper Avalon		8,965	8,965
Top Bone Spring 1		9,835	9,835
Top Bone Spring 2		10,415	10,415
Top Bone Spring 3		11,465	11,465
Wolfcamp A		11,955	11,955
Wolfcamp B		12,675	12,675
Wolfcamp C		12,865	12,865
Wolfcamp D		12,980	12,980
Strawn		14,595	14,595
Atoka		14,855	14,855
Morrow		15,215	15,215
Barnett Shale		16,750	16,750
Mississippian Lime		17,040	17,040
Woodford		17,355	17,355
Silurian		17,540	17,540
Fusselman		18,365	18,365
Montoya		18,770	18,770

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		740
W	Castile	2,905
W	Lamar	4,695
O / W	Bell Canyon	4,730
O / W	Cherry Canyon	5,740
O / W	Brushy Canyon	7,320
O / G / W	Bone Spring Lime	8,930
O / G / W	Upper Avalon	8,965
O / G / W	Top Bone Spring 1	9,835
O / G / W	Top Bone Spring 2	10,415
O / G / W	Top Bone Spring 3	11,465
O / G / W	Wolfcamp A	11,955
O / G / W	Wolfcamp B	12,675
O / G / W	Wolfcamp C	12,865
O / G / W	Wolfcamp D	12,980
O / G / W	Strawn	14,595
G / W	Atoka	14,855
G / W	Morrow	15,215
W	Barnett Shale	16,750
W	Mississippian Lime	17,040
W	Woodford	17,355
W	Top Silurian	17,540
W	Top Fusselman	18,365
W	Montoya	18,770

All shows of fresh water and minerals will be reported and protected.

XI.

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

POD Basin: Carlsbad

Well Tag Search:

Well Tag: [ALL]

UTMNAD83 Radius Search (in meters):

Easting (X): 629008.468 **Northing (Y):** 3548149.169 **Radius:** 1609

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

Basin/County Search:

Basin: Carlsbad

UTMNAD83 Radius Search (in meters):

Easting (X): 629008.468 **Northing (Y):** 3548149.169 **Radius:** 1609

XII.

Lynn Rouse
Water Management and Planning Team Lead, Operations

Chevron has completed technical work using the Stanford Fault Slip Potential modeling software to more fully understand the potential risk of initiating an induced seismic event as a result of disposal operations through the predicted service life of the Madeline SWD. Based upon the information provided by the Fault Slip Potential modeling software and other information as provided herein, it is Chevron's position that this well can be drilled, completed, and operated at the requested disposal rates with a low probability of inducing slip on a fault.

There are no reported USGS earthquake events within 14 miles of the proposed well location, as shown in the attached documentation.

Stress and hydrology inputs for the FSP modeling were derived in part from logs and derivative products collected from logged wells in the vicinity. These inputs are summarized in the subsequent pages. A simulated disposal volume of 80,000 barrels of water per day for 30 years at the proposed Madeline SWD, and a radial flow assumption, yield a projected pore pressure increase of 360psi at a distance of 1 mile from the proposed well.

Fault inputs for FSP modeling were derived from interpretation of 3D seismic data. When considered jointly with the regional stress field, these faults do not appear to be susceptible to slip with modeled pore pressure increases in the disposal interval. Variations in the stress, hydrology, and fault inputs were also considered as part of a probabilistic analysis, and resultant model runs result in low probabilities of inducing slip on interpreted faults.

Similar wells in the Delaware Basin in which Chevron participates have shown no reservoir pressure increases to date in 6 years of operations. While Chevron is utilizing available tools, such as FSP modeling software, to more fully understand the risks of induced seismicity, there are assumptions and uncertainties carried in the analysis and software.

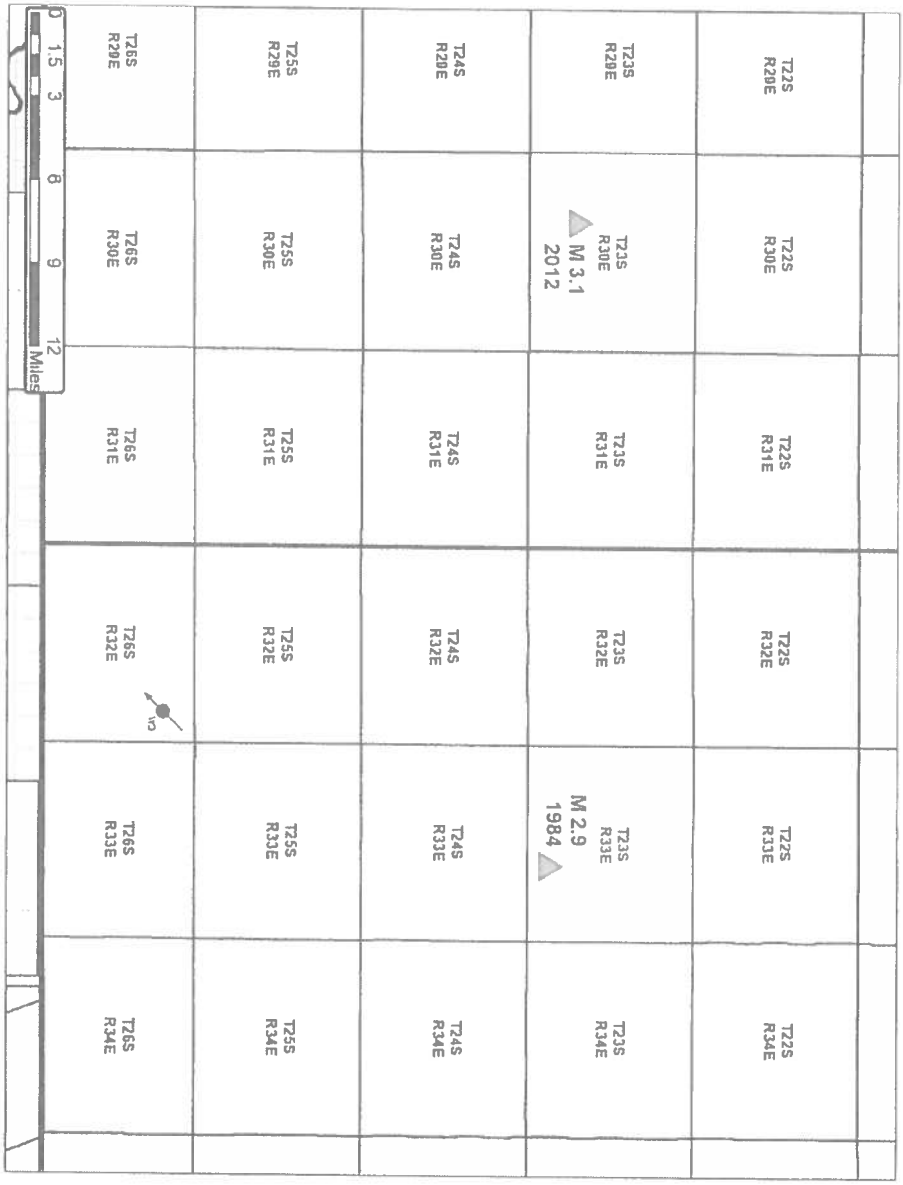
From an operational standpoint, Chevron continuously measures surface pressure in all Chevron-operated Silurian disposal facilities and cannot exceed 3000 psig per facility constraints. Material changes in reservoir pressure will be indicated and, if warranted, fault slip potential assessments can be reevaluated and injection volumes could be adjusted in the future.

Lynn Rouse
Water Management and Planning Team Lead, Operations

MidContinent Business Unit
Chevron North America Exploration & Production Company
1400 Smith Street Houston, TX 77002

Historical Seismicity

Map showing the proposed well location and historical seismicity from the USGS catalog, labeled by event magnitude and year.



XIII.

MADELINE SWD #1

1026' FNL 1131' FWL
Sec. 12 T26S R32E
Lea County, NM

SURFACE OWNER & OFFSET OPERATORS

SURFACE OWNER:

NAME	ADDRESS	CITY, STATE, & ZIP	CERTIFIED #
BLM	301 DinosaurTrail	Santa Fe, NM 87508	7017 1070 0000 9758 2637

OFFSET OPERATORS:

NAME	ADDRESS	CITY, STATE, & ZIP	CERTIFIED #
BTA Oil Producers, LLC	104 South Pecos	Midland, TX 79701	7017 1070 0000 9758 2620
Kaiser-Francis	6733 S Yale Ave	Tulsa, OK 74136	7017 1070 0000 9758 2613
COG Operating, LLC	600 W. Illinois Ave	Midland, TX 79701	7017 1070 0000 9758 2606
EOG resources, Inc	1111 Bagby St #28	Houston, TX 77002	7017 1070 0000 9758 2590

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
June 08, 2019
and ending with the issue dated
June 08, 2019.

Publisher

Sworn and subscribed to before me this
8th day of June 2019.

Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE
JUNE 8, 2019

Chevron U.S.A Inc. 6301 Deauville Blvd, Midland, TX 79706, will file form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Madeline SWD #1 is located 1026' FNL & 1131' FWL, Unit Letter D, Section 12, T26S, R32E, Lea County, New Mexico. The formations will be Silurian/Fusselman with an open hole interval of 17540 – 18770'. The maximum anticipated injection rate will be 80,000 BWPD at a maximum injection pressure of 2700 psig. Interested parties should file objections or requests for hearing with the Oil Conservation Division, 1220 South St Francis Dr, Santa Fe, New Mexico 87505, within 15 days. Inquiries regarding this application should be directed to Chevron North America, Attn: Stephan Tainter, 1400 Smith St, Rm 40008, Houston, TX 77002. #34273

01102480 00229398

CHEVRON USA INC.
6301 DEAUVILLE BLVD.
MIDLAND, TX 79706

Mid-Continent Business Unit
Chevron North America Exploration
and Production Company
6301 Deauville Blvd.
Midland, TX 79706

Kayla McConnell
Well Permitting & Compliance
Tel: 432-687-7375
gncv@chevron.com

Re: Offset Operator Notification
Application for Authorization to Inject
MADELINE SWD #1
1026' FNL 1131' FWL
Sec. 12 T26S R32E
Lea County, NM

INTERESTED PARTIES

As required by NMOCD rules, as an offset operator you are receiving notice of Application for Authorization to Inject for the referenced well. Chevron U.S.A. Inc., operator of the proposed SWD has filed an application with the Bureau of Land Management and the New Mexico Oil Conservation Division for authorization to drill and inject. Chevron proposes to dispose into the Silurian and Fusselman formations that are estimated to occur between 17540' to 18770'. The Madeline SWD #1 will be drilled at a location of 1026' FNL, & 1131' FWL, Section 12, T26S, R32E, Lea County, New Mexico.

Attached you will find a copy of the submitted OCD form C-108 with corresponding data.

Any objections to this application must be sent to the New Mexico Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505 within 15 days of receipt of this notification. If additional information is required, please contact Kayla McConnell at 432-687-7375, or the Water Strategy Engineer, Stephen Tainer, at 713-372-0433.

Best regards,

Kayla McConnell

Kayla McConnell
Chevron U.S.A. Inc.
Well Permitting & Compliance

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3.
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1. Article Addressed to:

BLM
301 Dinosaur Trail
Santa Fe, NM 87508

9590 9402 1345 5285 8999 31

2. Article Number *(Transfer from service label)*

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Street and Apt. No., or PO Box No. 301 Dinosaur Trail

City, State, ZIP+4® Santa FE, NM 87508

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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1. Article Addressed to:

BTA Oil Producers, LLC
104 S. Pecos
Midland, TX 79701

9590 9402 1345 5285 8999 48

2. Article Number *(Transfer from service label)*

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Street and Apt. No., or PO Box No. 104 S. Pecos
City, State, ZIP+4® Midland, TX 79701

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Kaiser-Francis
6733 S. Yale Ave
Tulsa, OK 74136

9590 9402 1345 5285 8999 55

2. Article Number *(Transfer from service label)*

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PS Form 3811, July 2015 PSN 7530-02-000-9053

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Street and Apt. No., or PO Box No. 6733 S Yale Ave

City, State, ZIP+4® Tulsa, OK 74136

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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COG Operating LLC
600 W. Illinois Ave
Midland, TX 79701

9590 9402 1345 5285 8999 62

2. Article Number *(Transfer from service label)*

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Street and Apt. No., or PO Box No. 600 W. Illinois Ave
City, State, ZIP+4® Midland, TX 79701

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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EOG Resources, Inc
1111 Bagby St #28
Houston Tx 77002

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City, State, ZIP+4® Houston, TX 77002

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State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Receipt of Fee Application Payment

PO Number: F5WCR-190718-C-1080

Payment Date:	7/18/2019 7:05:31 AM
Payment Amount:	$500.00
Payment Type:	Credit Card

Application Type:	Application for a fluid injection well permit.
Fee Amount:	$500.00
Application Status:	Pending Document Delivery

OGRID:	4323
First Name:	Kayla
Last Name:	McConnell
Email:	KaylaMcConnell@Chevron.com

IMPORTANT: If you are mailing or delivering your application, you must print and include your receipt of payment as the first page on your application. All mailed and delivered applications must be sent to the following address: 1220 S. St. Francis Dr., Santa Fe, NM 87505. For inquiries, reference the PO Number listed above.