Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No. 30 015 48280

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 04/21/2021

Additional Operator Remarks

Location of Well

0. SHL: SESW / 255 FSL / 1800 FWL / TWSP: 24S / RANGE: 29E / SECTION: 17 / LAT: 32.211028 / LONG: -104.009293 (TVD: 0 feet, MD: 0 feet)

PPP: NESW / 1332 FSL / 2142 FWL / TWSP: 24S / RANGE: 29E / SECTION: 17 / LAT: 32.213981 / LONG: -104.008195 (TVD: 7300 feet, MD: 8961 feet)

PPP: NENW / 1326 FNL / 2140 FWL / TWSP: 24S / RANGE: 29E / SECTION: 17 / LAT: 32.221277 / LONG: -104.008216 (TVD: 7305 feet, MD: 11615 feet)

PPP: SESW / 1 FSL / 2140 FWL / TWSP: 24S / RANGE: 29E / SECTION: 8 / LAT: 32.224925 / LONG: -104.008226 (TVD: 7309 feet, MD: 12941 feet)

PPP: NESW / 1328 FSL / 2140 FWL / TWSP: 24S / RANGE: 29E / SECTION: 8 / LAT: 32.228573 / LONG: -104.008236 (TVD: 7311 feet, MD: 14269 feet)

PPP: SENW / 2656 FNL / 2140 FWL / TWSP: 24S / RANGE: 29E / SECTION: 8 / LAT: 32.232222 / LONG: -104.008247 (TVD: 7315 feet, MD: 15697 feet)

PPP: SESW / 100 FSL / 2140 FWL / TWSP: 24S / RANGE: 29E / SECTION: 17 / LAT: 32.210594 / LONG: -104.008185 (TVD: 7296 feet, MD: 7728 feet)

BHL: NENW / 20 FNL / 2140 FWL / TWSP: 24S / RANGE: 29E / SECTION: 8 / LAT: 21.239468 / LONG: -104.008268 (TVD: 7321 feet, MD: 18231 feet)

BLM Point of Contact

Name: TENILLE ORTIZ

Title: Legal Instruments Examiner

Phone: (575) 234-2224

Email: tortiz@blm.gov

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

API Number	Pool Code	Pool Name
30-015-48280	50371/ 96473/ 11520	PIERCE CROSSING; BS / PIERCE CROSSING; BS EAST / CEDAR CANYON; BS

Property Code	Property Name	Well Number
321633	OXBOW CC "17_8" FEDERAL COM	3H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	2936.0'

Surface Location

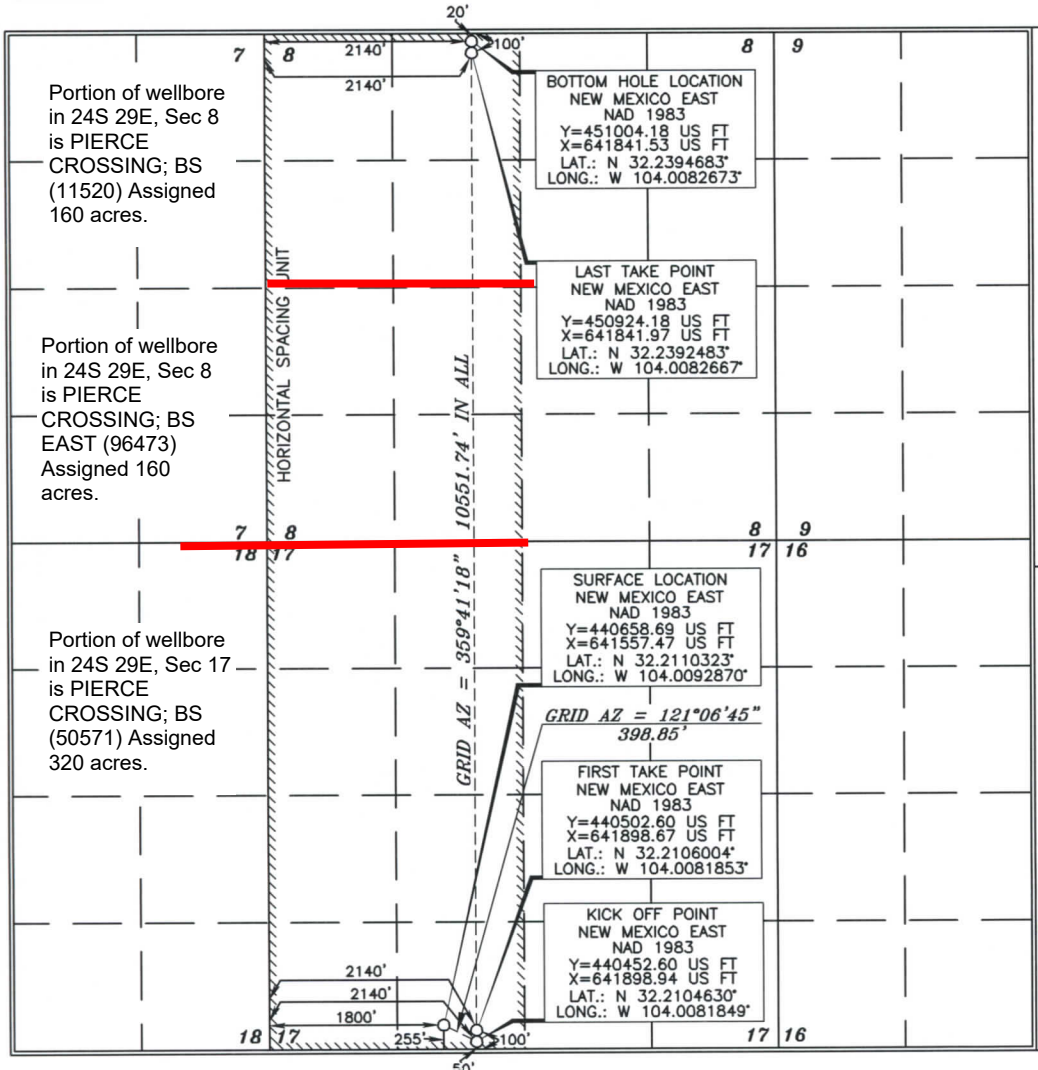
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	17	24 SOUTH	29 EAST, N.M.P.M.		255'	SOUTH	1800'	WEST	EDDY

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
C	8	24 SOUTH	29 EAST, N.M.P.M.		20'	NORTH	2140'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640	y		

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.



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.

Leslie T. Reeves 05/03/2021
Signature Date

LESLIE REEVES
Printed Name

LESLIE_REEVES@OXY.COM
E-mail Address

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.

NOVEMBER 29, 2018
Date of Survey

Signature and Seal of Professional Surveyor:

JERRY J. ASEL — NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

Jerry J. Asel 4/30/2019
Certificate Number 15079

WO# 181129WL-d (Rev. A) (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date

☒ Original Operator & OGRID No.: OXY USA INC. - 16696
☐ Amended - Reason for Amendment:_____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility
The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SALT FLAT CC 20-29 FED COM #31H		M-17-24S-29E	252 FSL 1222 FWL	5,500	0	
SALT FLAT CC 20-29 FED COM #32H		M-17-24S-29E	252 FSL 1257 FWL	5,500	0	
SALT FLAT CC 20-29 FED COM #33H		M-17-24S-29E	252 FSL 1292 FWL	5,500	0	
SALT FLAT CC 20-29 FED COM #34H		P-17-24S-29E	421 FSL 1271 FEL	5,500	0	
SALT FLAT CC 20-29 FED COM #35H		P-17-24S-29E	421 FSL 1236 FEL	5,500	0	
SALT FLAT CC 20-29 FED COM #36H		P-17-24S-29E	421 FSL 1201 FEL	5,500	0	
SALT FLAT CC 20-29 FED COM #37H		N-17-24S-29E	435 FSL 1765 FWL	5,500	0	
SALT FLAT CC 20-29 FED COM #38H		N-17-24S-29E	435 FSL 1835 FWL	5,500	0	
OXBOW CC 17-08 FED COM #31H		M-17-24S-29E	432 FSL 1223 FWL	5,500	0	
OXBOW CC 17-08 FED COM #32H		M-17-24S-29E	432 FSL 1258 FWL	5,500	0	
OXBOW CC 17-08 FED COM 33H		M-17-24S-29E	432 FSL 1293 FWL	5,500	0	
OXBOW CC 17-08 FED COM #34H		P-17-24S-29E	601 FSL 1271 FEL	5,500	0	
OXBOW CC 17-08 FED COM 35H		P-17-24S-29E	601 FSL 1236 FEL	5,500	0	
OXBOW CC 17-08 FED COM #36H		P-17-24S-29E	601 FSL 1201 FEL	5,500	0	
OXBOW CC 17-08 FED COM #37H		N-17-24S-29E	225 FSL 1765 FWL	5,500	0	
OXBOW CC 17-08 FED COM #38H		N-17-24S-29E	255 FSL 1835 FWL	5,500	0	
SALT FLAT CC 20_29 FED COM 01H		D-20-24S-29E	558 FNL 851 FWL	4,000	0	
SALT FLAT CC 20_29 FED COM 02H		N-17-24S-29E	435 FSL 1730 FWL	4,000	0	

SALT FLAT CC 20_29 FED COM 03H		N-17-24S-29E	435 FSL 1800 FWL	4,000	0	
SALT FLAT CC 20_29 FED COM 05H		P-17-24S-29E	421 FSL 1166 FEL	4,000	0	
SALT FLAT CC 20_29 FED COM 06H		P-17-24S-29E	421 FSL 1131 FEL	4,000	0	
SALT FLAT CC 20_29 FED COM 11H		D-20-24S-29E	599 FNL 794 FWL	3,700	0	
SALT FLAT CC 20_29 FED COM 13H		P-17-24S-29E	1070 FSL 1045 FEL	3,700	0	
SALT FLAT CC 20_29 FED COM 14H		P-17-24S-29E	1070 FSL 1010 FEL	3,700	0	
SALT FLAT CC 20_29 FED COM 15H		N-17-24S-29E	435 FSL 1700 FWL	3,700	0	
OXBOW CC 17_08 FED COM 01H		D-20-24S-29E	538 FNL 880 FWL	4,000	0	
OXBOW CC 17_08 FED COM 02H		N-17-24S-29E	255 FSL 1730 FWL	4,000	0	
OXBOW CC 17_08 FED COM 03H		N-17-24S-29E	255 FSL 1800FWL	4,000	0	
OXBOW CC 17_08 FED COM 05H		A-8-24S-29E	270 FNL 1200 FEL	4,000	0	
OXBOW CC 17_08 FED COM 06H		A-8-24S-29E	270 FNL 1135 FEL	4,000	0	
OXBOW CC 17_08 FED COM 11H		D-20-24S-29E	579 FNL 823 FWL	3,700	0	
OXBOW CC 17_08 FED COM 13H		A-8-24S-29E	270 FNL 1235 FEL	3,700	0	
OXBOW CC 17_08 FED COM 14H		A-8-24S-29E	270 FNL 1165 FEL	3,700	0	
OXBOW CC 17_08 FED COM 15H		N-17-24S-29E	255 FSL 1700 FWL	3,700	0	
SALT FLAT CC 20_29 FED COM 42H		D-20-24S-29E	458 FNL 995 FWL	8,000	0	
SALT FLAT CC 20_29 FED COM 51H		D-20-24S-29E	438 FNL 1024 FWL	8,000	0	
SALT FLAT CC 20_29 FED COM 12H		D-20-24S-29E	418 FNL 1052 FWL	8,000	0	
SALT FLAT CC 20_29 FED COM 43H		P-17-24S-29E	1070 FSL 805 FEL	8,000	0	
SALT FLAT CC 20_29 FED COM 44H		P-17-24S-29E	1070 FSL 735 FEL	8,000	0	
SALT FLAT CC 20_29 FED COM 52H		P-17-24S-29E	1070 FSL 770 FEL	8,000	0	
OXBOW CC 17_08 FED COM 41H		D-20-24S-29E	498 FNL 938 FWL	8,000	0	
OXBOW CC 17_08 FED COM 42H		D-20-24S-29E	478 FNL 966 FWL	8,000	0	
OXBOW CC 17_08 FED COM 45H		D-20-24S-29E	518 FNL 909 FWL	8,000	0	
OXBOW CC 17_08 FED COM 43H		A-8-24S-29E	270 FNL 925 FEL	8,000	0	
OXBOW CC 17_08 FED COM 44H		A-8-24S-29E	270 FNL 825 FEL	8,000	0	
OXBOW CC 17_08 FED COM 52H		A-8-24S-29E	270 FNL 860 FEL	8,000	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream, LP ("DCP") and will be connected to DCP's low/high pressure gathering system located in Lea County, New Mexico. OXY USA INC. ("OXY") provides

(periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP's Zia Processing Plant located in Sec. 19, Twn. 19S, Rng. 32E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP's system at that time. Based on current information, it is OXY's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

1. Geologic Formations

TVD of target	7321'	Pilot Hole Depth	N/A
MD at TD:	18231'	Deepest Expected fresh water:	397'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	284	
Salado	600	Salt
Castile	1,243	Salt
Lamar/Delaware	2,795	Oil/Gas/Brine
Bell Canyon	2,852	Oil/Gas/Brine
Cherry Canyon	3,728	Oil/Gas/Brine
Brushy Canyon	4,974	Losses
Bone Spring	**6,568**	**Oil/Gas**

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	Buoyant Body SF Tension	Buoyant Joint SF Tension
	From (ft)	To (ft)								
14.75	0	540	10.75	40.5	J-55	BTC	1.125	1.2	1.4	1.4
9.875	0	6580	7.625	26.4	L-80 HC	BTC	1.125	1.2	1.4	1.4
6.75	0	7130	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
6.75	7130	18231	4.5	13.5	P-110	DQX	1.125	1.2	1.4	1.4
							SF Values will meet or Exceed			

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
*Oxy requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage, we will drop a cancelation cone and not pump the second stage.
*Oxy requests the option to run production casing with DQX, SF TORQ, and/or DQW TORQ connections to accommodate hole conditions or drilling operations.

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement from Onshore Order #2 under the following conditions:

1. Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casings.
2. Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

3. Cementing Program

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	438	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate 1st Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 1st Stage (Tail)	193	13.2	1.65	8.640	11:54	Class H Cement, Retarder, Dispersant, Salt
Intermediate 2nd Stage (Tail Slurry) to be pumped as Bradenhead Squeeze from surface, down the Intermediate annulus						
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	643	12.9	1.92	10.41	23:10	Class C Cement, Accelerator
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	1415	13.2	1.38	6.686	3:39	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	540	100%
Intermediate 1st Stage (Lead)	N/A	N/A	N/A
Intermediate 1st Stage (Tail)	5224	6580	5%
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	0	5224	10%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	6080	18231	20%

Oxy requests a variance to cement the 9.625” and/or 7.625” intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

The summarized operational sequence will be as follows:

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
2. Land casing.
3. Fill pipe with kill weight fluid, and confirm well is static.
    a. If well is not static notify BLM and kill well.
    b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

9. Install offline cement tool.
10. Rig up cement equipment.
    a. Notify BLM prior to cement job.
11. Perform cement job.
12. Confirm well is static and floats are holding after cement job.
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

Three string wells:

- CBL will be required on one well per pad
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

Pilot Hole Cementing specs:
Pilot hole depth: N/A
KOP: N/A

Plug top	Plug Bottom	% Excess	No. Sacks	Wt. lb/gal	Yld ft3/sack	Water gal/sk	Slurry Description and Cement Type
N/A							
N/A							

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4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
9.875" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
6.75" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

Oxy will utilize a 5M annular with a 10M BOPE stack. The BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

BOP Break Testing Request

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. A separate sundry will be sent prior to spud that reflects the pad based break testing plan.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.
- When skidding to drill a production section that does not penetrate into the third Bone Spring or deeper.

If the kill line is broken prior to skid, two tests will be performed.

1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

1) Wellhead flange, co-flex hose, check valve, upper pipe rams

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	540	Water-Based Mud	8.6-8.8	40-60	N/C
540	6580	Saturated Brine-Based or Oil-Based Mud	8.0-10.0	35-45	N/C
6580	18231	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Additional logs planned		Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3655 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	139°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. • We plan to drill the three well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. • Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Total estimated cuttings volume: 1202 bbls**.**

Attachments
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Flex III Attachments
_x__ Spudder Rig Attachment
_x__ Premium Connection Specs

Oxy USA Inc. - Oxbow CC 17_8 Federal Com 3H

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Christopher Hollis	Drilling Engineer	713-350-4754	713-380-7754
William Turner	Drilling Engineer Supervisor	713-350-4951	661-817-4586
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
Diego Tellez	Drilling Manager	713-350-4602	713-303-4932

OXY USA Inc.
APD Attachment
Offline Cementing

OXY respectfully requests a variance to cement the 9-5/8" and/or 7-5/8" intermediate casing strings offline.

The summarized operational sequence will be as follows:

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
2. Land casing.
3. Fill pipe with kill weight fluid, and confirm well is static.
    a. If well is not static notify BLM and kill well.
    b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
9. Install offline cement tool.
10. Rig up cement equipment.
    a. Notify BLM prior to cement job.
11. Perform cement job.
12. Confirm well is static and floats are holding after cement job.
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Oxbow CC 17-08 Federal Com
Well: Oxbow CC 17_8 Federal Com 3H
Wellbore: Wellbore #1
Design: Permitting Plan

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Azimuths to Grid North
True North: -0.17°
Magnetic North: 6.74°

Magnetic Field
Strength: 47853.2nT
Dip Angle: 59.90°
Date: 12/4/2019
Model: HDGM_FILE

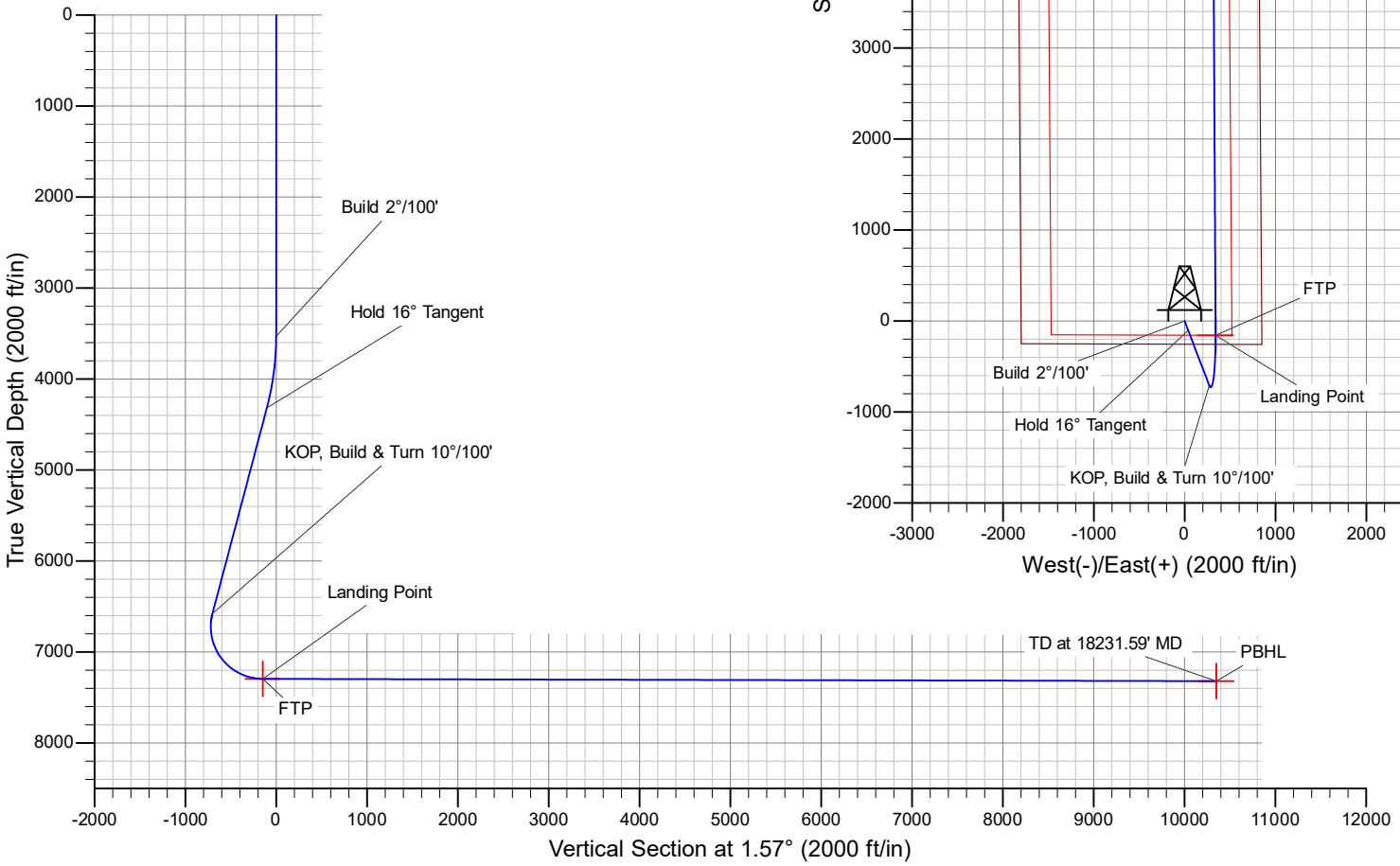
WELL DETAILS: Oxbow CC 17_8 Federal Com 3H

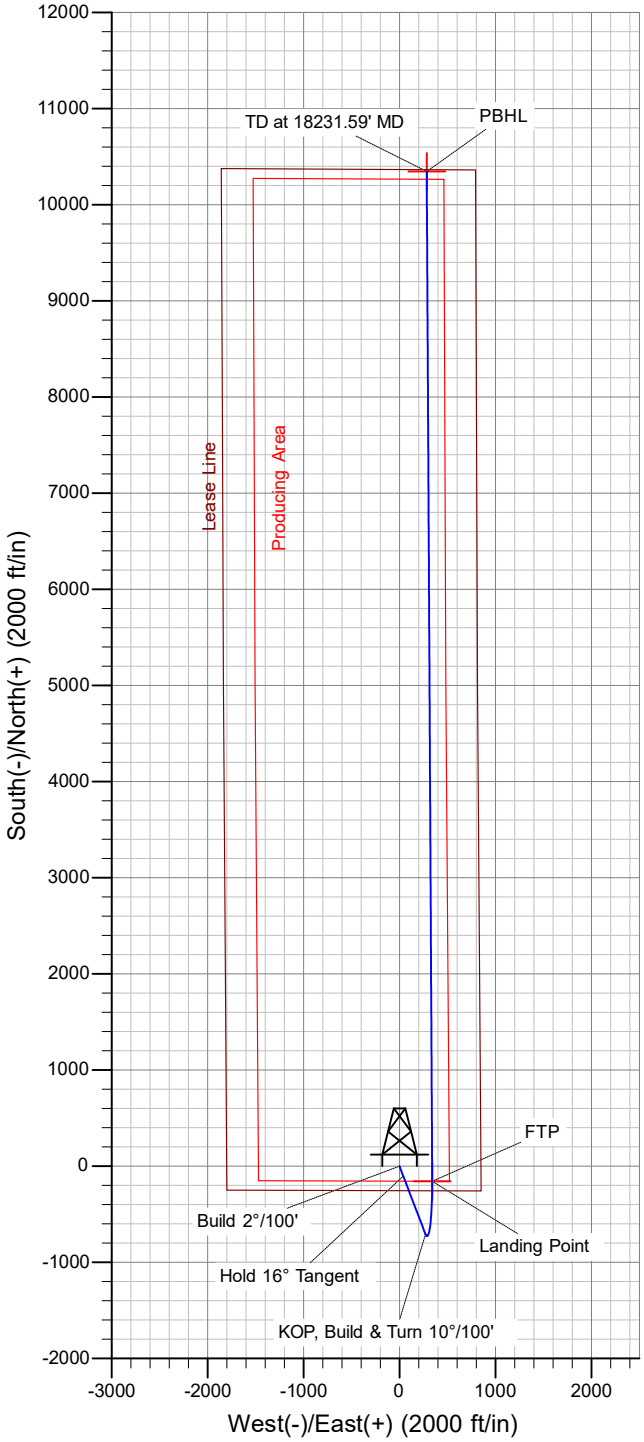
Ground Level: 2936.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	440658.69	641557.47	32° 12' 39.716273 N	104° 0' 33.433238 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3530.00	0.00	0.00	3530.00	0.00	0.00	0.00	0.00	0.00	Build 2°/100'
4330.10	16.00	159.02	4319.74	-103.64	39.75	2.00	159.02	-102.51	Hold 16° Tangent
6680.86	16.00	159.02	6579.41	-708.70	271.82	0.00	0.00	-700.98	KOP, Build & Turn 10°/100'
7728.97	89.86	359.69	7296.50	-156.10	341.23	10.00	-158.58	-146.68	Landing Point
18231.59	89.86	359.69	7321.50	10346.33	284.08	0.00	0.00	10350.23	TD at 18231.59' MD





OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Oxbow CC 17-08 Federal Com
Oxbow CC 17_8 Federal Com 3H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

04 December, 2019

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Oxbow CC 17_8 Federal Com 3H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 2962.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 2962.50ft
Site:	Oxbow CC 17-08 Federal Com	**North Reference:**	Grid
Well:	Oxbow CC 17_8 Federal Com 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site Oxbow CC 17-08 Federal Com

Site Position:		**Northing:**	440,994.67 usft	**Latitude:**	32° 12' 42.973882 N
From:	Map	**Easting:**	643,785.93 usft	**Longitude:**	104° 0' 7.482139 W
Position Uncertainty:	50.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.18 °

Well Oxbow CC 17_8 Federal Com 3H

Well Position	**+N/-S**	-336.01 ft	**Northing:**	440,658.69 usft	**Latitude:**	32° 12' 39.716273 N
	+E/-W	-2,228.64 ft	**Easting:**	641,557.47 usft	**Longitude:**	104° 0' 33.433238 W
Position Uncertainty		1.00 ft	**Wellhead Elevation:**	0.00 ft	**Ground Level:**	2,936.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/4/2019	6.92	59.90	47,853.20000000

Design Permitting Plan

Audit Notes:

Version:	**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	1.57

Plan Survey Tool Program **Date** 12/4/2019

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,231.59	Permitting Plan (Wellbore #1)	B001Mb_MWD+HRGM	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,530.00	0.00	0.00	3,530.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,330.10	16.00	159.02	4,319.74	-103.64	39.75	2.00	2.00	0.00	159.02	
6,680.86	16.00	159.02	6,579.41	-708.70	271.82	0.00	0.00	0.00	0.00	
7,728.97	89.86	359.69	7,296.50	-156.10	341.23	10.00	7.05	-15.20	-158.58	FTP (Oxbow CC
18,231.59	89.86	359.69	7,321.50	10,346.33	284.08	0.00	0.00	0.00	0.00	PBHL (Oxbow CC

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Oxbow CC 17_8 Federal Com 3H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 2962.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 2962.50ft
Site:	Oxbow CC 17-08 Federal Com	**North Reference:**	Grid
Well:	Oxbow CC 17_8 Federal Com 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,530.00	0.00	0.00	3,530.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	1.40	159.02	3,599.99	-0.80	0.31	-0.79	2.00	2.00	0.00
3,700.00	3.40	159.02	3,699.90	-4.71	1.81	-4.66	2.00	2.00	0.00
3,800.00	5.40	159.02	3,799.60	-11.87	4.55	-11.74	2.00	2.00	0.00
3,900.00	7.40	159.02	3,898.97	-22.28	8.54	-22.04	2.00	2.00	0.00
4,000.00	9.40	159.02	3,997.89	-35.92	13.78	-35.53	2.00	2.00	0.00
4,100.00	11.40	159.02	4,096.25	-52.77	20.24	-52.20	2.00	2.00	0.00
4,200.00	13.40	159.02	4,193.91	-72.82	27.93	-72.03	2.00	2.00	0.00
4,300.00	15.40	159.02	4,290.76	-96.04	36.83	-94.99	2.00	2.00	0.00
4,330.10	16.00	159.02	4,319.74	-103.64	39.75	-102.51	2.00	2.00	0.00
4,400.00	16.00	159.02	4,386.93	-121.63	46.65	-120.31	0.00	0.00	0.00
4,500.00	16.00	159.02	4,483.06	-147.37	56.52	-145.77	0.00	0.00	0.00
4,600.00	16.00	159.02	4,579.18	-173.11	66.40	-171.23	0.00	0.00	0.00
4,700.00	16.00	159.02	4,675.31	-198.85	76.27	-196.68	0.00	0.00	0.00
4,800.00	16.00	159.02	4,771.43	-224.59	86.14	-222.14	0.00	0.00	0.00
4,900.00	16.00	159.02	4,867.56	-250.33	96.01	-247.60	0.00	0.00	0.00
5,000.00	16.00	159.02	4,963.68	-276.07	105.88	-273.06	0.00	0.00	0.00
5,100.00	16.00	159.02	5,059.81	-301.81	115.75	-298.52	0.00	0.00	0.00

Oxy Inc.

Planning Report

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Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	16.00	159.02	5,155.93	-327.55	125.63	-323.97	0.00	0.00	0.00
5,300.00	16.00	159.02	5,252.06	-353.28	135.50	-349.43	0.00	0.00	0.00
5,400.00	16.00	159.02	5,348.18	-379.02	145.37	-374.89	0.00	0.00	0.00
5,500.00	16.00	159.02	5,444.31	-404.76	155.24	-400.35	0.00	0.00	0.00
5,600.00	16.00	159.02	5,540.43	-430.50	165.11	-425.81	0.00	0.00	0.00
5,700.00	16.00	159.02	5,636.56	-456.24	174.99	-451.27	0.00	0.00	0.00
5,800.00	16.00	159.02	5,732.68	-481.98	184.86	-476.72	0.00	0.00	0.00
5,900.00	16.00	159.02	5,828.81	-507.72	194.73	-502.18	0.00	0.00	0.00
6,000.00	16.00	159.02	5,924.93	-533.46	204.60	-527.64	0.00	0.00	0.00
6,100.00	16.00	159.02	6,021.06	-559.20	214.47	-553.10	0.00	0.00	0.00
6,200.00	16.00	159.02	6,117.18	-584.94	224.35	-578.56	0.00	0.00	0.00
6,300.00	16.00	159.02	6,213.31	-610.67	234.22	-604.02	0.00	0.00	0.00
6,400.00	16.00	159.02	6,309.43	-636.41	244.09	-629.47	0.00	0.00	0.00
6,500.00	16.00	159.02	6,405.56	-662.15	253.96	-654.93	0.00	0.00	0.00
6,600.00	16.00	159.02	6,501.68	-687.89	263.83	-680.39	0.00	0.00	0.00
6,680.86	16.00	159.02	6,579.41	-708.70	271.82	-700.98	0.00	0.00	0.00
6,700.00	14.24	156.17	6,597.89	-713.32	273.71	-705.54	10.00	-9.22	-14.85
6,800.00	6.52	117.45	6,696.28	-727.22	283.74	-719.16	10.00	-7.71	-38.73
6,900.00	9.04	39.16	6,795.59	-723.74	293.77	-715.40	10.00	2.52	-78.29
7,000.00	17.89	17.93	6,892.79	-702.98	303.49	-694.38	10.00	8.85	-21.22
7,100.00	27.53	10.87	6,984.95	-665.57	312.60	-656.74	10.00	9.64	-7.07
7,200.00	37.35	7.29	7,069.24	-612.65	320.83	-603.61	10.00	9.82	-3.57
7,300.00	47.24	5.04	7,143.13	-545.82	327.92	-536.62	10.00	9.89	-2.25
7,400.00	57.15	3.42	7,204.35	-467.12	333.67	-457.79	10.00	9.92	-1.62
7,500.00	67.09	2.13	7,251.05	-378.94	337.90	-369.53	10.00	9.93	-1.29
7,600.00	77.03	1.01	7,281.81	-283.96	340.47	-274.51	10.00	9.94	-1.12
7,700.00	86.98	359.98	7,295.70	-185.06	341.31	-175.62	10.00	9.95	-1.03
7,728.97	89.86	359.69	7,296.50	-156.10	341.23	-146.68	10.00	9.95	-1.01
7,800.00	89.86	359.69	7,296.67	-85.08	340.84	-75.69	0.00	0.00	0.00
7,900.00	89.86	359.69	7,296.91	14.92	340.30	24.26	0.00	0.00	0.00
8,000.00	89.86	359.69	7,297.15	114.92	339.75	124.20	0.00	0.00	0.00
8,100.00	89.86	359.69	7,297.38	214.92	339.21	224.15	0.00	0.00	0.00
8,200.00	89.86	359.69	7,297.62	314.92	338.66	324.09	0.00	0.00	0.00
8,300.00	89.86	359.69	7,297.86	414.91	338.12	424.04	0.00	0.00	0.00
8,400.00	89.86	359.69	7,298.10	514.91	337.58	523.98	0.00	0.00	0.00
8,500.00	89.86	359.69	7,298.34	614.91	337.03	623.93	0.00	0.00	0.00
8,600.00	89.86	359.69	7,298.57	714.91	336.49	723.88	0.00	0.00	0.00
8,700.00	89.86	359.69	7,298.81	814.91	335.94	823.82	0.00	0.00	0.00
8,800.00	89.86	359.69	7,299.05	914.91	335.40	923.77	0.00	0.00	0.00
8,900.00	89.86	359.69	7,299.29	1,014.90	334.86	1,023.71	0.00	0.00	0.00
9,000.00	89.86	359.69	7,299.53	1,114.90	334.31	1,123.66	0.00	0.00	0.00
9,100.00	89.86	359.69	7,299.76	1,214.90	333.77	1,223.60	0.00	0.00	0.00
9,200.00	89.86	359.69	7,300.00	1,314.90	333.22	1,323.55	0.00	0.00	0.00
9,300.00	89.86	359.69	7,300.24	1,414.90	332.68	1,423.49	0.00	0.00	0.00
9,400.00	89.86	359.69	7,300.48	1,514.90	332.14	1,523.44	0.00	0.00	0.00
9,500.00	89.86	359.69	7,300.72	1,614.89	331.59	1,623.39	0.00	0.00	0.00
9,600.00	89.86	359.69	7,300.95	1,714.89	331.05	1,723.33	0.00	0.00	0.00
9,700.00	89.86	359.69	7,301.19	1,814.89	330.50	1,823.28	0.00	0.00	0.00
9,800.00	89.86	359.69	7,301.43	1,914.89	329.96	1,923.22	0.00	0.00	0.00
9,900.00	89.86	359.69	7,301.67	2,014.89	329.42	2,023.17	0.00	0.00	0.00
10,000.00	89.86	359.69	7,301.91	2,114.88	328.87	2,123.11	0.00	0.00	0.00
10,100.00	89.86	359.69	7,302.14	2,214.88	328.33	2,223.06	0.00	0.00	0.00
10,200.00	89.86	359.69	7,302.38	2,314.88	327.78	2,323.01	0.00	0.00	0.00
10,300.00	89.86	359.69	7,302.62	2,414.88	327.24	2,422.95	0.00	0.00	0.00

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Oxbow CC 17_8 Federal Com 3H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 2962.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 2962.50ft
Site:	Oxbow CC 17-08 Federal Com	**North Reference:**	Grid
Well:	Oxbow CC 17_8 Federal Com 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,400.00	89.86	359.69	7,302.86	2,514.88	326.69	2,522.90	0.00	0.00	0.00
10,500.00	89.86	359.69	7,303.10	2,614.88	326.15	2,622.84	0.00	0.00	0.00
10,600.00	89.86	359.69	7,303.33	2,714.87	325.61	2,722.79	0.00	0.00	0.00
10,700.00	89.86	359.69	7,303.57	2,814.87	325.06	2,822.73	0.00	0.00	0.00
10,800.00	89.86	359.69	7,303.81	2,914.87	324.52	2,922.68	0.00	0.00	0.00
10,900.00	89.86	359.69	7,304.05	3,014.87	323.97	3,022.62	0.00	0.00	0.00
11,000.00	89.86	359.69	7,304.29	3,114.87	323.43	3,122.57	0.00	0.00	0.00
11,100.00	89.86	359.69	7,304.52	3,214.87	322.89	3,222.52	0.00	0.00	0.00
11,200.00	89.86	359.69	7,304.76	3,314.86	322.34	3,322.46	0.00	0.00	0.00
11,300.00	89.86	359.69	7,305.00	3,414.86	321.80	3,422.41	0.00	0.00	0.00
11,400.00	89.86	359.69	7,305.24	3,514.86	321.25	3,522.35	0.00	0.00	0.00
11,500.00	89.86	359.69	7,305.48	3,614.86	320.71	3,622.30	0.00	0.00	0.00
11,600.00	89.86	359.69	7,305.71	3,714.86	320.17	3,722.24	0.00	0.00	0.00
11,700.00	89.86	359.69	7,305.95	3,814.86	319.62	3,822.19	0.00	0.00	0.00
11,800.00	89.86	359.69	7,306.19	3,914.85	319.08	3,922.14	0.00	0.00	0.00
11,900.00	89.86	359.69	7,306.43	4,014.85	318.53	4,022.08	0.00	0.00	0.00
12,000.00	89.86	359.69	7,306.67	4,114.85	317.99	4,122.03	0.00	0.00	0.00
12,100.00	89.86	359.69	7,306.90	4,214.85	317.45	4,221.97	0.00	0.00	0.00
12,200.00	89.86	359.69	7,307.14	4,314.85	316.90	4,321.92	0.00	0.00	0.00
12,300.00	89.86	359.69	7,307.38	4,414.84	316.36	4,421.86	0.00	0.00	0.00
12,400.00	89.86	359.69	7,307.62	4,514.84	315.81	4,521.81	0.00	0.00	0.00
12,500.00	89.86	359.69	7,307.86	4,614.84	315.27	4,621.76	0.00	0.00	0.00
12,600.00	89.86	359.69	7,308.09	4,714.84	314.72	4,721.70	0.00	0.00	0.00
12,700.00	89.86	359.69	7,308.33	4,814.84	314.18	4,821.65	0.00	0.00	0.00
12,800.00	89.86	359.69	7,308.57	4,914.84	313.64	4,921.59	0.00	0.00	0.00
12,900.00	89.86	359.69	7,308.81	5,014.83	313.09	5,021.54	0.00	0.00	0.00
13,000.00	89.86	359.69	7,309.05	5,114.83	312.55	5,121.48	0.00	0.00	0.00
13,100.00	89.86	359.69	7,309.29	5,214.83	312.00	5,221.43	0.00	0.00	0.00
13,200.00	89.86	359.69	7,309.52	5,314.83	311.46	5,321.37	0.00	0.00	0.00
13,300.00	89.86	359.69	7,309.76	5,414.83	310.92	5,421.32	0.00	0.00	0.00
13,400.00	89.86	359.69	7,310.00	5,514.83	310.37	5,521.27	0.00	0.00	0.00
13,500.00	89.86	359.69	7,310.24	5,614.82	309.83	5,621.21	0.00	0.00	0.00
13,600.00	89.86	359.69	7,310.48	5,714.82	309.28	5,721.16	0.00	0.00	0.00
13,700.00	89.86	359.69	7,310.71	5,814.82	308.74	5,821.10	0.00	0.00	0.00
13,800.00	89.86	359.69	7,310.95	5,914.82	308.20	5,921.05	0.00	0.00	0.00
13,900.00	89.86	359.69	7,311.19	6,014.82	307.65	6,020.99	0.00	0.00	0.00
14,000.00	89.86	359.69	7,311.43	6,114.81	307.11	6,120.94	0.00	0.00	0.00
14,100.00	89.86	359.69	7,311.67	6,214.81	306.56	6,220.89	0.00	0.00	0.00
14,200.00	89.86	359.69	7,311.90	6,314.81	306.02	6,320.83	0.00	0.00	0.00
14,300.00	89.86	359.69	7,312.14	6,414.81	305.47	6,420.78	0.00	0.00	0.00
14,400.00	89.86	359.69	7,312.38	6,514.81	304.93	6,520.72	0.00	0.00	0.00
14,500.00	89.86	359.69	7,312.62	6,614.81	304.39	6,620.67	0.00	0.00	0.00
14,600.00	89.86	359.69	7,312.86	6,714.80	303.84	6,720.61	0.00	0.00	0.00
14,700.00	89.86	359.69	7,313.09	6,814.80	303.30	6,820.56	0.00	0.00	0.00
14,800.00	89.86	359.69	7,313.33	6,914.80	302.75	6,920.50	0.00	0.00	0.00
14,900.00	89.86	359.69	7,313.57	7,014.80	302.21	7,020.45	0.00	0.00	0.00
15,000.00	89.86	359.69	7,313.81	7,114.80	301.67	7,120.40	0.00	0.00	0.00
15,100.00	89.86	359.69	7,314.05	7,214.80	301.12	7,220.34	0.00	0.00	0.00
15,200.00	89.86	359.69	7,314.28	7,314.79	300.58	7,320.29	0.00	0.00	0.00
15,300.00	89.86	359.69	7,314.52	7,414.79	300.03	7,420.23	0.00	0.00	0.00
15,400.00	89.86	359.69	7,314.76	7,514.79	299.49	7,520.18	0.00	0.00	0.00
15,500.00	89.86	359.69	7,315.00	7,614.79	298.95	7,620.12	0.00	0.00	0.00
15,600.00	89.86	359.69	7,315.24	7,714.79	298.40	7,720.07	0.00	0.00	0.00
15,700.00	89.86	359.69	7,315.47	7,814.78	297.86	7,820.02	0.00	0.00	0.00

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Oxbow CC 17_8 Federal Com 3H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 2962.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 2962.50ft
Site:	Oxbow CC 17-08 Federal Com	**North Reference:**	Grid
Well:	Oxbow CC 17_8 Federal Com 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,800.00	89.86	359.69	7,315.71	7,914.78	297.31	7,919.96	0.00	0.00	0.00
15,900.00	89.86	359.69	7,315.95	8,014.78	296.77	8,019.91	0.00	0.00	0.00
16,000.00	89.86	359.69	7,316.19	8,114.78	296.23	8,119.85	0.00	0.00	0.00
16,100.00	89.86	359.69	7,316.43	8,214.78	295.68	8,219.80	0.00	0.00	0.00
16,200.00	89.86	359.69	7,316.66	8,314.78	295.14	8,319.74	0.00	0.00	0.00
16,300.00	89.86	359.69	7,316.90	8,414.77	294.59	8,419.69	0.00	0.00	0.00
16,400.00	89.86	359.69	7,317.14	8,514.77	294.05	8,519.64	0.00	0.00	0.00
16,500.00	89.86	359.69	7,317.38	8,614.77	293.50	8,619.58	0.00	0.00	0.00
16,600.00	89.86	359.69	7,317.62	8,714.77	292.96	8,719.53	0.00	0.00	0.00
16,700.00	89.86	359.69	7,317.85	8,814.77	292.42	8,819.47	0.00	0.00	0.00
16,800.00	89.86	359.69	7,318.09	8,914.77	291.87	8,919.42	0.00	0.00	0.00
16,900.00	89.86	359.69	7,318.33	9,014.76	291.33	9,019.36	0.00	0.00	0.00
17,000.00	89.86	359.69	7,318.57	9,114.76	290.78	9,119.31	0.00	0.00	0.00
17,100.00	89.86	359.69	7,318.81	9,214.76	290.24	9,219.25	0.00	0.00	0.00
17,200.00	89.86	359.69	7,319.04	9,314.76	289.70	9,319.20	0.00	0.00	0.00
17,300.00	89.86	359.69	7,319.28	9,414.76	289.15	9,419.15	0.00	0.00	0.00
17,400.00	89.86	359.69	7,319.52	9,514.75	288.61	9,519.09	0.00	0.00	0.00
17,500.00	89.86	359.69	7,319.76	9,614.75	288.06	9,619.04	0.00	0.00	0.00
17,600.00	89.86	359.69	7,320.00	9,714.75	287.52	9,718.98	0.00	0.00	0.00
17,700.00	89.86	359.69	7,320.23	9,814.75	286.98	9,818.93	0.00	0.00	0.00
17,800.00	89.86	359.69	7,320.47	9,914.75	286.43	9,918.87	0.00	0.00	0.00
17,900.00	89.86	359.69	7,320.71	10,014.75	285.89	10,018.82	0.00	0.00	0.00
18,000.00	89.86	359.69	7,320.95	10,114.74	285.34	10,118.77	0.00	0.00	0.00
18,100.00	89.86	359.69	7,321.19	10,214.74	284.80	10,218.71	0.00	0.00	0.00
18,200.00	89.86	359.69	7,321.42	10,314.74	284.26	10,318.66	0.00	0.00	0.00
18,231.59	89.86	359.69	7,321.50	10,346.33	284.08	10,350.23	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Oxbow CC - plan hits target center - Point	0.00	0.00	7,296.50	-156.10	341.23	440,502.60	641,898.67	32° 12' 38.161421 N	104° 0' 29.467199
PBHL (Oxbow CC - plan hits target center - Point	0.00	0.00	7,321.50	10,346.33	284.08	451,004.18	641,841.53	32° 14' 22.085756 N	104° 0' 29.762486

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
3,530.00	3,530.00	0.00	0.00	Build 2°/100'
4,330.10	4,319.74	-103.64	39.75	Hold 16° Tangent
6,680.86	6,579.41	-708.70	271.82	KOP, Build & Turn 10°/100'
7,728.97	7,296.50	-156.10	341.23	Landing Point
18,231.59	7,321.50	10,346.33	284.08	TD at 18231.59' MD

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

Proposed Well Name	Surface Hole Location	Legal Location*	Surface Ownership
Salt Flat CC 20-29 Federal Com 1H	558 FNL and 851 FWL	Township 24 South, Range 29 East, Section 20	Private
Salt Flat CC 20-29 Federal Com 11H	599 FNL and 794 FWL		
Salt Flat CC 20-29 Federal Com 12H	418 FNL and 1,052 FWL		
Salt Flat CC 20-29 Federal Com 41H	518 FNL and 909 FWL		
Salt Flat CC 20-29 Federal Com 42H	458 FNL and 995 FWL		
Salt Flat CC 20-29 Federal Com 2H	435 FSL and 1,730 FWL	Township 24 South, Range 29 East, Section 17	
Salt Flat CC 20-29 Federal Com 3H	435 FSL and 1,800 FWL		
Salt Flat CC 20-29 Federal Com 37H	435 FSL and 1,765 FWL		
Salt Flat CC 20-29 Federal Com 38H	435 FSL and 1,835 FWL		
Salt Flat CC 20-29 Federal Com 13H	421 FSL and 1,166 FEL		
Salt Flat CC 20-29 Federal Com 14H	421 FSL and 1,131 FEL		
Salt Flat CC 20-29 Federal Com 43H	601 FSL and 1,166 FEL		
Salt Flat CC 20-29 Federal Com 44H	601 FSL and 1,131 FEL		
Salt Flat CC 20-29 Federal Com 5H	1,070 FSL and 1,190 FEL		
Salt Flat CC 20-29 Federal Com 6H	1,070 FSL and 1,155 FEL		
Salt Flat CC 20-29 Federal Com 313H	1,070 FSL and 915 FEL		
Salt Flat CC 20-29 Federal Com 314H	1,070 FSL and 880 FEL		
Oxbow CC 17-8 Federal Com 1H	538 FNL 880 FWL	Township 24 South, Range 29 East, Section 20	
Oxbow CC 17-8 Federal Com 11H	579 FNL and 823 FWL		
Oxbow CC 17-8 Federal Com 12H	438 FNL and 1,024 FWL		
Oxbow CC 17-8 Federal Com 41H	498 FNL and 938 FWL		
Oxbow CC 17-8 Federal Com 42H	478 FNL and 966 FWL		
Oxbow CC 17-8 Federal Com 2H	255 FSL and 1,730 FWL	Township 24 South, Range 29 East, Section 17	
Oxbow CC 17-8 Federal Com 3H	255 FSL and 1,800 FWL		
Oxbow CC 17-8 Federal Com 37H	255 FSL and 1,765 FWL		
Oxbow CC 17-8 Federal Com 38H	255 FSL and 1,835 FWL		

FNL = feet from north line; FEL = feet from east line; FSL = feet from south line; FWL = feet from west line

*New Mexico Principal Meridian

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Approval Date: 04/21/2021

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

☐ **General Provisions**
☐ **Permit Expiration**
☐ **Archaeology, Paleontology, and Historical Sites**
☐ **Noxious Weeds**
☒ **Special Requirements**
- Burrowing Owl
- Hydrology

☐ **Construction**
- Notification
- Topsoil
- Closed Loop System
- Federal Mineral Material Pits
- Well Pads
- Roads

☐ **Road Section Diagram**
☒ **Production (Post Drilling)**
- Well Structures & Facilities
- Pipelines
- Electric Lines
- Oil and Gas related Sites

☐ **Interim Reclamation**
☐ **Final Abandonment & Reclamation**

Approval Date: 04/21/2021

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Burrowing Owl Mitigation

For portions of the project being constructed during the nesting season (March 1–August 31), the operator should have pre-construction nest surveys completed up to 2 weeks prior of vegetation removal. Surface disturbance will not be allowed within up to 200 meters of an active Burrowing Owl burrow or by delaying activity for up to 120 days. Exceptions to this requirement will be considered if the nests expected to be disturbed are inactive, the proposed activity is of short duration, and will not result in continuing activity in proximity to the nest.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so

they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

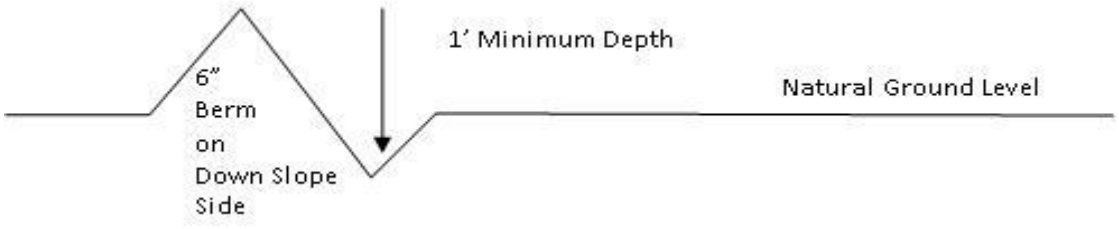
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

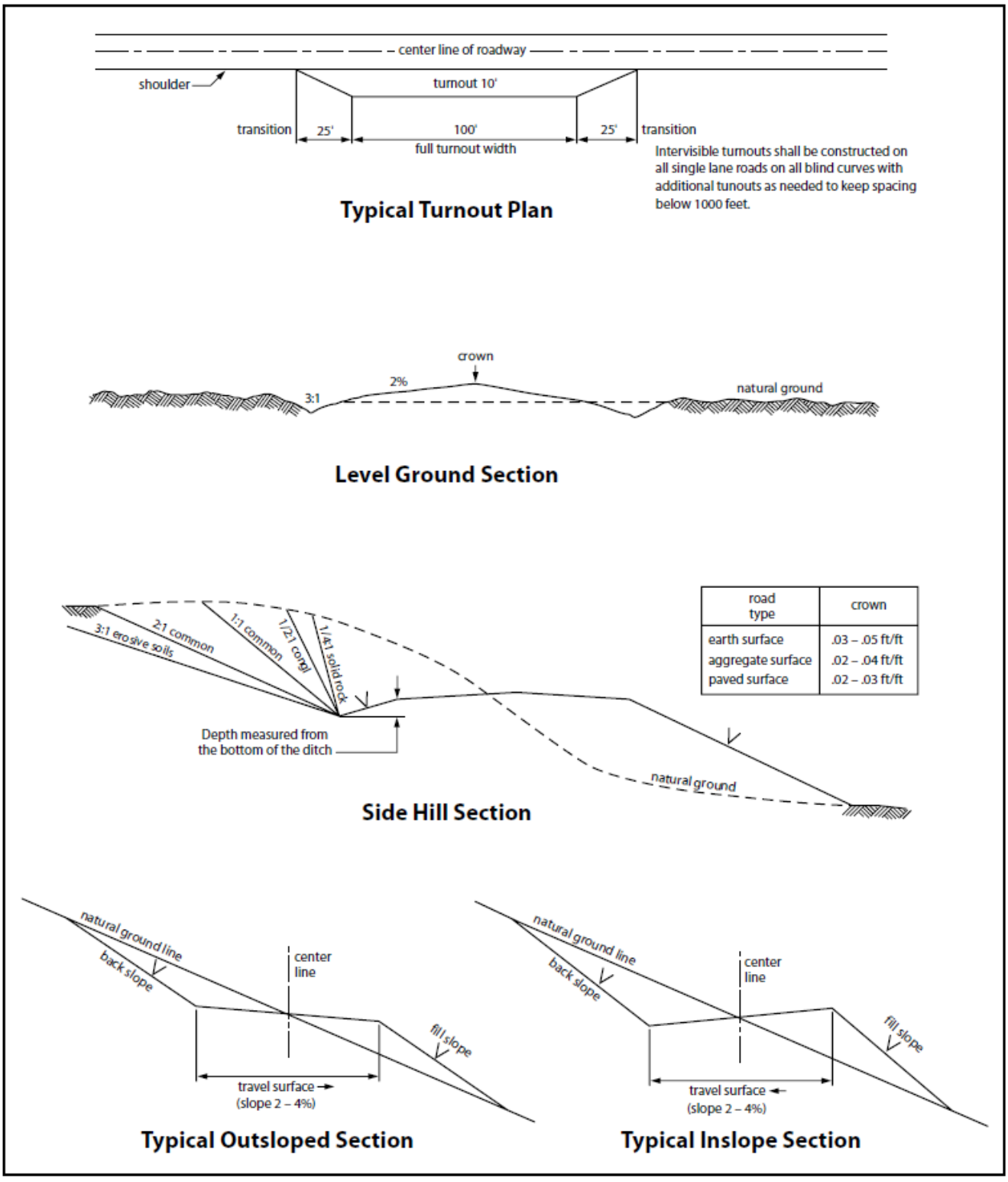


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

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5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

(X) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
( ) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or

other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, APD) and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
b. Activities of other parties including, but not limited to:
    (1) Land clearing.
    (2) Earth-disturbing and earth-moving work.
    (3) Blasting.
    (4) Vandalism and sabotage.
c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation

measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to

the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land

shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et.

seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of

evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

(X) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
() seed mixture 2/LPC	( ) Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil

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conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. Open-Vent Exhaust Stack Exclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad during the life of the well will be corrected within two weeks and proper measures will be taken to prevent future erosion.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory

revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

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Seed Mixture 1 for Loamy Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

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PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INCORPORATED
LEASE NO.:	NMNM094651
LOCATION:	T-24S, R-29E, S-17. NMPM
COUNTY:	EDDY COUNTY, NEW MEXICO

WELL NAME & NO.:	OXBOW CC 17-8 FED COM 2H
SURFACE HOLE FOOTAGE:	255'/S & 1730'/W
BOTTOM HOLE FOOTAGE	20'/N & 1260'/W

WELL NAME & NO.:	OXBOW CC 17-8 FED COM 3H
SURFACE HOLE FOOTAGE:	255'/S & 1800'/W
BOTTOM HOLE FOOTAGE	20'/N & 2140'/W

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☑ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **540** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

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a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **7-5/8** inch intermediate casing shall be set at approximately **6580** feet. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In **Medium Cave/Karst Areas** if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must run a CBL or ECHOMETER from TD of the 7-5/8" casing to surface. Submit results to BLM.

3. The minimum required fill of cement behind the **5-1/2 x 4-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **3000 (3M)** psi.

Option 2:

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1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Offline Cementing

- Contact the BLM prior to the commencement of any offline cementing procedure.

BOP Break Testing Variance

- BOP break testing is not permitted on this well pending sundry submission

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GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
SALT FLAT CC 20-29 FED COM 14H

Open drill site. No homes or buildings are near the proposed location.

1. Escape

   Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

▲ H2S Detectors. At least three detectors will be installed: bell nipple, rig floor and Shakers.

● Briefing Areas. At least two briefing areas will be placed, 90 deg off.

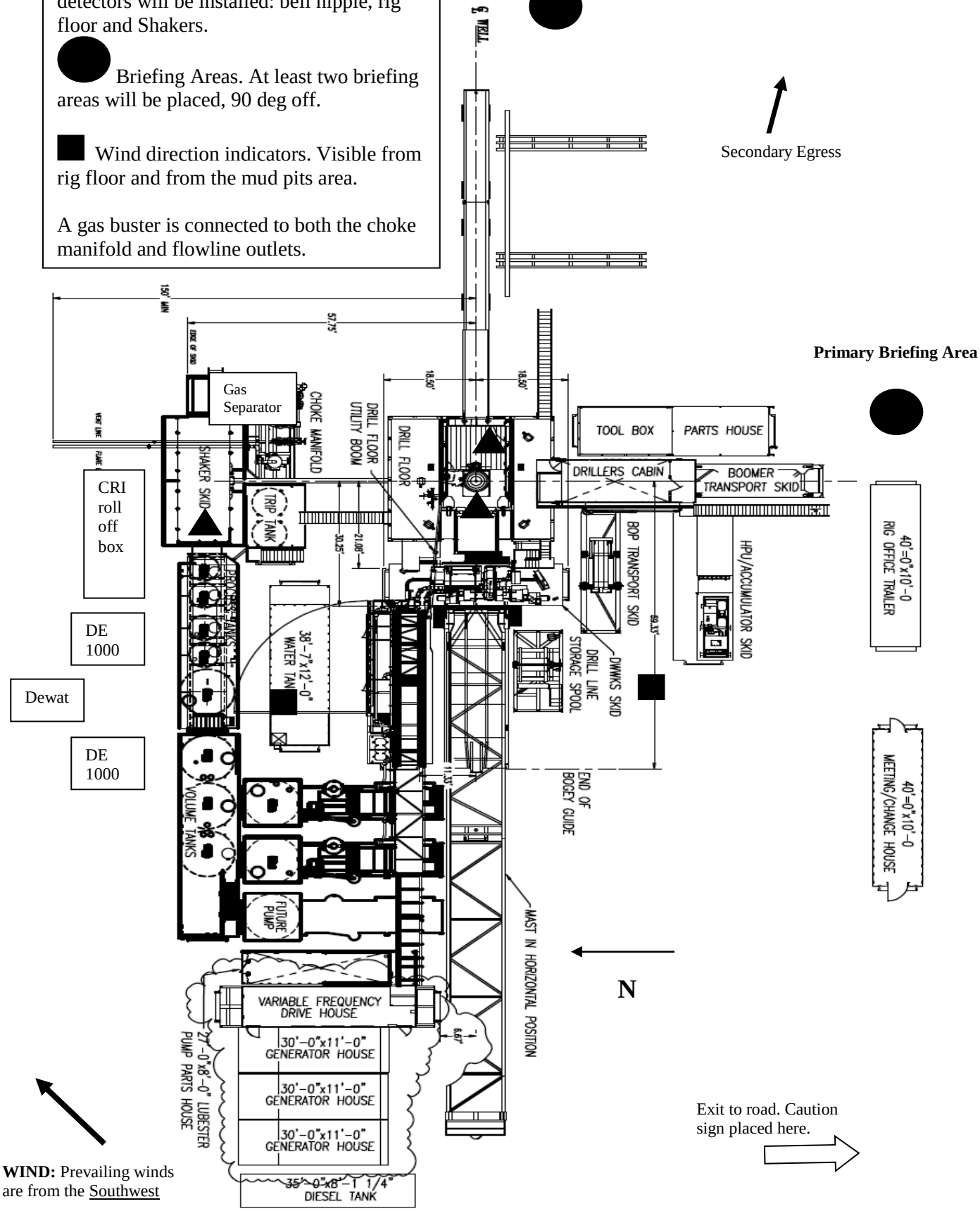
■ Wind direction indicators. Visible from rig floor and from the mud pits area.

A gas buster is connected to both the choke manifold and flowline outlets.

Secondary Briefing Area

Secondary Egress

Primary Briefing Area



WIND: Prevailing winds are from the Southwest

Exit to road. Caution sign placed here.

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
New Mexico

Scope

This contingency plan establishes guidelines for the public, all company employees, and contract employees who's work activities may involve exposure to hydrogen sulfide (H2S) gas.
While drilling this well, it is possible to encounter H2S bearing formations. At all times, the first barrier to control H2S emissions will be the drilling fluid, which will have a density high enough to control influx.

Objective

1. Provide an immediate and predetermined response plan to any condition when H2S is detected. All H2S detections in excess of 10 parts per million (ppm) concentration are considered an Emergency.

2. Prevent any and all accidents, and prevent the uncontrolled release of hydrogen sulfide into the atmosphere.

3. Provide proper evacuation procedures to cope with emergencies.

4. Provide immediate and adequate medical attention should an injury occur.

Discussion

Implementation:	This plan with all details is to be fully implemented before drilling to commence.
Emergency response Procedure:	This section outlines the conditions and denotes steps to be taken in the event of an emergency.
Emergency equipment Procedure:	This section outlines the safety and emergency equipment that will be required for the drilling of this well.
Training provisions:	This section outlines the training provisions that must be adhered to prior to drilling.
Drilling emergency call lists:	Included are the telephone numbers of all persons to be contacted should an emergency exist.
Briefing:	This section deals with the briefing of all people involved in the drilling operation.
Public safety:	Public safety personnel will be made aware of any potential evacuation and any additional support needed.
Check lists:	Status check lists and procedural check lists have been included to insure adherence to the plan.
General information:	A general information section has been included to supply support information.

Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on the well:

1. The hazards and characteristics of H2S.
2. Proper use and maintenance of personal protective equipment and life support systems.
3. H2S detection.
4. Proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
5. Proper techniques for first aid and rescue procedures.
6. Physical effects of hydrogen sulfide on the human body.
7. Toxicity of hydrogen sulfide and sulfur dioxide.
8. Use of SCBA and supplied air equipment.
9. First aid and artificial respiration.
10. Emergency rescue.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile strength tubular is to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling a well, blowout prevention and well control procedures.
3. The contents and requirements of the H2S Drilling Operations Plan.

H2S training refresher must have been taken within one year prior to drilling the well. Specifics on the well to be drilled will be discussed during the pre-spud meeting. H2S and well control (choke) drills will be performed while drilling the well, at least on a weekly basis. This plan shall be available in the well site. All personnel will be required to carry the documentation proving that the H2S training has been taken.

Service company and visiting personnel

A. Each service company that will be on this well will be notified if the zone contains H2S.

B. Each service company must provide for the training and equipment of their employees before they arrive at the well site.

C. Each service company will be expected to attend a well site briefing

Emergency Equipment Requirements

1. Well control equipment

The well shall have hydraulic BOP equipment for the anticipated pressures. Equipment is to be tested on installation and follow Oxy Well Control standard, as well as BLM Onshore Order #2.

Special control equipment:

A. Hydraulic BOP equipment with remote control on ground. Remotely operated choke.
B. Rotating head
C. Gas buster equipment shall be installed before drilling out of surface pipe.

2. Protective equipment for personnel

A. Four (4) 30-minute positive pressure air packs (2 at each briefing area) on location.

B. Adequate fire extinguishers shall be located at strategic locations.

C. Radio / cell telephone communication will be available at the rig.

- Rig floor and trailers.
- Vehicle.

3. Hydrogen sulfide sensors and alarms

A. H2S sensor with alarms will be located on the rig floor, at the bell nipple, and at the flow line. These monitors will be set to alarm at 10 ppm with strobe light, and audible alarm.
B. Hand operated detectors with tubes.
C. H2S monitor tester (to be provided by contract Safety Company.)
D. There shall be one combustible gas detector on location at all times.

4. Visual Warning Systems

A. One sign located at each location entrance with the following language:

Caution – potential poison gas
Hydrogen sulfide
No admittance without authorization

Wind sock – wind streamers:

A. One 36” (in length) wind sock located at protection center, at height visible from rig floor.
B. One 36” (in length) wind sock located at height visible from pit areas.

Condition flags

A. One each condition flag to be displayed to denote conditions.

green – normal conditions
yellow – potential danger
red – danger, H2S present

B. Condition flag shall be posted at each location sign entrance.

5. Mud Program

The mud program is designed to minimize the risk of having H2S and other formation fluids at surface. Proper mud weight and safe drilling practices will be applied. H2S scavengers will be used to minimize the hazards while drilling. Below is a summary of the drilling program.

Mud inspection devices:

Garrett gas train or hatch tester for inspection of sulfide concentration in mud system.

6. Metallurgy

A. Drill string, casing, tubing, wellhead, blowout preventers, drilling spools or adapters, kill lines, choke manifold, lines and valves shall be suitable for the H2S service.
B. All the elastomers, packing, seals and ring gaskets shall be suitable for H2S service.

7. Well Testing

No drill stem test will be performed on this well.

8. Evacuation plan

Evacuation routes should be established prior to well spud for each well and discussed with all rig personnel.

9. Designated area

A. Parking and visitor area: all vehicles are to be parked at a predetermined safe distance from the wellhead.
B. There will be a designated smoking area.
C. Two briefing areas on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds perpendicularly, or at a 45-degree angle if wind direction tends to shift in the area.

Emergency procedures

A. In the event of any evidence of H2S level above 10 ppm, take the following steps:

1. The Driller will pick up off bottom, shut down the pumps, slow down the pipe rotation.

2. Secure and don escape breathing equipment, report to the upwind designated safe briefing / muster area.

3. All personnel on location will be accounted for and emergency search should begin for any missing, the Buddy System will be implemented.

4. Order non-essential personnel to leave the well site, order all essential personnel out of the danger zone and upwind to the nearest designated safe briefing / muster area.

5. Entrance to the location will be secured to a higher level than our usual "Meet and Greet" requirement, and the proper condition flag will be displayed at the entrance to the location.

6. Take steps to determine if the H2S level can be corrected or suppressed and, if so, proceed as required.

B. If uncontrollable conditions occur:

1. Take steps to protect and/or remove any public in the down-wind area from the rig – partial evacuation and isolation. Notify necessary public safety personnel and appropriate regulatory entities (i.e. BLM) of the situation.

2. Remove all personnel to the nearest upwind designated safe briefing / muster area or off location.

3. Notify public safety personnel of safe briefing / muster area.

4. An assigned crew member will blockade the entrance to the location. No unauthorized personnel will be allowed entry to the location.

5. Proceed with best plan (at the time) to regain control of the well. Maintain tight security and safety procedures.

C. Responsibility:

1. Designated personnel.

a. Shall be responsible for the total implementation of this plan.
b. Shall be in complete command during any emergency.
c. Shall designate a back-up.

All personnel:	1. On alarm, don escape unit and report to the nearest upwind designated safe briefing / muster area upw 2. Check status of personnel (buddy system). 3. Secure breathing equipment. 4. Await orders from supervisor.
Drill site manager:	1. Don escape unit if necessary and report to nearest upwind designated safe briefing / muster area. 2. Coordinate preparations of individuals to return to point of release with tool pusher and driller (using the buddy system). 3. Determine H2S concentrations. 4. Assess situation and take control measures.
Tool pusher:	1. Don escape unit Report to up nearest upwind designated safe briefing / muster area. 2. Coordinate preparation of individuals to return to point of release with tool pusher drill site manager (using the buddy system). 3. Determine H2S concentration. 4. Assess situation and take control measures.
Driller:	1. Don escape unit, shut down pumps, continue

		rotating DP.
	2.	Check monitor for point of release.
	3.	Report to nearest upwind designated safe briefing / muster area.
	4.	Check status of personnel (in an attempt to rescue, use the buddy system).
	5.	Assigns least essential person to notify Drill Site Manager and tool pusher by quickest means in case of their absence.
	6.	Assumes the responsibilities of the Drill Site Manager and tool pusher until they arrive should they be absent.
Derrick man Floor man #1 Floor man #2	1.	Will remain in briefing / muster area until instructed by supervisor.
Mud engineer:	1.	Report to nearest upwind designated safe briefing / muster area.
	2.	When instructed, begin check of mud for ph and H2S level. (Garett gas train.)
Safety personnel:	1.	Mask up and check status of all personnel and secure operations as instructed by drill site manager.

Taking a kick

When taking a kick during an H2S emergency, all personnel will follow standard Well control procedures after reporting to briefing area and masking up.

Open-hole logging

All unnecessary personnel off floor. Drill Site Manager and safety personnel should monitor condition, advise status and determine need for use of air equipment.

Running casing or plugging

Following the same “tripping” procedure as above. Drill Site Manager and safety personnel should determine if all personnel have access to protective equipment.

Ignition procedures

The decision to ignite the well is the responsibility of the operator (Oxy Drilling Management). The decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. There is no hope controlling the blowout under the prevailing conditions at the well.

Instructions for igniting the well

1. Two people are required for the actual igniting operation. They must wear self-contained breathing units and have a safety rope attached. One man (tool pusher or safety engineer) will check the atmosphere for explosive gases with the gas monitor. The other man is responsible for igniting the well.
2. Primary method to ignite: 25 mm flare gun with range of approximately 500 feet.
3. Ignite upwind and do not approach any closer than is warranted.
4. Select the ignition site best for protection, and which offers an easy escape route.
5. Before firing, check for presence of combustible gas.
6. After lighting, continue emergency action and procedure as before.
7. All unassigned personnel will remain in briefing area until instructed by supervisor or directed by the Drill Site Manager.

Remember: After well is ignited, burning hydrogen sulfide will convert to sulfur dioxide, which is also highly toxic. **Do not assume the area is safe after the well is ignited.**

Status check list

Note: All items on this list must be completed before drilling to production casing point.

1. H2S sign at location entrance.
2. Two (2) wind socks located as required.
3. Four (4) 30-minute positive pressure air packs (2 at each Briefing area) on location for all rig personnel and mud loggers.
4. Air packs inspected and ready for use.
5. Cascade system and hose line hook-up as needed.
6. Cascade system for refilling air bottles as needed.
7. Condition flag on location and ready for use.
8. H2S detection system hooked up and tested.
9. H2S alarm system hooked up and tested.
10. Hand operated H2S detector with tubes on location.
11. 1 – 100’ length of nylon rope on location.
12. All rig crew and supervisors trained as required.
13. All outside service contractors advised of potential H2S hazard on well.
14. No smoking sign posted and a designated smoking area identified.
15. Calibration of all H2S equipment shall be noted on the IADC report.

Checked by:_____ Date:_____

Procedural check list during H2S events

Perform each tour:

1. Check fire extinguishers to see that they have the proper charge.

2. Check breathing equipment to ensure that it in proper working order.

3. Make sure all the H2S detection system is operative.

Perform each week:

1. Check each piece of breathing equipment to make sure that demand or forced air regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you receive air or feel air flow.

2. BOP skills (well control drills).

3. Check supply pressure on BOP accumulator stand by source.

4. Check breathing equipment mask assembly to see that straps are loosened and turned back, ready to put on.

5. Check pressure on breathing equipment air bottles to make sure they are charged to full volume. (Air quality checked for proper air grade “D” before bringing to location)

6. Confirm pressure on all supply air bottles.

7. Perform breathing equipment drills with on-site personnel.

8. Check the following supplies for availability.

   A. Emergency telephone list.
   B. Hand operated H2S detectors and tubes.

General evacuation plan

1. When the company approved supervisor (Drill Site Manager, consultant, rig pusher, or driller) determines the H2S gas cannot be limited to the well location and the public will be involved, he will activate the evacuation plan.

2. Drill Site Manager or designee will notify local government agency that a hazardous condition exists and evacuation needs to be implemented.

3. Company or contractor safety personnel that have been trained in the use of H2S detection equipment and self-contained breathing equipment will monitor H2S concentrations, wind directions, and area of exposure. They will delineate the outer perimeter of the hazardous gas area. Extension to the evacuation area will be determined from information gathered.

4. Law enforcement personnel (state police, police dept., fire dept., and sheriff's dept.) Will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

5. After the discharge of gas has been controlled, company safety personnel will determine when the area is safe for re-entry.

Important: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

Emergency actions

Well blowout – if emergency

1. Evacuate all personnel to "Safe Briefing / Muster Areas" or off location if needed.
2. If sour gas – evacuate rig personnel.
3. If sour gas – evacuate public within 3000 ft radius of exposure.
4. Don SCBA and shut well in if possible using the buddy system.
5. Notify Drilling Superintendent and call 911 for emergency help (fire dept and ambulance) if needed.
6. Implement the Blowout Contingency Plan, and Drilling Emergency Action Plan.
6. Give first aid as needed.

Person down location/facility

1. If immediately possible, contact 911. Give location and wait for confirmation.
2. Don SCBA and perform rescue operation using buddy system.

Toxic effects of hydrogen sulfide

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 ppm, which is .001% by volume. Hydrogen sulfide is heavier than air (specific gravity – 1.192) and colorless. It forms an explosive mixture with air between 4.3 and 46.0 percent by volume. Hydrogen sulfide is almost as toxic as hydrogen cyanide and is between five and six times more toxic than carbon monoxide. Toxicity data for hydrogen sulfide and various other gases are compared in table i. Physical effects at various hydrogen sulfide exposure levels are shown in table ii.

Table i
Toxicity of various gases

Common name	Chemical formula	Specific gravity (sc=1)	Threshold limit (1)	Hazardous limit (2)	Lethal concentration (3)
Hydrogen Cyanide	Hcn	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H2S	1.18	10 ppm	250 ppm/hr	600 ppm
Sulfur Dioxide	So2	2.21	5 ppm	-	1000 ppm
Chlorine	Cl2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	Co	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	Co2	1.52	5000 ppm	5%	10%
Methane	Ch4	0.55	90,000 ppm	Combustible above 5% in air	

1) threshold limit – concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects.

2) hazardous limit – concentration that will cause death with short-term exposure.

3) lethal concentration – concentration that will cause death with short-term exposure.

Toxic effects of hydrogen sulfide

Table ii
Physical effects of hydrogen sulfide

Percent (%)	Ppm	Concentration Grains 100 std. Ft3*	Physical effects
0.001	<10	00.65	Obvious and unpleasant odor.

0.002	10	01.30	Safe for 8 hours of exposure.
0.010	100	06.48	Kill smell in 3 – 15 minutes. May sting eyes and throat.
0.020	200	12.96	Kills smell shortly; stings eyes and throat.
0.050	500	32.96	Dizziness; breathing ceases in a few minutes; needs prompt artificial respiration.
0.070	700	45.36	Unconscious quickly; death will result if not rescued promptly.
0.100	1000	64.30	Unconscious at once; followed by death within minutes.

*at 15.00 psia and 60’f.

Use of self-contained breathing equipment (SCBA)

1. Written procedures shall be prepared covering safe use of SCBA's in dangerous atmosphere, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available SCBA.

2 SCBA's shall be inspected frequently at random to insure that they are properly used, cleaned, and maintained.

3. Anyone who may use the SCBA's shall be trained in how to insure proper face-piece to face seal. They shall wear SCBA's in normal air and then wear them in a test atmosphere. (note: such items as facial hair {beard or sideburns} and eyeglasses will not allow proper seal.) Anyone that may be reasonably expected to wear SCBA's should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses or contact lenses.

4. Maintenance and care of SCBA's:

   a. A program for maintenance and care of SCBA's shall include the following:
      1. Inspection for defects, including leak checks.
      2. Cleaning and disinfecting.
      3. Repair.
      4. Storage.

   b. Inspection, self-contained breathing apparatus for emergency use shall be inspected monthly.
      1. Fully charged cylinders.
      2. Regulator and warning device operation.
      3. Condition of face piece and connections.
      4. Rubber parts shall be maintained to keep them pliable and prevent deterioration.

   c. Routinely used SCBA's shall be collected, cleaned and disinfected as frequently as necessary to insure proper protection is provided.

5. Persons assigned tasks that requires use of self-contained breathing equipment shall be certified physically fit (medically cleared) for breathing equipment usage at least annually.

6. SCBA's should be worn when:

   A. Any employee works near the top or on top of any tank unless test reveals less than 10 ppm of H2S.

B. When breaking out any line where H2S can reasonably be expected.

C. When sampling air in areas to determine if toxic concentrations of H2S exists.

D. When working in areas where over 10 ppm H2S has been detected.

E. At any time there is a doubt as to the H2S level in the area to be entered.

Rescue
First aid for H2S poisoning

Do not panic!

Remain calm – think!

1. Don SCBA breathing equipment.

2. Remove victim(s) utilizing buddy system to fresh air as quickly as possible. (go up-wind from source or at right angle to the wind. Not down wind.)

3. Briefly apply chest pressure – arm lift method of artificial respiration to clean the victim's lungs and to avoid inhaling any toxic gas directly from the victim's lungs.

4. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.

5. Hospital(s) or medical facilities need to be informed, before-hand, of the possibility of H2S gas poisoning – no matter how remote the possibility is.

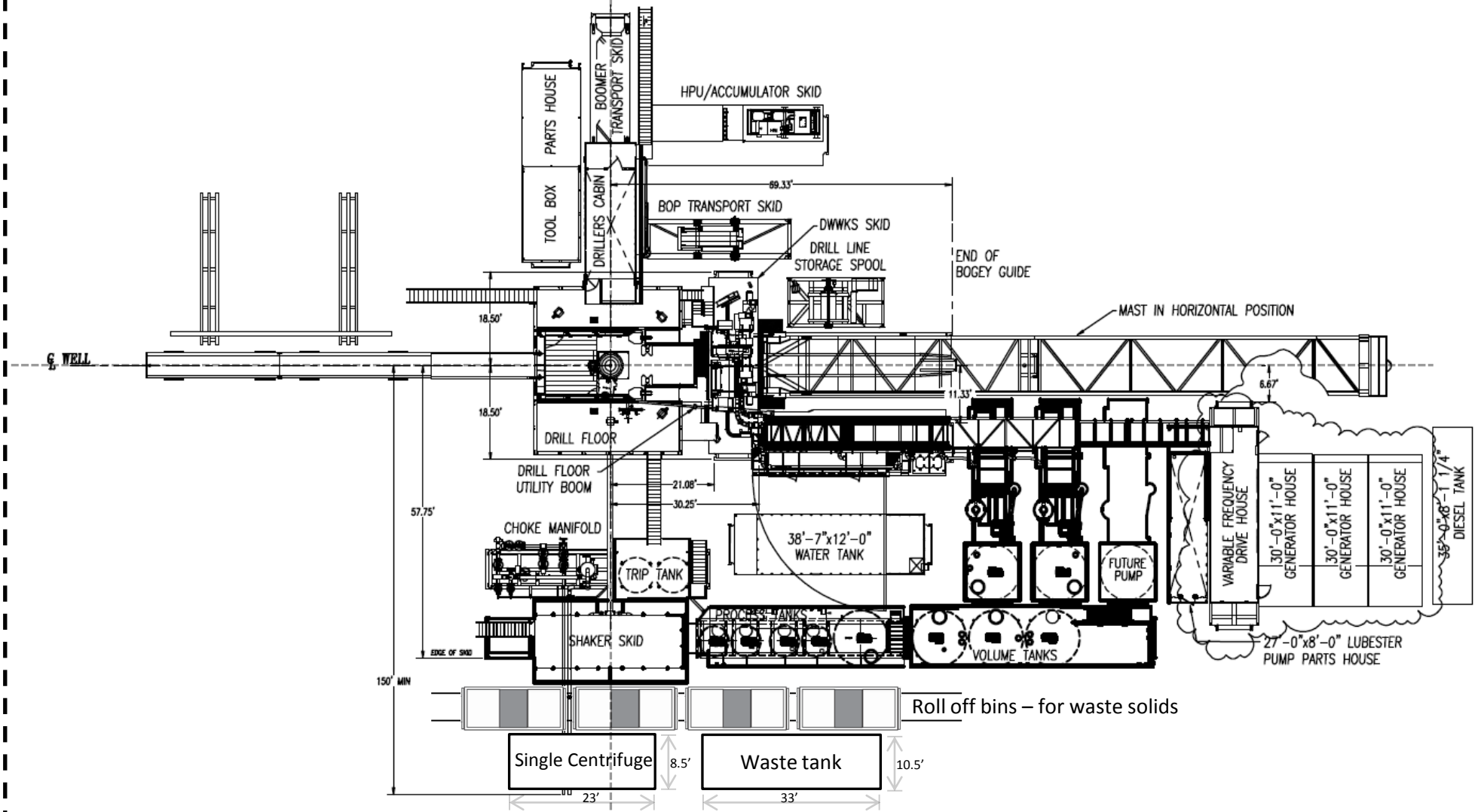
6. Notify emergency room personnel that the victim(s) has been exposed to H2S gas.

Besides basic first aid, everyone on location should have a good working knowledge of artificial respiration.

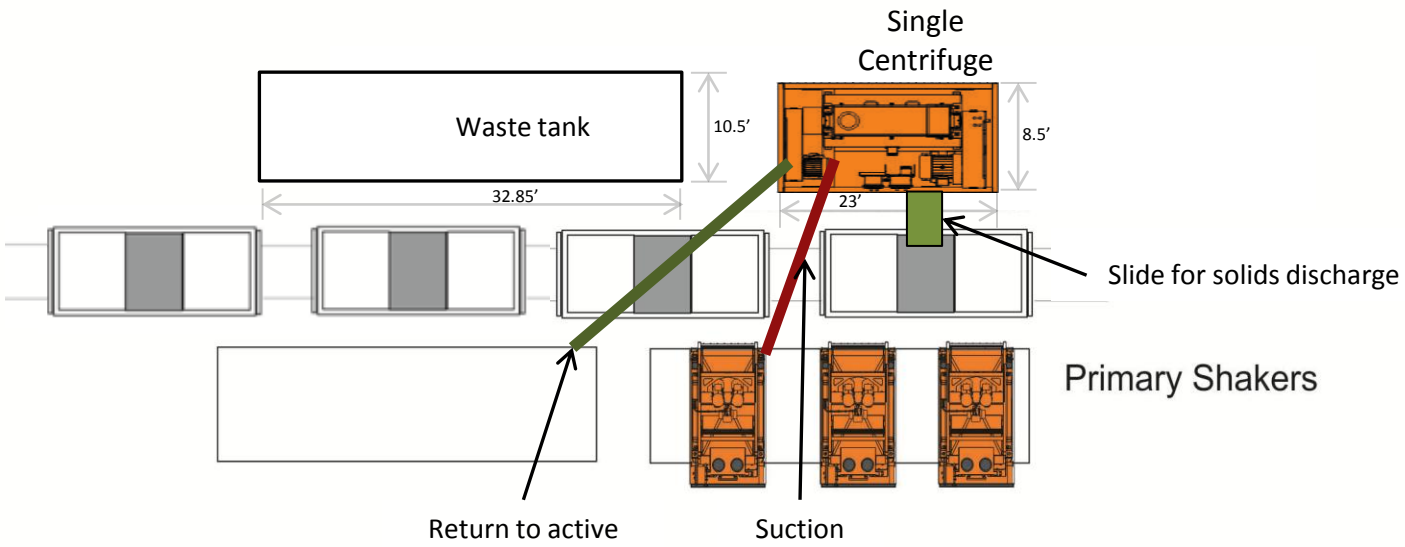
Revised CM 6/27/2012

Oxy Single Centrifuge Closed Loop System – New Mexico Flex III

May 28, 2013



Oxy



Oxy Single Centrifuge Closed Loop System – New Mexico Flex III

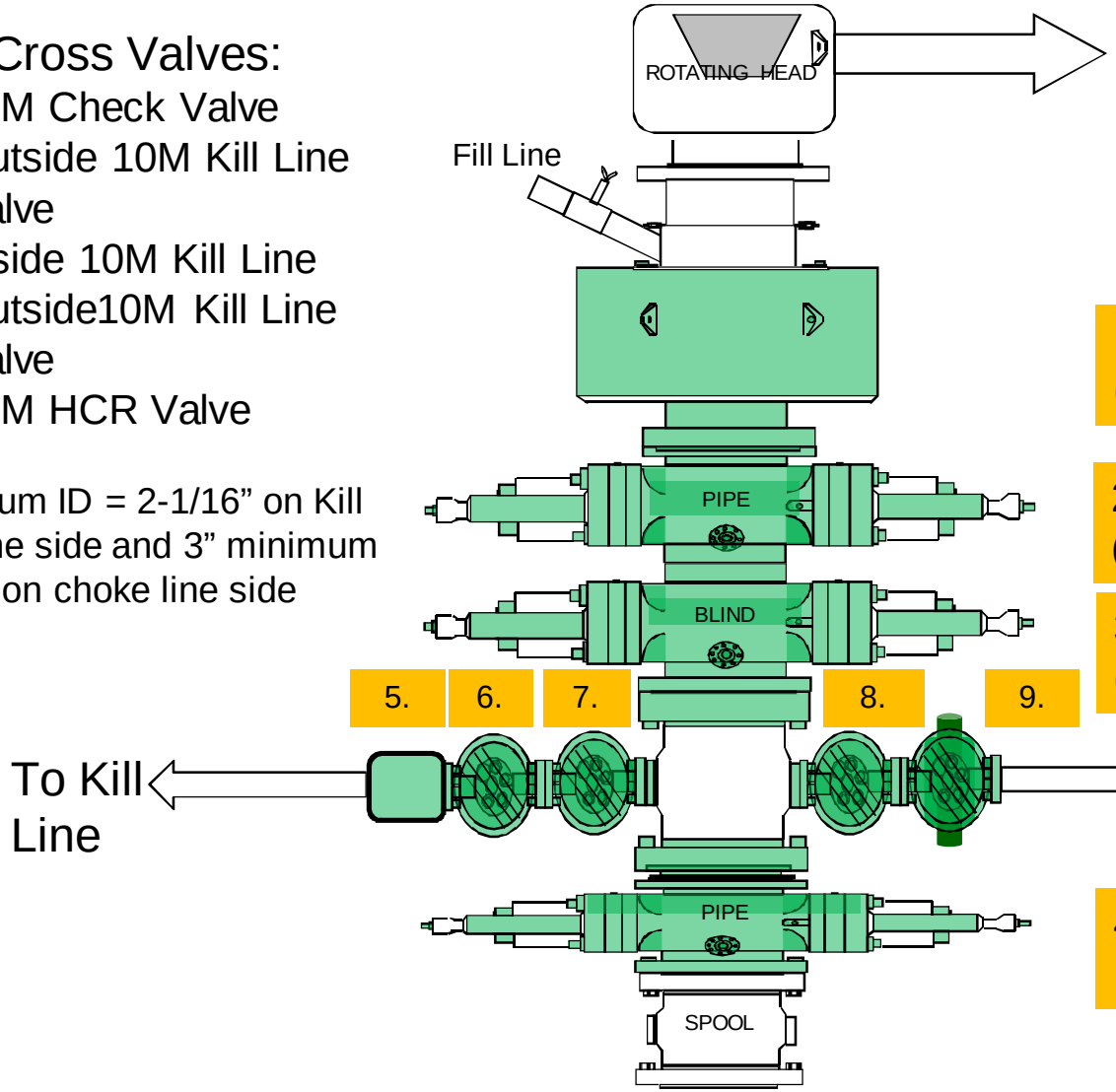
May 28, 2013

5/10M BOP Stack

Mud Cross Valves:

5. 10M Check Valve
6. Outside 10M Kill Line Valve
7. Inside 10M Kill Line
8. Outside10M Kill Line Valve
9. 10M HCR Valve

*Minimum ID = 2-1/16” on Kill Line side and 3” minimum ID on choke line side

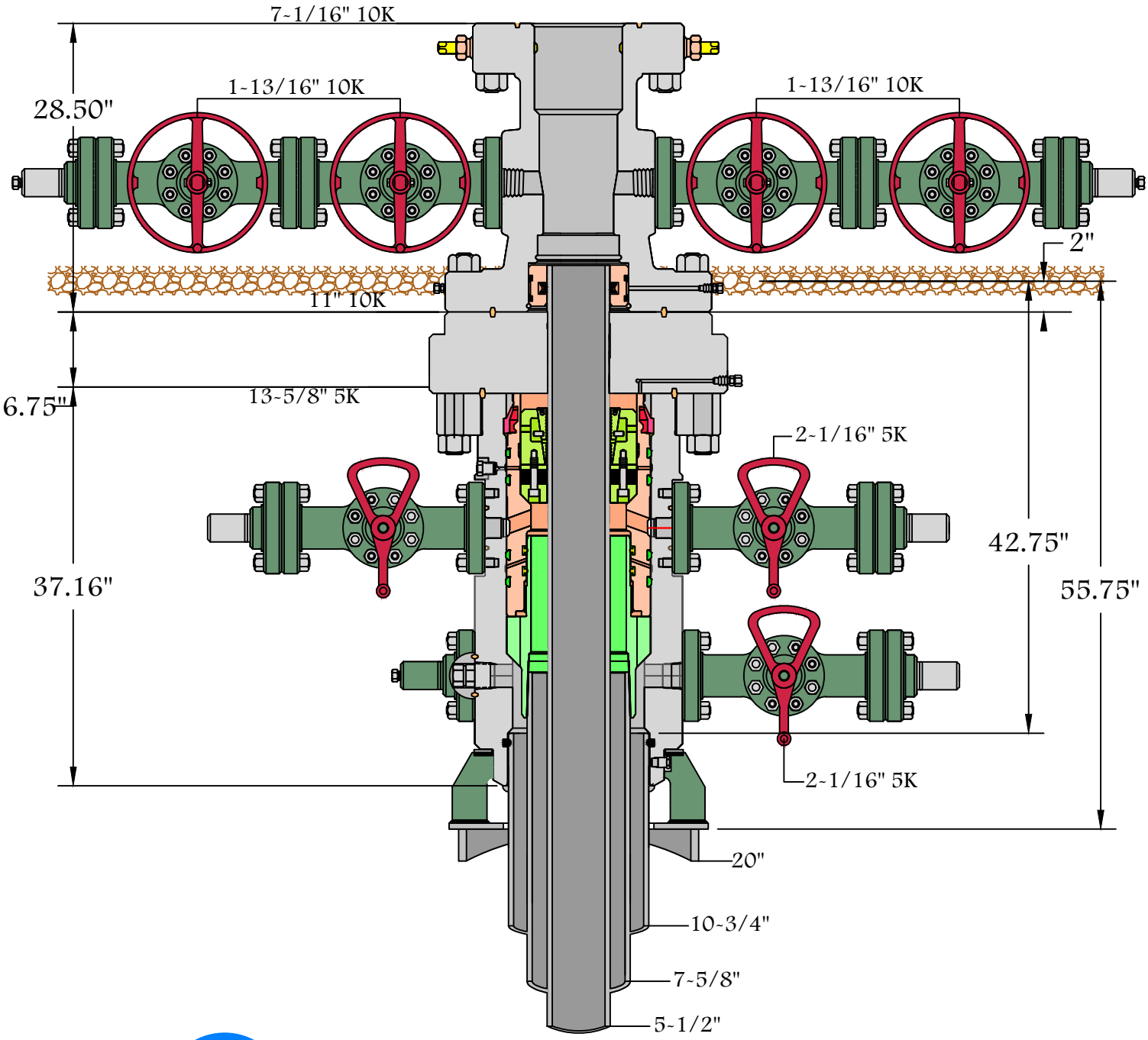


1. 5,000 psi Annular (13-5/8” ID)

2. 10,000 psi Upper Pipe Ram (13-5/8” ID)

3. 10,000 psi Blind Ram (13-5/8” ID)

4. 10,000 psi Lower Pipe Ram (13-5/8” ID)



13-5/8" 5K MN-DS

CAMERON
A Schlumberger Company

Name:	Date:	Working Pressure:	#

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report
04/22/2021

APD ID: 10400055329
Submission Date: 03/19/2020
Operator Name: OXY USA INCORPORATED
Well Name: OXBOW CC 17-8 FED COM
Well Number: 3H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400055329
Tie to previous NOS? N
Submission Date: 03/19/2020
BLM Office: CARLSBAD
User: STEPHEN JANACEK
Title: Regulatory Engineer
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM094651
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? N
Permitting Agent? NO
APD Operator: OXY USA INCORPORATED
Operator letter of designation:

Operator Info

Operator Organization Name: OXY USA INCORPORATED
Operator Address: 5 Greenway Plaza, Suite 110
Zip: 77046
Operator PO Box:
Operator City: Houston
State: TX
Operator Phone: (713)366-5716
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: OXBOW CC 17-8 FED COM
Well Number: 3H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: Purple Sage
Pool Name: BONE SPRING
Is the proposed well in an area containing other mineral resources? NONE

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Is the proposed well in an area containing other mineral resources? NONE

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** OXBOW CC 17-8 FED COM **Number:** 15H, 2H, 37H, 38H, and 3H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 35 FT **Distance to lease line:** 20 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: OxbowCC17_08FedCom3H_SitePlan_20200319132414.pdf

OxbowCC17_08FedCom3H_C102_20200319132414.pdf

Well work start Date: 09/14/2021 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	255	FSL	1800	FWL	24S	29E	17	Aliquot SESW	32.211028	-104.009293	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 94651	2936	0	0	Y
KOP Leg #1	50	FSL	2140	FWL	24S	29E	17	Aliquot SESW	32.210457	-104.008185	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 94651	-3643	6680	6579	Y

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	100	FSL	2140	FWL	24S	29E	17	Aliquot SESW	32.210594	-104.008185	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 94651	-4360	7728	7296	Y
PPP Leg #1-2	2656	FNL	2140	FWL	24S	29E	8	Aliquot SENW	32.232222	-104.008247	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 117120	-4379	15697	7315	Y
PPP Leg #1-3	1328	FSL	2140	FWL	24S	29E	8	Aliquot NESW	32.228573	-104.008236	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 102913	-4375	14269	7311	Y
PPP Leg #1-4	1	FSL	2140	FWL	24S	29E	8	Aliquot SESW	32.224925	-104.008226	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC065970C	-4373	12941	7309	Y
PPP Leg #1-5	1326	FNL	2140	FWL	24S	29E	17	Aliquot NENW	32.221277	-104.008216	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 117120	-4369	11615	7305	Y
PPP Leg #1-6	1332	FSL	2142	FWL	24S	29E	17	Aliquot NESW	32.213981	-104.008195	EDDY	NEW MEXICO	NEW MEXICO	F	FEE	-4364	8961	7300	Y
EXIT Leg #1	100	FNL	2140	FWL	24S	29E	8	Aliquot NENW	32.239248	-104.008267	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 117120	-4385	18151	7321	Y
BHL Leg #1	20	FNL	2140	FWL	24S	29E	8	Aliquot NENW	21.239468	-104.008268	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 117120	-4385	18231	7321	Y

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
04/22/2021

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Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
694046	RUSTLER	2936	284	284	ANHYDRITE, DOLOMITE, SHALE	USEABLE WATER	N
694047	SALADO	2336	600	600	ANHYDRITE, DOLOMITE, HALITE, SHALE	OTHER : Salt	N
694048	CASTILE	1693	1243	1243	ANHYDRITE	OTHER : Salt	N
694049	LAMAR	141	2795	2795	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : Brine	N
694050	BELL CANYON	85	2851	2851	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : Brine	N
694051	CHERRY CANYON	-792	3728	3728	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : Brine	N
694052	BRUSHY CANYON	-2038	4974	5011	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : Brine	N
694053	BONE SPRING	-3632	6568	6686	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 7296

Equipment: 13-5/8" 5M/10M Annular, Blind Ram, Double Ram

Requesting Variance? YES

Variance request: OXY requests a variance for the use of a flexible choke line from the BOP to Choke Manifold.

Testing Procedure: Oxy will utilize a 5M annular with a 10M BOPE stack. The BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. BOP Break Testing Request As per the agreement reached in the Oxy/BLM meeting on Feb 22, 2018, Oxy requests permission to allow BOP Break Testing under the following conditions: 1. After a full BOP test is conducted on the first well on

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

the pad. 2. When skidding to drill an intermediate section that casing point is either shallower than the third Bone Spring or 10,000 feet TVD. 3. Full BOP test will be required prior to drilling any production hole.

Choke Diagram Attachment:

OxbowCC17_08FedCom3H_BLM_ATTACHMENTS_FLEX_III_v8_CC_220_5x10M_20200319132304.pdf

BOP Diagram Attachment:

OxbowCC17_08FedCom3H_BOP_20200319132316.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	540	0	540	2936	2396	540	J-55	40.5	BUTT	1.125	1.2	BUOY	1.4	BUOY	1.4
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	6580	0	6580	3101	-3644	6580	HCL-80	26.4	BUTT	1.125	1.2	BUOY	1.4	BUOY	1.4
3	PRODUCTION	6.75	5.5	NEW	API	Y	0	18231	0	7296	3101	-4360	18231	P-110	20	OTHER - DQX	1.125	1.2	BUOY	1.4	BUOY	1.4

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

OxbowCC17_08FedCom3H_CsgCriteria_20200319132732.pdf

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

OxbowCC17_08FedCom3H_CsgCriteria_20200319132803.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

OxbowCC17_08FedCom3H_TMK_UP_DQX_4.500in_x_13_20200319132853.50

Casing Design Assumptions and Worksheet(s):

OxbowCC17_08FedCom3H_TMK_UP_DQX_5.500in_x_20_20200319132921.00

OxbowCC17_08FedCom3H_CsgCriteria_20200319132921.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	540	438	1.33	14.8	583	100	Cl C	Accelerator
INTERMEDIATE	Lead	2	5224	6580	193	1.65	13.2	318	5	class h cement	retarder, dispersant, accelerator
INTERMEDIATE	Tail		0	5224	643	1.92	12.9	1235	10	class c	accelerator

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		6080	18231	1415	1.38	13.2	1952	20	class h cement	Retarder, Dispersant, Salt

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2.
Describe the mud monitoring system utilized: PVT/MD Totco/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	540	WATER-BASED MUD	8.6	8.8							
540	6580	OTHER : Saturated Brine Based Mud and/or Oil Based Mud	8	10							
6580	7296	OTHER : Water Based and/or oil Based Mud	8	9.6							

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

GR from TD to surface (horizontal well - vertical portion of hole). Mud log from intermediate casing shoe to TD.

List of open and cased hole logs run in the well:

GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No coring is planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3655 **Anticipated Surface Pressure:** 2044

Anticipated Bottom Hole Temperature(F): 139

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

OxbowCC17_08FedCom3H_H2SEmerContact_20200319133355.pdf
OxbowCC17_08FedCom3H_H2S2_20200319133355.pdf
OxbowCC17_08FedCom3H_H2S1_20200319133442.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

OxbowCC17_08FedCom3H_DirectPlot_20200319133520.pdf
OxbowCC17_08FedCom3H_DirectPlan_20200319133520.pdf

Other proposed operations facets description:

OXY requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage, we will drop a cancelation cone and not pump the second stage.

OXY requests the option to run production casing with DQX, SF TORQ, and/or DQW TORQ connections to accommodate hole conditions or drilling operations.

OXY requests to pump a two stage Intermediate casing cement job with the first stage being pumped conventionally with the calculated TOC @ the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the top of the Brushy Canyon to Surface.

OXY requests a variance to cement the 7-5/8" intermediate casing string offline, see attached for additional

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

information.

Annular Clearance Variance Request
As per the agreement reached in the OXY/BLM meeting on Feb 22, 2018, OXY requests permission to allow deviation from the 0.422 annular clearance requirement from Onshore Order #2 under the following conditions:
1. Annular clearance to meet or exceed 0.422 between intermediate casing ID and production casing coupling only on the first 500 overlap between both casings.
2. Annular clearance less than 0.422 is acceptable for the curve and lateral portions of the production open hole section.

Well will be drilled with a walking/skidding operation. Plan to drill the multiple well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.

OXY requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that OXY would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. See attached for additional spudder rig information.

Other proposed operations facets attachment:

OxbowCC17_08FedCom3H_DrillPlan_20200319133539.pdf

OxbowCC17_08FedCom3H_Spudder_Rig_Attachment_20200319133539.pdf

Other Variance attachment:

OxbowCC17_08FedCom3H_OfflineCement_20200319133553.pdf

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SUPO Data Report
04/22/2021

APD ID: 10400055329
Submission Date: 03/19/2020
Operator Name: OXY USA INCORPORATED
Well Name: OXBOW CC 17-8 FED COM
Well Number: 3H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

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Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

OxbowCC17_08FedCom3H_ExistRoads_20200319133618.pdf

Existing Road Purpose: FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

OxbowCC17_08FedCom3H_NewRoad_20200319133646.pdf

New road type: LOCAL

Length: 3367 Feet **Width (ft.):** 25

Max slope (%): 0 **Max grade (%):** 0

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Watershed Diversion every 200' if needed.

New road access plan or profile prepared? Y

New road access plan attachment:

OxbowCC17_08FedCom3H_NewRoad_20200319133703.pdf

Access road engineering design? N

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 0

Offsite topsoil source description:

Onsite topsoil removal process: If available

Access other construction information: Turnouts every 1000 as needed.

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: CULVERT

Drainage Control comments: Watershed Diversion every 200' if needed.

Road Drainage Control Structures (DCS) description: Watershed Diversion every 200' if needed.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

OxbowCC17_08FedCom3H_ExistWells_20200319133825.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

OxbowCC17_08FedCom3H_LeaseFacilityInfo_20200319133906.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Water source type: GW WELL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER WELL

Water source transport method: PIPELINE

TRUCKING

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2000 **Source volume (acre-feet):** 0.25778619

Source volume (gal): 84000

Water source and transportation map:

OxbowCC17_08FedCom3H_GRRWtrSrc_20200319133937.pdf

OxbowCC17_08FedCom3H_MesqWtrSrc_20200319133937.pdf

Water source comments: This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations (Gregory Rockhouse, Mesquite) in the area and will be hauled to location by transport truck using existing and proposed roads.

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Primary - All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit or from prevailing deposits found on the location. Will use BLM recommended extra caliche from other locations close by for roads, if available. Secondary - The secondary way of obtaining caliche to build locations and roads will be by turning over the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cubic yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel: a. The top 6 of topsoil is pushed off and stockpiled along the side of the location. b. An approximate 120 X 120 area is used within the proposed well site to remove caliche. c. Subsoil is removed and piled alongside the 120 X 120 within the pad site. d. When caliche is found, material will be stockpiled within the pad site to build the location and road. e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road. f. Once the well is drilled the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad. Caliche will be provided from one of the following three pits located in Sections 6, 20, 22 T24S R29E and/or Section 2 T25S R29E. Water will be provided from one of the three frac ponds located in Sections 15, 21, 22 T24S R29E and/or Section 2 T25S R29E.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water-Based Cuttings, Water-Based Mud, Oil-Based Cuttings, Oil-Based Mud, Produced Water

Amount of waste: 1202 barrels

Waste disposal frequency : Daily

Safe containment description: Haul-Off Bins

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: An approved facility that can process drill cuttings, drill fluids, flowback water, produced water, contaminated soils, and other non-hazardous wastes.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

OxbowCC17_08FedCom3H_WellSiteCL_20200319134040.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** OXBOW CC 17-8 FED COM

Multiple Well Pad Number: 15H, 2H, 37H, 38H, and 3H

Recontouring attachment:

Drainage/Erosion control construction: Reclamation to be wind rowed as needed to control erosion

Drainage/Erosion control reclamation: Reclamation to be wind rowed as needed to control erosion

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Well pad proposed disturbance (acres): 7.33
Road proposed disturbance (acres): 2.32
Powerline proposed disturbance (acres): 10.52
Pipeline proposed disturbance (acres): 7.91
Other proposed disturbance (acres): 0

Total proposed disturbance: 28.080000000000002

Well pad interim reclamation (acres): 1.89
Road interim reclamation (acres): 1.24
Powerline interim reclamation (acres): 10.52
Pipeline interim reclamation (acres): 5.27
Other interim reclamation (acres): 0

Total interim reclamation: 18.919999999999998

Well pad long term disturbance (acres): 5.44
Road long term disturbance (acres): 1.08
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 2.64
Other long term disturbance (acres): 0

Total long term disturbance: 9.16

Disturbance Comments: See Below

Reconstruction method: If the well is deemed commercially productive, caliche from the areas of the pad site not required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original topsoil will again be returned to the pad and contoured, as close as possible, to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.
Topsoil redistribution: The original topsoil will be returned to the area of the drill pad not necessary to operate the well.

Soil treatment: To be determined by the BLM.

Existing Vegetation at the well pad: To be determined by the BLM at Onsite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: To be determined by the BLM at Onsite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: To be determined by the BLM at Onsite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: To be determined by the BLM at Onsite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Jim **Last Name:** Wilson

Phone: (575)631-2442 **Email:** jim_wilson@oxy.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: To be determined by the BLM.

Weed treatment plan attachment:

Monitoring plan description: To be determined by the BLM.

Monitoring plan attachment:

Success standards: To be determined by the BLM.

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Disturbance type: WELL PAD

Describe:

Surface Owner: OTHER

Other surface owner description: Fee - OXY USA Inc.

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: OTHER

Other surface owner description: Fee - OXY USA Inc.

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Disturbance type: PIPELINE

Describe:

Surface Owner: OTHER

Other surface owner description: Fee - OXY USA Inc.

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: OTHER

Describe: Electric Line

Surface Owner: OTHER

Other surface owner description: Fee - OXY USA Inc.

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Section 12 - Other Information

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: Permian Basin MOA To be submitted after APD acceptance. GIS Shapefiles available for BLM download from shared FTP site after APD submittal.
Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO Attachment

OxbowCC17_08FedCom3H_GasCapPlan_20200319134138.pdf
OxbowCC17_08FedCom3H_AM_20200319134139.pdf
OxbowCC17_08FedCom3H_Loc_20200319134154.pdf
OxbowCC17_08FedCom3H_LVM_20200319134156.pdf
OxbowCC17_08FedCom3H_SUPO_20200319134221.pdf
OxbowCC17_08FedCom3H_StakeForm_20200319134221.pdf
OxbowCC17_08FedCom3H_VM_20200319134235.pdf

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

04/22/2021

APD ID: 10400055329 **Submission Date:** 03/19/2020

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM **Well Number:** 3H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

04/22/2021

APD ID: 10400055329

Submission Date: 03/19/2020

Operator Name: OXY USA INCORPORATED

Well Name: OXBOW CC 17-8 FED COM

Well Number: 3H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: ESB000226

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 26628

COMMENTS

Operator:	OGRID:	Action Number:	Action Type:
OXY USA INC P.O. Box 4294 Houston, TX772104294	16696	26628	FORM 3160-3

Created By	Comment	Comment Date
kpickford	KP GEO Review 5/4/2021	05/04/2021

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

CONDITIONS

Action 26628

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
OXY USA INC P.O. Box 4294 Houston, TX772104294	16696	26628	FORM 3160-3

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system