

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

Sundry Print Report?

Well Name: CORRAL GORGE 12-13

FEDERAL COM

Well Location: T25S / R29E / SEC 12 /

NWNW / 32.151502 / -103.945575

County or Parish/State: EDDY /

NM

Well Number: 311H Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM015303,

NMNM15303

Unit or CA Name:

Unit or CA Number:

MINIMINITESOS

US Well Number: 3001547215

Well Status: Drilling Well

Operator: OXY USA INCORPORATED

Notice of Intent

Sundry ID: 2506590

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 07/07/2021 Time Sundry Submitted: 02:47

Date proposed operation will begin: 11/22/2021

Procedure Description: OXY USA Inc. respectfully requests to amend the APD with the following changes: 1. Amend pool to Purple Sage Wolfcamp, see attached C102 well plat. 2. Amend casing program, see attached drill plan. 3. Amend cementing and mud programs, see attached drill plan. 4. Amend the horizontal spacing unit (HSU), see attached C102 well plat.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

CorralGorge12_13FederalCom311H_DrillPlan_20210902132532.pdf

 $Corral Gorge 12_13 Federal Com 311 H_Direct Plan_20210902132518.pdf$

CorralGorge12_13FederalCom311H_DirectPlot_20210902132505.pdf

 $CORRALGORGE 12_13 FDCOM 311_Drill Path_20210902132448.pdf$

CORRALGORGE12_13FDCOM311_C102_20210902132433.pdf

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FEDERAL COM

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County or Parish/State: Page 2 of

Zip:

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Operator: OXY USA **INCORPORATED**

Conditions of Approval

Additional Reviews

Corral_Gorge_12_13_Federal_Com_311H_Sundry_ID_2506590_20211004152034.pdf

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: LESLIE REEVES Signed on: SEP 02, 2021 01:25 PM

Name: OXY USA INCORPORATED

Title: Advisor Regulatory

Street Address: 5 GREENWAY PLAZA, SUITE 110

City: HOUSTON State: TX

Phone: (713) 497-2492

Email address: LESLIE_REEVES@OXY.COM

Field Representative

Representative Name:

Street Address:

State: City:

Phone:

Email address:

BLM Point of Contact

Signature: Cody R. Layton

BLM POC Name: Cody Layton **BLM POC Title:** Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959 BLM POC Email Address: clayton@blm.gov

Disposition: Approved Disposition Date: 12/17/2021

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: OXY USA Incorporated

LEASE NO.: NMNM015303

LOCATION: | Section 12, T.25 S., R.29 E., NMPM

COUNTY: Eddy County, New Mexico

WELL NAME & NO.: | Corral Gorge 12-13 Federal Com 311H

SURFACE HOLE FOOTAGE: 162'/N & 320'/W **BOTTOM HOLE FOOTAGE** 20'/S & 1270'/W

COA

H2S	☐ Yes	☑ No	
Potash	■ None	☐ Secretary	□ R-111-P
Cave/Karst Potential	Low		☐ High
Cave/Karst Potential	Critical		
Variance	None	Flex Hose	C 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

- 1. The 10-3/4 inch surface casing shall be set at approximately 687 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - 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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage.

- a. First stage: Operator will cement **5804 feet** with intent to reach the top of the Brushy Canyon.
- b. Second stage:
 - Operator will perform bradenhead squeeze. 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.
 Cement excess is less than 25%, more cement might be required.
- ❖ 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.

Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must run Echo-meter to verify fluid top and the volume of displacement fluid above the cement slurry in the annulus Or operator must run a CBL from TD of the 7-5/8" casing to surface. Submit results to BLM. Operator must run one CBL per Well Pad.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **500 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 **5000 (5M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.

Option 2:

- 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 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) 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.

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.
- 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.

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

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) 476-3460 Fax: (505) 476-3462

WELL LOCATION AND ACR	EAGE DEDICATION PLAT
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API Number 30-015-47215	Pool Code 98220	PURPLE SAGE WOLFCAMP					
Property Code	Prop	operty Name Well Number					
328295	CORRAL GORGE 1	12_13 FEDERAL COM	311H				
OGRID No.	0per	ator Name	Elevation				
16696	OXY	USA INC.	3076.1				

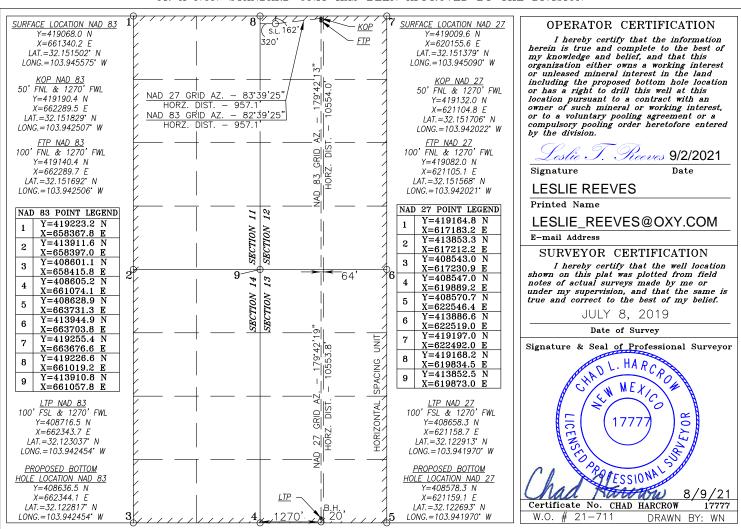
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	12	25-S	29-E		162	NORTH	320	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Townshi	ip	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	25-	S	29-E		20	SOUTH	1270	WEST	EDDY
Dedicated Acres	Joint o	r Infill	Cor	nsolidation (Code Or	der No.		•	•	
1280										

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



Oxy USA Inc. - Corral Gorge 12_13 Federal Com 311H Drill Plan

1. Geologic Formations

TVD of Target (ft):	10429	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	21368	Deepest Expected Fresh Water (ft):	348

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	348	348	
Salado	750	750	Salt
Castile	1725	1725	Salt
Delaware	3279	3279	Oil/Gas/Brine
Bell Canyon	3271	3271	Oil/Gas/Brine
Cherry Canyon	4176	4176	Oil/Gas/Brine
Brushy Canyon	5554	5535	Losses
Bone Spring	7103	7056	Oil/Gas
Bone Spring 1st	8048	7983	Oil/Gas
Bone Spring 2nd	8916	8835	Oil/Gas
Bone Spring 3rd	10036	9935	Oil/Gas
Wolfcamp	10394	10250	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

		V	ID	T\	/D				
	Hole	From	То	From To		Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft) (ft) (ft)		(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	14.75	0	690	0	690	10.75	45.5	J-55	ВТС
Intermediate	9.875	0	9797	0	9698	7.625	26.4	L-80 HC	ВТС
Production	6.75	0	21368	0	10429	5.5	20	P-110	DQX

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

^{*}Oxy requests the option to run production casing with DQX, TORQ DQW, TORQ SFW/Wedge 425, Wedge 461, and/or Wedge 441 connections to accommodate hole conditions or drilling operations.

All Casing SF Values will meet or exceed									
those below									
SF	SF	Body SF	Joint SF						
Collapse	ollapse Burst Tension Tension								
1.125	1.2	1.4	1.4						

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?	Y
If not provide justification (loading assumptions, casing design criteria).	1
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y
the collapse pressure rating of the casing?	1
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 3 rd 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 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(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 strings cemented to surface?	

3. Cementing Program

Section	Stage	Slurry:	Capacities	ft^3/ft	Excess:	From	То	Sacks	Volume (ft^3)	Placement
Surface	1	Surface - Tail	OH x Csg	0.5563	100%	690	-	577	768	Circulate
Int.	1	Intermediate 1S - Tail	OH x Csg	0.2148	5%	9,797	5,804	546	900	Circulate
Int.	2	Intermediate 2S - Tail BH	OH x Csg	0.2148	25%	5,804	690	715	1373	Bradenhead
Int.	2	Intermediate 2S - Tail BH	Csg x Csg	0.2338	0%	690	-	84	161	Bradenhead
Prod.	1	Production - Tail	OH x Csg	0.2526	20%	21,368	9,797	2542	3507	Circulate
Prod.	1	Production - Tail	Csg x Csg	0.0999	0%	9,797	9,297	36	50	Circulate

Description	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	500psi Time (hh:mm)	Cmt. Class	Accelerator	Retarder	Dispersant	Salt
Surface - Tail	14.8	1.33	6.365	5:26	С	х			
Intermediate 1S - Tail	13.2	1.65	8.64	11:54	Н	Х	Х	Х	Х
Intermediate 2S - Tail BH	12.9	1.92	10.41	23:10	С	Х			
Production - Tail	13.2	1.38	6.686	3:39	Н		Х	Х	х

Offline Cementing

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:

Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe). Land casing.

Fill pipe with kill weight fluid, and confirm well is static.

If well 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.
- 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

Created On: 8/24/2021 at 9:58 AM

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	*	Tested to:	Deepest TVD Depth (ft) per Section:
		3M		Annular	*	70% of working pressure	
				Blind Ram	*		
9.875" Hole	13-5/8"	3M		Pipe Ram		250 psi / 3000 psi	9698
		SIVI	Double Ram		✓	250 psi / 3000 psi	
			Other*				
		5M		Annular	*	70% of working pressure	
				Blind Ram			
6.75" Hole	13-5/8"	EN4		Pipe Ram		250 poi / 5000 poi	10429
		5M		Double Ram		250 psi / 5000 psi	
			Other*				

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.

^{*}Specify if additional ram is utilized

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.

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

5. Mud Program

Section	Depth - MD		Depth - TVD		Trms	Weight	Viceosity	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss
Surface	0	690	0	690	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	690	9797	690	9698	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	9797	21368	9698	10429	Water-Based or Oil- Based Mud	9.5 - 12.5	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	DVT/NAD Totas (Visual Manitorina
loss or gain of fluid?	PVT/MD Totco/Visual Monitoring

6. Logging and Testing Procedures

Logg	Logging, Coring and Testing.						
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).						
res	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						

Add	itional logs planned	Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	Bone Spring – TD
No	PEX	

7. Drilling Conditions

Condition	Specify what type and where?				
BH Pressure at deepest TVD	6779 psi				
Abnormal Temperature	No				
BH Temperature at deepest TVD	164°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

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.

DLIVI.	
N	H2S is present
Υ	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 3 well pad in batch by section: all surface sections, intermediate	Yes
sections and production sections. The wellhead will be secured with a night cap whenever	res
the rig is not over the well.	
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,	Yes
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.	

Total Estimated Cuttings Volume: 1521 bbls

Attachments

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

9. Company Personnel

Name	<u>Title</u>	Office Phone	Mobile Phone
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Filip Krneta	Drilling Engineer Supervisor	713-350-4751	832-244-4980
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
Diego Tellez	Drilling Manager	713-350-4602	713-303-4932

Released to Imaging: 12/22/2021 9:46:40 AM

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

OXY

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Corral Gorge 12_13

Well: Corral Gorge 12_13 Federal Com 311H

Wellbore: Wellbore #1
Design: Permitting Plan

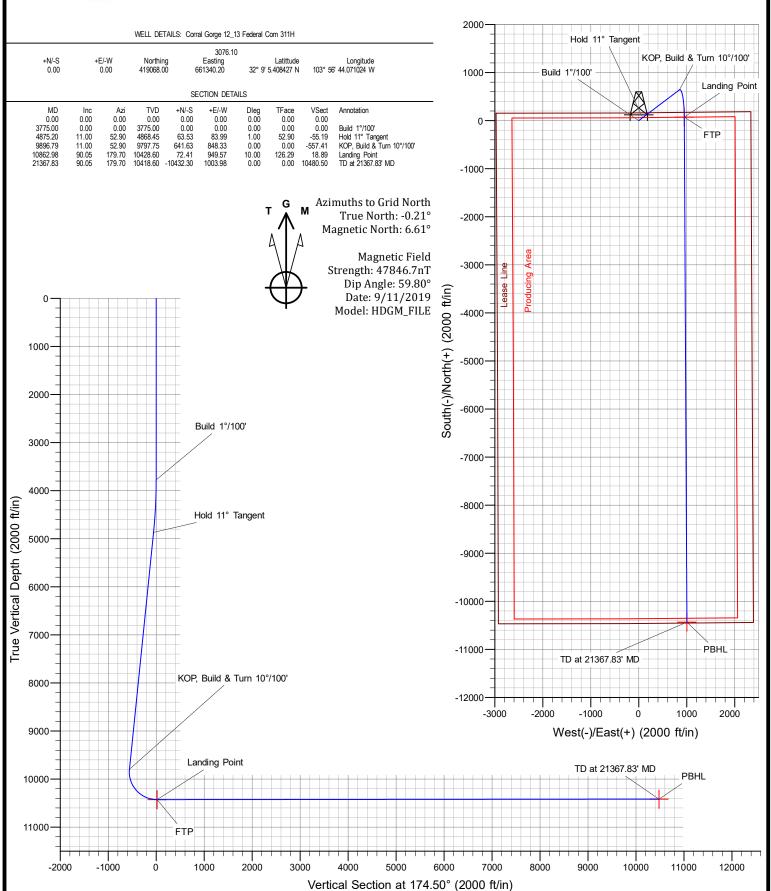
Geodetic System: US State Plane 1983

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level



PRD NM DIRECTIONAL PLANS (NAD 1983) Corral Gorge 12_13 Corral Gorge 12_13 Federal Com 311H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

24 August, 2021

Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Corral Gorge 12_13

Well: Corral Gorge 12_13 Federal Com 311H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Well Corral Gorge 12_13 Federal Com 311H

RKB=26.5' @ 3102.60ft RKB=26.5' @ 3102.60ft

Grid

Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983

Geo Datum: North American Datum 1983

Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Using geodetic scale factor

Site Corral Gorge 12_13

Site Position: Northing: 418,266.21 usft Latitude: 32° 8' 57.433960 N From: Мар Easting: 662,457.18 usft Longitude: 103° 56' 31.111937 W Slot Radius: **Position Uncertainty:** 1.00 ft 13.200 in **Grid Convergence:** 0.21°

Well Corral Gorge 12_13 Federal Com 311H

Well Position +N/-S 801.85 ft 419.068.00 usft Latitude: 32° 9' 5.408427 N Northing: +E/-W Easting: 661,340.20 usft Longitude: 103° 56' 44.071025 W -1,117.07 ft **Position Uncertainty** 1.00 ft Wellhead Elevation: **Ground Level:** 3,076.10 ft

 Wellbore
 Wellbore #1

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 HDGM_FILE
 9/11/2019
 6.82
 59.80
 47,846.70000000

Design Permitting Plan Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 174.50

Plan Survey Tool Program Date 8/24/2021

Depth From Depth To (ft) (ft)

(ft) Survey (Wellbore) Tool Name Remarks

1 0.00 21,367.83 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	
3,775.00	0.00	0.00	3,775.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,875.20	11.00	52.90	4,868.45	63.53	83.99	1.00	1.00	0.00	52.90	
9,896.79	11.00	52.90	9,797.75	641.63	848.33	0.00	0.00	0.00	0.00	
10,862.98	90.05	179.70	10,428.60	72.41	949.57	10.00	8.18	13.12	126.29	FTP (Corral Gorge
21,367.83	90.05	179.70	10,418.60	-10,432.30	1,003.98	0.00	0.00	0.00	0.00	PBHL (Corral Gorge

Planning Report

Database: Company: HOPSPP

ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Corral Gorge 12_13

Well: Corral Gorge 12_13 Federal Com 311H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Corral Gorge 12_13 Federal Com 311H

RKB=26.5' @ 3102.60ft RKB=26.5' @ 3102.60ft

Grid

anned 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		
1,700.00	0.00	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
2,000.00	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
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		3,300.00				0.00	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
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
-,			,						
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,775.00	0.00	0.00	3,775.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.25	52.90	3,800.00	0.03	0.04	-0.03	1.00	1.00	0.00
2 000 00	4.05	E0.00	3 000 00	0.00	4.00	0.74	4.00	4.00	0.00
3,900.00	1.25	52.90	3,899.99	0.82	1.09	-0.71	1.00	1.00	0.00
4,000.00	2.25	52.90	3,999.94	2.66	3.52	-2.31	1.00	1.00	0.00
4,100.00	3.25	52.90	4,099.83	5.56	7.35	-4.83	1.00	1.00	0.00
4,200.00	4.25	52.90	4,199.61	9.50	12.57	-8.26	1.00	1.00	0.00
4,300.00	5.25	52.90	4,299.27	14.50	19.17	-12.60	1.00	1.00	0.00
	0.20	02.00			10.17	12.00	1.00		0.00
4,400.00	6.25	52.90	4,398.76	20.54	27.16	-17.85	1.00	1.00	0.00
4,500.00	7.25	52.90	4,498.07	27.63	36.54	-24.01	1.00	1.00	0.00
4,600.00	8.25	52.90	4,597.15	35.77	47.29	-31.07	1.00	1.00	0.00
4,700.00	9.25	52.90	4,695.99	44.94	59.42	-39.05	1.00	1.00	0.00
4,800.00	10.25	52.90	4,794.54	55.16	72.93	-47.92	1.00	1.00	0.00
4,875.20	11.00	52.90	4,868.45	63.53	83.99	-55.19	1.00	1.00	0.00
,			,						
4,900.00	11.00	52.90	4,892.80	66.38	87.76	-57.67	0.00	0.00	0.00
E 000 00	11.00	52.90	4,990.96	77.89	102.98	-67.67	0.00	0.00	0.00
5,000.00									
5,100.00	11.00	52.90	5,089.12	89.40	118.21	-77.67	0.00	0.00	0.00

Planning Report

Database: Company: HOPSPP

ENGINEERING DESIGNS

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Site: Corral Gorge 12_13

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Survey Calculation Method:

Well Corral Gorge 12_13 Federal Com 311H

RKB=26.5' @ 3102.60ft RKB=26.5' @ 3102.60ft

Wellbore: Design:	Wellbore #1 Permitting Pla	an							
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)
5,300.00	11.00	52.90	5,285.44	112.43	148.65	-97.67	0.00	0.00	0.00
5,400.00 5,500.00	11.00 11.00	52.90 52.90	5,383.61 5,481.77	123.94 135.45	163.87 179.09	-107.67 -117.68	0.00 0.00	0.00 0.00	0.00 0.00
5,600.00	11.00	52.90	5,579.93	146.97	194.31	-127.68	0.00	0.00	0.00
5,700.00	11.00	52.90	5,678.09	158.48	209.53	-137.68	0.00	0.00	0.00
5,800.00	11.00	52.90	5,776.25	169.99	224.75	-147.68	0.00	0.00	0.00
5,900.00	11.00	52.90	5,874.42	181.50	239.97	-157.68	0.00	0.00	0.00
6,000.00	11.00	52.90	5,972.58	193.02	255.19	-167.68	0.00	0.00	0.00
6,100.00 6,200.00	11.00 11.00	52.90 52.90	6,070.74 6,168.90	204.53 216.04	270.42 285.64	-177.68 -187.68	0.00 0.00	0.00 0.00	0.00 0.00
6,300.00	11.00	52.90	6,267.06	227.55	300.86	-197.69	0.00	0.00	0.00
6,400.00	11.00	52.90	6,365.23	239.07	316.08	-207.69	0.00	0.00	0.00
6,500.00	11.00	52.90	6,463.39	250.58	331.30	-217.69	0.00	0.00	0.00
6,600.00	11.00	52.90	6,561.55	262.09	346.52	-227.69	0.00	0.00	0.00
6,700.00	11.00	52.90	6,659.71	273.60	361.74	-237.69	0.00	0.00	0.00
6,800.00	11.00	52.90	6,757.87	285.11	376.96	-247.69	0.00	0.00	0.00
6,900.00	11.00	52.90	6,856.04	296.63	392.18	-257.69	0.00	0.00	0.00
7,000.00	11.00	52.90	6,954.20	308.14	407.40	-267.69	0.00	0.00	0.00
7,100.00 7,200.00	11.00 11.00	52.90 52.90	7,052.36 7,150.52	319.65 331.16	422.63 437.85	-277.70 -287.70	0.00 0.00	0.00 0.00	0.00 0.00
7,300.00	11.00	52.90	7,248.68	342.68	453.07	-297.70	0.00	0.00	0.00
7,400.00	11.00	52.90	7,346.85	354.19	468.29	-307.70	0.00	0.00	0.00
7,500.00	11.00	52.90	7,445.01	365.70	483.51	-317.70	0.00	0.00	0.00
7,600.00	11.00	52.90	7,543.17	377.21	498.73	-327.70	0.00	0.00	0.00
7,700.00	11.00	52.90	7,641.33	388.73	513.95	-337.70	0.00	0.00	0.00
7,800.00	11.00	52.90	7,739.49	400.24	529.17	-347.71	0.00	0.00	0.00
7,900.00	11.00	52.90	7,837.66	411.75	544.39	-357.71	0.00	0.00	0.00
8,000.00 8,100.00	11.00 11.00	52.90 52.90	7,935.82 8,033.98	423.26 434.78	559.62 574.84	-367.71 -377.71	0.00 0.00	0.00 0.00	0.00 0.00
8,200.00	11.00	52.90	8,132.14	446.29	590.06	-387.71	0.00	0.00	0.00
8,300.00	11.00	52.90	8,230.31	457.80	605.28	-397.71	0.00	0.00	0.00
8,400.00	11.00	52.90	8,328.47	469.31	620.50	-407.71	0.00	0.00	0.00
8,500.00	11.00	52.90	8,426.63	480.82	635.72	-417.71	0.00	0.00	0.00
8,600.00	11.00	52.90	8,524.79	492.34	650.94	-427.72	0.00	0.00	0.00
8,700.00	11.00	52.90	8,622.95	503.85	666.16	-437.72	0.00	0.00	0.00
8,800.00	11.00	52.90	8,721.12	515.36	681.38	-447.72	0.00	0.00	0.00
8,900.00	11.00	52.90 52.00	8,819.28	526.87	696.60	-457.72	0.00	0.00	0.00
9,000.00 9,100.00	11.00 11.00	52.90 52.90	8,917.44 9,015.60	538.39 549.90	711.83 727.05	-467.72 -477.72	0.00 0.00	0.00 0.00	0.00 0.00
9,200.00	11.00	52.90	9,113.76	561.41	742.27	-487.72	0.00	0.00	0.00
9,300.00	11.00	52.90	9,211.93	572.92	757.49	-497.73	0.00	0.00	0.00
9,400.00	11.00	52.90	9,310.09	584.44	772.71	-507.73	0.00	0.00	0.00
9,500.00	11.00	52.90	9,408.25	595.95	787.93	-517.73	0.00	0.00	0.00
9,600.00	11.00	52.90	9,506.41	607.46	803.15	-527.73	0.00	0.00	0.00
9,700.00	11.00	52.90	9,604.57	618.97	818.37	-537.73	0.00	0.00	0.00
9,800.00 9,896.79	11.00 11.00	52.90 52.90	9,702.74 9,797.75	630.49 641.63	833.59 848.33	-547.73 -557.41	0.00 0.00	0.00 0.00	0.00 0.00
9,896.79	10.82	52.90 54.28	9,797.75	641.99	848.81	-557.41 -557.72	10.00	-5.82	42.96
10,000.00	9.61	112.81	9,899.56	644.24	864.16	-558.49	10.00	-1.21	58.53
10,100.00	16.31	147.55	9,997.09	629.11	879.43	-541.98	10.00	6.70	34.74
10,200.00	25.26	160.43	10,090.54	597.08	894.15	-508.68	10.00	8.95	12.88
10,300.00	34.76	166.73	10,177.05	549.10	907.87	-459.61	10.00	9.50	6.30
10,400.00	44.46	170.57	10,254.01	486.64	920.18	-396.25	10.00	9.70	3.83
10,500.00	54.26	173.26	10,319.06	411.60	930.71	-320.55	10.00	9.79	2.69
10,600.00	64.09	175.36	10,370.25	326.25	939.14	-234.79	10.00	9.84	2.10

Planning Report

Database: Company: HOPSPP

ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Corral Gorge 12_13

Well: Corral Gorge 12_13 Federal Com 311H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Corral Gorge 12_13 Federal Com 311H

RKB=26.5' @ 3102.60ft RKB=26.5' @ 3102.60ft

Grid

Design:	Permitting Pla	an							
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)
10,700.00	73.96	177.13	10,406.00	233.20	945.20	-141.58	10.00	9.86	1.77
10,800.00	83.83	178.73	10,425.24	135.26	948.72	-43.76	10.00	9.88	1.60
10,862.98	90.05	179.70	10,428.60	72.41	949.57	18.89	10.00	9.88	1.54
10,900.00	90.05	179.70	10,428.56	35.39	949.76	55.76	0.00	0.00	0.00
11,000.00	90.05	179.70	10,428.47	-64.61	950.28	155.35	0.00	0.00	0.00
11,100.00	90.05	179.70	10,428.37	-164.61	950.80	254.94	0.00	0.00	0.00
11,200.00	90.05	179.70	10,428.28	-264.61	951.32	354.52	0.00	0.00	0.00
11,300.00	90.05	179.70	10,428.18	-364.61	951.84	454.11	0.00	0.00	0.00
11,400.00 11,500.00	90.05 90.05	179.70 179.70	10,428.09 10,427.99	-464.61 -564.60	952.35 952.87	553.70 653.29	0.00 0.00	0.00 0.00	0.00 0.00
11,600.00	90.05	179.70	10,427.90	-664.60	953.39	752.88	0.00	0.00	0.00
11,700.00	90.05	179.70	10,427.80	-764.60	953.91	852.47	0.00	0.00	0.00
11,800.00 11,900.00	90.05 90.05	179.70 179.70	10,427.71 10,427.61	-864.60 -964.60	954.43 954.94	952.05 1,051.64	0.00 0.00	0.00 0.00	0.00 0.00
12,000.00	90.05	179.70	10,427.51	-1,064.60	955.46	1,051.04	0.00	0.00	0.00
12,100.00	90.05	179.70	10,427.42	-1,164.60	955.98	1,250.82	0.00	0.00	0.00
12,200.00 12,300.00	90.05 90.05	179.70 179.70	10,427.33 10,427.23	-1,264.60 -1,364.59	956.50 957.01	1,350.41 1,450.00	0.00 0.00	0.00 0.00	0.00 0.00
12,400.00	90.05	179.70	10,427.23	-1,364.59 -1,464.59	957.53	1,549.58	0.00	0.00	0.00
12,500.00	90.05	179.70	10,427.14	-1,564.59	958.05	1,649.17	0.00	0.00	0.00
•									
12,600.00 12,700.00	90.05 90.05	179.70 179.70	10,426.95 10,426.85	-1,664.59 -1,764.59	958.57 959.09	1,748.76	0.00 0.00	0.00 0.00	0.00 0.00
12,700.00	90.05	179.70	10,426.65	-1,764.59 -1,864.59	959.09	1,848.35 1,947.94	0.00	0.00	0.00
12,900.00	90.05	179.70	10,426.66	-1,964.59	960.12	2,047.53	0.00	0.00	0.00
13,000.00	90.05	179.70	10,426.57	-2,064.58	960.64	2,147.11	0.00	0.00	0.00
13,100.00	90.05	179.70	10,426.47	-2,164.58	961.16	2,246.70	0.00	0.00	0.00
13,200.00	90.05	179.70	10,426.38	-2,164.58	961.68	2,346.29	0.00	0.00	0.00
13,300.00	90.05	179.70	10,426.28	-2,364.58	962.19	2,445.88	0.00	0.00	0.00
13,400.00	90.05	179.70	10,426.19	-2,464.58	962.71	2,545.47	0.00	0.00	0.00
13,500.00	90.05	179.70	10,426.09	-2,564.58	963.23	2,645.06	0.00	0.00	0.00
13,600.00	90.05	179.70	10,425.99	-2,664.58	963.75	2,744.64	0.00	0.00	0.00
13,700.00	90.05	179.70	10,425.90	-2,764.57	964.27	2,844.23	0.00	0.00	0.00
13,800.00	90.05	179.70	10,425.80	-2,864.57	964.78	2,943.82	0.00	0.00	0.00
13,900.00	90.05	179.70	10,425.71	-2,964.57	965.30	3,043.41	0.00	0.00	0.00
14,000.00	90.05	179.70	10,425.61	-3,064.57	965.82	3,143.00	0.00	0.00	0.00
14,100.00	90.05	179.70	10,425.52	-3,164.57	966.34	3,242.59	0.00	0.00	0.00
14,200.00	90.05	179.70	10,425.42	-3,264.57	966.85	3,342.17	0.00	0.00	0.00
14,300.00	90.05	179.70	10,425.33	-3,364.57	967.37	3,441.76	0.00	0.00	0.00
14,400.00	90.05	179.70	10,425.23	-3,464.56	967.89	3,541.35	0.00	0.00	0.00
14,500.00	90.05	179.70	10,425.14	-3,564.56	968.41	3,640.94	0.00	0.00	0.00
14,600.00	90.05	179.70	10,425.04	-3,664.56	968.93	3,740.53	0.00	0.00	0.00
14,700.00	90.05	179.70	10,424.95	-3,764.56	969.44	3,840.12	0.00	0.00	0.00
14,800.00	90.05	179.70	10,424.85	-3,864.56	969.96	3,939.70	0.00	0.00	0.00
14,900.00	90.05	179.70	10,424.76	-3,964.56	970.48	4,039.29	0.00	0.00	0.00
15,000.00	90.05	179.70	10,424.66	-4,064.56	971.00	4,138.88	0.00	0.00	0.00
15,100.00	90.05	179.70	10,424.57	-4,164.56	971.52	4,238.47	0.00	0.00	0.00
15,200.00	90.05	179.70	10,424.47	-4,264.55	972.03	4,338.06	0.00	0.00	0.00
15,300.00	90.05	179.70	10,424.38	-4,364.55	972.55	4,437.65	0.00	0.00	0.00
15,400.00	90.05	179.70 179.70	10,424.28	-4,464.55 4.564.55	973.07	4,537.23	0.00	0.00	0.00
15,500.00	90.05		10,424.19	-4,564.55	973.59	4,636.82	0.00	0.00	0.00
15,600.00	90.05	179.70	10,424.09	-4,664.55	974.11	4,736.41	0.00	0.00	0.00
15,700.00	90.05	179.70	10,424.00	-4,764.55	974.62	4,836.00	0.00	0.00	0.00
15,800.00	90.05	179.70	10,423.90	-4,864.55	975.14	4,935.59	0.00	0.00	0.00
15,900.00 16,000.00	90.05 90.05	179.70 179.70	10,423.81 10,423.71	-4,964.54 -5,064.54	975.66 976.18	5,035.18 5,134.76	0.00 0.00	0.00 0.00	0.00 0.00
10,000.00	90.05	1/9./0	10,423.71	-5,004.54	9/0.18	5,134.76	0.00	0.00	0.00

Planning Report

Database: Company: Project:

Site:

HOPSPP

ENGINEERING DESIGNS

PRD NM DIRECTIONAL PLANS (NAD 1983)

Corral Gorge 12_13

Well: Corral Gorge 12_13 Federal Com 311H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Corral Gorge 12_13 Federal Com 311H

RKB=26.5' @ 3102.60ft RKB=26.5' @ 3102.60ft

Grid

Design:	Permitting Pla	an							
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)
16,100.00	90.05	179.70	10,423.61	-5,164.54	976.69	5,234.35	0.00	0.00	0.00
16,200.00	90.05	179.70	10,423.52	-5,264.54	977.21	5,333.94	0.00	0.00	0.00
16,300.00	90.05	179.70	10,423.42	-5,364.54	977.73	5,433.53	0.00	0.00	0.00
16,400.00	90.05	179.70	10,423.33	-5,464.54	978.25	5,533.12	0.00	0.00	0.00
16,500.00	90.05	179.70	10,423.23	-5,564.54	978.77	5,632.71	0.00	0.00	0.00
16,600.00	90.05	179.70	10,423.14	-5,664.53	979.28	5,732.29	0.00	0.00	0.00
16,700.00	90.05	179.70	10,423.04	-5,764.53	979.80	5,831.88	0.00	0.00	0.00
16,800.00	90.05	179.70	10,422.95	-5,864.53	980.32	5,931.47	0.00	0.00	0.00
16,900.00	90.05	179.70	10,422.85	-5,964.53	980.84	6,031.06	0.00	0.00	0.00
17,000.00	90.05	179.70	10,422.76	-6,064.53	981.36	6,130.65	0.00	0.00	0.00
17,100.00	90.05	179.70	10,422.66	-6,164.53	981.87	6,230.24	0.00	0.00	0.00
17,200.00	90.05	179.70	10,422.57	-6,264.53	982.39	6,329.82	0.00	0.00	0.00
17,300.00	90.05	179.70	10,422.47	-6,364.52	982.91	6,429.41	0.00	0.00	0.00
17,400.00	90.05	179.70	10,422.38	-6,464.52	983.43	6,529.00	0.00	0.00	0.00
17,500.00	90.05	179.70	10,422.28	-6,564.52	983.95	6,628.59	0.00	0.00	0.00
17,600.00 17,600.00 17,700.00 17,800.00 17,900.00 18,000.00	90.05 90.05 90.05 90.05	179.70 179.70 179.70 179.70	10,422.19 10,422.09 10,422.00 10,421.90	-6,664.52 -6,764.52 -6,864.52 -6,964.52	984.46 984.98 985.50 986.02	6,728.18 6,827.77 6,927.35 7,026.94	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
18,100.00 18,200.00 18,300.00 18,400.00	90.05 90.05 90.05 90.05 90.05	179.70 179.70 179.70 179.70 179.70	10,421.81 10,421.71 10,421.62 10,421.52 10,421.43	-7,064.51 -7,164.51 -7,264.51 -7,364.51 -7,464.51	986.53 987.05 987.57 988.09 988.61	7,126.53 7,226.12 7,325.71 7,425.30 7,524.88	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
18,500.00	90.05	179.70	10,421.33	-7,564.51	989.12	7,624.47	0.00	0.00	0.00
18,600.00	90.05	179.70	10,421.24	-7,664.51	989.64	7,724.06	0.00	0.00	0.00
18,700.00	90.05	179.70	10,421.14	-7,764.51	990.16	7,823.65	0.00	0.00	0.00
18,800.00	90.05	179.70	10,421.04	-7,864.50	990.68	7,923.24	0.00	0.00	0.00
18,900.00	90.05	179.70	10,420.95	-7,964.50	991.20	8,022.83	0.00	0.00	0.00
19,000.00	90.05	179.70	10,420.85	-8,064.50	991.71	8,122.41	0.00	0.00	0.00
19,100.00	90.05	179.70	10,420.76	-8,164.50	992.23	8,222.00	0.00	0.00	0.00
19,200.00	90.05	179.70	10,420.66	-8,264.50	992.75	8,321.59	0.00	0.00	0.00
19,300.00	90.05	179.70	10,420.57	-8,364.50	993.27	8,421.18	0.00	0.00	0.00
19,400.00	90.05	179.70	10,420.47	-8,464.50	993.79	8,520.77	0.00	0.00	0.00
19,500.00	90.05	179.70	10,420.38	-8,564.49	994.30	8,620.36	0.00	0.00	0.00
19,600.00	90.05	179.70	10,420.28	-8,664.49	994.82	8,719.94	0.00	0.00	0.00
19,700.00	90.05	179.70	10,420.19	-8,764.49	995.34	8,819.53	0.00	0.00	0.00
19,800.00	90.05	179.70	10,420.09	-8,864.49	995.86	8,919.12	0.00	0.00	0.00
19,900.00	90.05	179.70	10,420.00	-8,964.49	996.37	9,018.71	0.00	0.00	0.00
20,000.00	90.05	179.70	10,419.90	-9,064.49	996.89	9,118.30	0.00	0.00	0.00
20,100.00	90.05	179.70	10,419.81	-9,164.49	997.41	9,217.89	0.00	0.00	0.00
20,200.00	90.05	179.70	10,419.71	-9,264.48	997.93	9,317.47	0.00	0.00	0.00
20,300.00	90.05	179.70	10,419.62	-9,364.48	998.45	9,417.06	0.00	0.00	0.00
20,400.00	90.05	179.70	10,419.52	-9,464.48	998.96	9,516.65	0.00	0.00	0.00
20,500.00	90.05	179.70	10,419.43	-9,564.48	999.48	9,616.24	0.00	0.00	0.00
20,600.00	90.05	179.70	10,419.33	-9,664.48	1,000.00	9,715.83	0.00	0.00	0.00
20,700.00	90.05	179.70	10,419.24	-9,764.48	1,000.52	9,815.42	0.00	0.00	0.00
20,800.00	90.05	179.70	10,419.14	-9,864.48	1,001.04	9,915.00	0.00	0.00	0.00
20,900.00	90.05	179.70	10,419.05	-9,964.47	1,001.55	10,014.59	0.00	0.00	0.00
21,000.00	90.05	179.70	10,418.95	-10,064.47	1,002.07	10,114.18	0.00	0.00	0.00
21,100.00	90.05	179.70	10,418.86	-10,164.47	1,002.59	10,213.77	0.00	0.00	0.00
21,200.00	90.05	179.70	10,418.76	-10,264.47	1,003.11	10,313.36	0.00	0.00	0.00
21,300.00	90.05	179.70	10,418.66	-10,364.47	1,003.63	10,412.95	0.00	0.00	0.00
21,367.83	90.05	179.70	10,418.60	-10,432.30	1,003.98	10,480.50	0.00	0.00	0.00

Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Corral Gorge 12_13

Well: Corral Gorge 12_13 Federal Com 311H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Corral Gorge 12_13 Federal Com 311H

RKB=26.5' @ 3102.60ft RKB=26.5' @ 3102.60ft

Grid

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
PBHL (Corral Gorge - plan hits target cer - Point	0.00 nter	0.00	10,418.60	-10,432.30	1,003.98	408,636.50	662,344.10	32° 7' 22.142687 N	103° 56' 32.833769
FTP (Corral Gorge - plan hits target cer - Point	0.00 nter	0.00	10,428.60	72.41	949.57	419,140.40	662,289.70	32° 9′ 6.090919 N	103° 56' 33.023147

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	347.60	347.60	RUSTLER			
	749.60	749.60	SALADO			
	1,724.60	1,724.60	CASTILE			
	3,270.60	3,270.60	BELL CANYON			
	3,278.60	3,278.60	DELAWARE			
	4,175.93	4,175.60	CHERRY CANYON			
	5,553.82	5,534.60	BRUSHY CANYON			
	7,103.30	7,055.60	BONE SPRING			
	8,047.66	7,982.60	BONE SPRING 1ST			
	8,915.61	8,834.60	BONE SPRING 2ND			
	10,035.63	9,934.60	BONE SPRING 3RD			
	10,393.86	10,249.60	WOLFCAMP			
	10,665.84	10,395.60	WOLFCAMP A			

Plan Annotati	ons				
	Measured	Vertical	Local Coor	dinates	
	Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
	3,775.00 4,875.20 9,896.79 10,862.98 21,367.83	3,775.00 4,868.45 9,797.75 10,428.60 10,418.60	0.00 63.52 641.63 72.41 -10,432.30	0.00 83.99 848.33 949.57 1,003.98	Build 1°/100' Hold 11° Tangent KOP, Build & Turn 10°/100' Landing Point TD at 21367.83' MD

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

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**

CONDITIONS

Action 68114

CONDITIONS

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	68114
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	12/22/2021