			HOBB	S		
Form 3160-3			OCD - HOBB 10/29/2020		FORM APPR OMB No. 1004	
(June 2015)	ED STATES		10/29/2020 RECEIVED	Ex	pires: January	
DEPARTMEN			RECT	5. Lease Ser	ial No.	
BUREAU OF L	AND MANA	GEMENT				
APPLICATION FOR PE	RMIT TO DI	RILL OR I	REENTER	6. If Indian,	Allotee or Tri	be Name
1a. Type of work: DRILL	RE	EENTER		7. If Unit or	CA Agreemer	nt, Name and No.
1b. Type of Well: Oil Well Ga	s Well Ot	her		8 Lease Na	me and Well N	No
1c. Type of Completion: Hydraulic Fracturi	ng 🗌 Sir	ngle Zone	Multiple Zone			
					[32	22423]
2. Name of Operator [16696]				9. API Well		170.11
3a. Address		3b. Phone N	o. (include area code)	10 Field an	<b>30-025</b> d Pool, or Exp	
						[97500]
4. Location of Well (Report location clearly and	in accordance w	vith any State	requirements.*)	11. Sec., T. 1	R. M. or Blk. a	and Survey or Area
At surface						
At proposed prod. zone						
14. Distance in miles and direction from nearest t	own or post offic	ce*		12. County	or Parish	13. State
15. Distance from proposed*		16. No of ac	res in lease 17	. Spacing Unit dedica	ated to this we	
location to nearest property or lease line, ft.		10.110 01 40		· spatnig sint at at		
(Also to nearest drig. unit line, if any)						
18. Distance from proposed location* to nearest well, drilling, completed,		19. Proposed	l Depth 20	BLM/BIA Bond No.	. in file	
applied for, on this lease, ft.						
21. Elevations (Show whether DF, KDB, RT, GL,	etc.)	22. Approxi	mate date work will star	t* 23. Estimate	d duration	
		24. Attac	hments			
The following, completed in accordance with the (as applicable)	requirements of	Onshore Oil	and Gas Order No. 1, ar	nd the Hydraulic Frac	turing rule per	r 43 CFR 3162.3-3
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>		Ň	4. Bond to cover the op Item 20 above).	perations unless cover	ed by an exist	ing bond on file (see
3. A Surface Use Plan (if the location is on Nation			5. Operator certification			
SUPO must be filed with the appropriate Fores	t Service Office)	() ()	6. Such other site specified BLM.	ne information and/or	plans as may b	e requested by the
25. Signature		Name	(Printed/Typed)		Date	
Title						
Approved by (Signature)		Name	(Printed/Typed)		Date	
Title		Office				
Application approval does not warrant or certify t applicant to conduct operations thereon. Conditions of approval, if any, are attached.	hat the applicant	t holds legal o	or equitable title to those	e rights in the subject	lease which w	ould entitle the
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. of the United States any false, fictitious or fraudul					ake to any de	partment or agency
GCP Rec 10/29/2020					./	
				DIA	KZ	
			CONDITI	ND	10/30/20	20
SL		wn WI	H COMPLE	REQUIRES	NSP bef	
(Continued on page 2)	APPRO			Completion		tions on page 2)
(continued on puge 2)				- mprouvin	linguide	nono on puge 2)

Approval Date: 10/23/2020

#### 1. Geologic Formations

TVD of target	9244'	Pilot Hole Depth	N/A
MD at TD:	20161'	Deepest Expected fresh water:	861'

#### **Delaware Basin**

Formation	TVD - RKB	<b>Expected Fluids</b>
Rustler	861	
Salado	1,156	Salt
Castile	2,881	Salt
Lamar/Delaware	4,574	Oil/Gas/Brine
Bell Canyon	4,662	Oil/Gas/Brine
Cherry Canyon	5,481	Oil/Gas/Brine
Brushy Canyon	6,723	Losses
Bone Spring	8,472	Oil/Gas

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

#### 2. Casing Program

	U								Buoyant	Buoyant	
Hala Sina (in)	Casing Interval		Csg. Size	Weight	- Crada - Carra	Conda	Com	SF	SF Burst	Body SF	Joint SF
Hole Size (in)	From (ft)	To (ft)	(in)	(lbs)	Grade	Conn.	Collapse	SF Burst	Tension	Tension	
17.5	0	911	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4	
12.25	0	5531	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4	
8.5	0	20161	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4	
							SE Value	a will moot	- Eroood		

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.

## **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.

	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	V
justification (loading assumptions, casing design criteria).	1
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	V
the collapse pressure rating of the casing?	Ĭ

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 <sup>rd</sup> 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 <sup>nd</sup> 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 three strings cemented to surface?	

## 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)	963	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate (Lead)	1310	12.9	1.73	8.784	15:26	Pozzolan Cement, Retarder
Intermediate (Tail)	156	14.8	1.33	6.368	7:11	Class C Cement, Accelerator
Production (Lead)	420	11.9	2.24	12.327	14:46	Class H Cement, Retarder, Dispersant, Salt
Production (Tail)	2242	13.2	1.38	6.686	3:49	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	911	100%
Intermediate (Lead)	0	5031	50%
Intermediate (Tail)	5031	5531	20%
Production (Lead)	5031	8459	20%
Production (Tail)	8459	20161	15%

## **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.

## 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:
		3M		Annular		70% of working pressure
12.25" Hole	13-5/8"	12 5 (0)	Blind Ra	am	✓	
12.25" Hole		214	3M Pipe Ram Double Ram			250
		31/1			✓	250 psi / 3000 psi
			Other*			
		3M	Annula	ır	1	70% of working pressure
8.5" Hole	12 5/02	13-5/8"	Blind Ra	am	✓	
	13-5/8		Pipe Ra	Pipe Ram		250 mai / 2000 mai
		3M	Double F	Ram	✓	250 psi / 3000 psi
			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.

3

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?
and co per Or require system that is	tibowl or a unionized multibowl wellhead system will be employed. The wellhead onnection to the BOPE will meet all API 6A requirements. The BOP will be tested ashore Order #2 after installation on the surface casing which will cover testing ements for a maximum of 30 days. If any seal subject to test pressure is broken the n must be tested. We will test the flange connection of the wellhead with a test port directly in the flange. We are proposing that we will run the wellhead through the 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

De	pth	Tyme	Weight	Viceosity	WatarLogg
From (ft)	To (ft)	Туре	(ppg)	Viscosity	Water Loss
0	911	Water-Based Mud	8.6-8.8	40-60	N/C
911	5531	Saturated Brine- Mud	9.8-10.0	35-45	N/C
5531	20161	Saturated Brine- 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

Log	ging, 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	
Addi	tional logs planned	Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

## 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4615 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	154°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.

Hyc	lrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface sho	e. If
H2S	5 is detected in concentrations greater than 100 ppm, the operator will comply with	the
prov	visions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, mea	asured
valu	es and formations will be provided to the BLM.	
Ν	H2S is present	
Y	H2S Plan attached	
8. (	Other facets of operation	Yes/No
Wil	l the well be drilled with a walking/skidding operation? If yes, describe.	Yes
	• We plan to drill the seven 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.	
Wil	l more than one drilling rig be used for drilling operations? If yes, describe.	Yes
	• 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.	

## Total estimated cuttings volume: 1971.3 bbls.

## 9. Company Personnel

Name	<u>Title</u>	<b>Office Phone</b>	<b>Mobile Phone</b>
Edgar Diaz-Aguirre	Drilling Engineer	713-552-8594	713-550-2699
William Turner	Drilling Engineer Supervisor	713-350-4951	661-817-4586
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417

## OXY

PRD NM DIRECTIONAL PLANS (NAD 1983) LOST TANK 30-19 FED Lost Tank 30\_19 Federal Com 11H

Wellbore #1

**Plan: Permitting Plan** 

# **Standard Planning Report**

18 April, 2019

Database: Company: Project: Site: Well: Wellbore: Design:	PRD LOST Lost 1 Wellb	SPP NEERING DES NM DIRECTIO TANK 30-19 F Fank 30_19 Fe ore #1 itting Plan	NAL PLANS FED		TVD Refe MD Refer North Ref	ence:		Well Lost Tank RKB=26.5' @ 3 RKB=26.5' @ 3 Grid Minimum Curva	3644.40ft 3644.40ft	al Com 11H
Project	PRD N	IM DIRECTION	NAL PLANS (I	NAD 1983)						
Map System: Geo Datum: Map Zone:	North Ar	e Plane 1983 merican Datum xico Eastern Z			System Da	tum:		ean Sea Level ing geodetic so	cale factor	
Site	LOST	TANK 30-19 FI	ED							
Site Position: From: Position Unce		'Long 50.	North Easti 00 ft Slot F	-	503,8	326.03 usft 0.00 usft 13.200 in	Latitude: Longitude: Grid Conver	gence:		32° 22' 22.416967 N 106° 5' 11.999469 W -0.94 °
Well	Lost Ta	ank 30_19 Fede	eral Com 11H							
Well Position	+N/-S +E/-W	115 730,781		orthing: asting:		503,941.45 730,958.55		itude: Igitude:		32° 23' 2.066654 N 103° 43' 8.618654 W
Position Unce	rtainty	2	2.00 ft W	ellhead Elev	ation:	0.0	00 ft Gro	ound Level:		3,617.90 ft
Wellbore	Wellbo	ore #1								
Magnetics	Мо	del Name	Sampl	e Date	Declina (°)	tion	Dip A (°			Strength nT)
		HDGM		4/18/2019		6.80		60.13		48,077
Design	Permit	ting Plan								
Audit Notes:										
Version:			Phas	e:	PROTOTYPE	Tie	On Depth:		0.00	
Vertical Section	on:	De	epth From (T (ft)	VD)	+N/-S (ft)		/-W ft)		ection (°)	
			0.00		0.00	0.	00	18	34.14	
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 3,598.00 4,348.09 7,587.56	0.00 0.00 15.00 15.00	0.00 0.00 312.42 312.42	0.00 3,598.00 4,339.55 7,468.61	0.00 0.00 65.87 631.54	0.00 0.00 -72.08 -691.07	0.00 0.00 2.00 0.00	0.00 0.00 2.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 312.42 0.00	
8,959.52 9,709.52 20,161.55	15.00 90.00 90.00	179.64 179.64 179.64	8,819.73 9,244.40 9,244.40	572.65 19.23 -10,432.60	-823.58 -820.10 -754.48	2.00 10.00 0.00	0.00 10.00 0.00	-9.68 0.00 0.00	-155.66 0.00	FTP (Lost Tank PBHL (Lost Tank
20,101.00	90.00	179.04	3,244.40	-10,432.00	-104.40	0.00	0.00	0.00	0.00	I DITE (LOST TATIK

Database:	HOPSPP	Local Co-ordinate Reference:	Well Lost Tank 30_19 Federal Com 11H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3644.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3644.40ft
Site:	LOST TANK 30-19 FED	North Reference:	Grid
Well:	Lost Tank 30_19 Federal Com 11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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 3,400.00	0.00 0.00	0.00 0.00	3,300.00 3,400.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,598.00	0.00	0.00	3,598.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00 3,700.00	0.04 2.04	312.42 312.42	3,600.00 3,699.98	0.00 1.22	0.00 -1.34	0.00	2.00	2.00 2.00	0.00 0.00
3,700.00 3,800.00	2.04 4.04	312.42	3,699.98 3,799.83	4.80	-1.34 -5.25	-1.12 -4.41	2.00 2.00	2.00 2.00	0.00
			,						
3,900.00	6.04	312.42	3,899.44	10.73	-11.74	-9.85	2.00	2.00	0.00
4,000.00	8.04 10.04	312.42	3,998.68	19.00	-20.79	-17.45	2.00	2.00	0.00
4,100.00 4,200.00	10.04 12.04	312.42 312.42	4,097.43 4,195.58	29.59 42.51	-32.38 -46.52	-27.18 -39.05	2.00 2.00	2.00 2.00	0.00 0.00
4,200.00	12.04	312.42	4,195.58	42.51 57.73	-40.52 -63.17	-59.05	2.00	2.00	0.00
4,348.09	15.00	312.42	4,339.55	65.87	-72.08	-60.50	2.00	2.00	0.00
4,400.00 4,500.00	15.00 15.00	312.42 312.42	4,389.69 4,486.28	74.93 92.39	-81.99 -101.10	-68.82 -84.86	0.00 0.00	0.00 0.00	0.00 0.00
4,500.00	15.00	312.42	4,486.28 4,582.87	92.39 109.86	-101.10 -120.21	-84.86 -100.90	0.00	0.00	0.00
4,700.00	15.00	312.42	4,582.87 4,679.46	127.32	-120.21	-116.94	0.00	0.00	0.00
4,800.00 4,900.00	15.00 15.00	312.42 312.42	4,776.06	144.78	-158.43	-132.97	0.00	0.00	0.00 0.00
4,900.00 5,000.00	15.00	312.42	4,872.65 4,969.24	162.24 179.70	-177.53 -196.64	-149.01 -165.05	0.00 0.00	0.00 0.00	0.00
5,100.00	15.00	312.42	4,909.24 5,065.83	197.16	-196.64	-185.05	0.00	0.00	0.00
 0,100.00	10.00	012.72	2,000.00	101.10	210.70	101.00	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Lost Tank 30_19 Federal Com 11H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3644.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3644.40ft
Site:	LOST TANK 30-19 FED	North Reference:	Grid
Well:	Lost Tank 30_19 Federal Com 11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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	15.00	312.42	5,162.42	214.63	-234.86	-197.13	0.00	0.00	0.00
5,300.00	15.00	312.42	5,259.02	232.09	-253.97	-213.17	0.00	0.00	0.00
5,400.00	15.00	312.42	5,355.61	249.55	-273.07	-229.20	0.00	0.00	0.00
5,500.00	15.00	312.42	5,452.20	267.01	-292.18	-245.24	0.00	0.00	0.00
5,600.00	15.00	312.42	5,548.79	284.47	-311.29	-261.28	0.00	0.00	0.00
5,700.00	15.00	312.42	5,645.38	301.94	-330.40	-277.32	0.00	0.00	0.00
		312.42				-293.36	0.00		
5,800.00 5,900.00	15.00	312.42	5,741.97 5,838.57	319.40 336.86	-349.51 -368.61	-293.30 -309.39	0.00	0.00 0.00	0.00 0.00
	15.00	312.42							
6,000.00	15.00		5,935.16	354.32	-387.72	-325.43	0.00	0.00	0.00
6,100.00	15.00	312.42 312.42	6,031.75 6,128.34	371.78	-406.83 -425.94	-341.47 -357.51	0.00 0.00	0.00	0.00
6,200.00	15.00	312.42	0,120.34	389.25	-420.94	-357.51		0.00	0.00
6,300.00	15.00	312.42	6,224.93	406.71	-445.05	-373.55	0.00	0.00	0.00
6,400.00	15.00	312.42	6,321.52	424.17	-464.15	-389.59	0.00	0.00	0.00
6,500.00	15.00	312.42	6,418.12	441.63	-483.26	-405.62	0.00	0.00	0.00
6,600.00	15.00	312.42	6,514.71	459.09	-502.37	-421.66	0.00	0.00	0.00
6,700.00	15.00	312.42	6,611.30	476.56	-521.48	-437.70	0.00	0.00	0.00
6,800.00	15.00	312.42	6,707.89	494.02	-540.59	-453.74	0.00	0.00	0.00
6,900.00	15.00	312.42	6,804.48	511.48	-559.69	-469.78	0.00	0.00	0.00
7,000.00	15.00	312.42	6,901.08	528.94	-578.80	-485.81	0.00	0.00	0.00
7,100.00	15.00	312.42	6,997.67	546.40	-597.91	-501.85	0.00	0.00	0.00
7,200.00	15.00	312.42	7,094.26	563.87	-617.02	-517.89	0.00	0.00	0.00
7,300.00	15.00	312.42	7,190.85	581.33	-636.13	-533.93	0.00	0.00	0.00
7,400.00	15.00	312.42	7,190.85	598.79	-655.23	-549.97	0.00	0.00	0.00
7,500.00	15.00	312.42	7,384.03	616.25	-674.34	-566.01	0.00	0.00	0.00
7,587.56	15.00	312.42	7,468.61	631.54	-691.07	-580.05	0.00	0.00	0.00
7,600.00	14.78	312.02	7,480.63	633.69	-693.44	-582.02	2.00	-1.82	-3.23
7,700.00 7,800.00	12.99 11.26	308.29 303.43	7,577.71 7,675.48	649.19 661.53	-711.73 -728.70	-596.16 -607.25	2.00 2.00	-1.79 -1.72	-3.73 -4.87
7,900.00	9.65	296.90	7,773.82	670.71	-744.33	-615.27	2.00	-1.61	-4.87
8,000.00	8.21	290.90	7,872.61	676.70	-758.60	-620.22	2.00	-1.44	-0.55
8,100.00	7.04	275.65	7,971.73	679.50	-771.49	-622.08	2.00	-1.17	-12.29
8,200.00	6.30	259.57	8,071.06	679.11	-782.98	-620.86	2.00	-0.74	-16.08
8,300.00	6.15	241.09	8,170.48	675.53	-793.06	-616.56	2.00	-0.15	-18.48
8,400.00	6.62	223.55	8,269.87	668.76	-801.73	-609.19	2.00	0.48	-17.54
8,500.00	7.61	209.45	8,369.11	658.81	-808.96	-598.74	2.00	0.99	-14.10
8,600.00	8.94	199.03	8,468.07	645.69	-814.75	-585.24	2.00	1.33	-10.42
8,700.00	10.49	191.46	8,566.63	629.42	-819.09	-568.70	2.00	1.54	-7.56
8,800.00	12.16	185.89	8,664.69	610.02	-821.98	-549.14	2.00	1.68	-5.57
8,900.00	13.92	181.68	8,762.10	587.52	-823.42	-526.59	2.00	1.76	-4.21
8,959.52	15.00	179.64	8,819.73	572.65	-823.58	-511.76	2.00	1.81	-3.43
9,000.00	19.05	179.64	8,858.44	560.81	-823.50	-499.94	10.00	10.00	0.00
9,100.00	29.05	179.64	8,949.64	520.11	-823.25	-459.37	10.00	10.00	0.00
9,200.00	39.05	179.64	9,032.39	464.19	-822.90	-403.62	10.00	10.00	0.00
9,300.00	49.05	179.64	9,104.18	394.75	-822.46	-334.40	10.00	10.00	0.00
9,400.00	59.05	179.64	9,162.81	313.91	-821.95	-253.80	10.00	10.00	0.00
9,500.00	69.05	179.64	9,206.52	224.11	-821.39	-164.27	10.00	10.00	0.00
9,600.00	79.05	179.64	9,233.97	128.08	-820.79	-68.54	10.00	10.00	0.00
9,700.00	89.05	179.64	9,244.32	28.75	-820.16	30.49	10.00	10.00	0.00
9,709.52	90.00	179.64	9,244.40	19.23	-820.10	39.97	10.00	10.00	0.00
9,800.00	90.00	179.64	9,244.40	-71.25	-819.53	130.18	0.00	0.00	0.00
9,900.00	90.00	179.64	9,244.40	-171.25	-818.91	229.87	0.00	0.00	0.00
	90.00	179.64	9,244.40	-271.25	-818.28	329.56	0.00	0.00	0.00
10,000.00 10,100.00	90.00 90.00	179.64	9,244.40 9,244.40	-271.25 -371.24	-818.28 -817.65	329.56 429.26	0.00	0.00	0.00
10,100.00	90.00	179.64	9,244.40 9,244.40	-371.24	-817.05	429.20 528.95	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Lost Tank 30_19 Federal Com 11H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3644.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3644.40ft
Site:	LOST TANK 30-19 FED	North Reference:	Grid
Well:	Lost Tank 30_19 Federal Com 11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

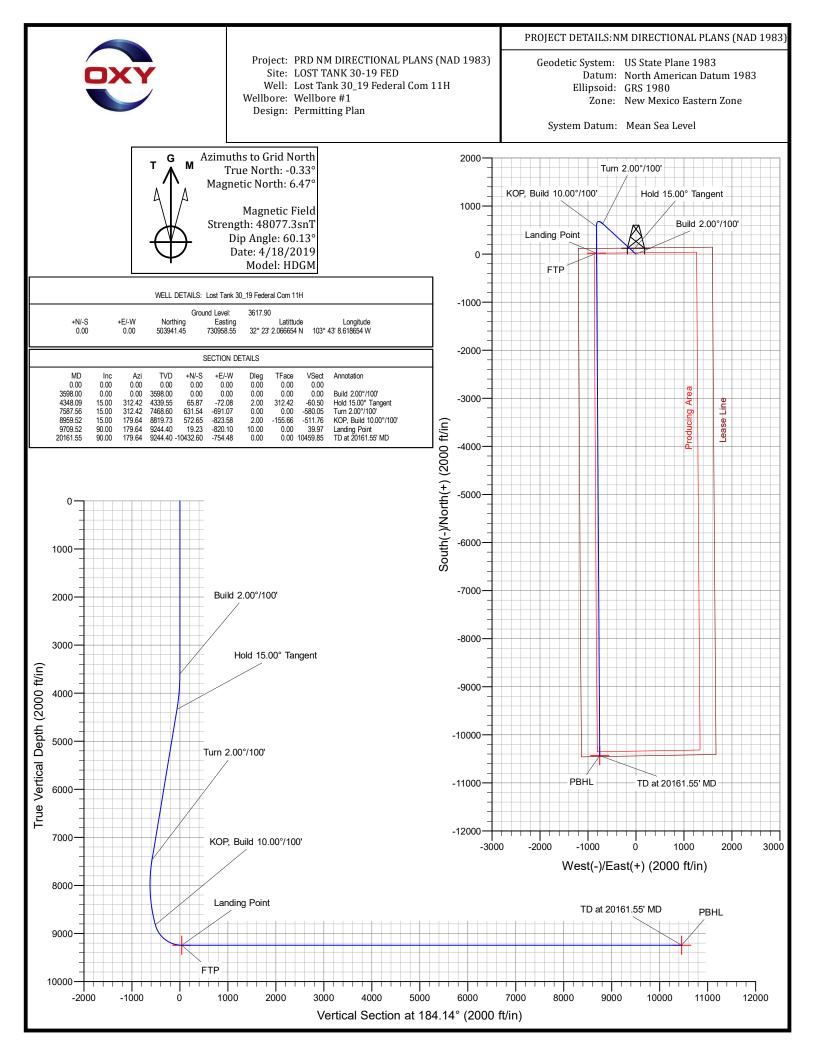
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,300.00	90.00	179.64	9,244.40	-571.24	-816.40	628.64	0.00	0.00	0.00
10,400.00	90.00	179.64	9,244.40	-671.24	-815.77	728.33	0.00	0.00	0.00
10,500.00	90.00	179.64	9,244.40	-771.24	-815.14	828.02	0.00	0.00	0.00
10,600.00	90.00	179.64	9,244.40	-871.23	-814.51	927.72	0.00	0.00	0.00
10,700.00	90.00	179.64	9,244.40	-971.23	-813.88	1,027.41	0.00	0.00	0.00
10,800.00	90.00	179.64	9,244.40	-1,071.23	-813.26	1,127.10	0.00	0.00	0.00
10,900.00	90.00	179.64	9,244.40	-1,171.23	-812.63	1,226.79	0.00	0.00	0.00
11,000.00	90.00	179.64	9.244.40	-1.271.23	-812.00	1,326.49	0.00	0.00	0.00
11,100.00	90.00	179.64	9,244.40	-1,371.23	-811.37	1,426.18	0.00	0.00	0.00
11,200.00	90.00	179.64	9,244.40	-1,471.22	-810.74	1,525.87	0.00	0.00	0.00
11,300.00	90.00	179.64	9,244.40	-1,571.22	-810.12	1,625.56	0.00	0.00	0.00
11,400.00	90.00	179.64	9,244.40	-1,671.22	-809.49	1,725.26	0.00	0.00	0.00
11,500.00	90.00	179.64	9.244.40	-1,771.22	-808.86	1,824.95	0.00	0.00	0.00
11,600.00	90.00	179.64	9,244.40 9,244.40	-1,771.22	-808.86	1,824.95	0.00	0.00	0.00
11,600.00	90.00 90.00	179.64	9,244.40 9,244.40	-1,871.22 -1,971.21	-808.23 -807.61	2,024.64		0.00	0.00
11,700.00	90.00 90.00	179.64	9,244.40 9,244.40	-1,971.21 -2,071.21	-807.61 -806.98	2,024.33 2,124.02	0.00	0.00	0.00
11,800.00	90.00 90.00	179.64	9,244.40 9,244.40	-2,071.21 -2,171.21	-806.98 -806.35	2,124.02 2,223.72	0.00 0.00	0.00	0.00
12,000.00	90.00	179.64	9,244.40	-2,271.21	-805.72	2,323.41	0.00	0.00	0.00
12,100.00	90.00	179.64	9,244.40	-2,371.21	-805.09	2,423.10	0.00	0.00	0.00
12,200.00	90.00	179.64	9,244.40	-2,471.20	-804.47	2,522.79	0.00	0.00	0.00
12,300.00	90.00	179.64	9,244.40	-2,571.20	-803.84	2,622.49	0.00	0.00	0.00
12,400.00	90.00	179.64	9,244.40	-2,671.20	-803.21	2,722.18	0.00	0.00	0.00
12,500.00	90.00	179.64	9,244.40	-2,771.20	-802.58	2,821.87	0.00	0.00	0.00
12,600.00	90.00	179.64	9,244.40	-2,871.20	-801.95	2,921.56	0.00	0.00	0.00
12,700.00	90.00	179.64	9,244.40	-2,971.19	-801.33	3,021.25	0.00	0.00	0.00
12,800.00	90.00	179.64	9,244.40	-3,071.19	-800.70	3,120.95	0.00	0.00	0.00
12,900.00	90.00	179.64	9,244.40	-3,171.19	-800.07	3,220.64	0.00	0.00	0.00
13,000.00	90.00	179.64	9,244.40	-3,271.19	-799.44	3,320.33	0.00	0.00	0.00
13,100.00	90.00	179.64	9,244.40	-3,371.19	-798.82	3,420.02	0.00	0.00	0.00
13,200.00	90.00	179.64	9,244.40	-3,471.18	-798.19	3,519.72	0.00	0.00	0.00
13,300.00	90.00	179.64	9,244.40	-3,571.18	-797.56	3,619.41	0.00	0.00	0.00
13,400.00	90.00	179.64	9,244.40	-3,671.18	-796.93	3,719.10	0.00	0.00	0.00
13,500.00	90.00	179.64	9,244.40	-3,771.18	-796.30	3,818.79	0.00	0.00	0.00
13,600.00	90.00	179.64	9,244.40	-3,871.18	-795.68	3,918.48	0.00	0.00	0.00
13,700.00	90.00	179.64	9,244.40	-3,971.17	-795.05	4,018.18	0.00	0.00	0.00
13,800.00	90.00	179.64	9,244.40	-4,071.17	-794.42	4,117.87	0.00	0.00	0.00
13,900.00	90.00	179.64	9,244.40	-4,171.17	-793.79	4,217.56	0.00	0.00	0.00
14,000.00	90.00	179.64	9,244.40	-4,271.17	-793.16	4,317.25	0.00	0.00	0.00
14,100.00	90.00	179.64	9,244.40	-4,371.17	-792.54	4,416.95	0.00	0.00	0.00
14,200.00	90.00	179.64	9,244.40	-4,471.16	-791.91	4,516.64	0.00	0.00	0.00
14,300.00	90.00	179.64	9,244.40	-4,571.16	-791.28	4,616.33	0.00	0.00	0.00
14,400.00	90.00	179.64	9,244.40	-4,671.16	-790.65	4,716.02	0.00	0.00	0.00
14,500.00	90.00	179.64	9,244.40	-4,771.16	-790.03	4,815.72	0.00	0.00	0.00
14,600.00	90.00	179.64	9,244.40	-4,871.16	-789.40	4,915.41	0.00	0.00	0.00
14,700.00	90.00	179.64	9,244.40	-4,971.15	-788.77	5,015.10	0.00	0.00	0.00
14,800.00	90.00	179.64	9,244.40	-5,071.15	-788.14	5,114.79	0.00	0.00	0.00
14,900.00	90.00	179.64	9,244.40	-5,171.15	-787.51	5,214.48	0.00	0.00	0.00
15,000.00	90.00	179.64	9,244.40	-5,271.15	-786.89	5,314.18	0.00	0.00	0.00
15,100.00	90.00	179.64	9,244.40	-5,371.15	-786.26	5,413.87	0.00	0.00	0.00
15,200.00	90.00	179.64	9,244.40	-5,471.14	-785.63	5,513.56	0.00	0.00	0.00
15,300.00	90.00	179.64	9,244.40	-5,571.14	-785.00	5,613.25	0.00	0.00	0.00
15,400.00	90.00	179.64	9,244.40	-5,671.14	-784.37	5,712.95	0.00	0.00	0.00
15,500.00	90.00	179.64	9,244.40	-5,771.14	-783.75	5,812.64	0.00	0.00	0.00
15,600.00	90.00	179.64	9,244.40	-5,871.14	-783.12	5,912.33	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Lost Tank 30_19 Federal Com 11H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3644.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3644.40ft
Site:	LOST TANK 30-19 FED	North Reference:	Grid
Well:	Lost Tank 30_19 Federal Com 11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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)
15,700.00	90.00	179.64	9,244.40	-5,971.13	-782.49	6,012.02	0.00	0.00	0.00
15,800.00	90.00	179.64	9,244.40	-6,071.13	-781.86	6,111.71	0.00	0.00	0.00
15,900.00	90.00	179.64	9,244.40	-6,171.13	-781.24	6,211.41	0.00	0.00	0.00
16.000.00	90.00	179.64	9.244.40	-6.271.13	-780.61	6,311.10	0.00	0.00	0.00
16,100.00	90.00	179.64	9.244.40	-6.371.13	-779.98	6.410.79	0.00	0.00	0.00
16,200.00	90.00	179.64	9,244.40	-6,471.12	-779.35	6,510.48	0.00	0.00	0.00
16,300.00	90.00	179.64	9,244.40	-6,571.12	-778.72	6,610.18	0.00	0.00	0.00
16,400.00	90.00	179.64	9,244.40	-6,671.12	-778.10	6,709.87	0.00	0.00	0.00
16,500.00	90.00	179.64	9.244.40	-6,771.12	-777.47	6,809.56	0.00	0.00	0.00
16,600.00	90.00	179.64	9.244.40	-6,871.12	-776.84	6,909.25	0.00	0.00	0.00
16,700.00	90.00	179.64	9,244.40	-6,971.11	-776.21	7,008.95	0.00	0.00	0.00
16,800.00	90.00	179.64	9,244.40	-7,071.11	-775.58	7,108.64	0.00	0.00	0.00
16,900.00	90.00	179.64	9,244.40	-7,171.11	-774.96	7,208.33	0.00	0.00	0.00
17,000.00	90.00	179.64	9.244.40	-7,271.11	-774.33	7,308.02	0.00	0.00	0.00
17,100.00	90.00	179.64	9,244.40	-7,371.11	-773.70	7,407.71	0.00	0.00	0.00
17,200.00	90.00	179.64	9,244.40	-7,471.10	-773.07	7,507.41	0.00	0.00	0.00
17,300.00	90.00	179.64	9,244.40	-7,571.10	-772.45	7,607.10	0.00	0.00	0.00
17,400.00	90.00	179.64	9,244.40	-7,671.10	-771.82	7,706.79	0.00	0.00	0.00
17,500.00	90.00	179.64	9,244.40	-7,771.10	-771.19	7,806.48	0.00	0.00	0.00
17,600.00	90.00	179.64	9,244.40	-7,871.10	-770.56	7,906.18	0.00	0.00	0.00
17,700.00	90.00	179.64	9,244.40	-7,971.10	-769.93	8,005.87	0.00	0.00	0.00
17,800.00	90.00	179.64	9,244.40	-8,071.09	-769.31	8,105.56	0.00	0.00	0.00
17,900.00	90.00	179.64	9,244.40	-8,171.09	-768.68	8,205.25	0.00	0.00	0.00
18,000.00	90.00	179.64	9,244.40	-8,271.09	-768.05	8,304.94	0.00	0.00	0.00
18,100.00	90.00	179.64	9,244.40	-8,371.09	-767.42	8,404.64	0.00	0.00	0.00
18,200.00	90.00	179.64	9,244.40	-8,471.09	-766.79	8,504.33	0.00	0.00	0.00
18,300.00	90.00	179.64	9,244.40	-8,571.08	-766.17	8,604.02	0.00	0.00	0.00
18,400.00	90.00	179.64	9,244.40	-8,671.08	-765.54	8,703.71	0.00	0.00	0.00
18,500.00	90.00	179.64	9,244.40	-8,771.08	-764.91	8,803.41	0.00	0.00	0.00
18,600.00	90.00	179.64	9,244.40	-8,871.08	-764.28	8,903.10	0.00	0.00	0.00
18,700.00	90.00	179.64	9,244.40	-8,971.08	-763.66	9,002.79	0.00	0.00	0.00
18,800.00	90.00	179.64	9,244.40	-9,071.07	-763.03	9,102.48	0.00	0.00	0.00
18,900.00	90.00	179.64	9,244.40	-9,171.07	-762.40	9,202.17	0.00	0.00	0.00
19,000.00	90.00	179.64	9,244.40	-9,271.07	-761.77	9,301.87	0.00	0.00	0.00
19,100.00	90.00	179.64	9,244.40	-9,371.07	-761.14	9,401.56	0.00	0.00	0.00
19,200.00	90.00	179.64	9,244.40	-9,471.07	-760.52	9,501.25	0.00	0.00	0.00
19,300.00	90.00	179.64	9,244.40	-9,571.06	-759.89	9,600.94	0.00	0.00	0.00
19,400.00	90.00	179.64	9,244.40	-9,671.06	-759.26	9,700.64	0.00	0.00	0.00
19,500.00	90.00	179.64	9,244.40	-9,771.06	-758.63	9,800.33	0.00	0.00	0.00
19,600.00	90.00	179.64	9,244.40	-9,871.06	-758.00	9,900.02	0.00	0.00	0.00
19,700.00	90.00	179.64	9,244.40	-9,971.06	-757.38	9,999.71	0.00	0.00	0.00
19,800.00	90.00	179.64	9,244.40	-10,071.05	-756.75	10,099.41	0.00	0.00	0.00
19,900.00	90.00	179.64	9,244.40	-10,171.05	-756.12	10,199.10	0.00	0.00	0.00
20,000.00	90.00	179.64	9,244.40	-10,271.05	-755.49	10,298.79	0.00	0.00	0.00
20,100.00	90.00	179.64	9,244.40	-10,371.05	-754.87	10,398.48	0.00	0.00	0.00
20,161.55	90.00	179.64	9,244.40	-10,432.60	-754.48	10,459.85	0.00	0.00	0.00

## Оху **Planning Report**

Database: Company: Project: Site: Well: Wellbore: Design:	HOPSPP ENGINEERING DESIGNS PRD NM DIRECTIONAL PLANS (NAD 1983) LOST TANK 30-19 FED Lost Tank 30_19 Federal Com 11H Wellbore #1 Permitting Plan			Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:			Well Lost Tank 30_19 Federal Com 11H RKB=26.5' @ 3644.40ft RKB=26.5' @ 3644.40ft Grid Minimum Curvature			
Design Targets										
Target Name - hit/miss target - Shape	Dip Angl (°)	e Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	9	Latitude	Longitude
FTP (Lost Tank 30_19 - plan hits target co - Point		0.00	9,244.40	19.23	-820.10	503,960.68	730,13	38.49	32° 23' 2.303436 N	103° 43' 18.180531
PBHL (Lost Tank - plan hits target c - Point	0.0 enter	00 0.00	9,244.40	-10,432.60	-754.48	493,509.39	730,20	04.11	32° 21' 18.881380 N	103° 43' 18.111885
Plan Annotations										
Measu Dep (ft)	th I	ertical Depth (ft)	Local +N/-S (ft)		s E/-W (ft)	Comment				
4,34 7,58 8,95	48.09 37.56 59.52 09.52	3,598.00 4,339.55 7,468.61 8,819.73 9,244.40 9,244.40	0.0 65.8 631.5 572.6 19.2 -10,432.6	7 4 5 3	0.00 -72.08 -691.07 -823.58 -820.10 -754.48	Build 2.00°/100' Hold 15.00° Tangen Turn 2.00°/100' KOP, Build 10.00°/1 Landing Point TD at 20161.55' MD	00'			



## PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

Lost Tank 30-19 Federal Com 1H	128 FNL and 1,235 FWL	Section 19, Township	BLM
Lost Tank 30-19 Federal Com 11H	128 FNL and 1,200 FWL	22 South, Range 32 East*	
Lost Tank 30-19 Federal Com 32H	128 FNL and 1,335 FWL		
Lost Tank 30-19 Federal Com 33H	128 FNL and 1,370 FWL		
Lost Tank 30-19 Federal Com 41H	128 FNL and 1,300 FWL		
Lost Tank 30-19 Federal Com 71H	128 FNL and 1,270 FWL		
Lost Tank 30-19 Federal Com 72H	128 FNL and 1,405 FWL		

FNL = feet from north line; FWL = feet from west line

## **TABLE OF CONTENTS**

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 Lesser Prairie-Chicken Timing Stipulations Ground-level Abandoned Well Marker Range Cultural **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** 

Interim Reclamation

**Final Abandonment & Reclamation** 

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## 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.

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## V. SPECIAL REQUIREMENT(S)

#### Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

#### **<u>Timing Limitation Exceptions:</u>**

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

<u>**Ground-level Abandoned Well Marker to avoid raptor perching**</u>: 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. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

- The entirety of the well pads would be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pads. Topsoil would not be used to construct the berm. No water flow from the uphill side(s) of the pads would be allowed to enter the well pads. The berm would be maintained through the life of the wells and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad or facilities during the life of the project would be quickly corrected, and proper measures would be taken to prevent future erosion.
- Stockpiling of topsoil would be required. The topsoil would be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and would not be used for berming or erosion control.
- Energy dissipation and filtration devices (e.g., certified weed-free hay/straw bales and silt fence) would be used to reduce the velocity of the discharged water and thereby reduce potential for erosion.

## Cattleguards

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Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

## **Fence Requirement**

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

## **Livestock Watering Requirement**

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Measures to minimize impacts to potash mineral reserves have been considered during the BLM's planning process by establishment of the Martha Deep Drill Island. No additional special mitigation or requirements have been identified by the BLM.



EXHIBIT NO. 1 Date

Date of Issue: 9/23/2019

**Bureau of Land Management, Carlsbad Field Office** 620 E. Greene Street Carlsbad, NM 88220 IT4RM-P020-2019-1470-EA

Cultural and Archaeological Resources

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## NOTICE OF STIPULATIONS

<u>Historic properties</u> in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

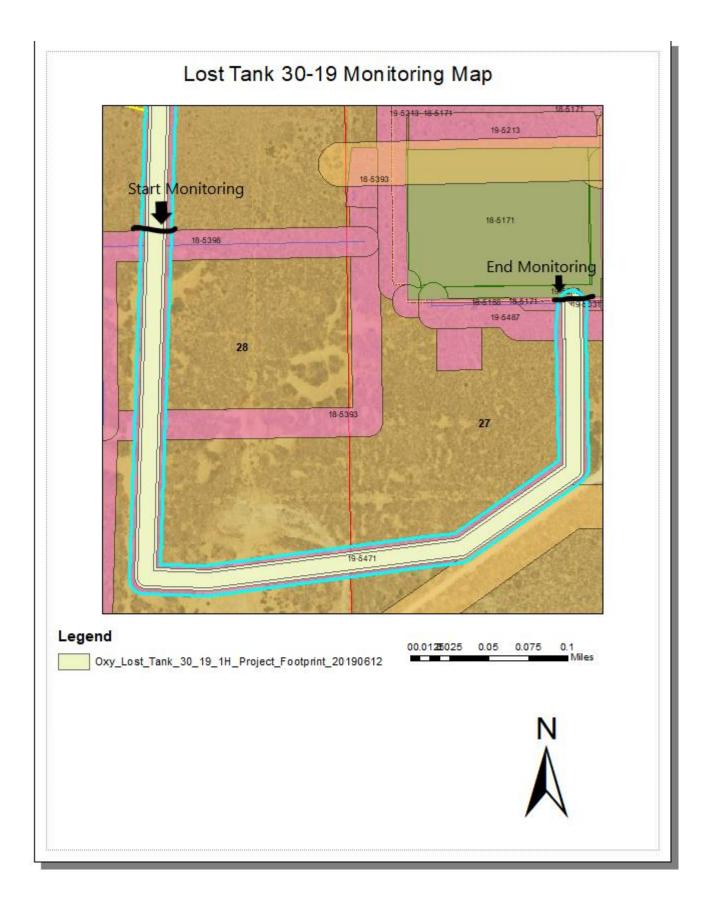
<u>Project</u> <u>Name</u> :	Lost Tank 30_19
	1). A 3-day preconstruction call-in notification.
Required	2. Professional archaeological monitoring. Contact your BLM project archaeologist at for assistance.
<b>A</b> . 🖂	These stipulations must be given to your monitor at least <u>3 days</u> prior to the start of construction.
<b>B.</b> 🖂	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.
	3. Cultural site barrier fencing. (Your monitor will assist you).
A. 🗌	<u>A temporary site protection barrier(s)</u> shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging or blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.
B. 🗌	A permanent, 4-strand barbed wire fence strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.
Required	4. The archaeological monitor shall:
<b>A</b> . 🖂	Because of sensitive archeological resources found within close proximity to a portion of the proposed project, an archaeological monitor should be on site when the ROW is cleared and the pipeline trench is constructed within the area marked on the map below (T22S R32E Sections 28, 27).
B. 🗌	
<b>C</b> . 🛛	Turn in a monitoring report within 30 days of finishing up monitoring of the proposed projects construction state above.
D. 🗌	
	If subsurface cultural resources are encountered during the monitoring, all activities shall cease and a BLM-CFO archaeologist shall be notified immediately.
Other:	IF THE CONTRACT ARCHAEOLOGIST DOES NOT KNOW WHERE THE SITE(S) ARE LOCATED AT PLEASE COME BY THE CARLSBAD BLM AND MAPS AND OTHER DATA WILL BE PROVIDED UPON REQUEST TO THE CONTRACT ARCHAEOLOGIST

<u>Site Protection and Employee Education</u>: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

For assistance contact:

Aaron Whaley (575) 234-5986 Elia Perez (575)-234-6231

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## 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)

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#### **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.

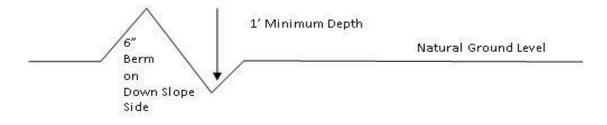
#### Drainage

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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:  $\underline{400'}_{4\%} + 100' = 200'$  lead-off ditch interval  $\underline{4\%}$ 

## **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.

## **Livestock Watering Requirement**

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

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Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

#### **Public Access**

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

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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 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**

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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, <u>Shale Green</u> 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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, <u>et seq</u>.) 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.

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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 <u>20</u> 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 <u>30</u> 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.*)

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.

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

() seed mixture 1	() seed mixture 3
() seed mixture 2	() seed mixture 4
(X) 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-ofway 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. <u>Escape Ramps</u> - 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

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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.
- 19. Special Stipulations:

#### **Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken**:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

#### **Timing Limitation Exceptions:**

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

#### 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:

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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 <u>et seq</u>. (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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) 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

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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.

## Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must

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be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

## 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.

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

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## Seed Mixture for LPC Sand/Shinnery 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 <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall 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 will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/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 will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. 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:

<u>Species</u>	lb/acre
Plains Bristlegrass Sand Bluestem Little Bluestem Big Bluestem Plains Coreopsis Sand Dropseed	5lbs/A 5lbs/A 3lbs/A 6lbs/A 2lbs/A 1lbs/A

\*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

<b>OPERATOR'S NAME:</b>	OXY USA INCORPORATED
WELL NAME & NO.:	LOST TANK 30-19 FEDERAL COM 11H
SURFACE HOLE FOOTAGE:	128'/N & 1200'/W
<b>BOTTOM HOLE FOOTAGE</b>	20'/S & 380'/W
LOCATION:	Section 19, T.22 S., R.32 E., NMP
COUNTY:	Lea County, New Mexico

## COA

H2S	C Yes	🖸 No	
Potash	None	C Secretary	© R-111-P
Cave/Karst Potential	• Low	C Medium	C High
Cave/Karst Potential	Critical		
Variance	C None	• Flex Hose	C Other
Wellhead	Conventional	C Multibowl	Soth
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 **13-3/8** inch surface casing shall be set at approximately **920** feet (a minimum of **25 feet (Lea 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.

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- b. Wait on cement (WOC) time for a primary cement job will be a minimum of  $\underline{\mathbf{8}}$ <u>hours</u> 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 **9-5/8** inch intermediate casing shall be set at approximately **4650** feet. The minimum required fill of cement behind the **9-5/8** 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.
- 3. The minimum required fill of cement behind the 5-1/2 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. Excess calculates to 16%
     additional cement might be required.

#### 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:**

- 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.

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- 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. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

#### **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.

## **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 2<sup>nd</sup> 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.
- <u>Wait on cement (WOC) for Potash Areas:</u> 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 <u>24</u> <u>hours</u>. 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. <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. 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.

#### NMK07092020

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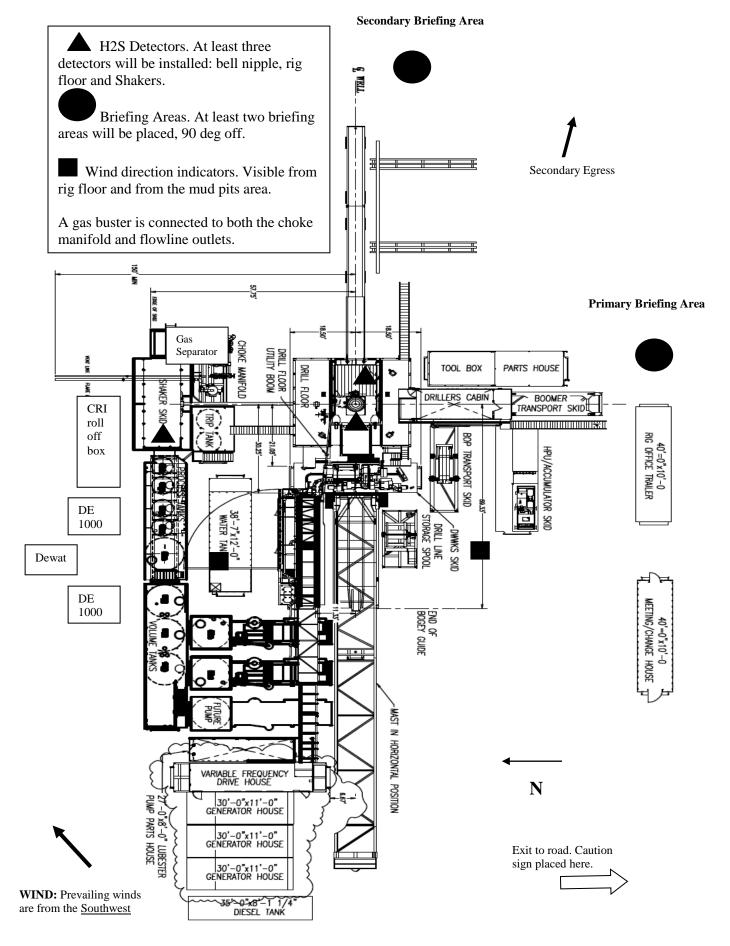


## Permian Drilling Hydrogen Sulfide Drilling Operations Plan Lost Tank 30-19 Fed Com 11H

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.



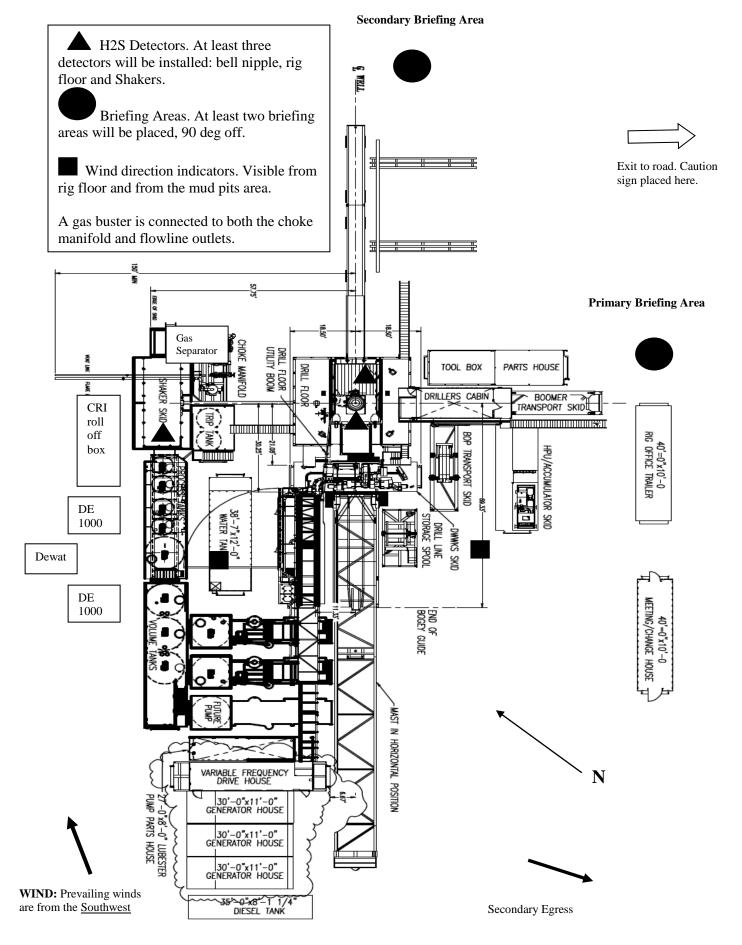


## Permian Drilling Hydrogen Sulfide Drilling Operations Plan Lost Tank 30\_19 Fed Com 21H

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.



### OXY Permian Delaware NM Basin Drilling & Completions Incident Reporting OXY Permian Crisis Team Hotline Notification

Person	Location	Office Phone	Cell/Mobile Phone	
Drilling & Completions Department				
Drilling & Completions Manager: John Willis	Houston	(713) 366-5556	(713) 259-1417	
Drilling Superintendent: Simon Benavides	Houston	(713) 215-7403	(832) 528-3547	
Completions Superintendent: Chris Winter	Houston	(713) 366-5212	(806) 239-8774	
Drilling Eng. Supervisor: Diego Tellez	Houston	(713) 350-4602	(713) 303-4932	
Drilling Eng. Supervisor: Randy Neel	Houston	(713) 215-7987	(713) 517-5544	
Completions Eng. Supervisor: Evan Hinkel	Houston	(713) 366-5436	(281) 236-6153	
Drilling & Completions HES Lead. Ryan Green	Houston	713-336-5753	281-520-5216	
Drilling & Completions HES Advisor:Kenny Williams	Carlsbad	(432) 686-1434	(337) 208-0911	
Drilling & Completions HES Advisor:Kyle Holden	Carlsbad	(432) 686-1435	(661) 369-5328	
Drilling & Completions HES Advisor Sr:Dave Schmidt	Carlsbad		(559) 310-8572	
Drilling & Completions HES Advisor. :Seth Doyle	Carlsbad		(337) 499-0756	
HES / Enviromental & Regulatory Department	nt Location	Office	Cell Phone	
Jon Hamil-HES Manager	Houston	(713) 497-2494	(832) 537-9885	
Mark Birk-HES Manager	Houston	(713) 350-4615	(949) 413-3127	
Austin Tramell	Midland	(432) 699-4208	(575) 499-4919	
Rico Munoz	Midland	(432) 699-8366	(432) 803-4116	
Amber DuckWorth	Midland		(832) 966-1879	
Kelley Montgomery- Regulatory Manager	Houston	(713) 366-5716	(832) 454-8137	
Sandra Musallam -Regulatory Lead	Houston	+1 (713) 366-5106	+1 (713) 504-8577	
Bishop, Steve-DOT Pipeline Coordinator	Midland	432-685-5614		
Wilson, Dusty-Safety Advisor	Midland	432-685-5771	(432) 254-2336	
John W Dittrich Eniromental Advisor	Midland		(575) 390-2828	
William (Jack) Calhoun-Environmental Lead	Houston	+713 (350) 4906	(281) 917-8571	
Robert Barrow-Risk Engineer Manager	Houston	(713) 366-5611	(832) 867-5336	
Sarah Holmes-HSE Cordinator	Midland	432-685-5758		
Administrative	Location	Office		
Sarah Holmes	Midland	432-685-5830		
Robertson, Debbie	Midland	432-685-5812		
Laci Hollaway	Midland	(432) 685-5716	(432) 631-6341	
Administrative	Location	Office		
Rosalinda Escajeda	Midland	432-685-5831		

Location	<b>Office Phone</b>	<b>Cell/Mobile Phone</b>
Hobbs	575-397-8247	
Levelland	806-894-8347	
North Cowden	432-385-3120	
Location	Office	
Orla, TX	(337) 205-9314	
Location	Office	
	(877) 502-9466	
Carlsbad, NM	(505) 887-6544	
Hobbs, NM	(505) 393-3612	
Roswell, NM	(505) 393-3612	
Santa Fe, NM	(505) 988-6030	
Santa Fe. NM	(505) 827-3549 (505) 490-2375	
Austin, TX	(512) 463-6788	
Dallas, Texas	(214) 665-6444	
Lubbock, Texas	(806) 472-7681	
	(800) 424-8802	
	(202) 282-9201	
Santa Fe, NM	(505) 827-1494	
Artesia, NM	(505) 748-1283	After Hours (505) 370- 7545
Hobbs, NM	(505) 393-6161	
Santa Fe, NM	(505) 471-1068	
Santa Fe, NM	(505) 476-3470	
Hobbs, NM	(505) 827-9329	
Santa Fe, NM	(505) 827-9222	
District 1 San Antonio	, (210) 227-1313	
District 7C San Angelo	(325) 657-7450	
District 8, 8A Midland	(432) 684-5581	
Austin, TX	(512) 463-7727	
Region 2 Lubbock, TX	(806) 796-3494	
Region 3 Abilene, TX	(325) 698-9674	
Region 7 Midland, TX	(432) 570-1359	
Region 9 San Antonio,	(512) 734-7981	
Region 8 San Angelo	(325) 655-9479	
Abernathy, TX	(806) 298-2524	
	(	1
Artesia, NM	(505) 748-3333	
	HobbsLevellandNorth CowdenLocationOrla, TXLocationCarlsbad, NMHobbs, NMRoswell, NMSanta Fe, NMSanta Fe, NMSanta Fe, NMJallas, TexasLubbock, TexasLubbock, TexasWashington, D. C.Santa Fe, NMSanta Fe, NMDallas, TexasLubbock, TexasLubbock, TexasKastin Fe, NMSanta Fe, NMSanta Fe, NMDallas, TexasLubbock, TexasDallas, TexasLubbock, TexasDistrict Tasa AntonioDistrict 1 San AntonioDistrict 7C San AngeleDistrict 7C San AngeleDistrict 7C San AngeleDistrict 8, 8A MidlandAustin, TXRegion 2 Lubbock, TXRegion 7 Midland, TXRegion 7 Midland, TXRegion 9 San Antonio	Hobbs         575-397-8247           Levelland         806-894-8347           North Cowden         432-385-3120           Location         Office           Orla, TX         (337) 205-9314           Location         Office           Orla, TX         (337) 205-9314           Location         Office           Carlsbad, NM         (505) 887-6544           Hobbs, NM         (505) 393-3612           Roswell, NM         (505) 988-6030           Santa Fe, NM         (505) 827-3549           Santa Fe, NM         (505) 490-2375           Austin, TX         (512) 463-6788           Dallas, Texas         (214) 665-6444           Lubbock, Texas         (806) 472-7681           Washington, D. C.         (800) 424-8802           Quartical Fe, NM         (505) 827-1494           Artesia, NM         (505) 748-1283           Hobbs, NM         (505) 476-3470           Hobbs, NM         (505) 476-3470           Hobbs, NM         (505) 827-9329           Santa Fe, NM         (505) 827-9329

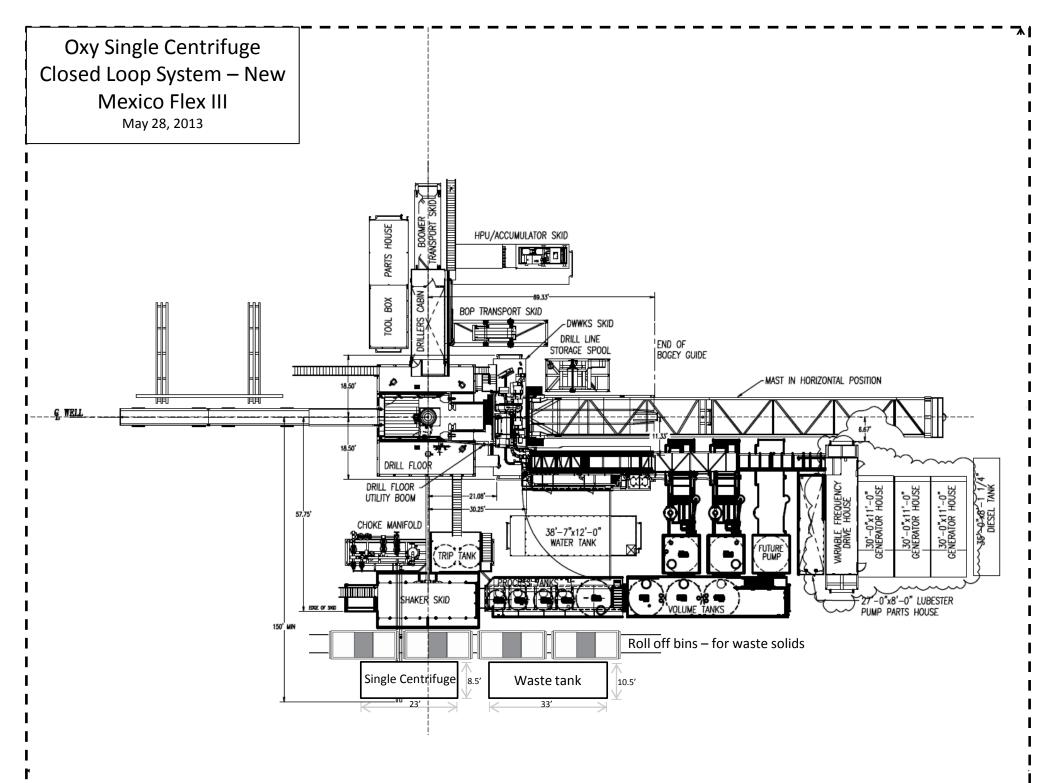
Person	Location	<b>Office Phone</b>	<b>Cell/Mobile Phone</b>
Cogdell Memorial Hospital	Snyder, TX	(325) 573-6374	
Covenant Hospital Levelland	Levelland, TX	(806) 894-4963	
Covenant Medical Center	Lubbock, TX	(806) 725-1011	
Covenant Medical Center Lakeside	Lubbock, TX	(806) 725-6000	
Covenant Family Health	Synder, TX	(325) 573-1300	
Crockett County Hospital	Ozona, TX	(325) 392-2671	
Guadalupe Medical Center	Carlsbad, NM	(505) 887-6633	
Lea Regional Hospital	Hobbs, NM	(505) 492-5000	
McCamey Hospital	McCamey, TX	(432) 652-8626	
Medical Arts Hospital	Lamesa, TX	(806) 872-2183	
Medical Center Hospital	Odessa, TX	(432) 640-4000	
Medi Center Hospital	San Angelo, TX	(325) 653-6741	
Memorial Hospital	Ft. Stockton	(432) 336-2241	
Memorial Hospital	Seminole, TX	(432) 758-5811	
Midland Memorial Hospital	Midland, TX	(432) 685-1111	
Nor-Lea General Hospital	Lovington, NM	(505) 396-6611	
Odessa Regional Hospital	Odessa, TX	(432) 334-8200	
Permian General Hospital	Andrews, TX	(432) 523-2200	
Reagan County Hospital	Big Lake, TX	(325) 884-2561	
Reeves County Hospital	Pecos, TX	(432) 447-3551	
Shannon Medical Center	San Angelo, TX	(325) 653-6741	
Union County General Hospital	Clayton, NM	(505) 374-2585	
University Medical Center	Lubbock, TX	(806) 725-8200	
Val Verde Regional Medical Center	Del Rio, TX	(830) 775-8566	
Ward Memorial Hospital	Monahans, TX	(432) 943-2511	
Yoakum County Hospital	Denver City, TX	(806) 592-5484	
Law Enforcement - Sheriff			
	Androws County (Andr	(122) 522 5545	
Andrews Cty Sheriff's Department	Andrews County (Andr	(432) 523-5545	
Crane Cty Sheriff's Department	Crane, County (Crane)	(432) 558-3571	
Crockett Cty Sheriff's Department	Crockett County (Ozor	(325) 392-2661	
Dawson Cty Sheriff's Department	Dawson County (Lame	(806) 872-7560	
Ector Cty Sheriff's Department	Ector County (Odessa)	(432) 335-3050	
Eddy Cty Sheriff's Department	Eddy County (Artesia)	(505) 746-2704	
Eddy Cty Sheriff's Department	Eddy County (Carlsbac	(505) 887-7551	
Gaines Cty Sheriff's Department	Gaines County (Semin	(432) 758-9871	
Hockley Cty Sheriff's Department	Hockley County(Level	(806) 894-3126	
Kent Cty (Jayton City Sheriff's Dept.)	Kent County(Jayton)	(806) 237-3801	
Lea Cty Sheriff's Department	Lea County (Eunice)	(505) 384-2020	
Lea Cty Sheriff's Department	Lea County (Hobbs)	(505) 393-2515	
Lea Cty Sheriff's Department	Lea County (Lovingtor	(505) 396-3611	
Lubbock Cty Sheriff's Department	Lubbock Cty (Abernatl	(806) 296-2724	
Midland Cty Sheriff's Department	Midland County (Midl	(432) 688-1277	

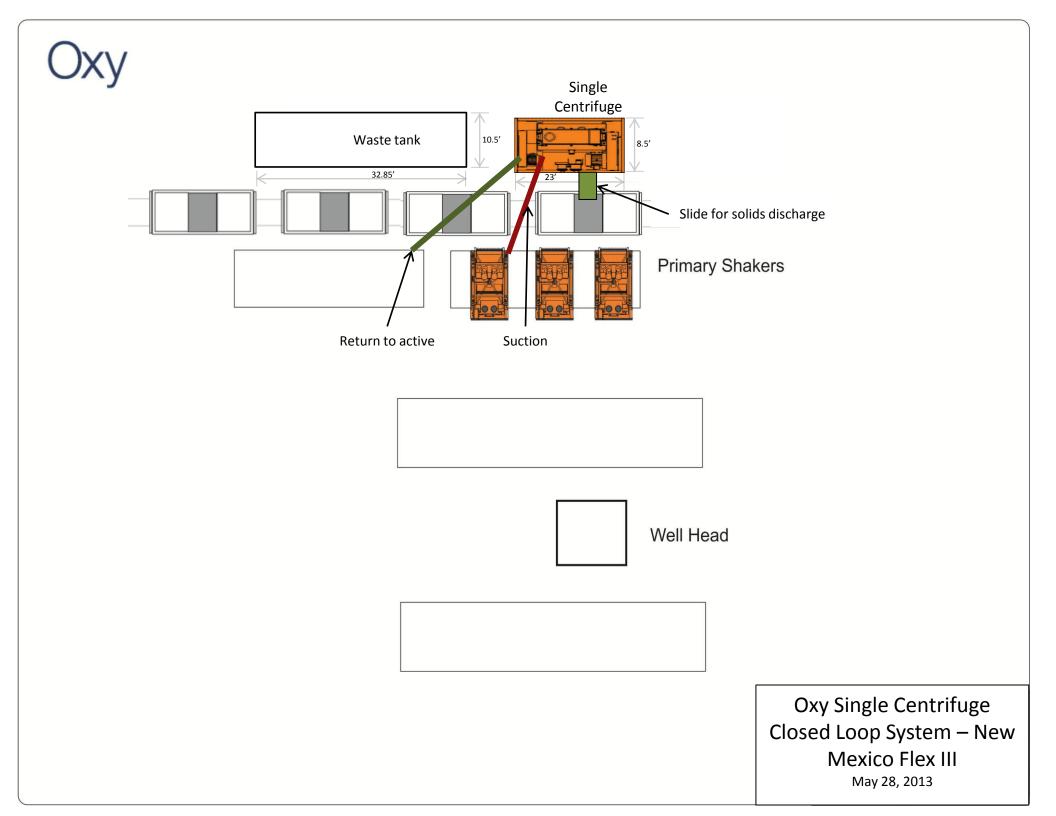
Person	Location	<b>Office Phone</b>	<b>Cell/Mobile Phone</b>
Pecos Cty Sheriff's Department	Pecos County (Iraan)	(432) 639-2251	
Reeves Cty Sheriff's Department	Reeves County (Pecos)	(432) 445-4901	
Scurry Cty Sheriff's Department	Scurry County (Snyder	(325) 573-3551	
Terry Cty Sheriff's Department	Terry County (Brownfi		
Union Cty Sheriff's Department	Union County (Claytor	(505) 374-2583	
Upton Cty Sheriff's Department	Upton County (Rankin	(432) 693-2422	
Ward Cty Sheriff's Department	Ward County (Monaha	(432) 943-3254	
Yoakum City Sheriff's Department	Yoakum Co. (Denever	(806) 456-2377	
Law Enforcement - Police			
Abernathy City Police	Abernathy, TX	(806) 298-2545	
Andrews City Police	Andrews, TX	(432) 523-5675	
Artesia City Police	Artesia, NM	(505) 746-2704	
Brownfield City Police	Brownfield, TX	(806) 637-2544	
Carlsbad City Police	Carlsbad, NM	(505) 885-2111	
Clayton City Police	Clayton, NM	(505) 374-2504	
Denver City Police	Denver City, TX	(806) 592-3516	
Eunice City Police	Eunice, NM	(505) 394-2112	
Hobbs City Police	Hobbs, NM	393-2677	
Jal City Police	Jal, NM	(505) 395-2501	
Jayton City Police	Jayton, TX	(806) 237-3801	
Lamesa City Police	Lamesa, TX	(806) 872-2121	
Levelland City Police	Levelland, TX	(806) 894-6164	
Lovington City Police	Lovington, NM	(505) 396-2811	
Midland City Police	Midland, TX	(432) 685-7113	
Monahans City Police	Monahans, TX	(432) 943-3254	
Odessa City Police	Odessa, TX	(432) 335-3378	
Seminole City Police	Seminole, TX	(432) 758-9871	
Snyder City Police	Snyder, TX	(325) 573-2611	
Sundown City Police	Sundown, TX	(806) 229-8241	
Law Enforcement - FBI			
FBI	Alburqueque, NM	(505) 224-2000	
FBI	Midland, TX	(432) 570-0255	
Law Enforcement - DPS			
NM State Police	Artesia, NM	(505) 746-2704	
NM State Police	Carlsbad, NM	(505) 885-3137	
NM State Police	Eunice, NM	(505) 392-5588	
NM State Police	Hobbs, NM	(505) 392-5588	
NM State Police	Clayton, NM	(505) 374-2473; 911	
TX Dept of Public Safety	Andrews, TX	(432) 524-1443	
TX Dept of Public Safety	Big Lake, TX	(325) 884-2301	

Person	Location	<b>Office Phone</b>	Cell/Mobile Phone		
TX Dept of Public Safety	Brownfield, TX	(806) 637-2312			
TX Dept of Public Safety	Iraan, TX	(432) 639-3232			
TX Dept of Public Safety	Lamesa, TX	(806) 872-8675			
TX Dept of Public Safety	Levelland, TX	(806) 894-4385			
TX Dept of Public Safety	Lubbock, TX	(806) 747-4491			
TX Dept of Public Safety	Midland, TX	(432) 697-2211			
TX Dept of Public Safety	Monahans, TX	(432) 943-5857			
TX Dept of Public Safety	Odessa, TX	(432) 332-6100			
TX Dept of Public Safety	Ozona, TX	(325) 392-2621			
TX Dept of Public Safety	Pecos, TX	(432) 447-3533			
TX Dept of Public Safety	Seminole, TX	(432) 758-4041			
TX Dept of Public Safety	Snyder, TX	(325) 573-0113			
TX Dept of Public Safety	Terry County TX	(806) 637-8913			
TX Dept of Public Safety	Yoakum County TX	(806) 456-2377			
· · ·					
Firefighting & Rescue					
Abernathy	Abernathy, TX	(806) 298-2022			
Amistad/Rosebud	Amistad/Rosebud, NM	(505) 633-9113			
Andrews	Andrews, TX	523-3111			
Artesia	Artesia, NM	(505) 746-5051			
Big Lake	Big Lake, TX	(325) 884-3650			
Brownfield-Administrative & other calls	Brownfield, TX	(816) 637-4547			
Brownfield emergency only	Brownfield, TX	-911			
Carlsbad	Carlsbad, NM	(505) 885-3125			
Clayton	Clayton, NM	(505) 374-2435			
Cotton Center	Cotton Center, TX	(806) 879-2157			
Crane	Crane, TX	(432) 558-2361			
Del Rio	Del Rio, TX	(830) 774-8650			
Denver City	Denver City, TX	(806) 592-3516			
Eldorado	Eldorado, TX	(325) 853-2691			
Eunice	Eunice, NM	(505) 394-2111			
Garden City	Garden City, TX	(432) 354-2404			
Goldsmith	Goldsmith, TX	(432) 827-3445			
Hale Center	Hale Center, TX	(806) 839-2411			
Halfway	Halfway, TX				
Hobbs	Hobbs, NM	(505) 397-9308			
Jal	Jal, NM	(505) 395-2221			
Jayton	Jayton, TX	(806) 237-3801			
Kermit	Kermit, TX	(432) 586-3468			
Lamesa	Lamesa, TX	(806) 872-4352			
Levelland	Levelland, TX	(806) 894-3154			
Lovington	Lovington, NM	(505) 396-2359			
Maljamar	Maljamar, NM	(505) 676-4100			

Person	Location	<b>Office Phone</b>	Cell/Mobile Phone
McCamey	McCamey, TX	(432) 652-8232	
Midland	Midland, TX	(432) 685-7346	
Monahans	Monahans, TX	(432) 943-4343	
Nara Visa	Nara Visa, NM	(505) 461-3300	
Notrees	Notress, TX	(432) 827-3445	
Odessa	Odessa, TX	(432) 335-4659	
Ozona	Ozona, TX	(325) 392-2626	
Pecos	Pecos, TX	(432) 445-2421	
Petersburg	Petersburg, TX	(806) 667-3461	
Plains	Plains, TX	(806) 456-8067	
Plainview	Plainview, TX	(806) 296-1170	
Rankin	Rankin, TX	(432) 693-2252	
San Angelo	San Angelo, TX	(325) 657-4355	
Sanderson	Sanderson, TX	(432) 345-2525	
Seminole	Seminole, TX	758-9871	
Smyer	Smyer, TX	(806) 234-3861	
Snyder	Snyder, TX	(325) 573-6215	
Sundown	Sundown, TX	911	
Tucumcari	Tucumcari, NM	911	
West Odessa	Odessa, TX	(432) 381-3033	
Ambulance			
Abernathy Ambulance	Abernathy, TX	(806) 298-2241	
Amistad/Rosebud	Amistad/Rosebud, NM	(505) 633-9113	
Andrews Ambulance	Andrews, TX	(432) 523-5675	
Artesia Ambulance	Artesia, NM	(505) 746-2701	
Big Lake Ambulance	Big Lake, TX	(325) 884-2423	
Big Spring Ambulance	Big Spring, TX	(432) 264-2550	
Brownfield Ambulance	Brownfield, TX	(806) 637-2511	
Carlsbad Ambulance	Carlsbad, NM	(505) 885-2111; 911	
Clayton, NM	Clayton, NM	(505) 374-2501	
Denver City Ambulance	Denver City, TX	(806) 592-3516	
Eldorado Ambulance	Eldorado, TX	(325) 853-3456	
Eunice Ambulance	Eunice, NM	(505) 394-3258	
Goldsmith Ambulance	Goldsmith, TX	(432) 827-3445	
Hobbs, NM	Hobbs, NM	(505) 397-9308	
Jal, NM	Jal, NM	(505) 395-2501	
Jayton Ambulance	Jayton, TX	(806) 237-3801	
Lamesa Ambulance	Lamesa, TX	(806) 872-3464	
Levelland Ambulance	Levelland, TX	(806) 894-8855	
Lovington Ambulance	Lovington, NM	(505) 396-2811	
McCamey Hospital	McCamey, TX	(432) 652-8626	
Midland Ambulance	Midland, TX	(432) 685-7499	

Person	Location	<b>Office Phone</b>	Cell/Mobile Phone
Monahans Ambulance	Monahans, TX	3731	
Nara Visa, NM	Nara Visa, NM	(505) 461-3300	
Odessa Ambulance	Odessa, TX	(432) 335-3378	
Ozona Ambulance	Ozona, TX	(325) 392-2671	
Pecos Ambulance	Pecos, TX	(432) 445-4444	
Rankin Ambulance	Rankin, TX	(432) 693-2443	
San Angelo Ambulance	San Angelo, TX	(325) 657-4357	
Seminole Ambulance	Seminole, TX	758-9871	
Snyder Ambulance	Snyder, TX	(325) 573-1911	
Stanton Ambulance	Stanton, TX	(432) 756-2211	
Sundown Ambulance	Sundown, TX	911	
Tucumcari, NM	Tucumcari, NM	911	
Medical Air Ambulance Service			
AEROCARE - Methodist Hospital	Lubbock, TX	(800) 627-2376	
San Angelo Med-Vac Air Ambulance	San Angelo, TX	(800) 277-4354	
Southwest Air Ambulance Service	Stanford, TX	(800) 242-6199	
Southwest MediVac	Snyder, TX	(800) 242-6199	
Southwest MediVac	Hobbs, NM	(800) 242-6199	
Odessa Care Star	Odessa, TX	(888) 624-3571	
NWTH Medivac	Amarillo, TX	(800) 692-1331	





<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u> 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u> <u>District IV</u> 220 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 0CD - HOBBS 10|29|2020 10|29|2020

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

	AMENDED	REPORT
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#### WELL LOCATION AND ACREAGE DEDICATION PLAT

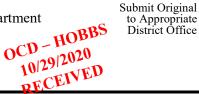
		Number 025-47941		Pool Code		Pool Name					
Property Code Property Name Well Number						Vell Number					
			LOST	TANK "3	0_19	"FEDER	AL COM				11H
OGF	UD No.				Operato	r Name					Elevation
				OXY	US US	A INC.				3	617.9'
	Surface Location										
UL or lot no.	Section	Township	Ra	inge	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
1	19	22 SOUTH	SOUTH 32 EAST, N.M.P.M.			128'	NORTH	1200' WES		ST	LEA
			Bottom	Hole Locati	on If I	Different I	From Surfac	e			
UL or lot no.	Section	Township	Ra	nge	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
4	30	22 SOUTH	SOUTH 32 EAST, N.M.P.M. 20				SOUTH	380'	WES	T	LEA
Dedicated Acres Joint or Infill Consolidation Code Order No.											

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

50' 100'		
24 380 5 1128	19 20	OPERATOR CERTIFICATION
380'1	SURFACE LOCATION NEW MEXICO EAST NAD 1983	I hereby certify that the information contained herein is true and
	Y=503941.45 US FT X=730958.55 US FT	complete to the best of my knowledge and belief, and that this
$\vdash - \vdash + + + + + + + + + + + + + + + + + $	LAT.: N 32.3839074*	organization either owns a working interest or unleased mineral
	GRID AZ = 274°49'26"	interest in the land including the proposed bottom hole location or
	823.29'	has a right to drill this well at this location pursuant to a contract
	KICK OFF POINT NEW MEXICO EAST NAD 1983	with an owner of such a mineral or working interest, or to a
	Y=504010.68 US FT X=730138.17 US FT	voluntary pooling agreement or a compulsory pooling order
	LAT.: N 32.3841106" LONG.: W 103.7217169"	heretofore entered by the division.
		Leslitang
	FIRST TAKE POINT NEW MEXICO EAST NAD 1983	Signature Date
- <u>10</u> 20	Y=503960.68 US FT X=730138.49 US FT	Printed Name
	LAT.: N 32.3839732* LONG.: W 103.7217168*	
24 19	19 20	E-mail Address
	30 29	
79°38"25		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.
	LAST TAKE POINT NEW MEXICO EAST	MARCH Z 2019
	NAD 1983	Dete of the det
	Y=493589.39 US FT X=730203.61 US FT LAT.: N 32.3554647' LONG:: W 103.7216979'	Signature and Seal of
	LONG.: W 103.7216979	Signature and Scal of SIONAL LAN Professional Surveyor SIONAL LAN
	BOTTOM HOLE LOCATION	
$\vdash - \vdash - \vdash \neq \neq$	NEW MEXICO EAST	-C DA Robel
	Y=493509.39 US FT X=730204.11 US FT	Serry Olisel 4/8/2019
380'1	LAT.: N 32.3552448 LONG.: W 103.7216977	Certificate Number 15079
25 880 2100	30 29	
20'		

State of New Mexico Energy, Minerals and Natural Resources Department

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



#### GAS CAPTURE PLAN

Date: 10/8/2019

 $\boxtimes$  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 – LOST TANK 18 CTB

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
Lost Tank 30-19 Federal Com 2H	Pending	C-19-22S-32E	303 FNL 1822 FWL	1728	0	
Lost Tank 30-19 Federal Com 11H 3	Pending 0-025-4794	D-19-22S-32E 1	128 FNL 1200 FWL	2760	0	
Lost Tank 30-19 Federal Com 12H	Pending	C-19-22S-32E	338 FNL 1762 FWL	2760	0	
Lost Tank 30-19 Federal Com 13H	Pending	C-19-22S-32E	288 FNL 1848 FWL	2760	0	
Lost Tank 30-19 Federal Com 21H	Pending	C-19-22S-32E	391 FNL 1671 FWL	2375	0	
Lost Tank 30-19 Federal Com 22H	Pending	C-19-22S-32E	373 FNL 1701 FWL	2375	0	
Lost Tank 30-19 Federal Com 23H	Pending	C-19-22S-32E	356 FNL 1731 FWL	2375	0	
Lost Tank 30-19 Federal Com 32H	Pending	D-19-22S-32E	128 FNL 1335 FWL	3418	0	
Lost Tank 30-19 Federal Com 33H	Pending	D-19-22S-32E	128 FNL 1370 FWL	3418	0	
Lost Tank 30-19 Federal Com 41H	Pending	D-19-22S-32E	128 FNL 1300 FWL	7244	0	
Lost Tank 30-19 Federal Com 42H	Pending	C-19-22S-32E	321 FNL 1792 FWL	7244	0	
Lost Tank 30-19 Federal Com 71H	Pending	D-19-228-32E	128 FNL 1270 FWL	2584	0	
Lost Tank 30-19 Federal Com 72H	Pending	D-19-228-32E	128 FNL 1405 FWL	2584	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 the production facility currently flows to Enterprise Field Services, LLC ("Enterprise") and is connected to Enterprise's low pressure gathering system located in Eddy, New Mexico. OXY USA INC. ("OXY") may also install compression and deliver to Enterprise's high pressure network and/or to DCP Midstream, LP ("DCP"). It will require 10,600' of pipeline to connect the facility to Enterprise's high pressure gathering system and 1,960' of pipeline to connect the facility to Enterprise's high pressure gathering system and 1,960' of pipeline to connect the facility to DCP's high pressure gathering system. OXY provides (periodically) to Enterprise and DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY, Enterprise, and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Enterprise's Processing Plant located in Sec. 23, Twn. 21S, Rng. 23E, Eddy County, New Mexico or DCP's Processing Plant located in Sec. 30, 31, Twn. 22S, 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 Enterprise's or DCP's systems 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
    - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines