District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 295158

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
OXY USA INC P.O. Box 4294 Houston, TX 772104294	16696
	3. API Number 30-025-48756

4. Property Code	5. Property Name	6. Well No.
330703	SENILE FELINES 18 7 STATE COM	311H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
N	18	22S	33E	N	355	S	1964	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	7	22S	33E	C	20	N	1395	W	Lea

9. Pool Information

RED TANK;BONE SPRING, EAST	51687

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3657
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	22241	3rd Bone Spring Sand		6/1/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	45.5	941	787	0
Int1	9.875	7.625	26.4	11271	1547	0
Prod	6.75	5.5	20	22241	799	10771

Casing/Cement Program: Additional Comments

See attached drill plan.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Double Ram	5000	5000	
Blind	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by KELLEY MONTGOMERY	Approved By:	Paul F Kautz	
Title:	Manager Regulatory	Title:	Geologist	
Email Address:	kelley_montgomery@oxy.com	Approved Date:	4/29/2021	Expiration Date: 4/29/2023
Date:	4/22/2021 Phone: 713-366-5716	Conditions of Approval Attached		

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-	51687	RED TANK;BONE SPRING, EAST

[4] Property Code	[5] Property Name	[6] Well Number
330703	SENILE FELINES 18_7 STATE COM	311H

[7] OGRID No.	[8] Operator Name	[9] Elevation
16696	OXY USA INC.	3657'

[10] Surface Location

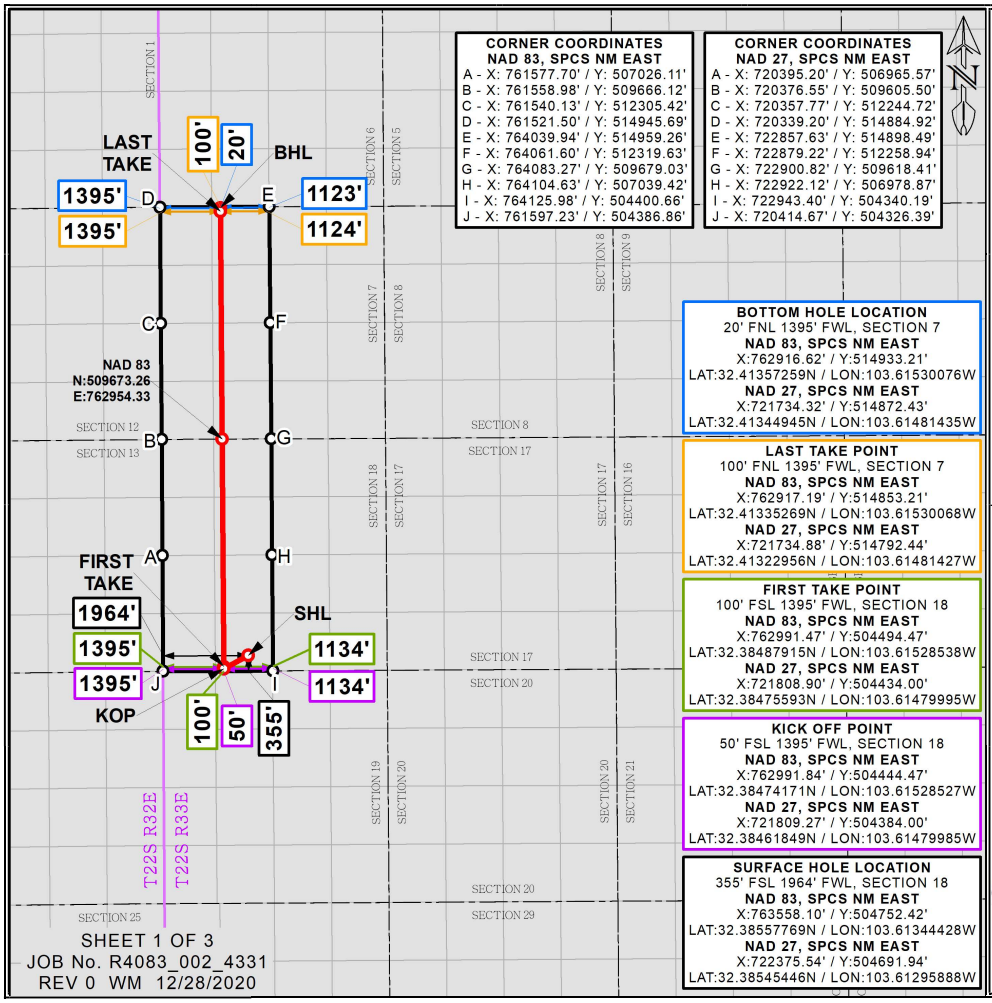
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	18	22S	33E		355	SOUTH	1964	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	7	22S	33E		20	NORTH	1395	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
611.84			

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Roni Mathew 4/15/2021
Signature Date

RONI MATHEW
Printed Name

roni_mathew@oxy.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 29, 2020
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID W. MYERS NEW MEXICO 11403 PROFESSIONAL SURVEYOR

Certificate Number
DAVID W. MYERS 11403

Distances/areas relative to NAD 83 Combined Scale Factor: 0.9997856 Convergence Angle: 00°22'27.18"

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

GAS CAPTURE PLAN

Date: 4/29/2021

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: [16696] OXY USA INC

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

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

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SENILE FELINES 18 7 STATE COM #311H	30-025-48756	N-18-22S-33E	0355S 1964W	4500	None	See attached gas capture plan.

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP High/Low Pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to High/Low Pressure gathering system. OXY USA INC provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY USA INC and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 06, Twn. 19S, Rng. 37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form APD Comments

Permit 295158

PERMIT COMMENTS

Operator Name and Address:	API Number:
OXY USA INC [16696] P.O. Box 4294 Houston, TX 772104294	30-025-48756
	Well: SENILE FELINES 18 7 STATE COM #311H

Created By	Comment	Comment Date
ronimathew	Supporting Docs attachment includes the following: C102 - Plat Drill Plan Directional Survey Directional Plot Gas Capture Plan Site Plan Location Verification Map Location Map BOP Attachments Choke Manifold Attachments Closed Loop Attachments H2S Plan	4/22/2021

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form APD Conditions

Permit 295158

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
OXY USA INC [16696] P.O. Box 4294 Houston, TX 772104294	30-025-48756
	Well: SENILE FELINES 18 7 STATE COM #311H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

[4] Property Code	[5] Property Name	[6] Well Number
	SENILE FELINES 18_7 STATE COM	311H

[7] OGRID No.	[8] Operator Name	[9] Elevation
16696	OXY USA INC.	3657'

[10] Surface Location

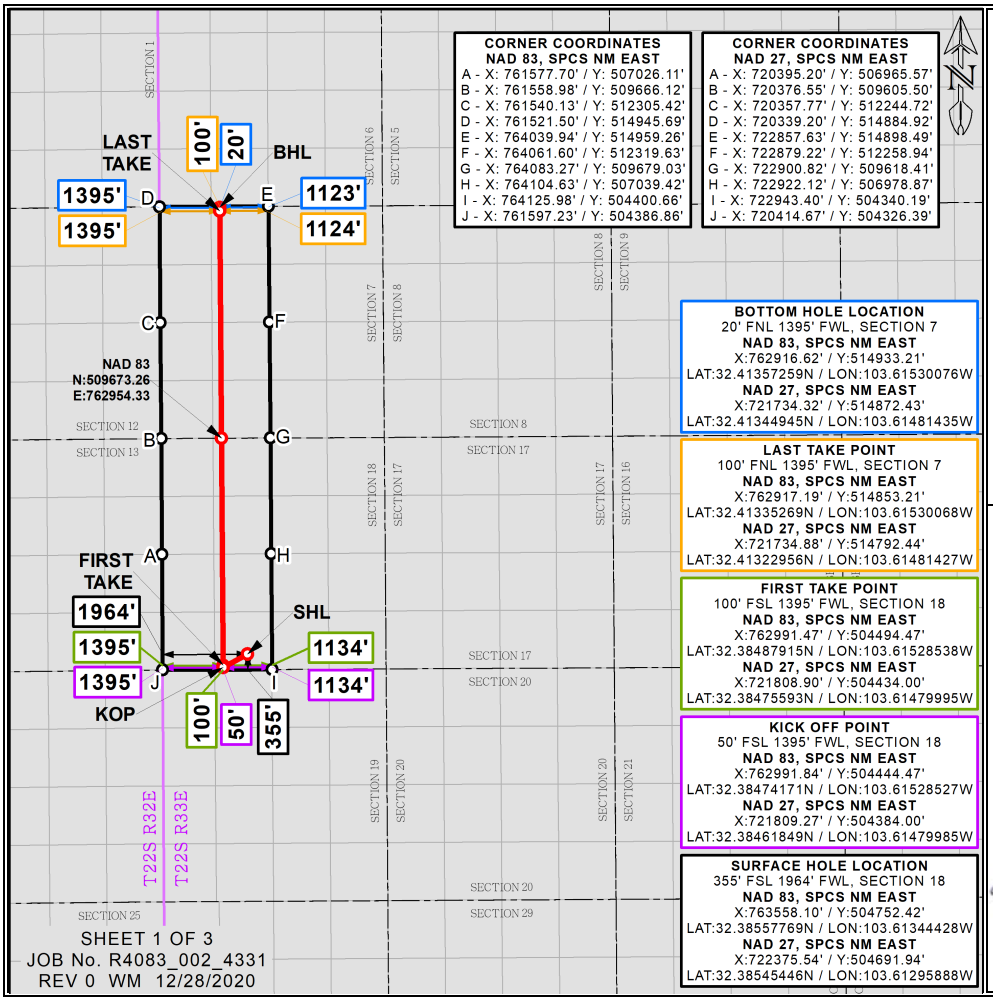
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	18	22S	33E		355	SOUTH	1964	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	7	22S	33E		20	NORTH	1395	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
611.84			

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Roni Mathew
Signature Date

Printed Name

E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 29, 2020
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID W. MYERS NEW MEXICO 11403 PROFESSIONAL SURVEYOR

Certificate Number
DAVID W. MYERS 11403

Distances/areas relative to NAD 83 Combined Scale Factor: 0.9997856 Convergence Angle: 00°22'27.18"

Oxy USA Inc. - Senile Felines 18_7 State Com 311H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	11944	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	22241	Deepest Expected Fresh Water (ft):	881

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	881	881	
Salado	1585	1585	Salt
Castile	2817	2817	Salt
Delaware	4853	4853	Oil/Gas/Brine
Bell Canyon	4931	4931	Oil/Gas/Brine
Cherry Canyon	5967	5967	Oil/Gas/Brine
Brushy Canyon	7075	7075	Losses
Bone Spring	8748	8742	Oil/Gas
Bone Spring 1st	9870	9847	Oil/Gas
Bone Spring 2nd	10520	10487	Oil/Gas
Bone Spring 3rd	11782	11709	Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

		MD		TVD					
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	14.75	0	941	0	941	10.75	45.5	J-55	BTC
Intermediate	9.875	0	11271	0	11224	7.625	26.4	L-80 HC	BTC
Production	6.75	0	22241	0	11944	5.5	20	P-110	DQX

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

*Oxy requests the option to run the 7.625” Intermediate II as a contingency string to be run only if severe hole conditions dictate an additional casing string necessary.
*Oxy requests the option to run production casing with DQX, TORQ DQW and/or TORQ SFW connections to accommodate hole conditions or drilling operations.

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

Annular Clearance Variance Request

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

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

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

Section	Stage	Slurry:	Capacities	ft^3/ft	Excess:	From	To	Sacks	Volume (ft^3)	Placement
Surface	1	Surface - Tail	OH x Csg	0.5563	100%	941	-	787	1047	Circulate
Int.	1	Intermediate 1S - Tail	OH x Csg	0.2148	5%	11,271	7,325	539	890	Circulate
Int.	2	Intermediate 2S - Tail BH	OH x Csg	0.2148	25%	7,325	941	893	1714	Bradenhead
Int.	2	Intermediate 2S - Tail BH	Csg x Csg	0.2338	0%	941	-	115	220	Bradenhead
Prod.	1	Production - Tail	OH x Csg	0.0835	15%	22,241	11,271	763	1054	Circulate
Prod.	1	Production - Tail	Csg x Csg	0.0999	0%	11,271	10,771	36	50	Circulate

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

Offline Cementing

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

The summarized operational sequence will be as follows:
Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
Land casing.
Fill pipe with kill weight fluid, and confirm well is static.
If well Oxy requests a variance to cement the 9.625” and/or 7.625” intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

The summarized operational sequence will be as follows:

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

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

Three string wells:

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

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:	Deepest TVD Depth (ft) per Section:
9.875" Hole	13-5/8”	5M	Annular	✓	70% of working pressure	11224
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8”	5M	Annular	✓	70% of working pressure	11944
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			

*Specify if additional ram is utilized

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

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

BOP Break Testing Request

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

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

If the kill line is broken prior to skid, two tests will be performed.
1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
2) Wellhead flange, HCR valve, check valve, upper pipe rams

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

5. Mud Program

Section	Depth - MD		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	941	0	941	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	941	11271	941	11224	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	11271	22241	11224	11944	Water-Based or Oil-Based Mud	9.5 - 12	38-50	N/C

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

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

6. Logging and Testing Procedures

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

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7454 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	176°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

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

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the 4 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Total Estimated Cuttings Volume: 1663 bbls

Attachments
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Flex III Attachments
_x__ Spudder Rig Attachment

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
William Turner	Drilling Engineer Supervisor	713-350-4951	661-817-4586
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
Diego Tellez	Drilling Manager	713-350-4602	713-303-4932

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Senile Felines 18_7
Senile Felines 18_7 State Com 311H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

27 January, 2021

Oxy Inc.
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

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

Site Senile Felines 18_7

Site Position:		**Northing:**	504,962.34 usft	**Latitude:**	32° 23' 10.158834 N
From:	Map	**Easting:**	763,528.05 usft	**Longitude:**	103° 36' 48.733380 W
Position Uncertainty:	1.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.39 °

Well Senile Felines 18_7 State Com 311H

Well Position	**+N/-S**	-209.93 ft	**Northing:**	504,752.42 usft	**Latitude:**	32° 23' 8.079668 N
	+E/-W	30.05 ft	**Easting:**	763,558.10 usft	**Longitude:**	103° 36' 48.399425 W
Position Uncertainty		1.00 ft	**Wellhead Elevation:**		**Ground Level:**	3,657.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	1/27/2021	6.47	60.07	47,886.00000000

Design Permitting Plan

Audit Notes:

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

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	356.39

Plan Survey Tool Program **Date** 1/27/2021

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,241.35	Permitting Plan (Wellbore #1)	B001Mb_MWD+HRGM	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,625.00	0.00	0.00	7,625.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,625.00	10.00	237.20	8,619.93	-47.15	-73.17	1.00	1.00	0.00	237.20	
11,370.89	10.00	237.20	11,324.10	-305.45	-473.97	0.00	0.00	0.00	0.00	
12,325.41	90.12	359.59	11,943.50	265.49	-570.47	10.00	8.39	12.82	121.98	
22,241.35	90.12	359.59	11,923.50	10,181.16	-641.50	0.00	0.00	0.00	0.00	PBHL (Senile

Oxy Inc.
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,625.00	0.00	0.00	7,625.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.75	237.20	7,700.00	-0.27	-0.41	-0.24	1.00	1.00	0.00
7,800.00	1.75	237.20	7,799.97	-1.45	-2.25	-1.30	1.00	1.00	0.00
7,900.00	2.75	237.20	7,899.89	-3.57	-5.55	-3.22	1.00	1.00	0.00
8,000.00	3.75	237.20	7,999.73	-6.65	-10.31	-5.98	1.00	1.00	0.00
8,100.00	4.75	237.20	8,099.46	-10.66	-16.54	-9.60	1.00	1.00	0.00
8,200.00	5.75	237.20	8,199.04	-15.62	-24.23	-14.06	1.00	1.00	0.00
8,300.00	6.75	237.20	8,298.44	-21.51	-33.38	-19.37	1.00	1.00	0.00
8,400.00	7.75	237.20	8,397.64	-28.35	-43.99	-25.53	1.00	1.00	0.00
8,500.00	8.75	237.20	8,496.60	-36.12	-56.05	-32.53	1.00	1.00	0.00
8,600.00	9.75	237.20	8,595.30	-44.83	-69.56	-40.37	1.00	1.00	0.00
8,625.00	10.00	237.20	8,619.93	-47.15	-73.17	-42.46	1.00	1.00	0.00
8,700.00	10.00	237.20	8,693.79	-54.21	-84.11	-48.81	0.00	0.00	0.00
8,800.00	10.00	237.20	8,792.27	-63.61	-98.71	-57.28	0.00	0.00	0.00
8,900.00	10.00	237.20	8,890.75	-73.02	-113.31	-65.75	0.00	0.00	0.00
9,000.00	10.00	237.20	8,989.23	-82.43	-127.90	-74.22	0.00	0.00	0.00
9,100.00	10.00	237.20	9,087.71	-91.83	-142.50	-82.69	0.00	0.00	0.00
9,200.00	10.00	237.20	9,186.20	-101.24	-157.10	-91.16	0.00	0.00	0.00
9,300.00	10.00	237.20	9,284.68	-110.65	-171.69	-99.63	0.00	0.00	0.00
9,400.00	10.00	237.20	9,383.16	-120.05	-186.29	-108.10	0.00	0.00	0.00
9,500.00	10.00	237.20	9,481.64	-129.46	-200.88	-116.57	0.00	0.00	0.00
9,600.00	10.00	237.20	9,580.12	-138.87	-215.48	-125.04	0.00	0.00	0.00
9,700.00	10.00	237.20	9,678.60	-148.27	-230.08	-133.51	0.00	0.00	0.00
9,800.00	10.00	237.20	9,777.08	-157.68	-244.67	-141.98	0.00	0.00	0.00
9,900.00	10.00	237.20	9,875.56	-167.09	-259.27	-150.45	0.00	0.00	0.00
10,000.00	10.00	237.20	9,974.04	-176.49	-273.87	-158.92	0.00	0.00	0.00
10,100.00	10.00	237.20	10,072.52	-185.90	-288.46	-167.39	0.00	0.00	0.00
10,200.00	10.00	237.20	10,171.00	-195.31	-303.06	-175.86	0.00	0.00	0.00
10,300.00	10.00	237.20	10,269.48	-204.71	-317.66	-184.33	0.00	0.00	0.00
10,400.00	10.00	237.20	10,367.96	-214.12	-332.25	-192.80	0.00	0.00	0.00
10,500.00	10.00	237.20	10,466.45	-223.53	-346.85	-201.27	0.00	0.00	0.00

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,600.00	10.00	237.20	10,564.93	-232.93	-361.44	-209.74	0.00	0.00	0.00
10,700.00	10.00	237.20	10,663.41	-242.34	-376.04	-218.21	0.00	0.00	0.00
10,800.00	10.00	237.20	10,761.89	-251.75	-390.64	-226.68	0.00	0.00	0.00
10,900.00	10.00	237.20	10,860.37	-261.15	-405.23	-235.16	0.00	0.00	0.00
11,000.00	10.00	237.20	10,958.85	-270.56	-419.83	-243.63	0.00	0.00	0.00
11,100.00	10.00	237.20	11,057.33	-279.97	-434.43	-252.10	0.00	0.00	0.00
11,200.00	10.00	237.20	11,155.81	-289.37	-449.02	-260.57	0.00	0.00	0.00
11,300.00	10.00	237.20	11,254.29	-298.78	-463.62	-269.04	0.00	0.00	0.00
11,370.89	10.00	237.20	11,324.10	-305.45	-473.97	-275.04	0.00	0.00	0.00
11,400.00	8.81	253.54	11,352.83	-307.45	-478.23	-276.77	10.00	-4.10	56.13
11,500.00	11.35	311.65	11,451.51	-303.07	-492.96	-271.47	10.00	2.54	58.11
11,600.00	19.45	334.63	11,547.93	-281.43	-507.48	-248.96	10.00	8.11	22.98
11,700.00	28.75	343.82	11,639.14	-243.19	-521.35	-209.93	10.00	9.30	9.19
11,800.00	38.38	348.74	11,722.38	-189.51	-534.15	-155.55	10.00	9.63	4.91
11,900.00	48.14	351.91	11,795.12	-122.02	-545.48	-87.48	10.00	9.76	3.17
12,000.00	57.97	354.23	11,855.16	-42.78	-555.01	-7.79	10.00	9.83	2.32
12,100.00	67.83	356.09	11,900.65	45.82	-562.45	81.10	10.00	9.86	1.87
12,200.00	77.71	357.71	11,930.23	141.07	-567.57	176.49	10.00	9.88	1.62
12,300.00	87.60	359.22	11,943.00	240.09	-570.21	275.47	10.00	9.89	1.50
12,325.41	90.12	359.59	11,943.50	265.49	-570.47	300.84	10.00	9.89	1.47
12,400.00	90.12	359.59	11,943.35	340.08	-571.01	375.32	0.00	0.00	0.00
12,500.00	90.12	359.59	11,943.15	440.08	-571.72	475.16	0.00	0.00	0.00
12,600.00	90.12	359.59	11,942.95	540.08	-572.44	575.01	0.00	0.00	0.00
12,700.00	90.12	359.59	11,942.75	640.07	-573.16	674.85	0.00	0.00	0.00
12,800.00	90.12	359.59	11,942.54	740.07	-573.87	774.69	0.00	0.00	0.00
12,900.00	90.12	359.59	11,942.34	840.07	-574.59	874.54	0.00	0.00	0.00
13,000.00	90.12	359.59	11,942.14	940.07	-575.30	974.38	0.00	0.00	0.00
13,100.00	90.12	359.59	11,941.94	1,040.06	-576.02	1,074.23	0.00	0.00	0.00
13,200.00	90.12	359.59	11,941.74	1,140.06	-576.74	1,174.07	0.00	0.00	0.00
13,300.00	90.12	359.59	11,941.54	1,240.06	-577.45	1,273.92	0.00	0.00	0.00
13,400.00	90.12	359.59	11,941.33	1,340.05	-578.17	1,373.76	0.00	0.00	0.00
13,500.00	90.12	359.59	11,941.13	1,440.05	-578.89	1,473.60	0.00	0.00	0.00
13,600.00	90.12	359.59	11,940.93	1,540.05	-579.60	1,573.45	0.00	0.00	0.00
13,700.00	90.12	359.59	11,940.73	1,640.05	-580.32	1,673.29	0.00	0.00	0.00
13,800.00	90.12	359.59	11,940.53	1,740.04	-581.03	1,773.14	0.00	0.00	0.00
13,900.00	90.12	359.59	11,940.33	1,840.04	-581.75	1,872.98	0.00	0.00	0.00
14,000.00	90.12	359.59	11,940.12	1,940.04	-582.47	1,972.83	0.00	0.00	0.00
14,100.00	90.12	359.59	11,939.92	2,040.04	-583.18	2,072.67	0.00	0.00	0.00
14,200.00	90.12	359.59	11,939.72	2,140.03	-583.90	2,172.52	0.00	0.00	0.00
14,300.00	90.12	359.59	11,939.52	2,240.03	-584.62	2,272.36	0.00	0.00	0.00
14,400.00	90.12	359.59	11,939.32	2,340.03	-585.33	2,372.20	0.00	0.00	0.00
14,500.00	90.12	359.59	11,939.11	2,440.02	-586.05	2,472.05	0.00	0.00	0.00
14,600.00	90.12	359.59	11,938.91	2,540.02	-586.77	2,571.89	0.00	0.00	0.00
14,700.00	90.12	359.59	11,938.71	2,640.02	-587.48	2,671.74	0.00	0.00	0.00
14,800.00	90.12	359.59	11,938.51	2,740.02	-588.20	2,771.58	0.00	0.00	0.00
14,900.00	90.12	359.59	11,938.31	2,840.01	-588.91	2,871.43	0.00	0.00	0.00
15,000.00	90.12	359.59	11,938.11	2,940.01	-589.63	2,971.27	0.00	0.00	0.00
15,100.00	90.12	359.59	11,937.90	3,040.01	-590.35	3,071.11	0.00	0.00	0.00
15,200.00	90.12	359.59	11,937.70	3,140.00	-591.06	3,170.96	0.00	0.00	0.00
15,300.00	90.12	359.59	11,937.50	3,240.00	-591.78	3,270.80	0.00	0.00	0.00
15,400.00	90.12	359.59	11,937.30	3,340.00	-592.50	3,370.65	0.00	0.00	0.00
15,500.00	90.12	359.59	11,937.10	3,440.00	-593.21	3,470.49	0.00	0.00	0.00
15,600.00	90.12	359.59	11,936.90	3,539.99	-593.93	3,570.34	0.00	0.00	0.00
15,700.00	90.12	359.59	11,936.69	3,639.99	-594.65	3,670.18	0.00	0.00	0.00

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,800.00	90.12	359.59	11,936.49	3,739.99	-595.36	3,770.02	0.00	0.00	0.00
15,900.00	90.12	359.59	11,936.29	3,839.99	-596.08	3,869.87	0.00	0.00	0.00
16,000.00	90.12	359.59	11,936.09	3,939.98	-596.79	3,969.71	0.00	0.00	0.00
16,100.00	90.12	359.59	11,935.89	4,039.98	-597.51	4,069.56	0.00	0.00	0.00
16,200.00	90.12	359.59	11,935.69	4,139.98	-598.23	4,169.40	0.00	0.00	0.00
16,300.00	90.12	359.59	11,935.48	4,239.97	-598.94	4,269.25	0.00	0.00	0.00
16,400.00	90.12	359.59	11,935.28	4,339.97	-599.66	4,369.09	0.00	0.00	0.00
16,500.00	90.12	359.59	11,935.08	4,439.97	-600.38	4,468.94	0.00	0.00	0.00
16,600.00	90.12	359.59	11,934.88	4,539.97	-601.09	4,568.78	0.00	0.00	0.00
16,700.00	90.12	359.59	11,934.68	4,639.96	-601.81	4,668.62	0.00	0.00	0.00
16,800.00	90.12	359.59	11,934.48	4,739.96	-602.52	4,768.47	0.00	0.00	0.00
16,900.00	90.12	359.59	11,934.27	4,839.96	-603.24	4,868.31	0.00	0.00	0.00
17,000.00	90.12	359.59	11,934.07	4,939.95	-603.96	4,968.16	0.00	0.00	0.00
17,100.00	90.12	359.59	11,933.87	5,039.95	-604.67	5,068.00	0.00	0.00	0.00
17,200.00	90.12	359.59	11,933.67	5,139.95	-605.39	5,167.85	0.00	0.00	0.00
17,300.00	90.12	359.59	11,933.47	5,239.95	-606.11	5,267.69	0.00	0.00	0.00
17,400.00	90.12	359.59	11,933.27	5,339.94	-606.82	5,367.53	0.00	0.00	0.00
17,500.00	90.12	359.59	11,933.06	5,439.94	-607.54	5,467.38	0.00	0.00	0.00
17,600.00	90.12	359.59	11,932.86	5,539.94	-608.26	5,567.22	0.00	0.00	0.00
17,700.00	90.12	359.59	11,932.66	5,639.94	-608.97	5,667.07	0.00	0.00	0.00
17,800.00	90.12	359.59	11,932.46	5,739.93	-609.69	5,766.91	0.00	0.00	0.00
17,900.00	90.12	359.59	11,932.26	5,839.93	-610.40	5,866.76	0.00	0.00	0.00
18,000.00	90.12	359.59	11,932.06	5,939.93	-611.12	5,966.60	0.00	0.00	0.00
18,100.00	90.12	359.59	11,931.85	6,039.92	-611.84	6,066.45	0.00	0.00	0.00
18,200.00	90.12	359.59	11,931.65	6,139.92	-612.55	6,166.29	0.00	0.00	0.00
18,300.00	90.12	359.59	11,931.45	6,239.92	-613.27	6,266.13	0.00	0.00	0.00
18,400.00	90.12	359.59	11,931.25	6,339.92	-613.99	6,365.98	0.00	0.00	0.00
18,500.00	90.12	359.59	11,931.05	6,439.91	-614.70	6,465.82	0.00	0.00	0.00
18,600.00	90.12	359.59	11,930.84	6,539.91	-615.42	6,565.67	0.00	0.00	0.00
18,700.00	90.12	359.59	11,930.64	6,639.91	-616.14	6,665.51	0.00	0.00	0.00
18,800.00	90.12	359.59	11,930.44	6,739.91	-616.85	6,765.36	0.00	0.00	0.00
18,900.00	90.12	359.59	11,930.24	6,839.90	-617.57	6,865.20	0.00	0.00	0.00
19,000.00	90.12	359.59	11,930.04	6,939.90	-618.28	6,965.04	0.00	0.00	0.00
19,100.00	90.12	359.59	11,929.84	7,039.90	-619.00	7,064.89	0.00	0.00	0.00
19,200.00	90.12	359.59	11,929.63	7,139.89	-619.72	7,164.73	0.00	0.00	0.00
19,300.00	90.12	359.59	11,929.43	7,239.89	-620.43	7,264.58	0.00	0.00	0.00
19,400.00	90.12	359.59	11,929.23	7,339.89	-621.15	7,364.42	0.00	0.00	0.00
19,500.00	90.12	359.59	11,929.03	7,439.89	-621.87	7,464.27	0.00	0.00	0.00
19,600.00	90.12	359.59	11,928.83	7,539.88	-622.58	7,564.11	0.00	0.00	0.00
19,700.00	90.12	359.59	11,928.63	7,639.88	-623.30	7,663.96	0.00	0.00	0.00
19,800.00	90.12	359.59	11,928.42	7,739.88	-624.02	7,763.80	0.00	0.00	0.00
19,900.00	90.12	359.59	11,928.22	7,839.87	-624.73	7,863.64	0.00	0.00	0.00
20,000.00	90.12	359.59	11,928.02	7,939.87	-625.45	7,963.49	0.00	0.00	0.00
20,100.00	90.12	359.59	11,927.82	8,039.87	-626.16	8,063.33	0.00	0.00	0.00
20,200.00	90.12	359.59	11,927.62	8,139.87	-626.88	8,163.18	0.00	0.00	0.00
20,300.00	90.12	359.59	11,927.42	8,239.86	-627.60	8,263.02	0.00	0.00	0.00
20,400.00	90.12	359.59	11,927.21	8,339.86	-628.31	8,362.87	0.00	0.00	0.00
20,500.00	90.12	359.59	11,927.01	8,439.86	-629.03	8,462.71	0.00	0.00	0.00
20,600.00	90.12	359.59	11,926.81	8,539.86	-629.75	8,562.55	0.00	0.00	0.00
20,700.00	90.12	359.59	11,926.61	8,639.85	-630.46	8,662.40	0.00	0.00	0.00
20,800.00	90.12	359.59	11,926.41	8,739.85	-631.18	8,762.24	0.00	0.00	0.00
20,900.00	90.12	359.59	11,926.21	8,839.85	-631.89	8,862.09	0.00	0.00	0.00
21,000.00	90.12	359.59	11,926.00	8,939.84	-632.61	8,961.93	0.00	0.00	0.00
21,100.00	90.12	359.59	11,925.80	9,039.84	-633.33	9,061.78	0.00	0.00	0.00

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,200.00	90.12	359.59	11,925.60	9,139.84	-634.04	9,161.62	0.00	0.00	0.00
21,300.00	90.12	359.59	11,925.40	9,239.84	-634.76	9,261.47	0.00	0.00	0.00
21,400.00	90.12	359.59	11,925.20	9,339.83	-635.48	9,361.31	0.00	0.00	0.00
21,500.00	90.12	359.59	11,925.00	9,439.83	-636.19	9,461.15	0.00	0.00	0.00
21,600.00	90.12	359.59	11,924.79	9,539.83	-636.91	9,561.00	0.00	0.00	0.00
21,700.00	90.12	359.59	11,924.59	9,639.82	-637.63	9,660.84	0.00	0.00	0.00
21,800.00	90.12	359.59	11,924.39	9,739.82	-638.34	9,760.69	0.00	0.00	0.00
21,900.00	90.12	359.59	11,924.19	9,839.82	-639.06	9,860.53	0.00	0.00	0.00
22,000.00	90.12	359.59	11,923.99	9,939.82	-639.77	9,960.38	0.00	0.00	0.00
22,100.00	90.12	359.59	11,923.79	10,039.81	-640.49	10,060.22	0.00	0.00	0.00
22,200.00	90.12	359.59	11,923.58	10,139.81	-641.21	10,160.06	0.00	0.00	0.00
22,241.35	90.12	359.59	11,923.50	10,181.16	-641.50	10,201.35	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (Senile Felines - plan hits target center - Point	0.00	0.00	11,923.50	10,181.16	-641.50	514,933.21	762,916.62	32° 24' 48.861344 N	103° 36' 55.082784
FTP (Senile Felines - plan misses target center by 202.34ft at 11900.00ft MD (11795.12 TVD, -122.02 N, -545.48 E) - Point	0.00	0.00	11,943.50	-257.96	-566.65	504,494.47	762,991.47	32° 23' 5.564931 N	103° 36' 55.027373

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
880.50	880.50	RUSTLER			
1,584.50	1,584.50	SALADO			
2,816.50	2,816.50	CASTILE			
4,852.50	4,852.50	DELAWARE			
4,930.50	4,930.50	BELL CANYON			
5,966.50	5,966.50	CHERRY CANYON			
7,074.50	7,074.50	BRUSHY CANYON			
8,748.44	8,741.50	BONE SPRING			
9,870.49	9,846.50	BONE SPRING 1ST			
10,520.36	10,486.50	BONE SPRING 2ND			
11,782.49	11,708.50	BONE SPRING 3RD			

Oxy Inc.

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Senile Felines 18_7 State Com 311H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3683.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3683.50ft
Site:	Senile Felines 18_7	**North Reference:**	Grid
Well:	Senile Felines 18_7 State Com 311H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,625.00	7,625.00	0.00	0.00	Build 1°/100'
8,625.00	8,619.93	-47.15	-73.17	Hold 10° Tangent
11,370.89	11,324.10	-305.45	-473.97	KOP, Build & Turn 10°/100'
12,325.41	11,943.50	265.49	-570.47	Landing Point
22,241.35	11,923.50	10,181.16	-641.50	TD at 22241.35' MD

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Senile Felines 18_7
Well: Senile Felines 18_7 State Com 311H
Wellbore: Wellbore #1
Design: Permitting Plan

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

System Datum: Mean Sea Level

WELL DETAILS: Senile Felines 18_7 State Com 311H

3657.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	504752.42	763558.10	32° 23' 8.079668 N	103° 36' 48.399425 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7625.00	0.00	0.00	7625.00	0.00	0.00	0.00	0.00	0.00	Build 1°/100'
8625.00	10.00	237.20	8619.93	-47.15	-73.17	1.00	237.20	-42.46	Hold 10° Tangent
11370.89	10.00	237.20	11324.10	-305.45	-473.97	0.00	0.00	-275.04	KOP, Build & Turn 10°/100'
12325.41	90.12	359.59	11943.50	265.49	-570.47	10.00	121.98	300.84	Landing Point
22241.35	90.12	359.59	11923.50	10181.16	-641.50	0.00	0.00	10201.35	TD at 22241.35' MD

Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.08°

Magnetic Field
Strength: 47886.0nT
Dip Angle: 60.07°
Date: 1/27/2021
Model: HDGM_FILE

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 3-15-2021

☒ Original Operator & OGRID No.: OXY USA INC. - 16696

☐ Amended - Reason for Amendment:_____

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

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

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SENILE FELINES 18_7 STATE COM 21H	Pending	N-18-22S-33E	450 FSL 1860 FWL	3,750	0	
SENILE FELINES 18_7 STATE COM 22H	Pending	N-18-22S-33E	450 FSL 1895 FWL	3,750	0	
SENILE FELINES 18_7 STATE COM 23H	Pending	N-18-22S-33E	450 FSL 1930 FWL	3,750	0	
SENILE FELINES 18_7 STATE COM 24H	Pending	O-18-22S-33E	435 FSL 1584 FEL	3,750	0	
SENILE FELINES 18_7 STATE COM 25H	Pending	O-18-22S-33E	435 FSL 1549 FEL	3,750	0	
SENILE FELINES 18_7 STATE COM 26H	Pending	O-18-22S-33E	435 FSL 1514 FEL	3,750	0	
SENILE FELINES 18_7 STATE COM 311H	Pending	N-18-22S-33E	240 FSL 1890 FWL	4,500	0	
SENILE FELINES 18_7 STATE COM 312H	Pending	O-18-22S-33E	225 FSL 1585 FEL	4,500	0	
SENILE FELINES 18_7 STATE COM 313H	Pending	O-18-22S-33E	225 FSL 1520 FEL	4,500	0	
SENILE FELINES 18_7 STATE COM 31H	Pending	N-18-22S-33E	240 FSL 1860 FWL	4,500	0	
SENILE FELINES 18_7 STATE COM 32H	Pending	N-18-22S-33E	240 FSL 1925 FWL	4,500	0	
SENILE FELINES 18_7 STATE COM 33H	Pending	N-18-22S-33E	240 FSL 1960 FWL	4,500	0	
SENILE FELINES 18_7 STATE COM 34H	Pending	O-18-22S-33E	225 FSL 1555 FEL	4,500	0	
SENILE FELINES 18_7 STATE COM 35H	Pending	O-18-22S-33E	225 FSL 1485 FEL	4,500	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is connected to DCP low/high pressure gathering system located in Lea County, New Mexico. OXY USA INC. ("OXY") provides (periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP's Linam Ranch Plant located in Sec. 6, Twn. 19S, Rng. 37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

SITE PLAN

REDTNK-1801
SEC. 18 TWP. 22-S RGE. 33-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: GRAMA RIDGE, N.M.
FAA PERMIT NEEDED: NO

TANK BATTERY
RECLAMATION
30' TOP SOIL
20' DISTURBANCE AREA

100' 0' 100' 200'
SCALE: 1" = 200'

WELL 1
SENILE FELINES 18-7 STATE COM 21H
OXY USA, INC.
565' FSL 1935' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763528.05' / Y:504962.34'
LAT:32.38615524N / LON:103.61353704W
NAD 27, SPCS NM EAST
X:722345.50' / Y:504901.86'
LAT:32.38603202N / LON:103.61305161W
ELEVATION = 3656'

WELL 2
SENILE FELINES 18-7 STATE COM 22H
OXY USA, INC.
565' FSL 1970' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763563.01' / Y:504962.31'
LAT:32.38615450N / LON:103.61342379W
NAD 27, SPCS NM EAST
X:722380.45' / Y:504901.82'
LAT:32.38603127N / LON:103.61293838W
ELEVATION = 3656'

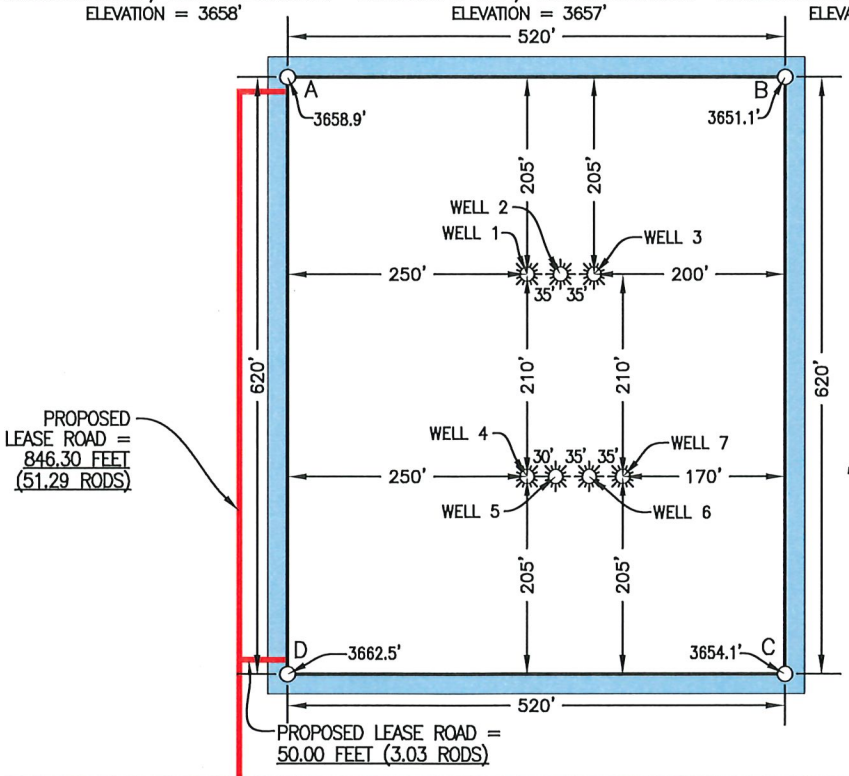
WELL 3
SENILE FELINES 18-7 STATE COM 23H
OXY USA, INC.
565' FSL 2005' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763598.08' / Y:504962.33'
LAT:32.38615390N / LON:103.61331019W
NAD 27, SPCS NM EAST
X:722415.52' / Y:504901.84'
LAT:32.38603068N / LON:103.61282477W
ELEVATION = 3656'

WELL 4
SENILE FELINES 18-7 STATE COM 31H
OXY USA, INC.
355' FSL 1933' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763528.05' / Y:504752.43'
LAT:32.38557827N / LON:103.61354161W
NAD 27, SPCS NM EAST
X:722345.49' / Y:504691.95'
LAT:32.38545504N / LON:103.61305621W
ELEVATION = 3658'

WELL 5
SENILE FELINES 18-7 STATE COM 311H
OXY USA, INC.
355' FSL 1963' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763558.10' / Y:504752.42'
LAT:32.38557769N / LON:103.61344428W
NAD 27, SPCS NM EAST
X:722375.54' / Y:504691.94'
LAT:32.38545446N / LON:103.61295888W
ELEVATION = 3657'

WELL 6
SENILE FELINES 18-7 STATE COM 32H
OXY USA, INC.
355' FSL 1998' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763593.06' / Y:504752.37'
LAT:32.38557690N / LON:103.61333104W
NAD 27, SPCS NM EAST
X:722410.50' / Y:504691.89'
LAT:32.38545368N / LON:103.61284564W
ELEVATION = 3656'

WELL 7
SENILE FELINES 18-7 STATE COM 33H
OXY USA, INC.
354' FSL 2033' FWL, SECTION 18
NAD 83, SPCS NM EAST
X:763628.06' / Y:504752.43'
LAT:32.38557642N / LON:103.61321766W
NAD 27, SPCS NM EAST
X:722445.50' / Y:504691.95'
LAT:32.38545319N / LON:103.61273227W
ELEVATION = 3656'



SECTION 18, T-22-S, R-33-E

NAD 83		
A	E:(X)763278.08 N:(Y)505167.33	LAT:32.38672329 LON:-103.61434232
B	E:(X)763798.08 N:(Y)505167.33	LAT:32.38671367 LON:-103.61265785
C	E:(X)763798.08 N:(Y)504547.42	LAT:32.38500976 LON:-103.61267138
D	E:(X)763278.08 N:(Y)504547.42	LAT:32.38501938 LON:-103.61435582

NAD 27		
A	E:(X)722095.53 N:(Y)505106.84	LAT:32.38660007 LON:-103.61385686
B	E:(X)722615.52 N:(Y)505106.84	LAT:32.38659044 LON:-103.61217245
C	E:(X)722615.51 N:(Y)504486.94	LAT:32.38488654 LON:-103.61218603
D	E:(X)722095.51 N:(Y)504486.95	LAT:32.38489617 LON:-103.61387041

12/17/2020	12/22/2020
DATE SURVEYED	DATE DRAWN

BASIS OF BEARING
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.99977704 CONVERGENCE OF 0.28238333°.)

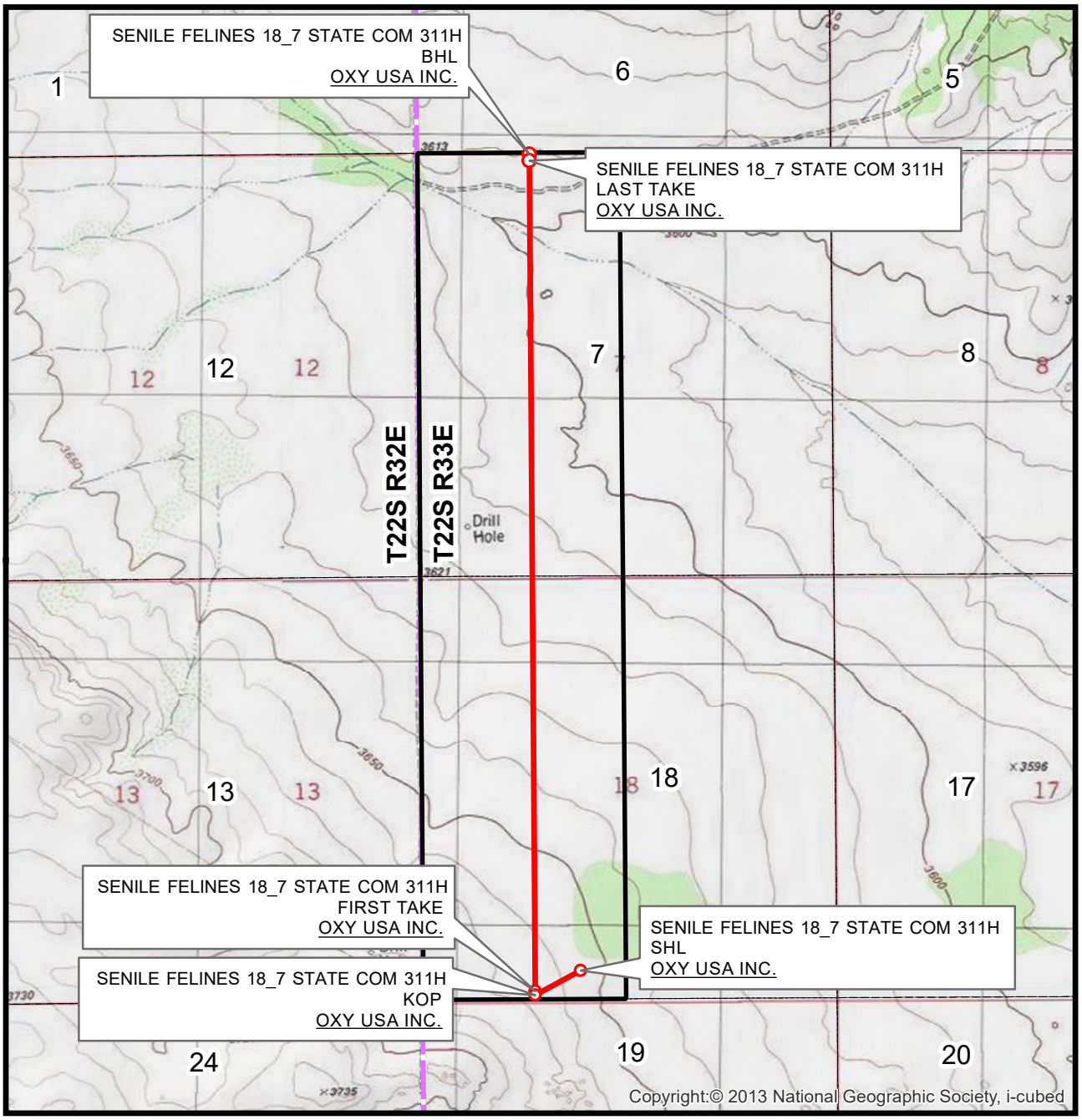
LEGEND

- EXISTING ROAD
- PROPOSED ROAD
- SURFACE SITE EDGE
- EXIST. PIPELINE
- MONUMENT
- QUARTER SPLIT
- OHP — OVERHEAD POWER
- x — x — FENCE
- SECTION LINE
- PL — PROPERTY LINE
- W — WATER LINE
- SWD — SALT WATER LINE

THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALE OR THE BASIS FOR THE ISSUANCE OF A PERMIT.

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE,
MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R4083_002

LOCATION VERIFICATION MAP



SEC. 18 TWP. 22-S RGE. 33-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA INC.
DESCRIPTION: 355' FSL & 1964' FWL .
ELEVATION: 3657'
LEASE: SENILE FELINES 18_7 STATE COM
U.S.G.S. TOPOGRAPHIC MAP: GRAMA RIDGE, NM.

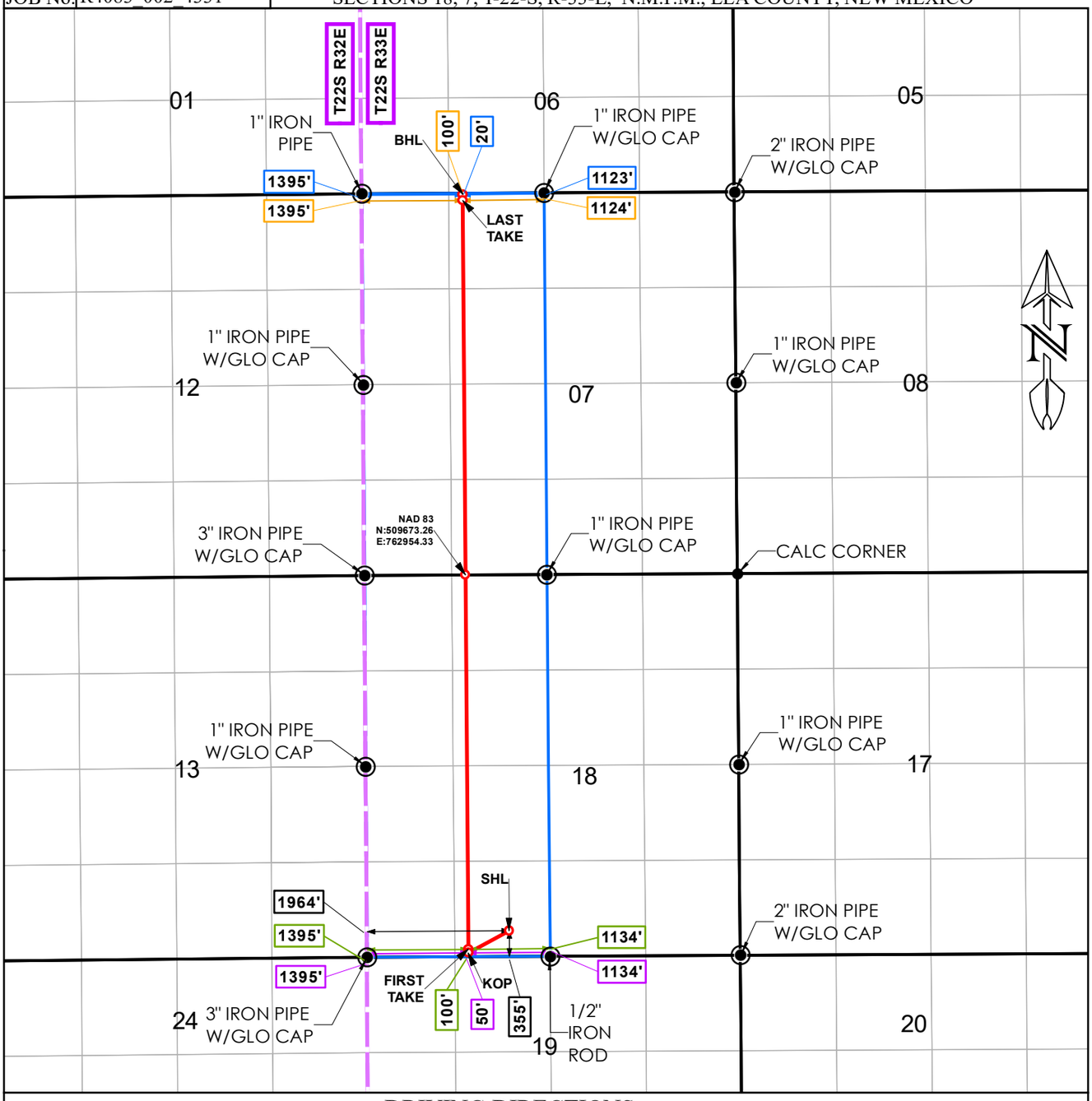
1 " = 2,000 '
CONTOUR INTERVAL = 10'

SHEET 2 OF 3

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE

JOB No. R4083_002_4331

JOB No. R4083_002_4331 SECTIONS 18, 7, T-22-S, R-33-E, N.M.P.M., LEA COUNTY, NEW MEXICO



DRIVING DIRECTIONS

From the Intersection of US Hwy 285 and NM Hwy 31, head east on NM Hwy 31 for 7.7 miles to NM-128 E. Turn right onto NM-128 E heading southeast for 18 miles to Red Rd Turn left onto Red Rd heading north for 7.4 miles to Mills Ranch Rd.Turn right on to Mills Ranch Rd (a caliche road) heading northeast for 4.01 miles to a turn to the right.Continue on Mills Ranch Road heading south for 8.9 miles to a caliche road.Turn left onto the caliche road and travel north 0.17 of a mile to a caliche road. Turn right onto the caliche road and travel east 0.3 of a mile to the proposed lease road. Turn left onto the proposed lease road and travel north for 206 feet.Turn right and continue east for 50 feet entering the Southwest corner of the REDTNK 1801 well pad.

EXHIBIT STATUS

DECEMBER 29, 2020

DAVID W. MYERS 11403

DAVID W. MYERS NEW MEXICO 11403 PROFESSIONAL SURVEYOR

1,000 0 1,000 2,000

1 inch = 2,000 feet

LEGEND

- SUBJECT WELL / DRILL LINE
- SURVEY/SECTION LINE
- LEASE LINE
- OTHER WELLS / DRILL LINES
- TOWNSHIP / RANGE LINE
- FOUND MONUMENT

CERTIFICATION

I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

OXY

WELL NAME

SENILE FELINES 18_7 STATE COM 311H

DATE SURVEYED: 12/17/2020

NOTES

BASIS OF BEARING

ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.9997856 CONVERGENCE ANGLE OF 00°22'27.18".)

REV.	DATE	DESCRIPTION	BY	CHKD
0				

SHEET 1 OF 1

DRAWN BY: WHM

DATE DRAWN: 12/29/2020

CHECKED BY: MWS

R SQUARED GLOBAL LLC

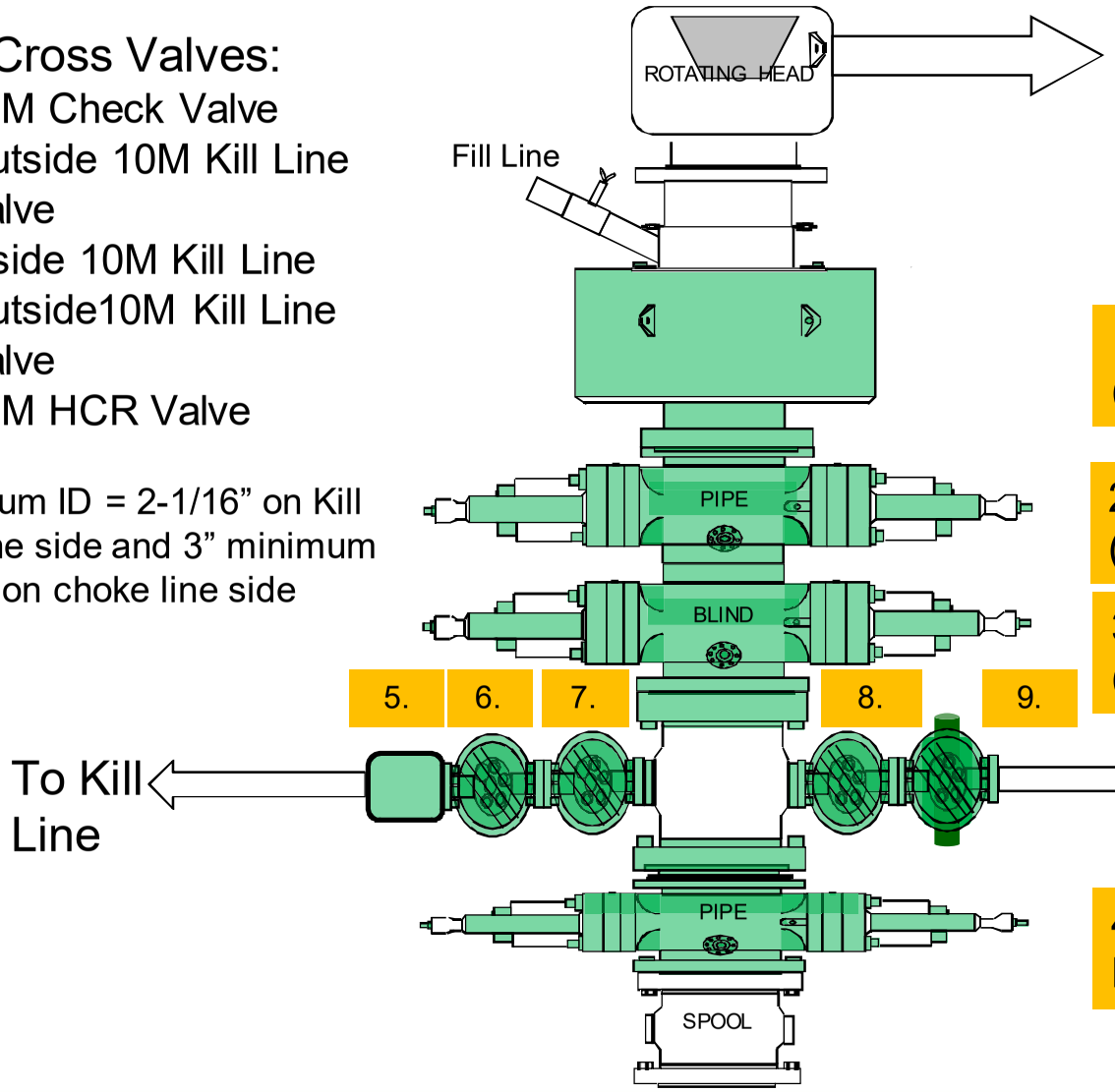
1309 LOUISVILLE AVE.
MONROE, LA 71201
(318) 323-6900

5/10M BOP Stack

Mud Cross Valves:

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

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

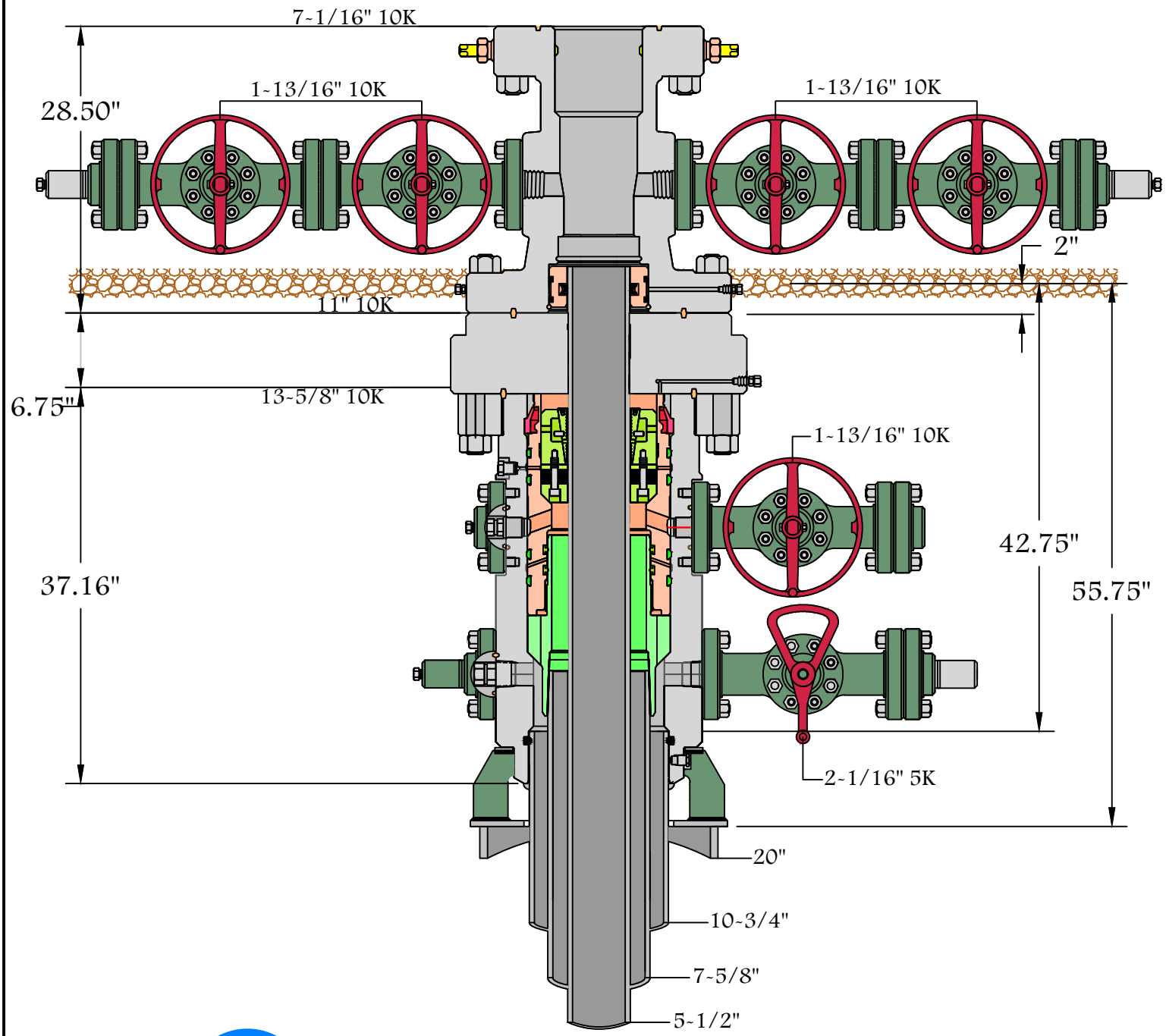


1. 5,000 psi Annular (13-5/8” ID)

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

3. 10,000 psi Blind Ram (13-5/8” ID)

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

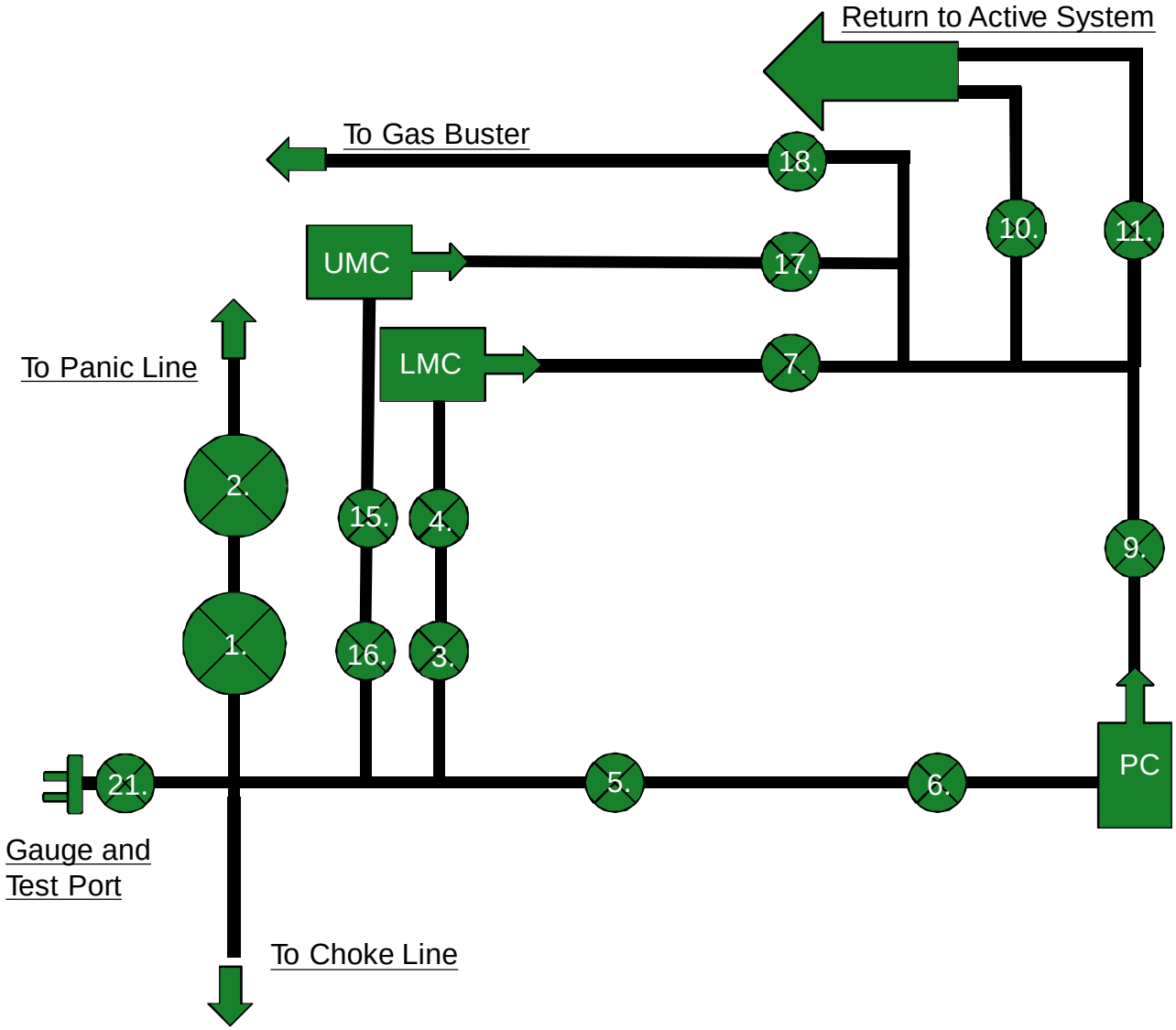


13-5/8" 10K MN-DS

CAMERON
A Schlumberger Company

Name:	Date:	Working Pressure:	#

10M Choke Panel



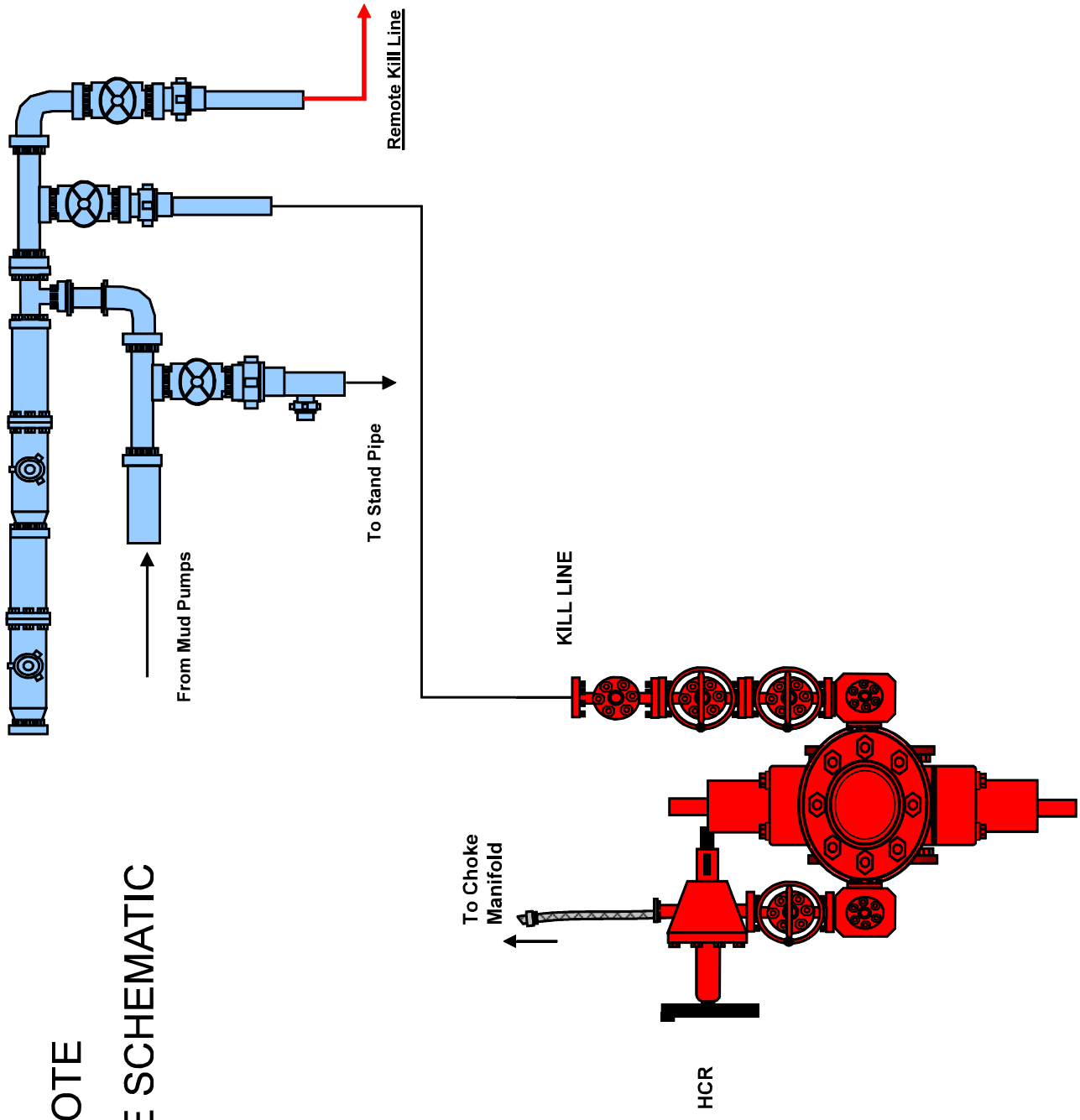
1. Choke Manifold Valve
2. Choke Manifold Valve
3. Choke Manifold Valve
4. Choke Manifold Valve
5. Choke Manifold Valve
6. Choke Manifold Valve
7. Choke Manifold Valve
8. PC – Power Choke
9. Choke Manifold Valve
10. Choke Manifold Valve
11. Choke Manifold Valve
12. LMC – Lower Manual Choke
13. UMC – Upper manual choke

15. Choke Manifold Valve
16. Choke Manifold Valve
17. Choke Manifold Valve
18. Choke Manifold Valve

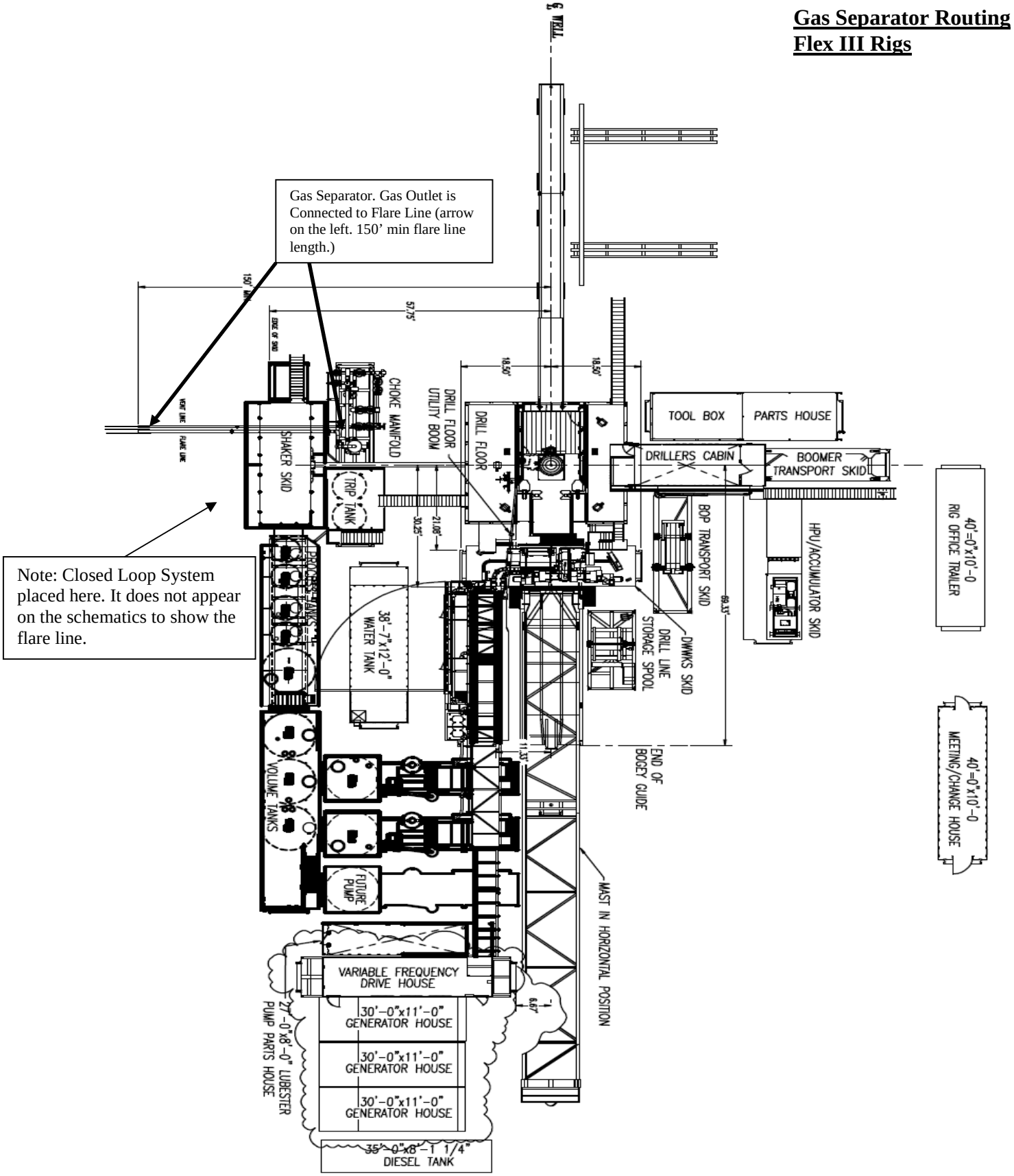
21. Vertical Choke Manifold Valve

***All Valves 3" minimum**

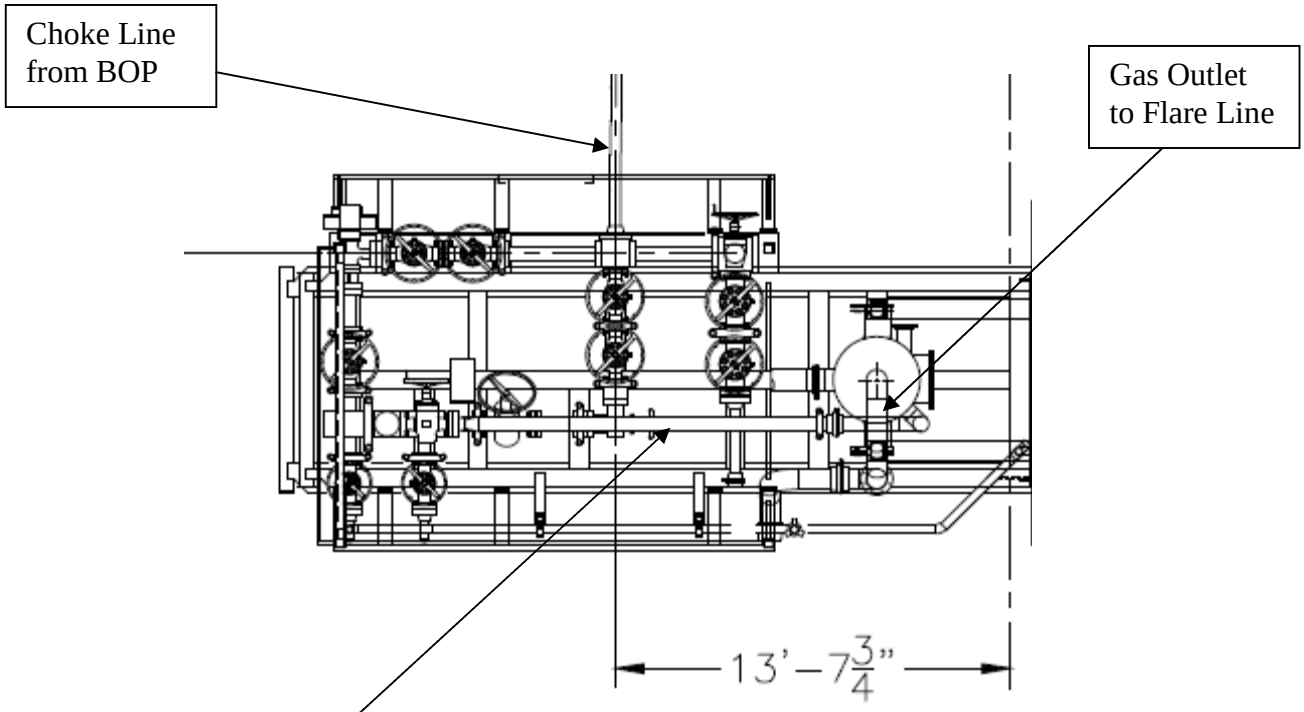
10M REMOTE KILL LINE SCHEMATIC



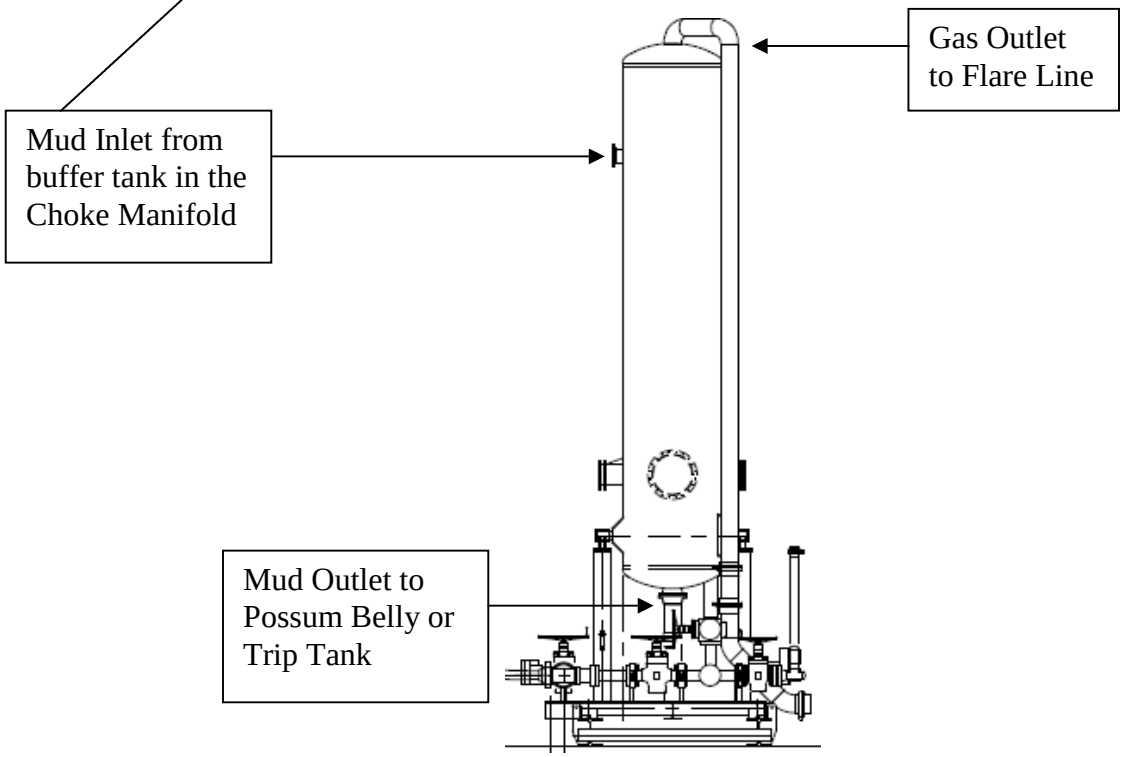
Gas Separator Routing
Flex III Rigs



Choke Manifold – Gas Separator (Top View)

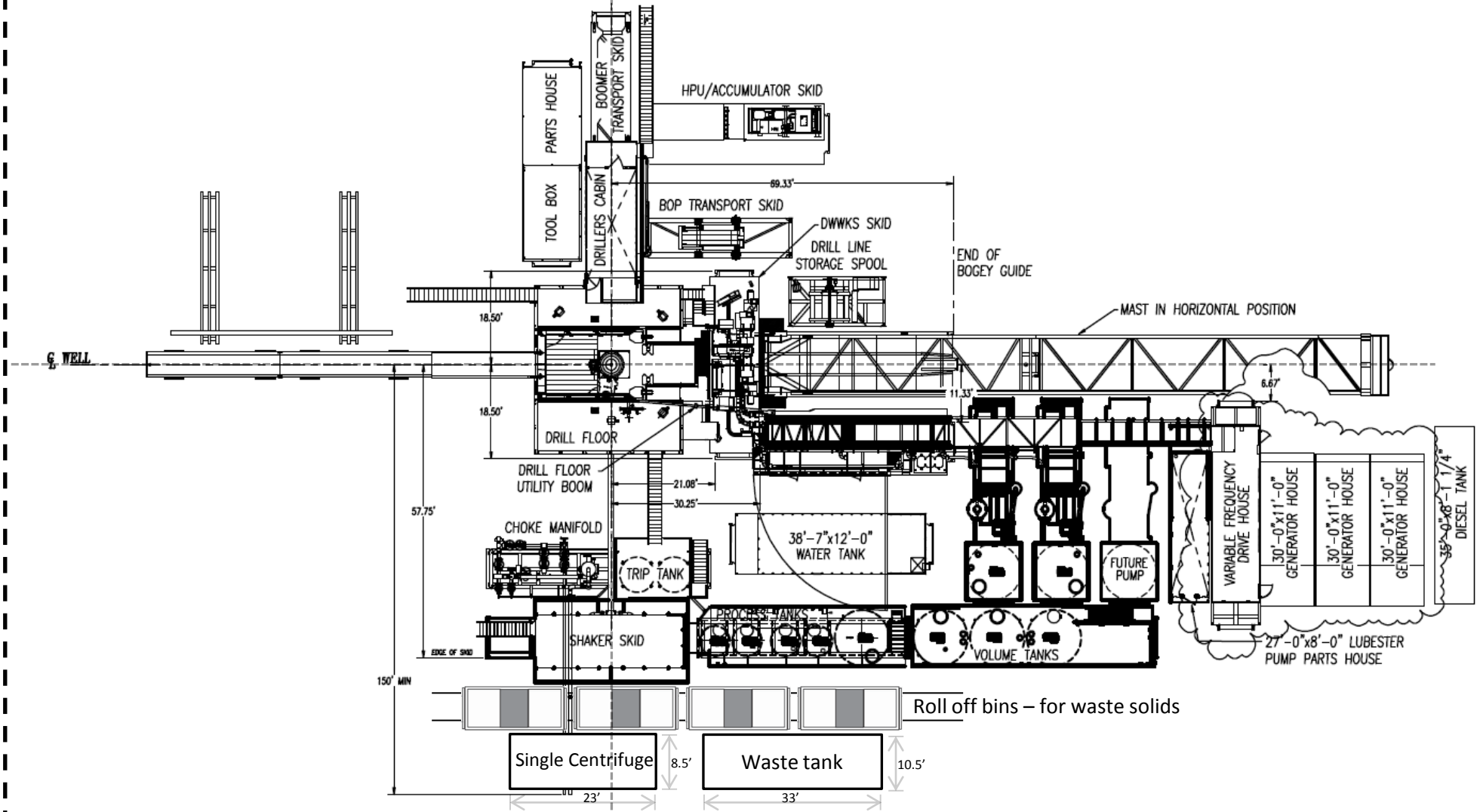


Choke Manifold – Gas Separator (Side View)

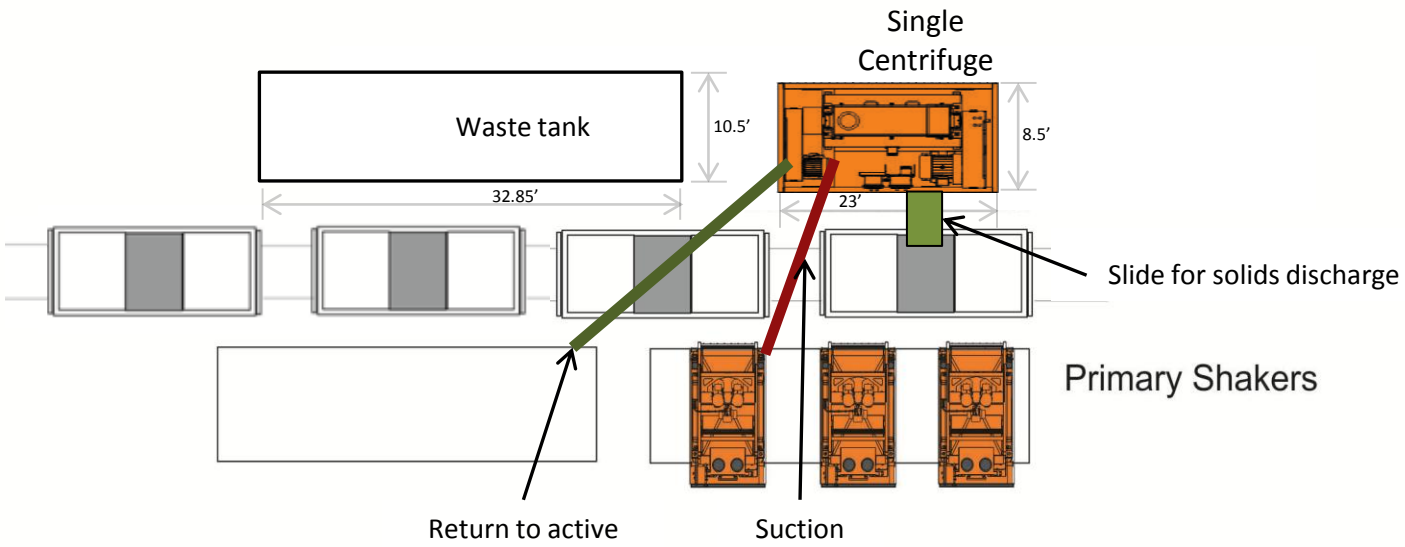


Oxy Single Centrifuge Closed Loop System – New Mexico Flex III

May 28, 2013



Oxy



Oxy Single Centrifuge Closed Loop System – New Mexico Flex III

May 28, 2013

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
Senile Felines 18_7 State Com 311H

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

1. Escape

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

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

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

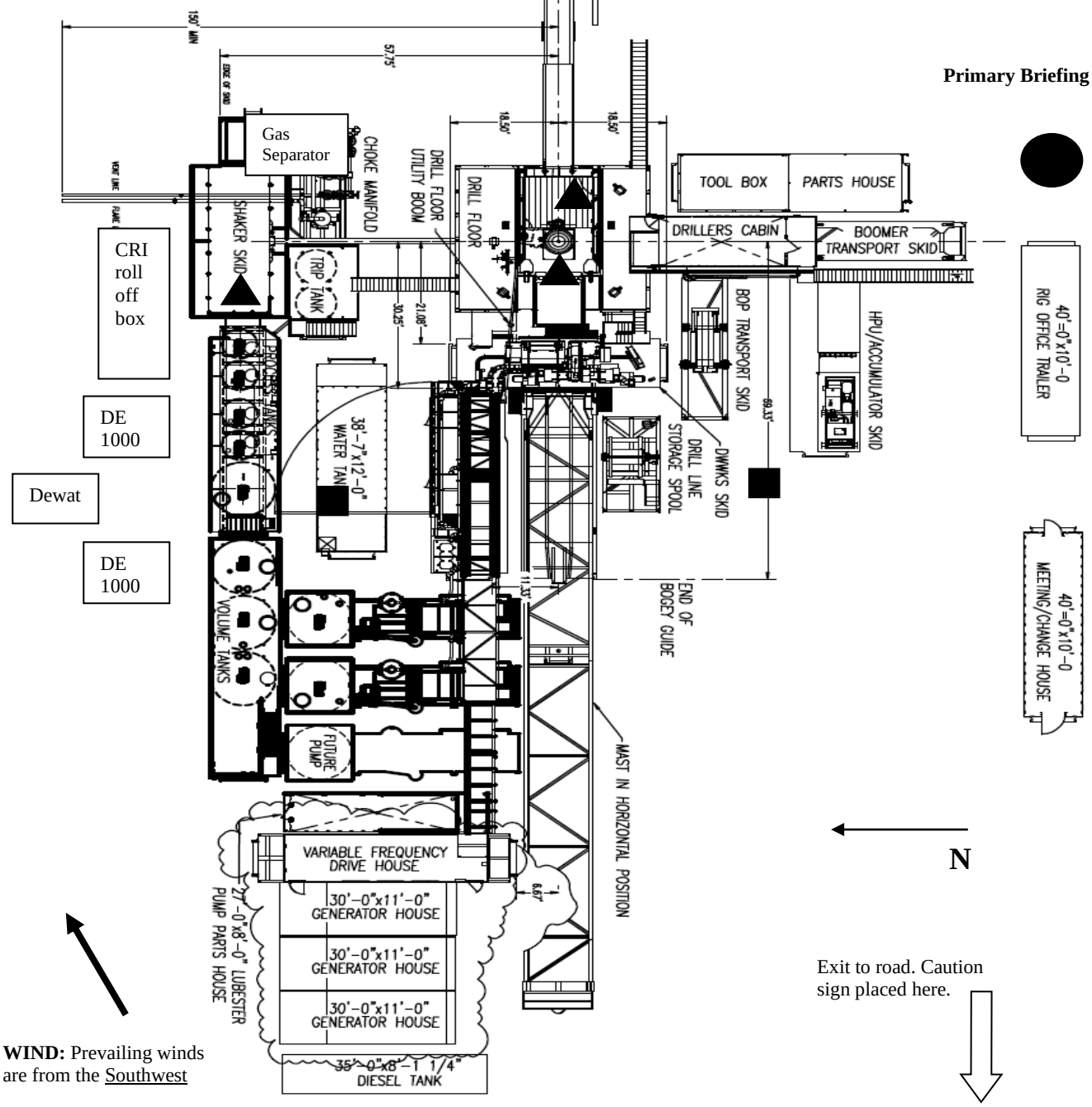
■ Wind direction indicators. Visible from rig floor and from the mud pits area.

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

Secondary Briefing Area

Secondary Egress

Primary Briefing Area



WIND: Prevailing winds are from the Southwest

Exit to road. Caution sign placed here.

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
New Mexico

Scope

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

Objective

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

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

3. Provide proper evacuation procedures to cope with emergencies.

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

Discussion

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

Hydrogen Sulfide Training

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

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

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

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

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

Service company and visiting personnel

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

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

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

Emergency Equipment Requirements

1. Well control equipment

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

Special control equipment:

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

2. Protective equipment for personnel

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

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

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

- Rig floor and trailers.
- Vehicle.

3. Hydrogen sulfide sensors and alarms

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

4. Visual Warning Systems

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

Caution – potential poison gas
Hydrogen sulfide
No admittance without authorization

Wind sock – wind streamers:

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

Condition flags

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

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

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

5. Mud Program

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

Mud inspection devices:

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

6. Metallurgy

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

7. Well Testing

No drill stem test will be performed on this well.

8. Evacuation plan

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

9. Designated area

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

Emergency procedures

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

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

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

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

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

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

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

B. If uncontrollable conditions occur:

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

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

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

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

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

C. Responsibility:

1. Designated personnel.

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

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

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

Taking a kick

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

Open-hole logging

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

Running casing or plugging

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

Ignition procedures

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

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

Instructions for igniting the well

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

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

Status check list

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

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

Checked by:_____ Date:_____

Procedural check list during H2S events

Perform each tour:

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

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

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

Perform each week:

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

2. BOP skills (well control drills).

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

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

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

6. Confirm pressure on all supply air bottles.

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

8. Check the following supplies for availability.

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

General evacuation plan

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

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

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

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

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

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

Emergency actions

Well blowout – if emergency

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

Person down location/facility

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

Toxic effects of hydrogen sulfide

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

Table i
Toxicity of various gases

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

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

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

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

Toxic effects of hydrogen sulfide

Table ii
Physical effects of hydrogen sulfide

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

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

*at 15.00 psia and 60’f.

Use of self-contained breathing equipment (SCBA)

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

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

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

4. Maintenance and care of SCBA's:

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

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

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

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

6. SCBA's should be worn when:

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

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

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

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

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

Rescue
First aid for H2S poisoning

Do not panic!

Remain calm – think!

1. Don SCBA breathing equipment.

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

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

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

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

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

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

Revised CM 6/27/2012

OXY 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	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	
Moreno, Leslie (contract)	Hobbs	575-397-8247	

Sehon, Angela (contractor)	Levelland	806-894-8347	
Vasquez, Claudia (contractor)	North Cowden	432-385-3120	
XstremeMD	Location	Office	
Medical Case Management	Orla, TX	(337) 205-9314	
Axiom Medical Consulting	Location	Office	
Medical Case Management		(877) 502-9466	
Regulatory Agencies			
Bureau of Land Management	Carlsbad, NM	(505) 887-6544	
Bureau of Land Management	Hobbs, NM	(505) 393-3612	
Bureau of Land Management	Roswell, NM	(505) 393-3612	
Bureau of Land Management	Santa Fe, NM	(505) 988-6030	
DOT Juisdictional Pipelines-Incident Reporting New Mexico Public Regulaion Commission	Santa Fe, NM	(505) 827-3549 (505) 490-2375	
DOT Juisdictional Pipelines-Incident Reporting Texas Railroad Commission	Austin, TX	(512) 463-6788	
EPA Hot Line	Dallas, Texas	(214) 665-6444	
Federal OSHA, Area Office	Lubbock, Texas	(806) 472-7681	
National Response Center	Washington, D. C.	(800) 424-8802	
National Infrastructure Coordinator Center		(202) 282-9201	
New Mexico Air Quality Bureau	Santa Fe, NM	(505) 827-1494	
New Mexico Oil Conservation Division	Artesia, NM	(505) 748-1283	After Hours (505) 370-7545
New Mexico Oil Conservation Division	Hobbs, NM	(505) 393-6161	
New Mexico Oil Conservation Division	Santa Fe, NM	(505) 471-1068	
New Mexico OCD Environmental Bureau	Santa Fe, NM	(505) 476-3470	
New Mexico Environmental Department	Hobbs, NM	(505) 827-9329	
NM State Emergency Response Center	Santa Fe, NM	(505) 827-9222	
Railroad Commission of TX	District 1 San Antonio, TX	(210) 227-1313	
Railroad Commission of TX	District 7C San Angelo, TX	(325) 657-7450	
Railroad Commission of TX	District 8, 8A Midland, TX	(432) 684-5581	
Texas Emergency Response Center	Austin, TX	(512) 463-7727	
TCEQ Air	Region 2 Lubbock, TX	(806) 796-3494	
TCEQ Water/Waste/Air	Region 3 Abilene, TX	(325) 698-9674	
TCEQ Water/Waste/Air	Region 7 Midland, TX	(432) 570-1359	
TCEQ Water/Waste/Air	Region 9 San Antonio, TX	(512) 734-7981	
TCEQ Water/Waste/Air	Region 8 San Angelo	(325) 655-9479	
Medical Facilities			
Abernathy Medical Clinic	Abernathy, TX	(806) 298-2524	
Alliance Hospital	Odessa, TX	(432) 550-1000	
Artesia General Hospital	Artesia, NM	(505) 748-3333	
Brownfield Regional Medical Center	Brownfield, TX	(806) 637-3551	
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			
Andrews Cty Sheriff's Department	Andrews County(Andrews)	(432) 523-5545	
Crane Cty Sheriff's Department	Crane, County (Crane)	(432) 558-3571	
Crockett Cty Sheriff's Department	Crockett County (Ozona)	(325) 392-2661	
Dawson Cty Sheriff's Department	Dawson County (Lamesa)	(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 (Carlsbad)	(505) 887-7551	
Gaines Cty Sheriff's Department	Gaines County (Seminole)	(432) 758-9871	
Hockley Cty Sheriff's Department	Hockley County(Levelland)	(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 (Lovington)	(505) 396-3611	
Lubbock Cty Sheriff's Department	Lubbock Cty (Abernathy)	(806) 296-2724	
Midland Cty Sheriff's Department	Midland County (Midland)	(432) 688-1277	
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 (Brownfield)	(806) 637-2212	
Union Cty Sheriff's Department	Union County (Clayton)	(505) 374-2583	
Upton Cty Sheriff's Department	Upton County (Rankin)	(432) 693-2422	
Ward Cty Sheriff's Department	Ward County (Monahans)	(432) 943-3254	
Yoakum City Sheriff's Department	Yoakum Co. (Denever City)	(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	(505) 397-9265 (505) 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	
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	(432) 523-4820; (432) 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	
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	(432) 758-3676 (432) 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	
Monahans Ambulance	Monahans, TX	(432) 943-3385 or 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	(432) 758-8816 (432) 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	