16-398

OCD Artesia

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 10 2016
RECEIVED

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMLC-065928A

6. If Indian, Allotee or Tribe Name ----------------

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

8. Lease Name and Well No. LITTLEFIELD 33 FEDERAL COM#1H

9. API Well No. 30-015- 43818

10. Field and Pool, or Exploratory ~~WILDC~~AT-WOLFCAMP, WC-015 G-04 S262931A;

11. Sec., T. R. M. or Blk. and Survey or Area: SECTION 33 T26S-R29E

12. County or Parish: EDDY

13. State: NM

1a. Type of work: [XX] DRILL [ ] REENTER

1b. Type of Well: [XX] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

2. Name of Operator OGX OPERATING, LLC. 310497

3a. Address P. O. BOX 2064 MIDLAND, TEXAS 79702

3b. Phone No. *(include area code)* 432-685-1287

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 330' FSL & 2130' FEL SEC. 33 T26S-R29E
BHL 330' FNL & 2310' FEL SEC. 28 T26S-R29E
At proposed prod. zone

14. Distance in miles and direction from nearest town or post office* Approximately 21 miles South of LOving New Mexico

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of acres in lease 419.4	17. Spacing Unit dedicated to this well 160 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. NA	19. Proposed Depth TVD-10,000' MD- 16,766'	20. BLM/BIA Bond No. on file NMB-000245
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2872' GL.	22. Approximate date work will start* WHEN APPROVED	23. Estimated duration 35 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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

25. Signature Joe T. Janica	Name *(Printed/Typed)* Joe T. Janica	Date 11/18/15
Title Permit Eng.		
Approved by *(Signature)* /s/ Chris Walls acting	Name *(Printed/Typed)*	Date JUN 7 - 2016
Title for FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

OPERATOR CERTIFICATION

I hereby certify that I or someone under my direct supervision have inspected the drill site and the access route proposed herein; and that I am familiar with the conditions that currently that exist ; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C 1001 for the filing of false statements.

OPERATORS REPRESENTATIVES:

BEFORE CONSTRUCTION	DURING & AFTER CONSTRUCTION
TIERRA EXPLORATION, INC.	OGX RESOURCES, LLC.
JOE T. JANICA	STEVE DOUGLAS
P. O. BOX 2188	400 N.MARIENFELD SUITE 200
HOBBS, NEW MEXICO 88241	MIDLAND, TEXAS 79702
OFFICE PHONE 575-391-8503	OFFICE PHONE 432-685-1287
JOE JANICA CELL 575-390-1598	CELL: PHONE 432-934-6800

Name: Joe T. Janica Joe T Janica

Title: Permit Eng. DATE 11/18/15

OCD Artesia

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

5. Lease Serial No. NMLC-065928A

6. If Indian, Allottee or Tribe Name ----------

7. If Unit of CA/Agreement, Name and/or No. ----------

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No. (316326)

2. Name of Operator OGX OPERATING, LLC. (310497)

9. API Well No. 30-015- 43818

3a. Address P. O. BOX 2064 MIDLAND, TEXAS 79702

3b. Phone No. *(include area code)* 432-685-1287

10. Field and Pool or Exploratory Area ~~WILDCAT~~-WOLFCAMP (98190)

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SURFACE 320' FSL & 2130' FEL SEC. 33 T26S-R29E
BHL 330' FNL & 2310' FEL SEC. 28 T26S-R29E

11. County or Parish, State
EDDY CO NEW MEXICO

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[XX] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
[ ] Subsequent Report	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Final Abandonment Notice	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[XX] Other CHANGE NAME OF OPERATOR
	[ ] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

!. OGX RESOURCES LLC. requests the approval to change the name on their LITTLEFIELD 33 FEDERAL COM. # 1H from OGX RESOURCES LLC. as operator to OGX OPERATING LLC.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Joe T. Janica Joe T. Janica Title Permit Eng.

Signature Date 11/25/15

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ Chris Walls acting for FIELD MANAGER Title Date JUN 7 - 2016

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

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

(Instructions on page 2)

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1226 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

S26 29 31 H, Upper Wolfcamp

API Number	Pool Code	Pool Name
30-015-43818	98190	WC-015 G-04 ~~WILDCAT~~-WOLFCAMP

Property Code	Property Name	Well Number
316326	LITTLEFIELD 33 FEDERAL	1H

OGRID No.	Operator Name	Elevation
~~371~~217955 ~~497~~ (310497)	OGX OPERATING, LLC	2872

Surface Location

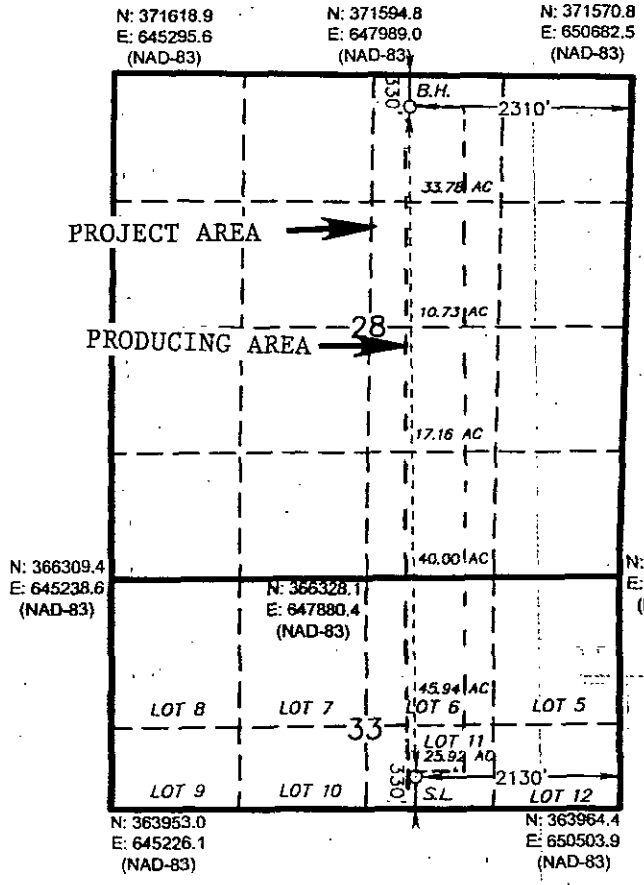
UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South Line	FEET from the	East/West LINE	County
~~LOT 11~~	33	26 S	29 E	11	330	SOUTH	2130	EAST	EDDY

Bottom Hole Location If Different From Surface

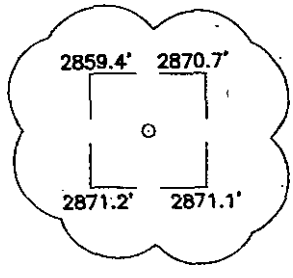
UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South Line	FEET from the	East/West LINE	County
B	28	26 S	29 E		330	NORTH	2310	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
~~232.6~~ 231.86			

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



PROPOSED BOTTOM HOLE LOCATION
Lat – N 32°01'12.75"
Long – W 103°59'16.81"
NMSPCE– N 371261.6
E 648362.6
(NAD–83)



SURFACE LOCATION
Lat – N 32°00'03.75"
Long – W 103°59'16.91"
NMSPCE– N 364289.8
E 648375.9
(NAD–83)

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.

Joe T Janica

Signature Date

Joe T. Janica 11/18/15

Printed Name

joejanica@valornet.com

Email Address

SURVEYOR CERTIFICATION

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

MAY 10, 2013

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number Gary L. Jones 7977

BASIN SURVEYS

0' 1000' 2000' 3000' 4000'

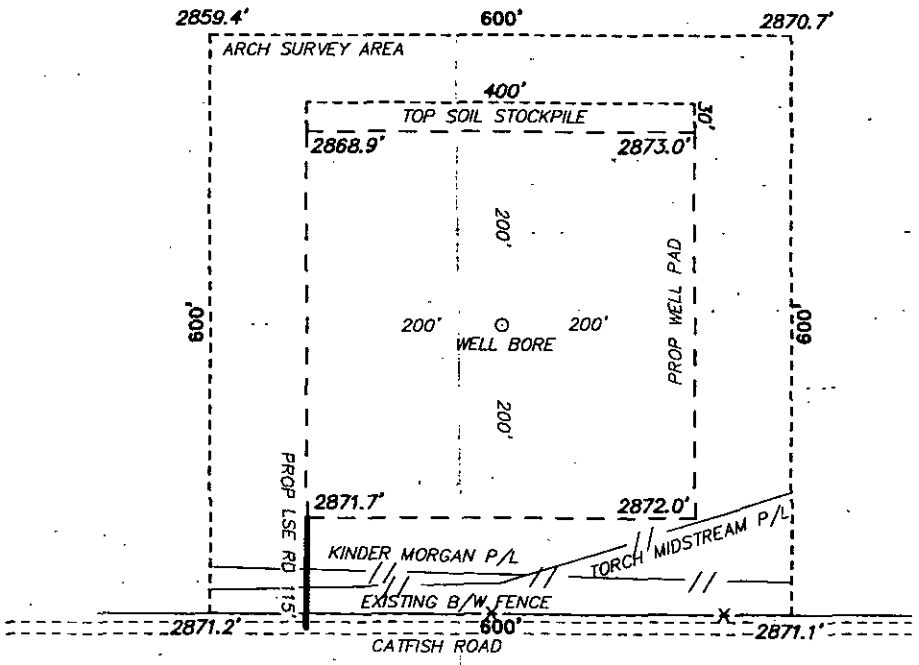
SCALE: 1" = 2000'

WO Num.: 31686

EXHIBIT "A"

SECTION 33, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.



OGX OPERATING, LLC
LITTLEFIELD 33 FEDERAL 1H
ELEV. - 2872'
Lat - N 32°00'03.75"
Long - W 103°59'16.91"
NMSPCE- N 364289.8
E 648375.9
(NAD-83)

MALAGA, NM IS ±16 MILES TO THE NORTHWEST OF LOCATION.

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF HWY 285 AND CATFISH RD GO EAST 2.5 MILES TO PROPOSED LOCATION.

OGX OPERATING, LLC

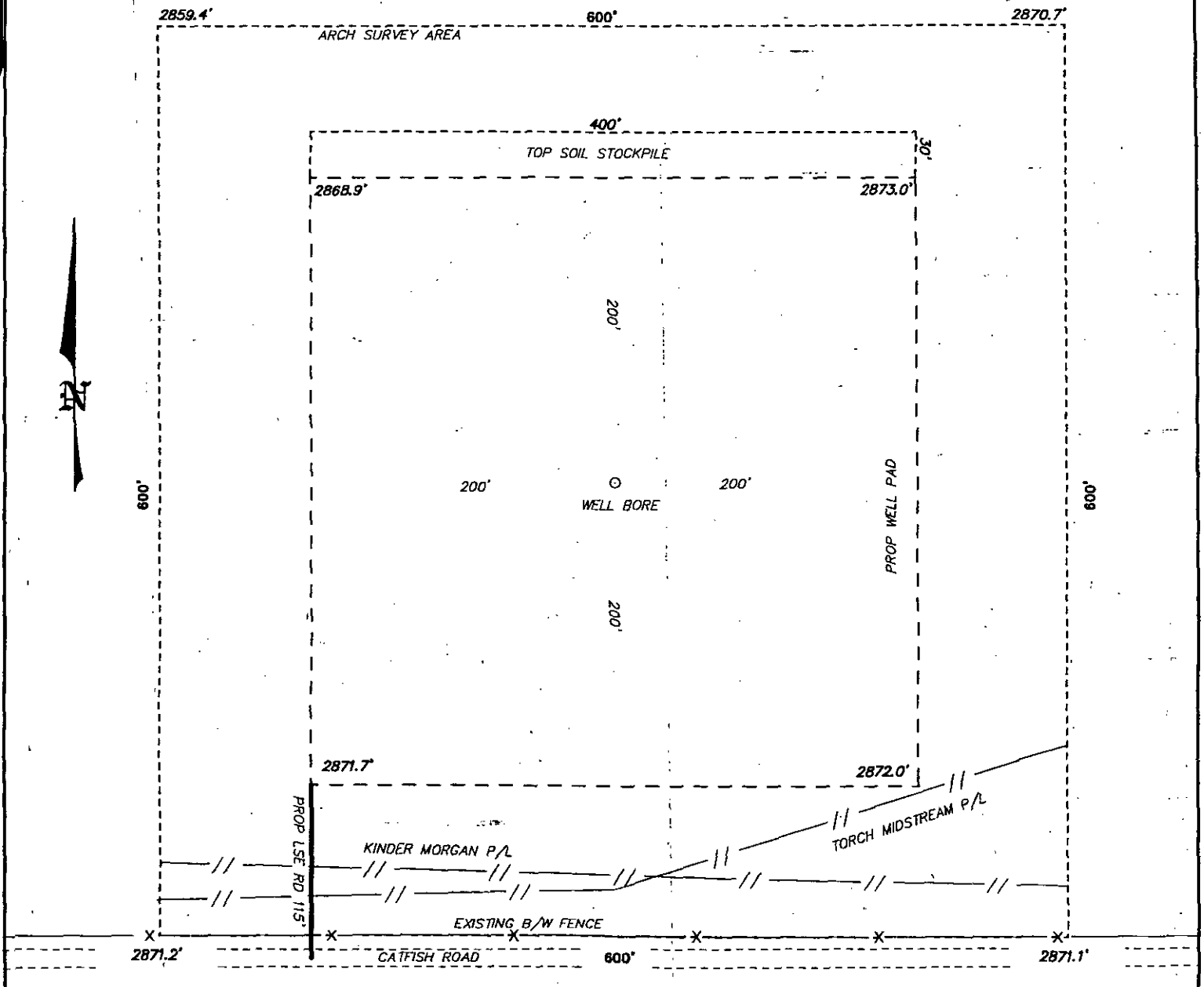
REF: LITTLEFIELD 33 FEDERAL 1H / WELL PAD TOPO

THE LITTLEFIELD 33 FEDERAL 1H LOCATED 330' FROM THE SOUTH LINE AND 2130' FROM THE EAST LINE OF SECTION 33, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: 31686	Drawn By: K. NORRIS	Date: 05-29-2015	Survey Date: 05-19-2015	Sheet 1 of 1 Sheets

SECTION 33, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

OGX OPERATING, LLC

REF: LITTLEFIELD 33 FEDERAL 1H / WELL PAD TOPO

THE LITTLEFIELD 33 FEDERAL 1H LOCATED 330' FROM THE SOUTH LINE AND 2130' FROM THE EAST LINE OF SECTION 33, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

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basinsurveys.com

W.O. Number: 31686	Drawn By: K. NORRIS	Date: 05-29-2015	Survey Date: 05-19-2015	Sheet 1 of 12 Sheets

APD Tracking # :

Well-Site Evaluation Field Form

Operator Name: OGX Well Name Littlefield 33 Fed Com 1H

SHL: Section 33 T. 26 S. R. 29 E. Footage 330 FSL & 2130 FEL

Well Type: (Horizontal) Vertical / (Oil) Gas NOS/APD Received? NOS (APD) No

Surface Management Agency (SMA): (BLM) FEE STATE SMA Contacted? Yes No

Operator Representative/ Contact Name: Jacky Brown Phone

BLM Onsite Representatives P. Murphy ; Trish Badkerer Date 3/14/16

Description & Topography: (cut & fill, etc.)

Soils: Gypsum / Rocky coarse gravel Cave Area: Medium

Vegetation: Grass, Creosote,

Hydrology: (playas, floodplain, drainages, erosive soils, etc.) Drains Toward W to NE Toward the Pecos River / Red Bluff Reservoir

Wildlife: (habitat, LPC, SDL, etc.)

Range Improvements: (fences, etc.) # 78141 Lower Delaware River

Well Infrastructure

V-Door Direction: Topsoil:

Pad Size: 400 x 400

Road Route: SW

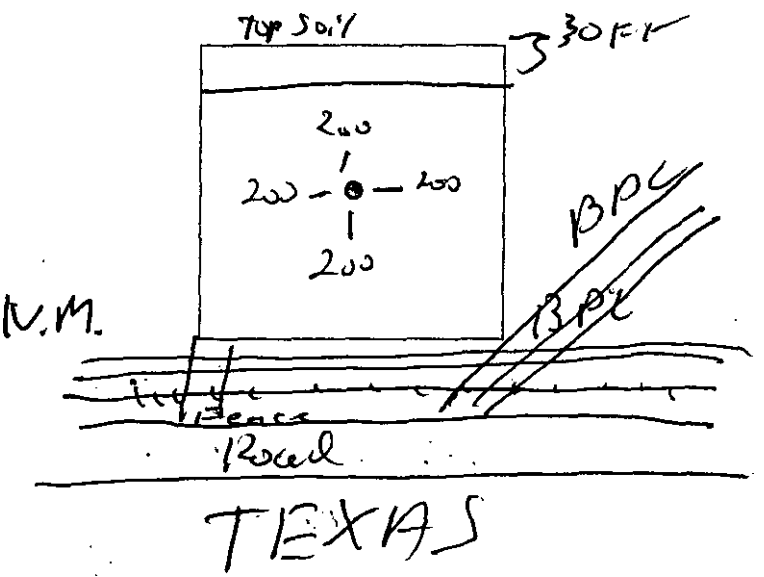
Prod. Facility Placement:

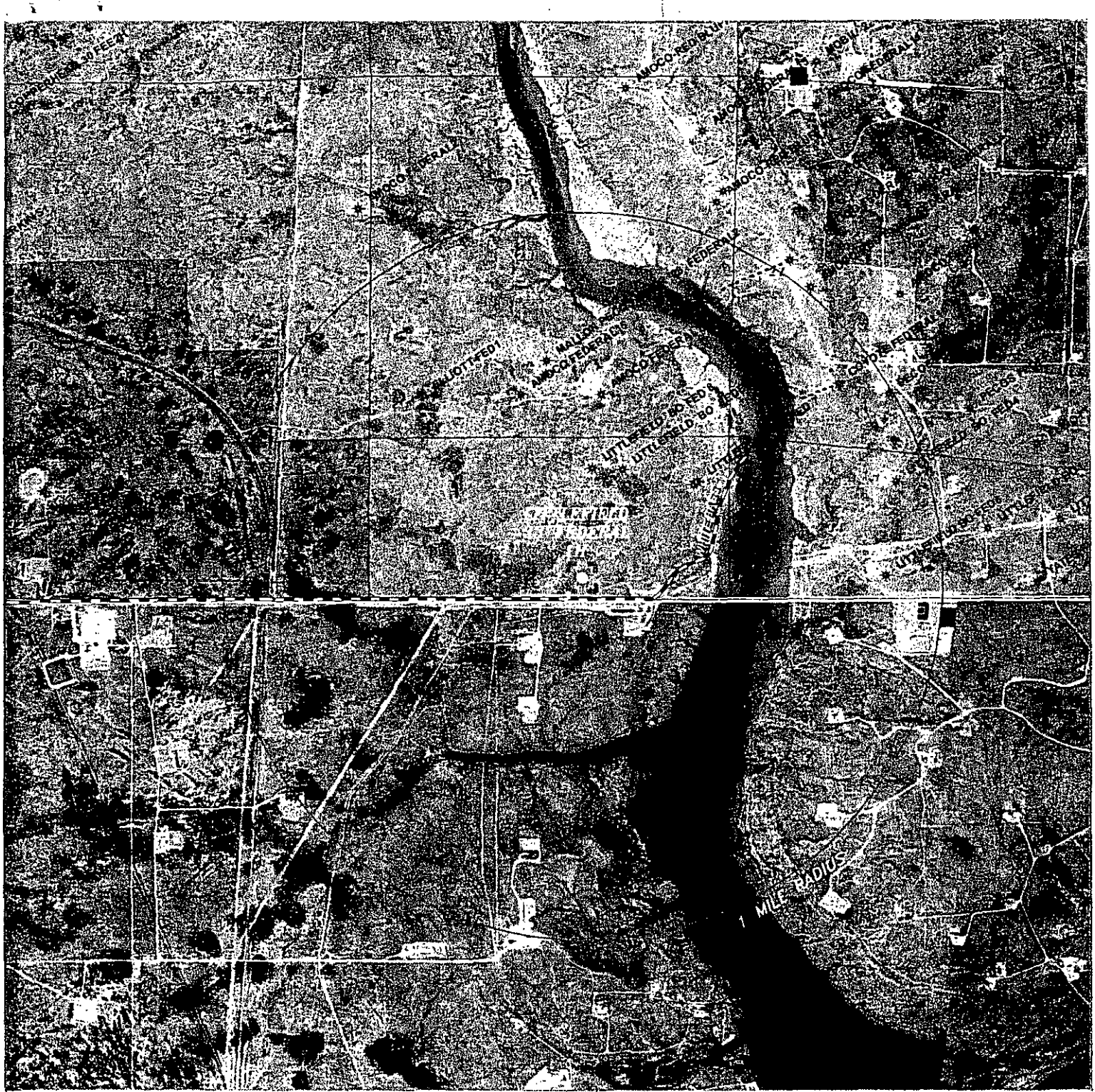
Interim Rec:

Other:

Evaluation: (Moved?)

This Complex onsite once before





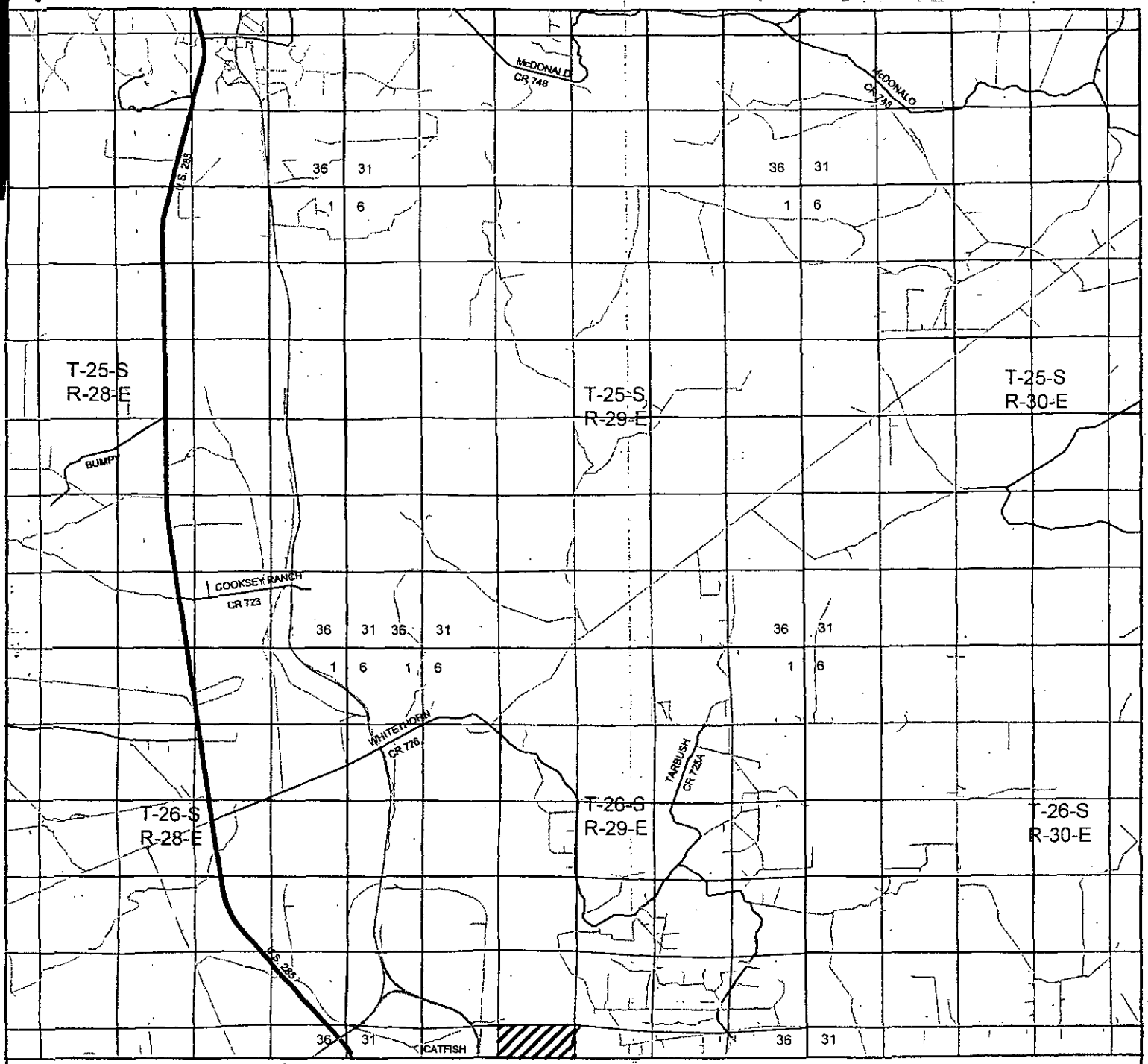
LITTLEFIELD 33 FEDERAL 1H

Located 330' FSL and 2130' FEL
Section 33, Township 26 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.

Basin Surveys
"Focused on excellence in the oilfield"
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-3074 - Fax
basinsurveys.com

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
W.O. Number: KAN 21656
Survey Date: 05-19-2015
YELLOW TINT = USA LAND
BLUE TINT = STATE LAND
NATURAL COLOR = FEE LAND

OGX OPERATING, LLC



LITTLEFIELD 33 FEDERAL 1H

Located 330' FSL and 2130' FEL

Section 33, Township 26 South, Range 29 East,

N.M.P.M., Eddy County, New Mexico.

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1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

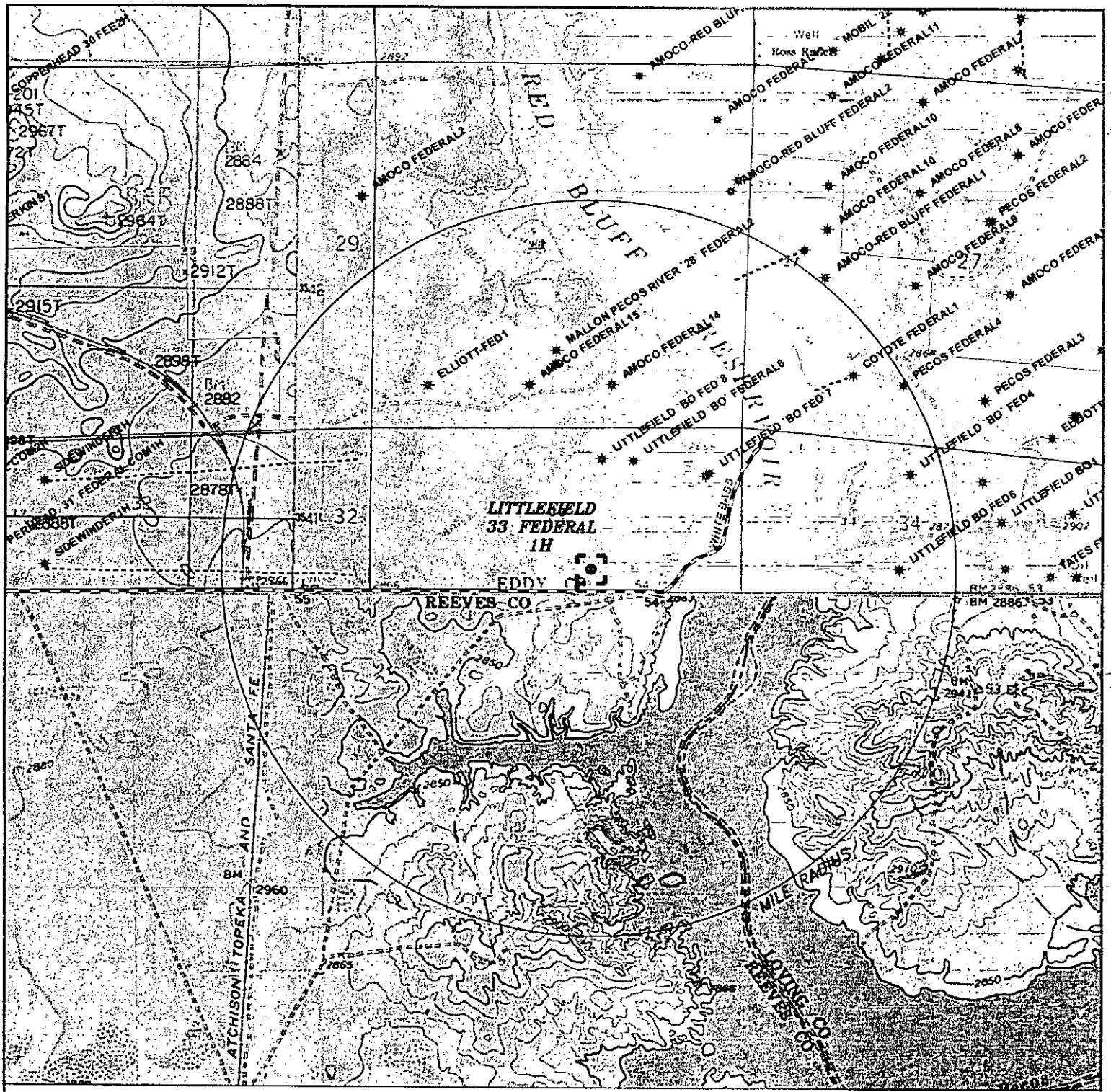
W.O. Number: KAN 31686

Survey Date: 05-19-2015

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

OGX OPERATING, LLC



LITTLEFIELD 33 FEDERAL 1H

Located 330' FSL and 2130' FEL

Section 33, Township 26 South, Range 29 East,

N.M.P.M., Eddy County, New Mexico.

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(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: KAN 31686

Survey Date: 05-19-2015

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

OGX OPERATING, LLC

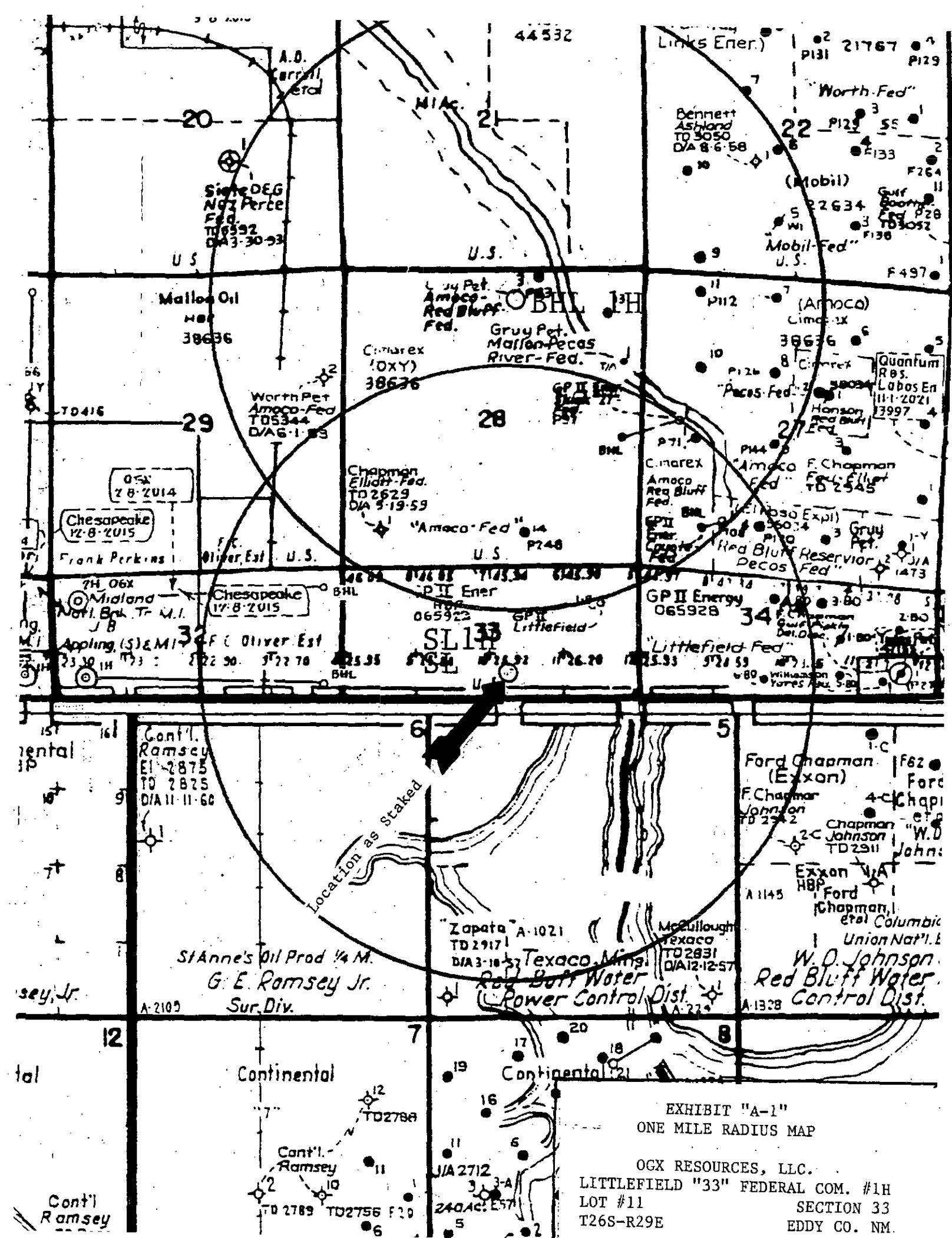


EXHIBIT "A-1"
ONE MILE RADIUS MAP

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM.

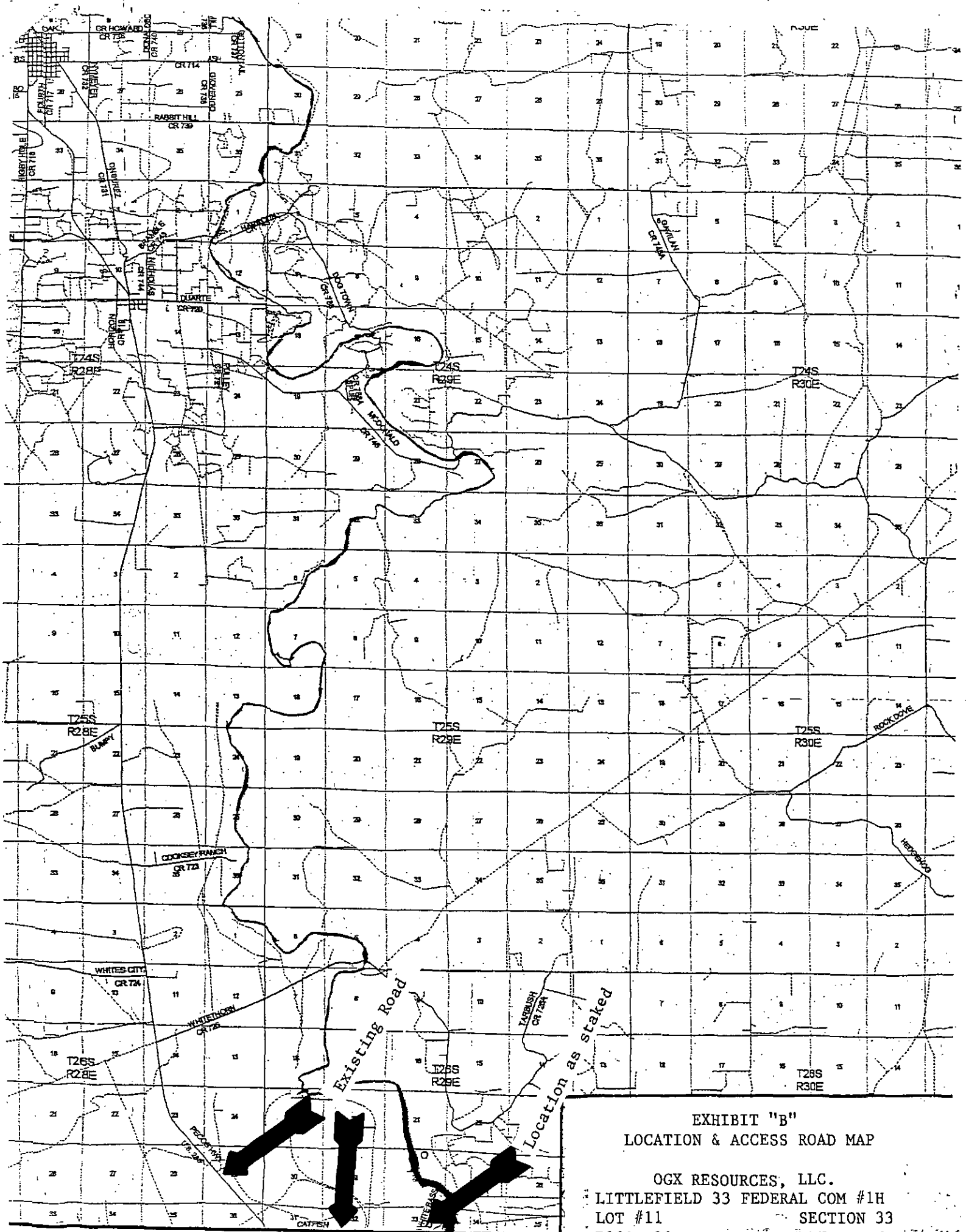
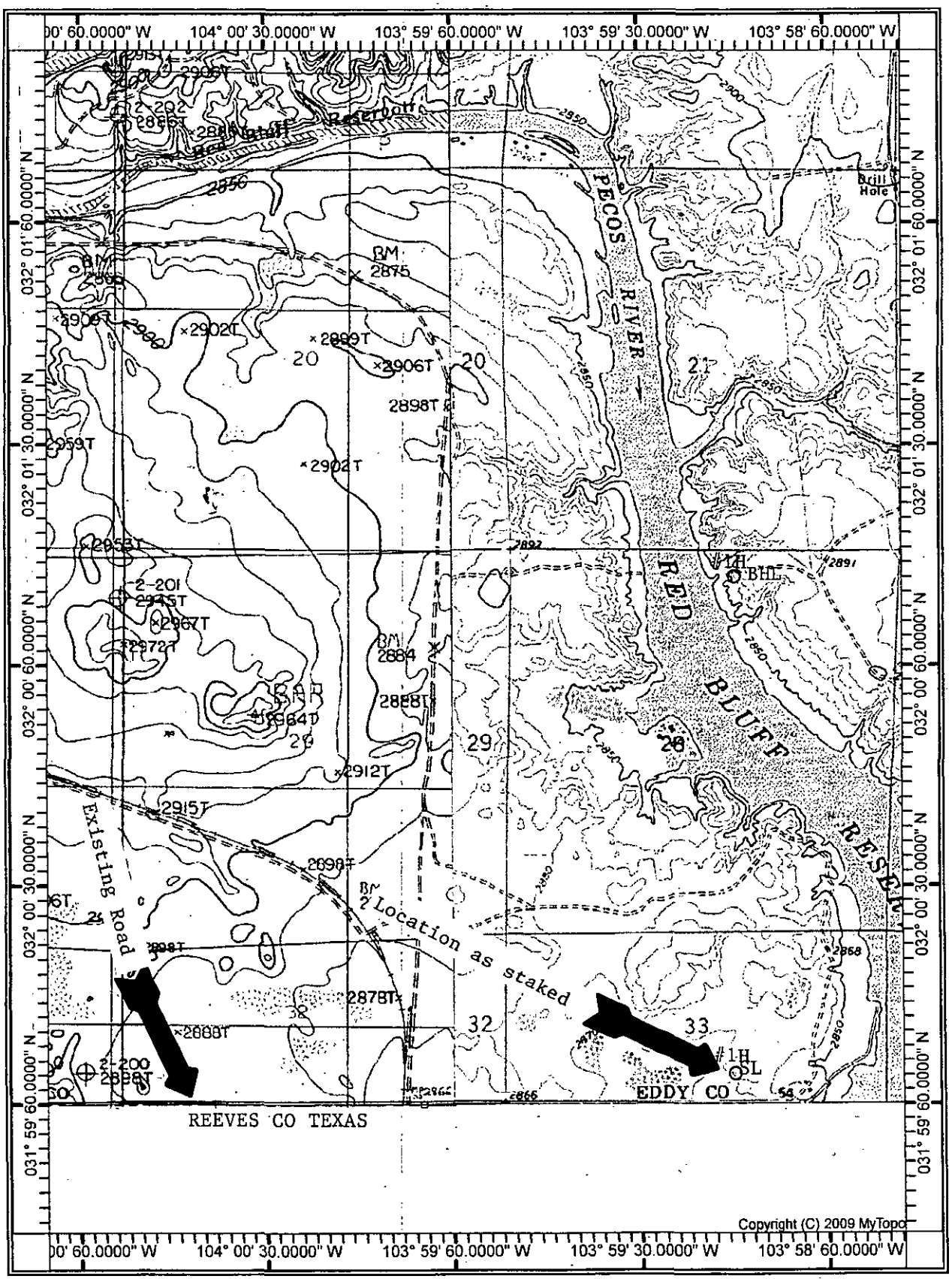


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

OGX RESOURCES, LLC.
LITTLEFIELD 33 FEDERAL COM #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM



SCALE 1:24000

0 1000 2000 3000 4000
FEET

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

OGX RESOURCES, LLC.
LITTLEFIELD 33 FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM

APPLICATION TO DRILL

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

1. LOCATION: 330' FSL & 2130' FEL SECTION 33 T26S-R29E
BHL 330' FNL & 2310' FEL SECTION 28 T26S-R29E
2. ELEVATION ABOVE SEA LEVEL: 2872' GL

3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solidsfrom the hole.

5. PROPOSED DRILLING DEPTH: TVD-10,000'
MD- 16,766'
6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	450'	Cherry Canyou	3602'	2nd BS Sand	7860'
Base of Salt	2490'	Bryshy Canyon	4801'	3rd BS Sand	9240'
Lamar Lime	2670'	Bone Spring	6430'	Wolfcamp	9640'
Bell Canyon	2696'	1st BS Sand	7350'		

7. POSSIBLE MINERAL BEARING FORMATIONS:

Bell Canyon	Oil/Gas/Water	Bone Spring	Oil/Gas/Water
Cherry Canyon	Oil/Gas/Water	Wolfcamp	Oil/Gas/Water
Brushy Canyon	Oil/Gas/Water		

8. CASING PROGRAM:

	HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
	26"	0-80'	20"	Conductor	NA	NA	Conductor	New
See COA	17½"	0-~~775~~ 400'	13 3/8"	54.5#	8-R	ST&C	J-55	New
See COA	12¼"	0-~~2807~~ 2755'	9 5/8"	36#	8-R	LT&C	J-55	New
	8 3/4"	0-9737'	7"	29#	8-R	LT&C	HCP-110	New
	6 1/8"	0-16,766'	4½"	11.6#	BT&C	BT&C	HCP-110	New

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5
Joint Strength 8-Round 1.8
Buttress 1.6

APPLICATION TO DRILL

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM

9. CASING SETTING DEPTHS AND CEMENTING:

20"	Conductor	Drill 26" hole to 80'. Set 80' of 20" conductor pipe. Cement to surface with Redi-mix.
13 3/8"	Surface	Drill 17½" hole to ~~779'~~ 400'. Run and set ~~779'~~ 400' of 13 3/8" 54.5" J-55 ST&C casing. Set DV Tool at 300'. Cement 1st Stage with 250 Sx. of Class "C" premium cement + 4% Gel, +2% CaCl, + 0.25# Cellophane Flakes/Sx. Yield 1.74, 100% excess. Tail in with 216 Sx. of Class "C" cement + 2% CaCl, + 0.25# Cellophane Flakes/Sx. Yield 1.33 100% excess, 2nd Stage cement with 240 Sx. of Class "C" cement + 2% CaCl, + 0.25# Cellophane Flakes/Sx. Yield 1.32 100% Excess.
9 5/8"	1st Intermediate	Drill 12¼" hole to ~~2807'~~ 2750'. Run and set ~~2807'~~ 2750' of 9 5/8" 36# J-55 LT&C casing. Lead cement 436 Sx. of Class "C" 50/50 POZ cement, + 7% Gel, + 5% Salt, + 3#/Sx. Kol Seal, + 30% CPT-45, + 0.5% CPT-19, + 0.4% CPT-503p, Yield 2.32, 50% excess, tail in with 191 Sx. of Class "C" Premium cement + 0.20% CPT-19, Yield 1.33 50% excess top of cement Surface.
7"	2nd Intermediate	Drill 8 3/4" hole to 9937' TVD, MD 10,025'. Run and set 10,025' of 7" 29# HCP-110 LT&C casing. Cement lead with 543 Sx. of Class "C" POZ cement, + 7% Gel, + 5% Salt, + 3#/Sx. Kol Seal, + 30% CPT-45, + 0.5% CPT-19, + 0.4% CPT-503p, Yield 2.32, 50% excess, tail in with 344 Sx. of Class "H" 50/50 POZ cement + 2% Gel, + 5% Salt, + 20% CPT-20, + 0.2% CPT-47, + 0.4% CPT-51, Yield 1.34 50% excess.
4½"	Liner	Drill 6 1/8" hole to 16,766' MD (TVD-10,000'). Run and set 7291' of 4½" 11.6# HCP-110 BT&C liner, hang at 9475'. Cement with 354 Sx. of Class "H" Premium cement + 100#/Sx Calcium Carbonate, + 0.20% CPT-51, + 0.55% CPT-20, + 0.50% CPT-19, + 0.30% CPT-35, Yield 2.56 top of cement 9475'.

10. PRESSURE CONTROL EQUIPMENT: - See COA

Exhibit "E" shows a ~~3000~~ 5000 PSI working pressure B.O.P. consisting of a packoff an annular bag type preventor, blind rams, and pipe rams. A 13 5/8" B.O.P. will be nippled up on the 13 3/8" surface casing and will remain on the hole till the 9 5/8" intermediate casing is run. It will be tested by a third party testing company to 2000 PSI. A 11" 5000PSI B.O.P. will be nippled up the hole for the drilling of the production hole. It will be tested by a third party testing company to 5000 PSI. The B.O.P.s will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of the hole. A full opening stabbing valve and an upper kelly cock will be available on the derrick floor at all times and will be compatible with the drill pipe that is in use while drilling this well. Exhibit "E-1" shows a 3" 5000 PSI choke manifold with a manual choke and a hydraulically operated remote choke. The choke manifold will be a rigid connection to the B.O.P.. No abnormal pressures or temperatures are expected while drilling of this well. Other wells drilled in this near vicinity have not encountered any abnormal pressures or temperatures. No H2S is expected to be encountered.

See COA

APPLICATION TO DRILL

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
80-~~779~~ 400'	8.4-9.0	36-40	NC	Fresh water with spud mud, use paper to control seepage and hi viscosity sweeps to clean hole.
See COA 400' 2750' ~~779~~-~~2807~~	9.8-10.1	28-31	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole
2750' ~~2807~~-9737	8.6-9.4	29-34	NC	Brine water to cut brine use high viscosity sweeps to clean hole
9737-16,776'	9.5-11.0	44-55	10-15	Use an oil based mud to drill production hole maintain viscosity high high enough to clean hole and weight high enough to control hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, cut cores, and run casing, the viscosity, water loss, and other properties may have to be altered to meet these requirements. Pit levels will be monitered visually, and an electronic pit level indicator will be employed.

THIS WELL BE DRILLED USING A CLOSED MUD SYSTRM

APPLICATION TO DRILL

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM: - See COA

A. Open Hole Logs: Dual -Laterolog, SFL, CNL/FDC,Gamma Ray.Neutron Caliper from 9737" to 2807'. Gamma Ray Neutron from 2807' to surface.

B. Mud Logger: On hole at 2500' and remain on hole to TD 16,766'

C. No Cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

Abnormal pressure might be encountered - See COA

~~No abnormal pressures~~ or temperatures are expected during the drilling of this well. There is no known presence of H_2S in this area. If H_2S is encountered the operator will comply with the provisions of Onshore Oil & Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of the equipment being used to drill this well. Estimated BHP 4800 , PSI, and Estimated BHT 180° .

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLMhas approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a drilling rig is available. Move in operations and drilling is expected to take 25 days. In order to complete this well for injection it will take approximately 20 days and additional 20 days to construct surface facilities and lay injection lines.

15. OTHER FACETS OF THE OPERATION:

After TD is reached and the 4½" liner is run and cemented, the drilling rig will be released, location cleaned up prep to complete well , and tank battery with production equipment will be constructed. Completion will be started and well will be placed on production.

Drilling Outline

Well Name:	Littlefield 33 Federal Com #1H		Area:	Wildcat	
AFE No.:	TBD		Survey:	Sec 33 T26S R29E	
Permit No.:	TBD		Field:	TBD	
API No.:	TBD		Rig:	TBD	Suface Loc. 2130' FEL of Sec 33, 330' FSL of Sec 33
Objective:	Wolfcamp "A"		GL:	TBD	BH Loc. 2310' FEL of Sec 28 330' FNL of Sec 28
FW Depth:	TBD		KB:	TBD	
Elevation:	2872'				

OGX Resources

Directions: From intersection of Catfish road, Go east 2.

SANDS/ MARKERS	DEPTHS FROM KB MD	DEPTHS FROM KB TVD	CASING PROFILE	HOLE SIZE	CASING DETAILS	MUD WT. TYPE	CEMENT DETAILS	OPEN HOLE LOGGING/CORING	DIRECTIONAL
	60	60		20" Casing Preset @ ± 60'					
Surface Casing Point	~~400~~ 780	~~400~~ 780		17-1/2"	DV tool @ 300' 13-3/8", 54.5# J-55, STC	Fresh Water	Cement to Surface 100% Excess See Cement Recommendation	None	Totco Inclination Surveys Not to Exceed 500' Drop Gyro
Base of Salt	2,490	2,490		12-1/4"	9-5/8", 36# J-55, LTC	10 ppg Brine	Cement to Surface 50% Excess See Cement Recommendation	Mud Logger 2500' to TD	Run Steerable BHA with MWD
Inter. Casing Point I	~~3,000~~ 2750	~~3,000~~ 2750		8-3/4"		9.3 ppg Brine	50% Excess Top of cement to 2307' 500' overlap inside 9-5/8" Casing		Run Steerable BHA with MWD/GR
Cherry Canyon	3,602	3,602							
Brushy Canyon	4,801	4,801							
Bone Springs	6,430	6,430							
1st Bone Springs	7,350	7,350							
2nd Bone Springs	7,860	7,860					Top of tail cement on 7" casing @ 8025'		
3rd Bone Springs	9,240	9,240							
KOP	9522'	9522'		9475'	Top of 4-1/2" liner		Cement to top of Liner		KOP 12.0°/100' Build to 359.89° Azm
Wolfcamp	9,640	9,640						CNL/FDC DLL/SFL	
Inter. Casing Pt II	10,025	9,937		8-3/4"	7", 29# HCP-110, LTC	9.3 ppg - 9.5 ppg	See Cement Recommendation		
Set 7" CASING AT 60°				6-1/8"		Oil Base Mud 9.5-11.0	25% excess See Cement Recommendation	MWD & GR Curve	Finish Curve with 12 degrees/100'
EOC	10,272	10,000							Casing Set at 60° Inc. MWD Surveys Not to Exceed 100'
			13-3/8" SOW x 9-5/8" 3M 9-5/8" 3M X 7" 5M 7" 5M X 4-1/2" 10M	6-1/8"	4-1/2", 11.6# HCP-110, BTC	Lateral 9.5 ppg - 11.0 ppg	17,240 MD TD 10,000 TVD	MWD & GR Lateral	

NOT TO SCALE

Date: 10/21/2015
Revised Date:

WELL DETAILS: #1H

OGX Resources, LLC

Project: Eddy County(NAD83)
Site: Littlefield 33 Federal
Well: #1H
Wellbore: OH
Plan: Design #1 (#1H/OH)

Ground Elevation:: 2872.0
RKB Elevation: WELL @ 2890.0usft (Original Well Elev)
Rig Name: Original Well Elev

Surface Hole Location

Northing	Easting	Latitude	Longitude
364289.80	648375.90	32° 0' 3.754 N	103° 59' 16.915 W

G T M

Azimuths to Grid North
True North: -0.18°
Magnetic North: 7.12°

Magnetic Field
Strength: 47935.4snT
Dip Angle: 59.81°
Date: 10/16/2015
Model: IGRF2015

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	9522.5	0.00	0.00	9522.5	0.0	0.0	0.00	0.00	0.0	
3	10025.0	60.30	359.89	9937.2	240.9	-0.5	12.00	359.89	240.9	7" Casing @ 10025 MD
4	10272.5	90.00	359.89	10000.0	477.5	-0.9	12.00	0.00	477.5	
5	16766.8	90.00	359.89	10000.0	6971.8	-13.4	0.00	0.00	6971.8	PBHL(LF#1H)

West(-)/East(+) (50 usft/in)

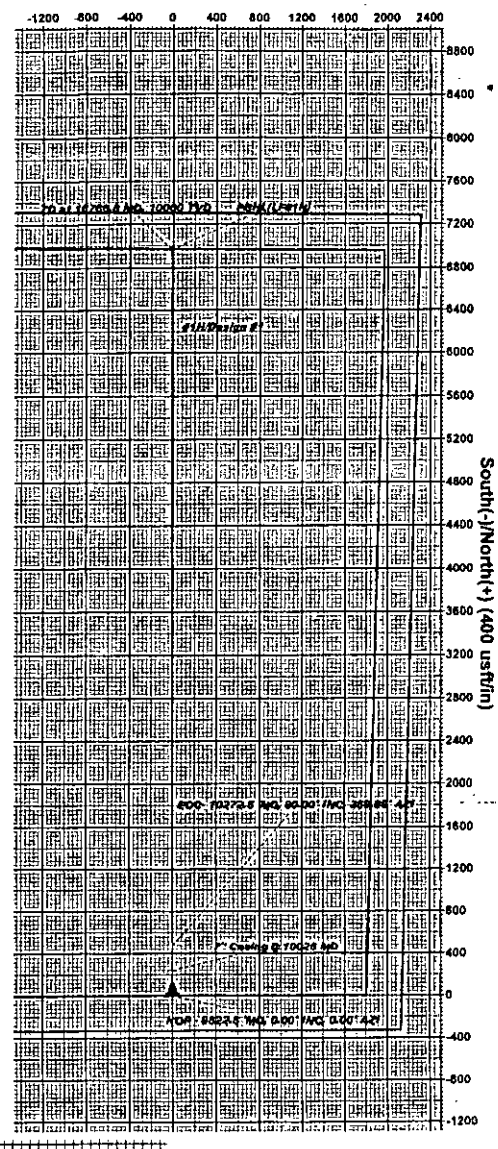
CASING DETAILS

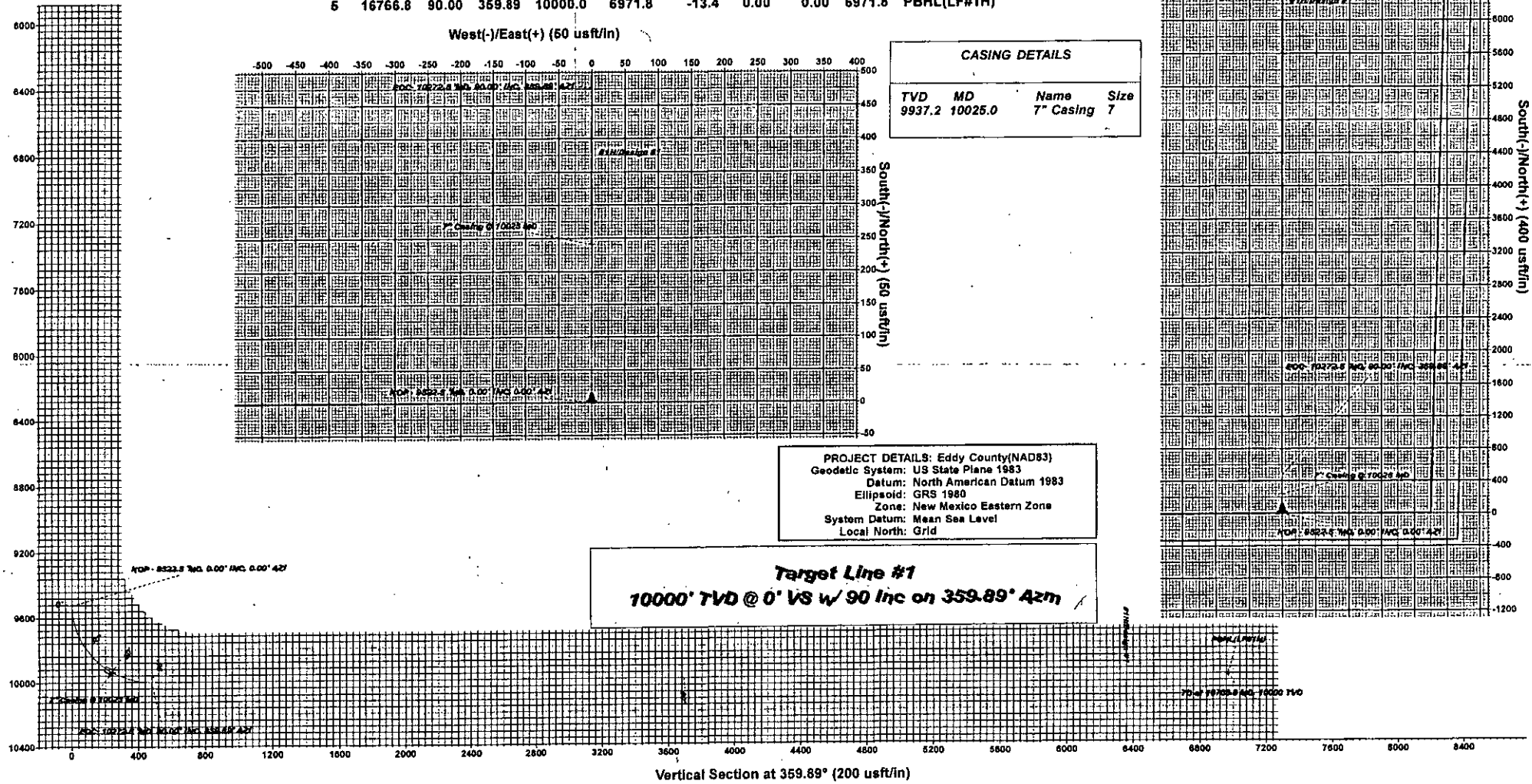
TVD	MD	Name	Size
9937.2	10025.0	7" Casing	7

PROJECT DETAILS: Eddy County(NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

Target Line #1
10000' TVD @ 0' VS w/ 90 Inc on 359.89° Azm

West(-)/East(+) (400 usft/in)





NEXUS DIRECTIONAL SOLUTIONS, L.P.

Nexus Directional Solutions
3925 S Cnty Rd 1285, Odessa, Tx 79765
Phone: 432-561-9270

Plan: Design #1 (#1H/OH)
Date: October 21 2015

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	OGX Resources, LLC	TVD Reference:	WELL @ 2890.0usft (Original Well Elev)
Project:	Eddy County(NAD83)	MD Reference:	WELL @ 2890.0usft (Original Well Elev)
Site:	Littlefield 33 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Project Eddy County(NAD83)

Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Littlefield 33 Federal

Site Position:		Northing:	364,289.80 usft	Latitude:	32° 0' 3.754 N
From:	Map	Easting:	648,375.90 usft	Longitude:	103° 59' 16.915 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well #1H

Well Position	+N/-S	0.0 usft	Northing:	364,289.80 usft	Latitude:	32° 0' 3.754 N
	+E/-W	0.0 usft	Easting:	648,375.90 usft	Longitude:	103° 59' 16.915 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	2,872.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/16/2015	7.31	59.81	47,935

Design Design #1

Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.89

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,522.5	0.00	0.00	9,522.5	0.0	0.0	0.00	0.00	0.00	0.00	
10,025.0	60.30	359.89	9,937.2	240.9	-0.5	12.00	12.00	0.00	359.89	
10,272.5	90.00	359.89	10,000.0	477.5	-0.9	12.00	12.00	0.00	0.00	
16,766.8	90.00	359.89	10,000.0	6,971.8	-13.4	0.00	0.00	0.00	0.00	PBHL(LF#1H)

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #1H
Company:	OGX Resources, LLC	**TVD Reference:**	WELL @ 2890.0usft (Original Well Elev)
Project:	Eddy County(NAD83)	**MD Reference:**	WELL @ 2890.0usft (Original Well Elev)
Site:	Littlefield 33 Federal	**North Reference:**	Grid
Well:	#1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	OGX Resources, LLC	TVD Reference:	WELL @ 2890.0usft (Original Well Elev)
Project:	Eddy County(NAD83)	MD Reference:	WELL @ 2890.0usft (Original Well Elev)
Site:	Littlefield 33 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,522.5	0.00	0.00	9,522.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 9522.5 MD, 0.00° INC, 0.00° AZI									
9,525.0	0.30	359.89	9,525.0	0.0	0.0	0.0	12.00	12.00	0.00
9,550.0	3.30	359.89	9,550.0	0.8	0.0	0.8	12.00	12.00	0.00
9,575.0	6.30	359.89	9,574.9	2.9	0.0	2.9	12.00	12.00	0.00
9,600.0	9.30	359.89	9,599.7	6.3	0.0	6.3	12.00	12.00	0.00
9,625.0	12.30	359.89	9,624.2	11.0	0.0	11.0	12.00	12.00	0.00
9,650.0	15.30	359.89	9,648.5	16.9	0.0	16.9	12.00	12.00	0.00
9,675.0	18.30	359.89	9,672.4	24.1	0.0	24.1	12.00	12.00	0.00
9,700.0	21.30	359.89	9,695.9	32.6	-0.1	32.6	12.00	12.00	0.00
9,725.0	24.30	359.89	9,719.0	42.3	-0.1	42.3	12.00	12.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	OGX Resources, LLC	TVD Reference:	WELL @ 2890.0usft (Original Well Elev)
Project:	Eddy County(NAD83)	MD Reference:	WELL @ 2890.0usft (Original Well Elev)
Site:	Littlefield 33 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,750.0	27.30	359.89	9,741.5	53.2	-0.1	53.2	12.00	12.00	0.00
9,775.0	30.30	359.89	9,763.4	65.2	-0.1	65.2	12.00	12.00	0.00
9,800.0	33.30	359.89	9,784.6	78.4	-0.2	78.4	12.00	12.00	0.00
9,825.0	36.30	359.89	9,805.2	92.7	-0.2	92.7	12.00	12.00	0.00
9,850.0	39.30	359.89	9,824.9	108.0	-0.2	108.0	12.00	12.00	0.00
9,875.0	42.30	359.89	9,843.8	124.3	-0.2	124.3	12.00	12.00	0.00
9,900.0	45.30	359.89	9,861.9	141.6	-0.3	141.6	12.00	12.00	0.00
9,925.0	48.30	359.89	9,879.0	159.8	-0.3	159.8	12.00	12.00	0.00
9,950.0	51.30	359.89	9,895.1	178.9	-0.3	178.9	12.00	12.00	0.00
9,975.0	54.30	359.89	9,910.2	198.8	-0.4	198.8	12.00	12.00	0.00
10,000.0	57.30	359.89	9,924.3	219.5	-0.4	219.5	12.00	12.00	0.00
10,025.0	60.30	359.89	9,937.2	240.9	-0.5	240.9	12.00	12.00	0.00
7" Casing @ 10025 MD									
10,050.0	63.30	359.89	9,949.1	262.9	-0.5	262.9	12.00	12.00	0.00
10,075.0	66.30	359.89	9,959.7	285.5	-0.5	285.5	12.00	12.00	0.00
10,100.0	69.30	359.89	9,969.1	308.7	-0.6	308.7	12.00	12.00	0.00
10,125.0	72.30	359.89	9,977.4	332.3	-0.6	332.3	12.00	12.00	0.00
10,150.0	75.30	359.89	9,984.3	356.3	-0.7	356.3	12.00	12.00	0.00
10,175.0	78.30	359.89	9,990.0	380.6	-0.7	380.6	12.00	12.00	0.00
10,200.0	81.30	359.89	9,994.5	405.2	-0.8	405.2	12.00	12.00	0.00
10,225.0	84.30	359.89	9,997.6	430.0	-0.8	430.0	12.00	12.00	0.00
10,250.0	87.30	359.89	9,999.4	455.0	-0.9	455.0	12.00	12.00	0.00
10,272.5	90.00	359.89	10,000.0	477.5	-0.9	477.5	12.00	12.00	0.00
EOC, 10272.5 MD, 90.00° INC, 359.89° AZI									
10,300.0	90.00	359.89	10,000.0	505.0	-1.0	505.0	0.00	0.00	0.00
10,400.0	90.00	359.89	10,000.0	605.0	-1.2	605.0	0.00	0.00	0.00
10,500.0	90.00	359.89	10,000.0	705.0	-1.4	705.0	0.00	0.00	0.00
10,600.0	90.00	359.89	10,000.0	805.0	-1.5	805.0	0.00	0.00	0.00
10,700.0	90.00	359.89	10,000.0	905.0	-1.7	905.0	0.00	0.00	0.00
10,800.0	90.00	359.89	10,000.0	1,005.0	-1.9	1,005.0	0.00	0.00	0.00
10,900.0	90.00	359.89	10,000.0	1,105.0	-2.1	1,105.0	0.00	0.00	0.00
11,000.0	90.00	359.89	10,000.0	1,205.0	-2.3	1,205.0	0.00	0.00	0.00
11,100.0	90.00	359.89	10,000.0	1,305.0	-2.5	1,305.0	0.00	0.00	0.00
11,200.0	90.00	359.89	10,000.0	1,405.0	-2.7	1,405.0	0.00	0.00	0.00
11,300.0	90.00	359.89	10,000.0	1,505.0	-2.9	1,505.0	0.00	0.00	0.00
11,400.0	90.00	359.89	10,000.0	1,605.0	-3.1	1,605.0	0.00	0.00	0.00
11,500.0	90.00	359.89	10,000.0	1,705.0	-3.3	1,705.0	0.00	0.00	0.00
11,600.0	90.00	359.89	10,000.0	1,805.0	-3.5	1,805.0	0.00	0.00	0.00
11,700.0	90.00	359.89	10,000.0	1,905.0	-3.7	1,905.0	0.00	0.00	0.00
11,800.0	90.00	359.89	10,000.0	2,005.0	-3.8	2,005.0	0.00	0.00	0.00
11,900.0	90.00	359.89	10,000.0	2,105.0	-4.0	2,105.0	0.00	0.00	0.00
12,000.0	90.00	359.89	10,000.0	2,205.0	-4.2	2,205.0	0.00	0.00	0.00
12,100.0	90.00	359.89	10,000.0	2,305.0	-4.4	2,305.0	0.00	0.00	0.00
12,200.0	90.00	359.89	10,000.0	2,405.0	-4.6	2,405.0	0.00	0.00	0.00
12,300.0	90.00	359.89	10,000.0	2,505.0	-4.8	2,505.0	0.00	0.00	0.00
12,400.0	90.00	359.89	10,000.0	2,605.0	-5.0	2,605.0	0.00	0.00	0.00
12,500.0	90.00	359.89	10,000.0	2,705.0	-5.2	2,705.0	0.00	0.00	0.00
12,600.0	90.00	359.89	10,000.0	2,805.0	-5.4	2,805.0	0.00	0.00	0.00
12,700.0	90.00	359.89	10,000.0	2,905.0	-5.6	2,905.0	0.00	0.00	0.00
12,800.0	90.00	359.89	10,000.0	3,005.0	-5.8	3,005.0	0.00	0.00	0.00
12,900.0	90.00	359.89	10,000.0	3,105.0	-6.0	3,105.0	0.00	0.00	0.00
13,000.0	90.00	359.89	10,000.0	3,205.0	-6.2	3,205.0	0.00	0.00	0.00
13,100.0	90.00	359.89	10,000.0	3,305.0	-6.3	3,305.0	0.00	0.00	0.00
13,200.0	90.00	359.89	10,000.0	3,405.0	-6.5	3,405.0	0.00	0.00	0.00

Project:	Eddy County(NAD83)	MD Reference:	WELL @ 2890.0usft (Original Well Elev)
Site:	Littlefield 33 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,300.0	90.00	359.89	10,000.0	3,505.0	-6.7	3,505.0	0.00	0.00	0.00
13,400.0	90.00	359.89	10,000.0	3,605.0	-6.9	3,605.0	0.00	0.00	0.00
13,500.0	90.00	359.89	10,000.0	3,705.0	-7.1	3,705.0	0.00	0.00	0.00
13,600.0	90.00	359.89	10,000.0	3,805.0	-7.3	3,805.0	0.00	0.00	0.00
13,700.0	90.00	359.89	10,000.0	3,905.0	-7.5	3,905.0	0.00	0.00	0.00
13,800.0	90.00	359.89	10,000.0	4,005.0	-7.7	4,005.0	0.00	0.00	0.00
13,900.0	90.00	359.89	10,000.0	4,105.0	-7.9	4,105.0	0.00	0.00	0.00
14,000.0	90.00	359.89	10,000.0	4,205.0	-8.1	4,205.0	0.00	0.00	0.00
14,100.0	90.00	359.89	10,000.0	4,305.0	-8.3	4,305.0	0.00	0.00	0.00
14,200.0	90.00	359.89	10,000.0	4,405.0	-8.5	4,405.0	0.00	0.00	0.00
14,300.0	90.00	359.89	10,000.0	4,505.0	-8.6	4,505.0	0.00	0.00	0.00
14,400.0	90.00	359.89	10,000.0	4,605.0	-8.8	4,605.0	0.00	0.00	0.00
14,500.0	90.00	359.89	10,000.0	4,705.0	-9.0	4,705.0	0.00	0.00	0.00
14,600.0	90.00	359.89	10,000.0	4,805.0	-9.2	4,805.0	0.00	0.00	0.00
14,700.0	90.00	359.89	10,000.0	4,905.0	-9.4	4,905.0	0.00	0.00	0.00
14,800.0	90.00	359.89	10,000.0	5,005.0	-9.6	5,005.0	0.00	0.00	0.00
14,900.0	90.00	359.89	10,000.0	5,105.0	-9.8	5,105.0	0.00	0.00	0.00
15,000.0	90.00	359.89	10,000.0	5,205.0	-10.0	5,205.0	0.00	0.00	0.00
15,100.0	90.00	359.89	10,000.0	5,305.0	-10.2	5,305.0	0.00	0.00	0.00
15,200.0	90.00	359.89	10,000.0	5,405.0	-10.4	5,405.0	0.00	0.00	0.00
15,300.0	90.00	359.89	10,000.0	5,505.0	-10.6	5,505.0	0.00	0.00	0.00
15,400.0	90.00	359.89	10,000.0	5,605.0	-10.8	5,605.0	0.00	0.00	0.00
15,500.0	90.00	359.89	10,000.0	5,705.0	-11.0	5,705.0	0.00	0.00	0.00
15,600.0	90.00	359.89	10,000.0	5,805.0	-11.1	5,805.0	0.00	0.00	0.00
15,700.0	90.00	359.89	10,000.0	5,905.0	-11.3	5,905.0	0.00	0.00	0.00
15,800.0	90.00	359.89	10,000.0	6,005.0	-11.5	6,005.0	0.00	0.00	0.00
15,900.0	90.00	359.89	10,000.0	6,105.0	-11.7	6,105.0	0.00	0.00	0.00
16,000.0	90.00	359.89	10,000.0	6,205.0	-11.9	6,205.0	0.00	0.00	0.00
16,100.0	90.00	359.89	10,000.0	6,305.0	-12.1	6,305.0	0.00	0.00	0.00
16,200.0	90.00	359.89	10,000.0	6,405.0	-12.3	6,405.0	0.00	0.00	0.00
16,300.0	90.00	359.89	10,000.0	6,505.0	-12.5	6,505.0	0.00	0.00	0.00
16,400.0	90.00	359.89	10,000.0	6,605.0	-12.7	6,605.0	0.00	0.00	0.00
16,500.0	90.00	359.89	10,000.0	6,705.0	-12.9	6,705.0	0.00	0.00	0.00
16,600.0	90.00	359.89	10,000.0	6,805.0	-13.1	6,805.0	0.00	0.00	0.00
16,700.0	90.00	359.89	10,000.0	6,905.0	-13.3	6,905.0	0.00	0.00	0.00
16,766.8	90.00	359.89	10,000.0	6,971.8	-13.4	6,971.8	0.00	0.00	0.00

TD at 16766.8 MD, 10000 TVD

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
7" Casing	0.00	0.00	9,937.2	240.9	-0.5	364,530.70	648,375.40	32° 0' 6.138 N	103° 59' 16.912 W
- plan misses target center by 0.1usft at 10025.0usft MD (9937.2 TVD, 240.9 N, -0.5 E)									
- Point									
PBHL(LF#1H)	0.00	0.00	10,000.0	6,971.8	-13.3	371,261.60	648,362.60	32° 1' 12.749 N	103° 59' 16.811 W
- plan misses target center by 0.1usft at 16766.8usft MD (10000.0 TVD, 6971.8 N, -13.4 E)									
- Point									

5000 Psi WP BOP STACK

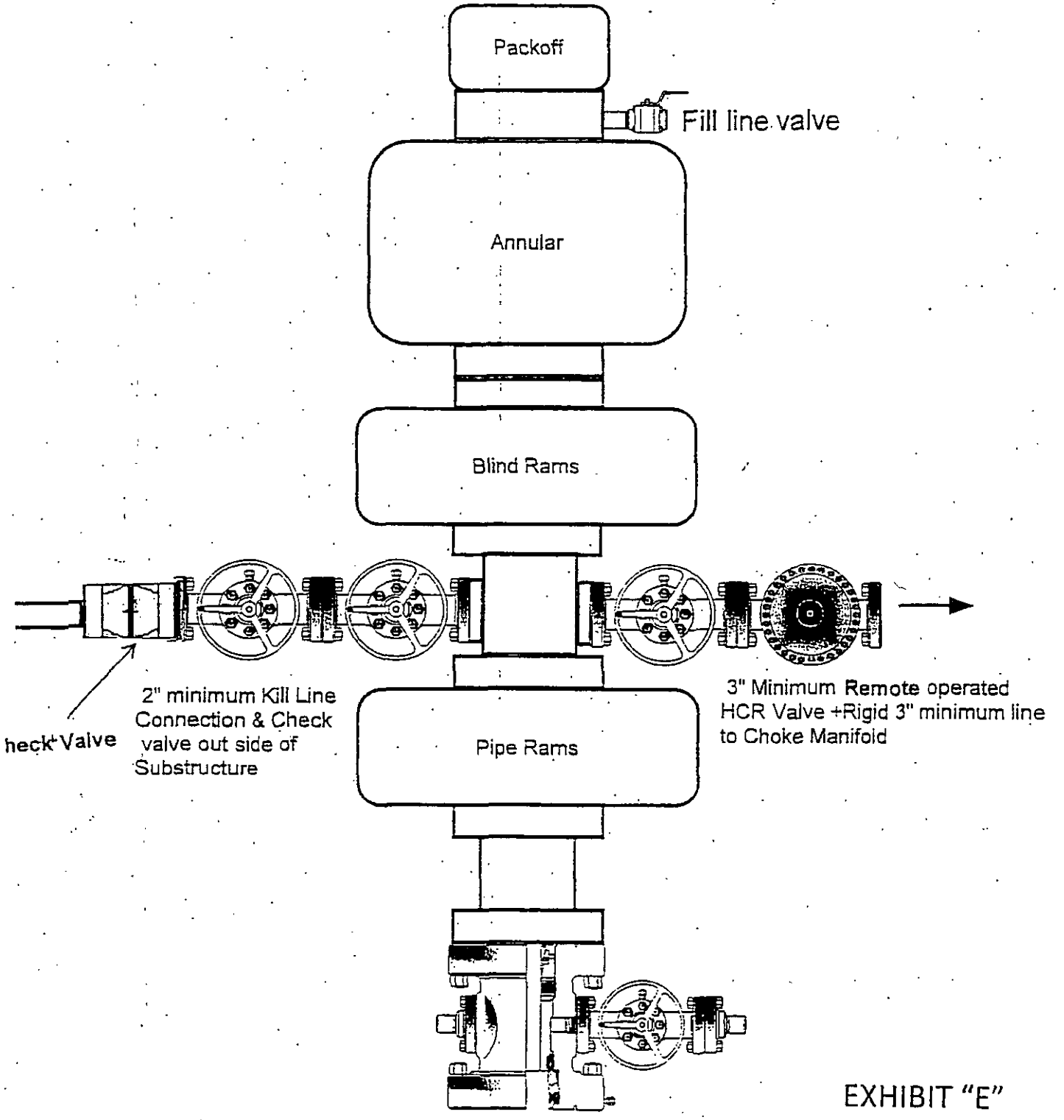


EXHIBIT "E"

5,000 psi Manifold Equipment- Configuration of chokes may vary.

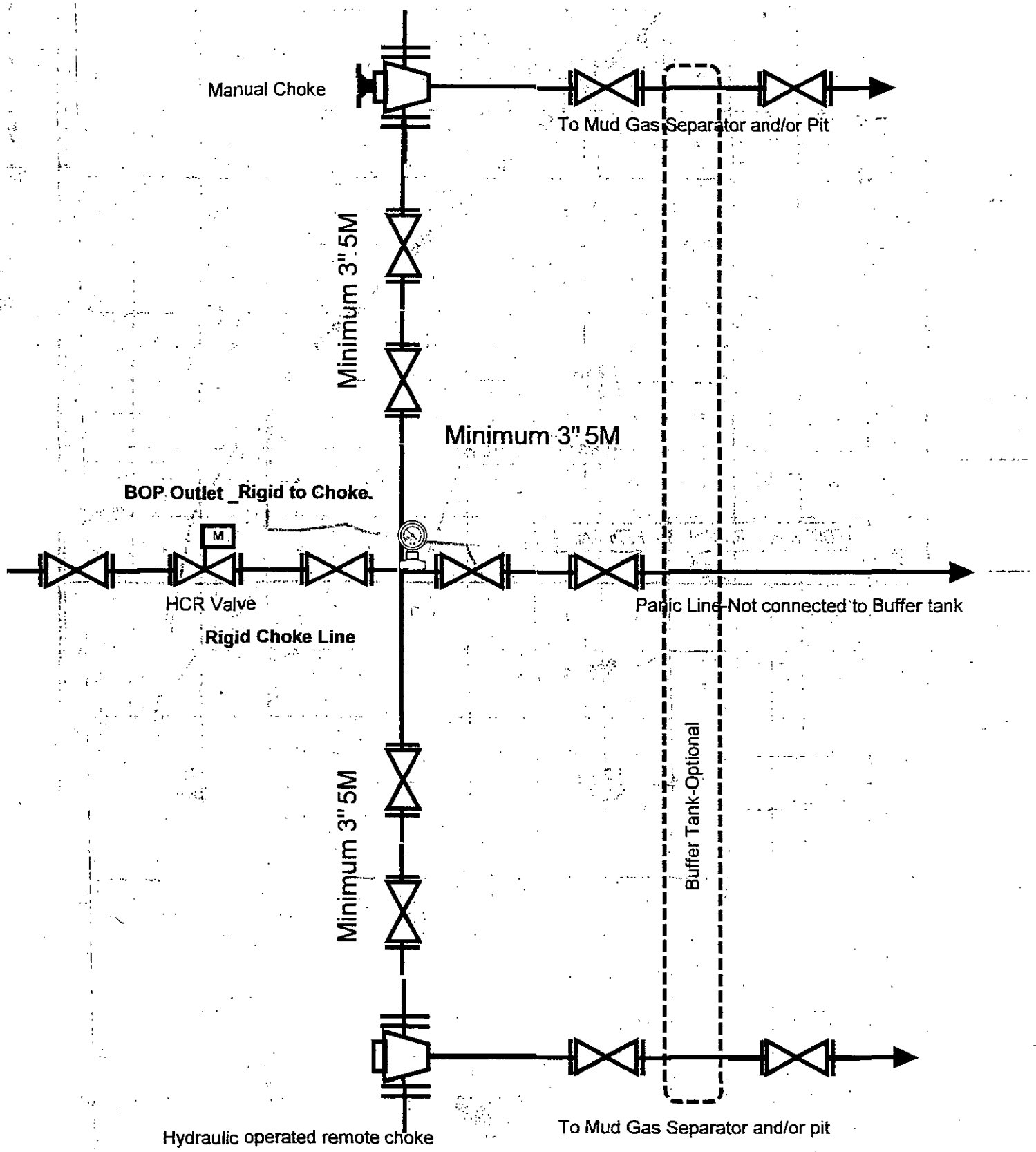
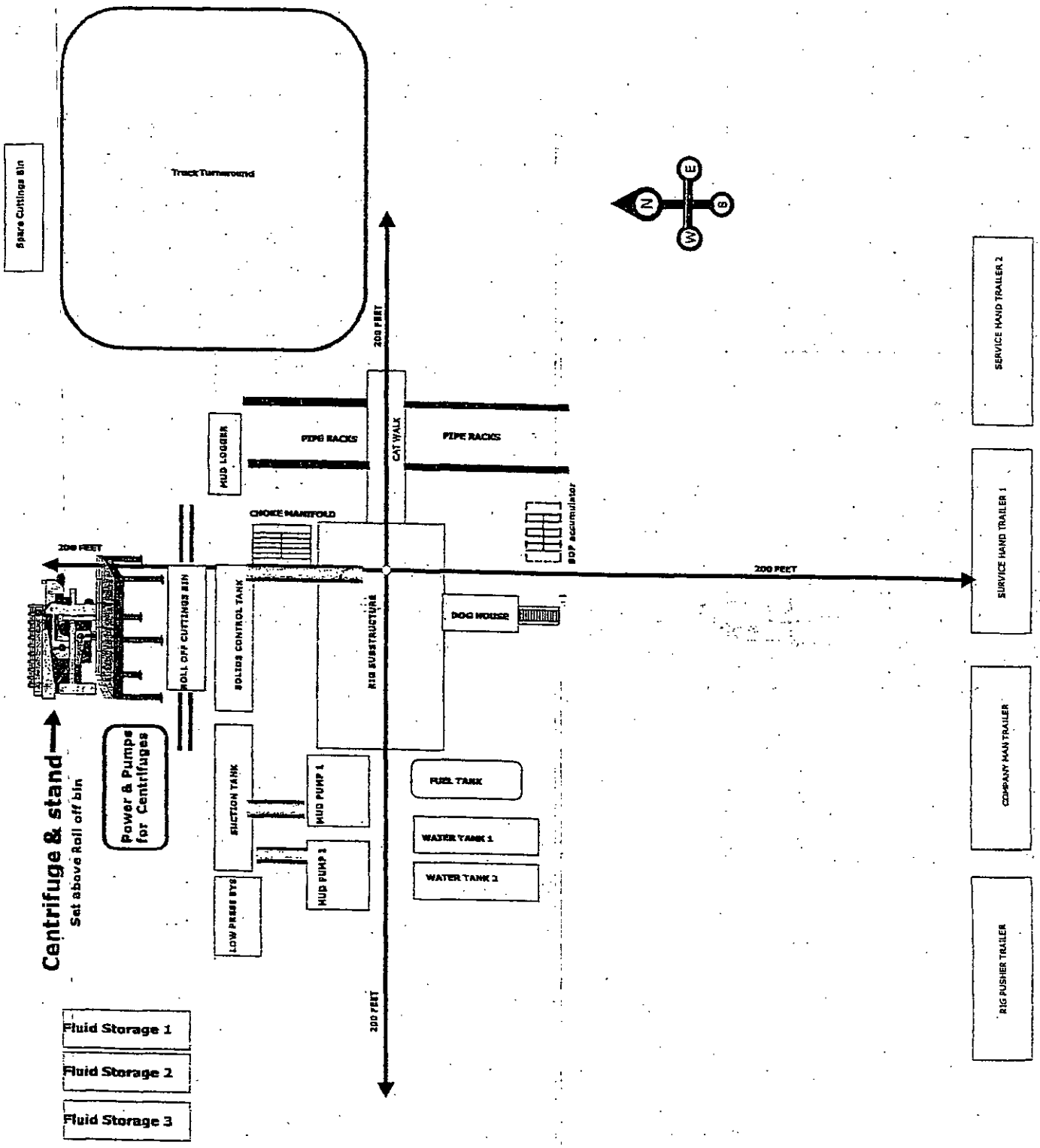


EXHIBIT "E-1"

Closed Loop Oil Well



Note: The Rig and Closed System Company for this well have not been selected thus the set up shown is simply generic.

OGX RESOURCES, LLC.

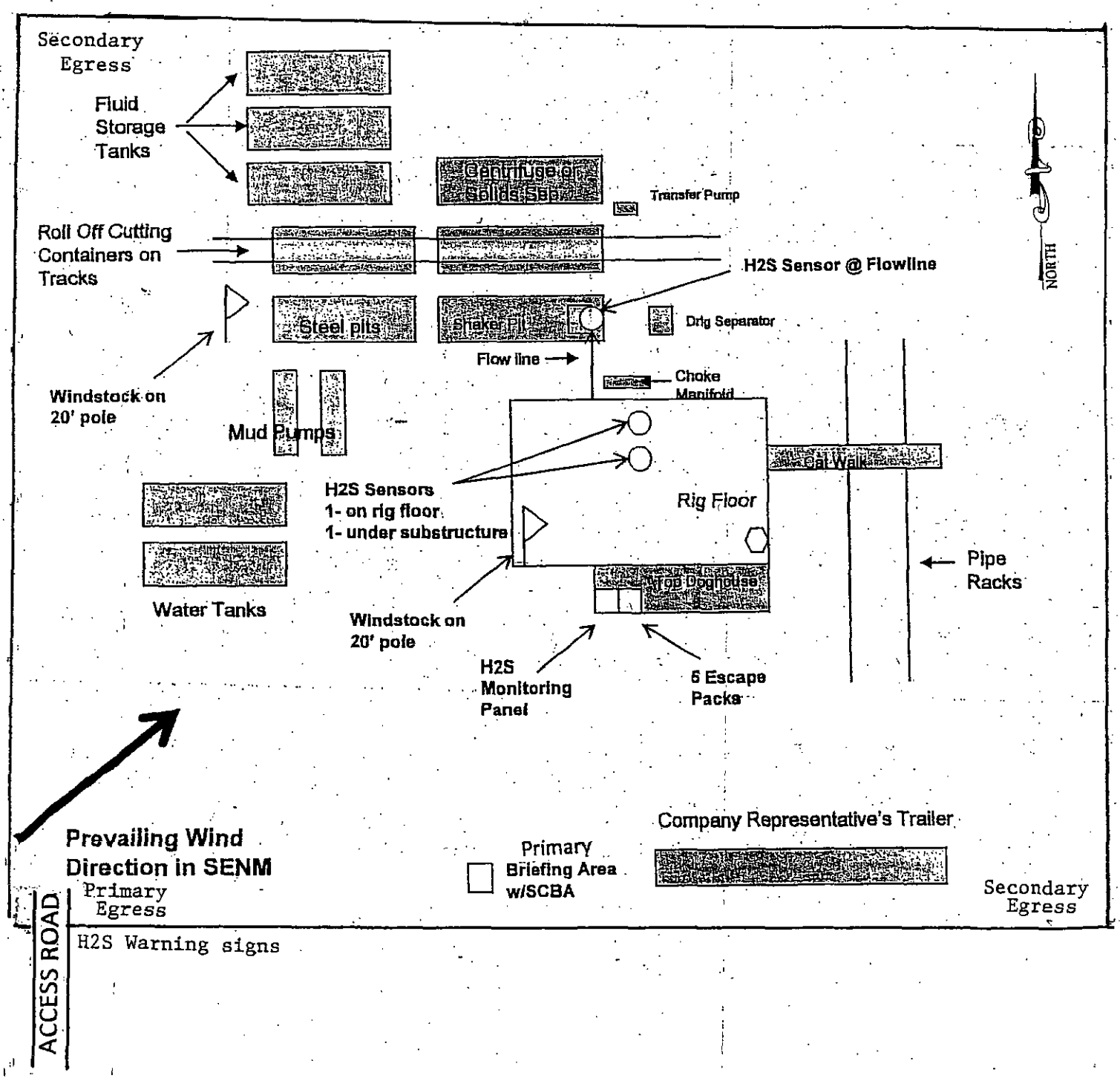
Operations and Maintenance Plan

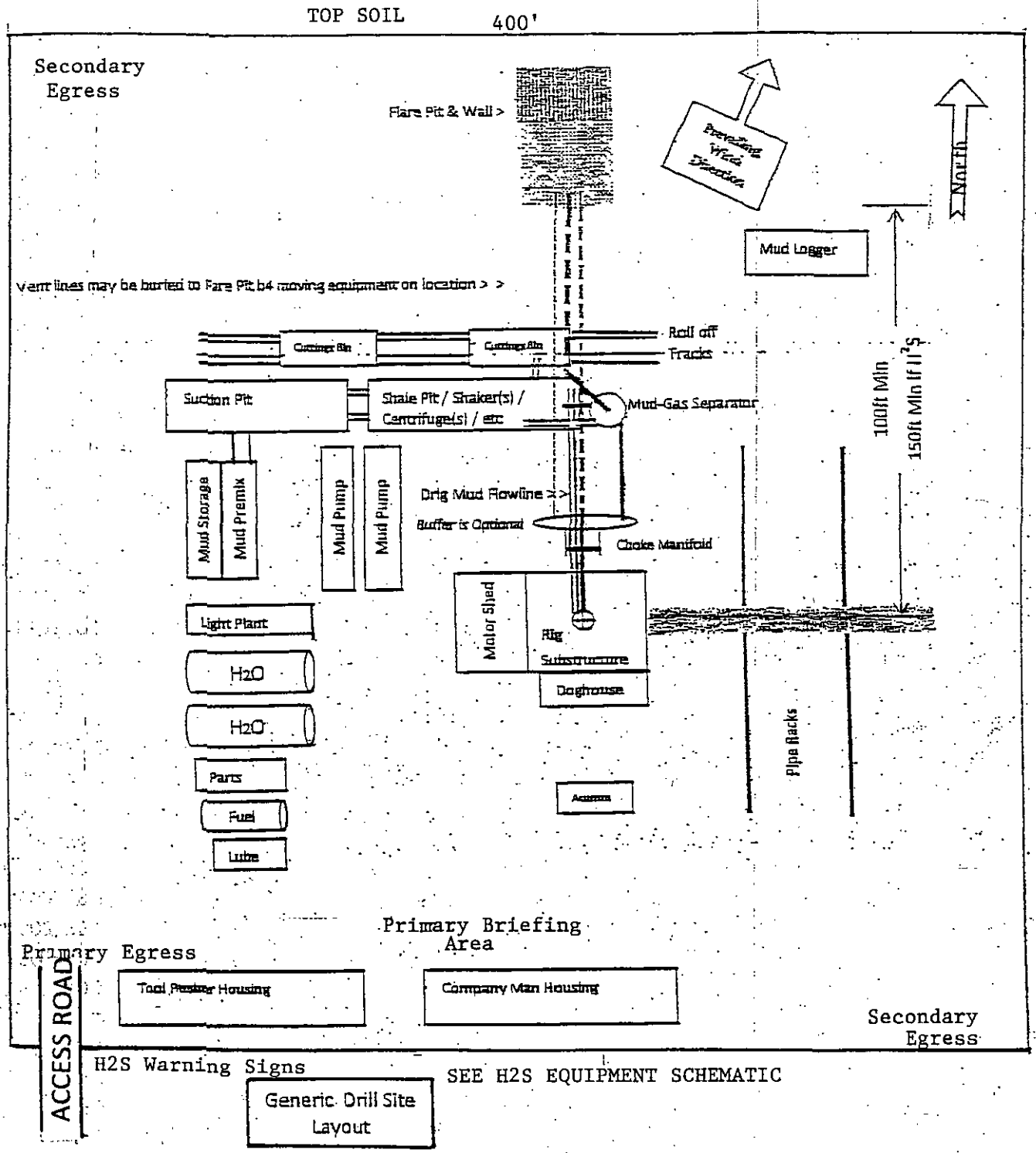
Closed loop equipment will be inspected and monitored closely on a daily basis by Each drilling rig Tour and by those hired specifically to operate the equipment. Any leak of release detected will be repaired immediately and the proper NMOCD official will be notified within the 48 hour requirement. A large release will require OGX RESOURCES LLC. Representative to contact NMOCD immediately at the Hobbs office 575-393-6161 as stated by the NMOCD rule 116.

Closure Plan

Duringand after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed of at the R-360 disposal (permit number NM-01-0006) located about 30 miles East of Carlsbad, New Mexico. An alternate approved disposal site has been selected "Sundance" Parabo NM-01-0003 which is 5 miles East of Eunice New Mexico. The second site would be used in the event of problems with R-360 disposal.

H_2S Equipment Schematic





Preplanning reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is challenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind direction, spacing access for truck removal of cutting bins, flare pit location, and piping provision to vent all combustible gas to the flare pit. Include the choke manifold and mud-gas separator location and their connection routing.

EXHIBIT "D"
RIG LAYOUT PLAT

OGX RESOURCES, LLC.
LITTLEFIELD 33 FEDERAL COM. #1H
LOT #11 SECTION 33
T26S-R29E EDDY CO. NM

EXPANDED VIEW OF
FLOW LINESTO MUD-GAS
SEPERATOR & BLOW DOWN
LINES TO FLARE PIT

Hydrogen Sulfide Drilling Plan Summary

For DrillinglWorkoverlFacility

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been contacted)

	OFFICE	MOBILE	HOME
Jacky Brown	432-897-0290	432-212-2787	
Steve Douglas	432-685-1287	432-934-6800	

EMERGENCY RESPONSE NUMBERS:

State Police:	Eddy County		575 748 9718
State Police:	Lea County		575 392 5588
Sheriff	Eddy County		575 746 2701
Sheriff	Lea County		
Emergency Medical Ser	Eddy County		911 or 575 746 2701
(Ambulance)	Lea County	Eunice	911 or 575 394 3258
Emergency Response	Eddy County SERC		575 476 9620
	Lea County		
Artesia Police Dept			575 746 5001
Artesia Fire Dept			575 746 5001
Carlsbad Police Dept			575 885 2111
Carlsbad Fire Dept			575 885 3125
Loco Hills Police Dept			575 677 2349
Jal Police Dept			575 395 2501
Jal Fire Dept			575 395 2221

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

Jal ambulance		575 395 2221
Eunice Police Dept		575 394 0112
Eunice Fire Dept		575 394 3258
Eunice Ambulance		575 394 3258
Hobbs Police Dept		
NMOCD	District 1 (Lea, Roosevelt, Curry)	575 393 6161
	District 2 (Eddy Chavez)	575 748 1283
BLM Carlsbad		575 234 5972
BLM Hobbs		575 393 3612
Lea County Information		575 393 8203
Midland Safety	Lea/Eddy County	432 520 3838
		888 262 4964
American Safety	Lea/Eddy County	575 746 1096
		575 393 3093
Baker Pressure pmp'g	Artesia	575 746 3140
	Hobbs	800 530 4485
		575 392 5556
	Midland	800 694 6601
		432 685 8900
Halliburton	Artesia	800 844 8451
	Hobbs	800 844 8451
	Midland	800 844 8451
Schlumberger pmp'd Ser	Hobbs	800 548 9196
		575 393 6186
	Artersia	575 748 1391
	Midland	432 683 1887
Wild Well Control	Midland	281 784 4700
		281 443 4873
Boots & Coots		800 256 9688
		281 931 8884

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

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Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area"
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus)
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will wear the self-contained breathing apparatus.
2. Remove all personnel to the "safe area". (always use the buddy system).
3. Contact company personnel if not on location.
4. Set in motion the steps to protect and or remove the general public to an upwind "safe area". Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.
6. Notify the appropriate agencies: City Police-City Street (s)
   State Police- State Rd
   County Sheriff – County Rd.
7. Call the NMOCD & BLM

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

PROTECTION OF THE GENERAL PUBLIC (ROE):

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road which the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "Pasquill-Gifford equation"

X = [(1.589) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

X = [(.4546) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X= [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X= 7 ft

500 ppm X= [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- 1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety, shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment shall be UL approved, for use in class 1 groups A,B,C &D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S , oxygen, and flammable values).**
- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

- 1. Human life and/or property are in danger
- 2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

- 1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.

- 2. One of the people will be qualified safety person who will test the atmosphere for H2S, Oxygen & LFL. The other person will be the company supervisor; he is responsible for igniting the well.

- 3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a ± 500 ft. range to ignite the gas.

- 4. Prior to ignition, make a final check for combustible gases.

- 5. Following ignition, continue with the emergency actions & procedures as before.

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

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B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun or automatic striker.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
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  (Gas sample tubes will be stored in the safety trailer)

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  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.

c. Two wind socks will be placed in strategic locations, visible from all angles.

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
  b. All elastomers used for packing and seals shall be H2S trim.

- Communication:
  Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
  - Working near the top or on top of a tank
  - Disconnecting any line where H2S can reasonably be expected
  - Sampling air in the area to determine if toxic concentrations of H2S exist.
  - Working in areas where over 10 ppm on H2S has been detected.
  - At any teim there is a doubt as the level of H2S in the area.

- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous locaton.

- Facial hair and standard eyeglasses are not allowed with SCBA.

- Contact lenses are never allowed with SCBA.

- Air quality shall be continuously be checked during the entire operation.

- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected

- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING:

- Do not panic
- Remain Calm & think
- Get on the breathing apparatus
- Remove the victim to the safe breathing area as quickly as possible. Up wind an uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

Hyrogen Sulfide (H2S) Toxic Effects

H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (Sp. Gr= 1.19)(Air = 1) and H2S is colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and 5-6 times more toxic than carbon monoxide.

Various Gases

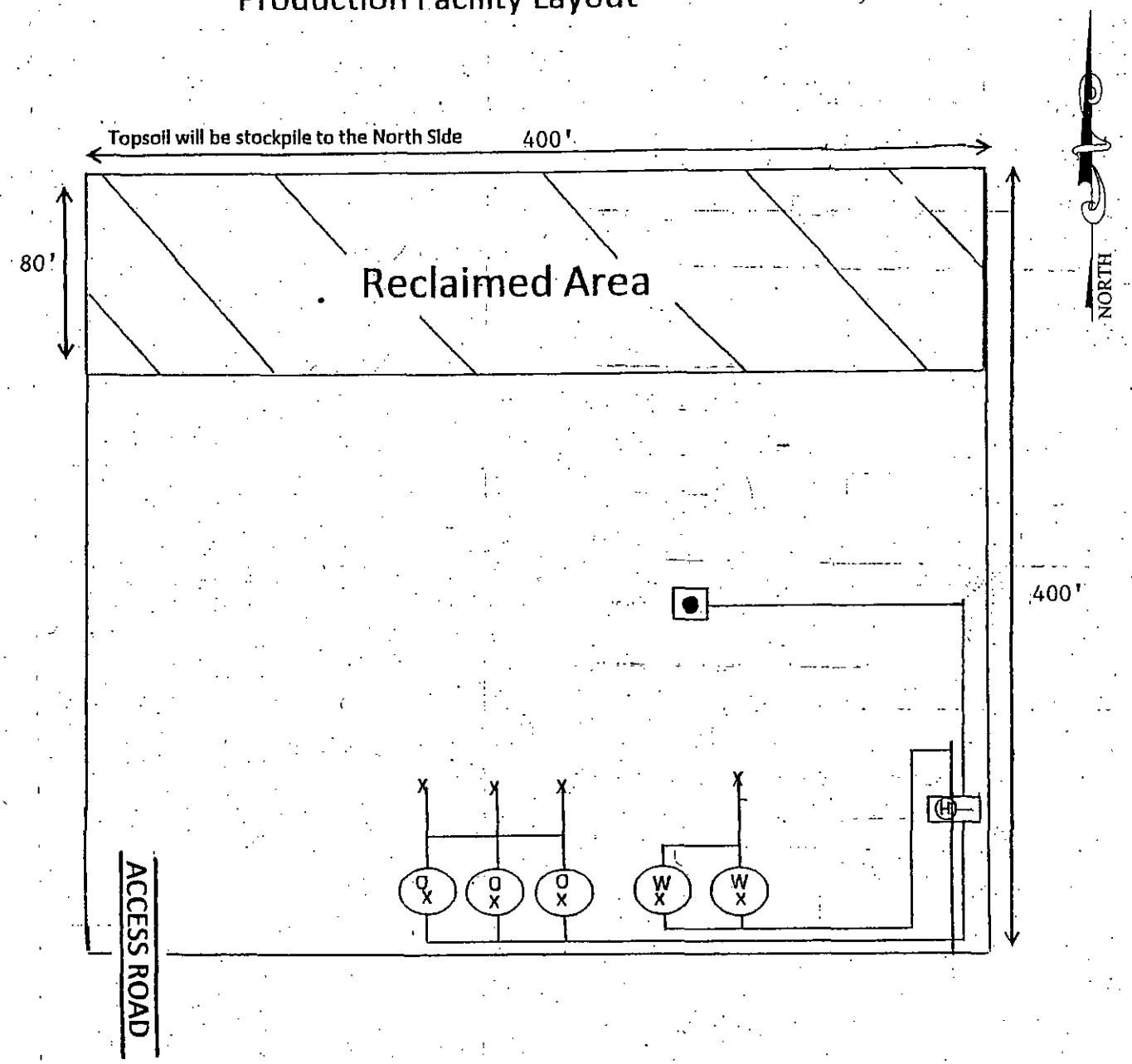
COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon 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	Combustible@ 5%	N/A

Threshold Limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.
Hazardous Limit: Concentrations that may cause death.
Lethal Concentrations: Concentrations that will cause death with short term exposure.
Threshold Limit- 10 ppm: NIOSH guide to chemical hazards.

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION		PHYSICAL EFFECTS
.001%	10 PPM	Obvious and unpleasant odor. Safe for 8 hr exposure
.005%	50 ppm	Can cause some flu like symptoms and can cause pneumonia
.01%	100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02%	200 ppm	Kills the sense of smell rapidly. Severly irritates the eyes and throat. Severe flu like symptoms after 4 or more ours. May cause lung damage and or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

Production Facility Layout



RECLAMATION PLAT

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
Lot #11 SECTION 33
T26S-R29E EDDY CO. NM

SURFACE USE PLAN

OGX RESOURCES, LLC.
LITTLEFIELD "33" FEDERAL COM. #1H
LOT 11 SECTION 33
T26S-R29E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS WITH DIRECTIONS TO LOCATION:

A. Exhibit "B" is a reproduction of a County General Hi-Way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and proposed roads. All existing roads will be maintained in equal or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Loving New Mexico go South on U S Hi-way 285 21 miles, turn Left on CO Road 726 go 2.5 miles and location is on the North side of

D. If electric power will be required to produce this well they will be constructed along existing R-O-W's and will be requested by a Sundry Notice.

2. PLANNED ACCESS ROADS: 115' PCM 4-11-16 ~~300'~~ of access road will be required.

A. The access roads will be crowned and ditched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. As required all new access roads will be surfaced with a mimimum of 4-6" of Caliche. This material will be obtained from a local source.

E. The center line of roads will be flagged and road construction will be done as field conditions allow.

F. Culverts will be placed in the access roads as drainage conditions require. Roads will be constructed to use low water crossings for drainage as topographic features require to keep errosion to a minimum.

3. EXHIBIT "A-1" SHOWS EXISTING WELLS WITHIN A ONE MILE RADIUS OF THE LOCATION:

A. Water wells	- Water well 1.5 miles East Northeast of location
B. Disposal wells	- None known
C. Drilling wells	- None known
D. Producing wells	- As shown on Exhibit "A-1"
E. Abandoned wells	- As shown on Exhibit "A-1"

4. If on completion this well is a success the operator will complete it as a producer. The operator will construct production facilities and tank battery on location. If power lines will be required to produce this well they may be constructed along existing R-O-W's as shown on Exhibit "C".

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and transported by transport or piped to location by flexible flowlines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the leveling of the drill site. If additional material will will be require it will be obtained from a local source and transported over access roads shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

A. In case this well is drilled using a closed mud system the cuttings will be collected in containers and disposed of in a state approved disposal site. Drilling fluids likewise will be contained in tanks and disposed of in state approved disposal sites.

B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When job is complete all contents will be taken from location and disposed of in a state approved disposal site.

C. Salts and other mud material remaining after completion of the well will be collected by the supplier and be removed from the location.

D. Waste water from living quaters will be directed into an onsite sewage treat-ment unit and when well is completed residue will be removed and disposed of in a state approved disposal site. Porto-johns will be on location for rig crews, completion crews and other contract personnel, this equipment will be properly maintained during drilling and completion. When all operations are complete the residue will be removed and disposed of in a state approved disposal site and the equipment removed by supplier.

E. Any fluids produced during the completion phasewill be seperated and the oil sold and water will be disposed of in an apporved disposal site.

8. ANCILLARY FACILITIES:

A. No camps, airstrips, or staging areas will be constructed on location.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows a generic well site for a well drilled using a closed mud system.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilition of the surface will start after the well has been completed, if the well is completed as a producer production facilities will be consturcted on the location. What area is not required for the operation of this project will be reclaimed and restored as near as possible to the original grade and vegetation.

If in case this well is unsuccessful and is a dry hole the drilling pad and the access roads will be reclaimed according to specifications provided by The Bureau of Land Management. Caliche or other road material will be removed for the possible use in another location or deposited in an approved reclaimatic site.

Drill cuttings and mud used to drill this well will be removed and disposed of at an approved disposal site. All trash and any other debree will be collected disposed of as the above.

11. ADDITIONAL INFORMATION:

A. Vegetation consists of typical desert shrub, such as snake weed, prickley pear, creosote and native grasses.

B. The surface and the minerals are owned by The U.S.Department of Interior and is administered by The Bureau of Land Management. the surface is used for the grazing of livestock, and for the production of Oil & Gas.

APD Tracking # :

Well-Site Evaluation Field Form

Operator Name: OGX Well Name Littlefield 33 Fed Com 2H

SHL: Section ____, T. ____S. R. ____E. Footage 580 FSL & 1330 FEL

Well Type: Horizontal Vertical / Oil Gas 32.00172706 103.98544465 NOS/APD Received? NOS APD No

Surface Management Agency (SMA): BLM FEE STATE SMA Contacted? Yes No

Operator Representative/ Contact Name: _____ Phone _____

BLM Onsite Representatives P. Murphy T. Badlear Date 3/14/16

Description & Topography: (cut & fill, etc.) Slope S & East toward Rd

Soils: Gypsum Cave Area: Marl

Vegetation: Grass Creosote

Hydrology: (playas, floodplain, drainages, erosive soils, etc.) _____

Wildlife: (habitat, LPC, SDL, etc.) _____

Range Improvements: (fences, etc.) _____

Well Infrastructure

V-Door Direction: _____ Topsoil: _____

Pad Size: _____

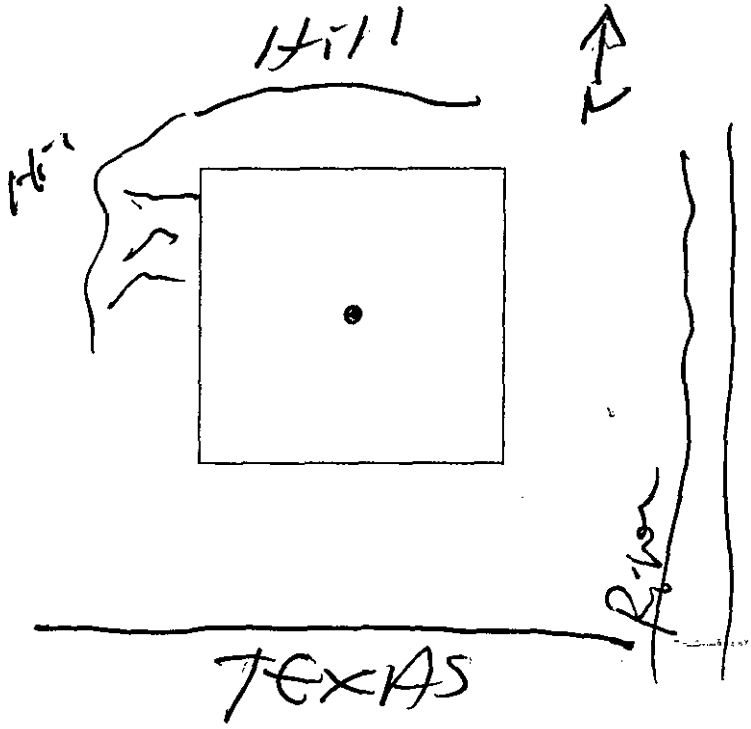
Road Route: _____

Prod. Facility Placement: _____

Interim Rec: _____

Other: _____

Evaluation: (Moved?) _____



Paul, Jacky Brown sent me the image of the Hashed Area being an area of critical environmental concern. Can you send me a shot the same area across Section 34 to the east? Thanks

CFO GIS Project Request Form

Employee Name Requesting Project:		
Date of Request:	**Desire Completion Date:**	***Project Priority: ___ Low ___ Medium ___ High**
Purpose of the Map/Project Description:		
Type of Project: ___ Map ___New Data ___ New Layer		**Map Format: ___Hard Copy ___JPEG___PDF___ Other _____**
Map Size: ___8.5"x11" ___11"x17" ___34"x44" ___Other		**Number of Copies: _____**
GIS Data Layers Required:		
GIS TO FILLOUT		
Assigned to:		
Completion Date:	**Completed By:**	
Source to Data/ Project:		

*Project Priority Levels:

Low Importance if... This project would have minimal or no impact on your daily tasks. The project does not require immediate response from GIS specialist and/or students.	Medium importance if... By having this project would give you the opportunity to work on other things. This project would enhance additional services or products that are normally on demand, but not required	High importance if... Without this project you cannot meet management required deadlines. Without this project you cannot meet the demand of the public in a timely manner.

Paul, what I would like to see is a smaller scale map that includes Sections 27, 28, 33, 34 showing the boundaries of the Gypsum Soils and Chihuahuan Desert Rivers. In our meeting in Carlsbad we discussed the possibility of locating some of the shl's on the northern end of Sections 27 and 28. Thanks for your help!

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OGX Operating, LLC.
LEASE NO.:	NMLC065928A
WELL NAME & NO.:	1H – Littlefield 33 Fed Com
SURFACE HOLE FOOTAGE:	330'/S & 2130'/E
BOTTOM HOLE FOOTAGE	330'/N & 2130'/E SEC. 28
LOCATION:	Section 33, T 26 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

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

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Range Surface Mitigation

Operator will utilize steel tanks, repair or replace cattle guards along existing access road to project, keep parking and staging on caliche surfaced areas, reclaim and seed all areas not needed for daily operations to mitigate range impacts.

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

Soil Mitigation

Interim reclamation will be conducted on all disturbed areas not needed for active support of production operations, and if caliche is used as a surfacing material it will be removed at time of reclamation to mitigate impacts to soil resources. Topsoil will be stockpiled to enhance reclamation.

Vegetation Mitigation

Interim reclamation will be conducted on all disturbed areas not needed for active support of production operations, and if caliche is used as a surfacing material it will be removed, landscape returned as practicable; topsoil distributed, seed bed prepared, and areas seeded to match surrounding vegetation at time of reclamation to mitigate impacts to vegetation resources. Pad would be bermed on all sides to prevent residual impacts to vegetation outside of proposed action.

Noxious Weeds Mitigation

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

Watershed Mitigation

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.

Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

Cave and Karst Conditions of Approval

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:
Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Powerlines:
Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will

adjust their pole spacing to avoid cave and karst features. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required.

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

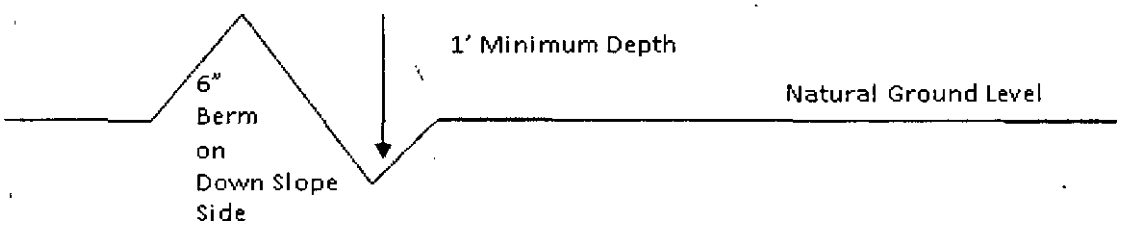
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

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

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

Construction Steps

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

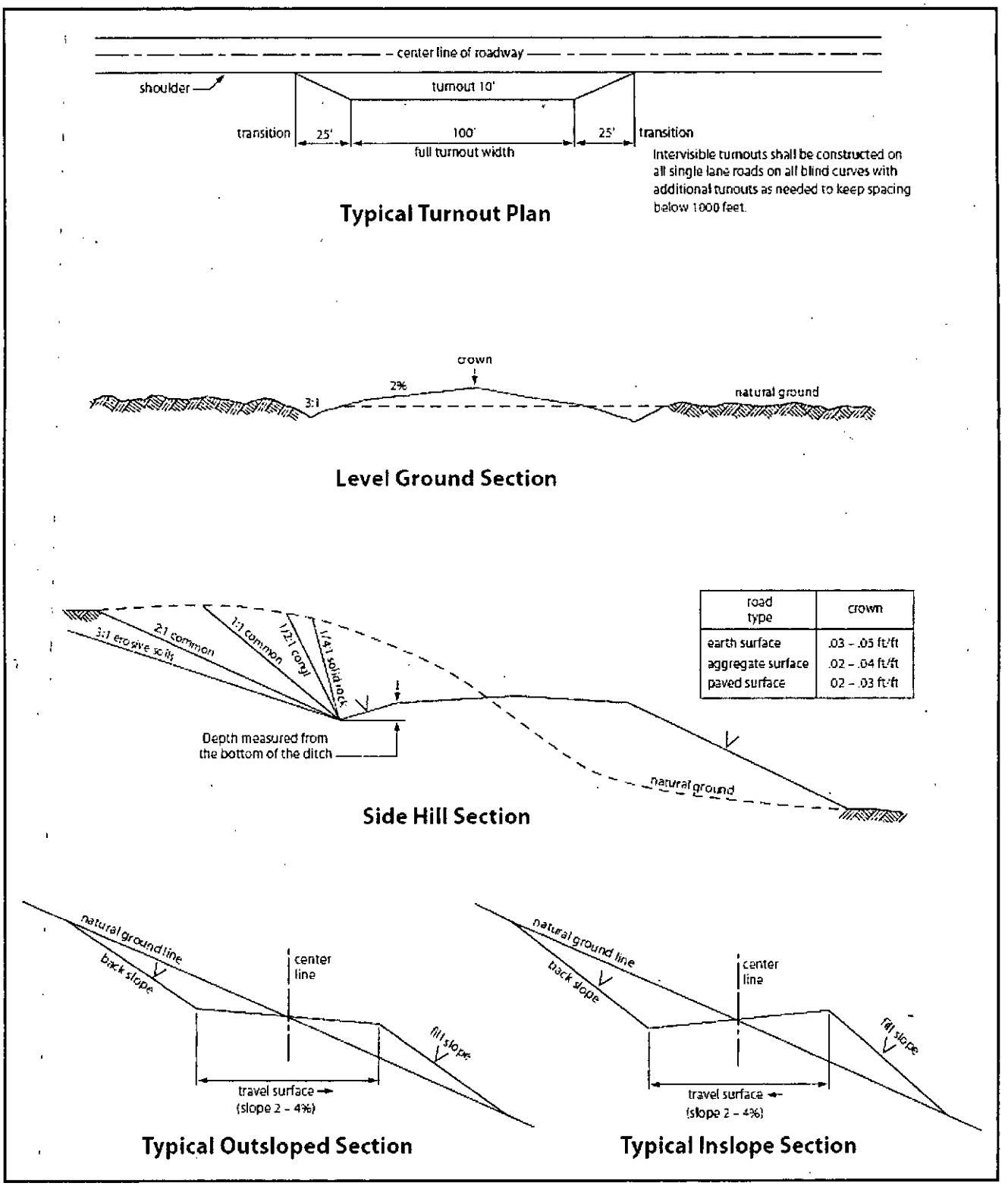


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

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

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

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

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

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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

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

B. CASING

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

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

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

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

Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone and all subsequent formations.
Medium Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **400** feet (**in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt**) and cemented to the surface.
    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

DV tool option:

Operator has proposed DV tool at depth of 300'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation or approved top of cement on the next stage.

b. Second stage above DV tool.

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

2. The minimum required fill of cement behind the **9-5/8** inch 1st intermediate casing is:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **If cement does not circulate to surface on the 1st intermediate casing, the cement on the 2nd intermediate casing must come to surface.**

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **7** inch 2nd intermediate casing is:

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

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

☒ Cement as proposed by operator. Operator shall provide method of verification.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch 1st intermediate casing shoe shall be **5000 (5M)** psi.

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

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
    d. The results of the test shall be reported to the appropriate BLM office.
    e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
    g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Third Bone Spring Sandstone** if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Third Bone Spring Sandstone and subsequent formations**, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

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

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

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design,

construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

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

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

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

VRM Facility Requirement
Low-profile tanks not greater than eight-feet-high shall be used.

IX. INTERIM RECLAMATION

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

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

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

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

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

X. FINAL ABANDONMENT & RECLAMATION

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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

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

NMOCD CONDITION OF APPROVAL

The *New!* Gas Capture Plan (GCP) notice is posted on the NMOCD website under Announcements. The Plan became effective May 1, 2016. A copy of the GCP form is included with the NOTICE and is also in our FORMS section under Unnumbered Forms. Please review filing dates for all applicable activities currently approved or pending and submit accordingly. Failure to file a GCP may jeopardize the operator's ability to obtain C-129 approval to flare gas after the initial 60-day completion period.