District I
625 N. French Dr., Hobbs, NM 88240
District II
301 W. Grand Avenue, Artesia, NM 88210
District III
000 Rio Brazos Rd., Aztec, NM 87410
District IV
220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Divsiion
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

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

[1] Operator Name and Address	[2] OGRID Number
OXY USA INC PO BOX 4294, HOUSTON, TX 77210-4294	16696 [3] API Number 30- 021-20533

[4] Property Code	[5] Property Name	[6] Well No.
27111	BRAVO DOME CARBON DIOXIDE GAS UNIT 2130	301

[9] Proposed Pool 1	[10] Proposed Pool 2
BRAVO DOME CARBON DIOXIDE GAS 640	

Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
E	30	21 N	30 E		1688'	NORTH	940'	WEST	HARDING

Proposed 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

Additional Well Location

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	C	R	P	5339.2
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
NO	2600	TUBB	N/A	

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2	13 3/8	54.5#	1400'	1300sx	SURFACE
12 1/4	9 5/8	40# 23#	2700"	820sx	SURFACE
8 5/8	7	23#	3100"	640sx	SURFACE

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHMENT

OIL CONSERVATION COMMISSION TO BE NOTIFIED WITHIN 24 HOURS OF BEGINNING OPERATIONS

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: L. Lockett
Printed name: L. KIKI LOCKETT
Title: REGULATORY ANALYST
E-mail Address: KIKI LOCKETT@OXY.COM
Date: 11-29-11
Phone: 713-215-7643

OIL CONSERVATION DIVISION

Approved by: Ed Martin
Title: DISTRICT SUPERVISOR
Approval Date: 12/12/2011
Expiration Date: 12/12/2013
Conditions of Approval Attached ☐

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 South First, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-021-20533	96010	BRAVO DOME CARBON DIOXIDE GAS 640

[4] Property Code	[5] Property Name	[6] Well Number
27111	BRAVO DOME CARBON DIOXIDE GAS UNIT	301

[7] OGRID No.	[8] Operator Name	[9] Elevation
16696	OXY USA INC.	5339.2

[10] Surface Location

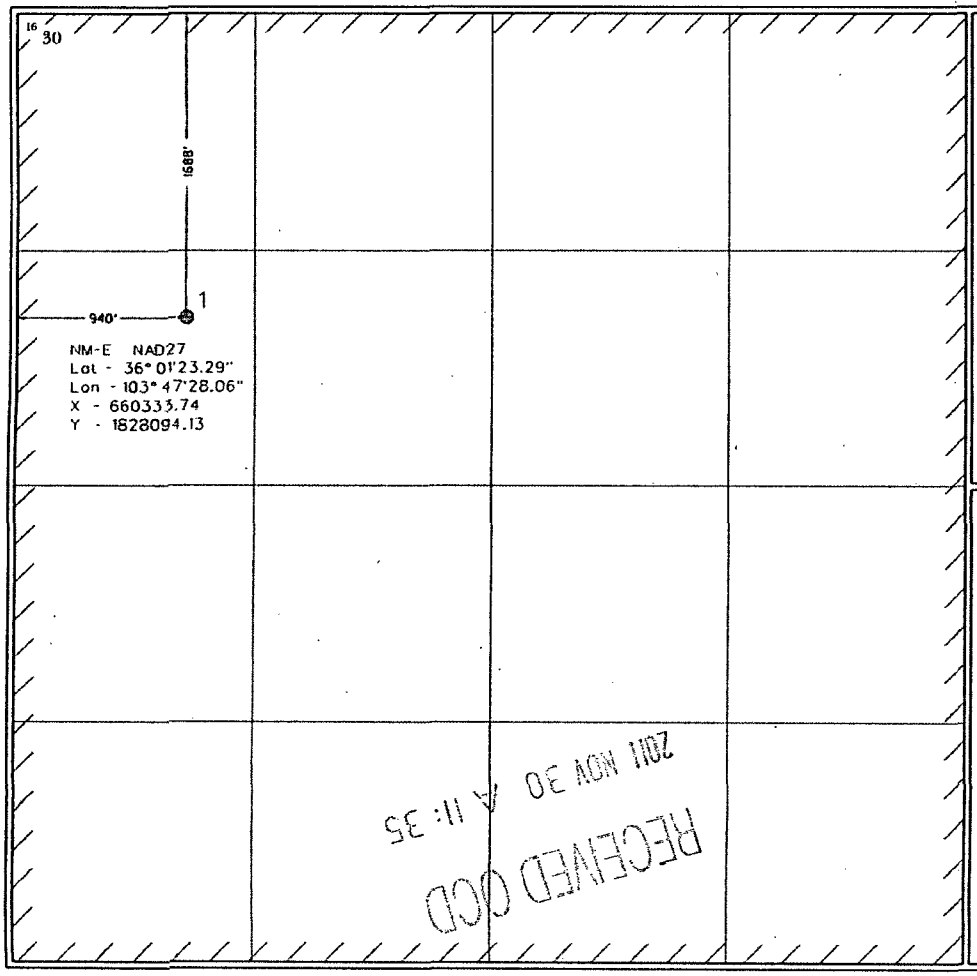
UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
E	30	21 N	30 E		1688'	NORTH	940'	WEST	HARDING

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640			

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



[17] OPERATOR CERTIFICATION

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

L. Lockett 11/17/11
Signature Date

L. Kiki Lockett
Printed Name

kiki_lockett@oxy.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

October 4, 2011
Date of Survey

Signature and Seal of Professional Surveyor

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR
Terry Asel 11/16/2011

Certificate Number 15079

APD DATA – DRILLING PLAN – Bravo Dome Unit 2130-301E

1. CASING PROGRAM

Surface Casing: 13 3/8" casing set at ± 1400 ft MD/ 1400 ft TVD in a 17 1/2" hole filled with 8.4 ppg mud

Interval	OD (in)	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)
0 - 1400	13.375	54.5 #	J-55	STC	1130	2730	514	12.615	12.459

Intermediate Casing: 9.5/8" casing set at ± 2700ft MD/ 2700ft TVD in a 12.25" hole filled with 8.9 ppg mud. (Casing point will be picked 10' into the "Cimarron")

Interval	OD (in)	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)
0-2700'	9.625	40#	N-80	LTC	3090	5750	737	8.835	8.75
	7	23#	N-80	LTC	3830	6340	442	6.250	6.361

Production Casing: 7" casing set at ± 3100ft MD/ 3100 ft TVD in a 8.75" hole filled with 14.5 ppg mud

Interval	OD (in)	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)
0 - 3100	7	23#	N-80	LTC	3830	6340	442	6.250	6.361

2. CEMENT PROGRAM:

Surface Interval

Interval	TOC	Amount (sx)	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Lead: 0' – 1100' (110% Excess)	Surface	920	1100'	Premium Plus Cement, 4% Bentonite, 2% Calcium Chloride, 0.25 lb/sk Poly-E-Flake	9.16	13.5	1.75	880 psi
Tail: 1100 – 1400' (110% Excess)	1100	380	300'	Premium Plus Cement 2% Calcium Chloride, 0.25 lb/sk Poly-E-Flake	6.35	14.8	1.35	1079 psi

Note: Surface casing will be tested to 790 psi after 8 hrs WOC time.

Intermediate Interval

Interval	TOC (MD-ft)	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Lead: 0 – 2524' (300% Excess)	Surface	670	2524'	MidCon-2 Premium Plus Cement, 2% Calcium Chloride, 0.25 lb/sk Poly-E-Flake	18.06	11.4	2.94	180 psi
Tail: 2524"– 2700' (300% Excess)	2567'	150	133'	MidCon-2 Premium Plus Cement, 2% Calcium Chloride, 0.25 lb/sk Poly-E-Flake	6.35	14.8	1.35	1300 psi

Note: Intermediate casing will be tested to 2160 psi.

Production Interval

Interval	TOC (MD-ft)	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft^3/sk	24 Hr Comp
Spacer: Tuned spacer III		20 bbl		Fe-2(Buffer), Musol(Solvent), SEM-7,Dual Spacer Surfactant., Barite, D-Air		15		
Tail: Surf: to 3100' (200% Excess)	Surf	620	3100'	MidCon-2 Premium Plus Cement, 7% Potassium Chloride, 0.5% CFR-3	4.38	16.5	1.08	4300 psi

Note: Production casing will be tested to 2680 psi.

PRESSURE CONTROL EQUIPMENT

Surface: 0 – 750' will be drilled with +/- 40' of conductor and no Preventer Equipment
Intermediate 750' – 2700' be drilled with a 13 5/8" 5M Double BOP and a 13 5/8" 5M ann prev
Production: 2700' – 3100' will be drilled with the same preventer plus a 3000 psi rotating BOP

a. The BOP will be functionally tested and pressure tested to 5000 psi high and 250 psi low upon nipple up to wellhead **initially and after each nipple up and nipple down.**. In the rare case that a well lasts longer than three weeks, the preventer will be subsequently tested every 21 days. Choke Manifolds will also be tested to 5000 psi high and 250 psi low.

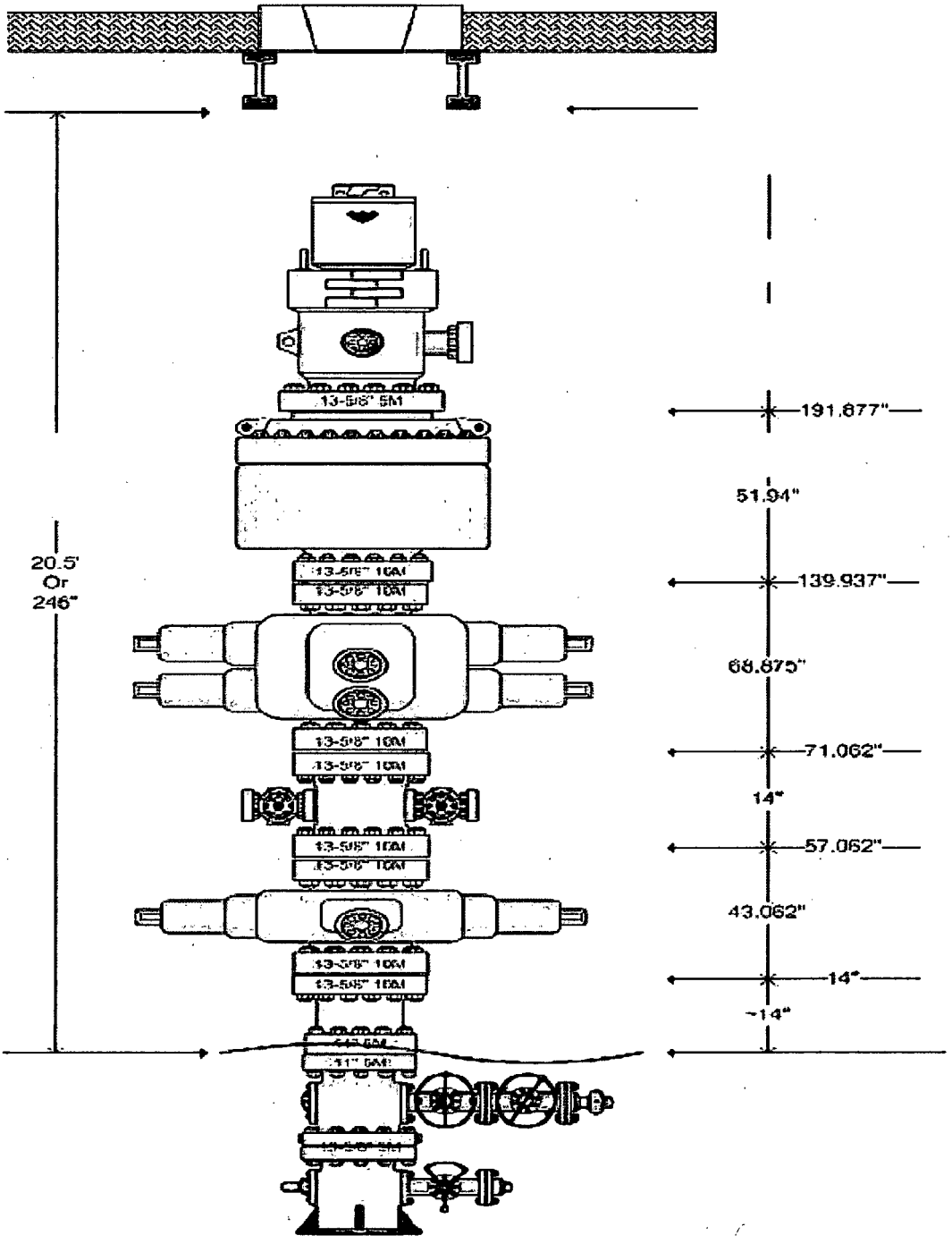
b. See BOP diagram.

c. A Kelly cock will be in the drill string at all times while drilling.

d. A full opening drill pipe stabbing valve with the appropriate connections will be on the rig floor at all times

SEE EMAIL CLARIFICATION

Note: Surface and Intermediate hole will be drilled with a reserve pit and oilbase mud After 9 5/8" casing is set and cemented then reserve pit will be partially reclaimed And the remaining 8 ¾" hole will be drilled with oil-base mud and a closed loop system utilizing haul-off bins



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

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Occidental Permian Ltd. OGRID #: 16696
Address: 5 Greenway Plaza, Suite 110, Houston, TX 77046
Facility or well name: Bravo Dome Unit Well 2130-301E
API Number: 30-021-20533 OCD Permit Number: _____
U/L or Qtr/Qtr 1688 FNL / 940 FWL Section 30 Township 21N Range 30E County: Harding
Center of Proposed Design: Latitude 36° 01' 23.29" Longitude 103° 47' 28.06" NAD: ☒ 1927 ☐ 1983
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☒ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☐ Other _____ Volume: 4000 bbl Dimensions: L 75 x W 75 x D 4

3.
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☒ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____ bbl Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method:
- ☐ Waste Excavation and Removal
- ☒ Waste Removal (Closed-loop systems only)
- ☒ On-site Closure Method (Only for temporary pits)
  - ☒ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: Gandy- Marley, P O Box 1658, Roswell, NM 88202 Disposal Facility Permit Number: NM 01-0019

Disposal Facility Name: Controlled Recovery, Hobbs, New Mexico Disposal Facility Permit Number: R9166

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

18.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): BillyRay Suggs Title: Drilling Engineer

Signature: [signature] for Billy Ray Suggs Date: 11/17/11

e-mail address: BillyRay_Suggs@oxy.com Telephone: 318-243-4065

20.
OCD Approval: ☑ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Ed Martin **Approval Date:** 12/12/2011

Title: DISTRICT SUPERVISOR **OCD Permit Number:** ______

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** ______

22.
Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: Gandy-Marley Inc., P O Box 1658 Roswell, NM 88202 Disposal Facility Permit Number: ______

Disposal Facility Name: ______ Disposal Facility Permit Number: ______

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☒ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude ______ Longitude ______ NAD: ☐1927 ☐ 1983

25.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): ______ Title: ______

Signature: ______ Date: ______

e-mail address: ______ Telephone: ______

OXY USA Inc.
P.O. 4294
Houston, TX 77210-4294

November 11, 2011

Miller Land & Cattle Co.
P.O. Box 459
Santana,KS 67870

Re: Temporary Pit Notification

Dear Miller Land & Cattle Co.,

Please be advised that OXY USA Inc., hereby gives notice of our intent to construct, operate, maintain and close temporary drilling pits in accordance with the NMOCD Pit Rule 19.15.17 effective June 16th 2008 for the following locations: Township 21N, Range 30E, Section 30.

Enclosed please find a copy of Oxy's Pit Design and Construction Plan, Oxy's Pit Maintenance and Operating Plan and Oxy's Pit Closure Plan.

If you have any questions or concerns, please contact me on my cell (318) 243-4065.

Respectfully,

Billy Ray Suggs
Drilling Engineer
OXY USA Inc.

CC: File
NMOCD

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 30 **Township:** 21N **Range:** 30E

Maintenance and Operating Plan for Temporary Pits

In accordance with Rule 19 15 17, Occidental Permian Ltd (OXY) will maintain and operate a temporary pit in accordance with the following plan:

1. OXY will discharge into a temporary pit only fluids used or generated during the drilling or workover process.

2. OXY will maintain a temporary pit free of miscellaneous solid waste or debris.

SEE EMAIL

3. Any hydrocarbon base drilling fluid generated during the drilling or workover operation will be contain in an appropriate tank, it will not be discharged into a temporary pit. If any measurable layer of oil from the surface of a temporary pit after any drilling or workover operation, OXY will remove it immediately.

4. OXY shall maintain at least two feet of freeboard for a temporary pit.

5. OXY will use a check list to perform a daily pit inspection while the drilling or workover rig is on-site. After drilling or workover operations, OXY will inspect the temporary pit weekly so long liquids remain in the temporary pit. A log of the inspections will be kept on the well file, inspections will be available for the district office's review upon request. OXY will file a copy of the log with the District IV office once temporary pit is closed.

6. OXY shall remove all free liquids from a temporary pit within 30 days from the date the drilling or workover rig is released.

7. OXY shall remove any liquids from the temporary pit used for cavitation within 48 hours after completing cavitation. OXY may request additional time to remove the liquids from The District IV Division Office if it is not feasible to remove the liquids with 48 hours.

Temporary Pit Inspection

Wellname:		API #:		Rig Mobe Date:	
County:		Pit liner thickness:		Rig Demobe Date:	

Inspection Date	Time	By Whom	Has any hazardous waste been disposed of in pit(s)?	Is the liner of the pit intact and free of penetrations?	Is there an oil absorbent boom on location?	Distance from top of pit to fluid level (minimum 2')

All pits to be inspected DAILY during drilling/workover operations.
Any penetration of the pit liner shall be reported to the NMOCD within 48 hours.

OXY Bravo Dome
Pit Closure Plan

In accordance with Rule 19 15 17 12 NMAC the following information describes the closure requirements of temporary pits on locations. This is Oxy Bravo Dome's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to NMOCD within 60 days of pit closure. Closure report will be filed on C-144 and incorporate the following

- Details on Capping and Covering, where applicable
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results

General Plan

1. Free standing liquids will be removed as soon as practical for recycle use in the drilling of other wells. Any free standing liquids that are not recycled will be removed prior to pit closure and disposed of in a division –approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. Pit solids will be allowed to air dry as completely as possible prior to starting pit closing activities.
2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (8) of 19 15 17 13 are met.
3. The surface owner shall be notified of Oxy Bravo Dome's proposed closure plan using a means that provides proof of notice i e, certified mail, return receipt requested.
4. Within 6 months of the Rig Off status occurring, Oxy Bravo Dome will ensure that temporary pits are closed, re-contoured.
5. Notice of Closure will be given to the Santa Fe Division office between 72 hours and one week of closure, via email, or verbally. The notification of closure will include the following:
    I Operator's name
    II Location by Unit Letter, Section, Township, and Range.. Well name and API number

6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner I e, edges of liner entrenched or buried. All excessive liner will be disposed of at a licensed disposal facility. Or at the request of the landowner, the deep burial pit closure method will be used.
7. Pit contents shall be tested prior to mixing of any soils. Test results will be compared to NMOCD limits. If the test results are within the NMOCD limits no soils will be mixed with the pit contents. If the sample results exceed the NMOCD limits the contents will be mixed with non-waste containing, earthen material in order to achieve the solidification process. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents. The mixed contents will then be re-tested and the results will be compared to the NMOCD limits.
8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per subsection B of 19 15 17 13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19 15 17 13 i e, Dig and Haul

Composites	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 826oB	0.2
BTEX	EPA SW-846 8021B or 826oB	50
TPH	EPA SW-846 418 1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300 1	500

9. Upon completion of testing, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
10. Re-contouring of location will match fit, shape, line , form and texture of the surrounding as closely as possible. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final

re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

11. Notification will be sent to NMOCD when the reclaimed area is seeded
12. Bravo Dome shall seed the disturbed areas upon abandonment of the pit and well site. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. Vegetative cover will equal 70% if the native perennial vegetative cover (un-impacted) consisting of at ***least three native plant species,*** including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons.
13. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicated the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following – Operator Name, Lease Name, Well name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location

Pit Design and Construction Plan

In accordance with Rule 19 15 17 the following information describes the design and construction of temporary pits on Occidental Permian Ltd (OXY) locations. This is OXY's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

1. OXY will design and construct a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.

2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.

3. OXY will post a well sign, not less than 12" by 24", on the well site prior to construction of the temporary pit. The sign will list the operator on record as the operator, the location of the well site by unit letter, section, township range, and emergency telephone numbers.

4. OXY shall construct all new fences utilizing 4 strand barbed wire. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a wooded posts. Entire location including pits will be fenced at all times.

5. OXY shall construct the temporary pit so that the foundation and interior slope are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure.

6. OXY shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot.

7. Pit walls will be walked down by a crawler type tractor following construction.

8. All temporary pits will be lined with 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.

9. Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.

10. All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep.

11. OXY will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used whenever possible. OXY will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. OXY will minimize the number of field seams in corners and irregularly shaped areas.

12. The liner shall be protected from and fluid force or mechanical damage through the use of mud pit slides, or a manifold system.

13. The pit shall be protected form run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases.

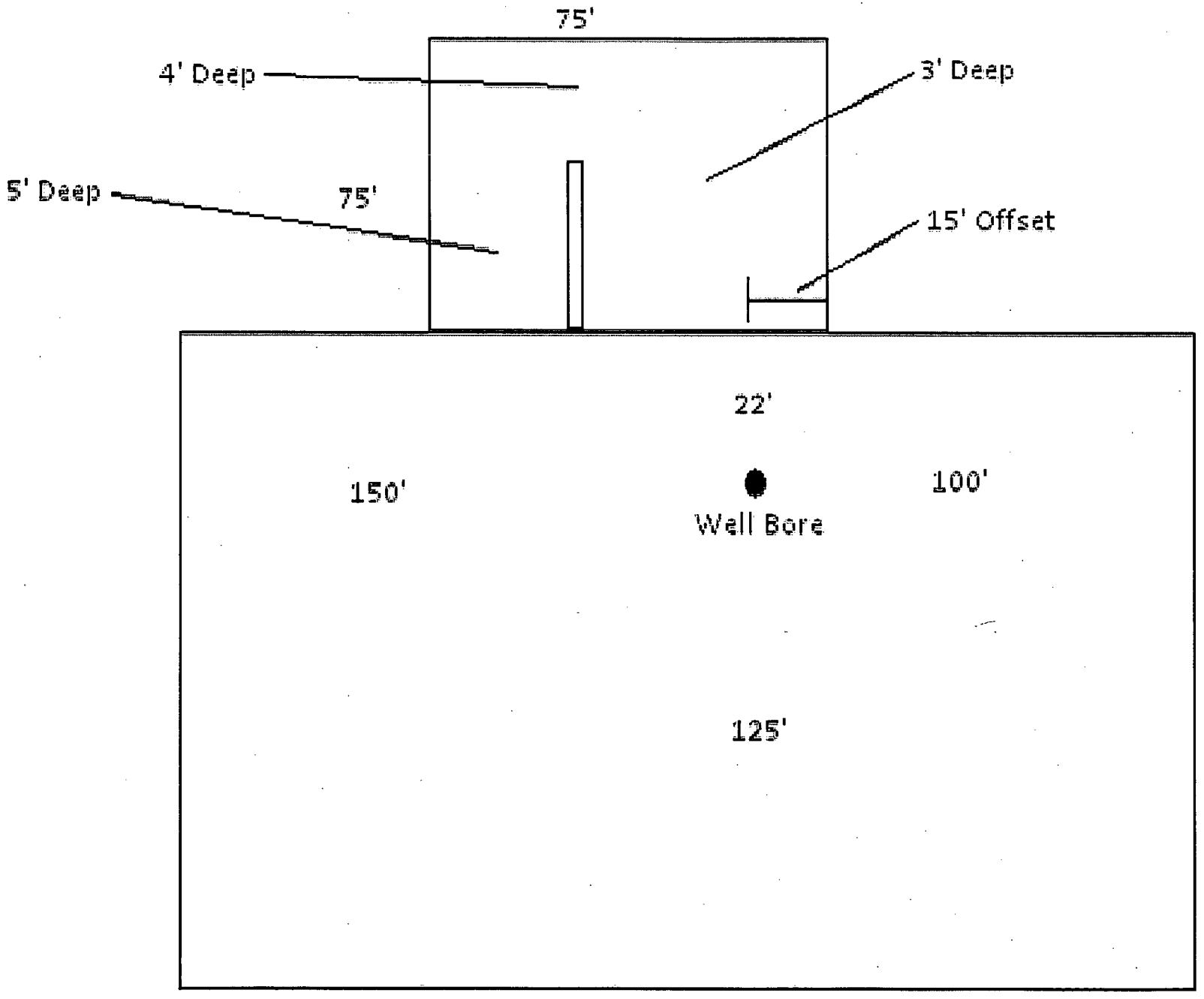
14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.

15. Temporary blow pits will be constructed to allow gravity flow to discharge into the lined drill pit.

16. The lower half of the blow pit (nearest lined pit) will be lined with 20 mil liner. The upper half of the blow pit will remain unlined as allowed in Rule 19 15 17 11 F 11.

17. OXY will not allow freestanding liquids to remain on the unlined portion of the blow pit.

BRAVO DOME 2011 DRILLING PAD



Martin, Ed, EMNRD

From: Filip_Krneta@oxy.com
Sent: Monday, December 05, 2011 11:53 AM
To: Kiki_Lockett@oxy.com
Cc: Martin, Ed, EMNRD
Subject: RE: APD for 2130-301E

It is worded wrong. We will drill the surface(17.5") hole and the intermediate(12 ¼") hole with freshwater mud circulating through the steel pits. We will then empty out the steel pits and dump the fresh water mud to the reserve pits. Only the production hole(8 ¾") will be drilled with oil based mud at which point which we will also circulate through the steel pits. We will have a cuttings box at this point to collect all the cuttings while drilling with the oil based mud. We will then dispose of those cuttings.

Thanks,

Filip Krneta
Drilling Engineer - Oxy Permian
Occidental Oil & Gas - 5 Greenway Plaza Houston, TX 77042
Office 713-350-4751
Cell 713-447-0376
Email Filip_Krneta@oxy.com

From: Lockett, Kiki
Sent: Monday, December 05, 2011 9:52 AM
To: Krneta, Filip
Subject: FW: APD for 2130-301E

Please advise...

From: Martin, Ed, EMNRD [mailto:ed.martin@state.nm.us]
Sent: Friday, December 02, 2011 2:57 PM
To: Lockett, Kiki
Subject: APD for 2130-301E

Note on page 3 of Drilling Plan says that surface and intermediate hole will be drilled with a reserve pit and oil based mud.

Page 1 of Maintenance and Operating Plan for Temporary Pits (item 3) says that any hydrocarbon based drilling fluid generated during the drilling or workover operation will be contained in an appropriate tank, it will not be discharged into a temporary pit.

Which of these is correct? Will the oil-based mud be discharged into the reserve pit?

Ed Martin
New Mexico Oil Conservation Division
District IV Supervisor
1220 S. St. Francis
Santa Fe, NM 87505
Work: 505-476-3470
Cell: 505-690-2365
Home: 505-685-4056