

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL  
OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR  
OXY USA Inc. 16696

3. ADDRESS AND TELEPHONE NO.  
P.O. BOX 50250 MIDLAND, TX 79710-0250 915-685-5717

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements\*)  
At surface 660 FNL 1650 FEL NWNE(B)  
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
10 miles east of Artesia, NM

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
660'

16. NO. OF ACRES IN LEASE  
320

17. NO. OF ACRES ASSIGNED TO THIS WELL  
320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.  
N/A

19. PROPOSED DEPTH  
9200'

20. ROTARY OR CABLE TOOLS  
R

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3495'

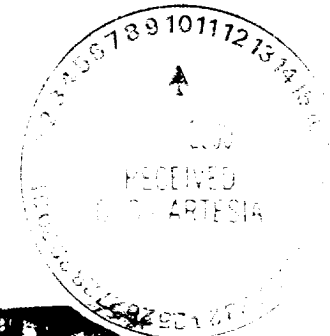
22. APPROX. DATE WORK WILL START\*  
9/25/00

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H40	48#	400'	360sx - Circulate
11"	8-5/8" K55	32#	1500'	515sx - Circulate
7-7/8"	4-1/2" N80	11.6#	9200'	690sx - Est TOC 5800'

SEE OTHER SIDE

APPROVAL SUBJECT  
GENERAL REQUIREMENTS  
SPECIAL STIPULATIONS  
ATTACHED



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNATURE: David Stewart TITLE: DAVID STEWART  
REGULATORY ANALYST DATE: 8/24/00

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE: \_\_\_\_\_

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 there. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY: [Signature] Assistant Field Manager, Lands And Minerals DATE: OCT 10 2000

\*See Instructions On Reverse Side

OKY Shania Bear Federal #1  
660 FNL 1650 FEL NWNE(B) SEC 7 T17S R28E Eddy County, NM  
Federal Lease No.

PROPOSED TD: 9200' TVD

BOP PROGRAM: 0' - 400' None

400' - 1500' 11" 5M blind and pipe rams with 5M annular preventer.

1500' - 9200' 11" 5M blind pipe rams with 5M annular preventer and rotating head below 6000'.

CASING: Surface: 13-3/8" OD 48# H40 ST&C new casing set at 400'  
Intermediate: 8-5/8" OD 32# K55 ST&C new casing from 0-1500'  
Production: 4-1/2" OD 11.6# N80 LT&C new casing from 0-9200'

CEMENT: Surface - Circulate cement with 160sx 35:65 POZ/C with 6% Bentonite + 2%  $\text{CaCl}_2$  + .25#/sx Cello-Seal followed by 200sx Cl C with 2%  $\text{CaCl}_2$ .

Intermediate - Circulate cement with 315sx 35:65 POZ/C with 6% Bentonite + 2%  $\text{CaCl}_2$  + .25#/sx Cello-Seal followed by 200sx Cl C with 2%  $\text{CaCl}_2$ .

Production - Cement with 615sx 15:61:11 POZ/C/CSE with .5% FL-52 + .5% FL-25 + 8#/sx Gilsonite followed by 75sx Cl C with .7% FL-25.

Estimated top of cement is 5800'.

Note: Cement volumes may need to be adjusted to hole caliper.

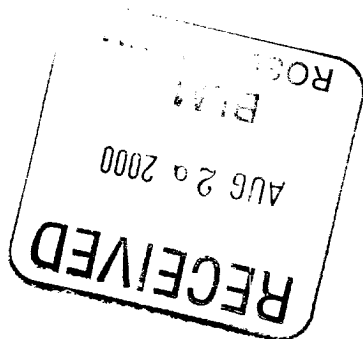
MUD: 0 - 400' Fresh water/native mud. Lime for pH control (9-10). Paper for seepage. Wt 8.7-9.2 ppg, Vis 32-34 sec

400' - 1500' Fresh/\*Brine water. Lime for pH control (10.0-10.5). Paper for seepage. Wt 8.3-9.0/10.0-10.1ppg, Vis 28-29 sec  
\*Fresh water will be used unless chlorides in the mud system increases to 20000ppm.

1500' - 5800' Fresh water. Lime for pH control (9-9.5). Paper for seepage. Wt 8.3-8.5 ppg, Vis 28-29 sec

5800' - 8200' Cuf brine. Lime for pH control (10-10.5). Wt 9.6-10.0 ppg, Vis 28-29sec

8200' - 9200' Mud up with an Duo Vis/Flo Trol mud system. Wt 9.6-10.0ppg, Vis 32-36sec, WL<10cc



DISTRICT I  
1626 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-	Pool Code 75720	Pool Name Undesignated Crow Flats Morrow
Property Code	Property Name OXY SHANIA BEAR FEDERAL	Well Number 1
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3495'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	7	17 S	28 E		660	NORTH	1650	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

Dedicated Acres 320	Joint or Infill N	Consolidation Code	Order No.
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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

	Lat - N32°51'15.0" Lon - W104°12'42.9"	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature David Stewart Printed Name Regulatory Analyst Title 8/24/00 Date
		<b>SURVEYOR CERTIFICATION</b>  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.   Date Surveyed Signature of L. Jones Professional Surveyor Certificate No. 04984 Jones 7977 BASIN SURVEYS



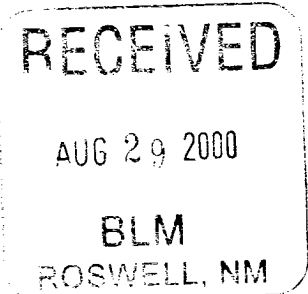
OXY USA Inc.

P.O. Box 50250, Midland, TX 79710-0250

August 24, 2000

United States Department of the Interior  
Bureau of Land Management  
Roswell District Office  
2909 West Second Street  
Roswell, New Mexico 88201

Re: Application for Permit to Drill  
OXY USA Inc.  
OXY Shania Bear Federal #1  
Eddy County, New Mexico  
Lease No. NM12110



Gentlemen:

OXY USA Inc. respectfully requests permission to drill our OXY Shania Bear Federal #1 located 660 FNL and 1650 FEL of Section 7, T17S, R28E, Eddy County, New Mexico, Federal Lease No. NM12110. The proposed well will be drilled to a TD of approximately 9200' (TVD). The location and work area has been staked. It is approximately 10 miles east of Artesia, New Mexico.

In accordance with requirements stipulated in Federal Onshore Oil and Gas Order No. 1 under 43 CFR 3162.1, our Application for Permission to Drill and supporting evidence is hereby submitted.

I. Application for Permit to Drill:

1. Form 3160.3, Application for Permit to Drill.
2. Form C-102 Location and Acreage Dedication Plat certified by Gary L. Jones, Registered Land Surveyor No. 7977 in the State of New Mexico, dated July 25, 2000.
3. The elevation of the unprepared ground is 3495 feet above sea level.
4. The geologic name of the surface formation is Permian Rustler.
5. Rotary drilling equipment will be utilized to drill the well to TD 9200' (TVD), and run casing. This equipment will then be rigged down and the well will be completed with a pulling unit.
6. Proposed total depth is 9200' TVD.
7. Estimated tops of important geologic markers.

Wolfcamp	6300' TVD
Strawn	8600' TVD
Atoka	8800' TVD
Morrow	9000' TVD

8. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Primary Objective:	Morrow	9000' TVD
Secondary Objective:	Atoka	8800' TVD

9. The proposed casing program is as follows:

Surface: 13-3/8" 48# H40 ST&C new casing set at 400'  
Intermediate: 8-5/8" 32# K55 ST&C new casing from 0-1500'  
Production: 4-1/2" 11.6# N80 LT&C new casing from 0-9200'

10. Casing setting depth and cementing program:

- A. 13-3/8" surface casing set at 400' in 17-1/2" hole.  
Circulate cement with 160sx 35:65 POZ/C w/ 6% Bentonite + 2%  $\text{CaCl}_2$  + .25#/sx Cello-Seal followed by 200sx Class C w/ 2%  $\text{CaCl}_2$ .

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2%  $\text{CaCl}_2$ .

- B. 8-5/8" intermediate casing set at 1500' in 11" hole.  
Circulate cement with 315sx 35:65 POZ/C w/ 6% Bentonite + 2%  $\text{CaCl}_2$  + .25#/sx Cello-Seal followed by 200sx Class C w/ 2%  $\text{CaCl}_2$ .

If hole conditions dictate, a DV tool may be run to ensure that the intermediate string is cemented to surface.

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2%  $\text{CaCl}_2$ .

Note: Cement volumes may be adjusted according to fluid caliper.

- C. 4-1/2" production casing set at 9200'. Cement with 615sx 15:61:11 POZ/C/CSE w/ .5% FL-25 + .5% FL-52 + 8#/sx Gilsonite followed by 75sx Class C w/ .7% FL-25.

Estimated top of cement is 5800'.

Note: Cement volumes may need to be adjusted to hole caliper.

11. Pressure Control Equipment

0' - 400'	None
400' - 1500'	11" 5000# ram type preventers with one set blind rams and one set pipe rams and a 5000# annular preventer.
1500' - 9200'	11" 5000# ram type preventers with one set blind rams and one set pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 5800'. Exhibit A.

A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

After setting the 8-5/8" casing, the blowout preventers and related control equipment shall be pressure tested to 5000 psi. Any equipment failing to test satisfactorily shall be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log. The BOP's will be maintained ready for use until drilling operations are completed.

BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

12. Mud Program:

0 - 400'	Fresh water/native mud. Lime for pH control (9-10). Paper for seepage. Wt. 8.7-9.2 ppg, vis 32-34 sec.
400' - 1500'	Fresh/*brine water. Lime for pH control (10-10.5). Paper for seepage. Wt. 8.3-9.0/10.0-10.1ppg, vis 28-29 sec. *Fresh water will be used unless chlorides in the mud system increase to 20000PPM.
1500' - 5800'	Fresh water. Lime for pH control (9-9.5). Paper for seepage. Wt. 8.3-8.5 ppg, vis 28-29 sec.
5800' - 8200'	Cut brine. Lime for pH control (10-10.5). Wt. 9.6-10.0 ppg, vis 28-29 sec.
8200' - 9200'	Mud Up with an Duo Vis/Flo Trol system. Wt. 9.6-10.0 ppg, Vis 32-36sec, WL<10cc.

Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1) A recording pit level indicator.
- 2) A pit volume totalizer.
- 3) A flowline sensor.

13. Testing, Logging and Coring Program:
  - A. Testing program: No DST's are anticipated.
  - B. Mud logging program: One-man unit from 6000' to TD.
  - C. Electric logging program: CNL/LDT/CAL/GR, DLL/CAL/GR.
  - D. Coring program: Possible sidewall rotary cores.
14. No abnormal temperatures, or H2S gas are anticipated. The highest anticipated pressure gradient would be .55psi/ft. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.
15. Anticipated starting date is September 25, 2000. It should take approximately 28 days to drill the well and another 10 days to complete.
16. The Multi-Point Surface Use & Operation Plan is attached.
17. If the Bureau of Land Management needs additional information to evaluate this application, please advise.

Very truly yours,



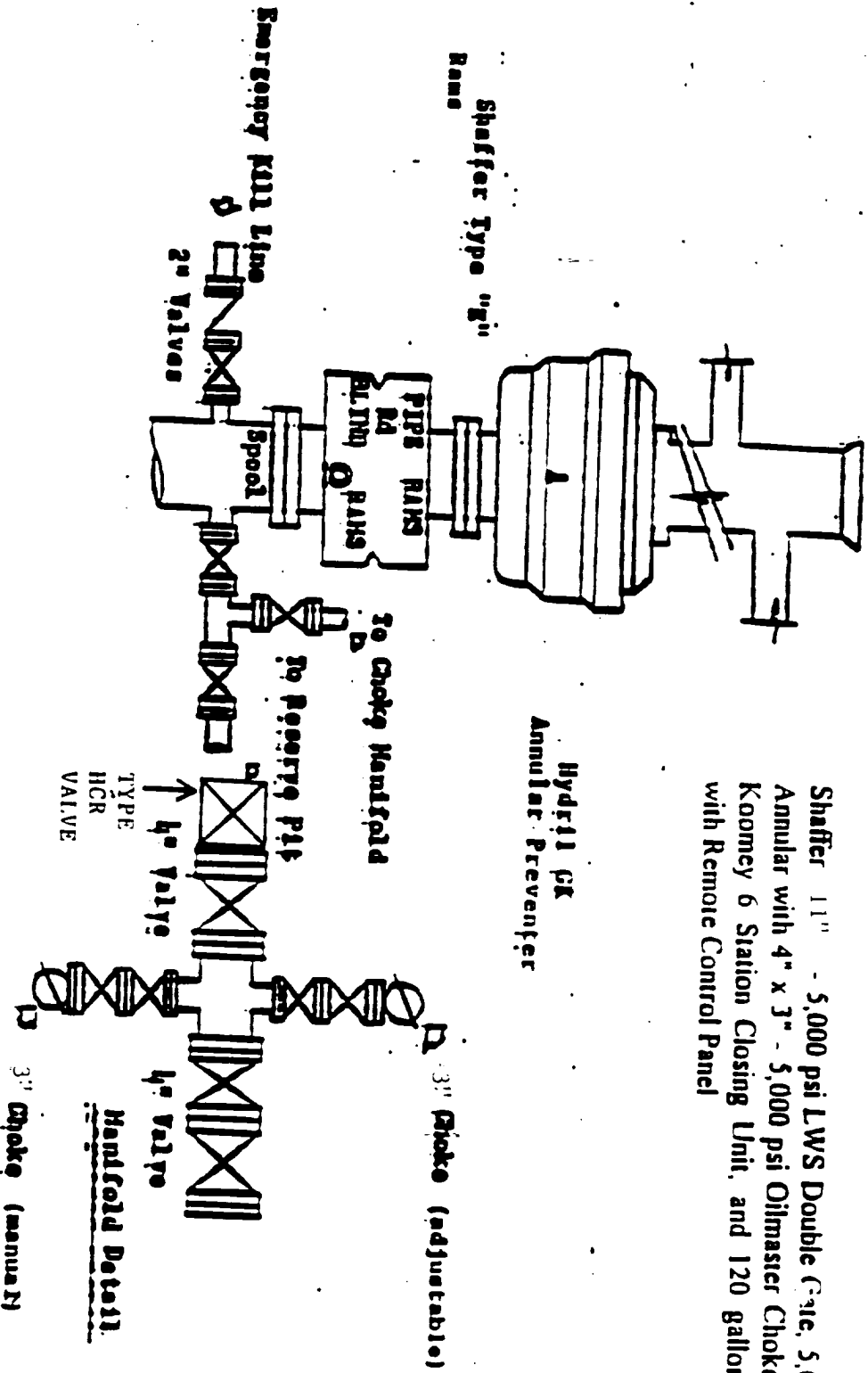
David Stewart  
Regulatory Analyst  
Permian Asset Group  
OXY USA Inc.

DRS/drs

Attachments

# BLOWOUT PREVENTOR SCHEMATIC

EXHIBIT A



Shaffer 11" - 5,000 psi LWS Double Gate, 5,000 psi Shaffer Annular with 4" x 3" - 5,000 psi Oilmaster Choke Manifold and Koomey 6 Station Closing Unit, and 120 gallon Accumulator with Remote Control Panel

Choke Manifold

## MULTI-POINT SURFACE USE AND OPERATIONS PLAN

OXY USA Inc.  
OXY Shania Bear Federal #1  
Eddy County, New Mexico  
Lease No. NM12110

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to identify the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal may be made of the environmental effects associated with the operation.

The well, and work area have been staked by a registered New Mexico land surveyor. Desert West has been engaged to make an archaeological reconnaissance of the work area. Their findings concerning cultural resources will be reported to the Bureau of Land Management.

### 1. Existing Roads

A copy of a USGS "Red Lake, SE New Mexico" quadrangle map is attached showing the proposed location. The well location is spotted on this map, which also shows the existing road system. Exhibit B.

Directions to location:

From the junction of USH 82 and CR 202. Turn left on CR 202, go 2.7 miles. Turn right and follow lease road .7 mile, the proposed location is approximately 500' southwest.

### 2. Planned Access Road

- A. A new access road will built. The access road will run approximately 533' southwest. Exhibit B.
- B. Surfacing material: Six inches of caliche and water, compacted and graded.
- C. Maximum Grade: Less than 3%
- D. Turnouts: None needed.
- E. Drainage Design: N/A.
- F. Culverts: None needed.
- G. Cuts and Fills: Leveling the location will require minimal cuts or fills.
- H. Gates or Cattleguards: None required.

### 3. Existing wells within a one mile radius of the proposed development well are shown on Exhibit C.

### 4. Location of Existing and/or Proposed Facilities

- A. If the well is productive, production facilities will be constructed on the well pad. The facility will consist of a stack pack, one 300 bbl oil tank and one 300 bbl fiberglass water tank. All permanent above ground facilities will be painted in accordance with the BLM's painting guidelines simulating the color of sandstone brown.

Multi-Point Surface Use and Operations Plan

OXY Shania Bear Federal #1

Page 2

- B. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to and a site security plan will be submitted for the OXY Shania Bear Federal #1 tank battery. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

5. Location and Type of Water Supply

Fresh water and brine water will be used to drill this well. It will be purchased from a supply in Loco Hills and transported to the well site.

6. Source of Construction Materials

Caliche for surfacing the well pad will be obtained from a Federal pit located in Section 12, T20S, R27E, Eddy County, New Mexico.

7. Method of Handling Waste Disposal

- A. Drill Cuttings will be disposed of in drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage and junk will be collected in steel trash bins and removed after drilling and completion operations are completed. All waste material will be contained to prevent scattering by the wind.
- F. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. Ancillary Facilities

- A. None needed.

9. Wellsite Layout

- A. The location and dimensions of the well pad, mud pits, reserve pit and location of major rig components are shown on the well site layout sketch. The V-door will be to the east and the pits to the north. Exhibit D.
- B. Leveling of the wellsite will be required with minimal cuts or fills anticipated.
- C. The reserve pit will be plastic lined.
- D. While constructing the pits and material is encountered at a depth which would not allow the pits to meet the BLM stipulations without blasting, OXY requests a variance. There will be an adequate amount of material to reclaim the pit per the stipulations.
- E. The pad and pit area have been staked and flagged.

10. Plans for Restoration of the Surface

- A. After completion of drilling and/or completion operations, all equipment and other materials not needed for operations will be removed.
- B. Pits will be filled and location cleaned of all trash and junk to leave the well site in as aesthetically pleasing condition as possible. Any plastic material used to line the pits or sumps will be cut off below ground level as far as possible and disposed of before the pits are covered. All unattended pits containing liquid will be fenced and the liquid portion allowed to evaporate before the pits are broken and backfilled.
- C. After abandonment of the well, surface restoration will be in accordance with the land owner. This will be accomplished as expeditiously as possible. Barring unforeseen problems, all pits will be filled and leveled within 90 days after abandonment.

11. Surface Ownership

The wellsite is on Federal owned surface. The surface is leased to: Bogle LTD., P.O. Box 460, Dexter, NM 88230-0460. They will be notified of our intention to drill prior to any activity.

12. Other Information

- A. Topography: The location is a flat plain. GL elevation is 3495'.
- B. Soil: Sandy clay loams.
- C. Flora and Fauna: The vegetative cover is generally sparse consisting of mesquite, yucca, shinnery oak, sandsage and perennial native range grasses. Wildlife in the area is also sparse consisting of coyotes, rabbits, rodents, reptiles, dove and quail.
- D. Ponds and Streams: There are no rivers, streams, lakes or ponds in the area.
- E. Residences and Other Structures: There are no occupied dwellings within a ½ mile radius of the location.
- F. Archaeological, Historical and Cultural Sites: Cultural resources have been recorded in the area. Desert West will be engaged to make an archaeological reconnaissance of the work area.
- G. Land Use: Cattle ranching.
- H. The well site, if a producer, will be maintained and kept clean of all trash and litter which detracts from the surrounding environment. Equipment will be maintained in accordance with good operating practice.

Multi-Point Surface Use and Operations Plan

OXY Shania Bear Federal #1

Page 4

- I. After the wellsite is cleaned and pits and sumps backfilled, any obstruction to the natural drainage will be corrected by ditching or terracing. All disturbed areas, including any access road no longer needed, will be ripped. Those areas will be reseeded with grass if, in the opinion of the land owner, it is required.

13. Operator's Representatives and Certification

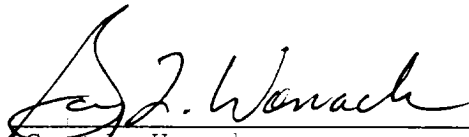
The field representative responsible for assuring compliance with the approved surface use and operations plan are as follows:

Joe Gibson, Production Coordinator  
P.O. Box 69  
Hobbs, New Mexico 88240  
Office Phone: 505-393-2174  
Home Phone: 505-390-4988

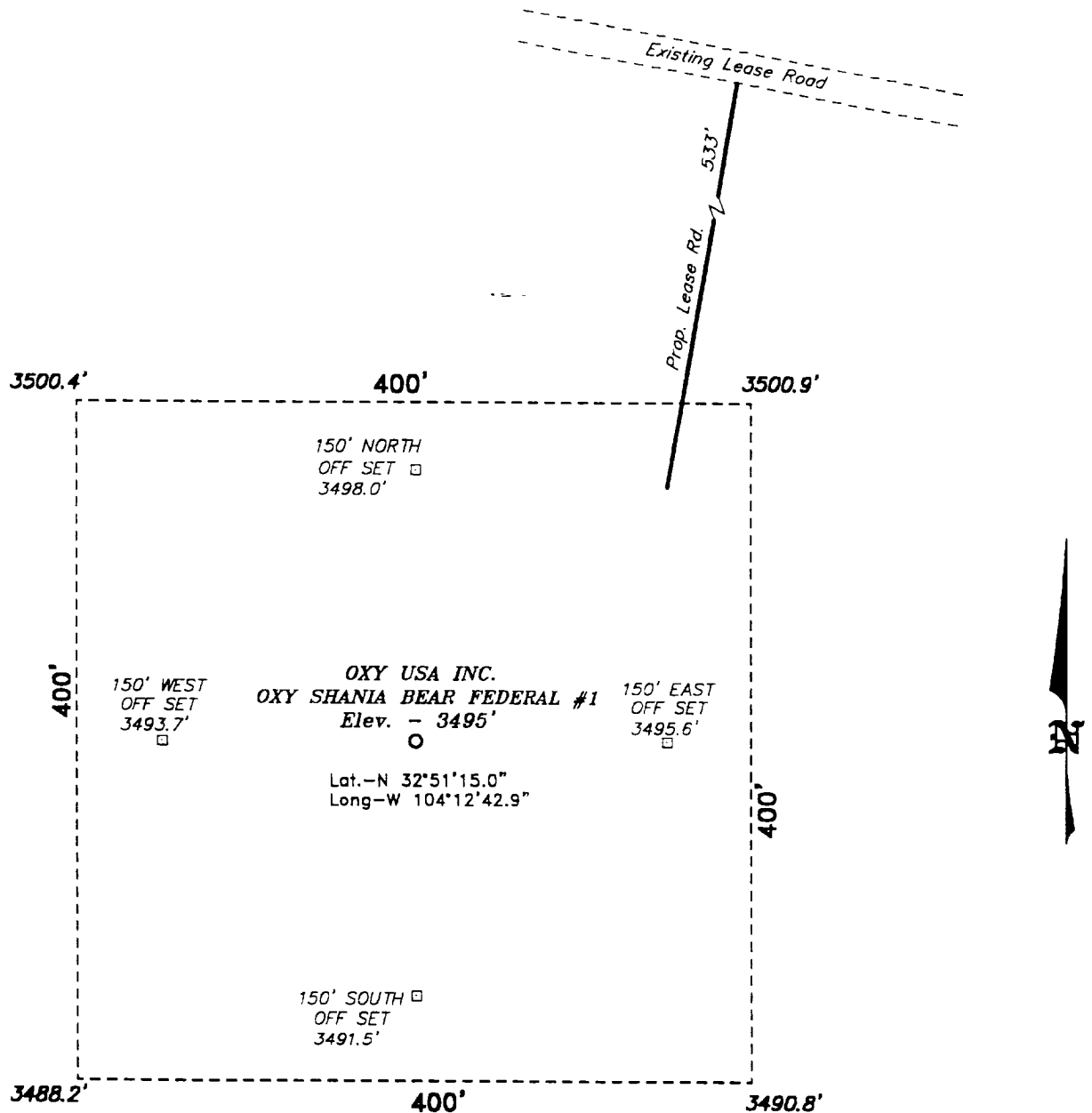
Joe Fleming  
P.O. Box 50250  
Midland, TX 79710-0250  
Office Phone: 915-685-5858

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by OXY USA Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

8-25-00  
DATE

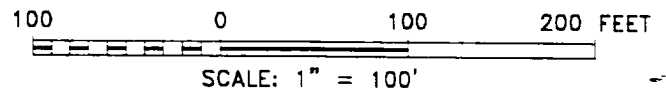
  
\_\_\_\_\_  
Gary L. Womack  
Operations Engineer  
915-685-5772  
Permian Asset Group  
OXY USA Inc.

**SECTION 7, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.**



**DIRECTIONS TO LOCATION:**

FROM THE JUNCTION OF US HWY 82 AND CO. RD. 202, GO  
NORTH ON CO. RD. 202 APPROX. 2.75 MILES TO A POINT  
WHICH LIES 1.5 MILE WEST OF THE WELL LOCATION.



**Oxy USA Inc.**

REF: Oxy Shania Bear Fed. #1 / Well Pad Topo

THE OXY SHANIA BEAR FED. No. 1 LOCATED 660' FROM

THE NORTH LINE AND 1650' FROM THE EAST LINE OF

SECTION 7, TOWNSHIP 17 SOUTH, RANGE 28 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

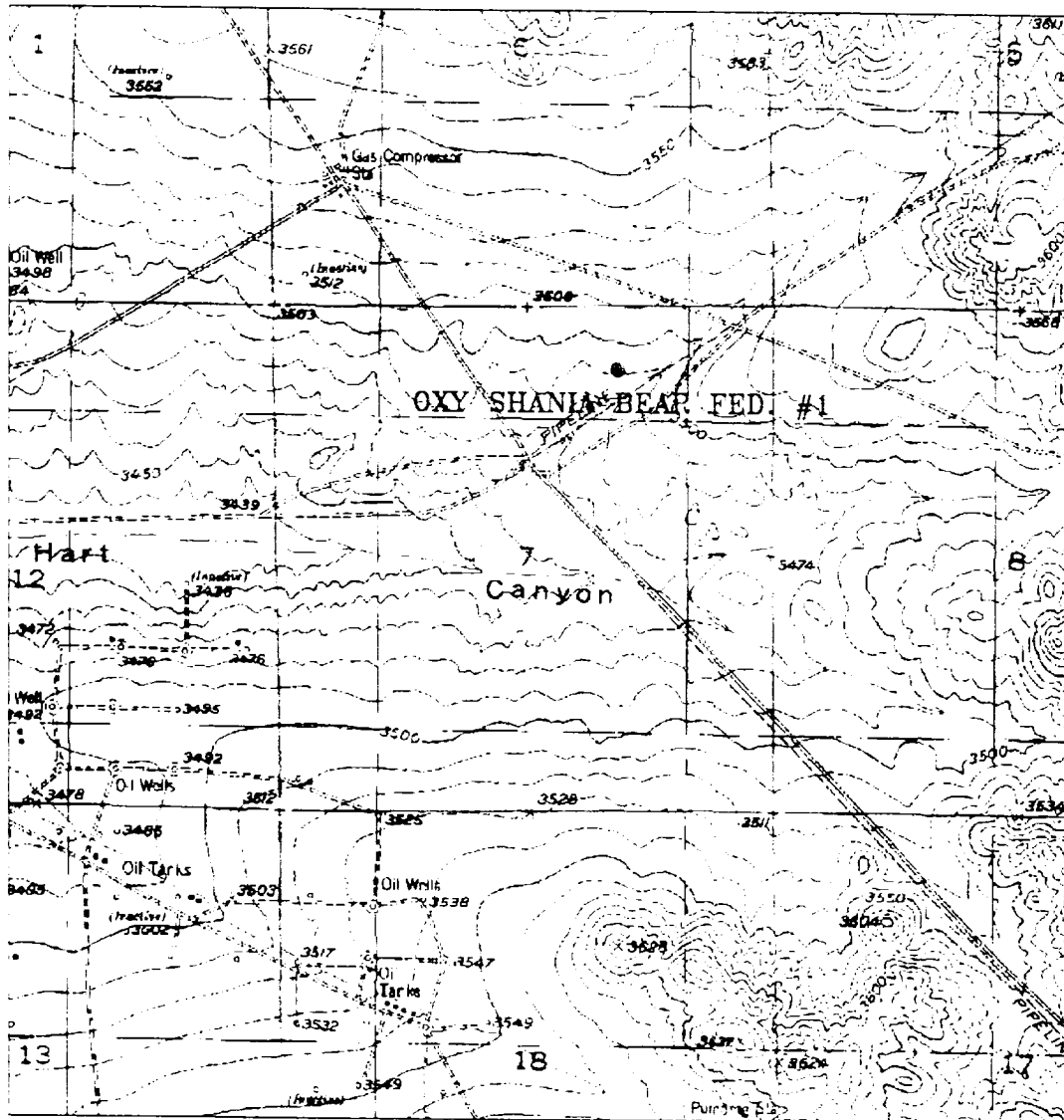
**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 0406

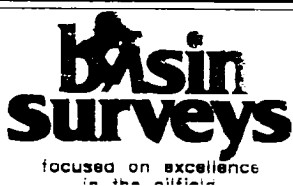
Drawn By: **K. GOAD**

Date: 07-27-2000

EXHIBIT B



OXY SHANIA BEAR FEDERAL #1  
 Located at 660' FNL and 1650' FEL  
 Section 7, Township 17 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basinsurveys.com

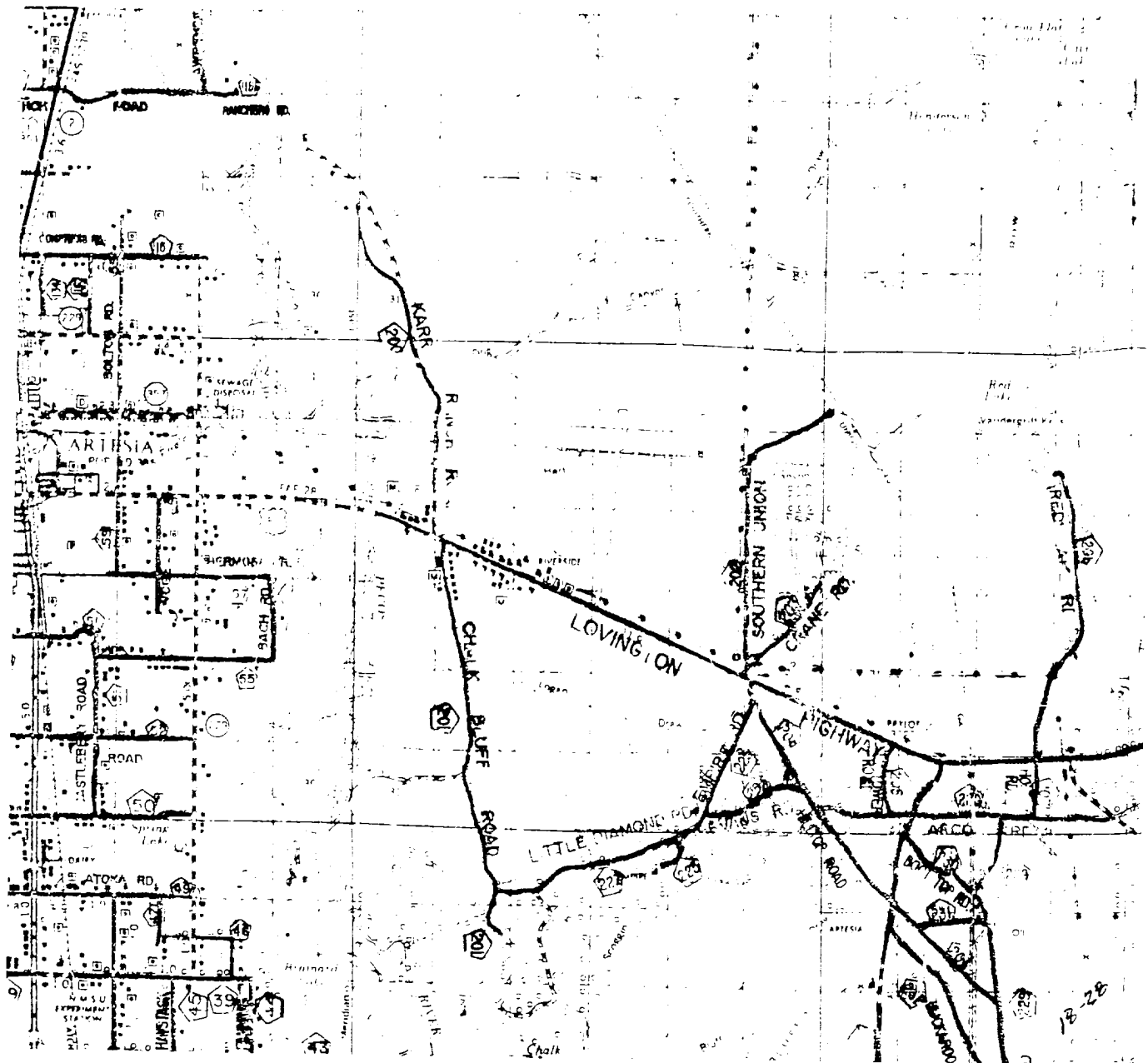
W.C. Number: 0406A - KUG #122

Survey Date: 07-25-2000

Scale: 1" = 2000'

Date: 07-27-2000

OXY USA INC.



OXY SHANIA BEAR FEDERAL #1  
 Located at 660' FNL and 1650' FEL  
 Section 7, Township 17 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
 focused on excellence

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax

W.O. Number: 0406AA - KJG #122

Survey Date: 07-25-2000

Scale: 1" = 2 MILES

OXY USA INC.

# EXHIBIT C

