

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTN.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210FORM APPROVED
OMB NO. 1004-0136
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

File Serial No.
NM 022535900

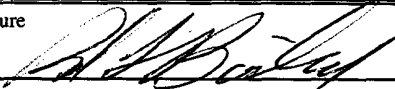
1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6. If Indian, Allottee or Tribe Name	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. Unit or CA Agreement Name and No.	
2. Name of Operator KERR-MCGEE OIL & GAS ONSHORE LLC		8. Lease Name and Well No. FEDERAL 28 #4	
3a. Address 16666 Northchase Houston, TX 77060		9. API Well No. 30-015- 33402	
3b. Phone No. (include area code) 281 673-6590		10. Field and Pool, or Exploratory INDIAN BASIN UPPER PENN GAS	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1725 FNL & 1750 FEL SEC 28 T 21-S, R 23-E At proposed prod. zone 1725 FNL & 1750 FEL SEC 28 T 21-S R 23-E		11. Sec., T., R., M., or Blk. and Survey or Area SEC. 28, T 21 S, R 23 E	
14. Distance in miles and direction from nearest town or post office* 30 MILES NORTH NORTHWEST OF CARLSBAD, NEW MEXICO		12. County or Parish EDDY	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 1725	16. No. of Acres in lease 640	17. Spacing Unit dedicated to this well 640	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1624'	19. Proposed Depth 8000'	20. BLM/BIA Bond No. on file APR 16 2004 COP-ARTESIA	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3931 GR	22. Approximate date work will start* 05/01/04	23. Estimated duration 30 days	

24. Attachments

ROSWELL CONTROLLED WATER BASIN

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

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

25. Signature 	Name (Printed/Typed) ROD L. BAILEY	Date 03/09/04
Title MANAGER OF PRORATIONS		
Approved by (Signautre) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 15 APR 2004
Title ACTING 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 1 YEAR

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 Reverse)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATORS

**KERR McGEE OIL & GAS ONSHORE LLC
16666 NORTHCHASE
HOUSTON, TEXAS 77060**

**THE UNDERSIGNED ACCEPTS ALL APPLICABLE TERMS, CONDITIONS,
STIPULATIONS, AND RESTRICTIONS CONCERNING OPERATIONS
CONDUCTED ON THE LEASWED LAND OR PORTION THEREOF, AS
DESCRIBED BELOW:**

WELL: FEDERAL 28-4

LEASE NO: NM-022535

LEGAL DESCRIPTION OF LAND : SEC 28, T21S, R23E

FORMATION: INDIAN BASIN UPPER PENN

**BOND COVERAGE: KERR McGEE OIL & GAS ONSHORE LLC - STATE
APPROVED**

AUTHORIZED SIGNATURE:


Rod L. Bailey

TITLE: MANAGER OF PRORATIONS

DATE: MARCH 09, 2004

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 79040	Pool Name INDIAN BASIN UPPER PENN/PRO GAS
Property Code 024477	Property Name FEDERAL 28	Well Number 4
OGRID No. 12558	Operator Name KERR-McGEE OIL & GAS ONSHORE, LLC	Elevation 3931'

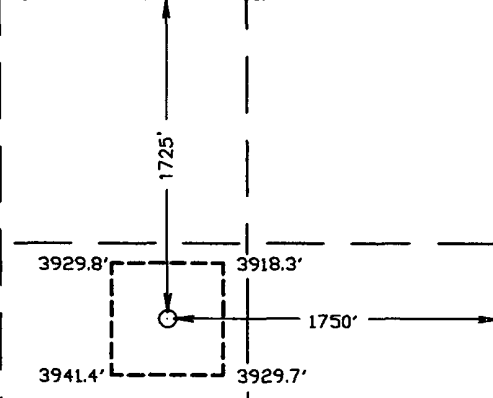
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	28	21-S	23-E		1725	NORTH	1750	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	Joint or Infill	Consolidation Code	Order No.						

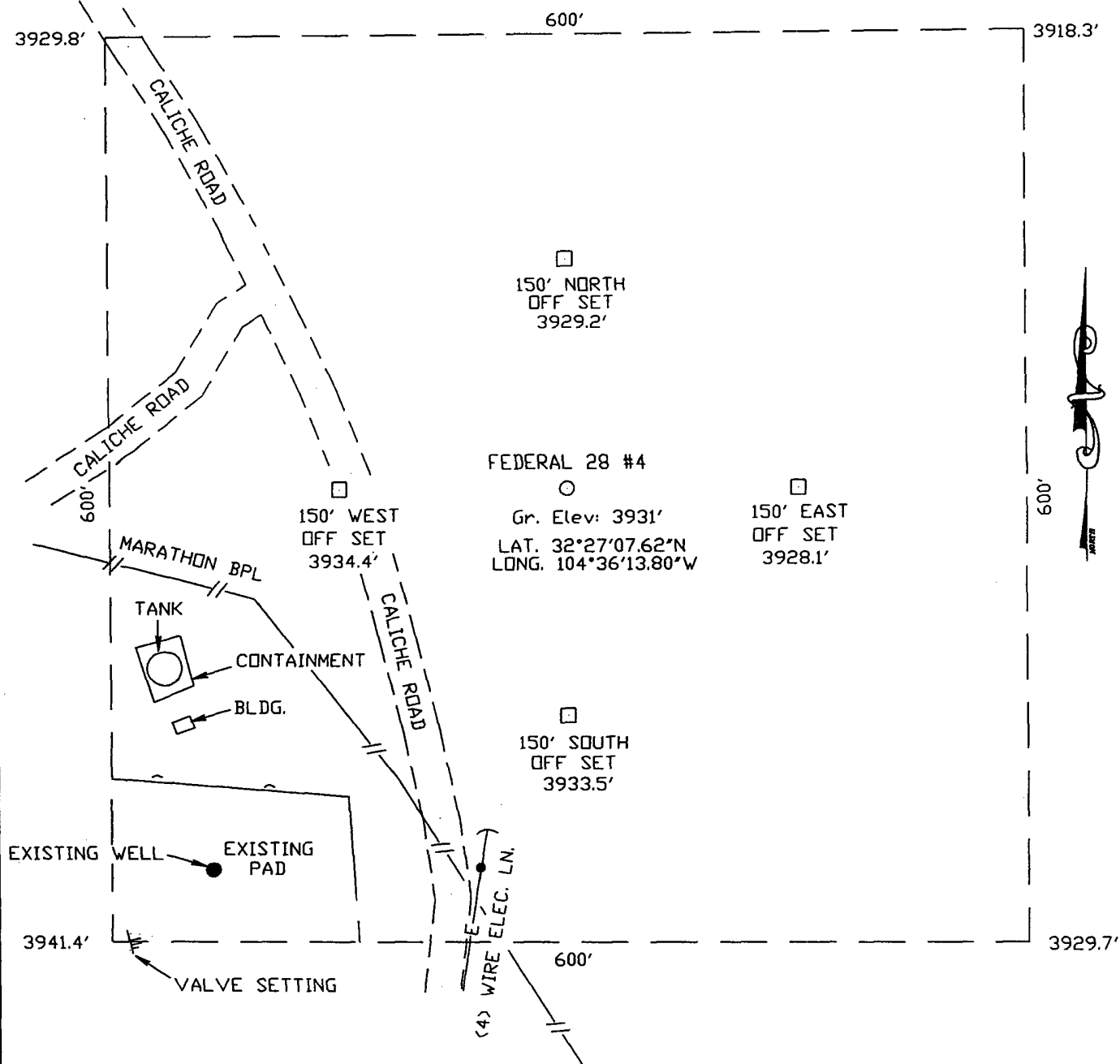
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

 <p>GEODETIC COORDINATE NAD 27 NME Y = 528299.2 N X = 416560.0 E LAT. 32°27'07.62"N LONG. 104°36'13.80"W</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Beverly Hoffman</i> Signature BEVERLY HOFFMAN Printed Name PRODUCTION ANALYST Title 3/9/04 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>March 05, 2004</p> <p>Date Surveyed Signature & Seal of Professional Surveyor <i>GARY EIDSON</i> 04-110261 Certificate No. GARY EIDSON 12641</p>
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SECTION 28 TOWNSHIP 21 SOUTH, RANGE 23 EAST, N.M.P.M.,

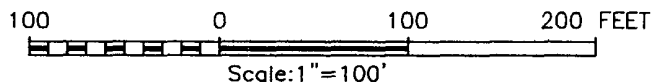
EDDY COUNTY,

NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF STATE HWY #137 AND PONDEROSA RD. GO WEST SOUTHWEST ALONG STATE HWY #137 APPROX. 0.5 MILES. TURN LEFT (SOUTH) ALONG CALICHE LEASE RD. APPROX. 0.7 MILES. THIS LOCATION IS APPROX. 125' EAST IN PASTURE.



KERR McGEE OIL & GAS ONSHORE. LLC

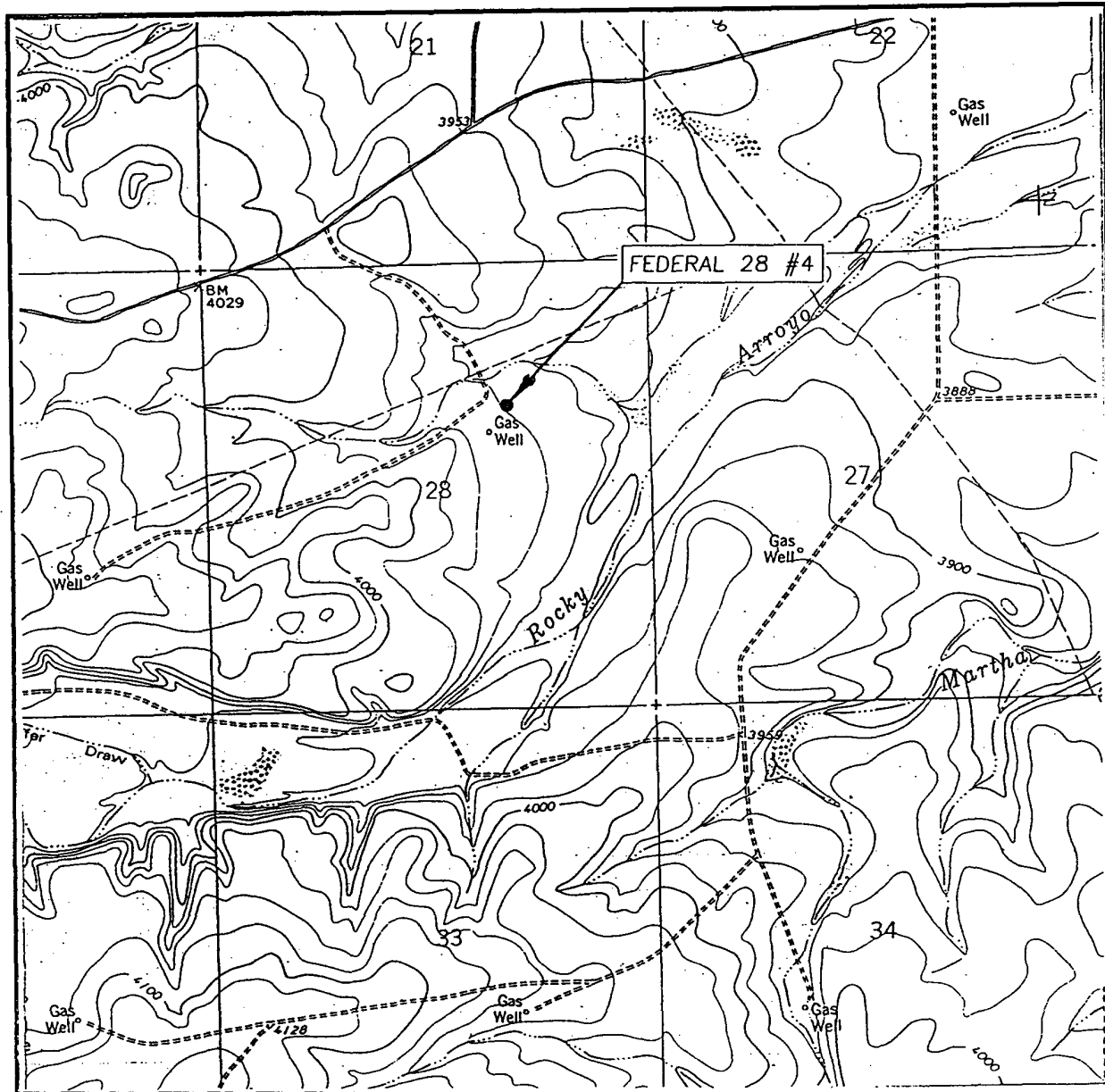
FEDERAL 28 #4 WELL LOCATED
1725' FROM THE NORTH LINE AND 1750'
FROM THE EAST LINE OF SECTION 28,
TOWNSHIP 21 SOUTH, RANGE 23 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 03/05/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.0261	DRAWN BY: A.W.B
Date: 03/08/04	DISK: CD#10
04.11.0261	Scale: 1"=100'

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO - HOBBS, NEW MEXICO - 505-393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 20'
MARTHA CREEK, N.M.

SEC. 28 TWP. 21-S RGE. 23-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1725' FNL & 1750' FEL

ELEVATION 3931'

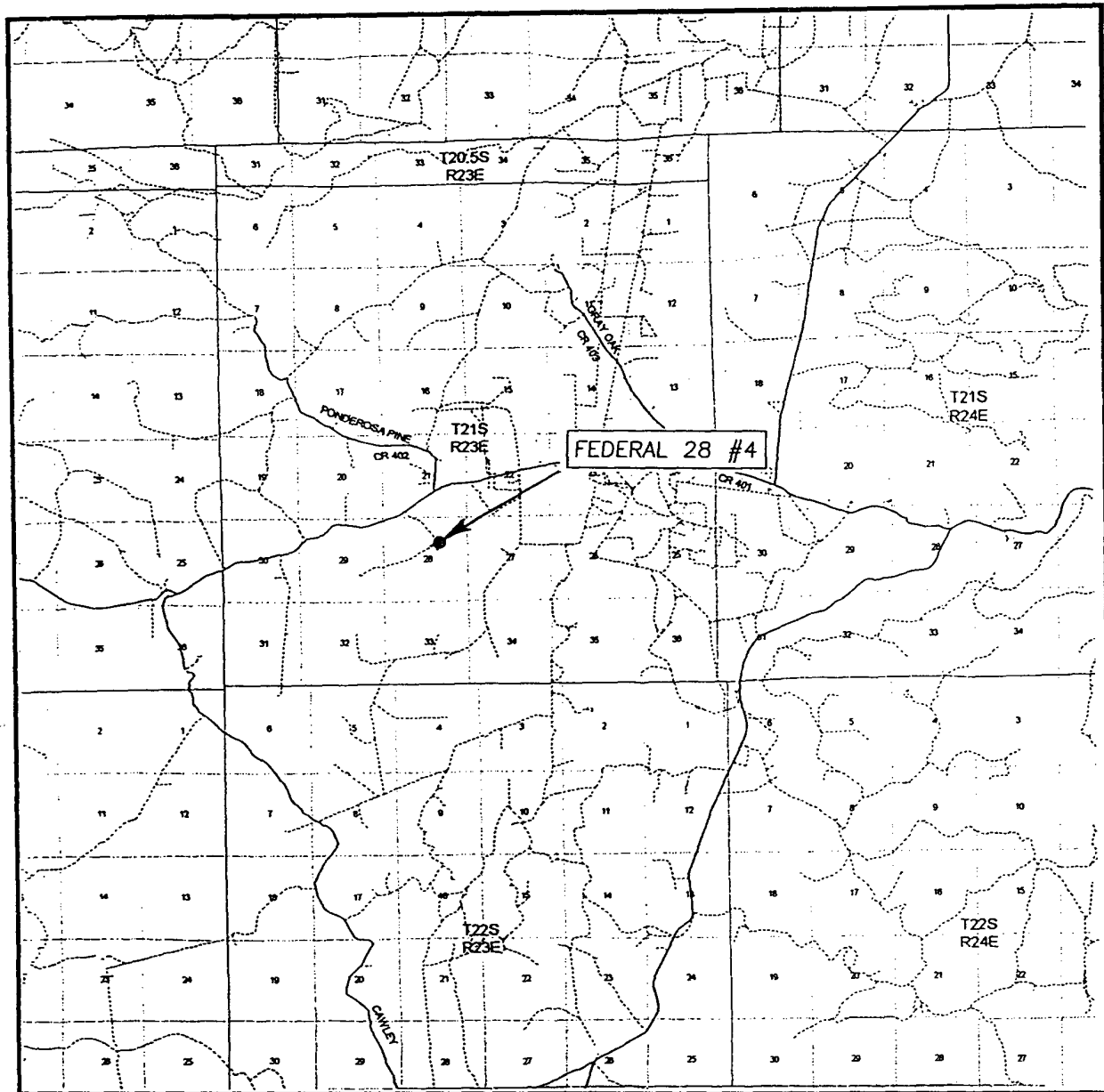
OPERATOR KERR-McGEE OIL & GAS ONSHORE, LLC

LEASE FEDERAL 28

U.S.G.S. TOPOGRAPHIC MAP
MARTHA CREEK, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 21-S RGE. 23-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1725' FNL & 1750' FEL

ELEVATION 3931'

OPERATOR KERR-McGEE OIL & GAS ONSHORE, LLC

LEASE FEDERAL 28

JOHN WEST SURVEYING
HOBBS, NEW MEXICO

(505) 393-3117

DRILLING PROGRAM
In compliance with OOGO NO. 1

Kerr-McGee Oil & Gas Onshore LLC.
Federal 28 #4
Sec. 28, T21S, R23E
1725' FNL & 1750' FE L
Eddy County, New Mexico

1) Estimated Tops of Important Geologic Markers:

Quaternary	surface
Base Bone Springs	5,225'
Wolfcamp	6,000'
Upper Penn (Cisco)*	7,140'

2) Estimated Depth of Anticipated Water, Oil, Gas, or Minerals:

Formations possibly productive with oil or gas are indicated with an asterisk(*) in above section.

3) Minimum Specifications for Pressure Control Equipment:

All equipment will be consistent with OOGO No.2 and API RP 53.

BOP and Auxiliary Equipment:

BOP & choke manifold will be 3M systems and will be setup as indicated on attached exhibits.

Accumulator volume will be sufficient to provide an open and closing of preventers with 50% reserve.

A drill pipe full opening safety valve will be kept on the rig floor in the open position at all times during drilling operations.

An upper and lower kelly cock will be used.

Test Procedure and Drills:

Ram type preventers will be tested to 70 % of casing burst pressure.

Annular preventer will be tested to 1500 psi

Approved close-in procedure to be posted on the rig floor.

Each rig crew will hold a weekly bop drill.

4) Casing and Cementing Program:

<u>Casing</u> <u>size</u>	<u>interval</u>	<u>weight</u>	<u>grade</u>	<u>connection</u>	<u>Design Factors</u> <u>Coll.,Burst,Ten.</u>
9-5/8"	0-1,300'	36 #	J-55	ST&C	3.57, 22.55, 5.77
7"	0-5,500'	23#	J-55	LT&C	1.36, 4.51, 1.76
	5,500'-7,700'	26#	J-55	LT&C	1.29, 5.01, 5.22

Collapse design considers maximum anticipated mud weight at string T.D. with casing fully evacuated. Burst design uses 0.4 psi/ft for bottom hole pressure and assumes maximum surface pressure as .45 times this number. Tension design considers weight of string in air.

Cementing

9-5/8" Attempt to cement to surface in one stage using:

WITNESS 1st Lead: 200 sx Class H + 5 pps gilsonite + 12% CalSeal + 1% CC WITNESS
2nd Lead: 1090 sx Light C + 5 pps gilsonite + 2% CC
Tail: 205 sx class C + 2% CC

Hole size 14-3/4"
cmt yield/wt: 1st lead 1.56 cu.ft./sk 14.5 ppg
cmt yield/wt: 2nd lead 1.92 cu.ft./sk 12.6 ppg
cmt yield/wt: tail 1.34 cu. Ft./sx. 14.8 ppg
excess: 100%

7" Cement in two stages as follows:

Stage 1 consisting of 125 sx 65:35:6 Poz:H:Gel + 8% gilsonite + 1% Sodium Chloride

Hole size 8-3/4"
cmt yield/wt: lead 2.23 cu.ft./sk 13.2 ppg
top of cmt: 7000' (excess: 50%)

Stage Tool Set at 6975'

Stage 2 consisting of Lead CMT of 100 sx 65:35:6 Poz:H:Gel + 5#/sx Sodium Chloride + 5#/sx Gilsonite + 0.25#/sx Celloflake and Tail Cmt of 100 sx Class C

Hole size 8-3/4"
cmt yield/wt: lead 2.09 cu.ft./sk 12.4 ppg
cmt yield/wt: tail 1.33 cu. Ft./sx. 14.8 ppg
excess: 50%

note: cement volumes will be adjusted by fluid caliper on the 9-5/8" and electric caliper on the 7" casing string. Cement types and additives may change based on actual downhole conditions.

5) Type and Characteristics Proposed Circulating Medium:

<u>from</u>	<u>to</u>	<u>type</u>	<u>wt.</u>	<u>Vis</u>	<u>wl</u>
0	6,000'	fw/gel/lime	8.4-8.6	28-30	nc
6,000'	7,700'	fw/gel/LSND	8.5-8.7	32-34	<15

No abnormal pressures are anticipated, however, sufficient quantities of mud materials shall be maintained for the purpose of assuring well control. Loss of circulation will be the primary concern, thus an adequate store of lost circulation material shall be maintained. Visual monitoring equipment shall be in place in the pits to detect volume changes.

6) Anticipated Testing, Logging and Coring

No drill stem tests are planned but tests could be run if determined necessary to evaluate the well.

Open Hole Logging Program:

Intermediate Run: (DLL/MSFL/GR, Den-Neu/Cal/PE/GR) Surface casing to -7,700'
 Imaging Tool 6,897' – 7,700'
 Production Run (DLL/MSFL/GR, Den-Neu/Cal/PE/GR) 7,725' – (T.D.)

Mud logging unit to be in service from 5,000' to T.D.

7) Expected Bottom Hole Pressure and Potential Hazards

Expected BHP = 3600 psi (per offset well information)

No abnormal temperatures or pressures are anticipated.

Potential H2S in Upper Penn. An H2S Drilling Operations Plan has been attached.

8) Additional Information

Anticipate starting operations on or before April 20, 2004

SURFACE USE PROGRAM
In compliance with OOGO NO. 1

Kerr-McGee Oil & Gas Onshore LLC.

Federal 28 #4

Sec. 28, T21S, R23E
1725' FNL & 1750' FEL
Eddy County, New Mexico

1) Existing Roads

The proposed wellsite and existing roads to proposed location are shown in Exhibit #1. The directions to this well are as follows:

From Carlsbad, New Mexico proceed north on US hwy 285 for 12.3 miles to the intersection of State highway 137 (Sitting Bull Falls Rd). Take Hwy 137 west, proceed 8.8 miles to a fork in the road. This will be Queen City Rd. on the left and County Road 401 also known as Marathon road on the right. Turn right on Eddy CR 401 and go ~ 6 1/2 miles west to lease road. This is approximately 2 miles past gas plant. Go past Ponderosa Pine Rd on the right and the next left will be the entrance to the Federal 28 section. Follow the road to the #1 well.

2) Planned Access Roads

The proposed location will utilize existing roads wherever possible. A road currently exists to the Federal 28 #1 pad. The Federal 28 #4 well will be drilled utilizing an extension of the Federal 28 #1 well pad.

3) Location of Existing Wells

Existing wells within a one-mile radius are shown on exhibit #2

4) Location of Existing and/or Proposed Facilities

A. Existing facilities within a one-mile radius of the proposed location can be seen on exhibit #1. These existing facilities include oil and gas wells and their respective batteries.

B. If the proposed well is completed and productive, plans are to construct a production facility at the well pad and no additional surface disturbance will occur.

5) Location and Type of Water Supply

Water will be purchased from a commercial water hauler and trucked to the proposed wellsite.

6) Source of Construction Materials

Calcite for construction the proposed well location and access road will be determined and discussed during onsite with the BLM.

7) Methods of Handling Waste Disposal

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate.
- C. Water produced during tests will be disposed of in the reserve pits. Oil produced during tests will be stored in a test tank until sold. Gas will be flared.
- D. Salts and chemicals will be deposited in the reserve pit.
- E. A portable septic tank will be used at the location for the disposal of human waste. Waste will be disposed of at an approved site.
- F. Thrash, waste paper, garbage and junk will be contained in trash trailer and hauled to an approved land fill.
- G. All trash and debris will be buried or removed from the wellsite after finishing drilling and/or completion operations.

8) Ancillary Facilities

none required

9) Wellsite Layout

- A. Exhibit #1 shows the general location and dimensions of the well location, mud pits, and reserve pit.
- B. Leveling of the wellsite will be required, no significant cut or fills will be necessary.
- C. The reserve pit will be plastic lined.

10) Plans for Reclamation of the Surface:

- A. After completion of drilling and testing program, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all thrash and junk.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. Agreement between drilling contractor and BLM to stack the drilling rig on location will be the responsibility of the drilling contractor.
- D. After abandonment of the well, surface restoration will be in accordance with the requirements of the surface management agency. Pits will be filled and location will be cleaned. The pit area, well pad surface location will be ripped to promote re-vegetation.

11) Surface Ownership

Mineral Owner:
Bureau of Land Management
P.O. Box 1778
Carlsbad, NM 88220

Surface Owner:
Bureau of Land Management

12) Other Information

A. Topography: land surface is gently sloping with silty clay loam and sporadic limestone outcrops. Vegetation consists of yucca, desert sumac, juniper, prickly pear, and various grama.

The ground level elevation of the wellsite is 3,931'.

B. Soil: silty clay loam.

C. Ponds and streams: None

D. Archaeological Survey: A cultural resource inventory has been conducted by an investigator from Mesa Field Services, Inc. The archaeological clearance report is attached.

E. Land use: grazing

13) Lessee's or Operator's Representative and Certification

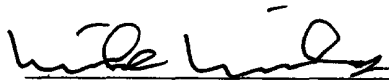
Mike Miles

281.683.6069 (office)

281.686.9710 (cell)

Certification

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 currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by **Kerr-McGee Corporation** and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.



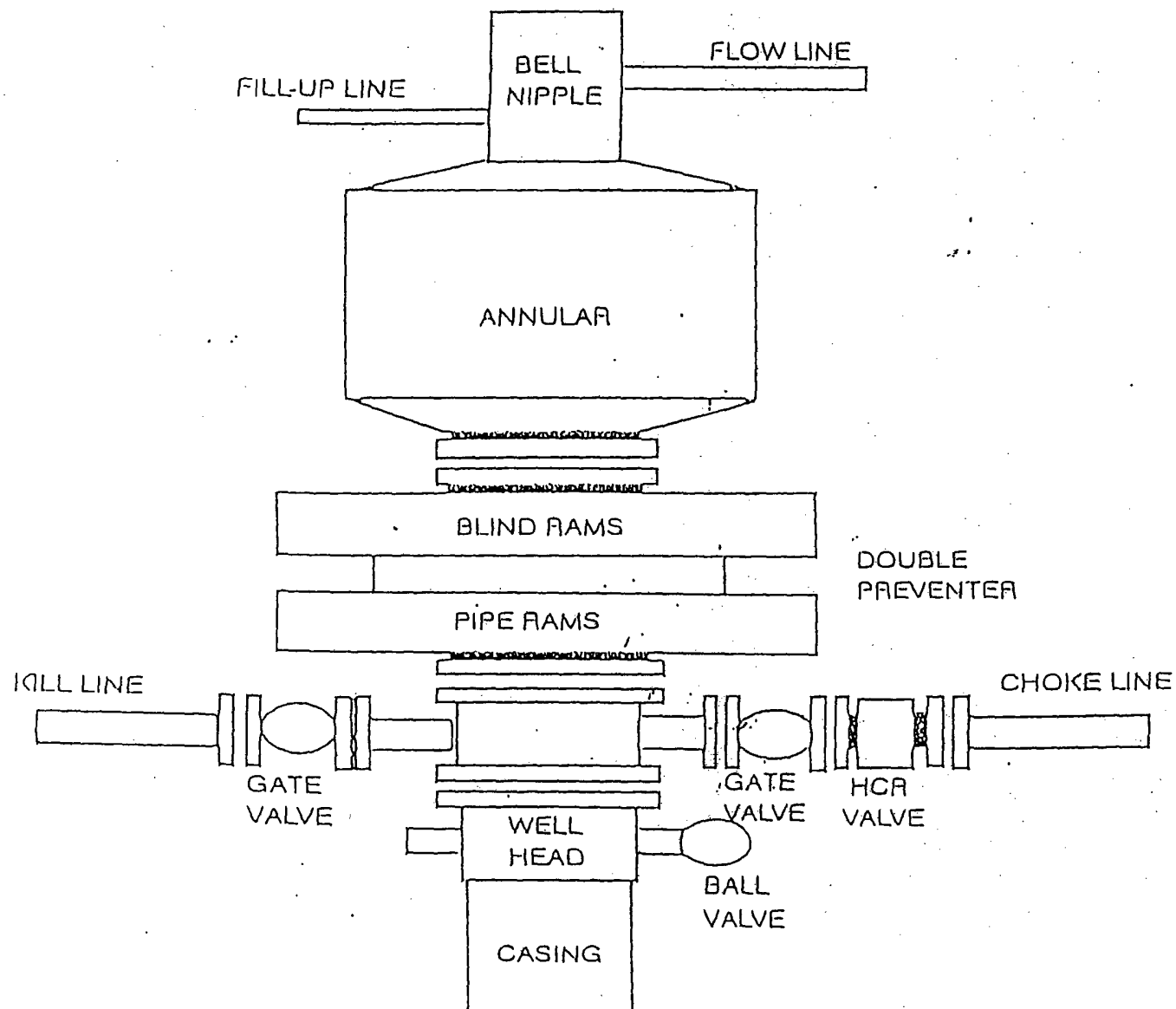
Mike Miles
Drilling Engineer

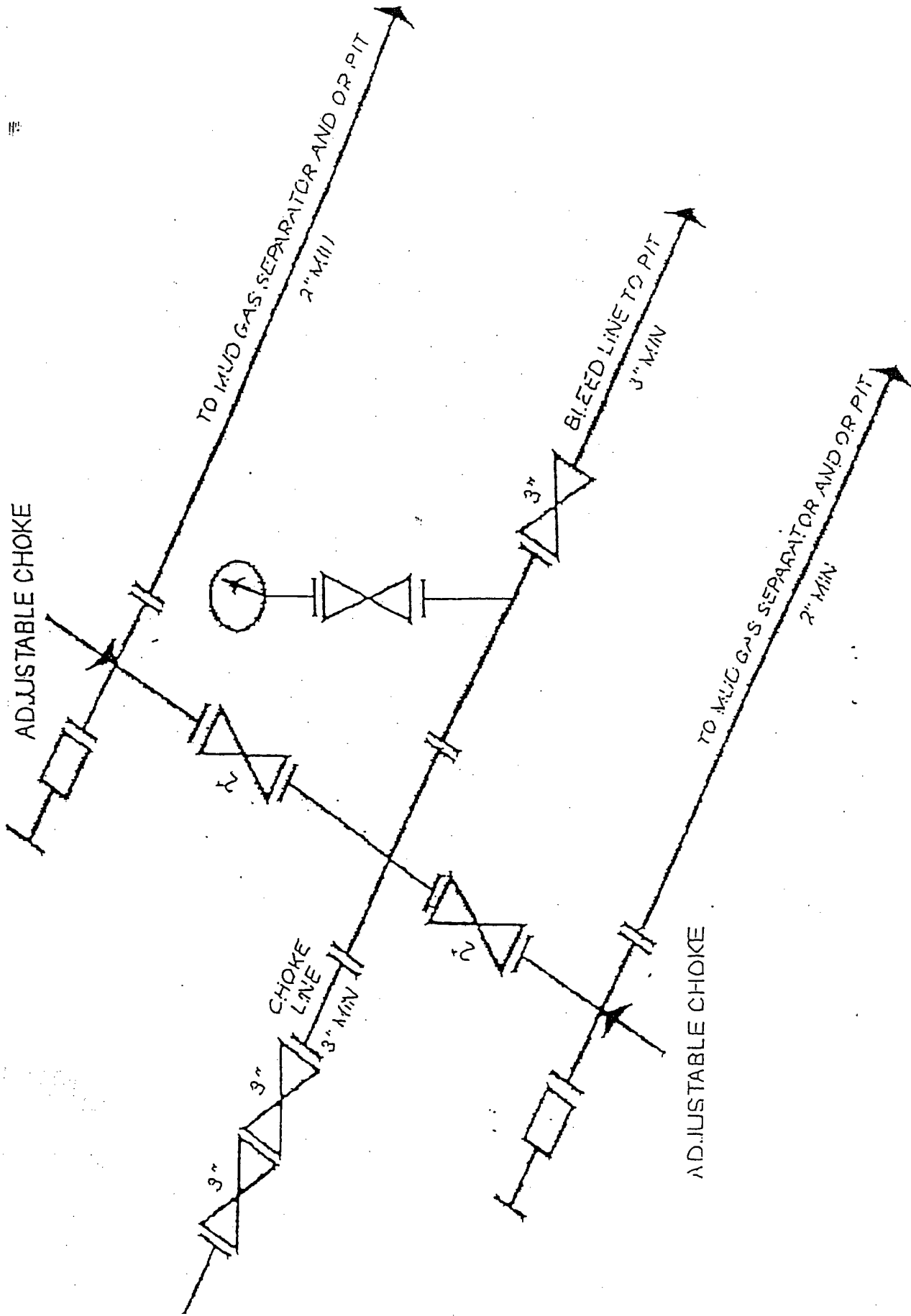
3-10-2004

date

KERR McGEE CORPORATION

BOP STACK FOR A 3,000 PSI WORKING PRESSURE
FOR SURFACE USE





-2 3M Choke Manifold Equipment -- Configuration of chokes may vary

KERR McGEE OIL & GAS ONSHORE LLC

H₂S DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

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

- 1) The hazards and characteristics of hydrogen sulfide (H₂S).
- 2) The proper use and maintenance of personal protective equipment and life support systems.
- 3) The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

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

- 1) The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- 2) Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.
- 3) The contents and requirements and the Public Protection Plan.

There will be an initial training session involving all permanently assigned supervisory personnel and each and all rig crews participating in drilling operations on the well. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This Plan shall be available at the wellsite. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

- 1) Well Control Equipment
 - (a) Flare line with electronic igniter or continuous pilot.
 - (b) Choke manifold with a minimum of one remote choke.
 - (c) Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - (d) Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.

- 2) Protective equipment for essential personnel:
 - (a) SCBA 30-minute air packs and 5-minute escape units at briefing areas and doghouse.
- 3) H₂S detection and monitoring equipment:
 - (a) 1 - monitor with 3 sensors (location of sensors diagrammed on location plat). These units have warning lights and audible alarms when H₂S levels of 20 ppm are reached.
- 4) Visual warning systems:
 - (a) Wind direction indicators as shown on location plat.
 - (b) "Caution"/"Danger" signs shall be posted on roads providing direct access to the location (*see attached*). Bilingual signs will be used, when appropriate.
- 5) Mud program:
 - (a) The mud program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers will minimize the hazards when penetrating H₂S bearing zones expected to present a problem.
 - (b) A mud-gas separator will be used.
- 6) Metallurgy:
 - (a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
 - (b) All elastomers used for packing seals shall be H₂S trim.
- 7) Communication:
 - (a) Radio communications on rig and in company vehicles including cellular telephone and 2-way radio.
 - (b) Land line (telephone) communications at Gas Plant approximately 3 miles away.
- 8) Well testing:
 - (a) There are no plans to open hole test this well. However, in the event that testing should occur, drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- 9) H₂S Service Company:
 - (a) The company handling the H₂S safety services will be Indian Fire and Safety, Inc. out of Hobbs, New Mexico.



Kerr-McGee Oil & Gas Onshore

**16666 Northchase
Houston, Texas 77060**

Hydrogen Sulfide (H₂S) Contingency Plan

For

**Federal 28 #4
1725 Feet From North Line
1750 Feet From East Line
Section-28, Township-21South, Range-23East
Eddy County, New Mexico**

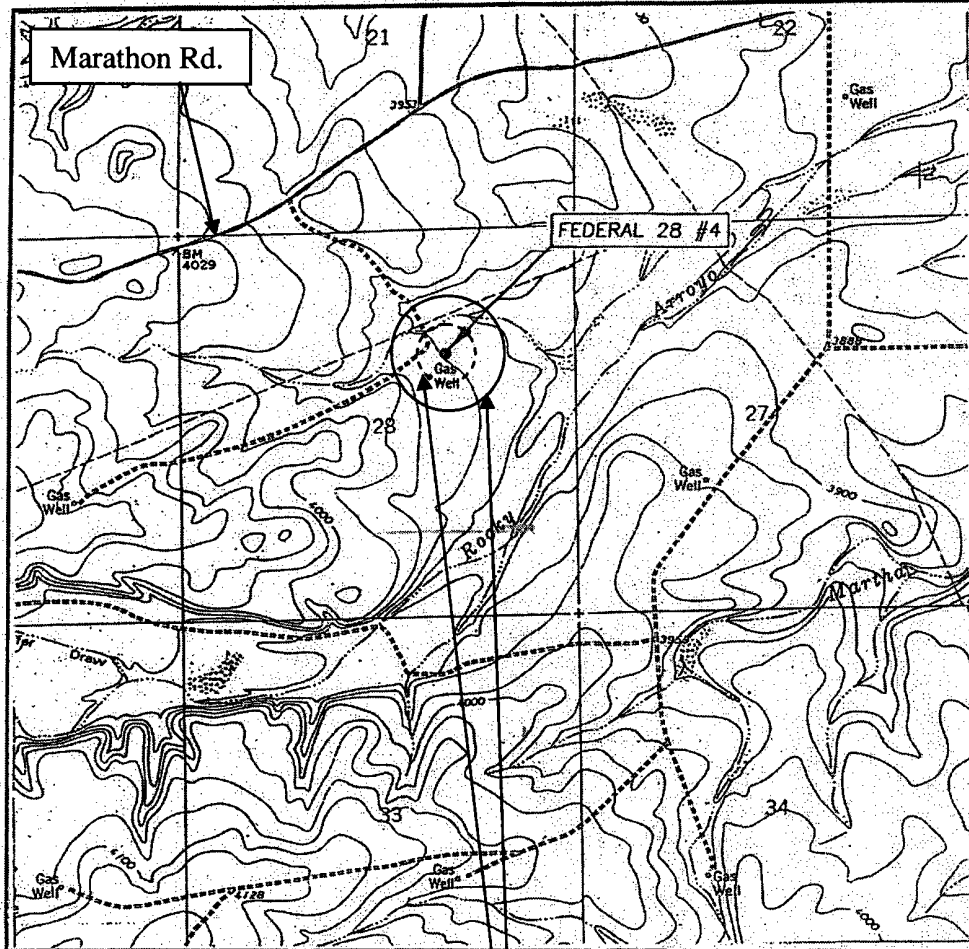
And

Patterson Drilling Rig #503

Federal 28 #4

Latitude 32° 27' 7.62" Longitude 104° 36' 13.8"

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



SCALE: 1" = 2000'

SEC. 28 TWP. 21-S RGE. 23-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1725' FNL & 1750' FEL

ELEVATION 3931'

OPERATOR KERR-McGEE OIL & GAS ONSHORE,
LEASE FEDERAL 28

U.S.G.S. TOPOGRAPHIC MAP
MARTHA CREEK, N.M.

100 ppm Radius Of Exposure
= 736 Feet.

500 ppm Radius Of Exposure
= 336 Feet

100 ppm H₂S concentration shall
trigger activation of this plan.

Lease:	Federal #28			
County:	Eddy			
State:	New Mexico			
Radius of Exposures				
Well	H2S(ppm)	Volume mmcf	100ppm ROE	500ppm ROE
# 4	6000	4	736.21	336.42

Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm Radius Of Exposure. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm Radius Of Exposure. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm Radius Of Exposure.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the New Mexico Oil Conservation Division and local officials. Additionally, the New Mexico State Police may become involved. In the event of a major release, a Kerr-McGee Supervisor shall be designated as the Incident Commander and will request and/or direct the New Mexico State Police to assist in securing the area. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm ⁴	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Kerr-McGee personnel will liaison with local and state agencies to ensure a proper response to a major release. Additionally, the Oil Conservation Division will be notified of the release as soon as possible but no later than 4 hours. Agencies will be provided information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Kerr-McGee's response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

Company Call List

	Office	Cell Phone	Home
Ronnie Hawkins	N/A	432-208-2061	N/A
Tommie Deese	505-234-2703 X23	505-706-3423	505-628-0212
Andy Chalker	505-234-2703 X22	505-706-3722	505-628-1971
Johnny Johnson	281-673-6068	713-805-9809	713-466-7841

Agency Call List

Carlsbad

State Police	505-885-3137
City Police	505-885-2111
Sheriff's Office	505-887-7551
Ambulance.....	911
Carlsbad Hospital	505-887-4100
Fire Department.....	505-885-3125
LEPC (Local Emergency Planning Committee)	505-887-9511
NMOCD	505-748-1283

Other

Patterson Drilling, Midland, TX	432-682-9401	
Patterson Drilling, Snyder, TX	915-574-6300	
Wild Well Control	281-353-5481	
Cudd Pressure Control	915-699-0139 or 915-563-3356	
Halliburton	505-746-2757	
B. J. Services	505-746-3569	
Aerocare -RR 3 Box 49F , Lubbock, TX		806-725-1100
Med Flight Air Amb -2301 Yale Blvd SE #D3, Albuquerque, NM		505-842-4433
S B Air Med Svc -2505 Clark Carr Loop SE, Albuquerque, NM		505-842-4949

MESA
FIELD SERVICES



P.O. Box 3072 • CARLSBAD, NM 88221-3072

March 12, 2004

Kerr-McGee Oil and Gas
Attn: Rod Bailey
16666 Northchase Dr.
Houston, TX 77060

Dear Mr. Bailey:

Enclose please find a copy of the report for MFS-952: "A Class III Cultural Resource Survey for the Federal 28 No. 4 Well Pad." Two copies of the report have been submitted to the BLM-CFO and a copy has been sent to Mr. Andy Chalker. Please feel free to call if you need any additional information. Thank you for using Mesa Field Services.

Sincerely,



Theresa Straight

Enclosed: MFS-952

1. (For BLM Use) BLM Report No.	2. (For BLM Use) Reviewer's Initials/Date _____ Accepted () Rejected ()	3. NMCRIS Number: 87420			
4. Type of Report: Negative (X) Positive ()					
5. Title of Report: A Class III Cultural Resource Survey for the Federal 28 No. 4 Well Pad Author(s): Justin Rein		6. Fieldwork Date(s): March 2 and 9, 2004 7. Report Date: March 9, 2004			
8. Consultant Name/Address: Mesa Field Services Direct Charge: Theresa Straight Field Personnel Names: Justin Rein Address: P.O. Box 3072 Carlsbad, New Mexico 88221-3072 Phone (505) 628-8885		9. Cultural Resource Permit No.: 153-2920-03-N 10. Consultant Report No.: MFS-999			
11. Customer Name: Kerr-McGee Onshore Oil and Gas, LLC Responsible Individual: Andy Chalker Address: 800 West Pierce, Suite B Carlsbad, NM 88200 Phone: (505) 234-2703		12. Customer Project No.: ZAGC1DR3609100			
13. Land Status	BLM	State	Private	Other	Total
a. Area Surveyed (acres)	8.26				8.26
b. Area of Effect (acres)	3.67				3.67
14. Block Length <u>600 ft</u> Width <u>600 ft</u>					
15. Location (Map[s] Attached): a. State: New Mexico b. County: Eddy County c. BLM Office: Carlsbad d. Nearest City or Town: Carlsbad, NM e. Legal Description: T 21 S, R 23 E, Section 28: SW¼ NE¼ f. Well Pad Footages: The well is centered 1,725 feet from the north line and 1,750 feet from the east line of Section 28. g. USGS 7.5' Map Name(s), Date(s), and Code(s): Martha Creek, New Mexico 1978 (32104-D5)					

16. Project Data:

a. Records Search: Date(s) of BLM File Review: March 9, 2004 Name of Reviewer(s): Justin Rein
Date(s) of ARMS Data Review: March 9, 2004 Name of Reviewer(s): Justin Rein

Findings (see Field Office requirements to determine area to be reviewed during records search): Five previously recorded sites (LA 120383, LA 131215, LA 134451, LA 139186, and LA 141685) are within 0.25 miles of the survey area. Of these, one site, LA 131215 is within 500 ft of the project area. LA 131215 is approximately 100 ft outside of the survey area and will not be impacted by the proposed undertaking.

b. Description of Undertaking: Kerr-McGee plans to construct the Federal 28 No. 4 well pad. The project is located north of Rocky Arroyo in Eddy County, New Mexico within Township 21 South, Range 23 East, Section 28. The well is centered 1,725 feet from the north line and 1,750 feet from the east line of Section 28. The well pad will impact an area 400 ft by 400 ft, yet a 600 ft by 600 ft area was surveyed to ensure protection of cultural resources. In all, a total of 8.67 acres was surveyed on property owned and administered by the Bureau of Land Management – Carlsbad Field Office. Andy Chalker, with Kerr-McGee requested the survey.

c. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.): The survey area is located approximately 0.25 miles northwest of Rocky Arroyo in Eddy County, New Mexico. The elevation averages 3,940 ft above mean sea level. The project area is located on a slight prominence between Rocky Arroyo and one of its small tributaries to the north. In addition to active cattle ranching throughout the area, an existing well pad, buried pipeline, and an oil-field lease road are located to the west of the project.

Soils are shallow, silty deposits of the Reagan-Upton association as described by the Soil Conservation Service of the U.S. Department of Agriculture. Local vegetation is typical of Chihuahuan Desert scrub and includes creosote, various grasses, prickly pear, acacia, cholla, juniper, and low forbes. Due to the vegetative ground cover, surface visibility averaged 85 percent at the time of survey. The contemporary environment provides adequate habitat for a variety of faunal species including coyote, badger, jackrabbit, desert cottontail, roadrunner, rattlesnake, and a variety of other small mammals and reptiles.

Meteorological data was obtained from the Western Regional Climate Center (WRCC) for the city of Carlsbad, New Mexico. From 1914 to 2003 Carlsbad had an average annual high temperature of 78.3 degrees (F) and an average annual low temperature of 47.3 degrees (F). The warmest average temperature was in July at 95.8 degrees (F) and the coolest was in January at 27.8 degrees (F). In the same time span, Carlsbad reported an average annual precipitation of 12.64 inches (WRCC n.d.).

d. Field Methods (transect intervals; crew size; time in field; etc.): A crew of one spent 2.5 hours surveying the project area. A 15 m transect interval was used.

e. Artifacts Collected?: None

17. Cultural Resource Findings: Three isolated manifestations (IM's) were encountered and recorded during the survey.

a. Location/Identification of Each Resource: IM no. 1 consists of the proximal portion of a brown chert core-reduction flake. The flake exhibits a flat platform and greater than 50 percent remaining dorsal cortex. It is a size 3 (Zone 13:537299 E/ 3590379 N).

IM no.2 consists of a complete dark gray chert core-reduction flake. The flake exhibits a multifaceted platform and greater than 50 percent dorsal cortex. It is a size 4 (Zone 13: 537252 E/ 3590397).

IM no. 3 consists of a complete flake of unknown type. The flake exhibits a flat platform, no remaining cortex, and is a size 2 (Zone 13: 537229 E/ 3590406 N).

b. Evaluation of Significance of Each Resource: By definition, each IM is not eligible for nomination to the NRHP.

18. Management Summary (Recommendations): Because no significant cultural material was encountered in the project area, archaeological clearance for the project is recommended as staked. If any additional cultural material is encountered during construction activities, work at that location should stop and archaeologists at the BLM-CFO should be notified.

19.

I certify the information provided above is correct and accurate and meets all applicable BLM standards.

Responsible Archaeologist

Signature

Date

3/11/04

THE ABOVE COMPLETES A NEGATIVE REPORT. IF ELIGIBLE OR POTENTIALLY ELIGIBLE PROPERTIES ARE INVOLVED, THE ABOVE WILL BE THE TITLE PAGE AND ABSTRACT FOR A COMPLETE REPORT.

MARTHA CREEK, NEW MEXICO 1978
T 21 S, R 23 E, Section 28

BUREAU OF LAND MANAGEMENT PROPERTY

LEGEND

- Survey Area
- Isolated Manifestation
- Archaeological Site

0 0.5 1 Miles

0 0.5 1 1.5 Kilometers

TRUE NORTH

SCALE 1:24,000

Mesa Field Services

NOTICE OF STAKING

(Not to be used in place of Application for Permit to Drill Form 3160-3)

1. Oil Well _____ Gas Well <u>X</u> Other _____ (Specify)		6. Lease Number NM 022535	
2. Name of Operator: KERR-McGEE OIL & GAS ONSHORE LLC		7. If Indian, Allottee or Tribe Name	
3. Name of Specific Contact Person: ROD L. BAILEY		8. Unit Agreement Name	
4. Address & Phone No. of Operator or Agent 16666 NORTHCHASE HOUSTON, TX 77060 281 673-6590		9. Farm or Lease Name FEDERAL 28	
5. Surface Location of Well 1725' FNL & 1750' FEL 28 21S 23E EDDY COUNTY Attach: a) Sketch showing road entry into pad, pad dimensions, and reserve pit. b) Topographical or other acceptable map showing location, access road, and lease boundaries.		10. Well No. # 4	
		11. Field or Wildcat Cat INDIAN BASIN	
		12. Sec. , T. , R. , M. , or Blk and Survey or Area SEC. 28, T 21S - R23E	
15. Formation Objective(s) UPPER PENN	16. Estimated Well Depth 8200'	13. County, Parish or Borough EDDY	14. State NEW MEXICO

17. Additional Information (as appropriate; must include surface owner's name, address, and telephone number).

BUREAU OF LAND MANAGEMENT 2909 WEST SECOND ST. ROSWELL, NM 88202

18. Signed Rod Bailey (Beh) Title PRORATOR MANAGER Date 3/9/04

Note: Upon receipt of this Notice, the Bureau of Land Management (BLM) will schedule the date of the onsite predrill inspection and notify you accordingly. The location must be staked and access road must be flagged prior to the onsite.

Operators must consider the following prior to the onsite:

- a) H2S Potential
- b) Cultural Resources (Archeology)
- c) Federal Right of Way or Special Use Permit



KERR-McGEE OIL & GAS CORPORATION

16666 NORTHCHASE • HOUSTON, TEXAS 77060

RECEIVED

2004 MAR 17 AM 10:13

BUREAU OF LAND MGMT.
ROSWELL OFFICE

March 16, 2004

Bureau of Land Management
2909 West Second St
Roswell, NM 88201

Re: Federal 28-4
1725 FNL & 1750 FEL
Sec 28- T-21S- R-23E
Eddy County, NM

Ladies and Gentlemen:

Enclosed please find our Application for Permit to Drill, along with required supporting documents for the well referenced above.

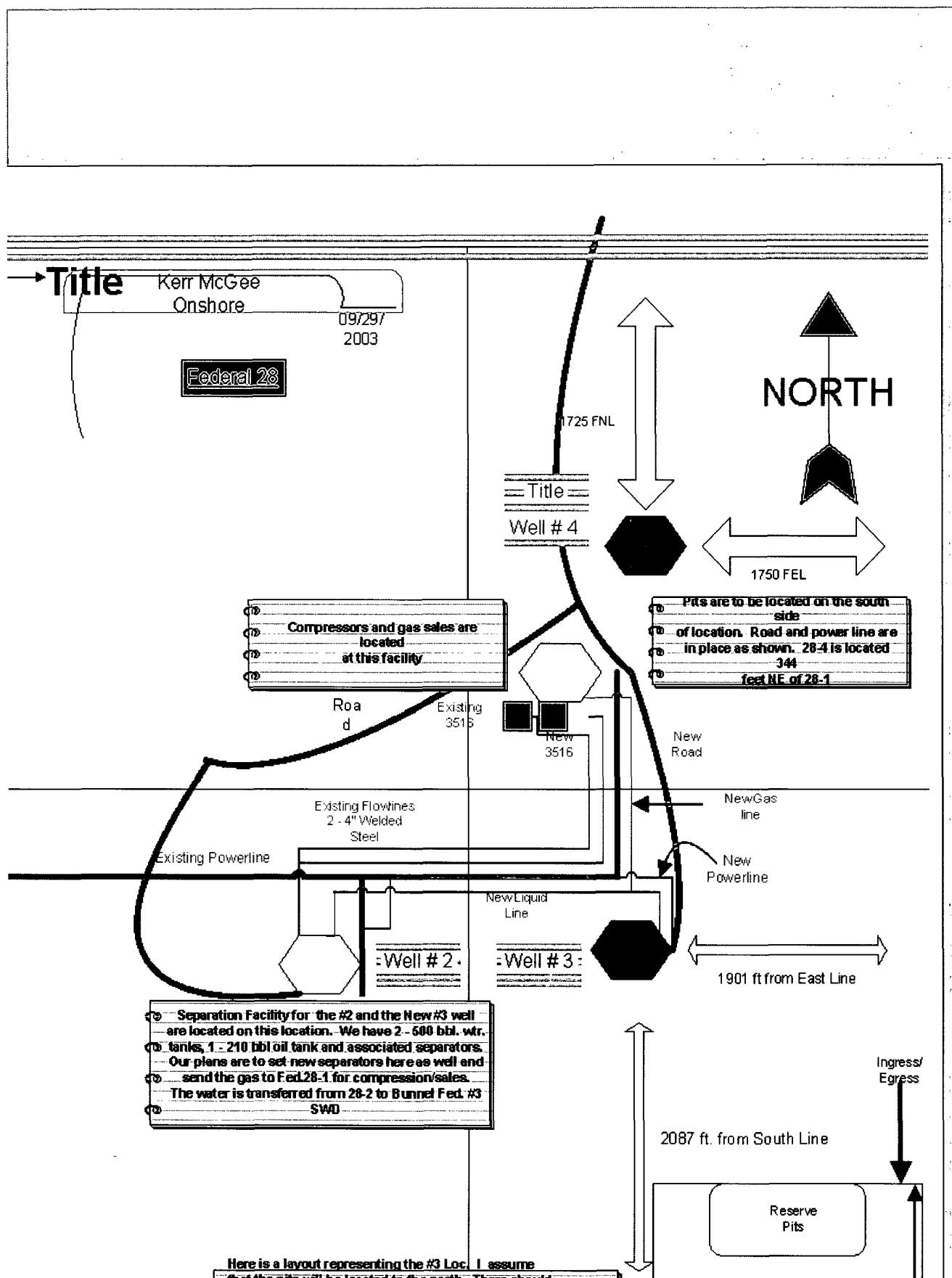
In February, 2004, Kerr-McGee experienced a downhole problem in the Federal 28-1 well located 1980' FNL & 1980' FEL, Sec 28, T-21S, R-23E. After obtaining BLM approval, this well was plugged on March 8, 2004.

Should you have questions concerning this application during the week of March 15, please contact me at (281) 673-6592. Rod Bailey will be back in the office beginning March 22, 2004, and can be reached at (281) 673-6590.

Thank you very much for your attention to this matter.

Sincerely,

Beverly Hoffman
Sr. Proration Analyst





NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor

Joanna Prukop
Cabinet Secretary
Acting Director
Oil Conservation Division

16 April 2004

Kerr-McGee Oil & Gas Onshore LLC
16666 Northchase
Houston, Texas 77060

RE:

Approval of pit permit - Federal 28 # 4 1725FNL & 1750 FEL SEC-28 T-21S R-23E

The Oil Conservation Division of Artesia is in receipt of your application to construct a pit for the purpose of drilling. The request is hereby accepted and approved with the following provisions:

1. The pit is not located in any watercourse, lakebed, sinkhole, playa lake, or wetland.
2. Notice is to be given to the OCD prior to construction of the pit(s).
3. Upon cessation of drilling the freestanding fluid will be removed and disposed of in an OCD approved facility.
4. Pit encapsulations must meet all specific criteria including, but not limited to:
 - A. Site evaluation
 - B. Liner thickness (a minimum of 20 mil thickness is required)
 - C. Amount of and type of cover
 - D. Drill cuttings will be sampled as per guidelines. Notify OCD 48 hours prior to any sampling event
 - E. In the event that the integrity of the pit lining is breached in a manner such that soil contamination would result, the contents of the pit will have to be disposed of in an approved OCD facility.
5. The pit will not be used for any additional storage of fluids.
6. The Division may attach additional conditions to any permit upon a finding that such conditions are necessary to prevent the contamination of fresh water, or to protect public health or the environment. (19.15.2.50.C.3.G.1.)
7. Re-seeding mixture will be approved or authorized by surface owner.

If I can be of any further assistance, please feel free to call (505) 748-1283 ext. 109.

Sincerely,

Van Barton