Form 3160-3
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
OMB NO. 1004-0136
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM 022535992

1a. Type of Work: [X] DRILL [ ] REENTER

6. If Indian, Allotee or Tribe Name:

1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [ ] 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 #3

3a. Address: 16666 Northchase Houston, TX 77060

3b. Phone No. (include area code): 281 673-6590

9. API Well No.: 30-015- 33256

4. Location of Well (*Report location clearly and in accordance with any State equirements*)*

At surface: 1902' FSL & 2088' FEL, SEC. 28, T 21 S, R 23 E

10. Field and Pool, or Exploratory: INDIAN BASIN UPPER PENN GAS

At proposed prod. zone: 1902' FSL & 2088' 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)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
1902'	640	640

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
1624'	8000'	

RECEIVED
FEB 23 2004
OCD-ARTESIA

21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will start*	23. Estimated duration
3940'GR	02-01-04	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.
2. A Drilling Plan
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (*Printed/Typed*)	Date
	ROD L. BAILEY	12-09-03

Title: MANAGER OR PRORATIONS

Approved by (Signautre)	Name (*Printed/Typed*)	Date
/s/ Joe G. Lara	/s/ Joe G. Lara	20 FEB 2004

Title	Office
ACTING FIELD MANAGER	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 knowlingly 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

Witness Surface Casing

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	79040	INDIAN BASIN UPPER PENN (PRO GAS)

Property Code	Property Name	Well Number
024477	FEDERAL 28	3

OGRID No.	Operator Name	Elevation
12558	KERR-McGEE OIL & GAS ONSHORE, LLC	3959'

Surface Location

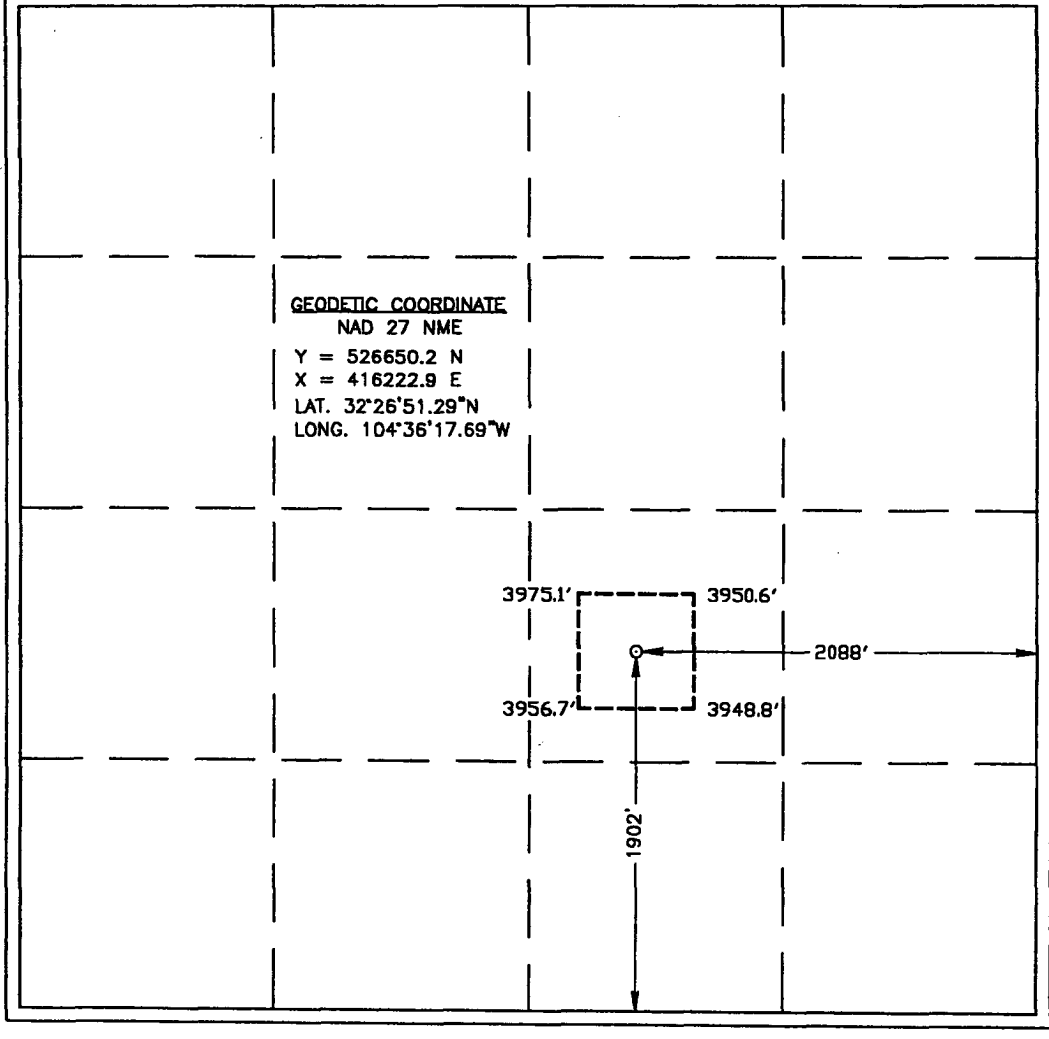
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	28	21-S	23-E		1902'	SOUTH	2088'	EAST	EDDY

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.
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



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

ROD L. BAILEY
Printed Name

PERFORATION SUPV.
Title

12/16/03
Date

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 supervison, and that the same is true and correct to the best of my belief.

October 22, 2003
Date Surveyed AWB

Signature & Seal of Professional Surveyor

GARY L. EIDSON
NEW MEXICO
12641
REGISTERED PROFESSIONAL SURVEYOR

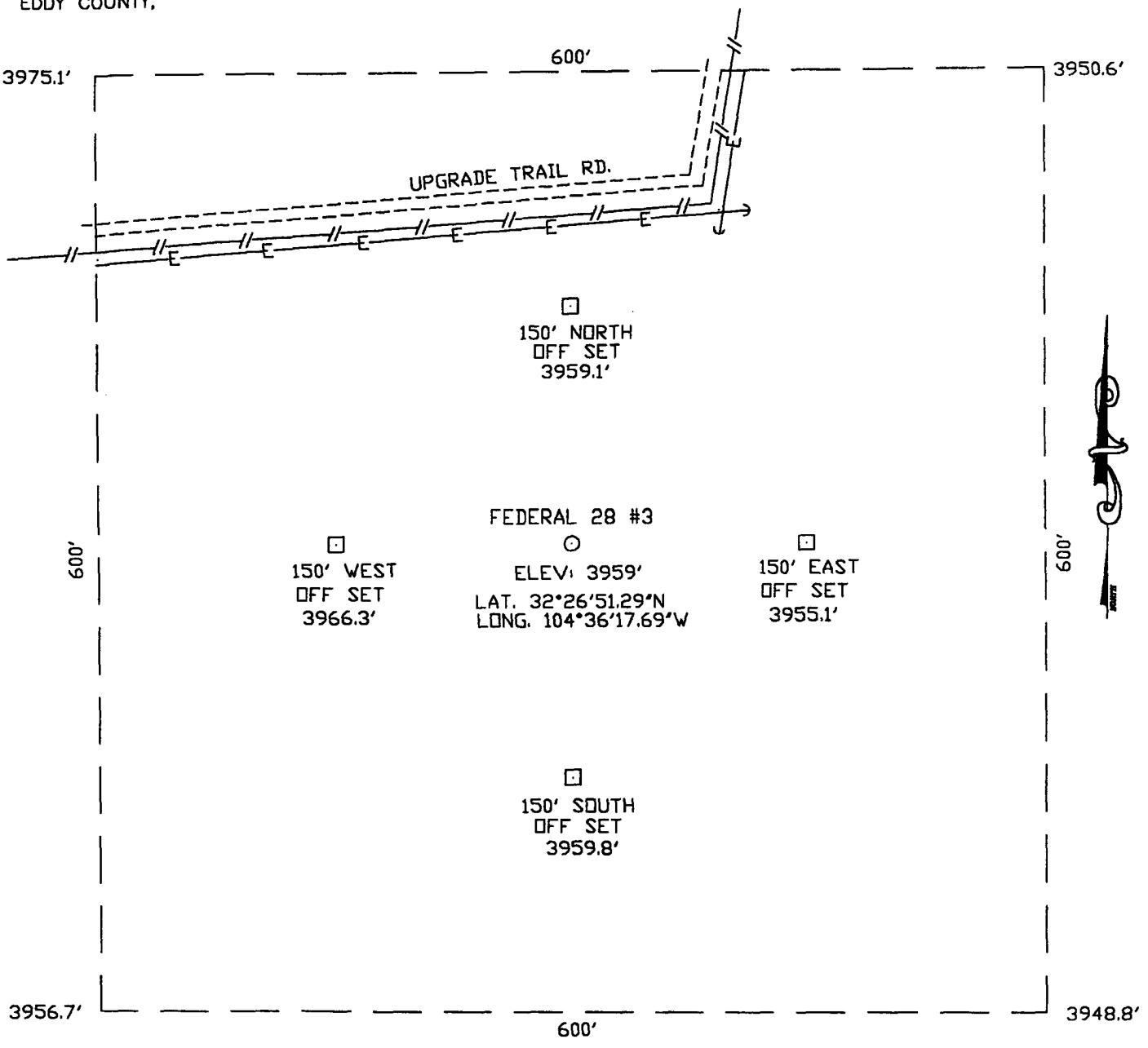
10/27/03

03.11.1197

Certificate No. GARY EIDSON 12641

SECTION 28 TOWNSHIP 21 SOUTH, RANGE 23 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

ON EDDY COUNTY ROAD #401 GO WEST 2.2 MILES FROM THE MARATHON PLANT. TURN LEFT AND GO SOUTH 0.5 MILES ON A CALICHE ROAD TO THE FEDERAL 28 #1 WELL PAD. THE PROPOSED ROAD BEGINS AT THE SOUTHEAST CORNER OF THE FEDERAL 28 #1 PAD GOING 1250' SOUTH TO PROPOSED LOCATION.

100 0 100 200 FEET

Scale:1"=100'

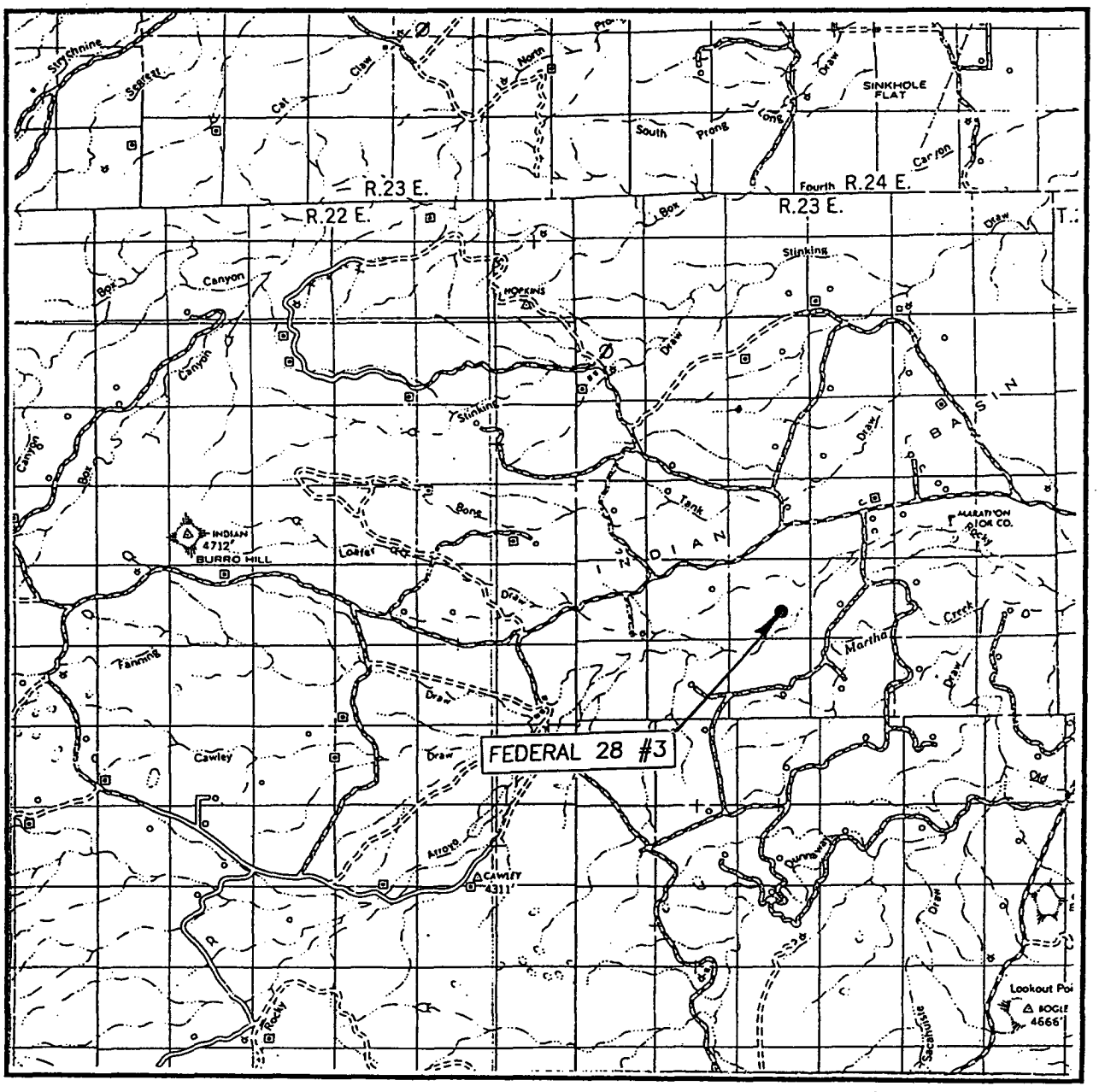
KERR McGEE OIL & GAS ONSHORE. LLC

FEDERAL 28 #3 WELL LOCATED
1902' FROM THE SOUTH LINE AND 2088'
FROM THE EAST LINE OF SECTION 28,
TOWNSHIP 21 SOUTH, RANGE 23 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 10/22/03		Sheet 1 of 1 Sheets	
W.O. Number: 03.11.1197		DRAWN BY: A.W.B	
Date:10/23/03	DISK: CD#9	KERR-1197	Scale:1"=100'

JOHN WEST SURVEYING COMPANY
412 N. DAL PASO – 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 1806 FSL & 1756' FEL

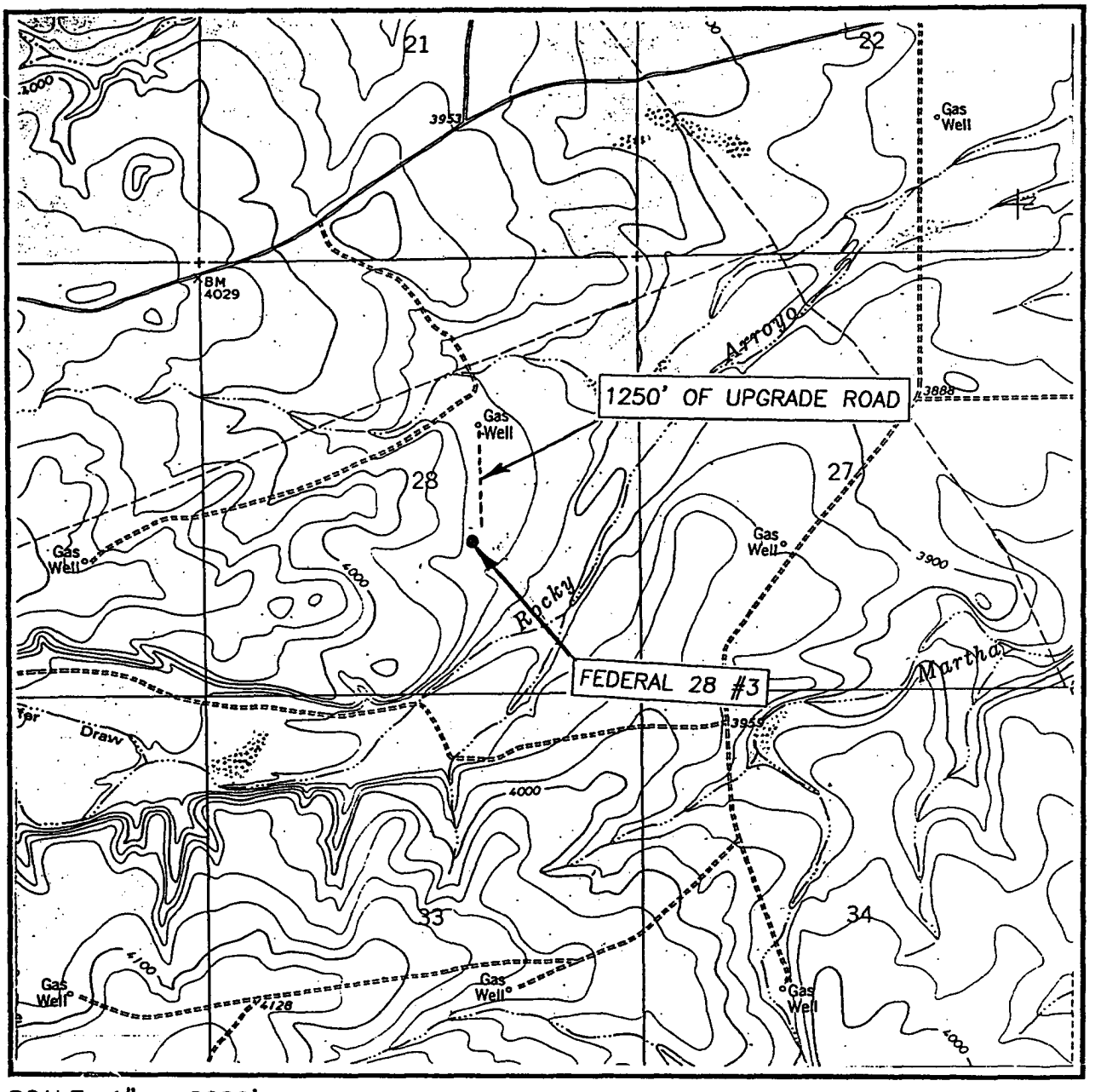
ELEVATION 3951'

OPERATOR KERR-McGEE OIL & GAS ONSHORE, LLC

LEASE FEDERAL 28

JOHN WEST SURVEYING
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 1902' FSL & 2088' FEL

ELEVATION 3959'

OPERATOR KERR-McGEE OIL & GAS ONSHORE, LLC

LEASE FEDERAL 28

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

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

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 LEASED LAND OR PORTION THEREOF, AS DESCRIBED BELOW:

WELL: FEDERAL 28 #3

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 PRORATIONS

DATE: OCTOBER 28, 2003

DRILLING PROGRAM

In compliance with OOGO NO. 1

Kerr-McGee Oil & Gas Onshore LLC.
Federal 28 #3
Sec. 28, T21S, R23E
1902' FSL & 2088' FE L
Eddy County, New Mexico

1) Estimated Tops of Important Geologic Markers:

Quaternary	surface
Base Bone Springs	5,340'
Wolfcamp	6,190'
Upper Penn (Cisco)*	7,080'

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:

	Casing size	interval	weight	grade	connection	Design Factors Coll.,Burst,Ten.
WITNESS	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:

1st Lead:	200 sx Class H + 5 pps gilsonite + 12% CalSeal + 1% CC
2nd Lead:	1090 sx Light C + 5 pps gilsonite + 2% CC
WITNESS 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 one stage with 160 sx 65:35:6 Poz:H:Gel + 10% gilsonite, tailed with 200 sx class H w/ 0.6% fla

hole size		8-3/4"	
cmt yield:	lead	2.23 cu.ft./sk	12.1 ppg
cmt yield:	tail	1.18 cu. Ft./sx.	15.6 ppg
top of lead	5500' (excess: 50%)		
top of tail	6500' (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:

from	to	type	wt.	Vis	wl
0	6,000'	fw/gel/lime	8.4-8.6	28-30	nc
6,000'	7,700'	fw/gel/poylmer	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 November 1, 2003

SURFACE USE PROGRAM

In compliance with OOGO NO. 1

Kerr-McGee Oil & Gas Onshore LLC.
Federal 28 #3
Sec. 28, T21S, R23E
1902' FSL & 2088' 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 past the #1 well, and continue south to the #3 well.

2) Planned Access Roads

The proposed location will utilize existing roads wherever possible. A proposed new road will begin at the southeast corner of the Federal 28 #1 pad going south approximately 1350' to the proposed location.

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

KERR McGEE OIL & GAS ONSHORE LLC

H_2S 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 (H_2S).

2) The proper use and maintenance of personal protective equipment and life support systems.

3) The proper use of H_2S 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 H_2S 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 H_2S 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. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S 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 H_2S.

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) H_2S 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 H_2S 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 H_2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H_2S scavengers will minimize the hazards when penetrating H_2S 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 H_2S service.

   (b) All elastomers used for packing seals shall be H_2S trim.

7) Communication:

   (a) Radio communications on rig and in company vehicles including cellular telephone and 2-way radio.

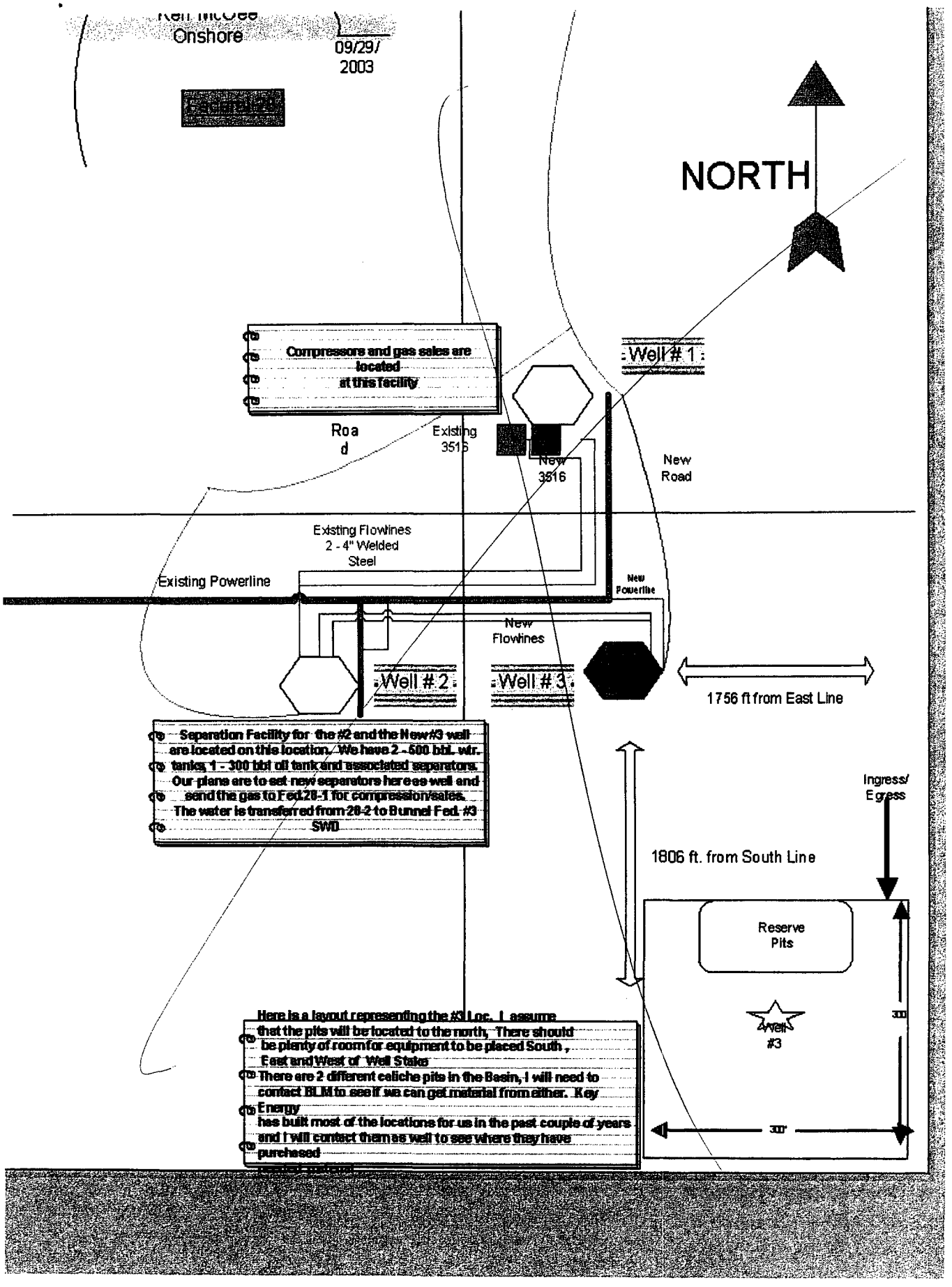
   (b) Land line (telephone) communications at Gas Plant approximately 3 miles away.

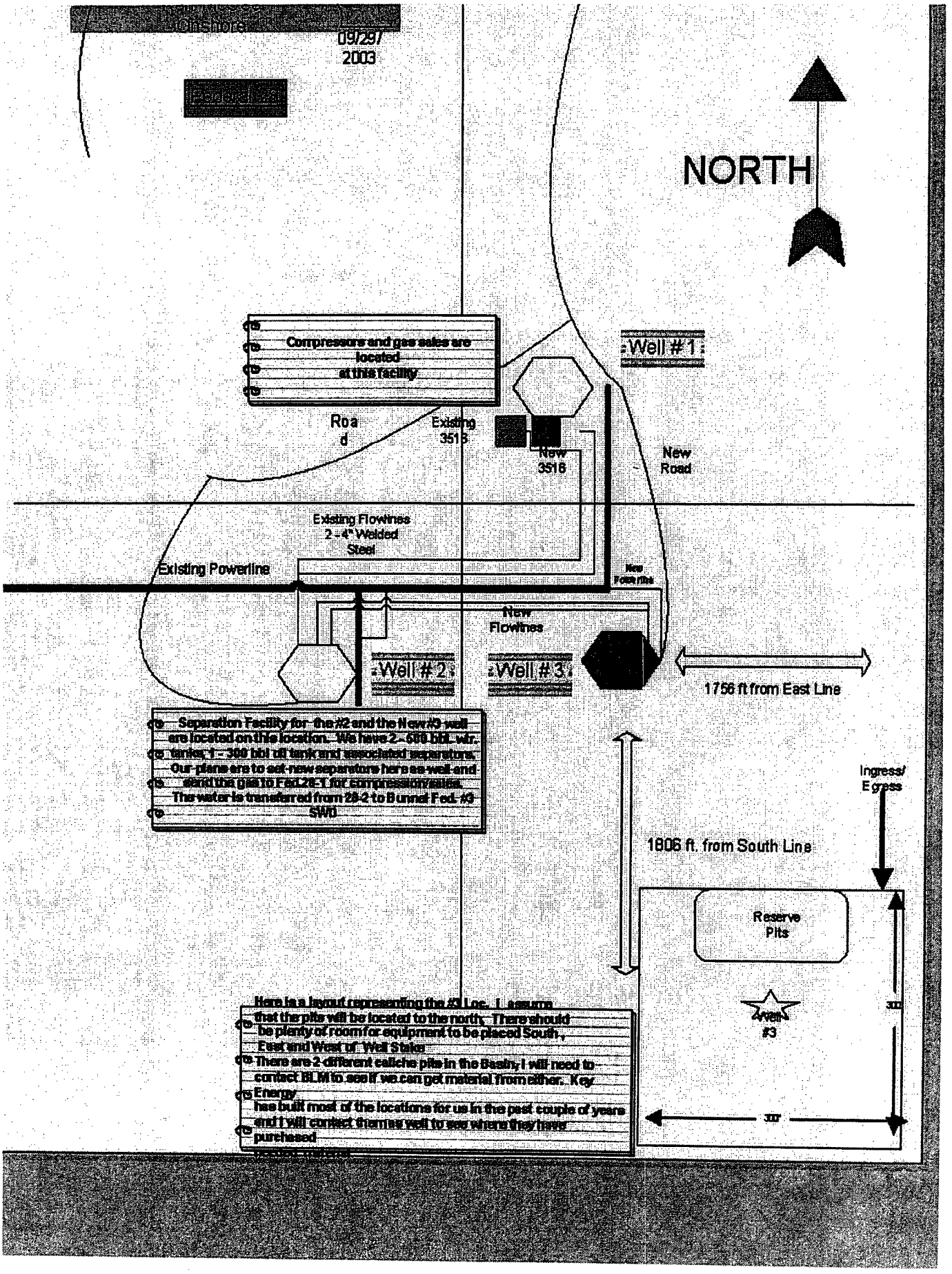
8) Well testing:

   (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 H_2S environment will use the closed chamber method of testing.

9) H_2S Service Company:

   (a) The company handling the H_2S safety services will be Indian Fire and Safety, Inc. out of Hobbs, New Mexico.


Onshore
09/29/
2003
NORTH
Compressors and gas sales are located at this facility
Well # 1
Roa d
Existing 3515
New 3516
New Road
Existing Flowlines 2 - 4" Welded Steel
Existing Powerline
New Powerline
New Flowlines
Well # 2
Well # 3
1756 ft from East Line
Separation Facility for the #2 and the New #3 well are located on this location. We have 2 - 500 bbl. wtr. tanks, 1 - 300 bbl oil tank and associated separators. Our plans are to set new separators here as well and send the gas to Fed 28-1 for compression/sales. The water is transferred from 28-2 to Bunnel Fed. #3 SWD
Ingress/ Egress
1806 ft. from South Line
Reserve Pits
Well #3
300'
300'
Here is a layout representing the #3 Loc. I assume that the pits will be located to the north. There should be plenty of room for equipment to be placed South, East and West of Well Stake
There are 2 different caliche pits in the Basin, I will need to contact BLM to see if we can get material from either. Key Energy has built most of the locations for us in the past couple of years and I will contact them as well to see where they have purchased


09/29/
2003
NORTH
Compressors and gas sales are located at this facility
Well # 1
Road
Existing 3516
New 3516
New Road
Existing Flowlines 2 - 4" Welded Steel
Existing Powerline
New Flowlines
New Flowlines
Well # 2
Well # 3
1756 ft from East Line
Separation Facility for the #2 and the New #3 well are located on this location. We have 2 - 500 bbl. wtr. tanks, 1 - 300 bbl oil tank and associated separators. Our plans are to set new separators here as well and send the gas to Fed 28-1 for compression/sales. The water is transfered from 28-2 to Bunnel Fed. #3 SWD
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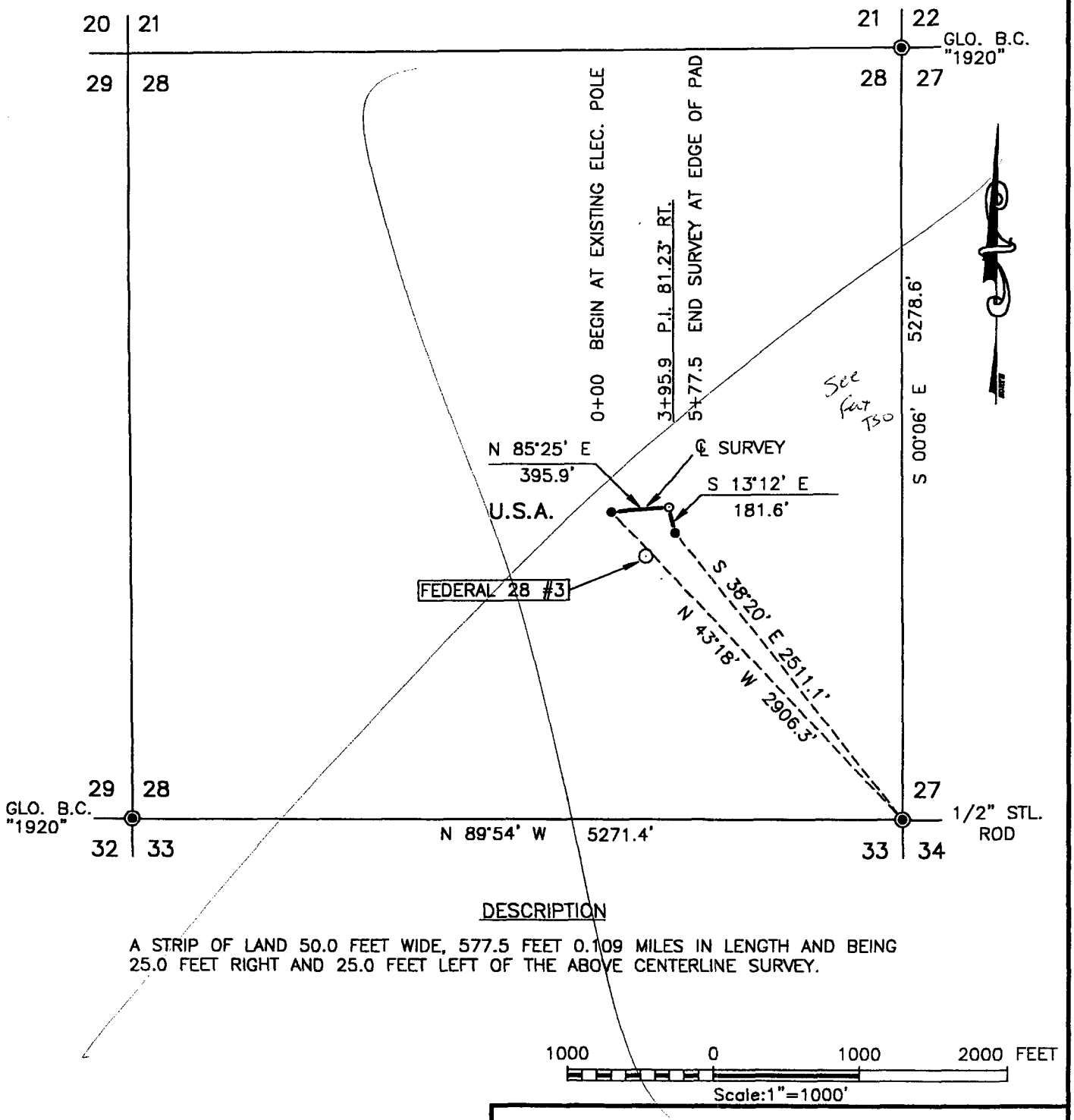
300'
300'

SECTION 28, TOWNSHIP 21 SOUTH, RANGE 23 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE, 577.5 FEET 0.109 MILES IN LENGTH AND BEING 25.0 FEET RIGHT AND 25.0 FEET LEFT OF THE ABOVE CENTERLINE SURVEY.

1000 0 1000 2000 FEET

Scale:1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Gary G. Eidson 10/10/03

GARY G. EIDSON N.M. P.S. No. 12641

JOHN WEST SURVEYING COMPANY

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

GARY G. EIDSON NEW MEXICO 12641 REGISTERED PROFESSIONAL SURVEYOR

KERR-MCGEE OIL & GAS ON SHORE, LLC

SURVEY OF AN ELECTRIC LINE CROSSING U.S.A LAND IN SECTION 28, TOWNSHIP 21 SOUTH, RANGE 23 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 09/29/03		Sheet 1 of 1 Sheets	
W.O. Number: 03.11.1062		DRAWN BY: A.W.B	
Date:09/30/03	DISK: CD#9	ELEC.LN 1062	Scale:1"=1000'

Kerr-McGee Oil & Gas Onshore

16666 Northchase
Houston, Texas 77060

Hydrogen Sulfide (H_2S) Contingency Plan

For

Federal 28 #3
1902 Feet From South Line
2088 Feet From East Line
Section-28, Township-21South, Range-23East
Eddy County, New Mexico

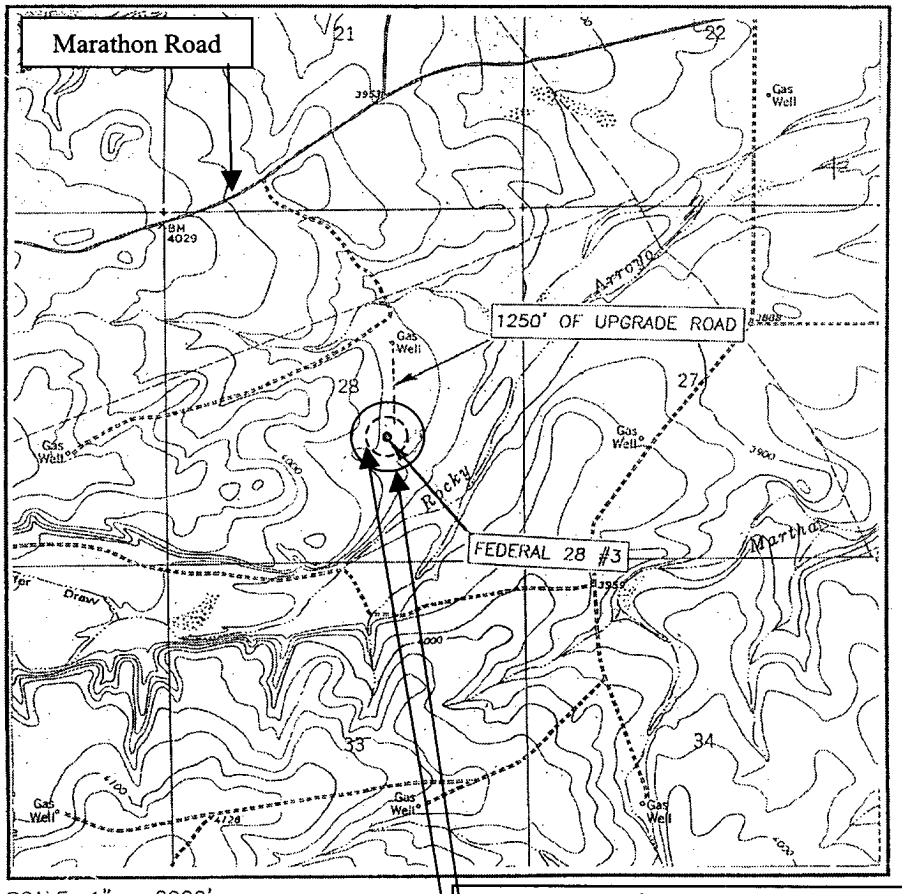
And

Patterson Drilling Rig #500

Federal 28 #3

Latitude 32° 26' 51.29" Longitude 104° 36' 17.69"

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.



SCALE: 1" = 2000'

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

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1902' FSL & 2088' FEL

ELEVATION 3959'

OPERATOR KERR-McGEE OIL & GAS ONSHORE,

LEASE FEDERAL 28

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

100 ppm Radius Of Exposure = 477 Feet.

500 ppm Radius Of Exposure = 218 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
# 3	6000	2	477.11	218.02

Emergency Procedures

In the case of a release of gas containing H_2S, 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 H_2S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H_2S 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 (SO_2). 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 shatt 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 H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	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	505-7063423	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
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