

District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Ave., Artesia, NM 88210

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

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

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

Form C-101
Permit 888

APPLICATION FOR PERMIT TO DRILL

Operator Name and Address EOG RESOURCES INC PO Box 2267 Midland, TX 79702		OGRID Number 7377
		API Number 30-015-33404
Property Code 33885	Property Name AMAZON 8 FEE COM	Well No. 001

Surface Location

UL or Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
F	8	17S	25E	F	1980	N	1980	W	Eddy

Proposed Pools

EAGLE CREEK;PERMO PENN (GAS) 76280 WILDCAT;MORROW (GAS) 96070
--

Work Type New Well	Well Type GAS	Cable/Rotary	Lease Type Private	Ground Level Elevation 3602
Multiple Y	Proposed Depth 8000	Formation Morrow	Contractor	Spud Date 05/11/2004

Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	365	300	0
Int1	12.25	9.625	40	1200	500	0
Prod	8.75	7	26	8000	600	700

Casing/Cement Program: Additional Comments

Plan is to drill a vertical Morrow test. If the Morrow is uneconomical, the well will be plugged back and a lateral will be drilled in the Wolfcamp. The Wolfcamp will be completed open hole w/ a slotted liner. Wolfcamp Horizontal: 8.75 7 26# 5200 500sx 700 TOC Cutbrine Polymer 6.125 4.5 11.60# 7565 none - slotted liner FW

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

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

Electronically Signed By: Stan Warner

OIL CONSERVATION DIVISION

Electronically Approved By: Bryan Arrant

Title: Geologist

EOG RESOURCES, INC.
HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN
FOR DRILLING/COMPLETING/WORKOVER/FACILITY
WITH THE EXPECTATION OF H₂S IN EXCESS OF 100 PPM

30-015-33404

This well/facility is not expected to have H₂S, but due to the sensitive location,
The following is submitted as requested

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GENERAL H2S EMERGENCY ACTIONS:

In the event of an H2S emergency, the following plan will be initiated.

- 1) All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
- 2) If for any reason a person must enter the hazardous area, they must wear a SCBA (Self contained breathing apparatus)
- 3) Always use the "buddy system"
- 4) Isolate the well/problem if possible
- 5) Account for all personnel and provide for medical treatment if needed.
- 6) Display the proper colors warning all unsuspecting personnel of the danger at hand.
- 7) As per EOG's Crisis Management Plan contact EOG Management.

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

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

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

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in arms way he will take the necessary steps to

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

	<u>OFFICE</u>	<u>MOBILE</u>	<u>HOME</u>
EOG Resources, Inc.	432/686-3600		
David Anderson	432/686-3601	432/634-1002	
Billy Helms	432/686-3795	432/557-5345	
Howard Kemp	432/686-3704	432/634-1001	

EMERGENCY RESPONSE NUMBERS: Eddy County, New Mexico

State Police	505/748-9718
Eddy County Sheriff	505/746-2701
Emergency Medical Service (Ambulance)	911 or 505/746-2701
Eddy County Emergency Management (Harry Burgess)	505/887-9511
State Emergency Response Center (SERC)	505/476-9620
Artesia Police Department	505/746-5001
Artesia Fire Department	505/746-5001
Carlsbad Police Department	505/885-2111
Carlsbad Fire Department	505/885-3125
Loco Hills Fire Department	505/677-2349
(NMOCD) New Mexico Oil Conservation Division, District I (Lea, Roosevelt, Chavez, Curry)	505/393-6161
District II (Eddy, Chavez)	505/748-1283
American Safety	505/746-1096
Indian Fire & Safety	800/530-8693
Callaway Safety	505/392-2973
BJ Services	502/746-3146

PROTECTION OF THE GENERAL PUBLIC/ROE:

In the event greater than 100 ppm H₂S is present, the ROE (Radius Of Exposure) calculations will be done to determine if the following is warranted:

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road which the general public may travel)
- 100 ppm radius of 3000' will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H₂S could be present in concentrations greater than 100 ppm in the gas mixture.

Calculation for the 100 ppm ROE:

$$X = [(1.589)(\text{concentration})(Q)]^{(0.6258)}$$

Calculation for the 500 PPM ROE

$$X = [(0.4546)(\text{concentration})(Q)]^{(.06258)}$$

Q=Gas flow rate, SCFPD

concentration = decimal equivalent of the volume fraction of hydrogen sulfide in the gaseous mixture

PUBLIC EVACUATION PLAN :

(When the supervisor has determined that the General Public will be involved, the following plan will be implemented)

- 1) Notification of the emergency response agencies of the hazardous condition and Implement evacuation procedures.
- 2) A trained person in H₂S safety shall monitor with detection equipment the H₂S Concentration, wind and area of exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. (All monitoring equipment shall be UL approved, for use in class I groups A, B, C & D, Division I, hazardous locations. All monitors will have a minimum capability of measuring H₂S, oxygen, and flammable values).
- 3) Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
- 4) The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION:

The decision to ignite a well should be a last resort and one if not both of the following pertain.

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

INSTRUCTIONS FOR IGNITION:

- 1) Two people are required. They must be equipped with positive pressure; self contained breathing apparatus and a "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.
- 2) One of the people will be a qualified safety person who will test the atmosphere for H₂S, Oxygen, and LFL. The other person will be the company supervisor; he is responsible for igniting the well.
- 3) Ignite up-wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a $\pm 500'$ range to ignite the gas.
- 4) Prior to ignition, make a final check for combustible gases.
- 5) Following ignition, continue with the emergency actions and procedures as before.

REQUIRED EMERGENCY EQUIPMENT

- 1) Breathing Apparatus:
 - Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
 - Work/Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
 - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.
- 2) Signage and Flagging:
 - One Color Code Condition Sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - A Colored Condition flag will be on display, reflecting the condition at the site at that time.
- 3) Briefing Area: Two, perpendicular areas will be designated by signs and readily accessible.

- 4) Wind Socks: Two windsocks will be placed in strategic locations, visible from all angles.
- 5) H₂S Detectors and Alarm: The stationary detector with three (3) sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 15 ppm. Calibrate a minimum of every 30 days or as needed. The 3 sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)
 - Rig Floor
 - Bell Nipple
 - End of Flow line or where well bore fluid are being discharged.
- 6) Auxiliary Rescue Equipment:
 - Stretcher
 - Two OSHA full body harness
 - 100' of 5/8" OSHA approved rope
 - 1-20# Class ABC fire extinguisher
 - Communication via cell phones on location and vehicles on location.

USING SELF-CONTAINED BREATHING AIR EQUIPMENT (SCBA):

SCBA should be worn when any of the following are performed:

- Working near the top or on top of a tank.
- Disconnecting any line where H₂S can reasonably be expected.
- Sampling air in the area to determine if toxic concentrations of H₂S exist
- Working in areas where over 10 ppm on H₂S has been detected.
- At any time there is a doubt as the level of H₂S in the area.

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

Facial hair and standard eyeglasses are not allowed with SCBA.

Contact lenses are never allowed with SCBA.

Air quality shall continuously be checked during the entire operation.

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

All SCBA shall be inspected monthly.

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

Do not panic.

Remain calm & think.

Get on the breathing apparatus.

Remove the victim to the safe breathing area as quickly as possible. Upwind an uphill from source or cross wind to achieve upwind.

Notify emergency response personnel.

Provide artificial respiration and/or CPR, as necessary.

Remove all contaminated clothing to avoid further exposure.

A minimum of two (2) personnel on location shall be trained in CPR and First Aid.

H2S TOXIC EFFECTS:

H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (SP.Gr=1.19/Air=1) and colorless. It forms an explosive mixture with air between 4.3% and 46.0%. By volume hydrogen sulfide (H2S) is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

Various Gasses

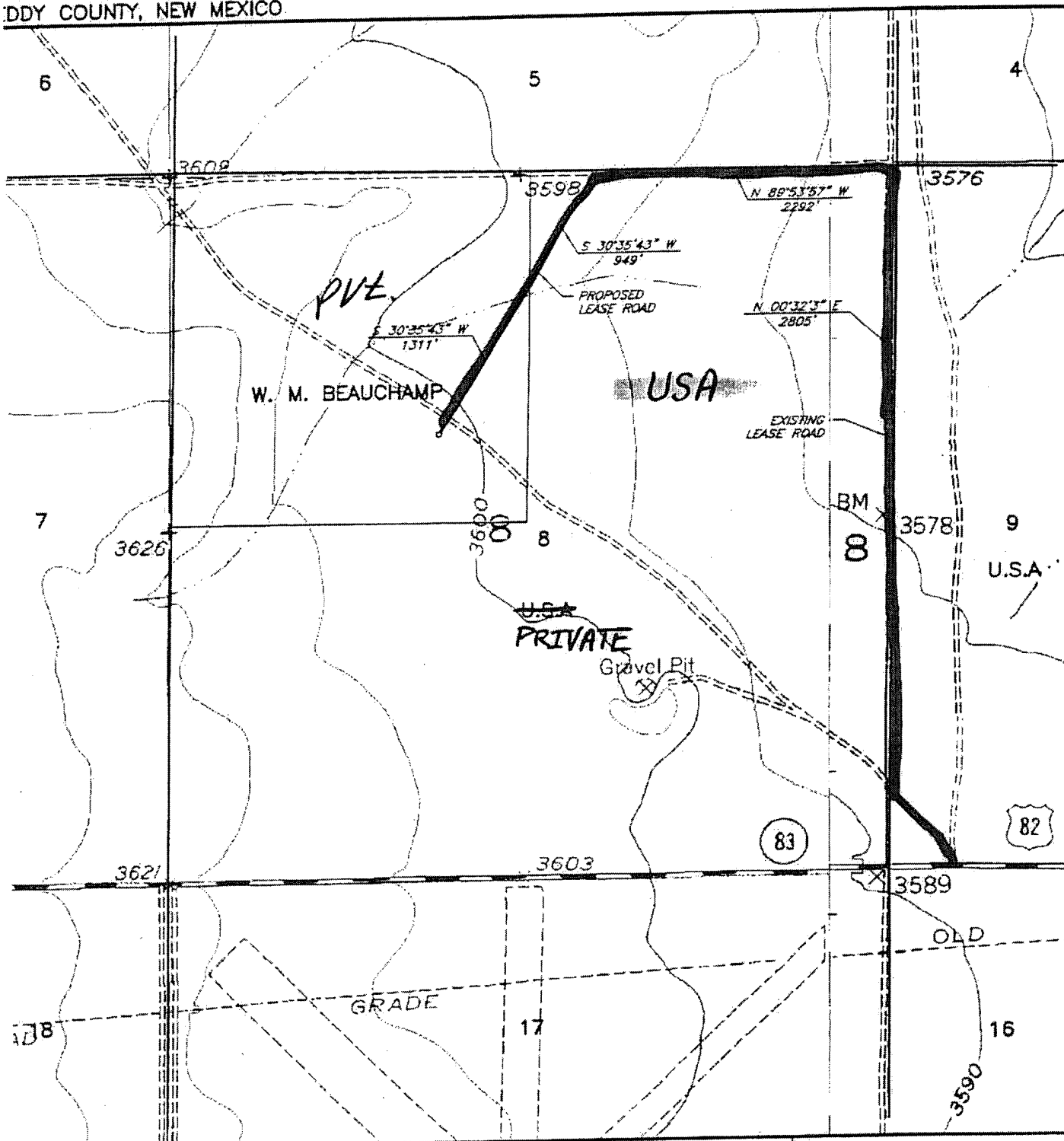
Common Name	Chemical Abbrev.	Sp. GR.	Threshold Limits	Hazardous Limits	Lethal Concentration
Hydrogen Sulfide	H2S	1.19	10 ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO2	1.52	5000 ppm	5%	10%
Methane	CH4	0.55	90,000	Combustible @ 5%	N/A

- 1 Threshold limit – Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without Adverse effects.
- 2 Hazardous limit – Concentration that may cause death
- 3 Lethal concentration – Concentration that will cause death with short-term exposure
- 4 Threshold limit – 10 ppm – NIOSH guide to chemical hazards
- 5 Short-term threshold limit

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

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

Amalgam & Fee Cap Act
 DRAWING OF PROPOSED LEASE ROAD IN
 SECTION 8, T-17-S, R-25-E, N.M.P.M.
 ODDY COUNTY, NEW MEXICO.



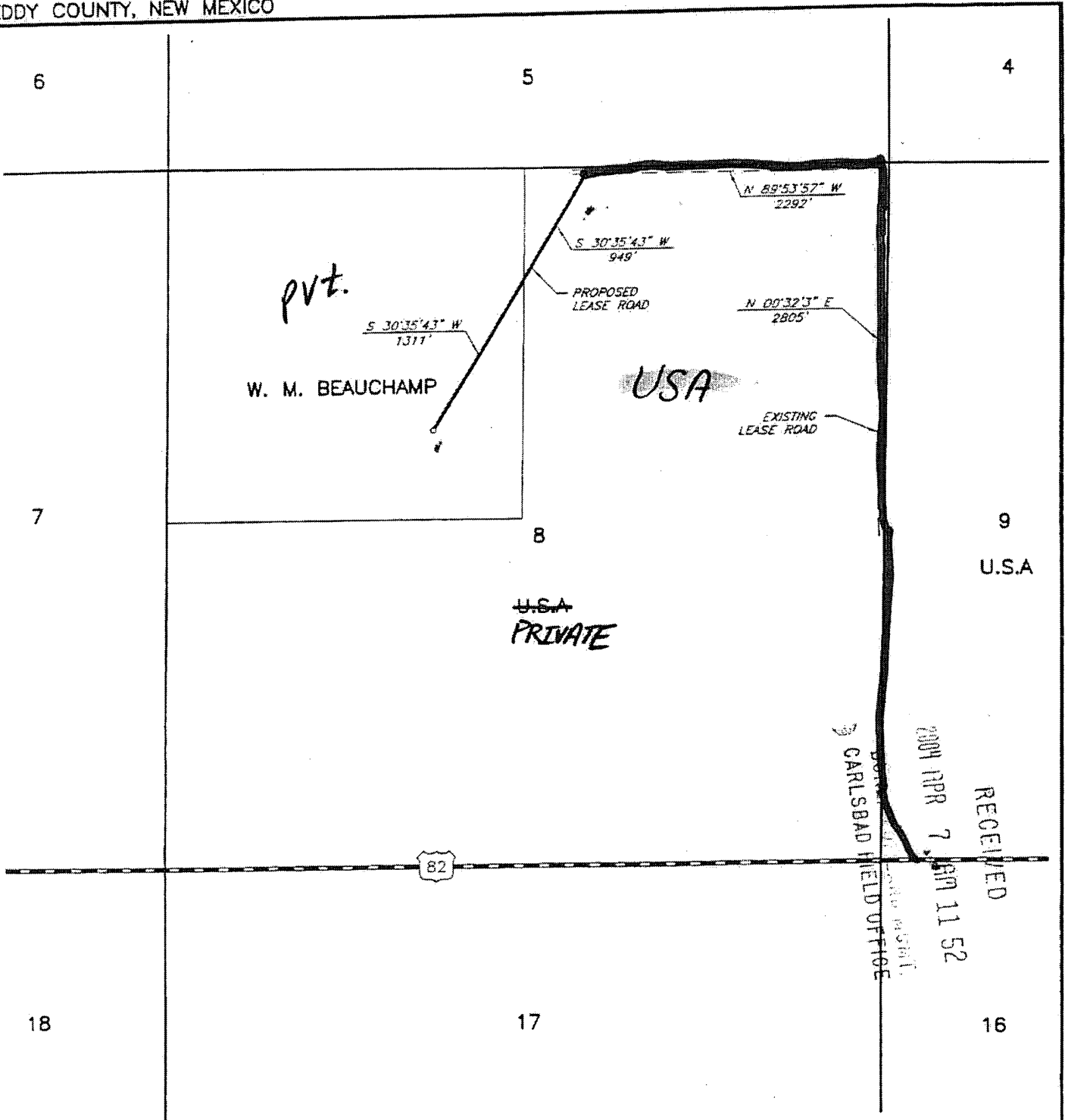
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EOG RESOURCES, INC.

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
 MIDLAND, TEXAS

SCALE: 1" = 1000'
 DATE: APRIL 2, 2004
 JOB NO.: 94139-RD
 QUAD NO.: 101SE
 SHEET: 1 OF 1

DRAWING OF PROPOSED LEASE ROAD IN
SECTION 8, T-17-S, R-25-E, N.M.P.M.
HIDALGO COUNTY, NEW MEXICO



				EOG RESOURCES, INC.	SCALE: 1" = 1000'
					DATE: APRIL 2, 2004
NO.	REVISION	DATE	BY		JOB NO.: 94139-RD
SURVEYED BY: J.S.J.					QUAD NO.: 101SE
DRAWN BY: J.C.P.				TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS	SHEET : 1 OF 1
APPROVED BY: W.J.K.					

eog resources inc

Planning Report

Company: EOG Resources	Date: 4/22/2004	Time: 14:38:48	Page: 1
Field: Thames	Co-ordinate(NE) Reference: Site: Amazon "8" Fee Com No. 1		
Site: Amazon "8" Fee Com No. 1	Vertical (TVD) Reference: SITE 3620.0		
Well: Amazon "8" Fee Com No. 1	Section (VS) Reference: Well (0.00N,0.00E,180.37Az)		
Wellpath: Original Openhole	Plan: Plan #1		

Field: Thames

Map System: US State Plane Coordinate System 1927
 Geo Datum: NAD27 (Clarke 1866)
 Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
 Coordinate System: Site Centre
 Geomagnetic Model: igr2000

Site: Amazon "8" Fee Com No. 1

Site Position: Northing: 673691.00 ft Latitude: 32 51 6.974 N
 From: Map Easting: 445962.00 ft Longitude: 104 30 33.475 W
 Position Uncertainty: 0.00 ft North Reference: Grid
 Ground Level: 3602.00 ft Grid Convergence: -0.10 deg

Well: Amazon "8" Fee Com No. 1

Slot Name:

Well Position: +N/-S 0.00 ft Northing: 673691.00 ft Latitude: 32 51 6.974 N
 +E/-W 0.00 ft Easting: 445962.00 ft Longitude: 104 30 33.475 W
 Position Uncertainty: 0.00 ft

Wellpath: Original Openhole

Current Datum: SITE	Height 3620.00 ft	Drilled From: Surface
Magnetic Data: 4/22/2004		Tie-on Depth: 0.00 ft
Field Strength: 49767 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S	Declination: 9.09 deg
ft	ft	Mag Dip Angle: 60.84 deg
		+E/-W
		Direction
		deg
5025.00	0.00	0.00 180.37

Plan: Plan #1

Date Composed: 4/22/2004
 Version: 1
 Tied-to: From Surface

Principal: Yes

Plan Section Information

MD ft	Incl deg	Azimuth deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Bull deg/100ft	Turn deg/100ft	TPO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4738.52	0.00	0.00	4738.52	0.00	0.00	0.00	0.00	0.00	0.00	
5188.52	90.00	180.37	5025.00	-286.47	-1.83	20.00	20.00	0.00	0.00	
7565.10	90.00	180.37	5025.00	-2663.00	-17.00	0.00	0.00	0.00	0.00	BHL

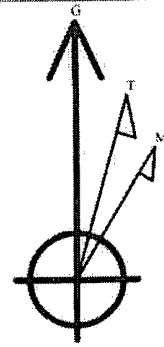
Targets

Name	Description Dip	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
BHL			5025.00	-2663.00	-17.00	671028.00	445945.00	32 50 40.622 N	104 30 33.623 W

30-015-33404



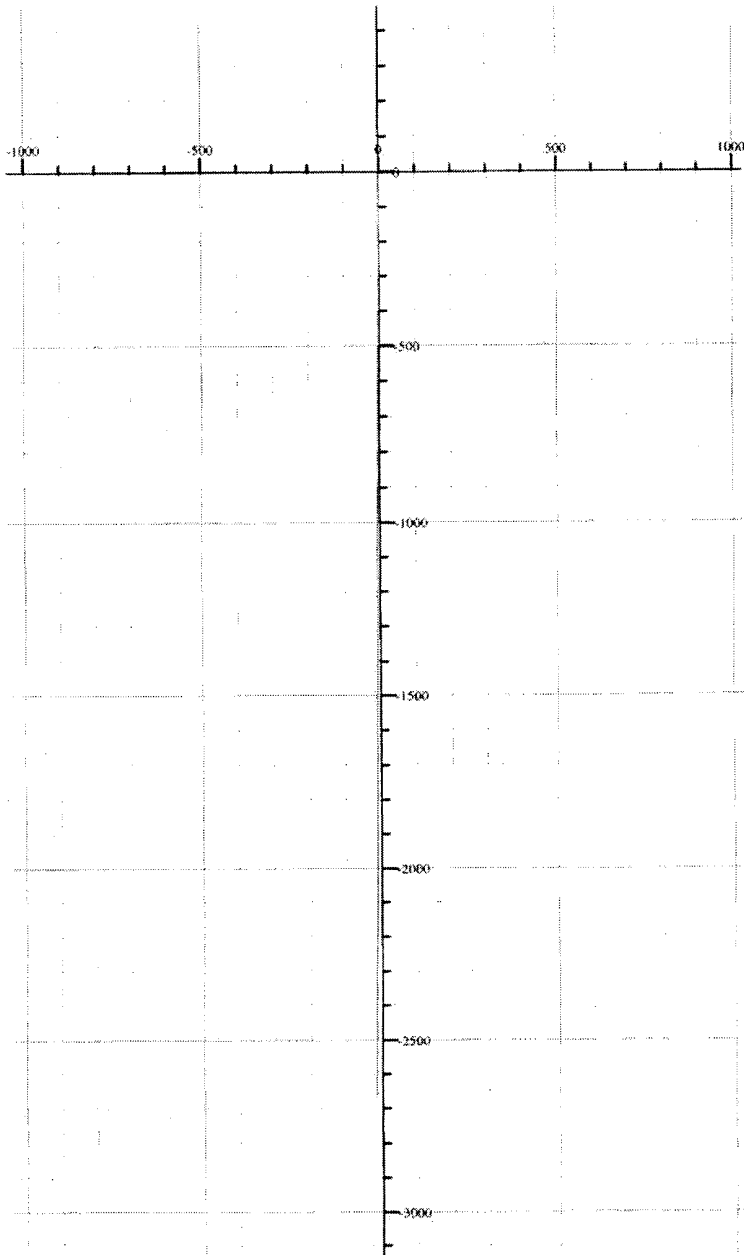
Field: Thames
Site: Amazon "8" Fee Com No. 1
Well: Amazon "8" Fee Com No. 1
Wellpath: Original Openhole
Plan: Plan #1



Azimuths to Grid North
True North: 0.19°
Magnetic North: 9.19°

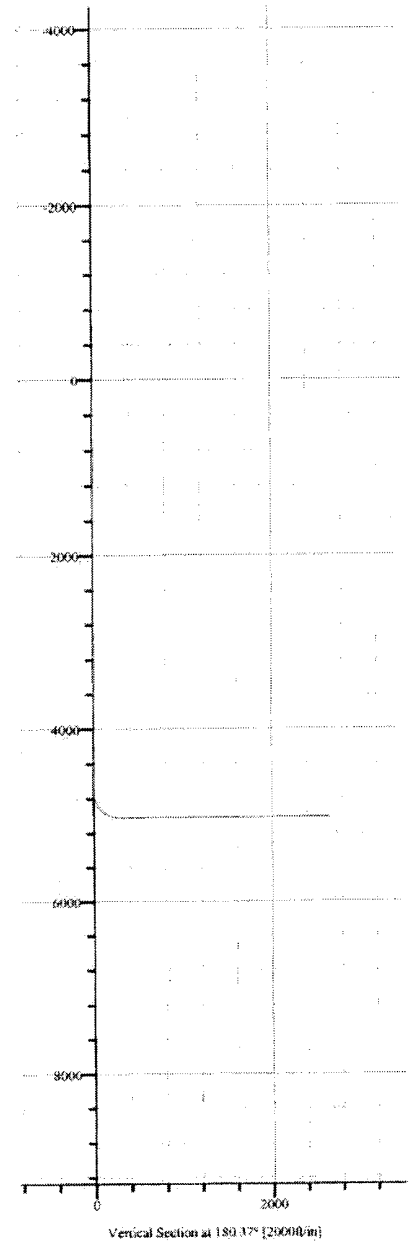
Magnetic Field
Strength: 49767nT
Dip Angle: 60.84°
Date: 4/22/2004
Model: igr12000

West(-)/East(+) [500ft/m]



South(-)/North(+) [500ft/m]

True Vertical Depth [2000ft/m]



Amazon "8" Fee Com No. 1

	Hole Size	Casing Size	Casing Weight	Setting Depth	Sacks of Cement	Estimated TOC	Mud
Morrow	17.5"	13 3/8"	48#	365	300	Surface	Fresh Water Spud
	12.25"	9 5/8"	40#	1200	500	Surface	Brine Water
	8.75"	7"	26#	8000	600	700'	Cut Brine Polymer
Wolfcamp Horizontal	8.75"	7"	26#	5200	500	700'	Cutbrine Polymer
	6.125"	4.5"	11.60#	7565	None - Slotted Liner	NA	Fresh Water

Plan is to drill a vertical Morrow test. If the morrow is uneconomical, the well will be plugged back and a lateral will be drilled in the Wolfcamp. The Wolfcamp will be completed openhole with a slotted liner.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

432 686 3689

Operator: EOG Resources, Inc. Telephone: _____ e-mail address: stan.wagner@eogresources.com
Address: P.O. Box 2267 Midland, TX 79702
Facility or well name: Amazon 8 Fee Com 1 API #: _____ U/L or Qtr/Qtr F Sec 8 T 17S R25E
County: Eddy Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☒ Indian ☐

Pit Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>20</u> mil Clay <input type="checkbox"/> Volume _____ bbl	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) <u>100 feet or more</u> (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) <u>No</u> (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <u>1000 feet or more</u> (0 points)
Ranking Score (Total Points)	

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility: _____ (3) Attach a general description of remedial action taken including remediation start date and end date: (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 4/23/04

Printed Name/Title Stan Wagner Reg Analyst

Signature Stan Wagner

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: _____

Printed Name/Title _____

Signature _____