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

RECEIVED
FEB 13 2006
OCD-ARTESIA

Form C-101
March 4, 2004

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

[1] Operator Name and Address	[2] OGRID Number
Pogo Prouducing Company P.O. Box 10340, Midland, TX 79702-7340	017891
	[3] API Number 30- 015-32612

[3] Property Code	[5] Property Name	[6] Well No.
31922	State 19 Com	2

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	20S	27E		1980	South	660	West	Eddy

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	19	20S	27E		330	North	660	West	Eddy

[9] Proposed Pool 1	[10] Proposed Pool 2
McMillan Wolfcamp (45090)	

Drilling Pit Location and Other Information

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	20S	27E		1980	South	660	West	Eddy

Depth to ground water	Distance from nearest fresh water well	Distance from nearest surface water
100'+	1.7 miles	1000'+

OK
fa.

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
P	O		S	3289'

[16] Multiple	[17] Proposed Depth	[18] Formation	[19] Contractor	[20] Spud Date
No		Wolfcamp		When approved

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2	13-3/8	48	450	1030	
12-1/4	9-5/8	40,43.5, 53.5	3000	975	
8-1/2	7	29	8094	1000	
6-1/8			10,700		

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

SEE ATTACHED.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Signature: Cathy Wright

Printed name: Cathy Wright

Title: Sr Eng Tech

E-mail Address: wrightc@pogoproducing.com

Date: 2/9/06 Phone: 432-685-8100

OIL CONSERVATION DIVISION

Approved by: Gary W. Lane
District II Supervisor

Title:

Approval Date: FEB 17 2006 Expiration Date: FEB 17 2007

Conditions of Approval:

Attached ☐

Pogo Producing Company
State 19 Com #2
Section 19, T20S, R27E
Eddy County, NM
30-015-32612

Pogo Producing Company respectfully request permission to plug back from the Morrow to the Wolfcamp in the above captioned well using the following procedure:

1. MIRU well service unit. POH w/ rods & pump. ND WH. NU BOP's.
2. POH w/ tbg. LD mud anchor. TIH w/ sqz pkr.
3. Sqz Bone Spring as per recommendation.
4. Rel pkr & POH. DO sqz & test to 500#.
5. LD tbg. Blind flange WH. RD & MO well service unit.
6. MIRU drilling tools. ND BOP's. Test same.
7. Run gyro & prepare direction plan.
8. TIH w/ cased hole permanent whipstock. Orient as per directional company.
9. TIH w/ mill & cut window. POH.
10. TIH w/ angle building assembly. Build curve @ ±25° build rate / 100' hole.
11. POH w/ angle building assembly. TIH w/ reaming assembly. Ream curve.
12. POH w/ reaming assembly. TIH w/ lateral drilling assembly. Drill lateral.
13. POH. PU liner & set same. Cmt liner.
14. POH & rig down drilling tools.
15. MIRU completion tools. Clean out liner.
16. RIH w/ 4-1/2" frac string. Frac well as per instructions.
17. Evaluate for production equipment.

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-32612	45090	McMillan Wolfcamp

[4] Property Code	[5] Property Name	[6] Well Number
31922	State 19 Com	2

[7] OGRID No.	[8] Operator Name	[9] Elevation
017891	Pogo Producing Company	3289'

[10] Surface Location

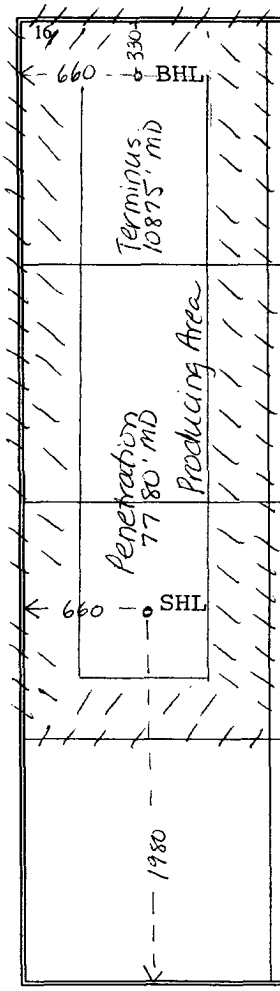
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	20S	27E		1980	South	660	West	Eddy

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	19	20S	27E		330	North	660	West	Eddy

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
120			

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



[17] OPERATOR CERTIFICATION

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

Signature

Cathy Wright

Printed Name

Sr Eng Tech

Title and E-mail Address

02/09/06

Date

[18] SURVEYOR CERTIFICATION

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

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

Pogo Producing

BLACK VIPER ENERGY SERVICES, LTD.

Project: Eddy Co., New Mexico
Site: State 19 Com #2
Well: State 19 Com #2
Wellbore: Lateral #1
Plan: Plan #1

PROJECT DETAILS: Eddy Co., New Mexico

Geodetic System:US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

System Datum: Ground Level

ANNOTATIONS

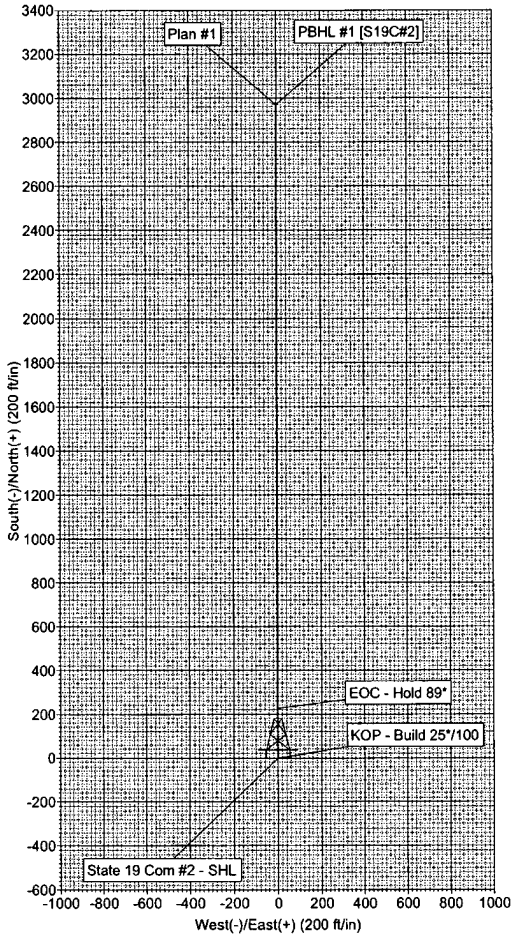
TVD	MD	Annotation
7770.00	7770.00	KOP - Build 25°/100
8000.00	8127.15	EOC - Hold 89°

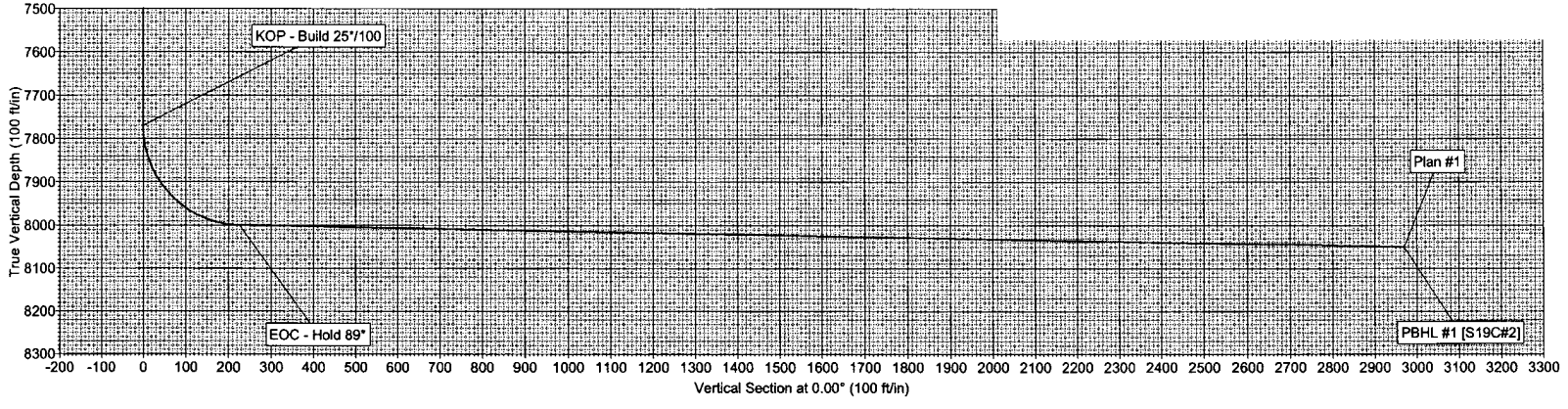
Azimuths to True North
Magnetic North: 8.57°

Magnetic Field
Strength: 49298.8nT
Dip Angle: 60.49°
Date: 2/17/2006
Model: IGRF200510

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7700.00	0.00	0.00	7700.00	0.00	0.00	0.00	0.00	0.00	
2	7770.00	0.00	0.00	7770.00	0.00	0.00	0.00	0.00	0.00	
3	8127.15	88.96	360.00	8000.00	225.85	0.00	24.91	0.00	225.85	
4	10871.76	88.96	360.00	8050.00	2970.00	0.00	0.00	0.00	2970.00	PBHL #1 [S19C#2]





Plan: Plan #1 (State 19 Com #2/Lateral #1)
Created By: John Hatteberg Date: 02/17/2006

Pogo Producing Company

Eddy Co., New Mexico
State 19 Com #2
State 19 Com #2
Lateral #1

Plan: Plan #1

Standard Planning Report

17 February, 2006

BLACK VIPER
ENERGY SERVICES, LTD.

Database:	EDM 2003.11 Server Db	**Local Co-ordinate Reference:**	Well State 19 Com #2
Company:	Pogo Producing Company	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Project:	Eddy Co., New Mexico	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	State 19 Com #2	**North Reference:**	True
Well:	State 19 Com #2	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Plan #1		

Project Eddy Co., New Mexico

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site State 19 Com #2

Site Position:		**Northing:**	562,625.73 ft	**Latitude:**	32° 32' 48.336" N
From:	Lat/Long	**Easting:**	508,784.07 ft	**Longitude:**	104° 18' 17.388" W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.02 °

Well State 19 Com #2

Well Position	**+N/-S**	0.00 ft	**Northing:**	562,625.73 ft	**Latitude:**	32° 32' 48.336" N
	+E/-W	0.00 ft	**Easting:**	508,784.07 ft	**Longitude:**	104° 18' 17.388" W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0.00 ft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/17/2006	8.57	60.49	49,299

Design Plan #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	7,700.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	8,050.00	0.00	0.00	0.00

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,770.00	0.00	0.00	7,770.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,127.15	88.96	360.00	8,000.00	225.85	0.00	24.91	24.91	0.00	0.00	
10,871.76	88.96	360.00	8,050.00	2,970.00	0.00	0.00	0.00	0.00	0.00	PBHL #1 [S19C#2]

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,770.00	0.00	0.00	7,770.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 25°/100									
8,127.15	88.96	360.00	8,000.00	225.85	0.00	225.85	24.91	24.91	0.00
EOC - Hold 89°									
10,871.76	88.96	360.00	8,050.00	2,970.00	0.00	2,970.00	0.00	0.00	0.00

Database:	EDM 2003.11 Server Db	**Local Co-ordinate Reference:**	Well State 19 Com #2
Company:	Pogo Producing Company	**TVD Reference:**	WELL @ 0.00ft (Original Well Elev)
Project:	Eddy Co., New Mexico	**MD Reference:**	WELL @ 0.00ft (Original Well Elev)
Site:	State 19 Com #2	**North Reference:**	True
Well:	State 19 Com #2	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral #1		
Design:	Plan #1		

Targets

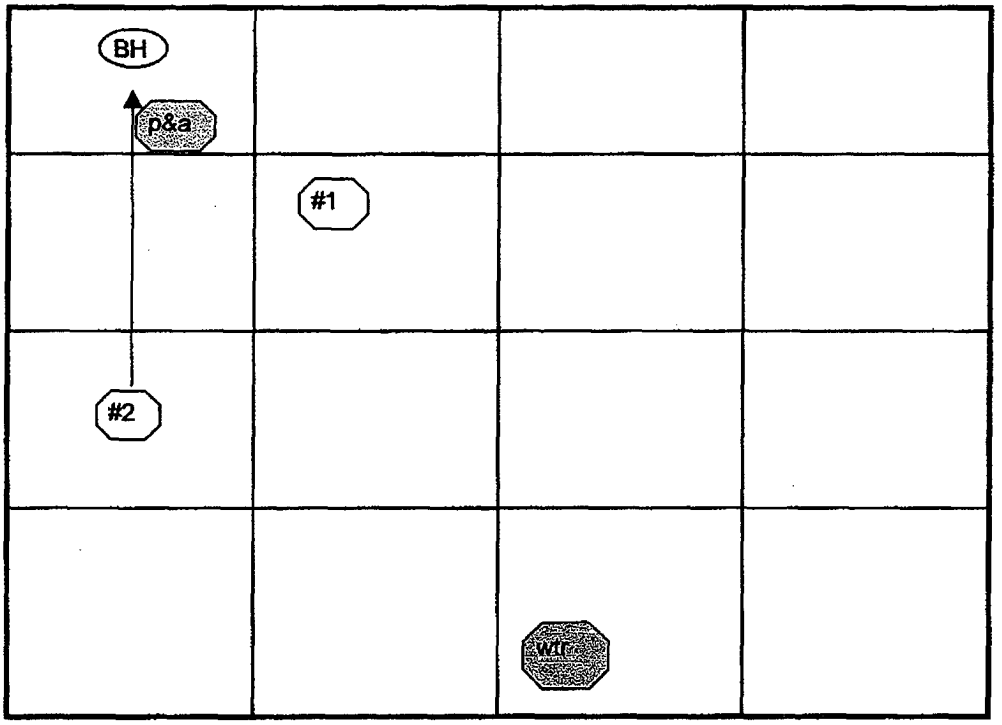
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S ft	+E/-W ft	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL #1 [S19C#2] - plan hits target - Point	0.00	0.00	8,050.00	2,970.00	0.00	565,595.73	508,783.27	32° 33' 17.727" N	104° 18' 17.388" W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,770.00	7,770.00	0.00	0.00	KOP - Build 25°/100
8,127.15	8,000.00	225.85	0.00	EOC - Hold 89°

STATE 19 Well Goupings

Sec 19, T-20-S, R-27-E, Eddy County, New Mexico



Well Name	Legal Location in 19	Depth and Strata	Current Prod Zone
STATE 19 COM # 1 =	1650 FNL & 1650 FWL	TD = 10600' Morrow	Morrow Production
STATE 19 COM # 2 =	1980 FSL & 660 FWL	TD =10700 Morrow	Bone Springs Production
State 19 # 1	330 FSL & 2310 FEL	TD= 1813 YATES	Converted to H20 well
Singer 19 St # 1 =	990 FNL & 810 FWL	TD= 8367 CISCO	P&A

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. Pogo Producing Company has had no known H2S problems in this area, however, there is always a possibility of Hydrogen Sulfide production or releases in the Delaware Basin thus we have orchestrated this plan. Pogo Producing Company will have a Company Representative living on location through out the drilling of the lateral of this well. An un-man H2S safety trailer and monitoring equipment will also be station on location during the drilling operation of the Wolfcamp lateral in this well.

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

TABLE OF CONTENS

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

General H2S Emergency Actions:

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
6. Display the proper colors warning all unsuspection personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby 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.
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.
7. Call the NMOCD

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

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 harms way he will take the necessary steps to protect the workers and the public.
EMERGENCY CALL LIST: (Start and continue until ONE of these people have been contacted)

	OFFICE	MOBILE	HOME
POGO Producing Co.	432 685 8100		
Richard Wright	432 685 8140	432 556 7595	432 699 7108
Barrett Smith	432 685 8141	432 425 0149	432 520 7337
Rex Jasper	432 685 8143	432 631 0127	432 694 1839
Donny Davis	pgr 432 563 6944	432 556 5927	432 570 9555
Jerry Cooper	432 685 8101		432 697 4629

EMERGENCY RESPONSE NUMBERS:

State Police:	Eddy County		505 748 9718
State Police:	Lea County		505 392 5588
Sheriff	Eddy County		505 746 2701
Sheriff	Lea County		
Emergency Medical Ser	Eddy County		911 or 505 746 2701
(Ambulance)	Lea County	Eunice	911 or 505 394 3258
Emergency Response	Eddy County SERC		505 476 9620

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

Artesia Police Dept		**505 746 5001**
Artesia Fire Dept		**505 746 5001**
Carlsbad Police Dept		**505 885 2111**
Carlsbad Fire Dept		**505 885 3125**
Loco Hills Police Dept		**505 677 2349**
Jal Police Dept		**505 395 2501**
Jal Fire Dept		**505 395 2221**
Jal ambulance		**505 395 2221**
Eunice Police Dept		**505 394 0112**
Eunice Fire Dept		**505 394 3258**
Eunice Ambulance		**505 394 3258**
Hobbs Police Dept		
NMOCD	**District 1 (Lea, Roosevelt, Curry)**	**505 393 6161**
	District 2 (Eddy Chavez)	**505 748 1283**
Lea County Information		**505 393 8203**
Callaway Safety	**Lea/Eddy County**	**505 392 2973**
BJ Services	**Artesia**	**505 746 3140**
	Hobbs	**505 392 5556**
Halliburton	**Artesia**	**1 800 523 2482**
	Hobbs	**1 800 523 2482**
Wild Well Control	**Midland**	**432 550 6202**
	Mobile	**432 553 1166**

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

PROTECTION OF THE GENERAL PUBLIC (Radius Of Exposure) ROE:

- 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 ¼ mile in New Mexico 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

CALCULATIONS FOR THE 100 PPM (ROE) "Pasquill-Gifford equation"

X = [(1.589) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

X = [(.4546) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X= [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X= 7 ft

500 ppm X= [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- 1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety, shall monitor with detection equipment the H2S concentration, wind and area 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 1**

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

- **groups A,B,C &D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S , oxygen, and flammable values).**
- 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.
- 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 UNCONTROLABLE CONDITION:

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

INSTRUCTION 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 qualified safety person who will test the atmosphere for H2S, Oxygen & 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 ± 500 ft. range to ignite the gas.

- 4. Prior to ignition, make a final check for combustible gases.

- 5. Following ignition, continue with the emergency actions & procedures as before.

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

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 & Flagging:**
  - One color code condition sign will be placed at the entrance to the site reflection the possible conditions at the site.
  - A colored condition flag will be on display, reflecting the condition at the site at the time.

- **3. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.**

- **4. Wind Socks: Two wind socks will be placed in strategic locations, visible from all angles.**

- **5. H2S detectors and alarms: The stationary detector with thre sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days ora as needed. The 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 ft 5/8 inch OSHA approved rope
  - 1-20# class ABC fire extinguisher
  - Communication via cell phones on location and vehicles on location.

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

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 teim 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 locaton.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be 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 AND 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. Up wind an uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.

Pogo Producing Company
State 19 # 2
Hydrogen Sulfide Contingency Plan
For Drilling/Workover/Facility

1980 FSL & 660 FWL, T20S, R27E, EDDY COUNTY, NEW MEXICO

- Provide artificial respiration and or CPR, as necessary
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

HYDROGEN SULFIDE 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%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

Various Gases

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10ppm 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

Threshold limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death

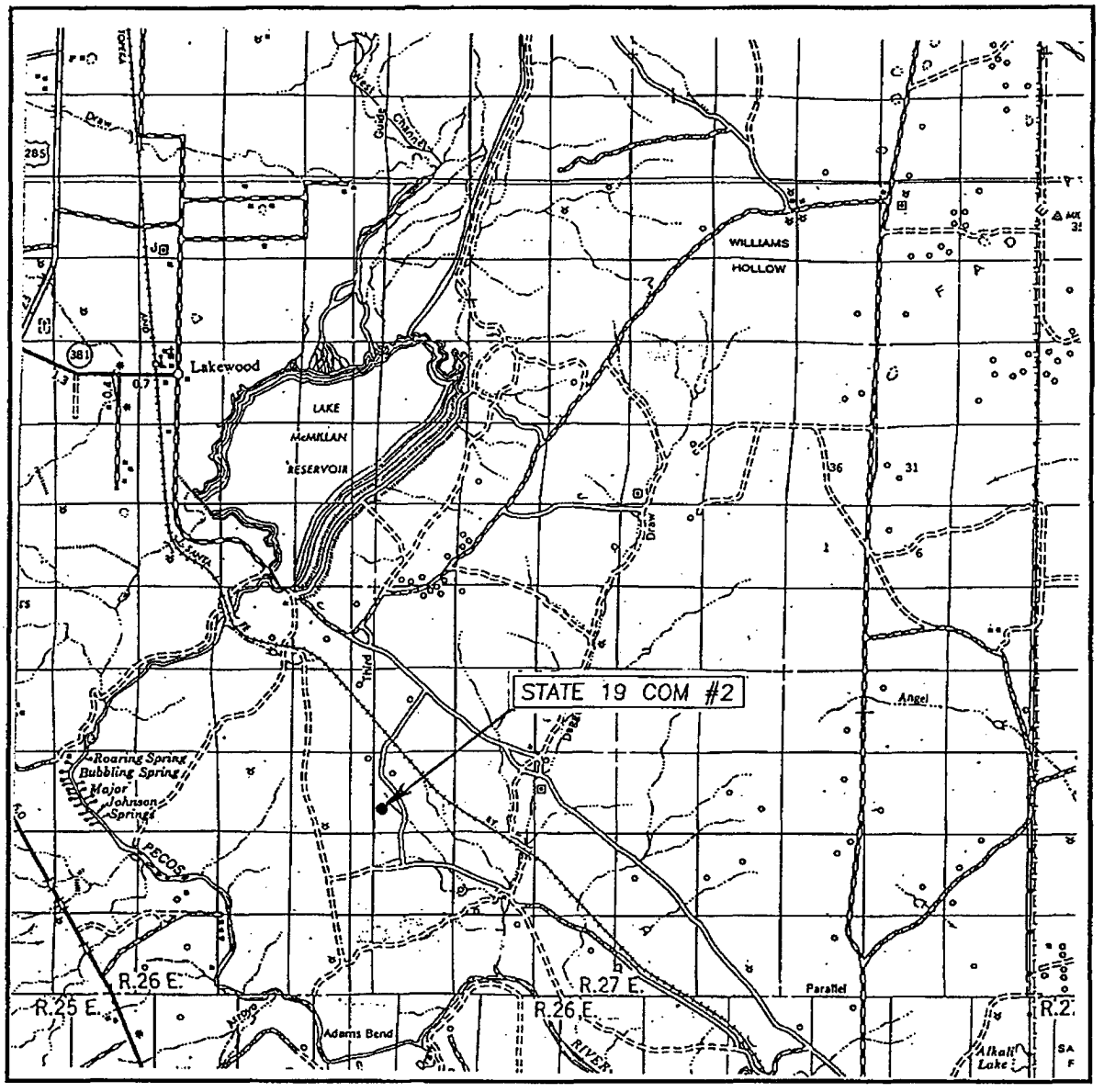
Lethal Concentrations: Concentrations that will cause death with short term exposure

Threshold limit - 10 ppm: NIOSH guide to chemical hazards

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION		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 the eyes and throat.
.02%	200 ppm	Kills the sense of smell rapidly. Severly irritates the eyes and throat. Severe flu like symptoms after 4 or more ours. May cause lung damage and or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

VICINITY MAP



SEC. 19 TWP. 20-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FSL & 660' FWL

ELEVATION 3289'

OPERATOR POGO PRODUCING COMPANY

LEASE STATE 19 COM

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

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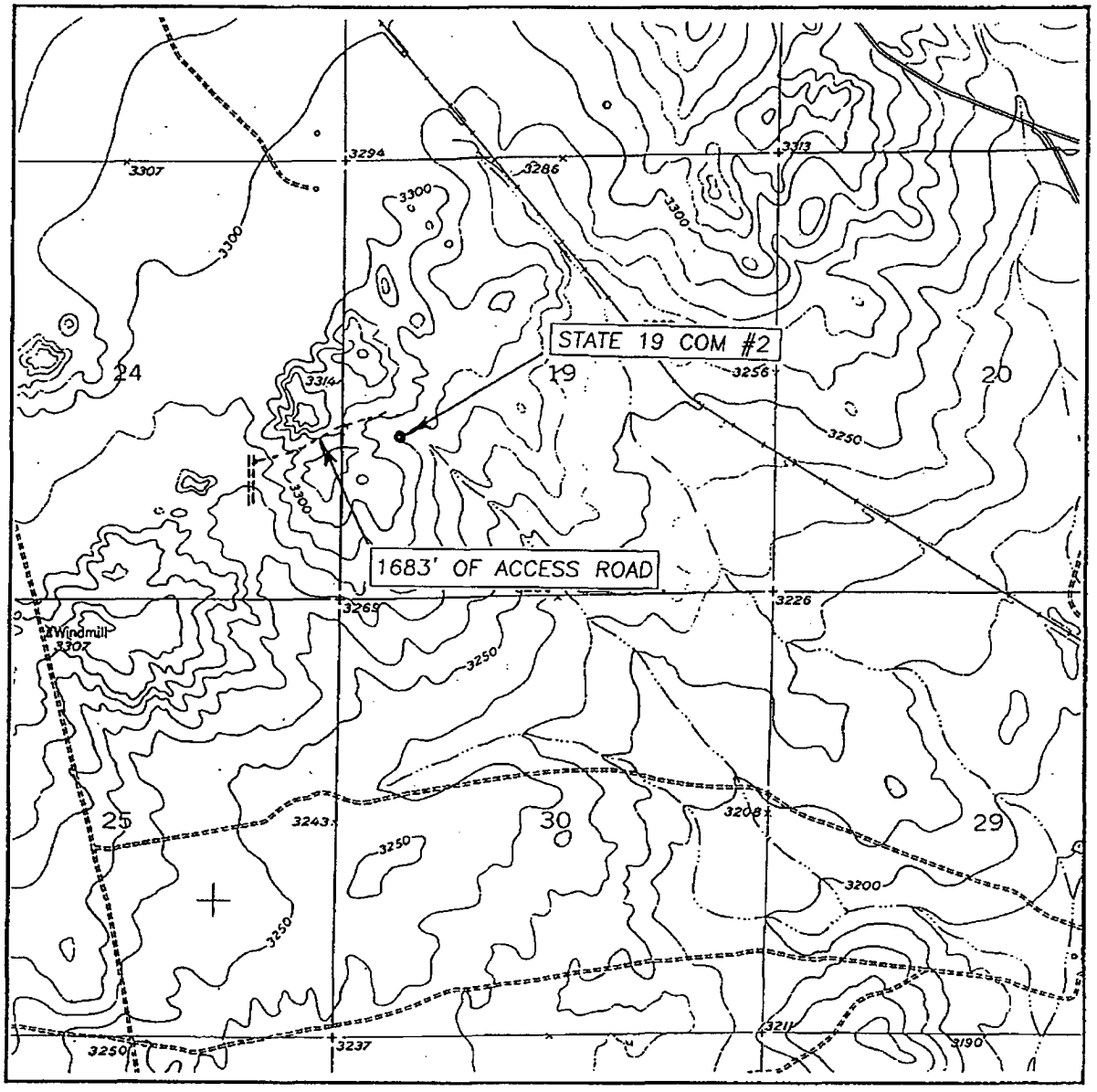
LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
LAKE McMILLAN SOUTH, N.M.

SEC. 19 TWP. 20-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FSL & 660' FWL

ELEVATION 3289'

OPERATOR POGO PRODUCING COMPANY

LEASE STATE 19 COM

U.S.G.S. TOPOGRAPHIC MAP
LAKE McMILLAN SOUTH, N.M.

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

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LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

0	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

DISTANCE TABLE

STATION A	STATION B
3 D DISTANCE BETWEEN STATION A AND STATION B	0.00 ft
Calculator =	

TABLE OF SURVEY STATIONS

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT ⇨	0	0	7780.00	7780.00	0.00	0.00	-
2	100	25	0	7880.00	7876.86	21.47	0.00	25.00
3	100	50	0	7980.00	7955.56	81.87	0.00	25.00
4	100	75	0	8080.00	8001.37	169.87	0.00	25.00
5	50	89	0	8130.00	8008.32	219.26	0.00	28.00
6	100	89	0	8230.00	8010.06	319.24	0.00	0.00
7	100	89	0	8330.00	8011.81	419.23	0.00	0.00
8	100	88	0	8430.00	8014.42	519.19	0.00	1.00
9	100	88	0	8530.00	8017.91	619.13	0.00	0.00
10	100	88	0	8630.00	8021.40	719.07	0.00	0.00
11	100	88	0	8730.00	8024.89	819.01	0.00	0.00
12	100	88	0	8830.00	8028.38	918.95	0.00	0.00
13	100	88	0	8930.00	8031.87	1018.89	0.00	0.00
14	100	88	0	9030.00	8035.36	1118.82	0.00	0.00
15	100	88	0	9130.00	8038.85	1218.76	0.00	0.00
16	100	88	0	9230.00	8042.34	1318.70	0.00	0.00
17	100	88	0	9330.00	8045.83	1418.64	0.00	0.00
18	100	88	0	9430.00	8049.32	1518.58	0.00	0.00
19	100	88	0	9530.00	8052.81	1618.52	0.00	0.00
20	100	88	0	9630.00	8056.30	1718.46	0.00	0.00
21	100	88	0	9730.00	8059.79	1818.40	0.00	0.00
22	100	88	0	9830.00	8063.28	1918.34	0.00	0.00
23	100	88	0	9930.00	8066.77	2018.28	0.00	0.00
24	100	88	0	10030.00	8070.26	2118.22	0.00	0.00
25	100	88	0	10130.00	8073.75	2218.15	0.00	0.00
26	100	88	0	10230.00	8077.24	2318.09	0.00	0.00
27	100	88	0	10330.00	8080.73	2418.03	0.00	0.00
28	100	88	0	10430.00	8084.22	2517.97	0.00	0.00
29	100	88	0	10530.00	8087.71	2617.91	0.00	0.00
30	100	88	0	10630.00	8091.20	2717.85	0.00	0.00
31	100	88	0	10730.00	8094.69	2817.79	0.00	0.00
32	100	88	0	10830.00	8098.18	2917.73	0.00	0.00
33	45	88	0	10875.00	8099.75	2962.70	0.00	0.00
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