

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

(Other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

POGO PRODUCING COMPANY

(RICHARD WRIGHT 432-685-8140)

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (432-685-8100)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

660' FNL & 1500' FWL SECTION 22 T25S-R32E LEA CO. NM

At proposed prod. zone SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approximately 25 miles West of Jal New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

840

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

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

1000'

19. PROPOSED DEPTH

5000'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3412' GR.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	REMARKS
26"	Conductor 20"	NA	40'	
12 1/4"	J-55 8 5/8"	24#	815'	
7 7/8"	J-55 5 1/2"	15.5#	5000'	

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 12 1/4" hole to 815'. Run and set 815' of 8 5/8" 24# J-55 ST&C casing. Cement with 150 Sx. of Class "C" 65/35/6 POZ/GEL, tail in with 150 Sx. of Class "C" cement + 2% CaCl, + 1/4# Flocele/Sx. circulate cement to surface.
3. Drill 7 7/8" hole to 5000'. Run and set 5000' of 5 1/2" 15.5# J-55 ST&C casing. Cement with 475 Sx. of Class "C" Light Weight Cement + 5% Salt mixed at 12.9 #/Gal, tail in in with 250 Sx. of Class "C" cement + 8# of Gilsonite/Sx., mixed at 14.1#/Gal. Circulate cement to surface. Slurry may have to be re-calculated after logs are run.

POGO PRODUCING COMPANY ACCEPTS THE RESPONSIBILITY FOR THE OPERATION
OF THIS LEASE.

Witness Surface Casing

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

24.

SIGNED

TITLE Agent

DATE 01/18/06

(This space for Federal or State office use)

PERMIT NO.

Application approval does not warrant or certify that the applicant holds legal title to the land on which the well is to be drilled.

CONDITIONS OF APPROVAL, IF ANY:

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

ACTING

FIELD MANAGER

APPROVED BY

/s/ James Stovall

TITLE

DATE

MAR 21 2006

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

5. LEASE DESIGNATION AND SERIAL NO.
NM-062300

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
COTTON DRAW UNIT

8. FARM OR LEASE NAME, WELL NO. (301629)
COTTON DRAW UNIT # 108

9. API WELL NO.
30-025-37803

10. FIELD AND POOL, OR WILDCAT
PADUCA-DELAWARE

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
SEC. 22 T25S-R32E

12. COUNTY OR PARISH
LEA CO.

13. STATE
NEW MEXICO

Controlled Water Basin

DO NOT SIGN OF CEMENT

Cement to surface w/Redi-mix.

600 Sx. circulate cement

600 Sx. " "

DISTRICT I

1625 N. FRENCH DR., HOBBBS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, 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 Department

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30.025-37803		Pool Code 49460	Pool Name PADUCA-DELAWARE
Property Code 301629	Property Name COTTON DRAW UNIT		Well Number 108
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY		Elevation 3412'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	25-S	32-E		660	NORTH	1500	WEST	LEA

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

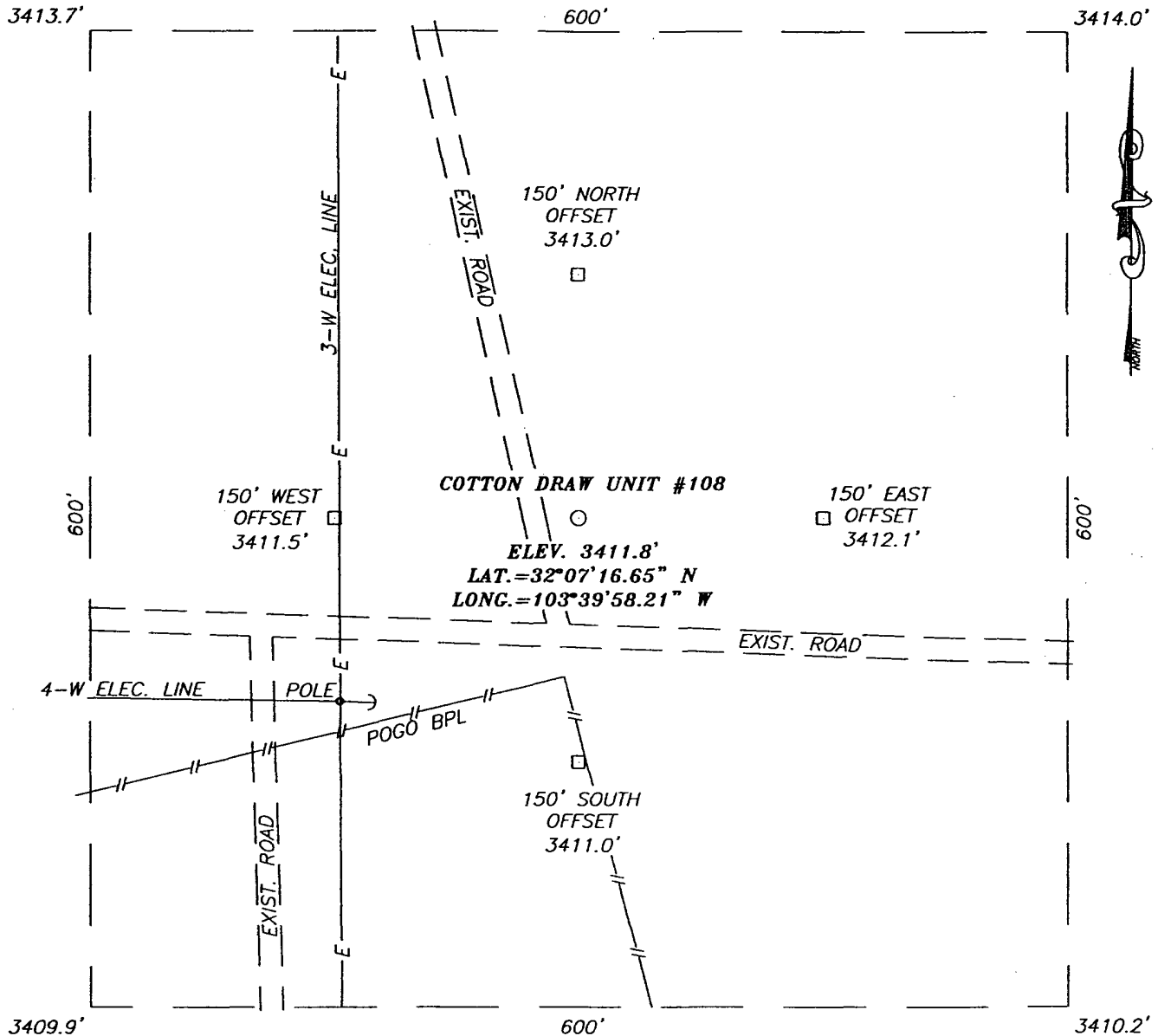
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=408487.5 N X=706546.4 E</p> <p>LAT.=32°07'16.65" N LONG.=103°39'58.21" 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>Joe T. Janica</i> Signature</p> <p>Joe T. Janica Printed Name</p> <p>Agent</p> <p>Title</p> <p>01/18/06 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>DECEMBER 14 2005 Date Surveyed</p> <p>Signature & Seal of Professional Surveyor</p> <p><i>Gary Eidson</i> 12/14/05 05.11.1863</p> <p>Certificate No. GARY EIDSON 12841</p>

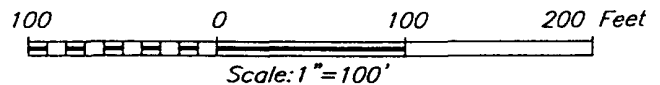
EXHIBIT "A"

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

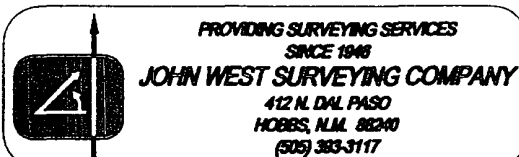
FROM THE INTERSECTION OF ST. HWY. #126 AND
 CO. RD. #1 GO SOUTH ON CO. RD. #1 APPROX.
 6.3 MILES. TURN LEFT AND GO APPROX. 0.3
 MILES TO THIS LOCATION.



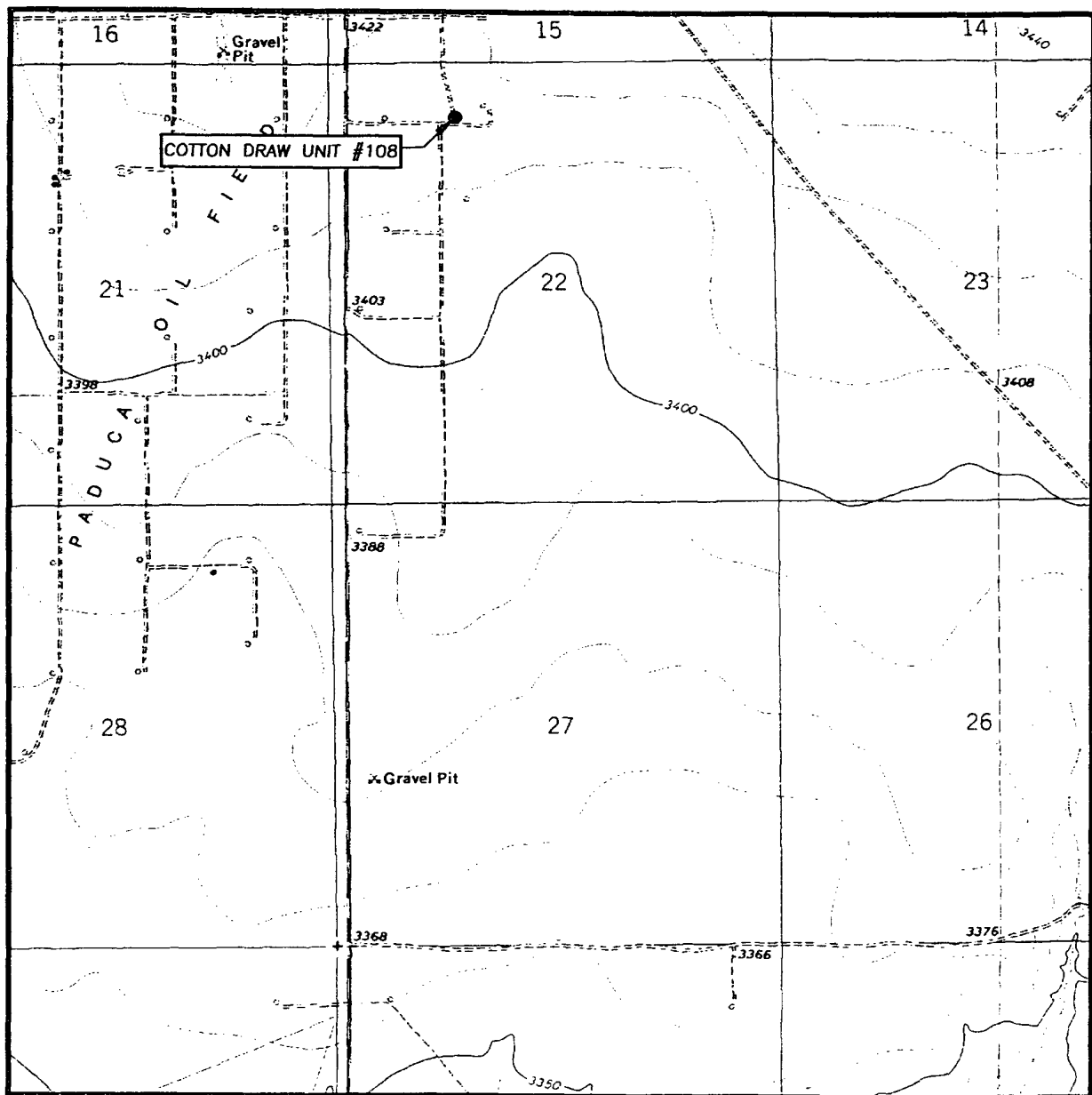
POGO PRODUCING COMPANY

COTTON DRAW UNIT #108 WELL
 LOCATED 660 FEET FROM THE NORTH LINE
 AND 1500 FEET FROM THE WEST LINE OF SECTION 22,
 TOWNSHIP 25 SOUTH, RANGE 32 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

Survey Date: 12/1/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.1863	Dr By: LA
Date: 12/12/05	Disk: CD#4
05111863	Scale: 1"=100'



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PADUCA BREAKS W, N.M. - 10'

SEC. 22 TWP. 25-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 660' FNL & 1500' FWL

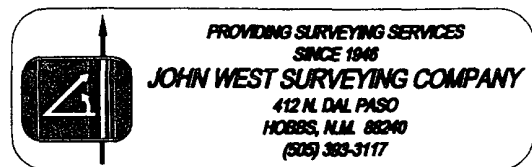
ELEVATION 3412'

OPERATOR POGO PRODUCING COMPANY

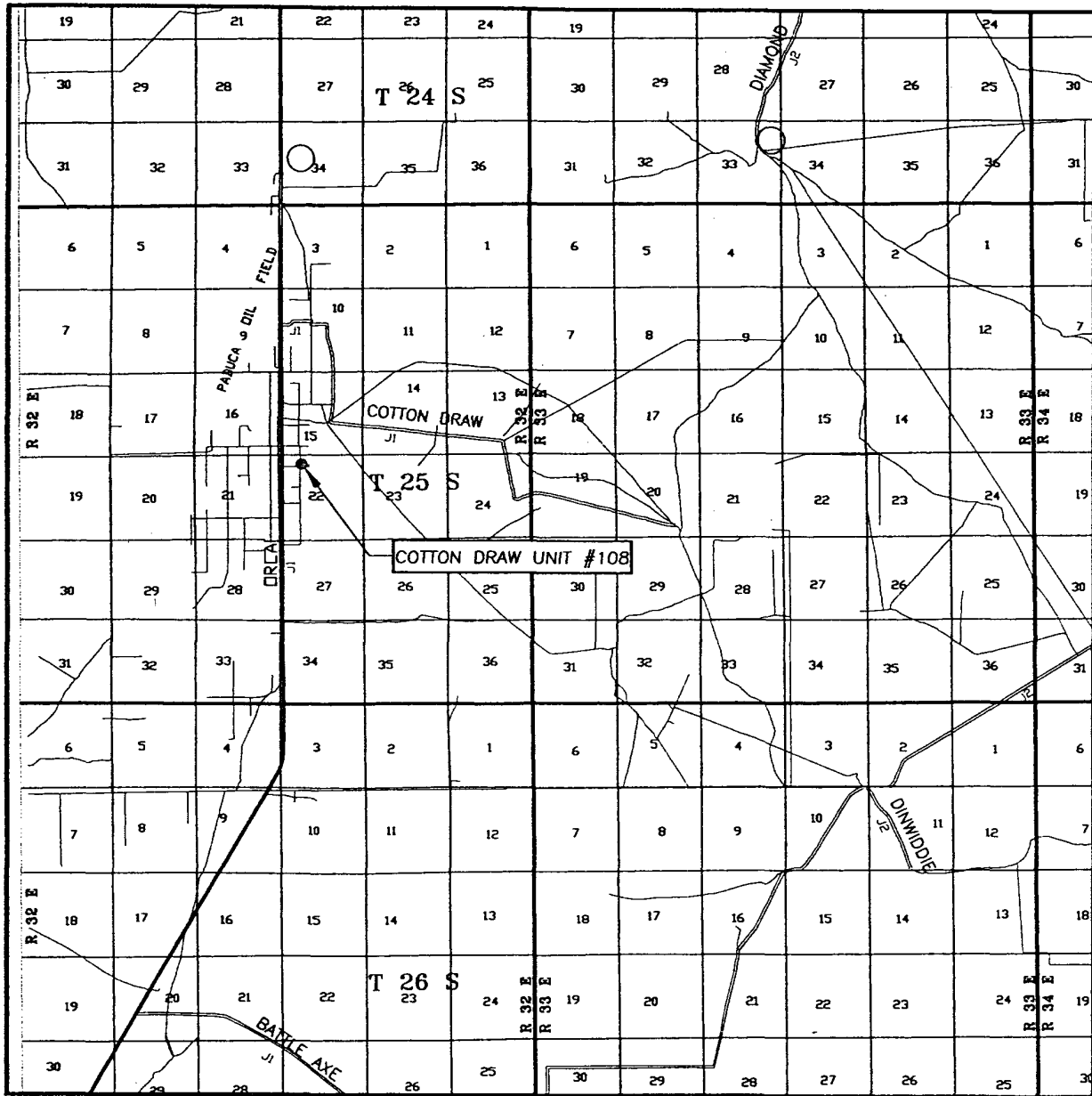
LEASE COTTON DRAW UNIT

U.S.G.S. TOPOGRAPHIC MAP

PADUCA BREAKS W, N.M.



VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 22 TWP. 25-S RGE. 32-E

SURVEY N.M.P.M.

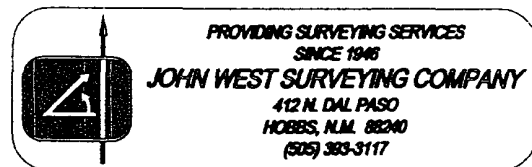
COUNTY LEA

DESCRIPTION 660' FNL & 1500' FWL

ELEVATION 3412'

OPERATOR POGO PRODUCING COMPANY

LEASE COTTON DRAW UNIT



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBES, N.M. 88240
(505) 383-3117

APPLICATION TO DRILL

POGO PRODUCING COMPANY
 COTTON DRAW UNIT # 108
 UNIT "C" SECTION 22
 T25S-R32E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location of well: 660' FNL & 1500' FWL SECTION 22 T25S-R32E LEA CO. NM
2. Ground Elevation above Sea Level: 3412' GR.
3. Geological age of surface formation: Quaternary Deposits:
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.
5. Proposed drilling depth: 5000'
6. Estimated tops of geological markers:

Rustler Anhydrite	753'	Ramsey	4680'
Salt	1072'	Ford	4780'
Lamar Lime	4638'	Olds	4787'
Delaware	4662'	TD	5000'
7. Possible mineral bearing formations:

Delaware	Oil	Olds	Oil
Ramsey	Oil		
Ford	Oil		
8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
26"	0-40	20"	NA	NA	NA	Conductor
12½"	0-815'	8 5/8"	24#	8-R	ST&C	H-40
7 7/8"	0-5000'	5½"	15.5#	8-R	ST&C	J-55

APPLICATION TO DRILL

POGO PRODUCING COMPANY
COTTON DRAW UNIT # 108
UNIT "C" SECTION 22
T25S-R32E LEA CO. NM

9. CEMENTING & CASING SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 815' of 85/8" 24# J-55 ST&C casing. Cement with 150 Sx. of 65/35/6 Class "C" POX/GEL, tail in with 150 Sx. of Class "C" cement + 2% CaCl ₂ + 1/4# Flocele/Sx. Circulate cement to surface.
5 1/2"	Production	Set 5000' of 5 1/2" 15.5# J-55 ST&C casing. Cement with 475 Sx. of Class "C" Light weight cement with 5% salt, mixed at 12.9 PPG, tail in with 250 Sx. of Class "C" cement + 8# Gilsonite/Sx. Mix at 14.1 PPG circulate cement to surface. Cement volumes may have to be adjusted if caliper logs show more is required to circulate.

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 2000 PSI working pressure B.O.P., consisting of a stripper head instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of Substructure height limitations of the drilling rig being used to drill this well. Pressures encountered during drilling are not expected to exceed 2000 PSI at total depth. Pogo requests permission to 3rd party test of B.O.P. B.O.P. will be installed after setting the 8 5/8" surface casing, The B.O.P. will be tested according to API specifications. Exhibit "E-1" shows a manually operated choke manifold , as no remote B.O.P. equipment will be necessary.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-815'	8.4-8.7	29-34	NC	Fresh water spud mud use paper to control seepage.
815-5000'	10.0-10.2	29-38	NC*	Brine water add paper to control seepage and high viscosity sweeps to clean hole.

* Water loss control may be necessary in order to run logs and casing. Use starch to control water loss or a Polymer system.

APPLICATION TO DRILL

POGO PRODUCING COMPANY
COTTON DRAW UNIT # 108
UNIT "C" SECTION 22
T25S-R32E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, LDT, SNP, MICRO SFL, Gamma Ray, Caliper run from TD Back to 8 5/8" casing shoe.
- B. Run Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.
- C. No DST's are planned at this time.
- D. Cores may be taken at the advice of Geologist.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2000 PSI, and Estimated BHT 130°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 20 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Delaware formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

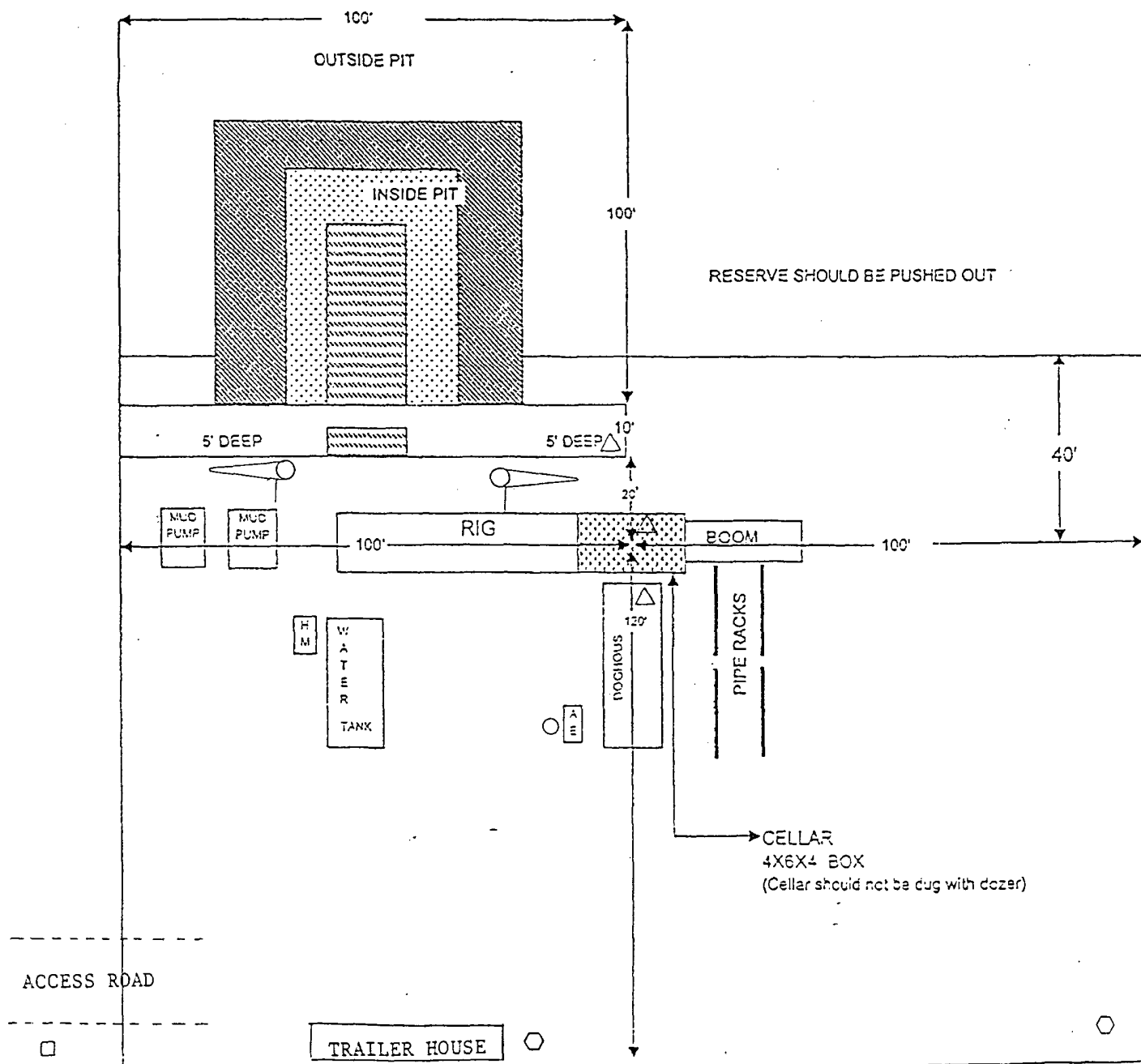
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of bloop line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H_2S scavengers if necessary.

CapStar Drilling, Inc.
 LOCATION SPECIFICATIONS AND RIG LAYOUT
 FOR EARTH PITS



Cellar can be 4X4X4 if using a screw-on wellhead
 Working Pits dug 5' below ground level

- Wind Direction Indicators
(wind sock or streamers)
- H2S Monitors
(alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

Location Specs

EXHIBIT "D"
 RIG LAY OUT PLAT

POGO PRODUCING COMPANY
 COTTON DRAW UNIT # 108
 UNIT "C" SECTION 22
 T25S-R32E LEA CO. NM

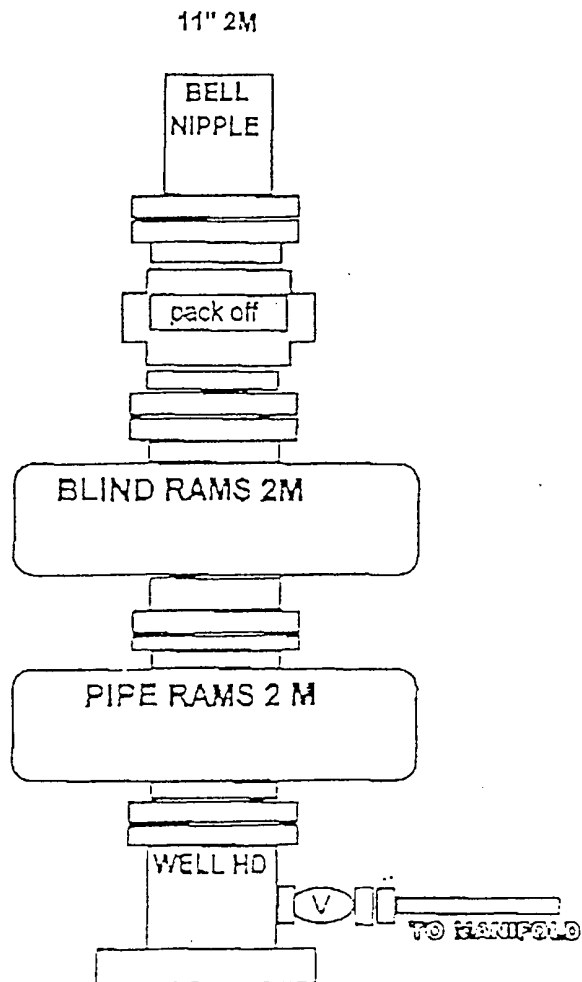


EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY
COTTON DRAW UNIT # 108
UNIT "C" SECTION 22
T25S-R32E LEA CO. NM

CHOKE MANIFOLD

3000 PSI WP

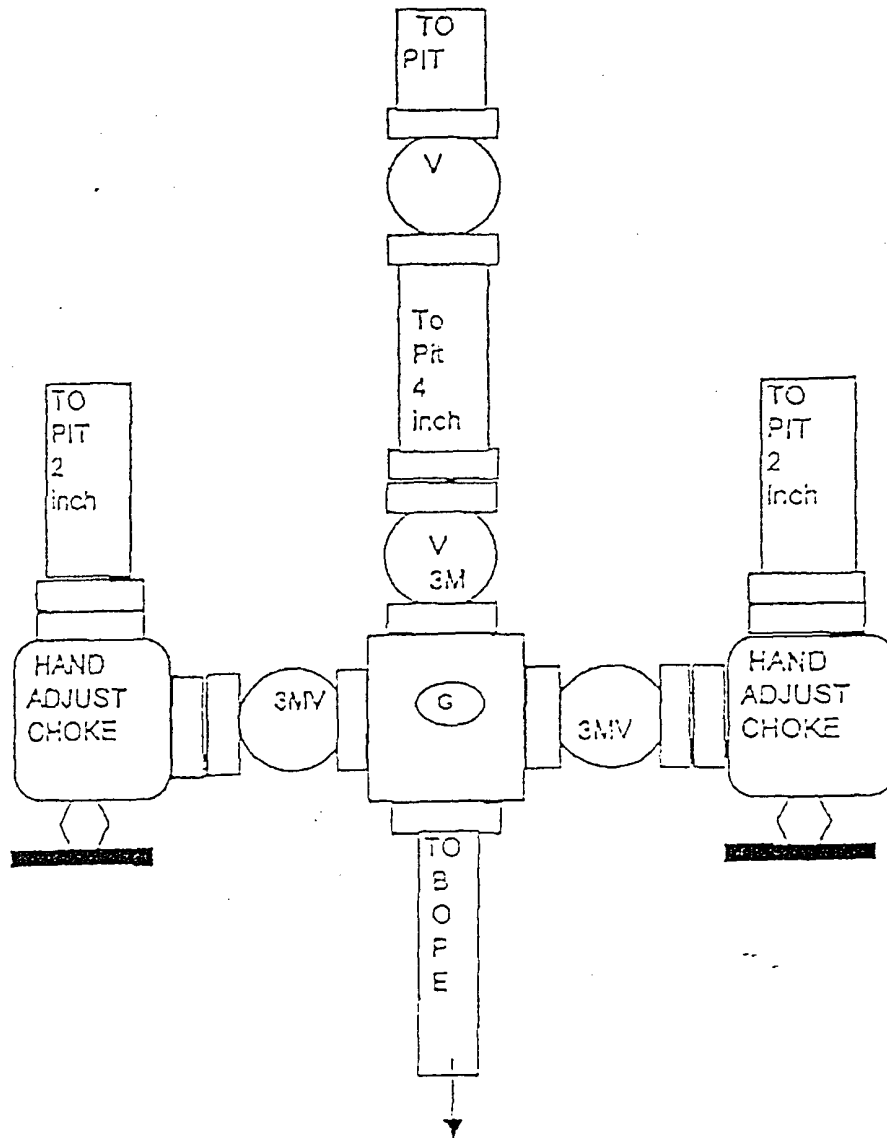


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY
COTTON DRAW UNIT # 108
UNIT "C" SECTION 22
T25S-R32E LEA CO. NM

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
June 1, 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 ☐

Operator: <u>POGO PRODUCING COMPANY</u> Telephone: <u>432-685-8100</u> e-mail address: <u>wrightc@pogoproducing.com</u>		
Address: <u>P. O. Box 10340, Midland, TX 79702-7340</u>		
Facility or well name: <u>Cotton Draw Unit 108</u> API #: <u>30-025-37803</u> U/L or Qtr/Qtr <u>C</u> Sec <u>22</u> T <u>25S</u> R <u>32E</u>		
County: <u>Lea County</u> Latitude <u>32:07:16.65N</u> Longitude <u>103:39:58.21W</u> NAD: 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
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>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>16000</u> 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)
	100 feet or more X	(0 points) 0
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)
	No X	(0 points) 0
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)
	1000 feet or more X	(0 points) 0
Ranking Score (Total Points)		0

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: (check the onsite box if you are burying in place) 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.

Additional Comments:

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: 04/12/06

Printed Name/Title Cathy Wright, Sr. Eng Tech

Signature

Cathy Wright

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:

Printed Name/Title _____

Signature

ORIGINAL SIGNED BY
PAUL F. KAUTZ
PETROLEUM ENGINEER

APR 13 2006

Date: _____

Water Resources

Data Category:

Site Information

Geographic Area:

New Mexico

go

Site Map for New Mexico
USGS 321005103402301 24S.32E.33.42241

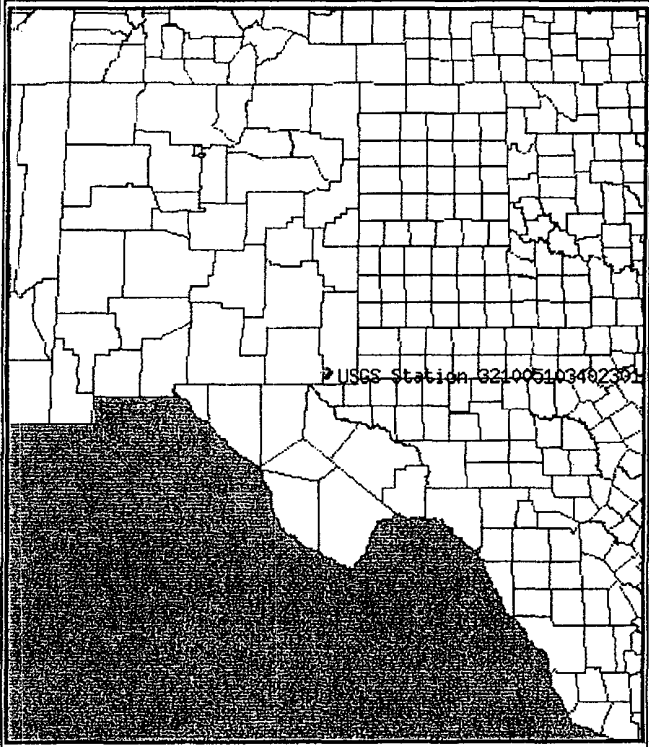
Available data for this site

site map

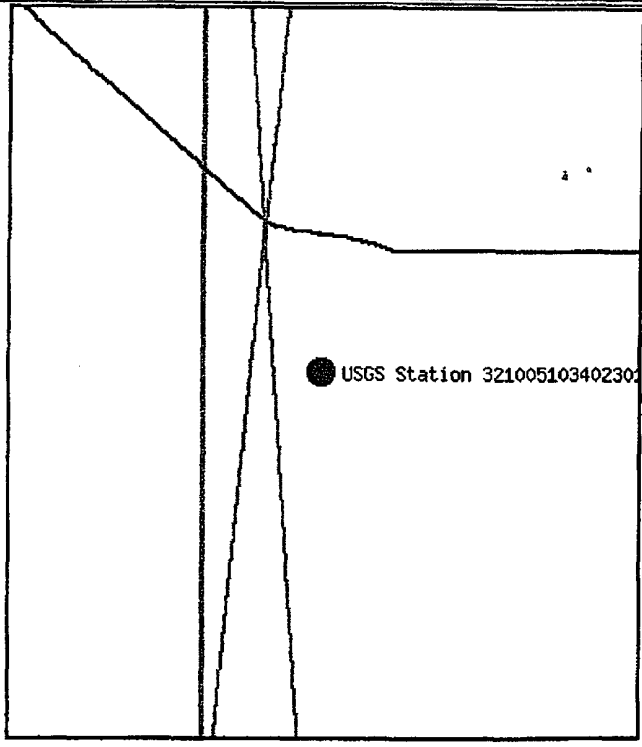
GO

Lea County, New Mexico
Hydrologic Unit Code 13070001
Latitude 32°10'05", Longitude 103°40'23" NAD27
Land-surface elevation 3,499.00 feet above sea level NGVD29
The depth of the well is 367 feet below land surface.
This well is completed in the CHINLE FORMATION (231CHNL) local aquifer.

Location of the site in New Mexico.



Site map.



ZOOM IN 2X, 4X, 6X, 8X, or ZOOM OUT 2X, 4X, 6X, 8X.

Maps are generated by US Census Bureau TIGER Mapping Service.

Questions about data [New Mexico NWISWeb Data Inquiries](#)
Feedback on this website [New Mexico NWISWeb Maintainer](#)
NWIS Site Inventory for New Mexico: Site Map
<http://waterdata.usgs.gov/nm/nwis/nwismap?>

[Top](#)
[Explanation of terms](#)

Retrieved on 2006-03-28 12:01:11 EST
[Department of the Interior, U.S. Geological Survey](#)
[USGS Water Resources of New Mexico](#)

http://nwis.waterdata.usgs.gov/nm/nwis/nwismap/?site_no=321005103402301

3/28/2006

4/1/2006

Water Resources

Data Category:
Ground Water

Geographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321005103402301

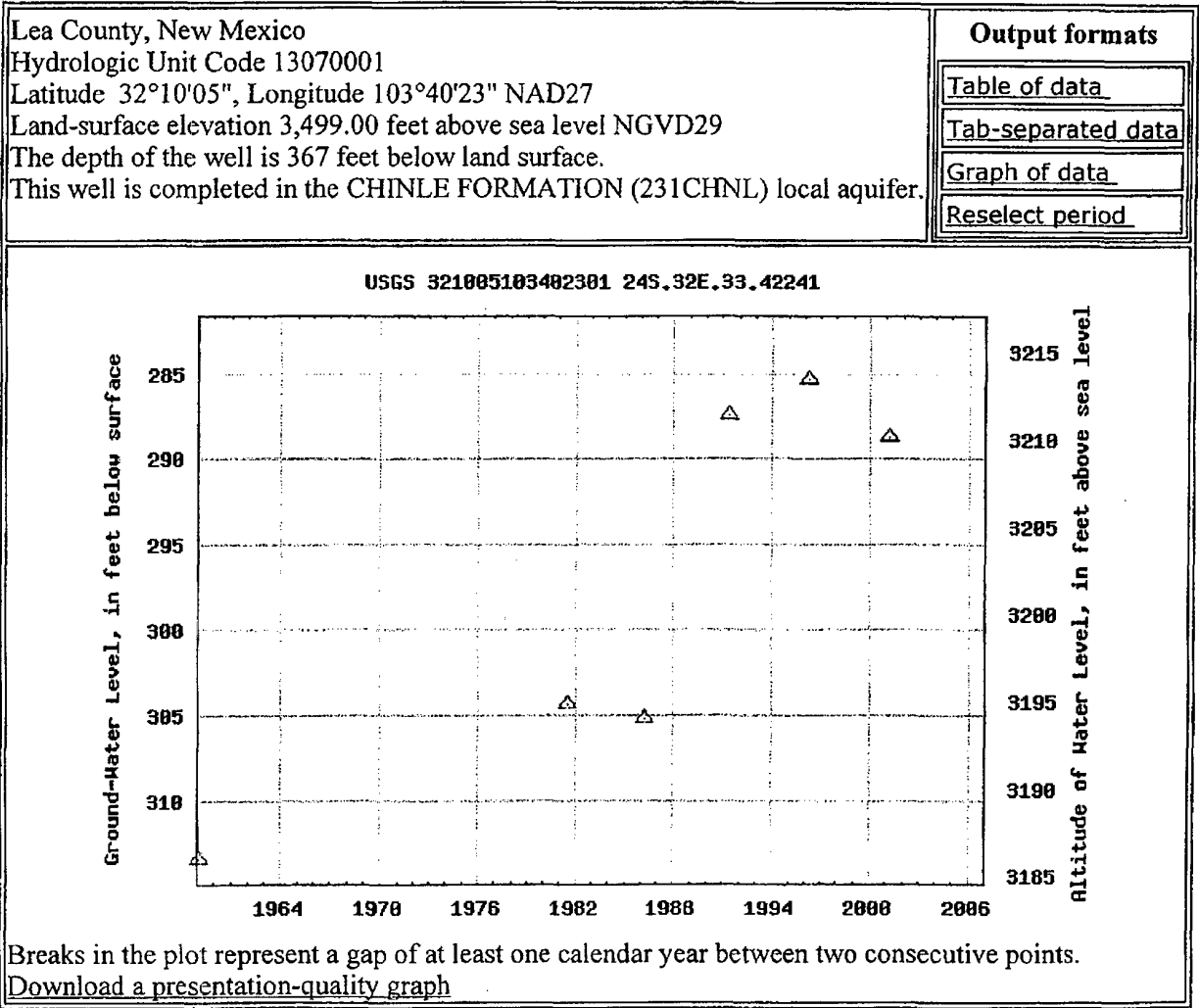
Save file of selected sites to local disk for future upload

USGS 321005103402301 24S.32E.33.42241

Available data for this site

Ground-water: Levels

GO



Questions about data [New Mexico NWISWeb Data Inquiries](#)
Feedback on this website [New Mexico NWISWeb Maintainer](#)

[Top](#)
[Explanation of terms](#)

Great Circle Calculator.

By Ed Williams

You need Javascript enabled if you want this page to do anything useful! For Netscape, it's under Options/Network Preferences/Languages.

Compute true course and distance between points.

Enter lat/lon of points, select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that if either point is very close to a pole, the course may be inaccurate, because of its extreme sensitivity to position and inevitable rounding error.

Input Data

Lat1		Lon1	
32:10:05	N	103:40:23	W
Lat2		Lon2	
32:07:16.65	N	103:39:58.21	W

Output

Course 1-2	Course 2-1	Distance
172.891205	352.894866	2.827557706

Distance Units: Earth model:

Compute lat/lon given radial and distance from a known point

Enter lat/lon of initial point, true course and distance. Select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

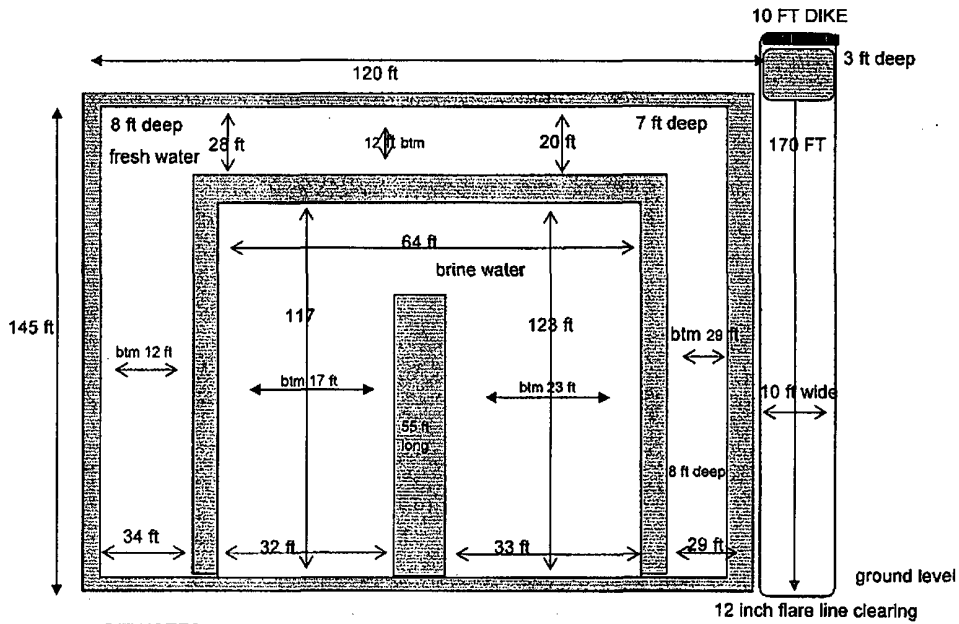
Note that the starting point cannot be a pole.

Input data

Lat1		Lon1	
0:00.00	N	0:00.00	W
Course 1-2		Distance 1-2	
360		0.0	

POGO Producing Company
Cotton Draw Unit 108
Approximate Pit Dimensions


C/22/25S/32E, Lea County, New Mexico



PIT NOTES:

Pit will be lined with 12 mil Black plastic w/ UV protection.
Pit walls are 6 ft to 8 ft wide.
Pit is 8 ft deep below ground level plus 2 ft walls
Pit walls are 2 ft above ground level.
Caliches mined from pit used to make Well Pad.
Fresh Water volume to ground level = ± 7950 bbls
Brine Water volume to ground level = ± 7730 bbls
12 inch Flare line laid on gradual descending graded ROW away from rig to avoid fluid trapping
Fresh water well = (Nad 27) 32° 10' 05" N & 103° 40' 23" W "Published data"
This well produces from a depth greater than 100 ft.

Pit equals approx 16000 bbls

 The sender of this message has requested a read receipt. [Click here to send a receipt.](#)

Mull, Donna, EMNRD

From: Phillips, Dorothy, EMNRD
To: Mull, Donna, EMNRD
Cc:
Subject: RE: Financial Assurance Requirement
Attachments:

Sent: Thu 4/13/2006 11:45 AM

All have blanket bonds and none appear on Jane's list.

From: Mull, Donna, EMNRD
Sent: Thursday, April 13, 2006 11:26 AM
To: Phillips, Dorothy, EMNRD
Cc: Macquesten, Gail, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Financial Assurance Requirement

Dorothy,

Is the Financial Assurance Requirement for these Operators OK?

Pogo Producing Co (17891)
Petrohawk Operating Co (194849)
Forest Oil Permian Corp (33016)

Please let me know. Thanks Donna