

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

Form C-101
May 27, 2004

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

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Huntington Energy, L.L.C. 908 N.W. 71 st St. Oklahoma City, OK 73116		² OGRID Number 208706
		³ API Number 30 - 039 - 30218
⁴ Property Code 32660	⁵ Property Name Canyon Largo Unit	⁶ Well No. 480
⁹ Proposed Pool 1 Basin Dakota		¹⁰ Proposed Pool 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
C	9	25-N	6-W		535	North	1780	West	Rio Arriba

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
N	4	25-N	6-W		720	South	1700	West	Rio Arriba

Additional Well Information

¹¹ Work Type Code NW	¹² Well Type Code G	¹³ Cable/Rotary Fee	¹⁴ Lease Type Code	¹⁵ Ground Level Elevation 6260'
¹⁶ Multiple	¹⁷ Proposed Depth 7300'	¹⁸ Formation Basin Dakota	¹⁹ Contractor N/A	²⁰ Spud Date N/A
Depth to Groundwater > 100' <u>250'</u>		Distance from nearest fresh water well > 1000'		Distance from nearest surface water > 500' <u>400'</u>
Pit: Liner: Synthetic ☒ 12_mils thick Clay ☐ Pit Volume: 1500_bbs Drilling Method: Closed-Loop System ☐ Fresh Water ☒ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	36.0#	320'	190	Surface
7 7/8"	4 1/2"	11.6#	7300'	1600	

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.

Proposed Program attached.

RCVD MAR7'07
OIL CONS. DIV.
DIST. 3

NOTIFY AZTEC OCD 24 hrs
IN TIME TO WITNESS ESG & Cement

HOLD C104 FOR directional survey
+ BH survey

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:

Catherine Smith

Printed name: Catherine Smith

Title: Land Associate

E-mail Address: csmith@huntingtonenergy.com

Date: March 2, 2007

Phone: (405) 840-9876

OIL CONSERVATION DIVISION

Approved by:

[Signature]

Title: **DEPUTY OIL & GAS INSPECTOR, DIST. 3**

Approval Date: **MAR 13 2007**

Expiration Date: **MAR 13 2008**

Conditions of Approval Attached ☐

3/13/07

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87504-2088

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT
RCUD MAR 7 07
OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT DIST. 3

¹ API Number 30-039-36218	² Pool Code 71599	³ Pool Name Basin Dakota
⁴ Property Code 32660	⁵ Property Name CANYON LARGO UNIT	⁶ Well Number 480
⁷ GRID No. 208706	⁸ Operator Name HUNTINGTON ENERGY, LLC	⁹ Elevation 6260'

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
C	9	25-N	6-W		535	NORTH	1780	WEST	RIO ARriba

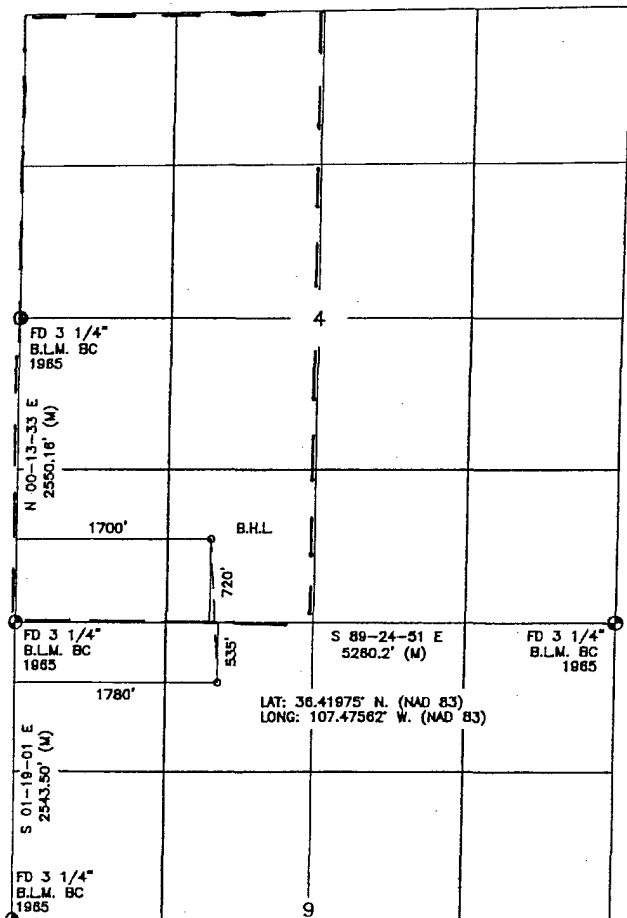
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	4	25-N	6-W		720	SOUTH	1700	WEST	RIO ARriba

¹² Dedicated Acres 321.27 SEC. 4 - 320 W/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

16



17

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

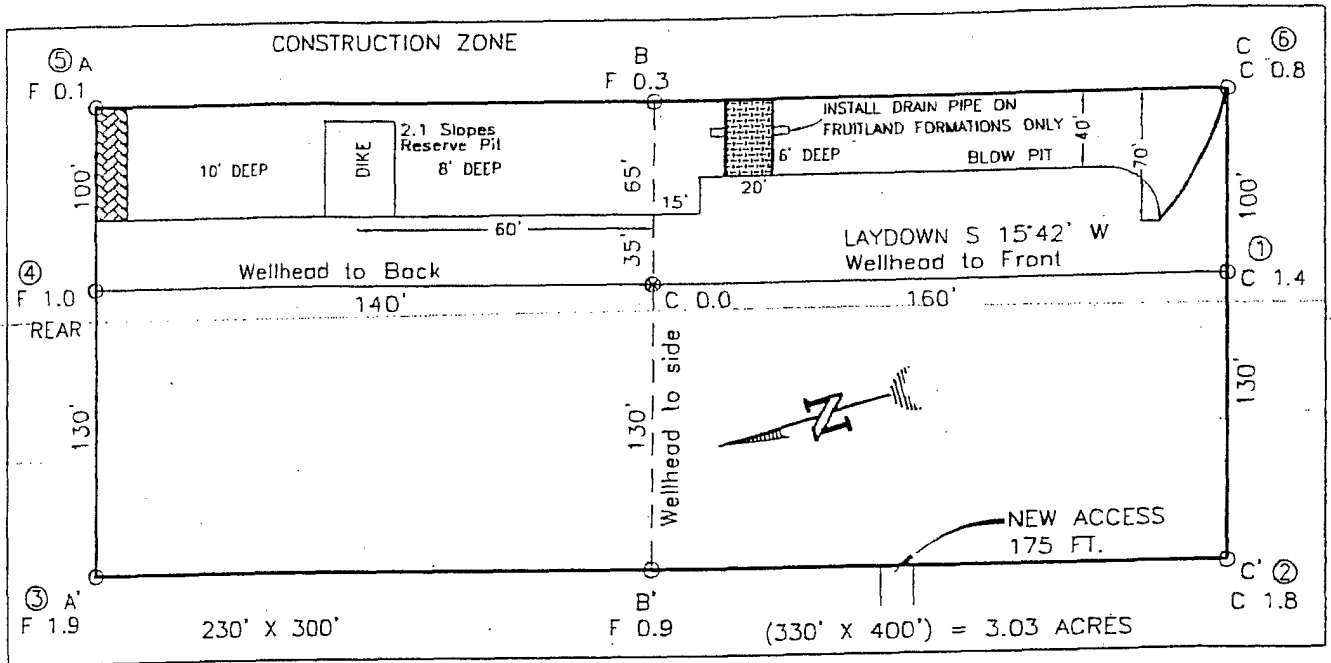
Catherine Smith
Signature Date 2/15/07
Catherine Smith
Printed Name

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.

JUNE 29 2006
Date of Survey
Signature and Seal of Professional Surveyor
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
0212-07
8694
Certificate Number

HUNTINGTON ENERGY, LLC
 CANYON LARGO UNIT No. 480, 535 FNL 1780 FWL
 SECTION 9, T-25-N, R-6-W, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO
 GROUND ELEVATION: 6260, DATE: JUNE 29, 2006



RESERVE PIT DIKE: TO BE B' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).
 BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR
 UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO
 ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO
 EXCAVATION OR CONSTRUCTION.

ELEV. A-A'	C/L
6270	
6260	
6250	
6240	

ELEV. B-B'	C/L
6270	
6260	
6250	
6240	

ELEV. C-C'	C/L
6270	
6260	
6250	
6240	

NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES
 ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

PERSON: RESTAKE	DATE: 8/01/06	REVISED BY: G.V.
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Daggett Enterprises, Inc.
 Surveying and Oil Field Services
 P. O. Box 15068 • Farmington, NM 87401
 Phone (505) 326-1772 • Fax (505) 326-8019
 NEW MEXICO P.L.S. No. 14831
 DRAWN BY: A.G.
 CHECKED: HIGGINS

OPERATIONS PLAN

Well Name: Canyon Largo Unit #480
Location: Surface: 535' FNL, 1780' FWL, NENW Sec 9, T-25-N, R-6-W NMPM
Bottom Hole: 720' FSL, 1700' FWL, SESW Sec 4, T-25-N-R-6-W NMPM
Rio Arriba County, NM
Formation: Basin Dakota
Elevation: 6260' GL

<u>Formation Tops:</u>	<u>TVD</u>	<u>MD</u>
Ojo Alamo	1681'	1716'
Kirkland	1876'	1919'
Fruitland	2061'	2112'
Pictured Cliffs	2322'	2385'
Lewis Shale	2415'	2482'
Huerfanito	2747'	2828'
Cliff House	4162'	4304'
Menefee	4203'	4347'
Point Lookout	4580'	4740'
Mancos	4800'	4969'
Gallup (Niobrara)	5731'	5907'
Greenhorn	6517'	6693'
Graneros	6579'	6755'
Dakota	6631'	6807'
Morrison	6951'	7127'
TD	7100'	7276'

Logging Program:

Mud log – 5500' to TD
Open hole logs– None
Cased hole logs – RST TD to 5800'; CBL/GR – TD to 5600'
Cores & DST's – none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 – 320'	Spud	8.4-8.9	40-50	no control
320 – 7300'	LSND	8.4-9.0	40-60	8-12

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program:

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 ¼"	0' – 320'	9 5/8"	36.0#	J-55
7 7/8"	0' – 7300'	4 ½"	11.6#	N-80

Tubing Program:

0' – 7300'	2 3/8"	4.7#	J-55
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BOP Specifications, Wellhead and Tests:

Surface to TD –

11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, BOPE and casing will be tested to 600 psi for 30 minutes.

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

Directional Plan:

Well will be drilled vertically to a depth of 500' then KOP (kick-off point) and drill 3°/100ft. End of build @ 1052' MD. Hold inclination angle of 16.57 ° to a measured depth of 4848'. Begin our drop from 16 ° to 0 ° at our BHL @ 5500' TVD (5676' MD). Hold 0° to our projected TD of 6976' TVD (7153' MD).

Completion Operations:

6" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

Surface to Total Depth:

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

Wellhead:

9 5/8" x 4 1/2" x 1 1/2" x 1 1/2" x 3000 psi tree assembly.

General:

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper Kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing –

Cement to surface w/190 sx Premium cement w/2% calcium chloride and 1/4#/sx cellophane flakes (200 cu. ft. of slurry, 100% excess to circulate to surface).

WOC 8 hr. prior to drilling out surface casing. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

Production Casing – 4 1/2"

Lead with 700 sx 65/35 Standard Poz w/6% gel, 1/4# Flocele, 10# Gilsonite, 3/10% Halad 9, 1/10% HR5 (1.96 yld). Tail w/900 sx 50/50 Standard Poz w/35 Gel, 9/10% Halad9, 2/10% CFR 3, 5# Gilsonite, 1/4# Flocele (1.47 yld).

Alternate Two-stage cement job as follows:

First Stage: Cement to circulate to stage tool @ 5066'. Lead with 700 sx Class "G" 50/50 poz (13#, 1.47 yd) w/3% gel, 0.25 pps Celloflake, 5 pps Gilsonite, 0.25 pps Fluid loss, 0.15% dispersant, 0.1% retarder. WOC 4 hours prior to pumping second stage. (Slurry volume: 1029 cu. ft. Excess slurry: 50%). DV Tool at 5000 ft.

Second Stage: Cement to circulate to surface. Cement with 700 sx Class "G" (12#, 2.9yd) TXI Liteweight cement w/2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Celloflake, 0.2% antifoam. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 2030 cu. ft. Excess slurry: 50%). Tail w/50 sx Class "B" w/1/4# Flocele (15.6#, 1.18 yd), (Slurry 59 cu. ft., Excess 50%).

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-five centralizers - one every 4th joint to the base of the Ojo Alamo @ 1875'. Two turbolizing type centralizers – one below and one into the base of the Ojo Alamo @ 2448'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Additional Information:

The Dakota formations will be completed.

- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of the Section 4 is dedicated to this well.
- This gas is dedicated.
- Anticipated pore pressure

Fruitland Coal	300 psi
Pictured Cliffs	500 psi
Mesa Verde	700 psi
Dakota	3000 psi

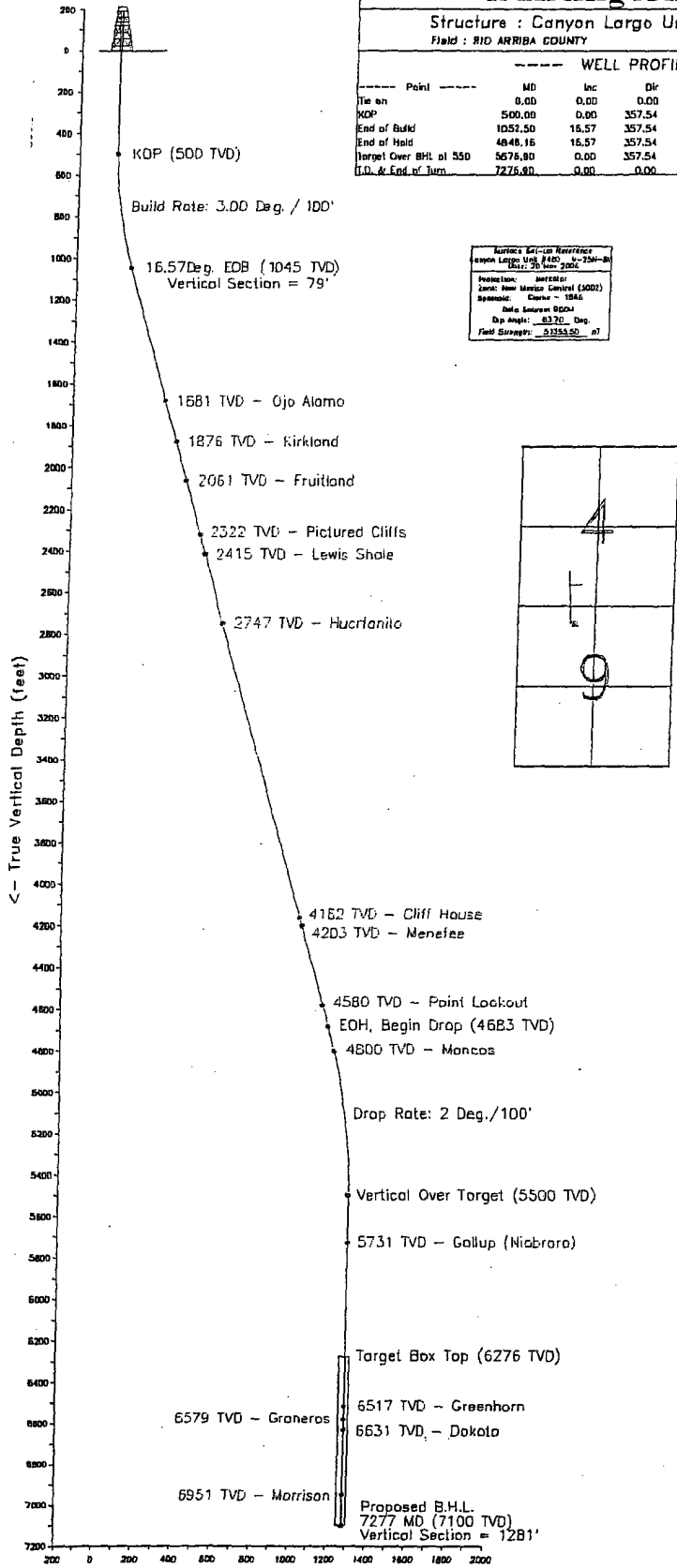
Huntington Energy

Structure : Canyon Largo Unit #480 9-25N-6W
Field : RIO ARriba COUNTY Location : NEW MEXICO

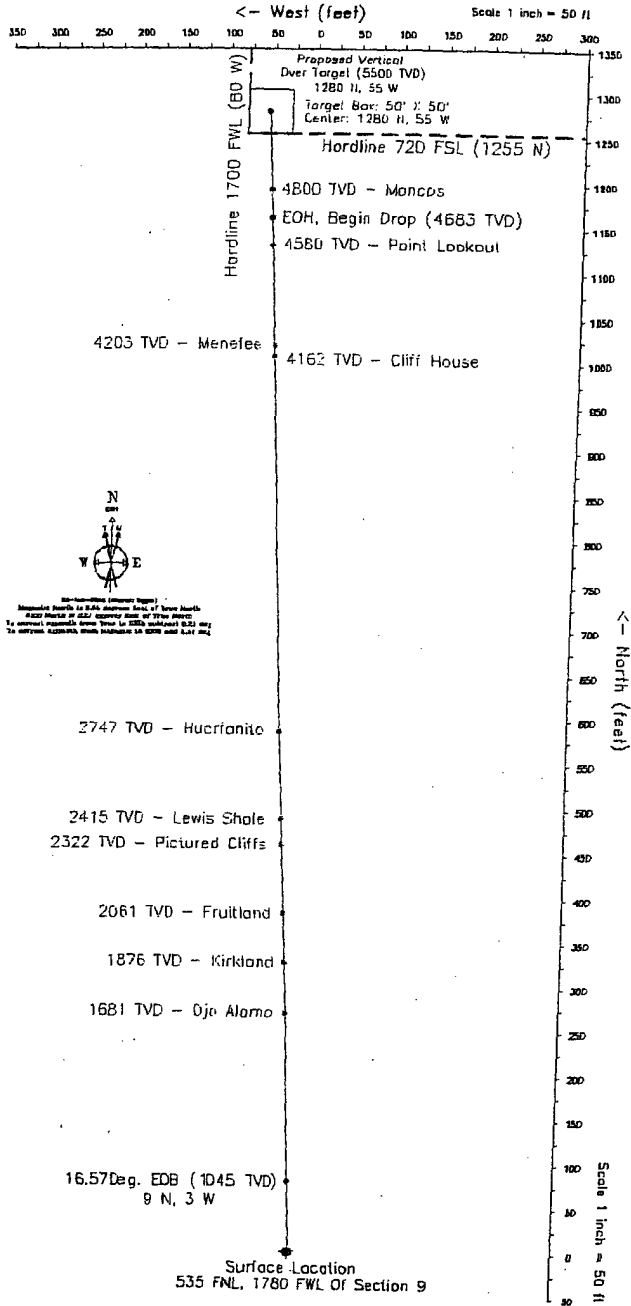
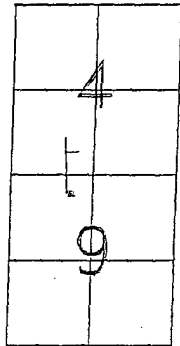
WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100'
Tie in	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP	500.00	0.00	357.54	500.00	0.00	0.00	0.00	0.00
End of Build	1052.00	15.57	357.54	1044.82	79.29	-3.41	79.36	3.00
End of Hold	4848.16	15.57	357.54	4882.77	1181.87	-49.88	1182.14	0.00
Target Over BHL at 550	5676.80	0.00	357.54	5500.00	1280.00	-55.00	1281.18	2.00
T.O. & End of Turn	7277.80	0.00	0.00	7100.00	1280.00	-55.00	1281.18	0.00

CanyonL480 p6003 s5136



Surface 44-10 Reference
Canyon Largo Unit #480 9-25N-6W
Date: 26 Nov 2006
Projection: UTM
Datum: New Mexico Central (NAD83)
Spheroid: Clarke - 1846
Datum Source: GCS
Eps. Spher: 82270, Deg.
Field Storage: 21353.50, at



BAKER HUGHES
INTEQ

Baker Hughes INTEQ
5209 S. Sooner Rd.
OKC, OK 73135
Phone: (405) 672-7881
Fax: (405) 672-8098
Drawn by: Kyle Riskey
Date: 21 Nov 2006