

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions
listed below are made in accordance with OCD Rule 19.15.7.11
and are in addition to the actions approved by BLM on the
following 3160-3 APD form.

Operator Signature Date: 11/31/13

Well information;

Operator Huntington, Well Name and Number Canyon Largo Unit 512

API# 30-039-31177, Section 33, Township 25 NS, Range 7 EW

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☐ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☒ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☐ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils

Charles
NMOCD Approved by Signature

7-19-2013
Date

ea

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Form 3160-3
(March 2012)

NOS: 7-2-12
APDP: N/A
MP: N/A
SMA: BLM
BOND: NMB00076
CA/PA: N/A

FEB 01 2013

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

Farmington Field Office

Bureau of Land Management

Lease Serial No.

NMSF078876

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator Huntington Energy, L.L.C.

3a. Address 908 N.W. 71st St.
Oklahoma City, OK 73116

3b. Phone No. (include area code)
405-840-9876

4. Location of Well (Report location clearly and in accordance with any State requirements)
At surface 417' FNL & 211' FWL
At proposed prod. zone

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.
Canyon Largo Unit

8. Lease Name and Well No.
Canyon Largo Unit #512

9. API Well No.

30-039-31177

10. Field and Pool, or Exploratory
Basin Dakota

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 33, T25N-R7W

14. Distance in miles and direction from nearest town or post office*
+/- 35 miles SE from Blanco

12. County or Parish
Rio Arriba

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft.
(Also to nearest drig. unit line, if any)
211'

16. No. of acres in lease
2561.64

17. Spacing Unit dedicated to this well
320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
N/A

19. Proposed Depth
7050'

20. BLM/BIA Bond No. on file
NMB000076

RCVD JUL 12 '13
OIL CONS. DIV.

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6618' GL

22. Approximate date work will start*
04/01/2013

23. Estimated duration
approx. 30 days DIST. 3

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature *Catherine Smith*

Name (Printed/Typed)
Catherine Smith

Date
01/31/2013

Title

Regulatory

Approved by (Signature) *[Signature]*

Name (Printed/Typed)

Date

Title

Office

FEO

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.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly 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.

(Continued on page 2)

*(Instructions on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.4 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMCCD
A

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

RECEIVED

FEB 01 2013

Farmington Field Office
Bureau of Land Management ☒ AMENDED REPORT

Form C-102
Revised August 1, 2011
Submit one copy to
appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31177	² Pool Code 71599	³ Pool Name Basin Dakota
⁴ Property Code 32660	⁵ Property Name CANYON LARGO UNIT	⁶ Well Number 512
⁷ OGRID No. 208706	⁸ Operator Name HUNTINGTON ENERGY, LLC	⁹ Elevation 6618'

¹⁰ Surface Location

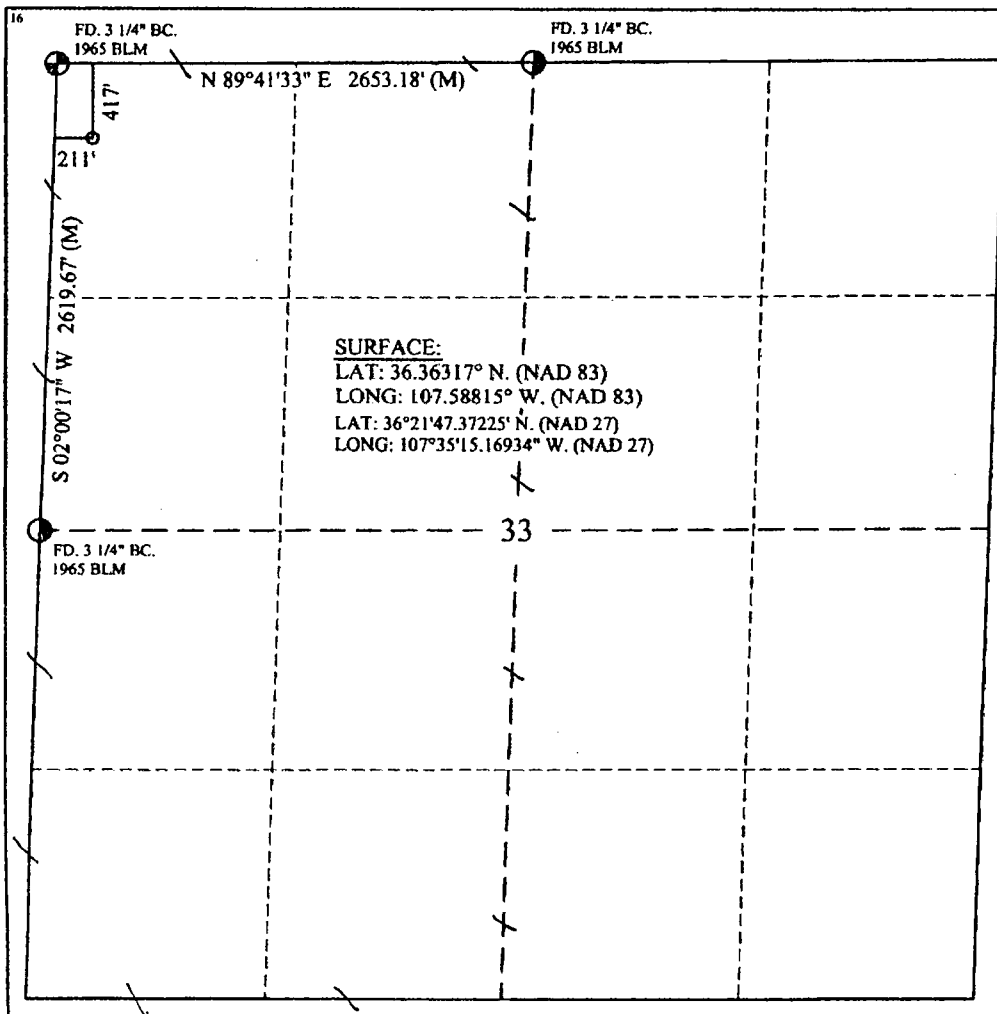
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	25-N	7-W		417	NORTH	211	WEST	RIO ARriba

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

¹² Dedicated Acres W/320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interest 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, 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 1/31/2013
Signature Date

Catherine Smith
Printed Name

csmith@huntingtonenergy.com
E-mail Address

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: _____
Professional Surveyor:

[Seal: NEW MEXICO PROFESSIONAL LAND SURVEYOR, No. 8894, 09-12]

Certificate Number: _____

OPERATIONS PLAN

Well Name: Canyon Largo Unit #512
Location: 417' FNL, 211' FWL, NWNW, Lot D, Sec 33, T25N, R7W
Rio Arriba County, NM
Formation: Basin Dakota
Elevation: 6618' GL

<u>Formation Tops:</u>	<u>Measured Depth (Tops)</u>
San Jose	Surface
Ojo Alamo	1583'
Kirtland Shale	1767'
Fruitland	2095'
Picture Cliffs	2220'
Lewis Shale	2316'
Heurfanito Bentonite	2605'
Chacra	3092'
Cliff House	3794'
Menefee	3819'
Point Lookout	4556'
Mancos	4701'
Gallup	5638'
Greenhorn	6450'
Dakota	6539'
Burro Canyon	6785'
Morrison	6935'
TD	7050'

Logging Program:
Mud log – 2000' to TD
Open hole logs–GR/Neutron, CBL/GR – TD to surface
Cores & DST's – none

<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 – 7050'	LSND	8.4-9.0	40-60	8-12

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

<u>Casing Program:</u>	<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
	12 ¼"	0' – 320'	8 5/8"	24.0#	J-55
	7 7/8"	0' – 7050'	4 ½"	11.6#	N-80

<u>Tubing Program:</u>	<u>0' – 7050'</u>	<u>2 3/8"</u>	<u>4.7#</u>	<u>J-55</u>
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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, rams and casing will be tested to 600 psi for 30 minutes. Drilling Spool may or may not be employed.

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

Completion Operations:

6" 3000 psi double gate BOP stack (Reference Figure #1). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 30 minutes.

Surface to Total Depth:

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

Wellhead:

8 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:

8 5/8" surface casing –

Cement to surface w/265 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (312 cu. ft. of slurry, 200% 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: 1914 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 @ 2448'. 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. If Dakota is non-commercial, Devils Fork Gallup will be completed upon approval with the Bureau of Land Management and New Mexico Oil Conservation Division.

- 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 33 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



CEMENT TEST REPORT
Halliburton Energy Services
Farmington District Laboratory
4109 E. Main
Farmington, NM 87489

To: Randy Snyder
Halliburton Energy Services

Report: FLMM4071
Date: 6-Feb-04

Company:
Mud Drilled
Total Depth: 400
BHST: 90 +/- deg F
BHCT: 80 +/- deg F

All tests performed according to modified API RP Spec 10, 1997

Slurry: Surface

Thickening Time:
2:50 to 70 BC

Free Water:
0.00%

Settling:
0.00%

Fluid Loss:
1158

Design

100% Standard Cement
2.00% CaCl₂
25 #/sk Floccle

Surface Cement

Density: 15.6 lb/gal
Yield: 1.18 cu ft/sk
Water: 5.24 gal/sk

265 SK
312 cu ft

Compressive Strength

UCA @80 deg F (BHCT)- 3000 psi

Rheology

deg F	80	
600	67	
300	42	
200	34	
100	25	
60	21	
30	18	
5	12	
3	10	
PV	26	
YP	17	

psi	time
50	1:55:00
500	4:30:00
1285	10:03:00
1628	12:00:00
2560	24:00:00

Bill Loughridge

- Senior Scientist

Note: This report is for information and the content is limited to the sample described. Halliburton Energy Services makes no warranties, express or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage, regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

THE ROAD TO EXCELLENCE STARTS WITH SAFETY

COMPANY	Huntington Eng. LLC	DATE	6/24/2005
COMPANY REP.	Ron Lackey	CO. REP. TELE. #	793-7063
CONTRACTOR	Patterson # 741	TOWN/STATE	NM
LEASE	Canyon Largo Unit	WELL NO.	#454
API NO.		COUNTY	Rio Arriba
RT MILEAGE	150		

From Bloomfield south on hwy 550 approx 50 miles turn left next to the gas station in Counsors. Follow ri to loc

EQUIPMENT INFORMATION	
CASING: SIZE 4 1/2	WEIGHT 11.5
TUBING: 7 7/8	THREAD 8rd
HOLE: 7 7/8	GRADE
WELL FLUID: Mud	
DISP FLUID:	
EQUIPMENT	
COND	SURF
LINER	PTA
TOP PLUG 5 W	INTER PLG BCK
PLUG CONTAINER YES	LONG SCXXX SQUEEZE
EQUIPMENT TYPE	OTHER
SWADGE YES	BHCT 7350'
	BHST OTHER

Lead	SACKS 700	TYPE 65/35/Std/Poz	[Halliburton Lite]
	ADDITIVES 6% Gel - 1/4# Flocele - 10# Gilsonite - 3/10% Halad 9 - 1/10% HR 5		
	MIXED AT 12.4	LBS/GAL YIELD 1.96	WATER 9.46 GAL/SK
	SACKS	TYPE	
	ADDITIVES		
	MIXED AT	LBS/GAL YIELD	WATER GAL/SK

Tail	SACKS 900	TYPE 50/50/Std/Poz
	ADDITIVES 3% Gel - 9/10% Halad 9 - 2/10% CFR 3 - 5# Gilsonite - 1/4# Flocele	
	MIXED AT 13	LBS/GAL YIELD 1.47
	SACKS	TYPE
	ADDITIVES	
	MIXED AT	LBS/GAL YIELD

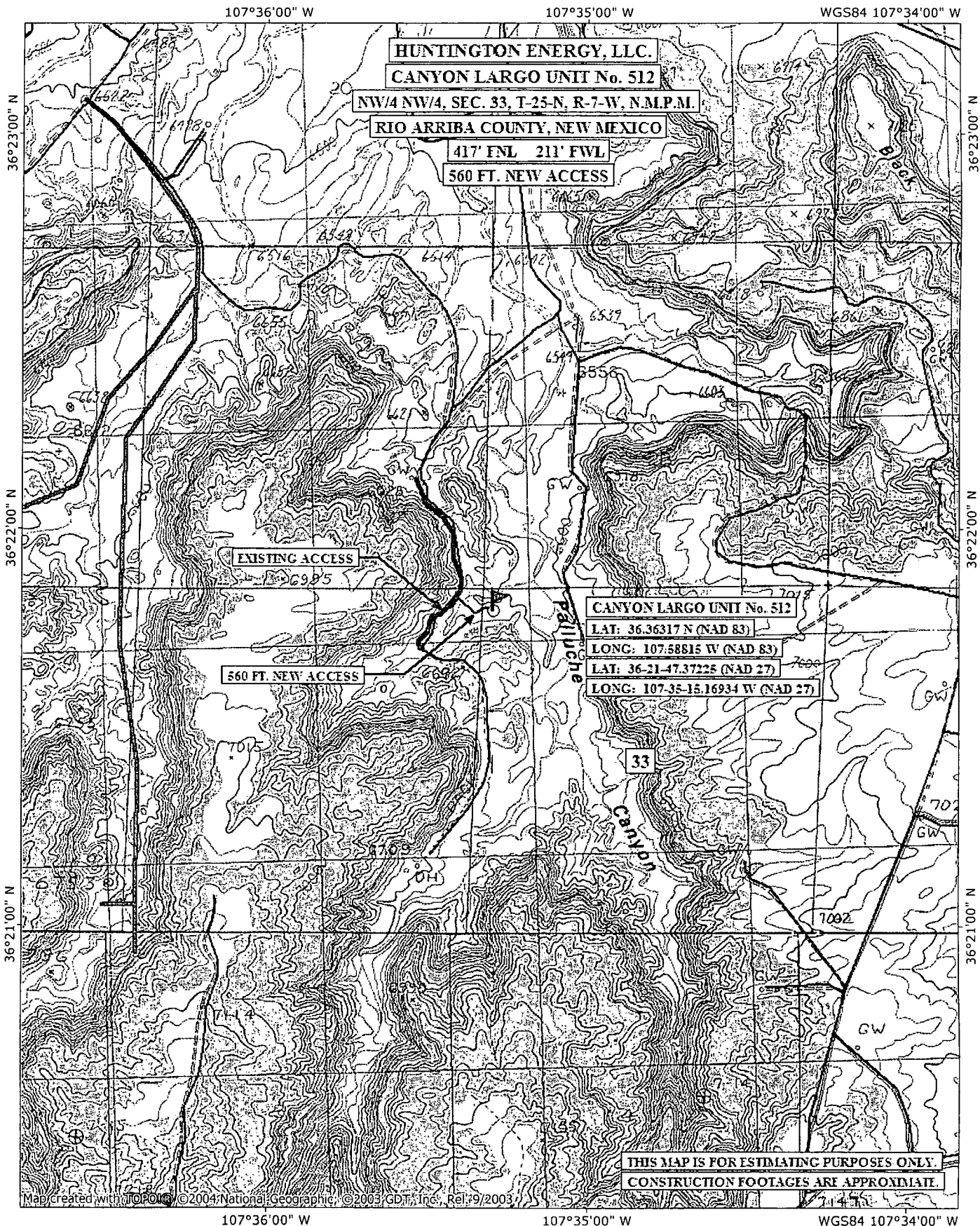
THIRD STAGE	SACKS	TYPE
	ADDITIVES	
	MIXED AT	LBS/GAL YIELD
	SACKS	TYPE
	ADDITIVES	
	MIXED AT	LBS/GAL YIELD

PREFLUSH TYPE	30 Chem Wash 20 H2o	SPACER TYPE
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EQUIPMENT

CASING SIZE 4-1/2	GUIDE SHOE	TYPE
THREAD 8rd	FLOAT SHOE	TYPE
	FLOAT COLLAR	TYPE
	STAGE TOOL	TYPE
	CENTRALIZERS 23	TYPE
	WALL CLEANERS	TYPE
	INSERT FLOAT	TYPE
	LIMIT CLAMP 1	WELD-A 1

REMARKS	IS CREDIT OK?	CREDIT CHECKED BY
	% DISCOUNT	SALES ORDER #
	ORDERED BY Ron Lackey	DATE/TIME OF CALL 6/24/2005
	CALL TAKEN BY Gary Browne-Halliburton	TIME READY 6/29/2005
	REVIEWED BY	MATERIALS FROM
	TRACTOR TRAILER	CREW CALLED @
	CREW	



 NATIONAL
GEOGRAPHIC

0.0 0.5 miles
0.0 0.5 1.0 km

WGS84 107°34'00" W
TN MN
10 1/2°
10/09/12

HUNTINGTON ENERGY, L.L.C.
CANYON LARGO UNIT
RIO ARriba CO., NM

BOP STACK - 3000 PSI

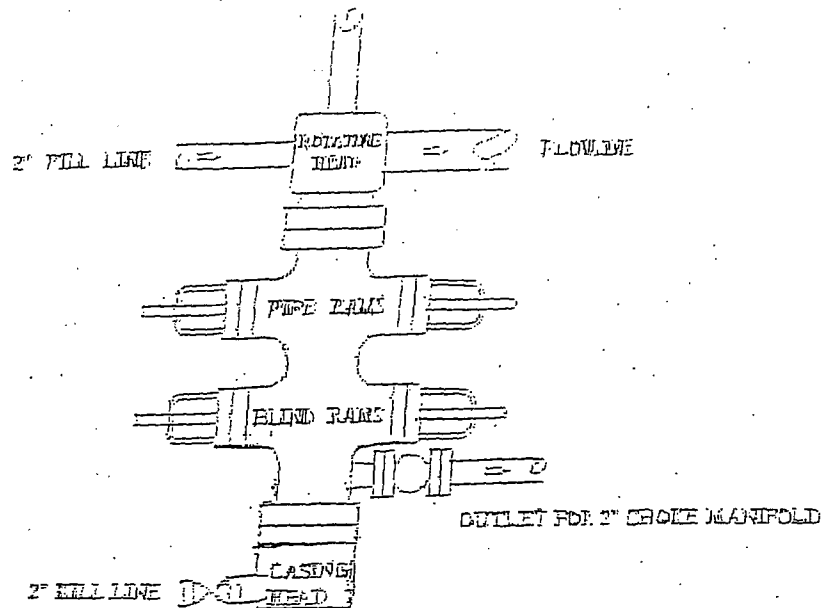


FIGURE 1

CHOKE MANIFOLD - 3000 PSI

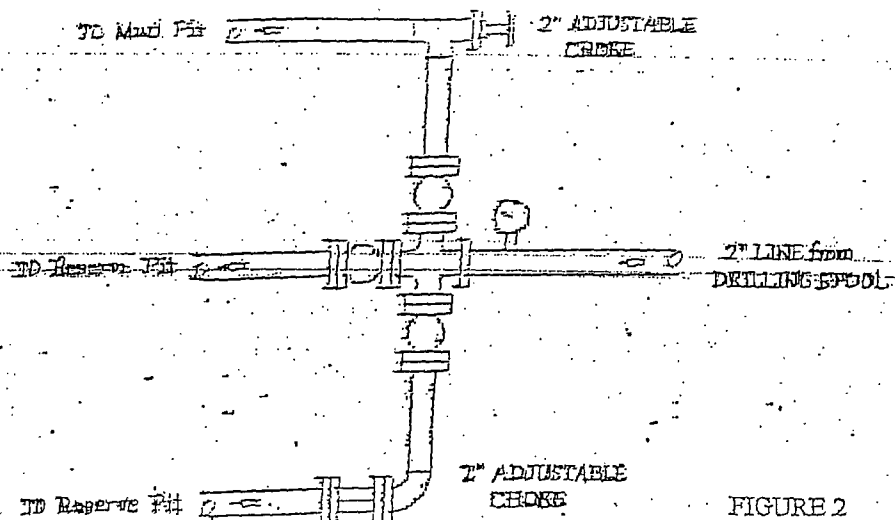


FIGURE 2