

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

RECEIVED
ELECTRONIC REPORT

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

Case Serial No.
I22IND2772

If Indian, Allottee or Tribe Name
UTE MOUNTAIN UTE

JAN 08 2013

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

BLM DURANGO

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. BARKER DOME 20
2. Name of Operator HUNTINGTON ENERGY LLC Contact: CATHERINE SMITH E-Mail: csmith@huntingtonenergy.com		9. API Well No. 30-045-11351-00-S1
3a. Address 908 NW 71ST ST OKLAHOMA CITY, OK 73116	3b. Phone No. (include area code) Ph: 405-840-9876 Ext: 129 Fx: 405-840-2011	10. Field and Pool, or Exploratory BARKER DOME
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 21 T32N R14W SWNE 1650FNL 2310FEL		11. County or Parish, and State SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input checked="" type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Huntington Energy, L.L.C. respectfully requests approval to deepen the above referenced well 300' in the Dakota Formation. A copy of the procedure is attached along with a wellbore and survey plat.

SEE ATTACHED
CONDITIONS OF APPROVAL

* OBTAIN NSL
PRIOR TO WORK

RCVD FEB 13 '13
OIL CONS. DIV.
DIST. 3

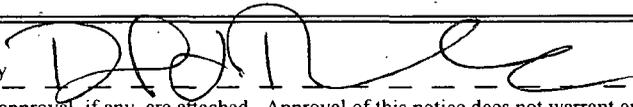
* Prior to work, run CO2 to surface and submit for agencies REVIEW *
COA'S Sent via AFMSS... 1/22/2013 div

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #178459 verified by the BLM Well Information System
For HUNTINGTON ENERGY LLC, sent to the Durango
Committed to AFMSS for processing by BRENNA KAMPF on 01/18/2013 (13BJK2124SE)

Name (Printed/Typed) CATHERINE SMITH	Title REGULATORY
Signature (Electronic Submission)	Date 01/07/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By 	Title MSC	Date 1/22/13
Conditions of approval, if any, are attached. Approval of this notice 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.		Office TRES RIOS FIELD OFFICE

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.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED

AFMSS

DURANGO OFFICE COPY

Revisions to Operator-Submitted EC Data for Sundry Notice #178459

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	DEEP NOI	DEEP NOI
Lease:	I22IND2772	I22IND2772
Agreement:		
Operator:	HUNTINGTON ENERGY, L.L.C. 908 N.W. 71ST ST. OKLAHOMA CITY, OK 73116 Ph: 405-840-9876	HUNTINGTON ENERGY LLC 908 NW 71ST ST OKLAHOMA CITY, OK 73116 Ph: 405-840-9876 Fx: 4058402011
Admin Contact:	CATHERINE SMITH REGULATORY E-Mail: csmith@huntingtonenergy.com Ph: 405-840-9876 Ext: 129 Fx: 405-840-2011	CATHERINE SMITH REGULATORY E-Mail: csmith@huntingtonenergy.com Ph: 405-840-9876 Ext: 129 Fx: 405-840-2011
Tech Contact:	CATHERINE SMITH REGULATORY E-Mail: csmith@huntingtonenergy.com Ph: 405-840-9876 Ext: 129 Fx: 405-840-2011	CATHERINE SMITH REGULATORY E-Mail: csmith@huntingtonenergy.com Ph: 405-840-9876 Ext: 129 Fx: 405-840-2011
Location:		
State:	NM	NM
County:	SAN JUAN	SAN JUAN
Field/Pool:	BARKER CREEK-DAKOTA	BARKER DOME
Well/Facility:	BARKER DOME 20 Sec 21 T32N R14W SWNE 1650FNL 2310FEL	BARKER DOME 20 Sec 21 T32N R14W SWNE 1650FNL 2310FEL

Huntington Energy, L.L.C.

908 N.W. 71st St.
Oklahoma City, Oklahoma 73116
(405) 840-9876

Barker Dome #20

1650' FNL & 2310' FEL
Sec 21-32N-14W
San Juan Co., NM
API # 30-045-11351

Procedure to Deepen 300' to Lower Dakota

1. MIRU WOR & pump truck. Install 3000 psi BOP's Hyd. ✓
2. Load backside and test casing to 500 psi. Rel Pressure. ✓
3. Rel Packer @ 2224'. TOO H w/tubing and packer. LD tubing in singles. ✓
4. PU 4 3/4" bit, 4 3 1/2" drill collars and 2 3/8" work string. TIH to TD @ 2400'. Stage into hole & join remaining wtr from casing and open hole. ✓
5. RU power swivel and air unit. Est cir w/air & mist. ✓
6. Drill open hole, new hole, from 2400' to 2700'. ✓
7. Cir hole clean w/air and mist. TOO H. LD work string, BHA and bit. ✓
8. PU shoe 4 1/2", 1 jt FC and balance of 4 1/2" 15.5 FL4S J-55 casing & set at total depth. Circ hole clean w/air w/csg on bottom. ✓
9. MIRU pump company. Pump cmt job. Job to be supplied. Displace cement job w/2% KCl wtr. Bump plug. RD & rel pump company. ✓

Barker Dome #20

CURRENT

SWNE Sec 21-32N-14W

San Juan County, New Mexico

1650' FNL & 2310' FEL

Change of Operator eff. 10/1/12

Today's Date: 10/25/12

Spud: 12/15/1949

Completed: 1/04/1950

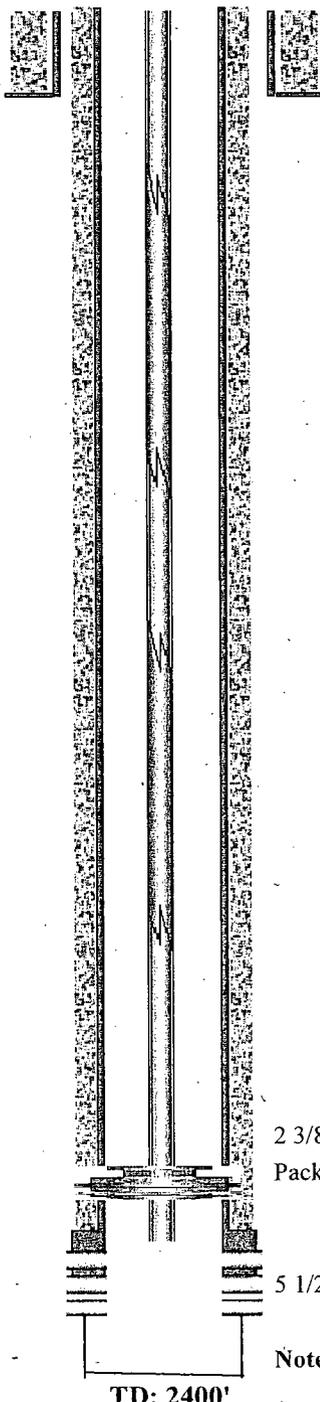
API: 30-045-11351

Latitude:

Longitude:

Tops:

Point Lookout	49'
Mancos	400'
Gallup	1439'
Greenhorn	2158'
Graneros	2213'
Two Wells	2277'
Paguate	2312'
Lwr Cuebero	2335'
Encinal Canyon	2394'



6249' GL

10 3/4" set at 90' (95' KB);
80 sx cmt: Cmt to surface

2 3/8" 4.7# J-55 tbg 76 jts, at 2224' KB
Packer @ 2224' KB. End of tbg @ 2325'

PERFS: 2284'-2335'

5 1/2" 15.5# csg, ID 4.95", set @ 2284'; 120 sx cmt

Note: Well Open Hole from 2284'-2400'

TD: 2400'

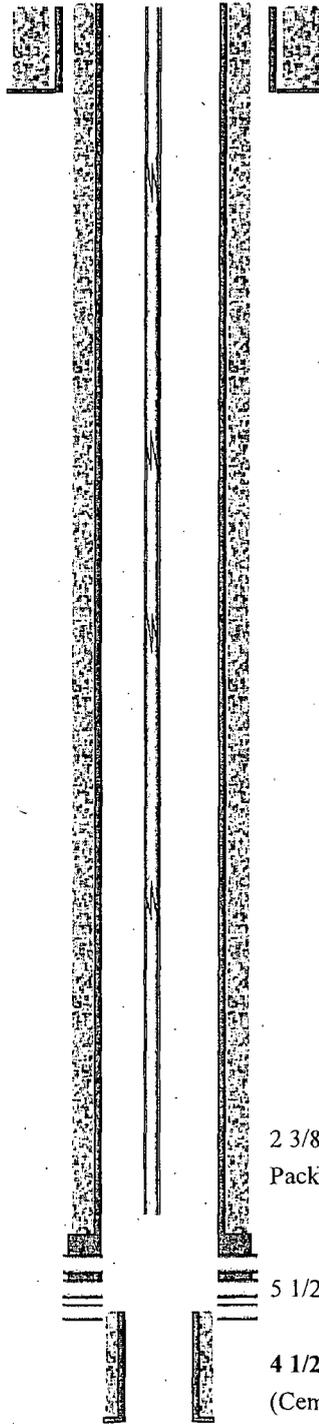
Barker Dome #20

PROPOSED

SWNE Sec 21-32N-14W
San Juan County, New Mexico
1650' FNL & 2310' FEL

Change of Operator eff. 10/1/12

Today's Date: 10/25/12
Spud: 12/15/1949
Completed: 1/04/1950
API: 30-045-11351



6249' GL

10 3/4" set at 90' (95' KB);
80 sx cmt: Cmt to surface

Tops:

Point Lookout	49'
Mancos	400'
Gallup	1439'
Greenhorn	2158'
Graneros	2213'
Two Wells	2277'
Paguate	2312'
Lwr Cuebero	2335'
Encinal Canyon	2394'
Morrison	2425'

2 3/8" 4.7# J-55 tbg 76 jts, at 2224' KB
Packer @ 2224' KB. End of tbg @ 2325'

existing perms: 2284'-2335'

5 1/2" 15.5# csg, ID 4.95", set @ 2284'; 120 sx cmt

Proposed Perfs:
To be determined

4 1/2" 15.5# FL4S J-55 casing. Set at 2700'.
(Cement job to be supplied.)
(Current TD of well is 2400')

TD @ 2700'

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-11351		² Pool Code 71520		³ Pool Name Barker Creek - Dakota	
⁴ Property Code 306894		⁵ Property Name BARKER DOME			⁶ Well Number 20
⁷ OGRID No. 208706		⁸ Operator Name HUNTINGTON ENERGY, L.L.C.			⁹ Elevation 6249'

¹⁰ Surface Location

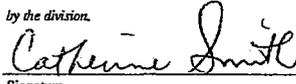
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	21	32-N	14-W		1650	NORTH	2310	EAST	SAN JUAN

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 NE-160		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

RCVD FEB 13 '13
OIL CONS. DIV.
DIST. 3

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 1650' 2310' 21 Lat: 36.97611N Long: -108.31499W NAD 27	¹⁷ OPERATOR CERTIFICATION <i>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.</i>  Signature _____ Date 1/07/13 Catherine Smith Printed Name csmith@huntingtonenergy.com E-mail Address	
	¹⁸ SURVEYOR CERTIFICATION <i>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.</i> Date of Survey _____ Signature and Seal of Professional Surveyor: _____	
	Certificate Number _____	

OGOR.11: Production History for well 20 BARKER with API 300451135100S1

PERIOD	STATUS	DAYS	OIL PROD	GAS PROD	WATER PROD	MMS IID	MMS OPERATOR
2012-10	GSI	0	0	0	0	0 I22IND2772	HUNTINGTON ENERGY LLC
2012-09	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-08	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-07	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-06	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-05	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-04	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-03	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-02	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2012-01	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-12	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-11	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-10	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-09	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-07	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-06	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-05	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-04	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-03	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-02	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2011-01	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-12	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-11	PGW	15	0	434	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-10	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-09	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-08	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-07	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2010-06	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2009-05	PGW	31	0	54	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2009-04	PGW	30	0	32	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2009-03	PGW	31	0	62	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2009-02	GSI	0	0	0	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2009-01	PGW	31	0	112	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-12	PGW	31	0	395	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-11	PGW	30	0	304	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-10	PGW	31	0	232	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-09	PGW	30	0	129	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-08	PGW	31	0	14	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-07	PGW	31	0	196	0	0 I22IND2772	BURLINGTON RESOURCES OIL & GAS

OGOR.11: Production History for well 20 BARKER with API 300451135100S1

PERIOD	STATUS	DAYS	OIL PROD	GAS PROD	WATER PROD	MMS IID	MMS OPERATOR
2008-06	PGW	30	0	335	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-05	PGW	4	0	442	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-04	PGW	30	0	361	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-03	PGW	31	0	523	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-02	GSI	0	0	0	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2008-01	PGW	31	0	653	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-12	PGW	31	0	603	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-11	PGW	30	0	468	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-10	PGW	31	0	388	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-09	PGW	30	0	442	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-08	PGW	31	0	371	31	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-07	PGW	31	0	260	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-06	PGW	30	0	292	30	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-05	PGW	31	0	514	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-04	PGW	30	0	486	30	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-03	PGW	31	0	484	31	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-02	PGW	28	0	480	28	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2007-01	PGW	31	0	72	31	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-12	PGW	31	0	663	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-10	PGW	31	0	322	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-09	PGW	30	0	483	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-08	PGW	31	0	703	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-07	PGW	31	0	717	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-06	PGW	30	0	678	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-05	PGW	31	0	696	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-04	PGW	30	0	672	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-03	PGW	31	0	709	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-02	PGW	28	0	476	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2006-01	PGW	31	0	438	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-10	PGW	31	0	655	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-09	PGW	30	0	644	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-08	PGW	31	0	679	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-07	PGW	31	0	679	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-06	PGW	30	0	689	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-06	PGW	30	0	689	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-05	PGW	31	0	499	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-05	PGW	31	0	499	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-04	PGW	30	0	560	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS
2005-04	PGW	30	0	560	0	I22IND2772	BURLINGTON RESOURCES OIL & GAS

Huntington Energy, L.L.C.
Tribal Lease: I-22-IND-2772
Well: Barker Dome #20
Location: 1650 FNL & 2310' FEL
Section 21, T. 32 N., R. 14 W.
San Juan County, New Mexico

Conditions of Approval: Sundry Notice to Recomplete:

1. No activities may take place outside of the originally disturbed surface area.
2. Within 30 days of the recompletion, submit to this office a Sundry Notice, Subsequent Report of all activities that took place. Daily drillers or activities reports should be provided. Please enclose a revised wellbore diagram with formation tops.
3. Submit a copy of all logs run during the recompletion of this well.

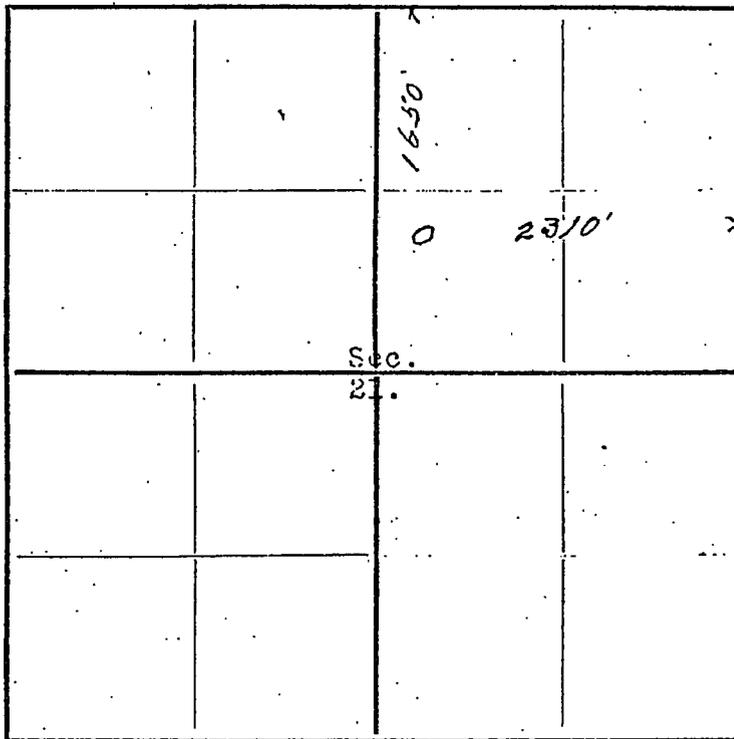
Company Southern Union Production Co.

COPY

Lease Barker Well No. 22

Sec. 21. T. 32. N., R. 14. W., N.M.P.M.

Location 2310' West & 1650' South from NE Cor. Sec. 21.
Being in center of NW, SW, NE section 21.
San Juan County New Mexico



Scale—4 inches equals 1 mile.

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

J.H. Miller
Registered Professional
Engineer and Land Surveyor.

Seal:

Farmington, New Mexico

Surveyed September 23, 1949.

U. S. GEOLOGICAL SURVEY
RECEIVED
OCT 1 1949
ARTESIA, NEW MEXICO

HALLIBURTON

**Huntington Energy LLC Ebiz
Do Not Mail-908 N W 71st St
Oklahoma City, Oklahoma 73116**

Barker Dome #20

San Juan County, New Mexico
United States of America
S:21 T:32N R:14W

Cement Recommendation

Prepared for: David Herritt
Office Number: 405-84-8386
Email Address: dherritt@huntingtonenergy.com

December 10, 2012
Version: 1

Submitted by:
Ryan Keeran
Halliburton
4109 E Main
Farmington, New Mexico 87499
(505) 592-2317

HALLIBURTON

Job Information

4 1/2" Flush Joint Production Casing

Well Name: Barker Dome

Well #: #20

5 1/2" Production Casing	0 - 2284 ft (MD)
Outer Diameter	5.500 in
Inner Diameter	4.950 in
Linear Weight	15.50 lbm/ft
Casing Grade	J-55

4 3/4" Open Hole	2284 - 2700 ft (MD)
Inner Diameter	4.750 in
Job Excess	50 %

4 1/2" Flush Joint Production Casing	0 - 2700 ft (MD)
Outer Diameter	4.500 in
Inner Diameter	4.026 in
Linear Weight	11 lbm/ft
Casing Grade	J-55

Calculations

4 1/2" Flush Joint Production Casing

Spacer:

$$1984.00 \text{ ft} * 0.0232 \text{ ft}^3/\text{ft} * 0 \% = 46.02 \text{ ft}^3$$

$$\text{Total Spacer} = 56.15 \text{ ft}^3$$

$$= 10.00 \text{ bbl}$$

Cement : (716.00 ft fill)

$$300.00 \text{ ft} * 0.0232 \text{ ft}^3/\text{ft} * 0 \% = 6.96 \text{ ft}^3$$

$$416.00 \text{ ft} * 0.0126 \text{ ft}^3/\text{ft} * 50 \% = 7.87 \text{ ft}^3$$

$$\text{Lead Cement} = 14.83 \text{ ft}^3$$

$$= 2.64 \text{ bbl}$$

Shoe Joint Volume: (40.00 ft fill)

$$40.00 \text{ ft} * 0.0884 \text{ ft}^3/\text{ft} = 3.54 \text{ ft}^3$$

$$= 0.63 \text{ bbl}$$

$$\text{Tail plus shoe joint} = 18.36 \text{ ft}^3$$

$$= 3.27 \text{ bbl}$$

$$\text{Total Tail} = 14 \text{ sks}$$

Total Pipe Capacity:

$$2700.00 \text{ ft} * 0.0884 \text{ ft}^3/\text{ft} = 238.69 \text{ ft}^3$$

$$= 42.51 \text{ bbl}$$

Displacement Volume to Shoe Joint:

$$\text{Capacity of Pipe} - \text{Shoe Joint} = 42.51 \text{ bbl} - 0.63 \text{ bbl}$$

$$= 41.88 \text{ bbl}$$

Job Recommendation

4 1/2" Flush Joint Production Casing

Fluid Instructions

Fluid 1: Water Spacer

Fresh Water Spacer

Fluid Density: 8.33 lbm/gal

Fluid Volume: 10 bbl

Fluid 2: Lead Cement

50/50 Poz Premium

0.1 % CFR-3 (Dispersant)

0.4 % Halad(R)-344 (Low Fluid Loss Control)

0.4 % Halad(R)-413 (Low Fluid Loss Control)

Fluid Weight 13.50 lbm/gal

Slurry Yield: 1.29 ft³/sk

Total Mixing Fluid: 5.66 Gal/sk

Top of Fluid: 1984 ft

Calculated Fill: 716 ft

Volume: 3.27 bbl

Calculated Sacks: 14.21 sks

Proposed Sacks: 20 sks

Fluid 3: Water Based Spacer

Displacement

Fluid Density: 8.33 lbm/gal

Fluid Volume: 41.88 bbl

Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Estimated Avg Rate bbl/min	Downhole Volume
1	Spacer	Fresh Water Spacer	8.3		10 bbl
2	Cement	Primary Cement	13.5		20 sks
3	Spacer	Displacement	8.3		41.88 bbl