

OKLAHOMA CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
P.O. BOX 52000  
OKLAHOMA CITY, OK 73152-2000  
(Rule 165:10-3-1)

API NUMBER: 007 25596

Approval Date: 03/15/2013  
Expiration Date: 09/15/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 13 Twp: 3N Rge: 22ECM County: BEAVER

SPOT LOCATION:  SE  SW  SE  SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 251 700

Lease Name: MITCHELL Well No: 2-13XLH Well will be 251 feet from nearest unit or lease boundary.

Operator Name: CABOT OIL & GAS CORPORATION Telephone: 2818482620 OTC/OCC Number: 18246 0

CABOT OIL & GAS CORPORATION  
840 GESSNER RD STE 1200  
HOUSTON, TX 77024-4142

ERVIN & EMMA MITCHELL, CO-TRUSTEES  
RT. 2, BOX 61  
BALCO OK 73931

Formation(s) (Permit Valid for Listed Formations Only):

Name	Depth	Name	Depth
1 MARMATON	6119	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 601813

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201301736

Special Orders:

Total Depth: 16350

Ground Elevation: 2734

**Surface Casing: 1700**

Depth to base of Treatable Water-Bearing FM: 330

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: Yes

Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 60000 Average: 5500

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? N

Wellhead Protection Area? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: OGALLALA

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 12-20754

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

HORIZONTAL HOLE 1

Sec 12 Twp 3N Rge 22E County BEAVER

Spot Location of End Point: E2 NW NE NE

Feet From: NORTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 800

Depth of Deviation: 5400

Radius of Turn: 700

Direction: 359

Total Length: 9850

Measured Total Depth: 16350

True Vertical Depth: 6119

End Point Location from Lease,  
Unit, or Property Line: 330

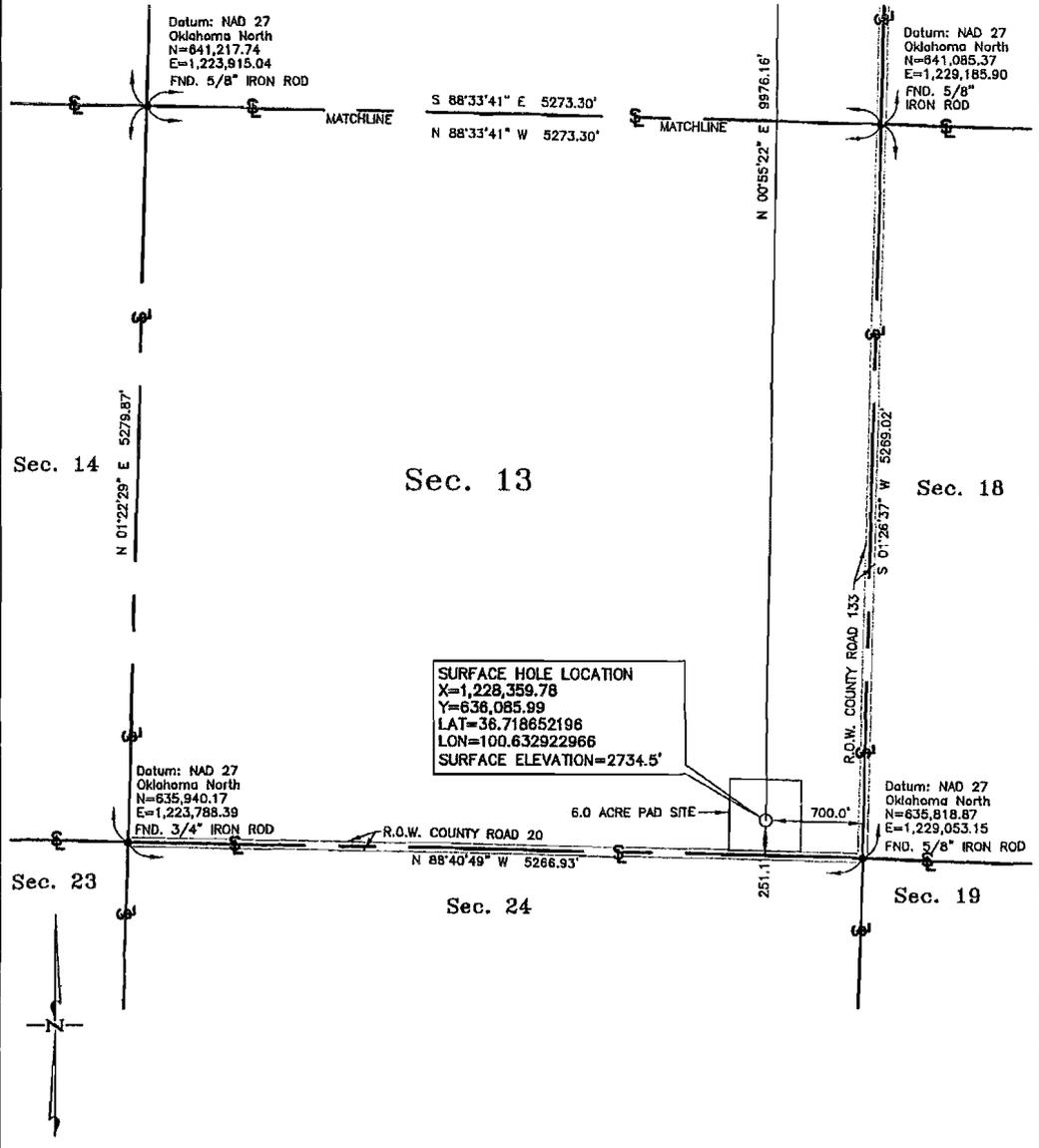
Notes:

Category	Description
BOTTOM-HOLE LOCATION	3/14/2013 - G75 - 330' FNL, 800' FEL NE4 12-3N-22ECM PER SURVEY PLAT
DEEP SURFACE CASING	3/14/2013 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING
PENDING CD - 201301736	3/14/2013 - G75 - (E.O.)(IRR UNIT) E2 12 & E2 13-3N-22ECM X601813 MRMN COMPL. INT. NCT 330 FSL, NCT 330 FNL, NCT 660 FEL CABOT OIL & GAS CORP. REC 3-11-2013 (DECKER)
SPACING - 601813	3/14/2013 - G75 - (640)(HOR)(IRR UNIT) E2 12 & E2 13-3N-22ECM EXT 592272/VAR MRMN POE TO BHL NLT 660' FB (SUPERSEDE SP. ORDER # 106948 MRMN)
SURFACE LOCATION	3/14/2013 - G75 - 251' FSL, 700' FEL SE4 13-3N-22ECM PER SURVEY PLAT
WELL NUMBER	3/14/2013 - G75 - 2-13XLH PER SURVEY PLAT

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

API  
007-25596

Sections: 12 & 13 Township: 3 North Range: 22 ECM Meridian: Cimarron, Beaver County, Oklahoma  
 Operator: Cabot Oil & Gas Corporation Well Name: Mitchell #2-13XLH  
 Top Hole Location: 250' FSL & 700' FEL SEC 13 Bottom Hole Location: 330' FNL & 800' FEL SEC 12  
 Topography & Vegetation: Rolling Pasture  
 Reference or Alternate Staked: None  
 Access to Location: From South Section Line (C.R. 20)  
 Direction & Distance to nearest Town: North 43' 12' East - 9.24 miles to Beaver, Oklahoma



THIS MAP WAS PREPARED FROM AN ACTUAL ON THE GROUND SURVEY PERFORMED UNDER MY SUPERVISION ON MAY 22-25, 2012.

*Stephen Johnson*  
Stephen Johnson  
R.P.L.S. 1351



BEARINGS AND COORDINATES SHOWN ON THIS MAP ARE BASED ON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD 27.

THIS MAP DOES NOT REPRESENT A CURRENT OWNERSHIP BOUNDARY SURVEY.

RECORDS RESEARCH WAS PROVIDED BY THE CLIENT OR CLIENT'S REPRESENTATIVES. THE SURVEYOR PERFORMED NO ADDITIONAL RESEARCH.

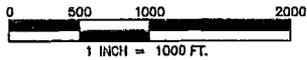
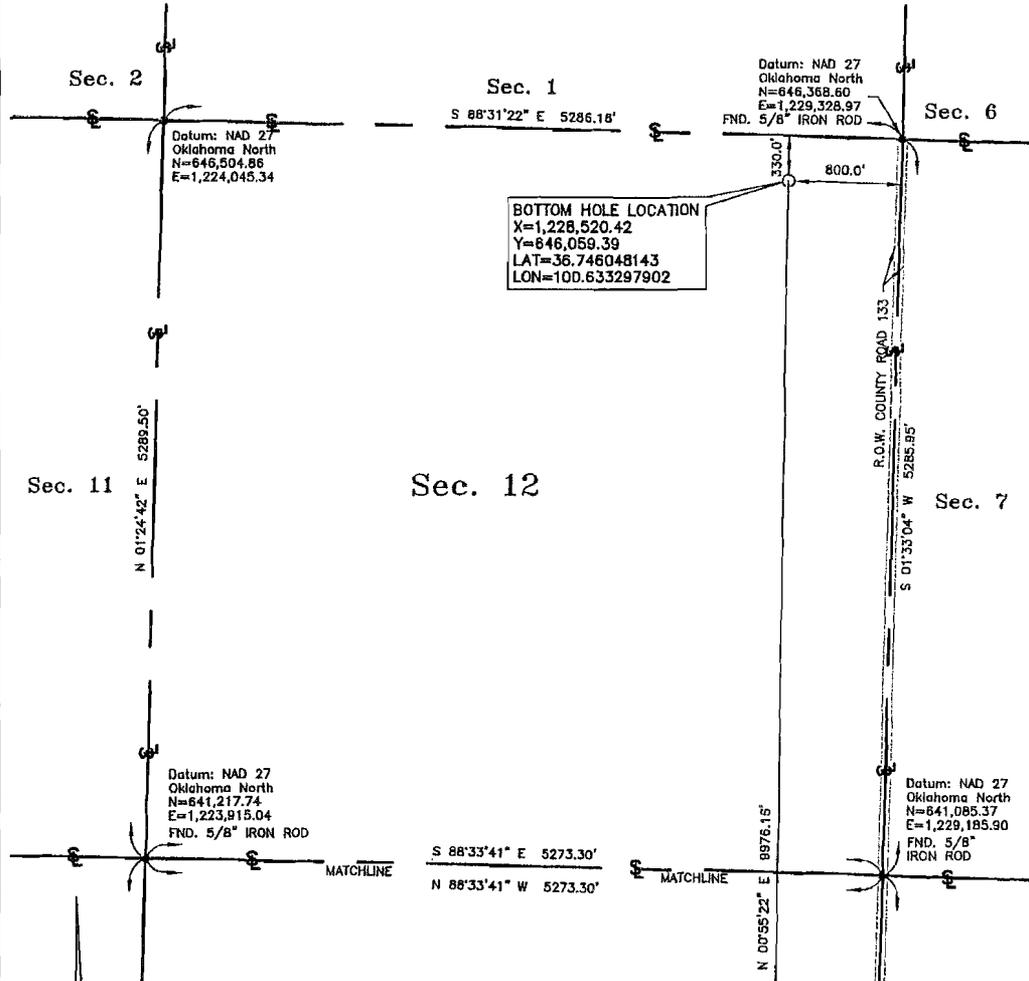
LESSOR NAMES ARE PROVIDED BY THE CLIENTS REPRESENTATIVE AND NOT BY THE SURVEYOR.

FINAL  
 CABOT OIL & GAS CORPORATION  
 MITCHELL #2-13XLH  
 SEC. 12 & 13, T3N, R22ECM  
 CIMARRON MERIDIAN  
 BEAVER COUNTY, OKLAHOMA  
**PERCHERON**  
 SURVEYING, LLC  
 15411 Vantage Pkwy West  
 Suite 205  
 Houston, Texas 77032  
 (281) 447-6230  
 Oklahoma Certificate of Authorization  
 No.6362, Expires June 30, 2013  
 AUGUST 7, 2012  
 REV. 1 - CHANGE WELL NO.  
 PROJECT 120.OK.1800

SCANNED

Sections: 12 & 13 Township: 3 North Range: 22 ECM, Meridian: Cimarron, Beaver County, Oklahoma  
 Operator: Cabot Oil & Gas Corporation Well Name: Mitchell #2-13XLH  
 Top Hole Location: 250' FSL & 700' FEL SEC 13 Bottom Hole Location: 330' FNL & 800' FEL SEC 12  
 Topography & Vegetation: Rolling Pasture  
 Reference or Alternate Staked: None  
 Access to Location: From South Section Line (C.R. 20)  
 Direction & Distance to nearest Town: North 43' 12' East - 9.24 miles to Beaver, Oklahoma

API  
007-25596



THIS MAP WAS PREPARED FROM AN ACTUAL ON THE GROUND SURVEY PERFORMED UNDER MY SUPERVISION ON MAY 22-25, 2012.

*Stephen Johnson*  
 Stephen Johnson  
 R.P.L.S. 1351

BEARINGS AND COORDINATES SHOWN ON THIS MAP ARE BASED ON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD 27.

THIS MAP DOES NOT REPRESENT A CURRENT OWNERSHIP BOUNDARY SURVEY.

RECORDS RESEARCH WAS PROVIDED BY THE CLIENT OR CLIENT'S REPRESENTATIVES. THE SURVEYOR PERFORMED NO ADDITIONAL RESEARCH.

LESSOR NAMES ARE PROVIDED BY THE CLIENTS REPRESENTATIVE AND NOT BY THE SURVEYOR.

§ = APPROXIMATE SECTION LINE



FINAL  
 CABOT OIL & GAS CORPORATION  
 MITCHELL #2-13XLH  
 SEC. 12 & 13, T3N, R22ECM  
 CIMARRON MERIDIAN  
 BEAVER COUNTY, OKLAHOMA

**PERCHERON**  
 SURVEYING, L.L.C.

15411 Vantage Pkwy West  
 Suite 205  
 Houston, Texas 77032  
 (281) 447-6230

Oklahoma Certificate of Authorization  
 No.6362, Expires June 30, 2013

AUGUST 7, 2012

REV. 1 - CHANGE WELL NO.

PROJECT 120.OK.1800

SCANNED