

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

API NUMBER: 043 23600

Approval Date: 03/06/2018

Expiration Date: 09/06/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 09 Twp: 18N Rge: 14W

County: DEWEY

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 245 1650

Lease Name: JERRY

Well No: 16-21-1XH

Well will be 245 feet from nearest unit or lease boundary.

Operator Name: DERBY EXPLORATION LLC

Telephone: 4056393786

OTC/OCC Number: 24143 0

DERBY EXPLORATION LLC
PO BOX 779
OKLAHOMA CITY, OK 73101-0779

JERRY EVANS
67778 NORTH 2390 ROAD
CANTON OK 73724

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9362	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201801059
201801060

Special Orders:

Total Depth: 20232

Ground Elevation: 1937

Surface Casing: 740

Depth to base of Treatable Water-Bearing FM: 500

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 8000 Average: 5000

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

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

PERMIT NO: 18-33933

H. SEE MEMO

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.

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 200000

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 21 Twp 18N Rge 14W County DEWEY

Spot Location of End Point: S2 S2 SE SW

Feet From: SOUTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 1980

Depth of Deviation: 9082

Radius of Turn: 750

Direction: 175

Total Length: 9972

Measured Total Depth: 20232

True Vertical Depth: 10517

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category

Description

HYDRAULIC FRACTURING

3/5/2018 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG

INTERMEDIATE CASING

3/5/2018 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

MEMO

3/5/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

Category	Description
PENDING CD - 201801059	3/5/2018 - G75 - (E.O.)(1280) 16 & 21-18N-14W VAC 95923 CSTR 21-18N-14W VAC 259872 CSTR 16-18N-14W VAC 336358 MSSLM, KDRK 16 & 21-18N-14W ** EST MSSP, OTHERS POE TO BHL NCT 660' FB DERBY EXPLOR., LLC REC 2-28-2018 (MINMIER) ** S/B VAC 336538 MSSLM, KDRK 16 & 21-18N-14W; TO BE CORRECTED IN ORDER SUBMITTED TO OCC FOR REVIEW PER ATTORNEY FOR OPERATOR
PENDING CD - 201801060	3/5/2018 - G75 - (E.O.) 16 & 21-18N-14W X20181059 MSSP, OTHERS COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FWL DERBY EXPLOR., LLC REC 2-28-2018 (MINMIER)

ADKTHM 2/28/18

APPLICATION TO DRILL, RECOMPLETE OR REENTER

FORM 1000
REV. 2014

FILE ORIGINAL ONLY

PLEASE TYPE OR USE BLACK INK

1. OTC/OCC OPERATOR NUMBER

24143

2. API NUMBER

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

3. NOTICE OF INTENT TO:

(CHECK ONLY ONE)

☒ DRILL ☐ RECOMPLETE ☐ REENTER ☐ DEEPEN ☐ AMEND - REASON

NOTE: ATTACH COPY OF 1002-A IF RECOMPLETION OR REENTRY.

4. TYPE OF DRILLING OPERATION >>>>>>> (NOTE: If directional or horizontal, see reverse side for bottom hole location)

A. ☒ STRAIGHT HOLE ☐ DIRECTIONAL HOLE ☐ HORIZONTAL HOLE
B. ☐ OIL/GAS ☐ INJECTION ☐ DISPOSAL ☐ WATER SUPPLY ☒ STRAT TEST ☐ SERVICE WELL

5. WELL LOCATION:

SECTION 9 TOWNSHIP 18N RANGE 14W COUNTY Dewey
SPOT LOCATION: SW 1/4 SE 1/4 SW 1/4 FEET FROM QUARTER from SOUTH LINE from WEST LINE
SECTION LINES: 245' FSL 1650' FWL

7. Well will be 245' feet from nearest unit or property boundary.

8. LEASE NAME: Jerry WELL NUMBER: 16-21-1XH

9. NAME OF OPERATOR: Derby Exploration LLC

EMAIL ADDRESS:

ADDRESS PO Box 779

PHONE (AC/NUMBER)

CITY OKC STATE OK ZIP CODE 73101

10. SURFACE OWNER (ONE ONLY, ATTACH SHEET FOR ADDITIONAL OWNERS)

Jerry Evans

ADDRESS 67778 N. 2390 Rd

CITY Canton STATE OK ZIP CODE 73724

14. LIST TARGET FORMATIONS AND DEPTHS OF EACH BELOW (LIMITED TO TEN)

- | | |
|-------------------------|-------------------|
| 1) TONKAWA 6977' | 6) MORROW 9034' |
| 2) COTTAGE GROVE 7662' | 7) CHESTER 9362' |
| 3) BIG LIME 8262' | 8) MERAMEC 10202' |
| 4) PINK LIME 8622' | 9) |
| 5) LOWER RED FORK 8697' | 10) |

15. SPACING ORDER NUMBER(S) AND SIZE UNIT(S):

16. PENDING APPLICATION C.D. NO.

17. LOCATION EXCEPTION ORDER NO.

18. INCREASED DENSITY ORDER NO.

19. TOTAL DEPTH 10,300

20. GROUND ELEV. 1937

21. BASE OF TREATABLE WATER 500

22. SURFACE CASING 740

23. ALT CASING PROPOSED? Y X N

24. ALTERNATIVE CASING PROCEDURE, check box and fill in blank (AFFIDAVIT REQUIRED, see reverse side, line 31.)

A. Cement will be circulated from total depth to ground surface on the production casing string.

B. Cement will be circulated from _____ depth to _____ depth by use of a two stage cementing tool.

25.1. PIT INFORMATION: Using more than one pit or mud system?

A. TYPE OF MUD SYSTEM: ☒ WATER BASED ☐ OIL BASED ☐ GAS BASED (AIR DRILL)

B. EXPECTED MUD CHLORIDE CONTENT: maximum: 8000 ppm; average: 5000 ppm.

PIT #1 C. TYPE OF PIT SYSTEM:

on-site off-site ☒ closed If off-site, specify location: _____D. IS DEPTH TO TOP OF GROUND WATER GREATER THAN 10 FT BELOW BASE OF PIT? ☒ Y ☐ NE. WITHIN 1 MILE OF MUNICIPAL WATER WELL? ☒ Y ☐ NF. WELLHEAD PROTECTION AREA? ☒ Y ☐ N

Off-Site Pit No. _____

26.1 OCC USE ONLY

A. CATEGORY

1A

1B

2

3

4

C

B. PIT LOCATION:

Alluvial Plain

Terrace Deposit

Bedrock Aquifer

Other H.S.A.

Non-H.S.A. Fm: Terrace

C. Special area or field rule?

D. DEEP SCA? ☒ Y ☐ NE. CBL required? ☒ Y ☐ NF. SOIL COMPACTED LINER REQUIRED? ☒ Y ☐ NG. 20 mil GEOMEMBRANE LINER REQUIRED? ☒ Y ☐ N

27. PROPOSED METHOD FOR DISPOSAL OF DRILLING FLUIDS (MUST BE COMPLETED)

A. Evaporation/dewater and backfilling of reserve pit.

B. Public Landfill: Location

C. Annular Injection (REQUIRES PERMIT and surface casing set 200 feet below base of treatable water-bearing formation.)

PERMIT NO. _____

☒ D. One time land application (REQUIRES PERMIT)

PERMIT NO. 18-33933

E. Haul to Commercial pit facility; Specify site:

Order No. _____

F. Haul to Commercial soil farming facility; Specify site:

Order No. _____

G. Haul to recycling/re-use facility; Specify site:

Order No. _____

☒ H. Other, Specify: CLOSED SYSTEM, STEEL PITS, RETURN MUD TO VENDOR, LAND APPLY CUTTINGS PER LAND PERMIT

I hereby certify I am authorized to submit this two page application prepared by me or under my supervision.

The facts and proposals made herein are true, correct and complete to the best of my knowledge and belief.

SIGNATURE

Shelley Spencer

NAME (Print or Type)

Shelley Spencer

PHONE (AC/NO.)

405 302 4535

DATE

2/28/18

NOTICE: Approval is void if operations have not commenced within six months of the date of approval. An approved permit must be posted at the location during drilling and completion operations. File the Form 1001A, Spud Report, within fourteen days of commencement of operations.

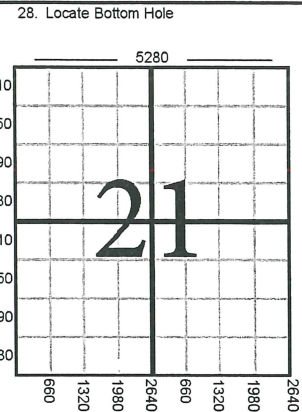
405 639 3763

NOTIFY DISTRICT OFFICE 24 HOURS PRIOR TO CEMENTING SURFACE CASING.

25.2. PIT INFORMATION:

A. TYPE OF MUD SYSTEM: WATER BASED ☒ OIL BASED ☐ GAS BASED (AIR DRILL) ☐
B. EXPECTED MUD CHLORIDE CONTENT: maximum: 350,000 ppm; average: 275,000 ppm.
PIT #2 C. TYPE OF PIT SYSTEM: on-site ☐ off-site ☒ closed ☐ If off-site, specify location: _____
D. IS DEPTH TO TOP OF GROUND WATER GREATER THAN 10 FT BELOW BASE OF PIT? ☒ Y ☐ N
E. WITHIN 1 MILE OF MUNICIPAL WATER WELL? ☐ Y ☒ N
F. WELLHEAD PROTECTION AREA? ☐ Y ☒ N Off-Site Pit No. _____

26.2 OCC USE ONLY A. CATEGORY 1A 1B 2 3 4 ☒ C Fm: Terrace
B. PIT LOCATION: Alluvial Plain ☐ Terrace Deposit ☒ Bedrock Aquifer ☐ Other H.S.A. ☐ Non-H.S.A. ☐
C. Special area or field rule? ☐ D. DEEP SCA? ☐ Y ☒ N E. CBL? ☐ Y ☒ N
F. SOIL COMPACTED LINER REQUIRED? ☐ Y ☒ N G. 20 mil GEOMEMBRANE LINER REQUIRED? ☐ Y ☒ N
29 Bottom Hole Location SEC TWP RGE COUNTY
SPOT LOCATION: 1/4 1/4 1/4 1/4 FEET FROM QUARTER from SOUTH LINE from WEST LINE
SECTION LINES:
Measured Total True Vertical BHL from nearest Lease, Unit, Or Property Line:
Depth Depth
30. Bottom Hole Location for Horizontal Hole: (LATERALS)
LATERAL #1: SEC TWP RGE COUNTY
SPOT LOCATION: 1/4 1/4 1/4 1/4 FEET FROM QUARTER from SOUTH LINE from WEST LINE
SECTION LINES:
Depth of Deviation Radius of Turn Direction Total Length
Measured Total True Vertical End Point location from nearest lease, unit
Depth Depth or property line:
LATERAL #2: SEC TWP RGE COUNTY
SPOT LOCATION: 1/4 1/4 1/4 1/4 FEET FROM QUARTER from SOUTH LINE from WEST LINE
SECTION LINES:
Depth of Deviation Radius of Turn Direction Total Length
Measured Total True Vertical End Point location from nearest lease, unit
Depth Depth or property line:
LATERAL #3: SEC TWP RGE COUNTY
SPOT LOCATION: 1/4 1/4 1/4 1/4 FEET FROM QUARTER from SOUTH LINE from WEST LINE
SECTION LINES:
Depth of Deviation Radius of Turn Direction Total Length
Measured Total True Vertical End Point location from nearest lease, unit
Depth Depth or property line:



1. If more than two drainholes are proposed, attach separate sheet indicating the necessary information.
2. Direction must be stated in degrees azimuth.
3. Please note the horizontal drainhole and its end point must be located within the legal boundaries of the lease or spacing unit. Directional surveys are required for all drainholes and directional wells.

31. AFFIDAVIT FOR ALTERNATIVE CASING PROGRAM (Signature on front of this form attests to this affidavit)
1. This well ☐ WILL ☐ WILL NOT penetrate any known lost circulation zones.
2. During the drilling of this well, withdrawals from any water well within 1/4 mile ☐ WILL ☐ WILL NOT exceed 50 gallons per minute.
3. The projected depth of the well ☐ IS ☐ IS NOT less than 100 feet from the top of any enhanced recovery project or gas storage facility.
4. List the following for all water wells within 1/4 mile of this well. (Information concerning some water wells may be obtained from the OKLAHOMA WATER RESOURCES BOARD, 3800 N. Classen Blvd., Oklahoma City, OK 73118). IF NO WATER WELLS FOUND, SO STATE. (ATTACH ADDITIONAL SHEET IF NECESSARY)

Name of Owner/Operator	Address of Owner/Operator	Location (Nearest 1/4 1/4 1/4 1/4))	Depth of Well

5. A cement bond log is required to be run and submitted from not less than 100 feet below the base of the treatable water-bearing formation to the surface. OCC USE ONLY
6. If casing depth is more than 250 feet deeper than base of the treatable water-bearing formation, operator must submit a letter of request listing reasons and precautions to be taken.

INTENT TO DRILL CHECKLIST
APPROVED ☒ REJECTED ☐
SPD

OCC USE ONLY
1. SURETY
A. NONE filed. 12/15/18
B. EXPIRED: Date
C. OUTSTANDING CONTEMPT ORDER. Intermediate Casing
4. GEOLOGY

DO NOT WRITE INSIDE THIS BOX

Due to the known potential risk of encountering an over-pressured zone in the Morrow Series in this area, the Technical Manager recommends setting an intermediate string of casing immediately above the Morrow Series

Check: 001097 \$40.00
45 Emerg Walk Thru ITD
Case: 00000000
Date: 02/28/2018 Time: 11:46
RECEIPT 1802750010
WALSH WORK UMM
Payor: MERRY EXPLORATION LLC
Cashier: CRS

Well Location Plat

Operator: DERBY EXPLORATION, LLC
 Lease Name and No.: JERRY 16-21 1XH
 Footage: 245' FSL - 1650' FWL Gr. Elevation: 1937'
 Section: 9 Township: 18N Range: 14W I.M.
 County: Dewey State of Oklahoma
 Terrain at Loc.: Location fell in wheat field, North of existing fence.

API 043-23600

S.H.L. Sec. 9-18N-14W I.M.
 B.H.L. Sec. 21-18N-14W I.M.



All bearings shown
are gnd bearings

0' 660' 1320' 1980'
 1" = 1500'

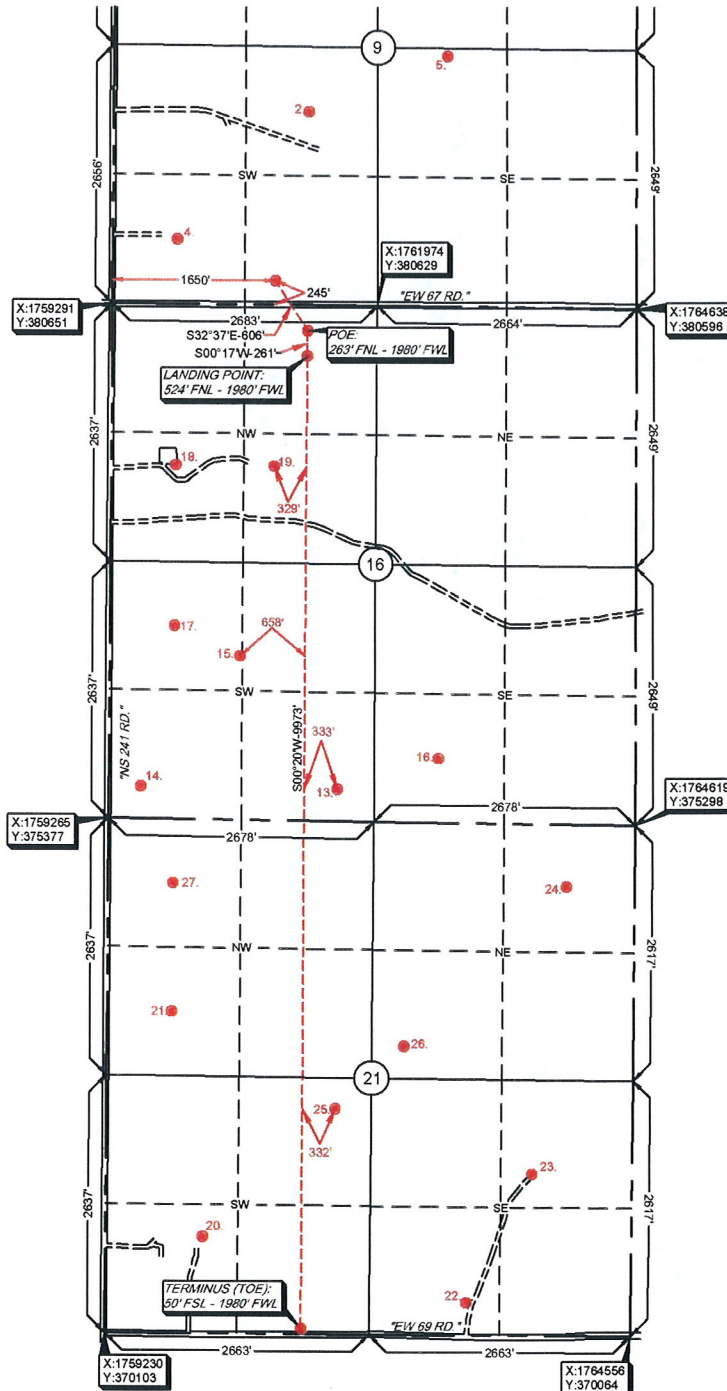
GPS DATUM
 NAD 83
 OK NORTH ZONE

Surface Hole Loc.:
 Lat: 36°02'39.37"N
 Lon: 98°42'07.51"W
 X: 1760943
 Y: 380883

Point of Entry:
 Lat: 36°02'34.35"N
 Lon: 98°42'03.49"W
 X: 1761270
 Y: 380372

Landing Point:
 Lat: 36°02'31.77"N
 Lon: 98°42'03.48"W
 X: 1761268
 Y: 380111

Terminus (TOE):
 Lat: 36°00'53.14"N
 Lon: 98°42'03.32"W
 X: 1761210
 Y: 370139



Please note that this location was staked on the ground under the supervision of a Licensed Professional Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS. NOTE: X and Y data shown herein for Section Corners may NOT have been surveyed on-the-ground, and further does NOT represent a true Boundary Survey. Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

Survey and plat by:
 Arkoma Surveying and Mapping, PLLC
 P.O. Box 238 Wilburton, OK 74578
 Ph. 918-465-5711 Fax 918-465-5030
 Certificate of Authorization No. 5348
 Expires June 30, 2018

Invoice #7566-A-B
 Date Staked: 02/13/18 By: J.W.
 Date Drawn: 02/14/18 By: K.B.

Certification:
 This is to certify that this Well Location Plat represents
 the results of a survey made on the ground performed
 under the supervision of the undersigned.

Lance G. Mathis
 LANCE G. MATHIS 02/16/18
 OK LPLS 1664

