| PI NUMBER: 073 25434 izontal Hole Oil & Gas | OIL & GAS (F OKLAHOI | ORPORATION COMMISSIO CONSERVATION DIVISION P.O. BOX 52000 MA CITY, OK 73152-2000 Rule 165:10-3-1) | Approval Date: 11/23/2016 Expiration Date: 05/23/2017 | |
|---|-----------------------------|---|--|--|
| | P | ERMIT TO DRILL | | |
| | | | | |
| WELL LOCATION: Sec: 01 Twp: 16N Rge: 7 | W County: KINGFIS | SHER | | |
| SPOT LOCATION: SW SE SE SE | J | OUTH FROM EAST | | |
| | SECTION LINES: 27 | 70 600 | | |
| Lease Name: GERALDINE | Well No: 1 | H-36X | Well will be 270 feet from nearest unit or lease boundary. | |
| Operator NEWFIELD EXPLORATION MID-0 Name: | SON INC | Telephone: 2816742521; 9188781 | OTC/OCC Number: 20944 0 | |
| NEWFIELD EXPLORATION MID-CON INC 24 WATERWAY AVE STE 900 | | | IE MUEGGENBORG TH MAIN STREET | |
| THE WOODLANDS, TX | 77380-3197 | KINGFISH | ER OK 73750 | |
| 1 MISSISSIPPIAN 2 3 4 5 Speciae Orders: 655949 | 6305 | 6 7 8 9 10 | | |
| Spacing Orders: 655949 | Location Exception Or | ders: | Increased Density Orders: | |
| Pending CD Numbers: 201604322 201604325 201604324 | | | Special Orders: | |
| Total Depth: 18042 Ground Elevation: 7 | 062 Surface Ca | ısing: 1500 | Depth to base of Treatable Water-Bearing FM: 150 | |
| Under Federal Jurisdiction: No | Fresh Water St | upply Well Drilled: No | Surface Water used to Drill: No | |
| PIT 1 INFORMATION | | Approved Method for dis | sposal of Drilling Fluids: | |
| Type of Pit System: CLOSED Closed System Means Type of Mud System: WATER BASED | Steel Pits | | | |
| Chlorides Max: 5000 Average: 3000 | H. SEE MEMO | | | |
| Is depth to top of ground water greater than 10ft below b Within 1 mile of municipal water well? N | base of pit? Y | F. Haul to Commercial 617361 | F. Haul to Commercial soil farming facility: Sec. 6 Twn. 2N Rng. 4W Cnty. 137 Order No: 617361 | |
| Wellhead Protection Area? N | | | | |
| | | | | |
| Pit is not located in a Hydrologically Sensitive Area. | | | | |
| Category of Pit: C | | | | |
| Category of Pit: C Liner not required for Category: C | | | | |
| Category of Pit: C | | | | |

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 not located in a Hydrologically Sensitive Area. Category of Pit: C Liner not required for Category: C

Pit Location is NON HSA Pit Location Formation: SALT PLAINS

HORIZONTAL HOLE 1

| Sec 36 Twp 17N Rge 7W Cou Spot Location of End Point: NW NE N Feet From: NORTH 1/4 Section Line: Feet From: EAST 1/4 Section Line: Depth of Deviation: 6966 Radius of Turn: 750 Direction: 359 Total Length: 9898 | • | | |
|--|--|---|----------------------|
| Measured Total Depth: 18042 | | | |
| True Vertical Depth: 7375 | | | |
| End Point Location from Lease, Unit, or Property Line: 50 | | | |
| | Additional Surface Owner | Address | City, State, Zip |
| | GARY A. MUEGGENBORG | 1313 S. MAIN STREET | KINGFISHER, OK 73750 |
| Notes: | | | |
| Category | Description | | |
| DEEP SURFACE CASING | 10/21/2016 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING | | |
| HYDRAULIC FRACTURING | 10/21/2016 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE. | | |
| MEMO | | - CLOSED SYSTEM=STEEL PITS PER OF RED IN CONCRETE-LINED PIT, SOLIDIFIE | |
| PENDING CD - 201604322 | 10/21/2016 - G75 - (640)(HO EXT 649078 MSSP, OTHER COMPL. INT. NCT 660' FB (COEXIST SP. ORDER # 97 REC 11-22-2016 (JOHNSON | S [´] 930 MNNG N2, SW4, W2 SE4 & ORDER # | 105909 MISS) |

| Category | Description |
|------------------------|--|
| PENDING CD - 201604324 | 10/21/2016 - G75 - (I.O.) 1-16N-7W & 36-17N-7W EST MULTIUNIT HORIZONTAL WELL X655949 MSSP 1-16N-7W X201604322 MSSP 36-17N-7W 50% 1-16N-7W 50% 36-17N-7W NEWFIELD EXPLOR. MID-CONT. INC. REC 11-22-2016 (JOHNSON) |
| PENDING CD - 201604325 | 10/21/2016 - G75 - (I.O.) 1-16N-7W & 36-17N-7W X655949 MSSP 1-16N-7W X201604322 MSSP 36-17N-7W X165:10-3-28(C)(2)(B) MSSP (GERALDINE 1H-36X MAY BE CLOSER THAN 600' TO MITCHELL 1 & MCCANDLESS 1) SHL (1-16N-7W) NCT 150' FSL, NCT 330' FEL COMPL. INT. (1-16N-7W) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (36-17N-7W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL NEWFIELD EXPLOR. MID-CONT. INC. REC 11-22-2016 (JOHNSON) |
| SPACING - 655949 | 10/21/2016 - G75 - (640)(HOR) 1-16N-7W EXT OTHER EXT 647837 MSSP COMPL. INT. NLT 660' FB (COEXIST SP. ORDER # 114334 MSSLM & ORDER # 114465 MNNG) |

NEWFIELD

Newfield Exploration Mid-Continent Inc.



October 13, 2016

24 Water Way, Suite 900 The Woodlands, TX 77380

 Regulatory Department

 PHONE:
 281-674-2521

 FAX:
 346-224-7026

API 073-25434

Oklahoma Corporation Commission Oil & Gas Conservation Division P.O. Box 52000-Oklahoma City, Oklahoma 73152-2000

RE: Geraldine 1H-36X Sec 1-16N-7W Kingfisher County, OK

Dear Sir or Madam

We are requesting a variance to the liner requirements for the burial of oil-based cuttings (OBC) as stated in rules of the Oklahoma Corporation Commission (OCC). We intend to bury the OBC from the above mentioned well using Scott Environmental Services Inc.'s (SESI) stabilization and solidification process, DuroSM. Specifically, the request for a variance is because the chosen process cannot be practically carried out under current Oklahoma rules due to the rules stating that OBC burial requires a geomembrane liner but the rules do not allow stirring within geomembrane lined pits.

In a letter dated November 15, 2010, Mr. Tim Baker confirmed that use of a DuroSM process had met the requirements of the Commission. It is requested that a variance be approved for this well site, provided that the following conditions are met:

- 1. A soil liner may be used instead of a geomembrane liner if the unconfined compressive strength (UCS) of the DuroSM material is at least 70 pounds per square inch (psi), or
- 2. No liner is required if the DuroSM material meets all of the following conditions:
 - a. A permeability of not more than 1 x 10⁻⁶ cm/sec;
 - b. A UCS of at least 35 psi; and
 - c. Concentrations in a leachate of the DuroSM material according to EPA's SPLP procedure do not exceed the following values for the constituents named:
 - i. Total Petroleum Hydrocarbons, 100 mg/l;
 - ii. Chloride, 1750 mg/l;
 - iii. pH, 12.49 SU, plus a lower limit no less than 6;
 - iv. Arsenic, 5.00 mg/l;
 - v. Barium, 100 mg/l;

- vi. Cadmium, 1.00 mg/l;
- vii. Chromium, 5.00 mg/l;
- viii. Lead, 5.00 mg/l;
 - ix. Mercury, 0.20 mg/l;
 - x. Selenium, 1.00 mg/l;
- xi. Silver, 5.00 mg/l;
- xii. Zinc, 5.00 mg/l; and
- xiii. Benzene, 0.5 mg/l.

The permeability value specified is the same as that required for a standard soil liner, so that in effect the DuroSM material becomes its own liner but is even more effective, because the low permeability extends throughout the bulk of the DuroSM material.

Conformance with the specified criteria is determined on laboratory samples made with a representative sample of the waste to be subjected to the DuroSM process. The results of the testing will be provided to the Pollution Abatement Department of the OCC.

Your prompt attention to this matter is appreciated.

Respectfully,

Newfield Exploration, Mid-Continent Inc.

velm P. Smith

Evelyn P. Smith Sr. Regulatory Specialists

Bob Anthony Commissioner

OKLAHOMA Corporation Commission

OKLAHOMA CITY OKLAHOMA 73152-2000

OIL & GAS CONSERVATION DIVISION



Jeff Cloud

Commissioner

255 Jim Thorpe Building Telephone: (405)521-2302 FAX: (405)521-3099

Dana Murphy

Commissioner

Lori Wrotenbery, Director

API 073-25434

. . . .

November 15, 2010

J. Blake Scott Scott Environmental Services, Inc. P.O. Box 6215 Longview, Texas 75608

RE: Requests for variances to liner requirements for pits used to contain oil-based cuttings is reached and

Dear Mr. Scott:

This is in response to your inquiry concerning the procedure by which operators of wells in the State of Oklahoma regulated by the Commission's Oil and Gas Conservation Division may request variances to liner requirements for pits used to contain oil-based cuttings (OBC). OAC 165:10-7-16(b)(1)(B)(iv) provides that any pit used to contain oil-based drilling fluids, cuttings and/or completion/fracture/workover fluids shall be required to have a geomembrane liner. OAC 165:10-7-16(b)(5) states that any variance from the liner requirements of OAC 165:10-7-16(b)(5) states that any variance from the liner requirements of OAC 165:10-7-16(b)(5) states that any variance from the liner requirements of OAC 165:10-7-16 may be granted by the Manager of the Technical Services Department after receipt of a written request and supporting documentation required by the Department. Operators must submit written requests for variances to liner requirements for pits used to contain OBC to the Commission's Technical Services Department (TSD) Manager as attachments to initial or amended OCC Form 1000 Applications to Drill, Recomplete or Reenter.

The TSD Manager will require operators to submit documentation in support of requests for variances. Variances to liner requirements for pits containing OBC are not effective until granted by the TSD Manager. If operators requesting variances to liner requirements for pits containing OBC fail to submit acceptable documentation to the TSD Manager, or if such variance requests are denied, then operators are required to deposit the solidified OBC in pits containing geomembrane liners and close the pits as required by OAC 165:10-7-16, or otherwise dispose of the solidified OBC in accordance with Commission rules.

If the processes employed by your company and any other entity demonstrate through the submission of laboratory analyses, chain of custody forms and any other documentation required by the TSD Manager that the solidified OBC for which a variance from the pit liner requirements is sought meet acceptable criteria, then the TSD Manager could approve such variance requests submitted by operators.

Your company has demonstrated in three separate trials to date that solidified OBC for which variances were sought by operators have met the criteria of the Technical Services Department for burying such materials in pits with no geomembrane liners.

If you have any questions concerning the foregoing, please contact me at (405) 522-2763.

Sincerely

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المحاجي والمحمد أفارت والتي ومعافظته أحاده

.

. موجع تحمط في المراجع

Tim Baker Manager, Pollution Abatement Department Oklahoma Corporation Commission

Cc: Lori Wrotenbery, Ron Dunkin, Wayne Wright, Grant Ellis, Tony Cupp, Terry Grooms, Gayland Darity, Sally Shipley, Keith Thomas, Susan Conrad, Jim Hamilton, Connie Moore

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SERVICE • ASSISTANCE • COMPLIANCE EXCELLENCE IS OUR STANDARD



ALL SECTION CORNER COORDINATES ARE NAD 27

