Form 3160-3 (August 1999

OCD-ARTESIA

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED OMB No. 1004-0136 Expires November 30, 2000

5. Lease Serial No.

| | NMLC | :031 | 844 |
|--|-------------|------|-----|

6. If Indian, Allottee or Tribe Name

| 1a. Type of Work: DRILL REENTER | | 7. If Unit or CA Agreement, | Name and No. |
|--|--|---|--------------------|
| 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Oth | er Single Zone Multiple Zone | Lease Name and Well No. HUMMINGBIRD FEDER | AL 1 |
| | SHERYAL JOSEPH E-Mail: JOSEPHSA@BP.COM | 9. API Well No. | 33992 |
| 3a. Address HOUSTON, TX 77253 | 3b. Phone No. (include area code) Ph: 281-366-4493 Fx: 281-366-7688 | 10. Field and Pool, or Explore FREN | |
| 4. Location of Well (Report location clearly and in accorded 1820) At surface NWSE Lot J 1900FSL 1550 At proposed prod. zone NWSE Lot J 1900FSL 1550 | once with any State requirements.*) - 25-05 BA OFEL 32.51490 N Lat, 103.49080 W Lon OFEL 32.51490 N Lat, 103.49080 W Lon | 11. Sec., T., R., M., or Blk. a Sec 1 T17S R31E Me SME: FEE | - |
| 14. Distance in miles and direction from nearest town or post 3 MILES WEST OF MALJAMAR, NEW MEXICO | | 12. County or Parish EDDY | 13. State NM |
| Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1090 | 16. No. of Acres in Lease MAR 0 9 2005 519.95 OOD: AGTERIA | 17. Spacing Unit dedicated to 319.90 | |
| 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. | 19. Proposed Depth 12550 MD 12550 TVD | 20. BLM/BIA Bond No. on fi | ile |
| 21. Elevations (Show whether DF, KB, RT, GL, etc. 4025 GL | 22. Approximate date work will start 03/01/2005 | 23. Estimated duration | |
| * A STATE OF THE S | 24. Attachments | | |
| The following, completed in accordance with the requirements o | f Onshore Oil and Gas Order No. 1, shall 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 Syst SUPO shall be filed with the appropriate Forest Service Off | Item 20 above). S. Operator certification | ns unless covered by an existing | , |
| 25. Signature (Electronic Submission) | Name (Printed/Typed) SHERYAL JOSEPH Ph: 281-366-4493 | | Date 12/13/2004 |
| Title AUTHORIZED REPRESENTATIVE | | | |
| Approved by (Signature) /s/ Tony J. Herrell | Name (Printed/Typed) /s/ Tony J. Herrell | MA | Date R 0 7 2005 |
| FIELD MANAGER | CARLSBAD FIEL | D OFFICE | |
| Application approval does not warrant or certify the applicant ho operations thereon. Conditions of approval, if any, are attached. | | PROVAL FOR 1 | |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, States any false, fictitious or fraudulent statements or representat | make it a crime for any person knowingly and willfully to ions as to any matter within its jurisdiction. | o make to any department or age | ency of the United |

Electronic Submission #51808 verified by the BLM Well Information System For BP AMERICA PRODUCTION COMPANY, sent to the Carlsbad Committed to AFMSS for processing by LINDA ASKWIG on 12/13/2004 (05LA0180AE)

Witness Surface Casing

Robert Contrilled Water Besin

GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Form 3160-5 (August 1999)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

5. Lease Serial No.
NMLC031844

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

NMLC031844

| abandoned we | II. Use form 3160-3 (APD) for such | proposals. | 6. If India | in, Allottee or Trib | e Name |
|--|--|----------------------|--------------------------|----------------------|------------------------------|
| SUBMIT IN TRI | PLICATE - Other instructions on re | /erse side. | 7. If Unit | or CA/Agreement, | Name and/or No. |
| 1. Type of Well | | | | ame and No. | |
| Oil Well Gas Well Ot | | | | IINGBIRD FEDE | RAL 1 |
| 2. Name of Operator BP AMERICA PRODUCTION | COMPANY Contact: SHERYAL Company E-Mail: joseph | | 9. APIW | ell No. | |
| 3a. Address PO BOX 3092 HOUSTON, TX 77253 | 3b. Phone N Ph: 281-3 Fx: 281-36 | | 10. Field FREN | and Pool, or Explo | ratory |
| 4. Location of Well (Footage, Sec., 2 | I., R., M., or Survey Description) | | 11. Coun | ty or Parish, and St | tate |
| Sec 1 T17S R31E NWSE Lot 32.51490 N Lat, 103.49080 V | | | EDDY | COUNTY, NM | 1 |
| 12. CHECK APP | ROPRIATE BOX(ES) TO INDICATE | E NATURE OF N | OTICE, REPORT, O | OR OTHER DA | TA |
| TYPE OF SUBMISSION | | TYPE OF | ACTION | | |
| - Notice of Intent | ☐ Acidize ☐ Dec | epen | Production (Start/ | Resume) | Water Shut-Off |
| Notice of Intent | ☐ Alter Casing ☐ Fra | cture Treat | Reclamation | _ | Well Integrity |
| Subsequent Report | Casing Repair Ne | w Construction | Recomplete | _ | Other nange to Original A |
| Final Abandonment Notice | Change Plans | g and Abandon | ☐ Temporarily Aban | don Ch | |
| | Convert to Injection Plu | g Back | Water Disposal | 11 | , |
| & 1550 FEL. | | | | | |
| 14. Thereby certify that the foregoing i | s true and correct. Electronic Submission #53392 verifie For BP AMERICA PRODUCTION mmitted to AFMSS for processing by AR | ICOMPANY, sent | to the Roswell | 4SE) | |
| Name (Printed/Typed) SHERYA | L JOSEPH | Title PERMIT | TING REPRESENTA | ATIVE | |
| Signature (Electronic | Submission) | Date 01/25/20 | 005 | | |
| | THIS SPACE FOR FEDER | AL OR STATE | OFFICE USE | | |
| Approved By /s/ To | ony J. Herrell | Title FIFLD | MANAGER | | MAR 0 7 200 |
| Conditions of approval, if any, are attached | ed. Approval of this notice does not warrant or uitable title to those rights in the subject lease | | RLSBAD FIE | LD OFFI | CF |
| Fitle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent | 3 U.S.C. Section 1212, make it a crime for any statements or representations as to any matter | person knowingly and | willfully to make to any | | |

281 366 7688

T-217 P.005/008 F-412

Energy, Minerals & Natural Resources Department

Submit to Appropriate District Office State Lease - 4 Copies For Lease - 3 Copies

-DOTERCY II P.O. Drawer DD, Artenia, NM 55211-0719

1625 N. Franch Dr., Hobbs, Rd 88840

DISTRICT III 1000 His Bruss Ed., Astec, 204 67410 OIL CONSERVATION DIVISION 2040 South Pacheco

| HIS Breech Hd. HETRICT IV 2040 South Panhance | | | | | | | acheco 87505 | | () AMENDE |) REPORT |
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District 1
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

For drilling and production facilities, submit to appropriate NMOCD District Office.

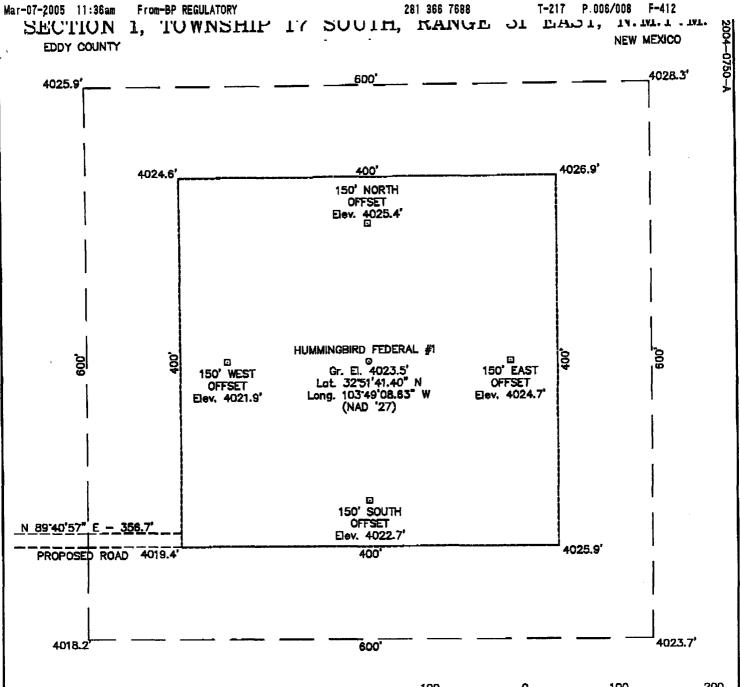
For downstream facilities, submit to Santa Fe office

Form C-144 June 1, 2004

Oil Conservation Division

1220 South St. Francis Dr. Santa Fe, NM 87505 Pit or Below-Grade Tank Registration or Closure

| Is pit or below-grade tank covered by a "general plan"? Yes [No 2] Type of action: Registration of a pit or below-grade tank [Closure of a pit or below-grade tank [] | | | | |
|--|--|---|--|--|
| | | | | |
| Operator:BP America Production Company Telephone: | | • | | |
| Address: _PO Box 1610Midland, TX 79702 | N/5-22992 | | | |
| Facility or well name: _Hummingbird Federal 1API #:Z |)-013-33 [19-U/L or Qtr/Qtr | Sec _ 1 T _ 17S _ R _ 31E | | |
| County: Eddy Latitude | 32° 51' 4239"Longitude _103" 49' 8 | .63" NAD: 1927 ⊠ 1983 ∐ | | |
| Surface Owner: Federal ⊠ State ☐ Private ☐ Indian ☐ | | | | |
| Pit | Below-grade tank | | | |
| Type: Drilling I Production Disposal D | Volume:bbl Type of fluid: | | | |
| Workover Emergency | Construction material: | | | |
| Lined 🖾 Unlined 🗀 | Double-walled, with leak detection? Yes If not, | , explain why not. | | |
| Liner type: Synthetic ☑ Thickness _12_mil Clay ☐ | | | | |
| Pit Volume14000bbl | · | | | |
| Depth to ground water (vertical distance from bottom of pit to seasonal | Less than 50 feet | (20 points) | | |
| high water elevation of ground water.) | 50 feet or more, but less than 100 feet | (10 points) | | |
| High water overanous of ground water, | 100 feet or more | (0 points) 0 | | |
| | Yes | (20 points) | | |
| Wellhead protection area: (Less than 200 feet from a private domestic | No | (0 points) 0 | | |
| water source, or less than 1000 feet from all other water sources.) | | | | |
| Distance to surface water: (horizontal distance to all wetlands, playas, | Less than 200 feet | (20 points) | | |
| irrigation canals, ditches, and perennial and ephemeral watercourses.) | 200 feet or more, but less than 1000 feet | (10 points) | | |
| | 1000 feet or more | (0 points) 0 | | |
| | Ranking Score (Total Points) | 0 | | |
| If this is a pit closure: (1) Attach a diagram of the facility showing the pit's | s relationship to other equipment and tanks. (2) Indica | ate disposal location: (check the onsite box if you | | |
| are burying in place) onsite 🔲 offsite 🔲 If offsite, name of facility | | - | | |
| remediation start date and end date. (4) Groundwater encountered: No [] | | | | |
| (5) Attach soil sample results and a diagram of sample locations and excavat | | The same seconds to the same seconds. | | |
| Additional Comments: | uus. | | | |
| Additional Confinences. | | 7 | | |
| | | | | |
| | | 2 | | |
| | ., | 98-2 | | |
| | S. F. | | | |
| | \ | | | |
| I hereby certify that the information above is true and complete to the best | of my knowledge and helief I further certify that the | he shows described hit or below goods took | | |
| I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit of below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit , or au (attached) alternative OCD-approved plan . | | | | |
| has been/will be constructed or closed according to NMOCD guideline | 's 🔀, a general permit 🔲, or au (attached) alternat | tive OCD-approved plan . | | |
| | rs ⊠, a general permit □, or an (attached) alternat | tive OCD-approved plan . | | |
| Date: 3 4 2005 | × × × | ive OCD-approved plan □. | | |
| Date: 3 4 2005 Printed Name/Title _Margaret J LoweSr. Environmental Engineer | Signature | Sur | | |
| Date: 314 2005 Printed Name/Title _Margaret J Lowe _ Sr. Environmental Engineer Your certification and NMOCD approval of this application/closure does n | Signature Managamus of Contents of Content | of the pit or tank contaminate ground water or | | |
| Date: 314 2005 Printed Name/Title _Margaret J Lowe Sr. Environmental Engineer | Signature Managamus of Contents of Content | of the pit or tank contaminate ground water or | | |
| Date: 314 2005 Printed Name/Title _Margaret J Lowe _ Sr. Environmental Engineer _ Your certification and NMOCD approval of this application/closure does notherwise endanger public health or the environment. Nor does it relieve to | Signature Managamus of Contents of Content | of the pit or tank contaminate ground water or | | |
| Date: 314 2005 Printed Name/Title _Margaret J Lowe _ Sr. Environmental Engineer _ Your certification and NMOCD approval of this application/closure does notherwise endanger public health or the environment. Nor does it relieve to | Signature Managamus of Contents of Content | of the pit or tank contaminate ground water or | | |



DRIVING DIRECTIONS

FROM THE INTERSECTION OF STATE HIGHWAY 33 AND U.S. HIGHWAY 82 IN MALJAMAR, NM GO WEST ON SAID U.S. HIGHWAY 82 1.9 MILES TO A ROADSIDE PARK ON NORTH SIDE OF HIGHWAY ALSO BEING SUPEE ROAD THEN GO NORTHEAST ALONG SAID SUPEE ROAD 1.4 MILES TO COUNTY ROAD 252, THEN GO WEST ON SAID COUNTY ROAD 252, O.7 MILE TO A POINT PREDETERMINED BY BP REPRESENTATIVES AS A PROPOSED LEASE ROAD THEN GO SOUTH ALONG SAID PROPOSED ROAD 0.4 MILE TO AN EXISTING WELL PAD FOR WEBB OIL COMPANY'S, ARCO FED #2 WELL THEN CONTINUE SOUTH ALONG A 10' WIDE CALICHE ROAD 0.3 MILE TO A POINT PREDETERMINED BY BP REPRESENTATIVES AS THE BEGINNING OF A PROPOSED LEASE ROAD THEN GO EAST ALONG SAID PROPOSED LEASE ROAD 388 FEET TO THE PROPOSED SOUTHWEST WELL PAD CORNER FOR THE PROPOSED LOCATION.



110 W. LOUISIANA, STE. 110 MIDLAND TEXAS, 79701 (432) 687-0865 - (432) 687-0868 FAX



BP AMERICA PRODUCTION COMPANY

HUMMINGBIRD FEDERAL #1

Located 1880' FSL & 1550' FEL, Section 1 Township 17 South, Range 31 East, N.M.P.M. Eddy County, New Mexico

| Drawn By: LVA | Date: October 25, 2004 | | |
|--------------------------|--------------------------------------|--|--|
| Scale: 1"=100" | Field Book: 287 / 29-31, 272 / 79-80 | | |
| Revision Date: 1-13-2005 | Quadrongle: Maljamar | | |
| W.O. No: 2004-0750 | Dwg. No.: L-2004-0750-A | | |

Attachment to BLM Form 3160-1: **Proposed Surface Use Plan**

| Well Name: | Hunmingbird Federal #1 Section: 1, Township: 17S, Range: 31E 1880' FSL and 1550' FEL | |
|------------------------------------|--|--|
| Surface / Bottom Hole Location | | |
| County, State | Eddy County, New Mexico | |
| NM State Plane East Coordinates | X: 657,912.9 Y: 677,509.6 | |
| Ground Elevation | 4023° | |
| Proposed Depth: | 12,550' MD / TVD (Vertical Well) | |

1. Directions to locations from Existing Roads:

From the intersection of US HWY 33 and U.S Highway 82 in Maljamar, NM go west on U.S. HWY 82 (1.9) miles to a roadside park on North side of HWY 82 also being Supee Road Then Go Northeast along Supee road (1.4 miles) to County Road 252, go west on CR 252 (0.7 miles) to a proposed lease road (not yet built), go south along said proposed lease road (0.4 miles) to an existing well pad for Webb Oil Company's Arco Fed #2 well then continue south along a 10' wide caliche road (0.3 miles) to a marked point as the beginning of a proposed lease road (not built) go east along said proposed lease road (388') to the proposed southwest well pad corner for the proposed location.

2. Planned Access Roads:

Use existing roads and a plan to build access road to pad (shown on plat). Proposed access lease road (388") \$ 86°09'24" to the proposed southwest well pad corner for the proposed location.

3. Location of Existing Wells:

The existing wells within a 600' rectangle of this location are shown on the attached Survey Plat. No wells are shown. The attached vicinity map shows the existing wells in a 5 mile area.

4. Location of Existing or Proposed Facilities:

- Existing Facilities: No facilities currently exist for this well.
- New Facilities Proposed: If a successful Morrow producer is completed, surface facilities will consist of a Stack Pack, collection tanks for oil and water and possible wellhead compression. The location site for the proposed surface facilities will be on the existing well location.

5. Location and Type of Water Supply:

Fresh and brine water used in drilling and completion operations will be purchased from independent trucking companies located in Lovington, Artesia or Buckeye, New Mexico. The water will be hauled over existing roads to the location.

6. Source of Construction Materials:

Caliche for the well pad construction will be from the designated Caliche pit approximately 2 miles from the proposed location and will be haul on existing roads. This Caliche will be used for the 388' of proposed new road.

7. Methods of Handling Waste Disposal:

- Drill cuttings will be deep buried on location in the proposed reserve pit. The cuttings will be buried 3' or deeper and covered with a 40 mil liner, extending 3' from the edge of the pit (skirted all around pit).
- Trash, waste paper, garbage and junk will be contained in a fenced trash trailer to prevent scattering by the wind and hauled to a municipal sanitary landfill.
- The Mud supplier will pick up all sacked drilling mud. The empty sacks will be hauled off in the above mentioned trash trailer.
- The drilling contractor will haul away any chemicals that they use while drilling.
- Toilet facilities will be provided for human waste. Sewage disposal facilities will be in accordance with State and Local Regulations.
- Drilling fluids will be handled as follows: The free water will be either
 hauled to the reserve pit of the next drilling well for re-use or hauled to a
 permitted SWD. Any liquid mud that is hauled away it will be disposed of
 at an approved mud disposal site.
- Any fluids produced during swab testing the well while the pulling unit is
 on location will be collected in a test tank. Produced water will be hauled
 to a permitted SWD. Oil produced will remain in the test tank until sold
 and hauled from the site.

8. Auxiliary Facilities:

No new facilities will be built during the drilling of this well. A trailer will be used as an office and temporary living quarters for well site supervision.

9. Well site Layout:

- The attached survey plat shows the proposed well site layout and dimensions.
- Major rig components and reserve pits are not shown. The reserved pits are planned on the North side of location. The V-door on the east side of location. The access road on the SW (shown on plat).
- The reserve pits will be ± 10 ' deep by 150' North and 100' Wide.
- The reserve pits will be lined with 12 mil web liner.
- Runway for the flare line and burn pit will be located on the North East of the location.
- Living Quarters on the South side of the location.

10. Plans for Reclamation of the Surface:

- In a timely manner, after finishing the drilling and / or completion operations all equipment and other material not needed for production operations will be removed. The location will be cleared of all trash and debris. The cellar will be covered with a grating catwalk.
- Upon abandonment of the well, surface restoration will be in accordance with the surface owner requirements and will be accomplished as expediently as possible.

11. Surface Ownership:

The surface owner for the well site locations is Louis Derrick, Bogel Farms, P.O.Box 441, Artesia, NM 88210. Surface owner approval has been obtained. The minerals are administered by the BLM.

12. Additional Information:

- Topography: Gently rolling grassland with cap rock mesa formations.
- Vegetation includes Honey mesquite, creosote, broom snakeweed, various cacti, sand sage, various yucca and mixed grasses.
- Soils are of the Reeves-Gypsum land-Cottonwood association as defined by the Soil Conservation Service of the U.S. Department of Agriculture.

- Primary use of the land is livestock grazing and accessing producing wells.
- There are no dwellings in the vicinity.
- A BLM inspector has visited the proposed location.
- An Archeological Site Survey was done with with a BP company representative present and the land surveyor's present. The original proposed location was moved 100' south to stay clear of some archeological findings (broken pottery).
- The selected dirt contractor will be furnished with an approved copy of the Surface Use Plan and any additional stipulations prior to beginning any work.

13. Operator's Representatives:

Joey Roth

BP America Production Company

Senior Drilling Engineer Permian / Onshore U.S. Business Unit 501 Westlake Park Blvd P.O.Box 3092 Houston, Texas 77253-3092

| Work | 281 – 366 - 1202 |
|-------|------------------|
| Cell | 713 – 203 - 7428 |
| Pager | 888 – 903 - 7347 |

I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct.

Joey ROTH
SP. Dele Encineer

Surface Use Plan

Hummingbird Federal #1

Attachment to BLM Form 3160-1: Proposed Drilling Plan

| Well Name: | Hummingbird Federal #1 |
|-----------------------|---------------------------------------|
| Surface / Bottom Hole | Section: 1, Township: 17S, Range: 31E |
| Location | 1880' FSL and 1550' FEL |
| County, State | Eddy County, New Mexico |
| NM State Plane East | X: 657,912.9 |
| Coordinates | Y: 677,509.6 |
| Ground Elevation | 4023' |
| Proposed Depth: | 12,550' MD / TVD (Vertical Well) |

1. Surface Geological Formation:

Yates Formation (Sand and Anhydrite)

2. Estimated Tops of Geological Markers:

| Formation | Estimated Top (MD/ TVD) |
|------------------------|-------------------------|
| Yates (Salt & Sand) | 2000' |
| Queen | 3,050' |
| San Andres | 3,740' |
| Wolfcamp | 8,925' |
| Strawn | 11,360' |
| ' Atoka | 11,640' |
| Morrow | 11,920' |
| Lower Morrow | 12,340' |
| Mississippian Lime, TD | 12,450' |

3. Estimated Tops of Possible Water, Oil, Gas or Mineral:

| Formation | Estimated Top (MD/ TVD) | Hydrocarbon |
|------------------------|----------------------------|-------------|
| Queen | 3,0507 | Oil · |
| San Andres | 3,740' | Oil |
| Atoka | 11,640' | GAS |
| Morrow | 11,920' | GAS |
| Lower Morrow | 12,340' | GAS |
| Mississippian Lime, TD | 12,450 | |

4. Pressure Control Equipment:

| Interval, (MD/TVD) | Pressure Control Equipment |
|----------------------------|--|
| 0'-400' | No Pressure Control Required |
| 400' – TD (12,450' MD/TVD) | 5M psi double ram preventer and 5M psi annular preventer |

5. Proposed Casing and Cementing Program:

| Casing | Hole Size | Interval MD | | Weight / Grade | Cement Sx / type |
|--------------|-----------|------------------------|----------------|---------------------|--------------------------------------|
| Conductor | Driven | 40' <i>ン</i> タ/ | 16" | 42# | Redi-Mix |
| Surface | 17 1/2" | 0-6507/ 750/ | 13.3/8" | .48#/H-40/ LTC | 290 sx – class "C" |
| Intermediate | 11" | 650', - 4,600' 750' | 8 <i>5</i> /8" | 32# / J-55 / LTC | 670 sx, 300 sx tail (14.8 ppg) |
| Production | 7 7/8" | 4600' – 12,550' | 5 1/2" | 17# / P-110 | 700 sx : class H – Poz mix |

WITHESS

- All casing strings will be run back to surface.
- Production Hole Section (2 stage cement Job): TOC 8800'

6. Mud Program:

35 12-14-04

| | Depth +50 | Mud Type | Weight | Funnel Vis. | Water Loss |
|------|---------------|-------------|--|-------------|-------------|
| | 0' - 650' | Spud Mud | 8.4 – 8.9 | 29 - 34 | NC |
| 1501 | 650° – 4,600° | Brine & Gel | 10.0 | 28 - 30 | NC NC |
| 150 | 4,600'- | Fresh Water | 8.5 – 9.0 | 28 - 29 | NC |
| | 11,300' | & Gel | | | |
| | 11,300' - | Cut Brine, | 10.0 = 10.2 | 34 - 44 | - 8 − 10 cc |
| | 12,550' | . Gel & | Supple to the second se | | |
| | | Polymer | ell, spirited and the first of | | |

7. Auxiliary Equipment:

Upper Kelly Cock, Lower Kelly Cock, and Full Opening Stabbing Valve

8. Evaluation: Testing, Coring and Logging Program:

| Evaluation Program | | Interval | |
|---------------------------|---------------------------|-----------------------------|--|
| Open Hole Logs | GR, Density Neutron, | 4600' to TD (12,550') | |
| | Laterolog | | |
| Mud Log | 10' dry samples | 5000' to TD (12,550') | |
| Samples | One set dry samples (10') | 5000' to TD (12,550') | |
| Cased Hole Logs | Possible Temperature log | As needed at casing points. | |
| | and or CBL | | |
| DST | None Planned | | |
| Conventional Cores | None Planned | | |

9. Anticipated Abnormal Temperature, Pressure, or Hazards:

All zones are expected to be normal pressured. Offset data shows 4500 psi @ 170 °F in the Morrow (8.94 ppg EMWT) No anticipated abnormal hazards were found when reviewing the offset well records.

10. Anticipated Starting Date and Duration of Operations:

The Notice to Stake was filed for the surface location and surveyed on 10/25/04. Pending permit approval, construction work on this location would begin in late Jan of 2005. With a planned spud date in early March 2005.

Hummingbird Federal #1

Eddy County, New Mexico Section 1, T17S, R31E 1880' FSL & 1550' FEL

Proposed Casing Design

(not to scale)

Estimated GL Elevation: 4023' Estimated RKB: 4038*

16", A-55-3-ERW, 42#, Pre-drill conductor set @ ±40' MD/TVD

Cement to surface

17 1/2" open hole

Surface Casing: 13 3/8", 48#, H-40, STC @ ±650' MD/ TVD

Mud: freshwater & gel (8.4 ppg) Cement to Surface: 290 sacks

11" open hole Intermediate Casing: 8 5/8", 32#, J-55, LTC @ ±4600' MD/ TVD

7 7/8" open hole

Production Casing: 5 12", 17#, P-110, LTC

 $@ \pm 12.550' \text{ md/tvd}$

Mud: freshwater / gel to $\pm 11,300'$ (8.5 – 9.0

Mud: freshwater / gel / brine / polymer to

TD (9.0 -10.4 ppg)

2 stage cement:

1⁵¹ stage f/ 12,550' - 10,550' MD/TVD

2nd stage f/ 10,550' - 8,800' MD/TVD

TOC Cement: 8,800' MD/TVD (±700 sacks)

TD ± 12,550' MD / TVD

Mud: Brine & gel (10.0 ppg)

Cement: 670 sacks

Target Sands Atoka 11,640' MD/TVD Morrow 11,920' MD/TVD Lower Morrow 12,340' MD/TVD Mississippian 12,450' MD/TVD

Drilling Procedure Summary

- 1. Mobilize Nabors 399 to location. Rig up.
- 2. Drill 17 1/2" Surface hole to ±650' md / tvd.
- 3. Run and cement 13 5/8" surface casing to surface.
- 4. Nipple up wellhead and 13-5/8" 5M BOP stack
- 5. Test 13 5/8" 5M BOP stack, 1000 psi.
- 6. Test 13 3/8"casing to 1000 psi, hold 30 minutes.
- 7. Drill 11" hole to 4,600' md / tvd.
- 8. Run and cement 8 5/8" intermediate casing.
- 9. Nipple up wellhead and 13-5/8" 5M BOP stack
- 10. Test BOP's to 4000 psi.
- 11. Test 8 5/8" casing to 2000 psi.
- 12. Drill 7 7/8" hole to ±12,550' md / tvd.
- 13. Run wireline logs from ±4600' md / tvd to TD.
- 14. Run and cement (2 stages) 5 1/2" Production casing. Planned TOC ±8,800' md / tvd.
- 15. Nipple Down BOP&E
- 16. Install Dry Hole Tree
- 17. Move Drilling Rig Off location.

Note:

A separate permit for completion will be filed.

Revision1jr 12/10/04

Blowout Prevention and Testing Program

1. Testing BOP's

- Prior to any pressure testing, the area shall be isolated. Personnel shall be notified and / or evacuated.
- All pressure tests shall include a low-pressure test (200 300 psi) for 5 minutes before proceeding to the full pressure test.
- A satisfactory pressure test is represented by the test pressure held for a minimum of 5 minutes after the pressure has stabilized.
- The stack will be pressure tested when nippled up.
- The BOP's will be pressure and fully function tested every 14 days.
- All wellhead components and pressure containing connections will be pressure tested upon installation and re-tested on the connection break when changing out rams, any stack repair or installation of spools and section pieces in the wellhead.

2. Drilling Practices:

- All drilling breaks shall be flow checked and reported.
- Prior to tripping out of the hole, the drilling fluid shall be circulated and flow checked before pulling off bottom.
- Flow check well on trips out of the hole at (a) after pulling into the casing shoe and (B) before the BHA enters the stack.
- Hole fill-up volumes shall be monitored on every trip in and out of the hole. Any deviation from expected hole fill-up volumes shall be investigated.
- Slow pump pressures with both pumps should be taken:
 - Once a day when drilling
 - Mud weight Increases
 - BHA changes
 - Prior to drilling out casing.

Revision1jr 12/10/04

Blow Out Preventer Stack Arrangement Nabors Drilling: Rig #399

