OCD Artesia

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. SHL: 049998B
BHL: NMLC- 031844

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER ATS-14-961

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
HUMMINGBIRD FEDERAL COM #10H

2. Name of Operator APACHE CORPORATION

9. API Well No.
30-015- 43458

3a. Address 303 VETERANS AIRPARK LN #1000
MIDLAND, TX 79705

3b. Phone No. *(include area code)*
432-818-1167

10. Field and Pool, or Exploratory
FREN; GLORIETA-YESO <26770>

4. Location of Well *(Report location clearly and in accordance with any State requirements*)*
At surface 1850' FNL & 100 FWL UL: E NMLC- 049998B
At proposed prod. zone 1850' FNL & 330' FEL UL: H NMLC- 031844

NORTHODOX LOCATION

11. Sec., T. R. M. or Blk. and Survey or Area
SEC: 1 T17S R31E

14. Distance in miles and direction from nearest town or post office*
6.1 MILES WEST OF MALJAMAR, NM

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
100'	519.95 ACRES	160 ACRES
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
100'	TVD: 5568' MD: 10123'	BLM-CO-1463 NATIONWIDE / NMB000736
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
GL: 4020'	As Soon As Approved	~ 18 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
Sorina L Flores	SORINA L. FLORES	7/9/14

Title
SUPV OF DRILLING SERVICES

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Steve Caffey		NOV 16 2015
Title	Office	
FIELD MANAGER	CARLSBAD FIELD OFFICE	

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

Roswell Controlled Water Basin

11/20/2015

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 19 2015

RECEIVED

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION
ARTESIA DISTRICT

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

SUNDRY NOTICES AND REPORTS ON WELLS

NOV 19 2015

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

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMLC049998B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
HUMMINGBIRD FEDERAL COM 7H

2. Name of Operator
APACHE CORPORATION
Contact: SORINA FLORES
E-Mail: sorina.flores@apachecorp.com

9. API Well No.
30-015-43050

3a. Address
303 VETERANS AIRPARK LN #1000
MIDLAND, TX 79705

3b. Phone No. (include area code)
Ph: 432-818-1167

10. Field and Pool, or Exploratory
FREN;GLORIETA-YESO

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 1 T17S R31E Mer NMP 2310FNL 100FWL
32.864469 N Lat, 103.830896 W Lon

11. County or Parish, and State
EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☒ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 recompletion 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.)

BLM-CO-1463 NATIONWIDE; NMB000736

APACHE REQUEST TO CHANGE LOCATION OF PRODUCTION FACILITY. NEW LOCATION HAS BEEN REVIEWED BY JEFFERY ROBERTSON, BLM REP, ON 5/14/15. PRODUCTION FACILITY WILL BE LOCATED ON WELL PAD & WILL BE STRATEGICALLY PLACED TO ALLOW FOR MAXIMUM INTERIM RECLAMATION, RECONTOURING & REVEGETATION OF WELL LOCATION. PRODUCTION FROM HUMMINGBIRD FEDERAL COM 7H, 8H, 9H, 10H, 11H, 12H WILL BE PROCESSED ON SITE IN THE PRODUCTION FACILITY. EXHIBIT 1A & 1C DEPICTS LOCATION OF FACILITY AS IT RELATES TO WELL & WELL PAD. THE PROPOSED FACILITY WILL HAVE A SECONDARY CONTAINMENT STRUCTURE THAT IS CONSTRUCTED TO HOLD THE CAPACITY OF 1-1/2 TIMES THE LARGEST TANK, PLUS FREEBOARD TO ACCOUNT FOR PERCIPITATION, UNLESS MORE STRINGENT PROTECTIVE REQUIREMENTS ARE DEEMED NECESSARY.

APACHE PROPOSES TO INSTALL 4 ADDITIONAL SURFACE WATER PIPELINES, 4" POLYTHYLENE, FROM HUMMINGBIRD

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

Electronic Submission #313608 verified by the BLM Well Information System
For APACHE CORPORATION, sent to the Carlsbad

Name *(Printed/Typed)* SORINA FLORES — Title SUBMITTING CONTACT

Signature (Electronic Submission) — Date 08/24/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Stephen J Caffey — Title FOR FIELD MANAGER — Date 11/16/15

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 CARLSBAD 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #313608 that would not fit on the form

32. Additional remarks, continued

FED COM #12 BATTERY TO THE HUMMINGBIRD FEDERAL COM #1 BATTERY. PIPELINES WILL BE ON LEASE. THE PROPOSED LENGTH WILL BE 2316 FEET, WP: 125 PSI OR LESS, PIPELINE WILL TRANSPORT PRODUCED WATER. PIPELINE ROUTE WILL FOLLOW EXISTING ROAD & WILL BE INSTALLED NO FARTHER THAN 10 FEET FROM EDGE OF ROAD. IF EXISTING SURFACE PIPELINES PREVENT THIS DISTANCE, PROPOSED SURFACE PIPELINE WILL BE INSTALLED IMMEDIATELY ADJACENT TO OUTER SURFACE PIPELINE. ALL CONSTRUCTION & MAINTENANCE ACTIVITY WILL BE CONFINED TO EXISTING ROADS OR RIGHT-OF-WAYS. EXHIBIT 1B & 1C DEPICTS THE PROPOSED WATER PIPELINE ROUTE.

APACHE PROPOSES TO INSALL ONE 10 INCH FLARE LINE, ONE 4 INCH VRU LINE AND TWO 2 INCH PILOT & RETURN LINES ON THE BATTERY PAD. EXBHIBIT 1A DEPICTS LOCATION OF FLARE LINE.

APACHE PROPOSES TO ALSO CHANGE LOCATION OF POWERLINE FOR HUMMINGBIRD FED COM 7H, 8H, 9H, 10H, 11H, 12H. APACHE PLANS TO INSTALL AN OVERHEAD ELECTRICAL LINE FOR PROPOSED WELLS. LENGTH WILL BE APPROX 4475 FEET. EXHIBIT 1C DEPICTS LOCATION OF PROPOSED ELECTRICAL LINE ROUTE. ELECTRICAL LINE WILL BE CONSTRUCTED TO PROVIDE PROTECTION FROM RAPTOR ELECTOCUTION & LINE DOES NOT CROSS LEASE BOUNDARIES. ROW GRANT WILL NOT NEED TO BE ACQUIRED FROM BLM.

APACHE PROPOSES TO ALSO CHANGE RECLAMATION FOR HUMMINGBIRD FED COM 7H, 8H, 9H, 10, 11H, 12H AFTER WELLS ARE DRILLED & COMPLETED AS PER MEETING WITH JEFFERY ROBERTSON ON 5/14/15. EXHIBIT 6 DEPICTS LOCATION & DIMENSIONS OF PLANNED INTERIM RECLAMATION FOR THE WELL SITES. ****PLEASE SEE ATTACHED DIAGRAMS: EXHIBIT 1A, 1B, 1C & 6

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 19 2015
RECEIVED

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, New Mexico 87505

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

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 43458	26790	Fren; Glorieta-Yeso

Property Code	Property Name	Well Number
313695	HUMMINGBIRD FEDERAL COM	10H

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	4020'

Surface Location

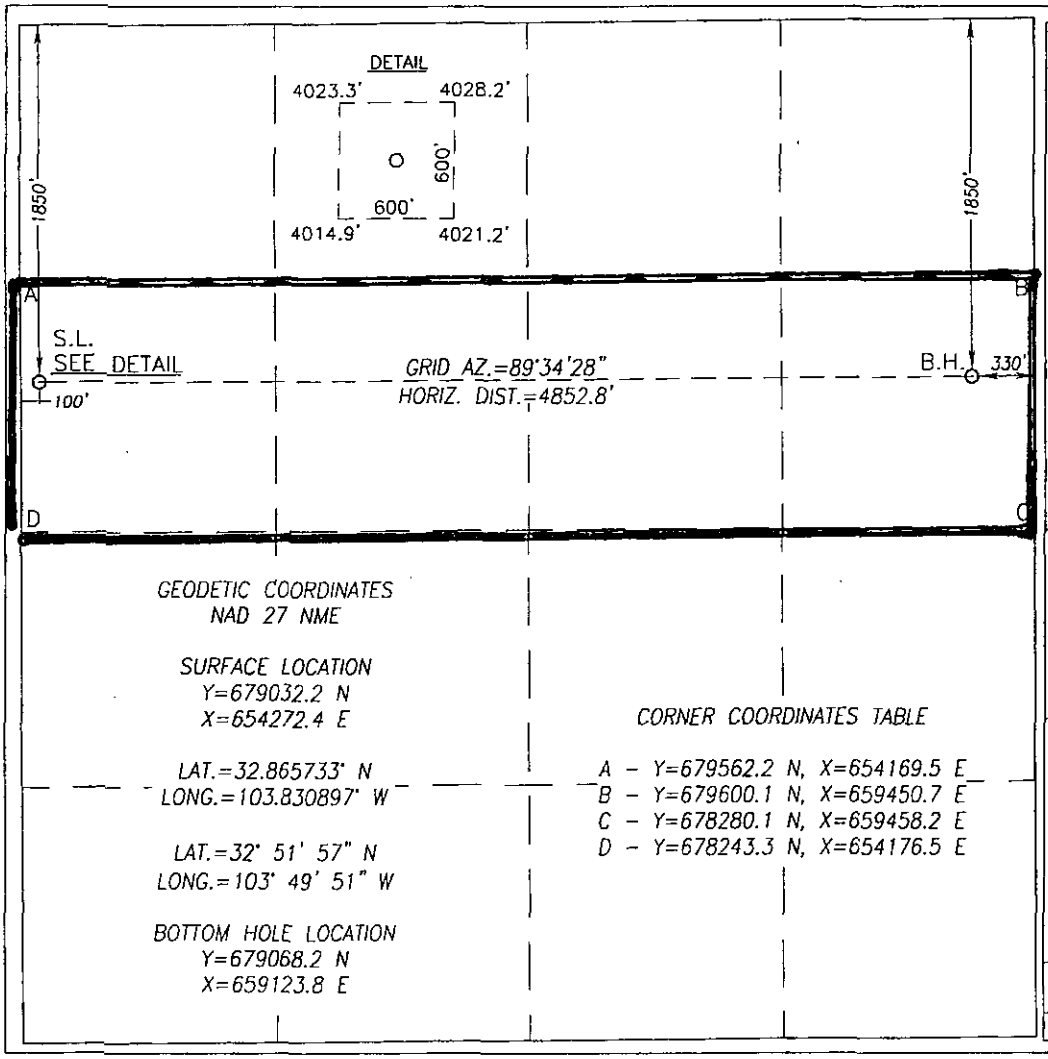
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	1	17-S	31-E		1850	NORTH	100	WEST	EDDY

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
H	1	17-S	31-E		1850	NORTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			10123

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



GEODETIC COORDINATES
NAD 27 NME

SURFACE LOCATION
Y=679032.2 N
X=654272.4 E

LAT.=32.865733° N
LONG.=103.830897° W

LAT.=32° 51' 57" N
LONG.=103° 49' 51" W

BOTTOM HOLE LOCATION
Y=679068.2 N
X=659123.8 E

CORNER COORDINATES TABLE
A - Y=679562.2 N, X=654169.5 E
B - Y=679600.1 N, X=659450.7 E
C - Y=678280.1 N, X=659458.2 E
D - Y=678243.3 N, X=654176.5 E

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sorina L Flores
Signature Date

Sorina L Flores
Printed Name

Sorina.Flores@apachecorp.com
E-mail Address

SURVEYOR CERTIFICATION

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.

JULY 31, 2013

Date of Survey
Signature & Seal of Professional Surveyor:

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

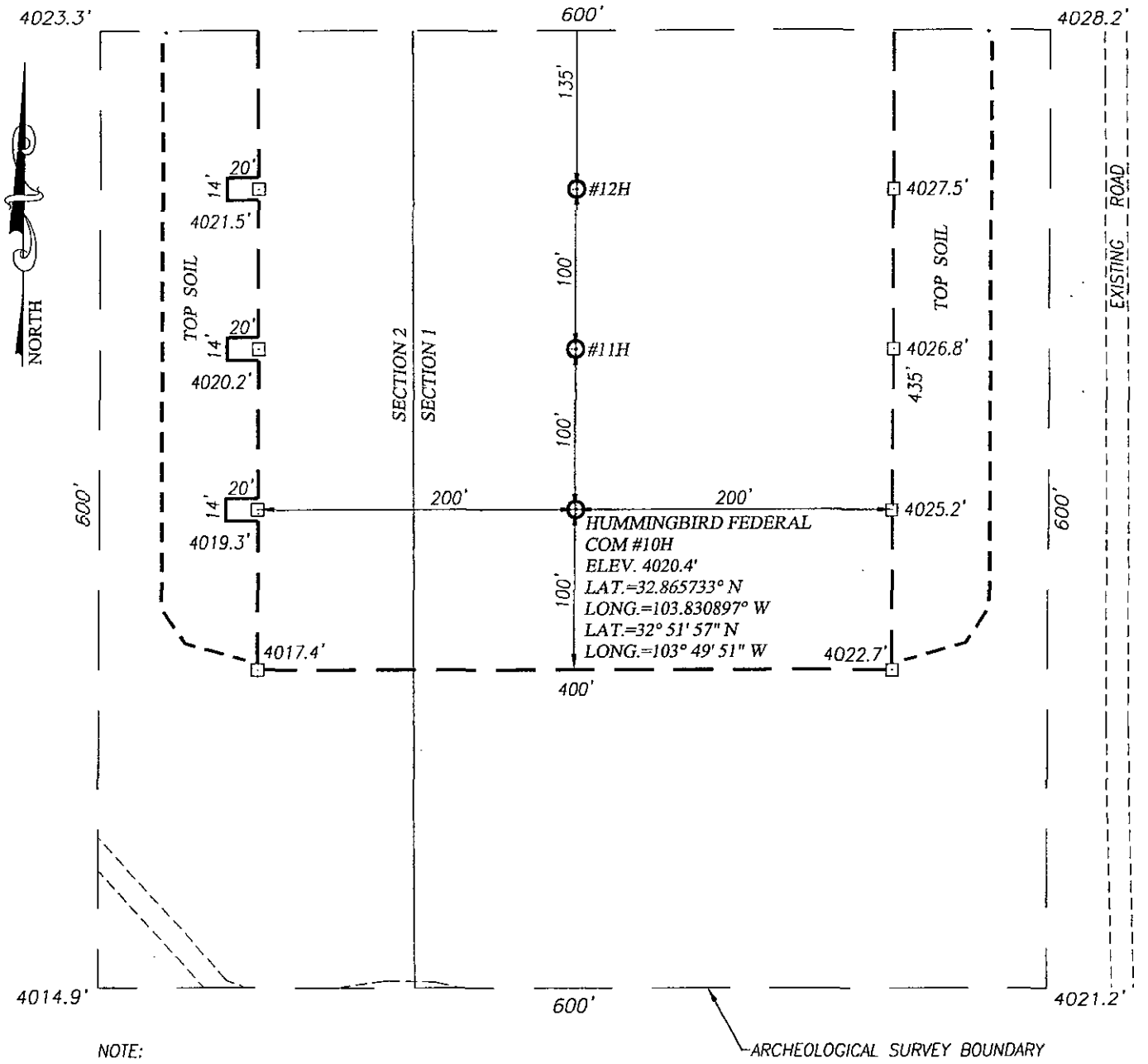
Ronald J Eidson 08/21/2013

Certificate Number: Gary G. Eidson 12641
Ronald J. Eidson 3239

BKL W.O.: 13.11.0805

SECTION 1, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.

EDDY COUNTY NEW MEXICO



NOTE:
SEE "LOCATION VERIFICATION MAP" FOR PROPOSED ROAD LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF US. HIGHWAY 82 AND LEA CO. RD. L-124 (SUPEE) GO NORTH-NORTHWEST APPROX. 2.7 MILES; TURN LEFT AND GO SOUTH APPROX. 0.3 MILES; FOLLOW STAKED ROAD WEST 137 FEET TO THE LOCATION.

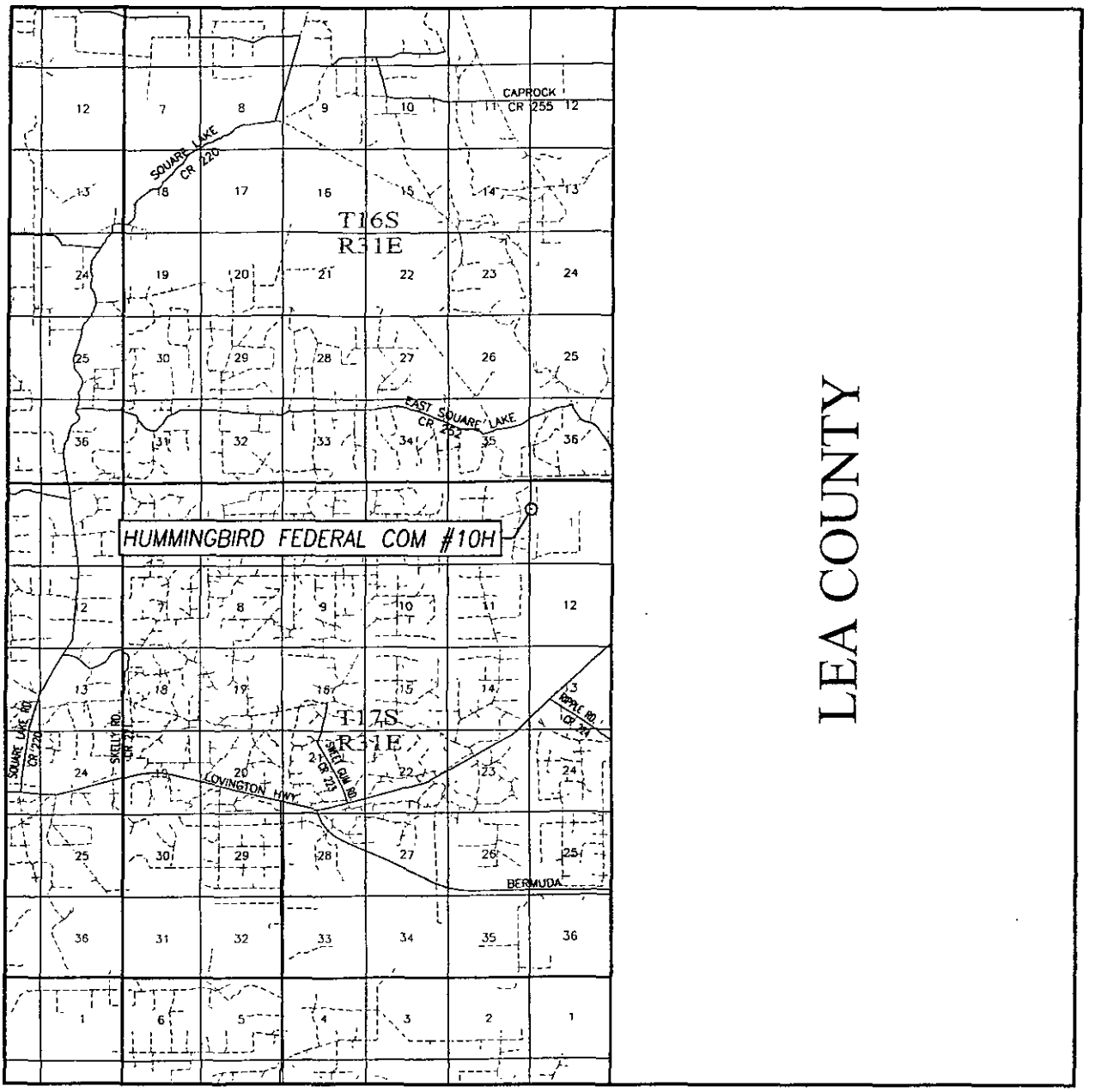
PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz

APACHE CORPORATION

HUMMINGBIRD FEDERAL COM #10H WELL
LOCATED 1850 FEET FROM THE NORTH LINE
AND 100 FEET FROM THE WEST LINE OF SECTION 1,
TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

Survey Date: 7/31/13	CAD Date: 8/20/13	Drawn By: BKL
W.O. No.: 13110805	Rev: .	Rel. W.O.:	Sheet 1 of 1

VICINITY MAP



SEC. 1 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1850' FNL & 100' FWL

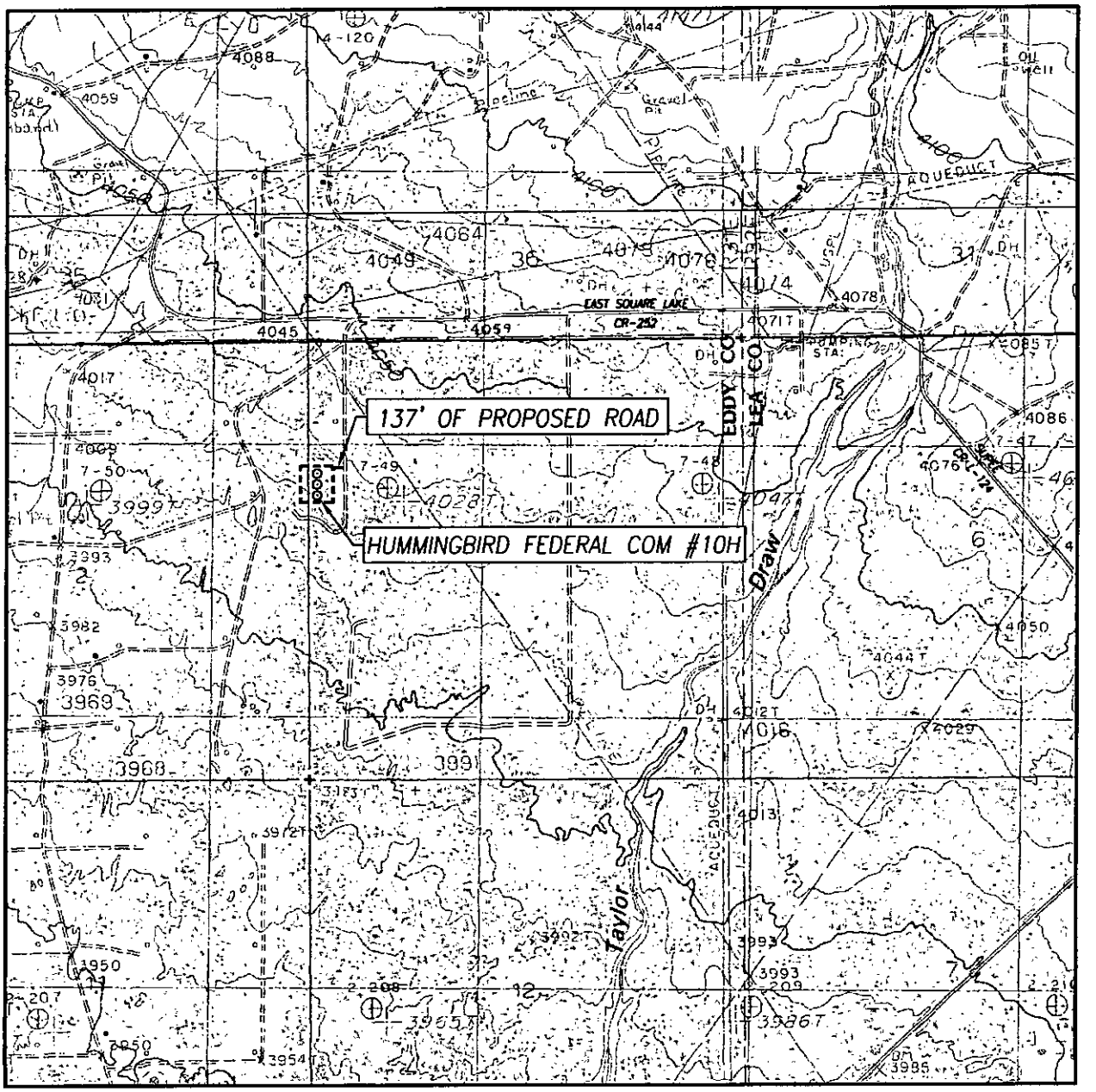
ELEVATION 4020'

OPERATOR APACHE CORPORATION

LEASE HUMMINGBIRD FEDERAL COM

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MALJAMAR, N.M. – 10'
MALJAMAR NE, N.M. – 5'

SEC. 1 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1850' FNL & 100' FWL

ELEVATION 4020'

OPERATOR APACHE CORPORATION

LEASE HUMMINGBIRD FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz

APACHE CORPORATION

Hummingbird FEDERAL COM 7H 8H 9H 10H 11H 12H

1 MILE RADIUS AROUND SHL & BHL

SEC: 1 T17S R31E

POSTED WELL DATA

Well Number

WELL SYMBOLS

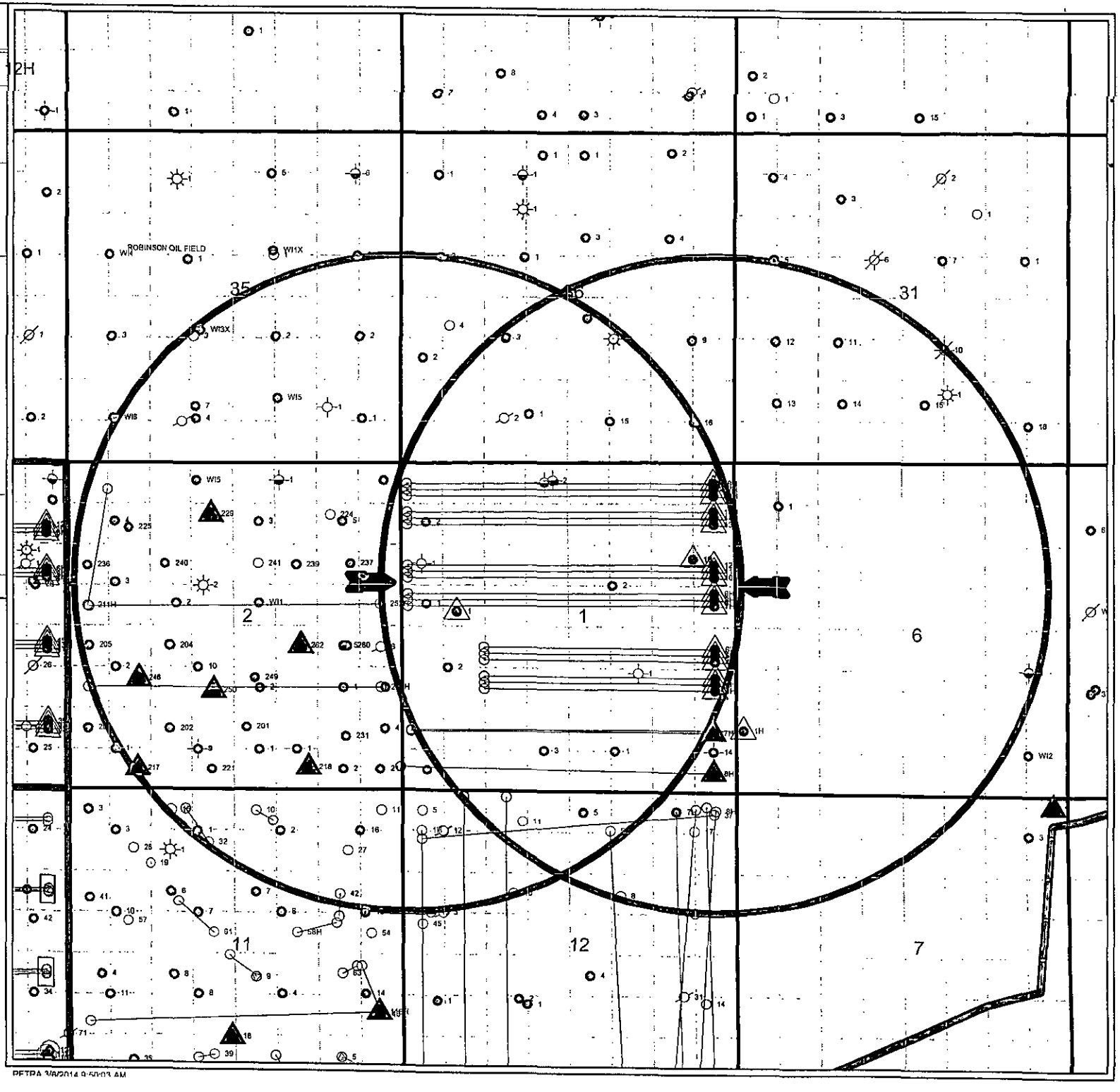
- Abandoned Well
- Dry Hole, With Show of Oil
- Dry Hole
- *Gas Well*
- Injection Well
- Location
- Proposed Drilling Location
- Oil Well
- Plugged and Abandoned
- Active Producer
- *Suspended Oil Well*
- PERMIT

0 2,157 4,314

FEET

March 6, 2014

Exhibit #2



ACCESS ROAD PLAT HUMMINGBIRD FEDERAL COM
#1H #2H #3H #4H #5H #6H
#7H #8H #9H #10H #11H #12H
#13H #14H #15H #16H #17H #18H
EXHIBIT #1

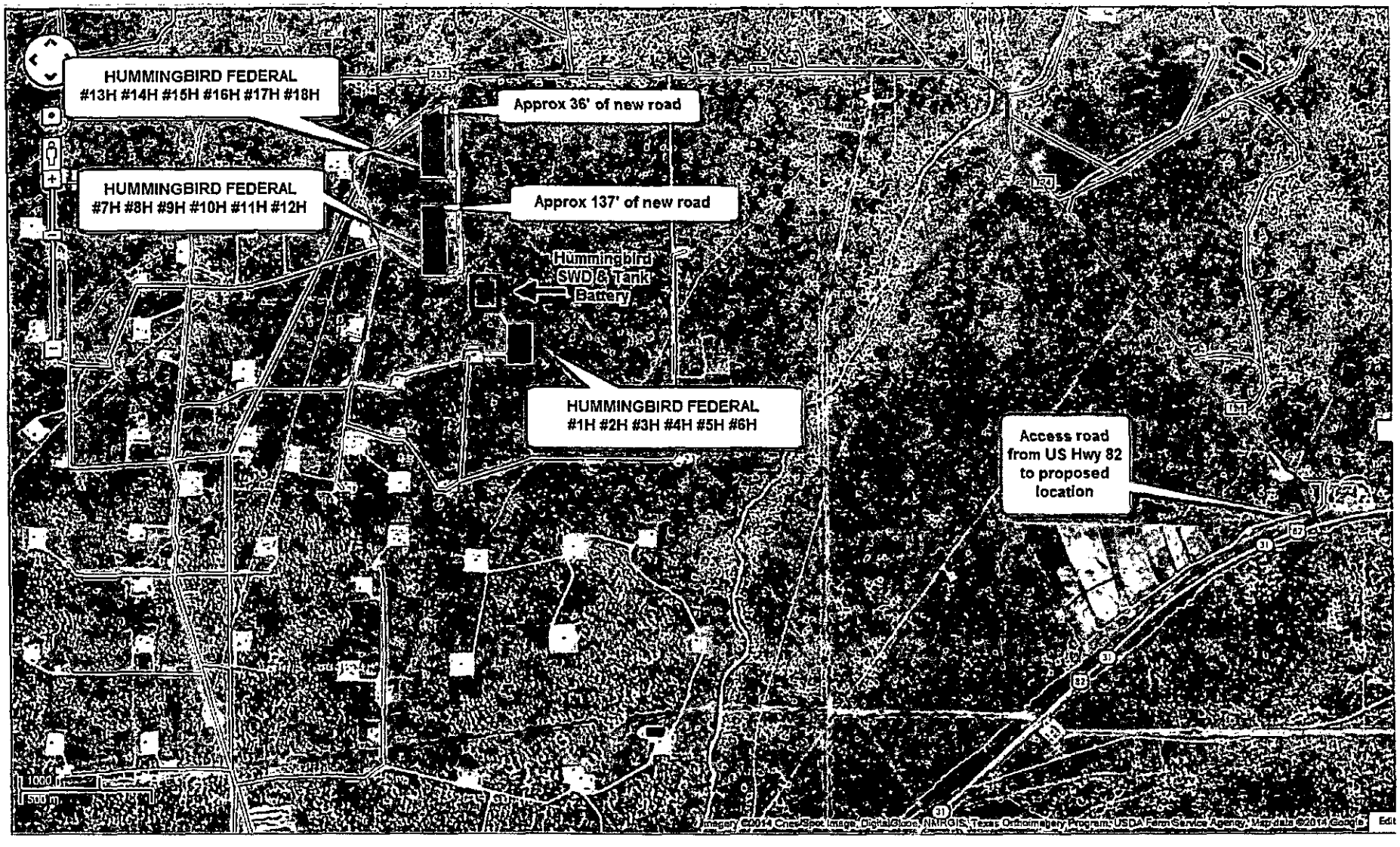
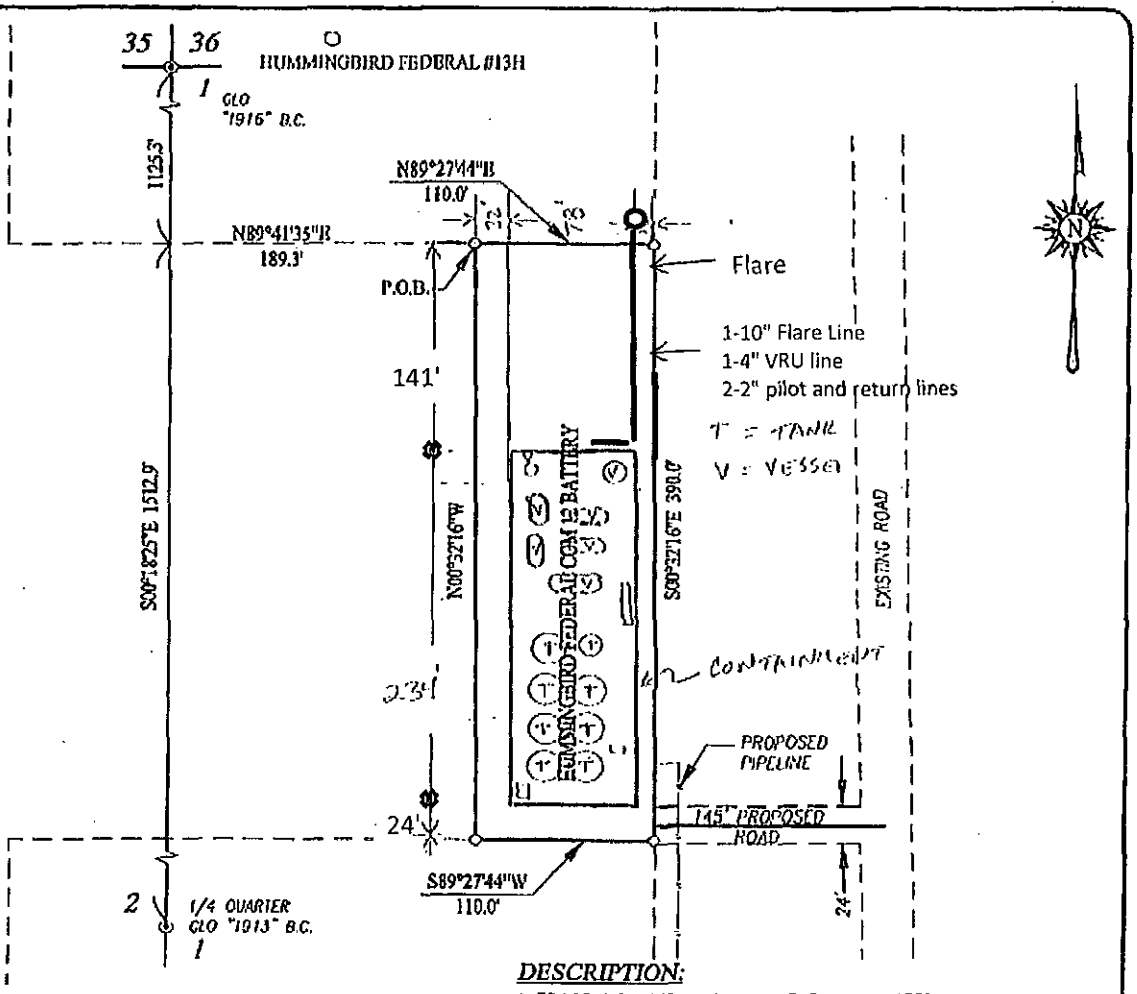


EXHIBIT #1A



LEGEND

⊙ DENOTES FOUND CORNER AS NOTED

○ HUMMINGBIRD FEDERAL #12H

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 05/22/2015

DESCRIPTION:

A TRACT SITUATED IN THE NORTHEAST QUARTER OF SECTION 1, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER WHICH LIES S00°18'25"E 1125.3 FEET AND N89°41'35"E 189.3 FEET FROM THE NORTHWEST CORNER; THEN N89°27'44"E 110.0 FEET; THEN S00°32'16"E 390.0 FEET; THEN S89°27'44"W 110.0 FEET; THEN N00°32'16"W 390.0 FEET TO THE POINT OF BEGINNING AND CONTAINING 0.985 ACRES MORE OR LESS.

100 0 100 200 Feet

Scale: 1"=100'

APACHE CORPORATION

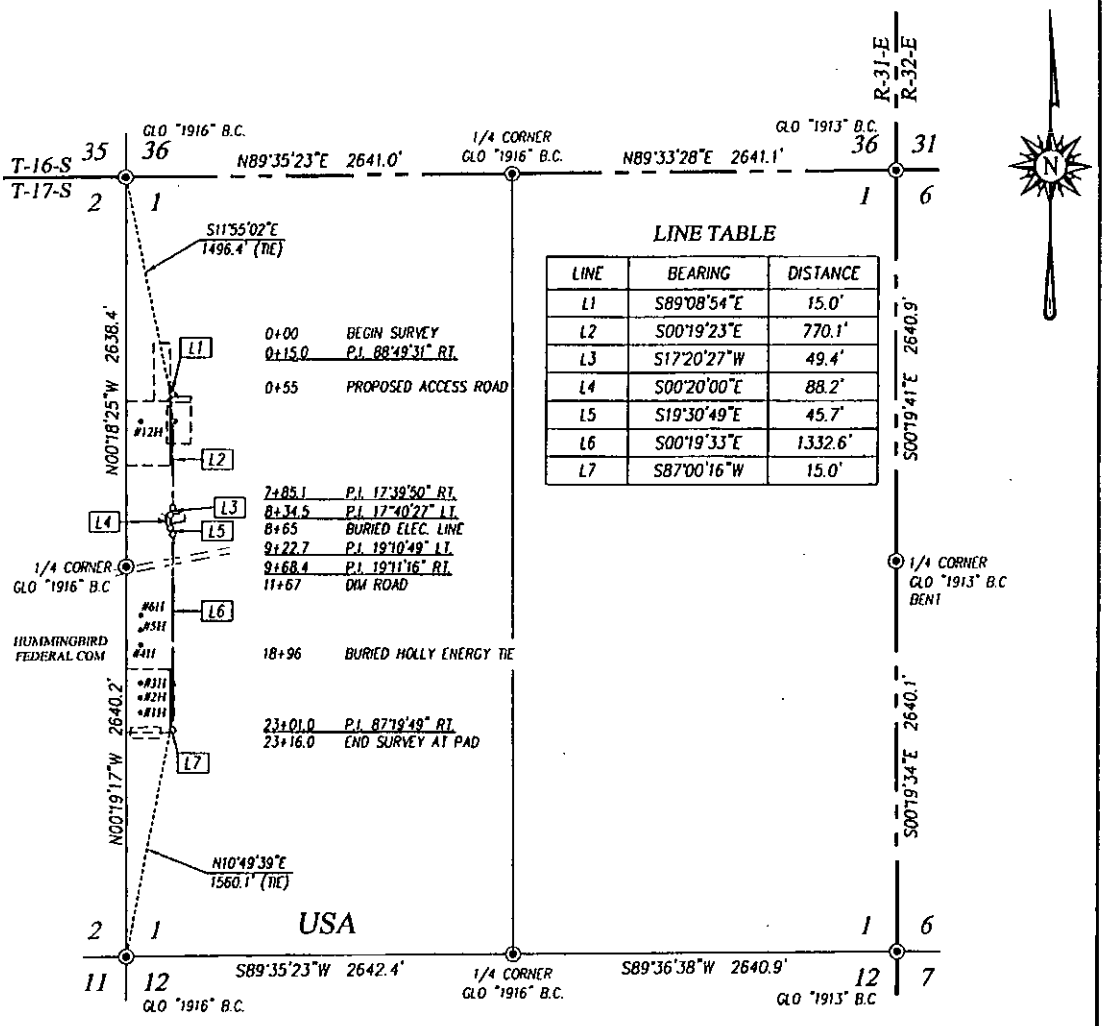
SURVEY FOR A TRACT FOR A TANK BATTERY SITUATED IN THE NW/4 OF SECTION 1, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 5/5/15	CAD Date: 5/21/15	Drawn By: LSL	
W.O. No.: 15110554	Rev: 5/22/15	Rel. W.O.:	Sheet 1 of 1

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

DRAFTING\

Exhibit #1B



LINE TABLE

LINE	BEARING	DISTANCE
L1	S89°08'54"E	15.0'
L2	S00°19'23"E	770.1'
L3	S17°20'27"W	49.4'
L4	S00°20'00"E	88.2'
L5	S19°30'49"E	45.7'
L6	S00°19'33"E	1332.6'
L7	S87°00'16"W	15.0'

DESCRIPTION

SURVEY FOR A STRIP OF LAND 50.0 FEET WIDE AND 2316.0 FEET OR 0.439 MILES IN LENGTH CROSSING USA LAND IN SECTION 1, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 07/20/2015

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240

(575) 393-3117 www.jwsc.biz

TBPLS# 10021000

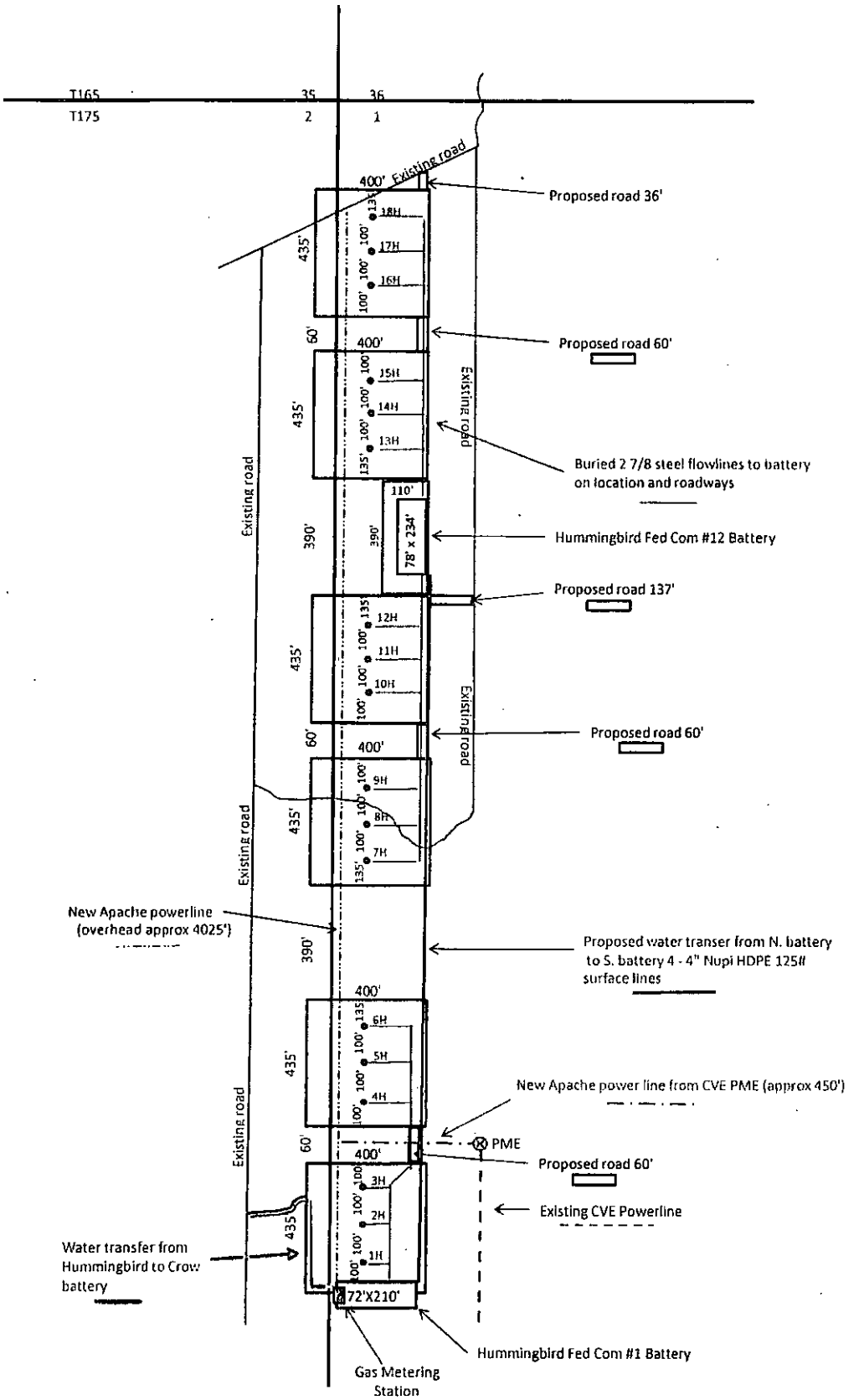
APACHE CORPORATION

SURVEY FOR A WATER TRANSFER LINE FROM THE HUMMINGBIRD #12H BATTERY TO THE HUMMINGBIRD FEDERAL COM #1H BATTERY CROSSING SECTION 1, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 5/6/15	CAD Date: 5/21/15	Drawn By: LSL
W.O. No.: 15110555	Rev: 7/16/15	Rel. W.O.:	Sheet 1 of 1

Hummingbird Federal Com Wells 1H thru 18H (REVISED) **EXHIBIT #1C**

Pad overview - Elect lines, Battery, Flowlines, roads, water transfer line



DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)

APACHE CORPORATION (OGRID: 873) HUMMINGBIRD FEDERAL COM #10H

Projected TVD: ~5568' MD: ~10123' GL: 4020'
SHL: 1850' FNL & 100' FWL UL: E BHL: 1850' FNL & 330' FEL UL: H
SEC: 1 T17S R31E EDDY COUNTY, NM

1. GEOLOGIC NAME OF SURFACE FORMATION: Eolian/Piedmond Alluvial Deposits

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Quaternary Aeolian	Surf	Queen	3016'
Rustler	739'	Grayburg	3437'
Top of Salt	1490'	San Andres	3727' (Oil)
Base of Salt/Tansill	1955'	Glorieta	5221'
Yates	2100'	Yeso (Paddock)	5278' (Oil)
Seven Rivers	2391'	TD	TVD: 5568' MD: 10123'

Avg Depth to Ground Water: ~91'

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth and adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential. The surface fresh water sands will be protected by setting 13-3/8" csg @ 800' & circ cmt back to surface. All intervals will be isolated by setting 5-1/2" csg to TD & circ cmt above the base of 8-5/8" csg.

3. CASING PROGRAM: All casing is new & API approved

STRING	HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
Surface	17-1/2"	0' – 800'	13-3/8"	54.5#	STC	J-55	2.87	1.39	11.43
Intermediate	12-1/4"	0' - 3750'	9-5/8"	40#	LTC	J-55	1.31	1.42	3.47
Production 7"	8-3/4"	0' - 4999'	7"	29#	LTC	L-80	2.82	2.94	3.75
Production 5-1/2"	8-3/4" 7-7/8"	4999' – 5739' 5739' – 10123'	5-1/2"	20#	LTC	L-80	3.09	3.31	16.19

*Production casing will be a tapered string with 7" casing from surface to KOP (cemented through a stage tool from KOP to 2500'), uncemented 5-1/2" casing from KOP to LP and 5-1/2" casing with packers and sleeves from LP to TD. The Glorieta formation will be isolated from the San Andres with 2 hydraulically set open-hole packers placed in the 5-1/2" casing, one 50' above and one 50' below the top of the Glorieta formation.

4. CEMENT PROGRAM:

A. Surface (TOC – Surface) **100% excess cmt Cmt with:**

Lead: 400 sx Cl C w/2% CACL2 + 4% Bentonite *(13.5 wt, 1.75 yld, 8.962 gal/sk)*
Compressive Strengths : ***12 hr*** *– 988 psi* ***24 hr*** *– 1566 psi*

Tail: 450 sx Cl C w/1% CACL2 *(14.8 wt, 1.34 yld, 6.31 gal/sk)*
Compressive Strengths : ***12 hr*** *– 1972 psi* ***24 hr*** *– 3168 psi*

B. Intermediate (TOC – Surface) **50% excess cmt. Cmt with:**

Lead: 780 sx 35/65 Poz C w/6% Gel + 5% Salt *(12.9 wt, 1.92 yld, 9.92 gal/sk)*
Compressive Strengths: ***12 hr*** *– 820 psi* ***24 hr*** *– 1189 psi*

Tail: 290 sx Class C (14.8 wt, 1.33 yld, 6.31 gal/sk)
Compressive Strengths: ***12 hr*** *– 1120 psi* ***24 hr*** *– 2106 psi*

C. Production (TOC: ~2500' from Surface) **35% excess cmt Cmt with:**

Lead: 400 sx PVL w/1.3% Salt + 0.3% Retarder *(13.0 wt, 1.48 yld, 7.58 gal/sk)*
Compressive Strengths: ***12 hr*** *– 1100 psi* ***24 psi*** *– 1755 psi*

***** The above cmt volumes could be revised based on fluid caliper measurement in the open hole.*** *For Surface csg: If cmt does not circ to surface, the appropriate BLM office shall be notified. The TOC shall be determined as directed by the BLM for the specific set of circumstances. Operator will propose a remediation method and request BLM approval.*

5. PROPOSED CONTROL EQUIPMENT

"Exhibit 3" shows an 11" 3M psi WP BOP consisting of an annular bag type preventer, middle pipe rams and bottom blind rams. This BOP will be nippled up on the 13-3/8" surface casing and tested to 70% of casing burst. After the 9-5/8" intermediate csg is set & cmt'd, the 11" 3M BOP will be installed & utilized continuously until TD is reached. The BOP will be tested at 2000 psi, maximum surface pressure is not expected to exceed 2M psi. BHP is calculated to be approximately 2446 psi. *All BOP's & associated equipment will be tested as per BLM *Drilling Operations Order #2*. The BOP will be operated & checked each 24 hr period & blind rams will be operated & checked when the drill pipe is out of the hole. Function tests will be documented on the daily driller's log. *"EXHIBIT 3"* also shows a 3M psi choke manifold with a 3" blow down line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures or temperatures are expected in this well. No nearby wells have encountered any well control problems.

6. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

11" x 3000 psi Double BOP (Blind & Pipe Rams) & Annular Preventers (3M BOP/BOPE to be used as 2M system)
4-1/2" x 3000 psi Kelly valve
11" x 3000 psi mud cross – H2S detector on production hole
Gate-type safety valve - 3" choke line from BOP to manifold
2" adjustable chokes – 3" blow down line
Fill up line as per Onshore Order 2

7. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

INTERVAL	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
0' –800'	8.3 – 8.8	28 – 36	NC	FW
800' - 3750'	9.8 – 10.0	28 – 29	NC	Saturated Brine
3750' – 10123'	9.3 – 9.6	28 - 29	NC	Cut Brine

***** Visual mud monitoring equipment shall be in place to detect volume changes. A mud test shall be performed every 24 hrs after mudding up to determine, as applicable: density, visc, gel strength, filtration, and pH. The necessary mud products for weight addition & fluid loss control will be on location at all times.***

8. LOGGING, CORING & TESTING PROGRAM:

A. No cores, DST's, or Open Hole logs are planned at this time.
B. Mudloggers from Intermediate Casing point to TD.
C. Additional testing will be initiated subsequent to setting the 7" & 5-1/2" tapered production casing. Specific intervals will be targeted based on geological sample shows.

9. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H_2S in this area. If H_2S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6.* All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: ~2500 psi and estimated BHT : 115°.

See COA

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM has approved APD. Anticipated spud date will be after BLM approval and as soon as rig is available. Move in operations and drilling is expected to take ~20 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

11. OTHER FACETS OF OPERATION:

After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Fren; Glorieta-Yeso formation will be stimulated in order to establish production. The well will be tested & potentialed as an oil well.

Apache
EXPLORING WHAT'S POSSIBLE

Apache Corporation

Eddy County, NM (NAD27 NME)
Hummingbird Federal Com
#10H
Wellbore #1

Plan: Plan #1 3-21-14

Planning Report

29 May, 2014

PHOENIX
TECHNOLOGY SERVICES

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #10H
Project:	Eddy County, NM (NAD27 NME)	**TVD Reference:**	WELL @ 4031.00usft (Capstar 118)
Site:	Hummingbird Federal Com	**MD Reference:**	WELL @ 4031.00usft (Capstar 118)
Well:	#10H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Project Eddy County, NM (NAD27 NME)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Hummingbird Federal Com

Site Position:		**Northing:**	677,262.80 usft	**Latitude:**	32° 51' 39.07462 N
From:	Map	**Easting:**	655,481.80 usft	**Longitude:**	103° 49' 37.14798 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.27 °

Well #10H

Well Position	**+N/-S**	0.00 usft	**Northing:**	679,032.20 usft	**Latitude:**	32° 51' 56.63997 N
	+E/-W	0.00 usft	**Easting:**	654,272.40 usft	**Longitude:**	103° 49' 51.22767 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	4,020.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	05/29/14	7.51	60.65	48,648

Design Plan #1 3-21-14

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.57

Survey Tool Program Date 03/21/14

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	10,123.67	Plan #1 3-21-14 (Wellbore #1)	MWD	MWD - Standard

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Well:	#10H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
0.00	0.00	0.00	-4,031.00	0.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
100.00	0.00	0.00	-3,931.00	100.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
200.00	0.00	0.00	-3,831.00	200.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
300.00	0.00	0.00	-3,731.00	300.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
400.00	0.00	0.00	-3,631.00	400.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
500.00	0.00	0.00	-3,531.00	500.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
600.00	0.00	0.00	-3,431.00	600.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
700.00	0.00	0.00	-3,331.00	700.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
741.00	0.00	0.00	-3,290.00	741.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
Rustler										
800.00	0.00	0.00	-3,231.00	800.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
900.00	0.00	0.00	-3,131.00	900.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,000.00	0.00	0.00	-3,031.00	1,000.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,100.00	0.00	0.00	-2,931.00	1,100.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,200.00	0.00	0.00	-2,831.00	1,200.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,300.00	0.00	0.00	-2,731.00	1,300.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,400.00	0.00	0.00	-2,631.00	1,400.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,492.00	0.00	0.00	-2,539.00	1,492.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
T/Salt										
1,500.00	0.00	0.00	-2,531.00	1,500.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,600.00	0.00	0.00	-2,431.00	1,600.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,700.00	0.00	0.00	-2,331.00	1,700.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,800.00	0.00	0.00	-2,231.00	1,800.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,900.00	0.00	0.00	-2,131.00	1,900.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
1,957.00	0.00	0.00	-2,074.00	1,957.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
B/Salt										
2,000.00	0.00	0.00	-2,031.00	2,000.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,100.00	0.00	0.00	-1,931.00	2,100.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00

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Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
2,102.00	0.00	0.00	-1,929.00	2,102.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
Yates										
2,200.00	0.00	0.00	-1,831.00	2,200.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,300.00	0.00	0.00	-1,731.00	2,300.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,393.00	0.00	0.00	-1,638.00	2,393.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
Seven Rivers										
2,400.00	0.00	0.00	-1,631.00	2,400.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,500.00	0.00	0.00	-1,531.00	2,500.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,600.00	0.00	0.00	-1,431.00	2,600.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,700.00	0.00	0.00	-1,331.00	2,700.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,800.00	0.00	0.00	-1,231.00	2,800.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
2,900.00	0.00	0.00	-1,131.00	2,900.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,000.00	0.00	0.00	-1,031.00	3,000.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,018.00	0.00	0.00	-1,013.00	3,018.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
Queen										
3,100.00	0.00	0.00	-931.00	3,100.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,200.00	0.00	0.00	-831.00	3,200.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,300.00	0.00	0.00	-731.00	3,300.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,400.00	0.00	0.00	-631.00	3,400.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,439.00	0.00	0.00	-592.00	3,439.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
Grayburg										
3,500.00	0.00	0.00	-531.00	3,500.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,600.00	0.00	0.00	-431.00	3,600.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,700.00	0.00	0.00	-331.00	3,700.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,729.00	0.00	0.00	-302.00	3,729.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
San Andres										
3,800.00	0.00	0.00	-231.00	3,800.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
3,900.00	0.00	0.00	-131.00	3,900.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00

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Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
4,000.00	0.00	0.00	-31.00	4,000.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,100.00	0.00	0.00	69.00	4,100.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,200.00	0.00	0.00	169.00	4,200.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,300.00	0.00	0.00	269.00	4,300.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,400.00	0.00	0.00	369.00	4,400.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,500.00	0.00	0.00	469.00	4,500.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,600.00	0.00	0.00	569.00	4,600.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,700.00	0.00	0.00	669.00	4,700.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,800.00	0.00	0.00	769.00	4,800.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,900.00	0.00	0.00	869.00	4,900.00	0.00	0.00	679,032.20	654,272.40	0.00	0.00
4,998.64	0.00	0.00	967.64	4,998.64	0.00	0.00	679,032.20	654,272.40	0.00	0.00
KOP, 12.00°/100' Build										
5,000.00	0.16	89.57	969.00	5,000.00	0.00	0.00	679,032.20	654,272.40	0.00	12.00
5,025.00	3.16	89.57	993.99	5,024.99	0.01	0.73	679,032.21	654,273.13	0.73	12.00
5,050.00	6.16	89.57	1,018.90	5,049.90	0.02	2.76	679,032.22	654,275.16	2.76	12.00
5,075.00	9.16	89.57	1,043.67	5,074.67	0.05	6.09	679,032.25	654,278.49	6.09	12.00
5,100.00	12.16	89.57	1,068.24	5,099.24	0.08	10.72	679,032.28	654,283.12	10.72	12.00
5,125.00	15.16	89.57	1,092.53	5,123.53	0.12	16.62	679,032.32	654,289.02	16.62	12.00
5,150.00	18.16	89.57	1,116.48	5,147.48	0.18	23.79	679,032.38	654,296.19	23.79	12.00
5,175.00	21.16	89.57	1,140.02	5,171.02	0.24	32.20	679,032.44	654,304.60	32.20	12.00
5,200.00	24.16	89.57	1,163.08	5,194.08	0.31	41.83	679,032.51	654,314.23	41.83	12.00
5,225.00	27.16	89.57	1,185.62	5,216.62	0.39	52.66	679,032.59	654,325.06	52.66	12.00
5,232.43	28.05	89.57	1,192.20	5,223.20	0.42	56.10	679,032.62	654,328.50	56.10	12.00
Glorieta										
5,250.00	30.16	89.57	1,207.55	5,238.55	0.48	64.65	679,032.68	654,337.05	64.65	12.00
5,275.00	33.16	89.57	1,228.83	5,259.83	0.58	77.77	679,032.78	654,350.17	77.77	12.00

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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
5,299.92	36.15	89.57	1,249.32	5,280.32	0.68	91.94	679,032.88	654,364.34	91.94	12.00
Yeso (Paddock)										
5,300.00	36.16	89.57	1,249.39	5,280.39	0.68	91.99	679,032.88	654,364.39	91.99	12.00
5,325.00	39.16	89.57	1,269.17	5,300.17	0.80	107.26	679,033.00	654,379.66	107.26	12.00
5,350.00	42.16	89.57	1,288.14	5,319.14	0.92	123.55	679,033.12	654,395.95	123.55	12.00
5,375.00	45.16	89.57	1,306.22	5,337.22	1.04	140.81	679,033.24	654,413.21	140.81	12.00
5,400.00	48.16	89.57	1,323.37	5,354.37	1.18	158.99	679,033.38	654,431.39	158.99	12.00
5,425.00	51.16	89.57	1,339.55	5,370.55	1.32	178.04	679,033.52	654,450.44	178.04	12.00
5,450.00	54.16	89.57	1,354.71	5,385.71	1.47	197.91	679,033.67	654,470.31	197.92	12.00
5,475.00	57.16	89.57	1,368.81	5,399.81	1.62	218.55	679,033.82	654,490.95	218.56	12.00
5,500.00	60.16	89.57	1,381.81	5,412.81	1.78	239.90	679,033.98	654,512.30	239.91	12.00
5,525.00	63.16	89.57	1,393.68	5,424.68	1.94	261.91	679,034.14	654,534.31	261.91	12.00
5,550.00	66.16	89.57	1,404.38	5,435.38	2.11	284.50	679,034.31	654,556.90	284.51	12.00
5,575.00	69.16	89.57	1,413.88	5,444.88	2.28	307.62	679,034.48	654,580.02	307.63	12.00
5,600.00	72.16	89.57	1,422.15	5,453.15	2.46	331.21	679,034.66	654,603.61	331.21	12.00
5,625.00	75.16	89.57	1,429.19	5,460.19	2.64	355.19	679,034.84	654,627.59	355.20	12.00
5,650.00	78.16	89.57	1,434.95	5,465.95	2.82	379.51	679,035.02	654,651.91	379.52	12.00
5,675.00	81.16	89.57	1,439.44	5,470.44	3.00	404.11	679,035.20	654,676.51	404.12	12.00
5,700.00	84.16	89.57	1,442.63	5,473.63	3.18	428.90	679,035.38	654,701.30	428.91	12.00
5,725.00	87.16	89.57	1,444.52	5,475.52	3.37	453.82	679,035.57	654,726.22	453.83	12.00
5,738.62	88.80	89.57	1,445.00	5,476.00	3.47	467.43	679,035.67	654,739.83	467.45	12.00
LP, Hold 88.80° Inc										
5,800.00	88.80	89.57	1,446.29	5,477.29	3.92	528.80	679,036.12	654,801.20	528.81	0.00
5,900.00	88.80	89.57	1,448.39	5,479.39	4.67	628.77	679,036.87	654,901.17	628.79	0.00
6,000.00	88.80	89.57	1,450.48	5,481.48	5.41	728.75	679,037.61	655,001.15	728.77	0.00
6,100.00	88.80	89.57	1,452.58	5,483.58	6.15	828.72	679,038.35	655,101.12	828.75	0.00
6,200.00	88.80	89.57	1,454.68	5,485.68	6.89	928.70	679,039.09	655,201.10	928.72	0.00

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #10H
Project:	Eddy County, NM (NAD27 NME)	**TVD Reference:**	WELL @ 4031.00usft (Capstar 118)
Site:	Hummingbird Federal Com	**MD Reference:**	WELL @ 4031.00usft (Capstar 118)
Well:	#10H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
6,300.00	88.80	89.57	1,456.78	5,487.78	7.63	1,028.67	679,039.83	655,301.07	1,028.70	0.00
6,400.00	88.80	89.57	1,458.88	5,489.88	8.38	1,128.65	679,040.58	655,401.05	1,128.68	0.00
6,500.00	88.80	89.57	1,460.97	5,491.97	9.12	1,228.62	679,041.32	655,501.02	1,228.66	0.00
6,600.00	88.80	89.57	1,463.07	5,494.07	9.86	1,328.60	679,042.06	655,601.00	1,328.64	0.00
6,700.00	88.80	89.57	1,465.17	5,496.17	10.60	1,428.57	679,042.80	655,700.97	1,428.61	0.00
6,800.00	88.80	89.57	1,467.27	5,498.27	11.34	1,528.55	679,043.54	655,800.95	1,528.59	0.00
6,900.00	88.80	89.57	1,469.37	5,500.37	12.08	1,628.53	679,044.28	655,900.93	1,628.57	0.00
7,000.00	88.80	89.57	1,471.46	5,502.46	12.83	1,728.50	679,045.03	656,000.90	1,728.55	0.00
7,100.00	88.80	89.57	1,473.56	5,504.56	13.57	1,828.48	679,045.77	656,100.88	1,828.53	0.00
7,200.00	88.80	89.57	1,475.66	5,506.66	14.31	1,928.45	679,046.51	656,200.85	1,928.50	0.00
7,300.00	88.80	89.57	1,477.76	5,508.76	15.05	2,028.43	679,047.25	656,300.83	2,028.48	0.00
7,400.00	88.80	89.57	1,479.86	5,510.86	15.79	2,128.40	679,047.99	656,400.80	2,128.46	0.00
7,500.00	88.80	89.57	1,481.95	5,512.95	16.54	2,228.38	679,048.74	656,500.78	2,228.44	0.00
7,600.00	88.80	89.57	1,484.05	5,515.05	17.28	2,328.35	679,049.48	656,600.75	2,328.42	0.00
7,700.00	88.80	89.57	1,486.15	5,517.15	18.02	2,428.33	679,050.22	656,700.73	2,428.39	0.00
7,800.00	88.80	89.57	1,488.25	5,519.25	18.76	2,528.30	679,050.96	656,800.70	2,528.37	0.00
7,900.00	88.80	89.57	1,490.35	5,521.35	19.50	2,628.28	679,051.70	656,900.68	2,628.35	0.00
8,000.00	88.80	89.57	1,492.44	5,523.44	20.25	2,728.25	679,052.45	657,000.65	2,728.33	0.00
8,100.00	88.80	89.57	1,494.54	5,525.54	20.99	2,828.23	679,053.19	657,100.63	2,828.31	0.00
8,200.00	88.80	89.57	1,496.64	5,527.64	21.73	2,928.20	679,053.93	657,200.60	2,928.28	0.00
8,300.00	88.80	89.57	1,498.74	5,529.74	22.47	3,028.18	679,054.67	657,300.58	3,028.26	0.00
8,400.00	88.80	89.57	1,500.84	5,531.84	23.21	3,128.15	679,055.41	657,400.55	3,128.24	0.00
8,500.00	88.80	89.57	1,502.93	5,533.93	23.95	3,228.13	679,056.15	657,500.53	3,228.22	0.00
8,600.00	88.80	89.57	1,505.03	5,536.03	24.70	3,328.10	679,056.90	657,600.50	3,328.20	0.00
8,700.00	88.80	89.57	1,507.13	5,538.13	25.44	3,428.08	679,057.64	657,700.48	3,428.17	0.00
8,800.00	88.80	89.57	1,509.23	5,540.23	26.18	3,528.05	679,058.38	657,800.45	3,528.15	0.00
8,900.00	88.80	89.57	1,511.33	5,542.33	26.92	3,628.03	679,059.12	657,900.43	3,628.13	0.00

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #10H
Project:	Eddy County, NM (NAD27 NME)	**TVD Reference:**	WELL @ 4031.00usft (Capstar 118)
Site:	Hummingbird Federal Com	**MD Reference:**	WELL @ 4031.00usft (Capstar 118)
Well:	#10H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)
9,000.00	88.80	89.57	1,513.42	5,544.42	27.66	3,728.01	679,059.86	658,000.41	3,728.11	0.00
9,100.00	88.80	89.57	1,515.52	5,546.52	28.41	3,827.98	679,060.61	658,100.38	3,828.09	0.00
9,200.00	88.80	89.57	1,517.62	5,548.62	29.15	3,927.96	679,061.35	658,200.36	3,928.06	0.00
9,300.00	88.80	89.57	1,519.72	5,550.72	29.89	4,027.93	679,062.09	658,300.33	4,028.04	0.00
9,400.00	88.80	89.57	1,521.82	5,552.82	30.63	4,127.91	679,062.83	658,400.31	4,128.02	0.00
9,500.00	88.80	89.57	1,523.92	5,554.92	31.37	4,227.88	679,063.57	658,500.28	4,228.00	0.00
9,600.00	88.80	89.57	1,526.01	5,557.01	32.12	4,327.86	679,064.32	658,600.26	4,327.98	0.00
9,700.00	88.80	89.57	1,528.11	5,559.11	32.86	4,427.83	679,065.06	658,700.23	4,427.95	0.00
9,800.00	88.80	89.57	1,530.21	5,561.21	33.60	4,527.81	679,065.80	658,800.21	4,527.93	0.00
9,900.00	88.80	89.57	1,532.31	5,563.31	34.34	4,627.78	679,066.54	658,900.18	4,627.91	0.00
10,000.00	88.80	89.57	1,534.41	5,565.41	35.08	4,727.76	679,067.28	659,000.16	4,727.89	0.00
10,100.00	88.80	89.57	1,536.50	5,567.50	35.82	4,827.73	679,068.02	659,100.13	4,827.87	0.00
10,123.67	88.80	89.57	1,537.00	5,568.00	36.00	4,851.40	679,068.20	659,123.80	4,851.53	0.00
TD at 10123.67										

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #10H
Project:	Eddy County, NM (NAD27 NME)	**TVD Reference:**	WELL @ 4031.00usft (Capstar 118)
Site:	Hummingbird Federal Com	**MD Reference:**	WELL @ 4031.00usft (Capstar 118)
Well:	#10H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1 3-21-14	**Database:**	Compass 5000 GCR DB

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,729.00	3,729.00	San Andres		0.20	89.57
5,299.92	5,280.00	Yeso (Paddock)		0.20	89.57
2,102.00	2,102.00	Yates		0.20	89.57
3,018.00	3,018.00	Queen		0.20	89.57
741.00	741.00	Rustler		0.20	89.57
3,439.00	3,439.00	Grayburg		0.20	89.57
1,492.00	1,492.00	T/Salt		0.20	89.57
1,957.00	1,957.00	B/Salt		0.20	89.57
5,232.43	5,223.00	Glorieta		0.20	89.57
2,393.00	2,393.00	Seven Rivers		0.20	89.57

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,998.64	4,998.64	0.00	0.00	KOP, 12.00°/100' Build
5,738.62	5,476.00	3.47	467.43	LP, Hold 88.80° Inc
10,123.67	5,568.00	36.00	4,851.40	TD at 10123.67

Checked By: _____ Approved By: _____ Date: _____

Apache
EXPLORING WHAT'S POSSIBLE

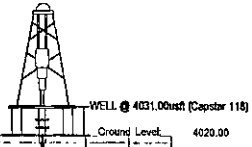
Project: Eddy County, NM (NAD27 NME)
Site: Hummingbird Federal Com
Well: #10H
Wellbore: Wellbore #1
Design: Plan #1 3-21-14
Rig: Capstar 118

PHOENIX TECHNOLOGY SERVICES

T G M

Azimuths to Grid North
True North: -0.27°
Magnetic North: 7.24°

Magnetic Field
Strength: 48648.4snT
Dip Angle: 60.65°
Date: 05/29/2014
Model: BGGM2013



WELL DETAILS

Ground Level: 4020.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	679032.20	654272.40	32° 51' 56.63997 N	103° 49' 51.22767 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	4998.64	0.00	0.00	4998.64	0.00	0.00	0.00	0.00	0.00		KOP, 12.00°/100' Build
3	5738.82	88.80	89.57	5476.00	3.47	467.43	12.00	89.57	467.45		LP, Hold 88.80° Inc
4	10123.67	88.80	89.57	5568.00	36.00	4851.40	0.00	0.00	4851.53	BHL_Hummingbird 10H	TD at 10123.67

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL_Hummingbird 10H	5568.00 - plan hits target center	36.00	4851.40	679068.20	659123.80	32° 51' 56.76415 N	103° 48' 54.34717 W	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
741.00	741.00	Rustler	0.20	89.57
1492.00	1492.00	T/Salt	0.20	89.57
1957.00	1957.00	B/Salt	0.20	89.57
2102.00	2102.00	Yates	0.20	89.57
2393.00	2393.00	Seven Rivers	0.20	89.57
3018.00	3018.00	Queen	0.20	89.57
3439.00	3439.00	Grayburg	0.20	89.57
3729.00	3729.00	San Andres	0.20	89.57
5223.20	5232.43	Glorieta	0.20	89.57
5260.32	5299.92	Yeso (Paddock)	0.20	89.57

LEGEND

- #7H, Wellbore #1, Plan #1 3-21-14 V0
- #12H, Wellbore #1, Plan #1 3-21-14 V0
- #9H, Wellbore #1, Plan #1 3-21-14 V0
- #11H, Wellbore #1, Plan #1 3-21-14 V0
- #8H, Wellbore #1, Plan #1 3-21-14 V0
- Plan #1 3-21-14

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

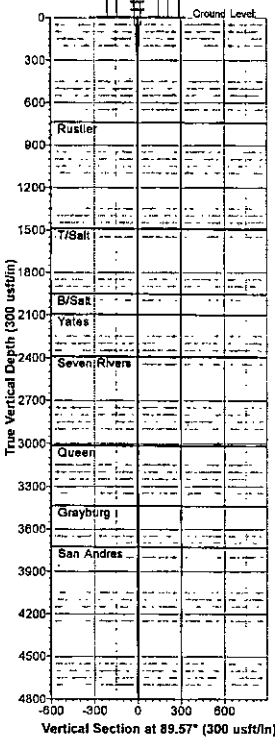
Local Origin: Well #10H, Grid North

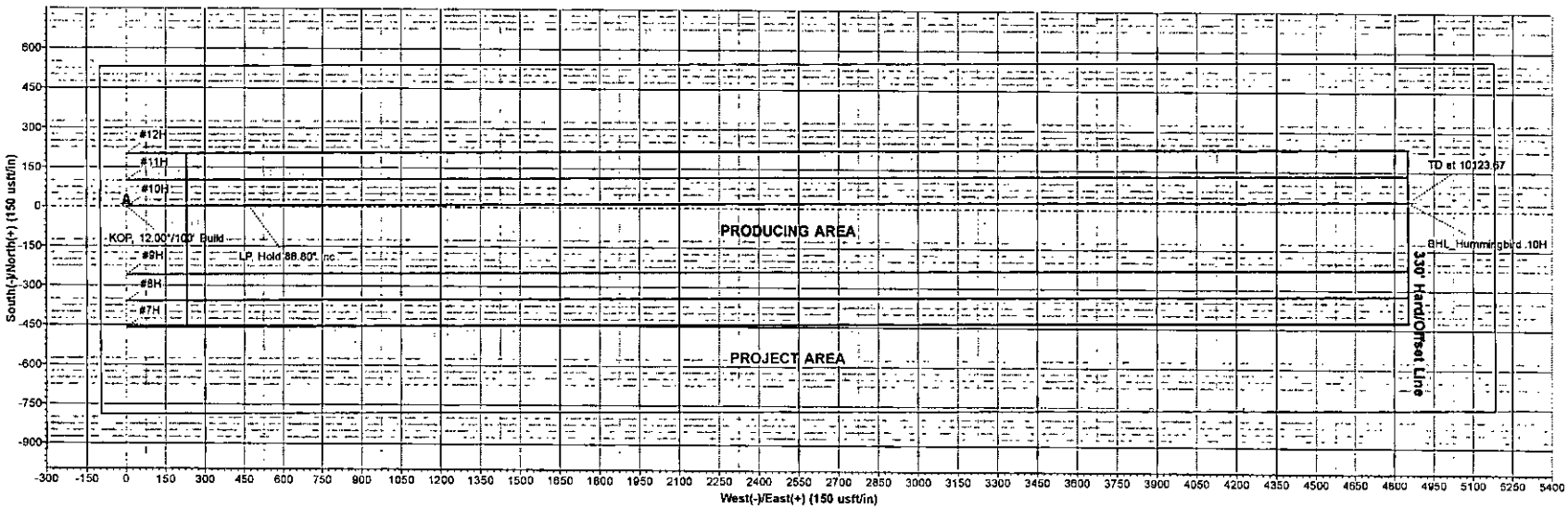
Latitude: 32° 51' 56.63997 N
Longitude: 103° 49' 51.22767 W

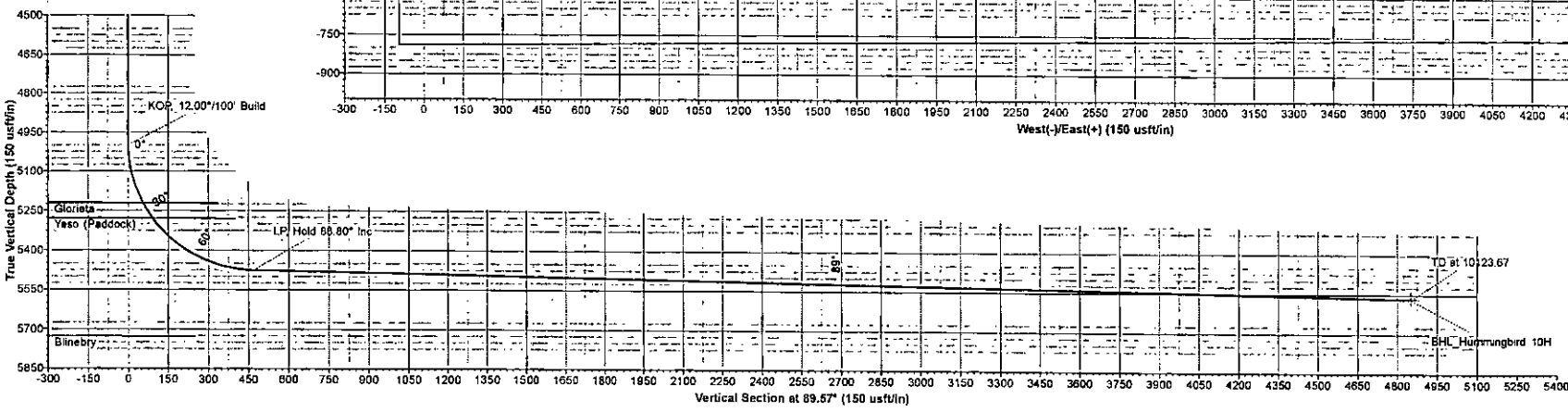
Grid East: 654272.40
Grid North: 679032.20
Scale Factor: 1.000

Geomagnetic Model: BGGM2013
Sample Date: 29-May-14
Magnetic Declination: 7.51°
Dip Angle from Horizontal: 60.65°
Magnetic Field Strength: 48648

To convert a Magnetic Direction to a Grid Direction, Add 7.24°
To convert a Magnetic Direction to a True Direction, Add 7.51° East
To convert a True Direction to a Grid Direction, Subtract 0.27°







Created By: Travis Kniss Date: 15:36, May 29 2014

APACHE BOP AND CHOKE MANIFOLD SCHEMATIC

HUMMINGBIRD FEDERAL #7H #8H #9H #10H #11H #12H

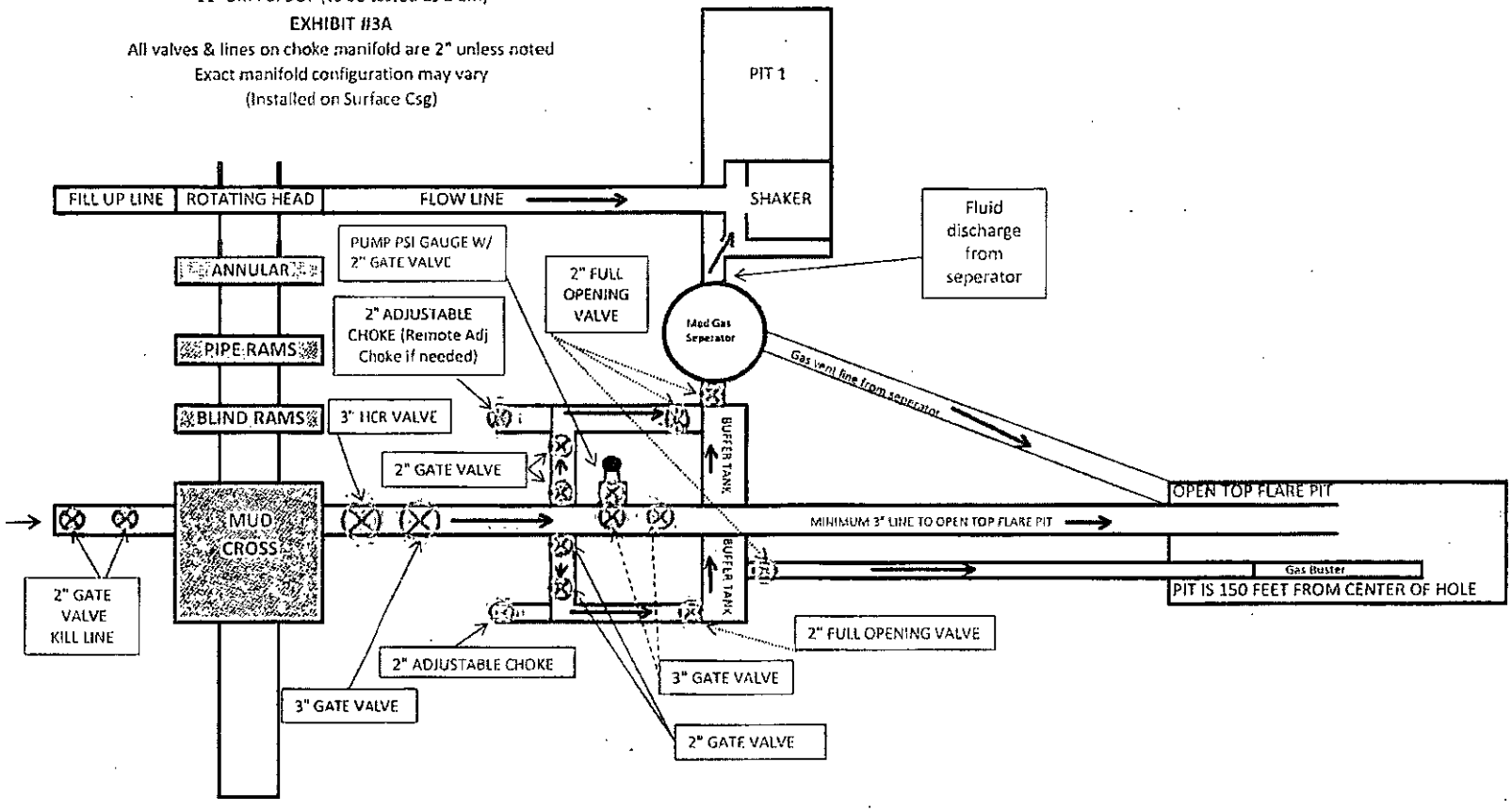
11" 3M PSI BOP (to be tested as a 2M)

EXHIBIT #3A

All valves & lines on choke manifold are 2" unless noted

Exact manifold configuration may vary

(Installed on Surface Csg)

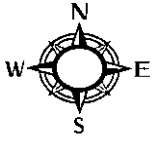


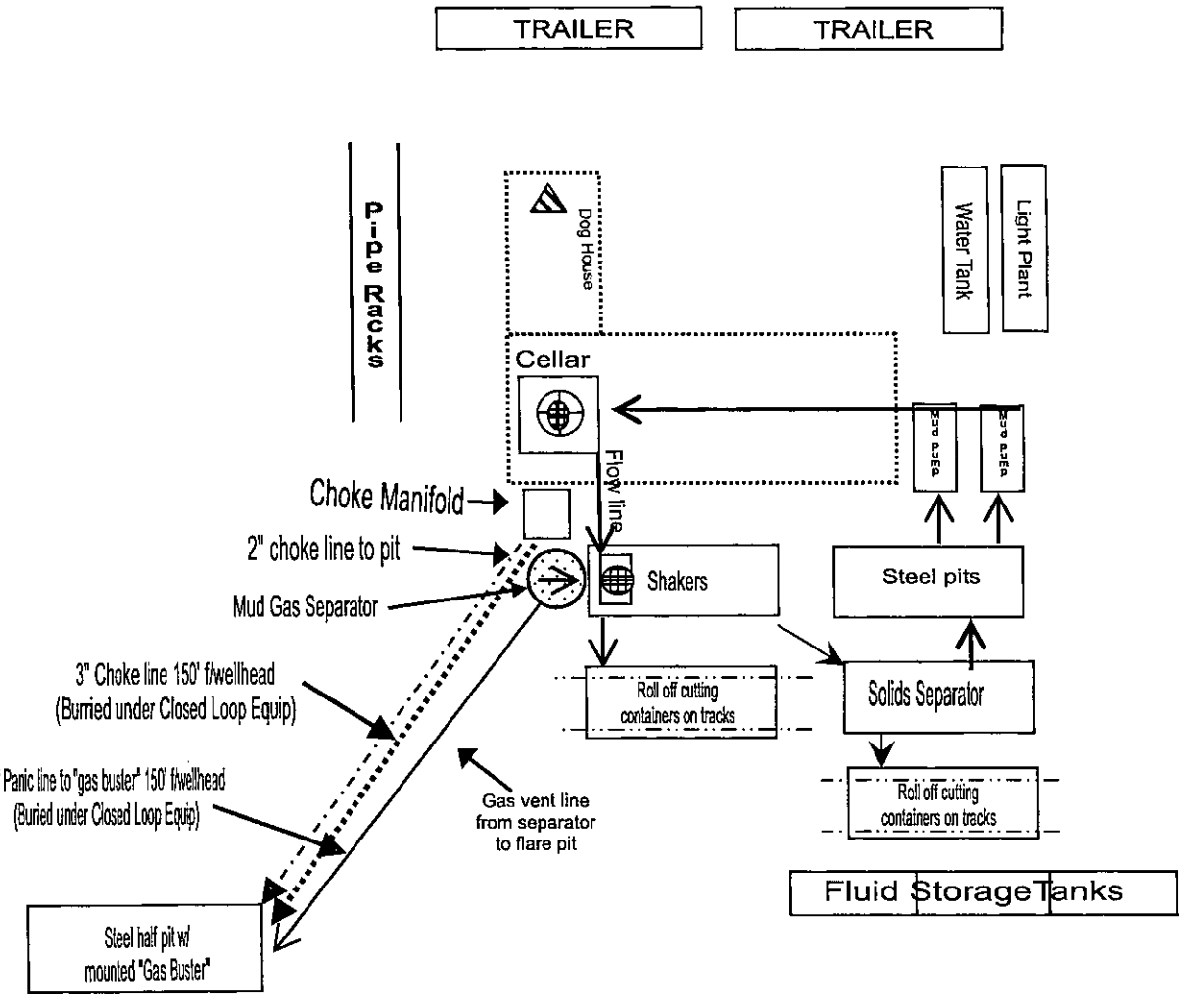
*** If H2S is encountered in quantities greater than 100ppm, Apache will shut in well & install a remote operated choke ***

Apache

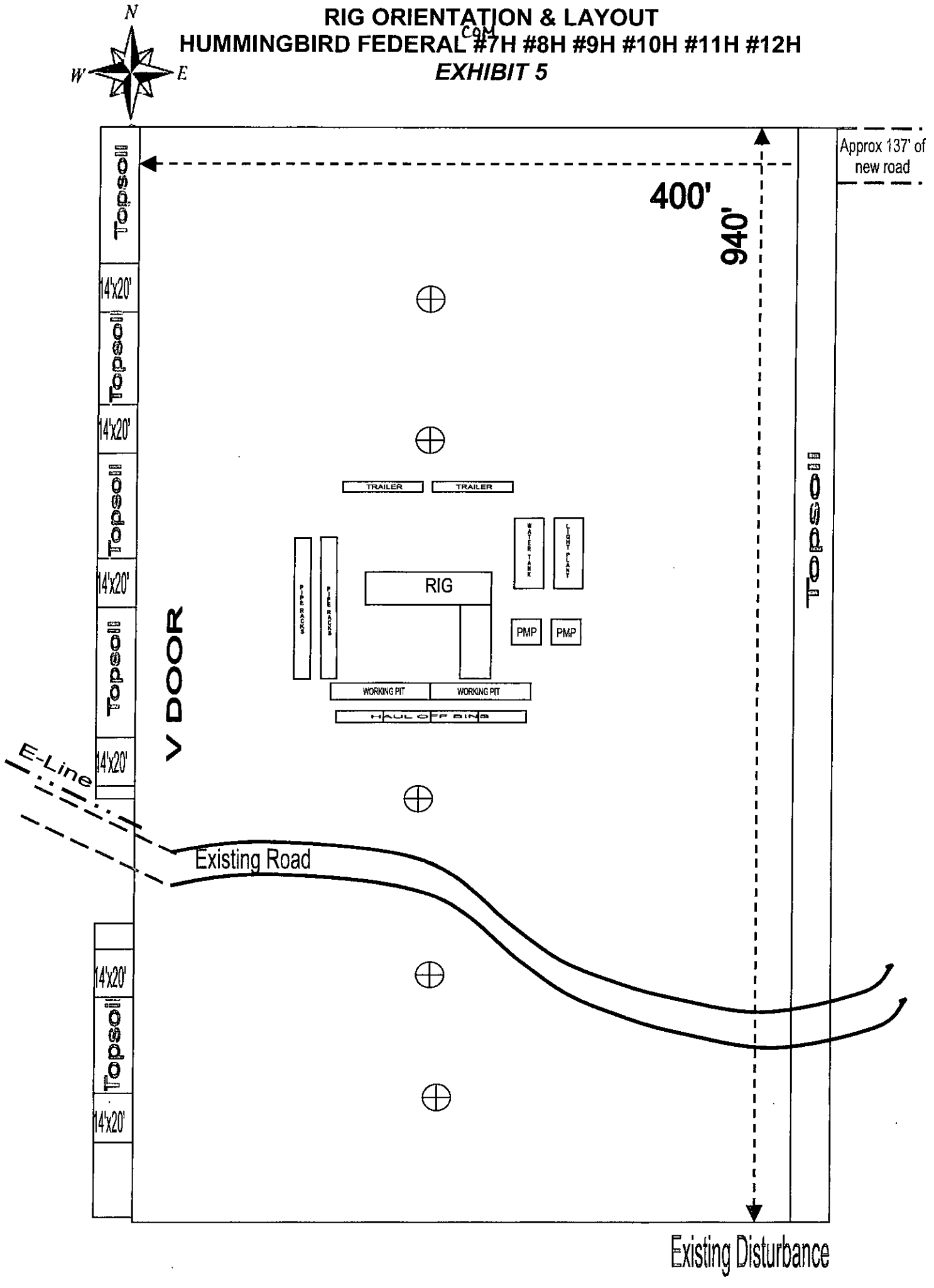
Closed Loop Equipment Diagram
Exhibit 4

HUMMINGBIRD FEDERAL COM #10H





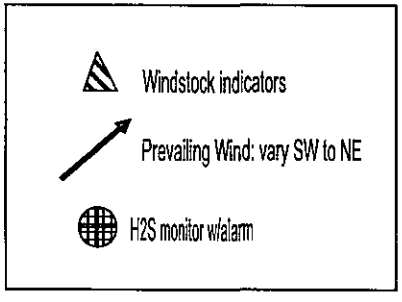
RIG ORIENTATION & LAYOUT
HUMMINGBIRD FEDERAL COM #7H #8H #9H #10H #11H #12H
EXHIBIT 5

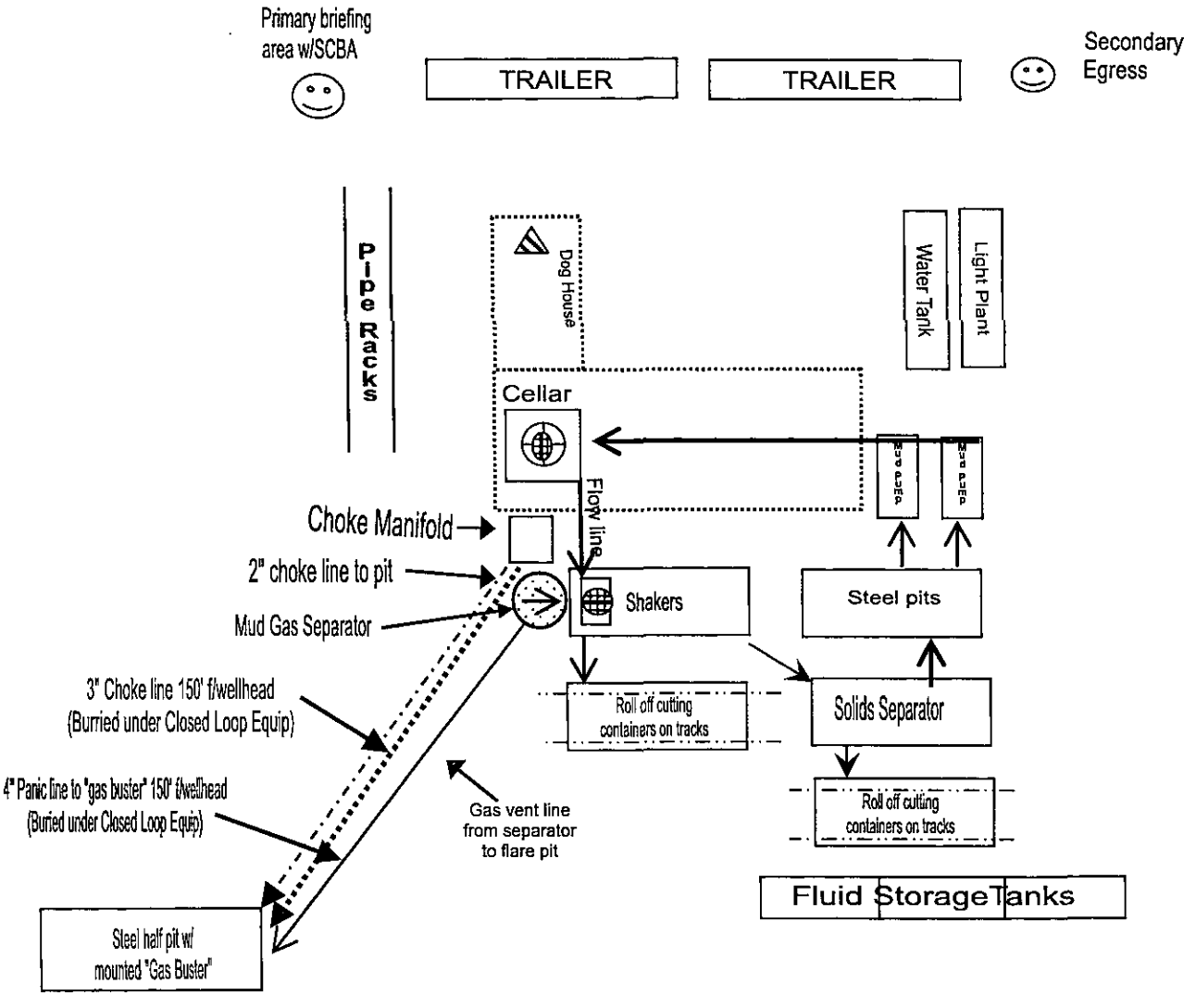


Apache

Drilling Location
H2S Safety Equipment Diagram
Exhibit 3A

HUMMINGBIRD FEDERAL COM #10H





HYDROGEN SULFIDE (H_2S) DRILLING OPERATIONS PLAN

Hydrogen Sulfide Training:

All regularly assigned personnel, contracted or employed by Apache Corporation will receive training from qualified instructor(s) in the following areas prior to commencing drilling possible hydrogen sulfide bearing formations in this well:

- The hazards and characteristics of hydrogen sulfide (H_2S)
- The proper use and maintenance of personal protective equipment and life support systems.
- The proper use of H_2S detectors, alarms, warning systems, briefing area, evacuation procedures & prevailing winds.
- The proper techniques for first aid and rescue procedures.

Supervisory personnel will be trained in the following areas:

- The effects of H_2S on metal components. If high tensile tubulars are to be utilized, personnel will be trained in their special maintenance requirements.
- Corrective action & shut-in procedures when drilling or reworking a well & blowout prevention / well control procedures.
- The contents and requirements of the H_2S Drilling Operations Plan

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500') and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received proper training.

H_2S SAFETY EQUIPMENT AND SYSTEMS:

Well Control Equipment that will be available & installed if H_2S is encountered:

- Flare Line with electronic igniter or continuous pilot.
- Choke manifold with a minimum of one remote choke.
- Blind rams & pipe rams to accommodate all pipe sizes with properly sized closing unit.
- Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head & flare gun with flares

Protective Equipment for Essential Personnel:

- Mark II Survive-air 30 minute units located in dog house & at briefing areas, as indicated on wellsite diagram.

H2S Dection and Monitoring Equipment:

- Two portable H_2S monitors positioned on location for best coverage & response. These units have warning lights & audible sirens when H_2S levels of 20 ppm are reached.
- One portable H_2S monitor positioned near flare line.

H2S Visual Warning Systems:

- Wind direction indicators are shown on wellsite diagram.
- Caution / Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

Mud Program:

- The Mud Program has been designed to minimize the volume of H_2S circulated to the surface. Proper mud weights, safe drilling practices & the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.
- A mud-gas separator and H_2S gas buster will be utilized as needed.

Metallurgy:

- All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold & lines, & valves will be suitable for H_2S service.
- All elastomers used for packing & seals shall be H_2S trim.

Communication:

- Cellular telephone and 2-way radio communications in company vehicles, rig floor and mud logging trailer.

HYDROGEN SULFIDE (H_2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H_2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operators and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the :
    - Detection of H_2S, and
    - Measures for protection against the gas,
    - Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = I	2 ppm	N/A	1000 ppm

Contacting Authorities

Apache Corporation personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Apache's response must be in coordination with the State of New Mexico's *"Hazardous Materials Emergency Response Plan" (HMER).*

WELL CONTROL EMERGENCY RESPONSE PLAN

I. GENERAL PHILOSOPHY

Our objective is to ensure that during an emergency, a predetermined procedure is followed so that prompt decisions can be made based on accurate information.

The best way to handle and emergency is with an experienced organization set up for the sole purpose of solving the problem. The *Well Control Emergency Response Team* was organized to handle dangerous & expensive well control problems. The *Team* is structured such that each individual can contribute the most from his area of expertise. Key decision-makers are determined prior to an emergency to avoid confusion about who is in charge.

If the well is flowing uncontrolled at the surface or subsurface, *The Emergency Response Team* will be mobilized. The *Team* is customized for the people currently on the Apache staff. Staff changes may require a change in the plan.

II. EMERGENCY PROCEDURE ON DRILLING OR COMPLETION OPERATIONS

A. In the event of an emergency the *Drilling Foreman or Tool-Pusher* will immediately contact only one of the following starting with the first name listed:

Name	Office	Mobile	Home
Richard McKay – Drlg Superintendent	432-818-1628	432-234-7430	
Maxwell Grove – Drilling Engineer	281-302-2881	281-908-6821	
Bobby Smith – Drilling Manager	432-818-1020	432-556-7701	
Bill Jones – EH&S Coordinator		432-967-9576	

***This one phone call will free the Drilling Foreman to devote his full time to securing the safety of personnel & equipment. This call will initiate the process to mobilize the Well Control Emergency Response Team. Apache maintains an Emergency Telephone Conference Room in the Houston office. This room is available for us by the Permian Region. The room has 50 separate telephone lines.*

B. The Apache employee contacted by the Drilling Foreman will begin contacting the rest of the *Team*. If **RICHARD MCKAY** is out of contact, **MAXWELL GROVE** will be notified.

C. If a member of the *Emergency Response Team* is away from the job, he must be available for call back. Telephone numbers should be left with secretaries or a key decision-maker.

D. Apache's reporting procedure for spills or releases of oil or hazardous materials will be implemented when spills or releases have occurred or are probable.

EMERGENCY RESPONSE NUMBERS:

SHERIFF DEPARTMENT	
Eddy County	575-887-7551
Lea County	575-396-3611
FIRE DEPARTMENT	911
Artesia	575-746-5050
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS	911
Artesia Medical Emergency	575-746-5050
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS	
Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161

EXHIBIT #7

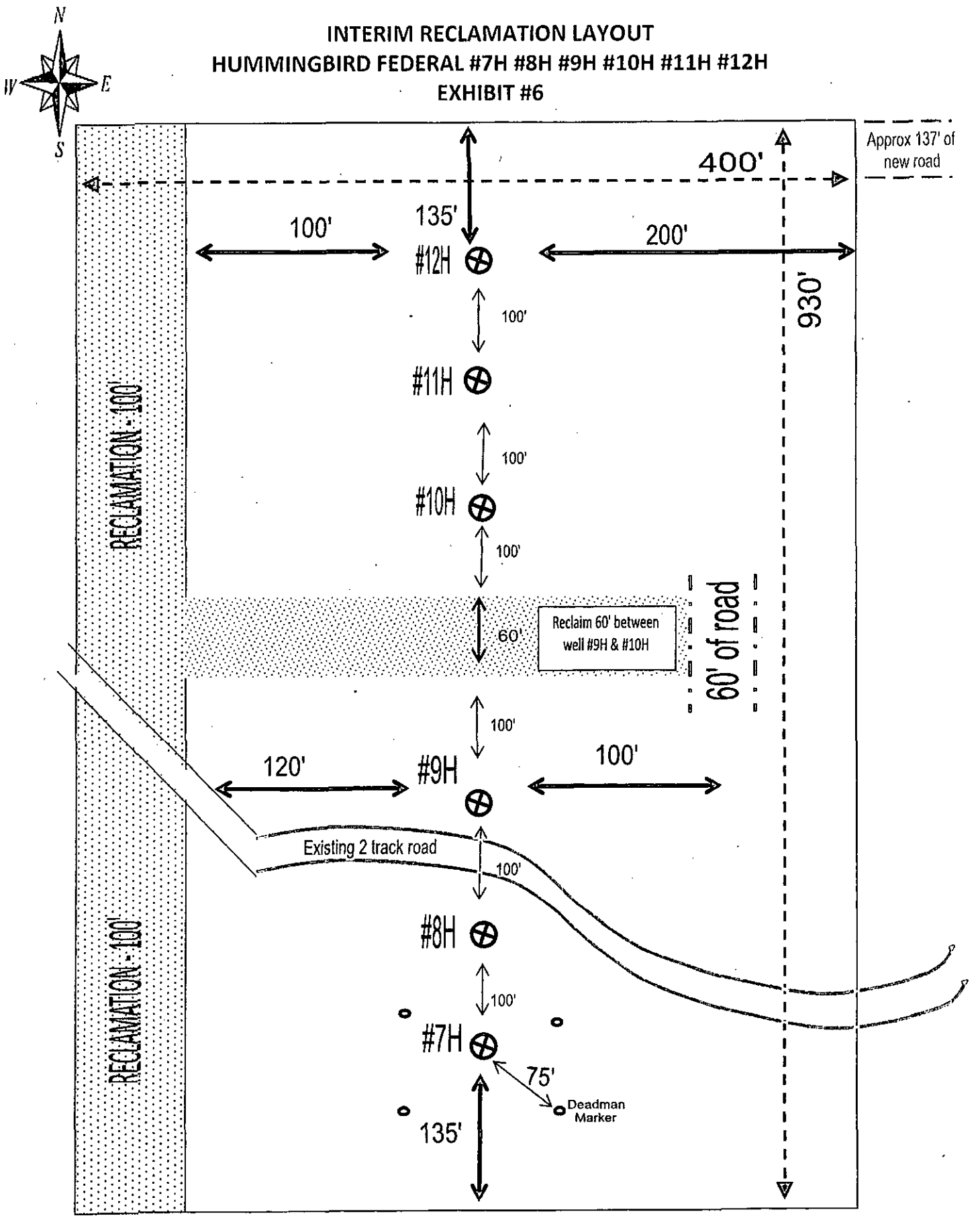
WARNING

YOU ARE ENTERING AN H2S AREA
AUTHORIZED PERSONNEL ONLY

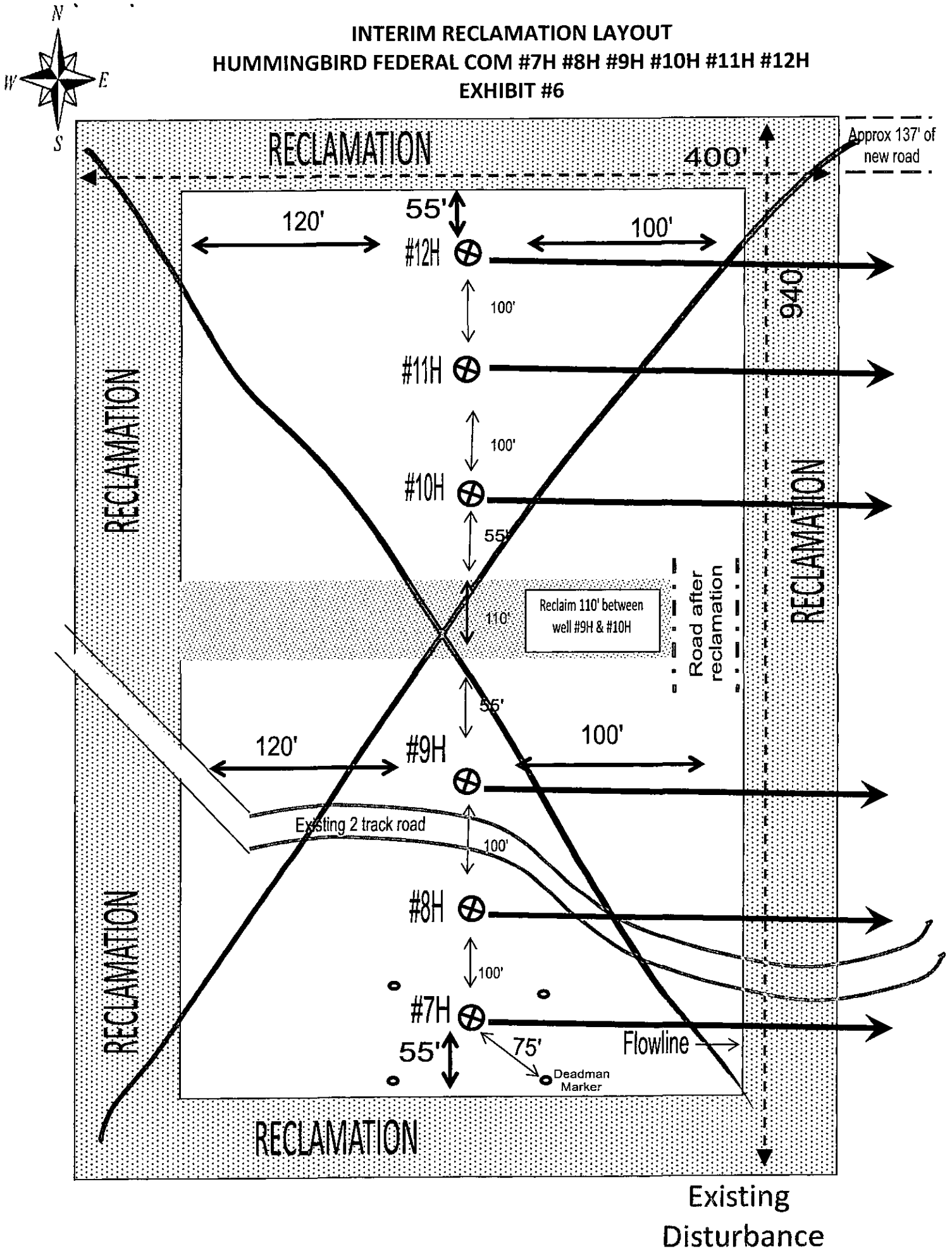
1. **BEARDS OR CONTACT LENSES NOT ALLOWED**
2. **HARD HATS REQUIRED**
3. **SMOKING DESIGNATED AREAS ONLY**
4. **BE WIND CONSCIOUS AT ALL TIMES**
5. **CHECK WITH APACHE CORPORATION**

APACHE CORPORATION
1-888-257-6840

INTERIM RECLAMATION LAYOUT
HUMMINGBIRD FEDERAL #7H #8H #9H #10H #11H #12H
EXHIBIT #6



INTERIM RECLAMATION LAYOUT
HUMMINGBIRD FEDERAL COM #7H #8H #9H #10H #11H #12H
EXHIBIT #6



SURFACE USE PLAN OF OPERATIONS

HUMMINGBIRD FEDERAL COM #10H
SHL: 1850' FNL & 100' FWL UL: E BHL: 1850' FNL & 330' FEL UL: H
SEC: 1 T17S R31E Eddy County, NM

EXISTING ROADS

A. Proposed Well Site Location:

a. The well site & elevation plat for the proposed well are reflected on the well site layout (form C-102). Well staked by John West Surveying Company.

B. Existing Roads

a. From the intersection of US HWY 82 & Lea CoRd L-124 (Supee), go North-Northwest approx 2.7 miles, turn Left, go South approx 0.3 miles to proposed road survey, turn Right, go West 137', turn Left, go South 780', well location is 186' West.

C. Route Location

a. Approx 137' of new road is expected to be constructed. The existing lease road will be used to the extent possible. If a lease/access road needs to be constructed, all lease roads will be graded in compliance with BLM standards. See E (a).

D. Existing Road Maintenance or Improvement Plan

a. *EXHIBIT 1* is a portion of a topo map showing the well & roads in the vicinity of the proposed location. The proposed well site & access route to the location are indicated in BLUE on *EXHIBIT 1*. Right of way using this proposed route will be requested if necessary.

b. Routing grading & maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. Roads will be maintained according to specifications in "EXISTING ROADS *Section E (a)*" of this Surface Use Plan.

E. Width, Max Grade, Turnout Ditches, Culverts, Cattle Guards, & Surface Equipment

a. All lease roads will be graded in compliance with BLM standards. All new & reconstructed roads will have a width & "crown design" (i.e. The max width of the driving surface will be 14'. The road will be crowned & ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled & compacted caliche.) If required, culverts and cattle guards will be set per BLM Specs.

LOCATION OF EXISTING WELLS

A. *"EXHIBIT 2 "* indicates existing wells within a one mile radius of the proposed location.

LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. Production facilities will be located at the Hummingbird Federal Battery.

B. New Facilities in the Event of Production

In the event well is productive, APACHE will install approx 1200' of 4" NUPI rated 500psi up to 140 deg surface flow line to the proposed Hummingbird Federal Battery. If electricity is needed, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
"SEE EXHIBIT 1A"

C. Rehabilitation of Disturbed Areas Unnecessary for Production

Following the construction, those access areas required for continued production will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in with the surrounding topography
"SEE PLANS FOR RESTORATION OF THE SURFACE"

LOCATION AND TYPE OF WATER SUPPLY

A. All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via existing and/or proposed access roads. No water source wells will be drilled and no surface water will be utilized.

CONSTRUCTION MATERIALS

A. Materials

On-site caliche will be used for any required access road and/or well site pad. If necessary, caliche will be hauled *from a BLM approved pit. No surface materials will be disturbed except those necessary for actual grading and* construction of the drill site and access road.

METHODS FOR HANDLING WASTE DISPOSAL

A. Cuttings

Apache will us a Closed Loop System. Cuttings will be contained in roll off bins, hauled & disposed of to a state approved disposal facility.

B. Drilling Fluids

Drilling fluids will be contained in steel pits, frac tanks and disposed at licensed disposal sites and/or will be cleaned and reused.

C. Produced Fluids

Water production will be contained in steel pits. Fluids may be cleaned and reused and/or disposed at a state approved facility. Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks until sold and hauled from site.

D. Salts

Salts remaining after completion will be picked up by supplier, including broken sacks.

E. Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with. A Port-a-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well. Port-a-John will be cleaned out periodically.

F. Garbage

Receptacles for garbage disposal during the drilling of this well will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site.

G. Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if electric log analysis indicates potential productive zones. Reasonable cleanup will be performed prior to the final restoration of the site.

ANCILLARY FACILITIES

A. Upon completion, and/or testing of this well, rental tank facilities will be utilized until permanent storage is established. No camps, airstrips or staging are anticipated to be constructed.

WELLSITE LAYOUT

A. Rig Orientation and Layout

"EXHIBIT 5 " shows the dimensions of the well pad, closed loop system and the location of the major rig components. Only minor leveling of the well site will be required. No significant cuts or fills will be necessary.

B. Closed Loop System

A Closed Loop System will be used. Cuttings will be stored in steel roll off bins until they are hauled to a state approved disposal facility. *"SEE EXHIBIT 4"*

C. Location of Access Road

"SEE EXHIBIT 1 & John West Surveying well site pad location plat "

PLANS FOR SURFACE RECLAMATION

A. Reserve Pit Cleanup

Not applicable. Closed Loop System will be used.

B. Restoration Plans (Production Developed) *"SEE EXHIBIT 6 "*

Those areas not required for production will be graded & recontoured to match surrounding topography and surfacing material will be removed. Topsoil from the soil pile will be loaded over the disturbed area to the extent possible and will be seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. This may need to be modified in certain circumstances to prevent inundation of the locations' pad and surface facilities. Due to the topography of the area, no problems are anticipated and no erosion or other detrimental effects are expected as a result of this operation. Following depletion and abandonment of the site, restoration procedures will be those that follow under *"ITEM C"* of *"PLANS FOR SURFACE RECLAMATION"*.

C. Restoration Plans (No Production Developed)

With no production developed, the entire surface disturbed by construction of the well site will be restored as closely as possible to its pre-operation appearance, including re-vegetation. Surfacing material will be removed and the site will be recontoured to match surrounding topography with provisions made to minimize erosion. The topsoil, as available, shall be placed in a uniform layer and seeded according to the Bureau of Land Management's stipulations. Due to the topography of the area, no problems are anticipated and no erosion or other detrimental effects are expected as a result of this operation.

D. Rehabilitation's Timetable

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

SURFACE OWNERSHIP

A. Surface Ownership of drill site & access routes:

United States Department of the Interior
c/o Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

OTHER INFORMATION

A. Terrain, Soil, Vegetation, Wildlife, Surface Use

Slightly rolling hills; Topsoil is made up of caliche and sand; Plants are sparse, primarily grasses, some mesquite & shinnery oak; No wildlife observed but likely that deer, rabbits, coyotes & rodents traverse the area, which are all typical of the semi-arid desert land; Land primarily used for grazing.

B. Surface Water

There are no ponds, lakes, streams or rivers within several miles of the proposed location.

C. Water Wells

No known water wells within 1-1/2 miles of the proposed location.

D. Residences and Buildings

B. Closed Loop System

A Closed Loop System will be used. Cuttings will be stored in steel roll off bins until they are hauled to a state approved disposal facility. *"SEE EXHIBIT 4"*

C. Location of Access Road

"SEE EXHIBIT 1 & John West Surveying well site pad location plat "

PLANS FOR SURFACE RECLAMATION

A. Reserve Pit Cleanup

Not applicable. Closed Loop System will be used.

B. Restoration Plans (Production Developed) *"SEE EXHIBIT 7"*

Those areas not required for production will be graded & recontoured to match surrounding topography and surfacing material will be removed. Topsoil from the soil pile will be loaded over the disturbed area to the extent possible and will be seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. This may need to be modified in certain circumstances to prevent inundation of the locations' pad and surface facilities. Due to the topography of the area, no problems are anticipated and no erosion or other detrimental effects are expected as a result of this operation. Following depletion and abandonment of the site, restoration procedures will be those that follow under *"ITEM C"* of *"PLANS FOR SURFACE RECLAMATION"*.

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B. Surface Water

There are no ponds, lakes, streams or rivers within several miles of the proposed location.

C. Water Wells

No known water wells within 1-1/2 miles of the proposed location.

D. Residences and Buildings

No dwellings within the immediate vicinity of the proposed location.

E. Historical Sites

None observed.

F. Archeological Resources

An Apache agrees to contribute funding to the Permian Basin Cultural Resource Fund in lieu of being required to conduct a Class III survey for cultural resources associated with this project. Any location or construction conflicts will be resolved before construction begins.

G. Onsite: Onsite by Jesse Rice, BLM Specialist.

H. Well Signs: Well signs will be incompliance per State requirements and specifications.

I. Drilling Contractor: Pending

OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use)

DRILLING

Richard McKay
Drilling Superintendent
303 Veterans Airpark Ln #1000
Midland, TX 79705
432-818-1628 - office
432-234-7430 – cell

PRODUCTION

Craig Maxwell
Sr. Production Foreman
2350 W. Marland Blvd
Hobbs, NM 88240
575-393-7106 – w
575-441-2568 – c

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE STREET
CARLSBAD, NM 88220

OPERATOR CERTIFICATION

I HEARBY CERTIFY THAT I, OR SOMEONE UNDER MY DIRECT SUPERVISION, HAVE INSPECTED THE DRILL SITE AND ACCESS ROUTE PROPOSED HEREIN; THAT I AM FAMILIAR WITH THE CONDITIONS WHICH CURRENTLY EXIST; THAT I HAVE FULL KNOWLEDGE OF STATE AND FEDERAL laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 9th day of July 2014

Well: HUMMINGBIRD FEDERAL Com# 10H

Operator Name: APACHE CORPORATION

Signature: Maxwell Grove **Printed Name:** MAX GROVE

Title: Drilling Engineer Date: 07/09/2014

Email (optional): maxwell.grove@apachecorp.com

Street or Box: 303 Veterans Airpark Ln., Ste. 1000

City, State, Zip Code: Midland, TX 79705

Telephone: 281-908-6821

Field Representative (if not above signatory): _____

Address (if different from above): _____

Telephone (if different from above): _____

Email (optional): _____

Agents not directly employed by the operator must submit a letter from the operator authorizing that the agent to act or file this application on their behalf.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Apache Corporation**
LEASE NO.:	**NMLC-031844**
WELL NAME & NO.:	**Hummingbird Federal Com 10H**
SURFACE HOLE FOOTAGE:	**1850' FNL & 0100' FWL**
BOTTOM HOLE FOOTAGE	**1850' FNL & 0330' FEL**
LOCATION:	**Section 01, T. 17 S., R 31 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Below Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Communitization Agreement
A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. In addition, the well sign shall include the surface and bottom hole lease numbers. If the Communitization Agreement number is known, it shall also be on the sign. If not, it shall be placed on the sign when the sign is replaced.

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

Dunes Sagebrush Lizard Monitor Trenching Stipulations

- Pre-construction contact with a BLM wildlife biologist is required before any ground disturbing activities associated with the project occurs.

- Successful completion of the BLM Trench Stipulation Workshop is required for a non-agency person to be approved as a monitor.

- Any trench left open for (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, an agency approved monitor shall walk the entire length of the open trench and remove all trapped vertebrates. The bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried vertebrates. All vertebrates will be released a minimum of 100 yards from the trench.

- For trenches left open for eight (8) hours or more the following requirements apply:

    - Earthen escape ramps and/or structures (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Metal structures will not be authorized. Options will be discussed in detail at the required Trench Stipulation Workshop.
    - One approved monitor shall be required to survey up to three miles of trench between the hours of 11 AM-2 PM. A daily report (consolidate if there is more than one monitor) on the vertebrates found and removed from the trench shall be provided to the BLM (email/fax is acceptable) the following morning.
    - Prior to backfilling of the trench all structures used as escape ramps will be removed and the bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried vertebrates. All vertebrates will be released a minimum of 100 yards from the trench.

- This stipulation shall apply to the entire length of the project in the DSL habitat polygon regardless of land ownership or CCA/CCAA enrollment status.

- A project closeout will be required within three business days of the completion of the project.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

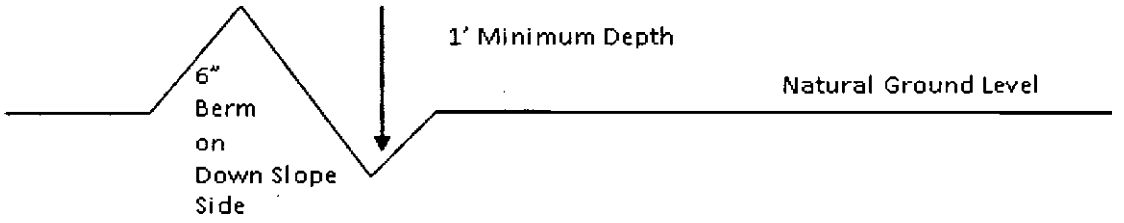
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

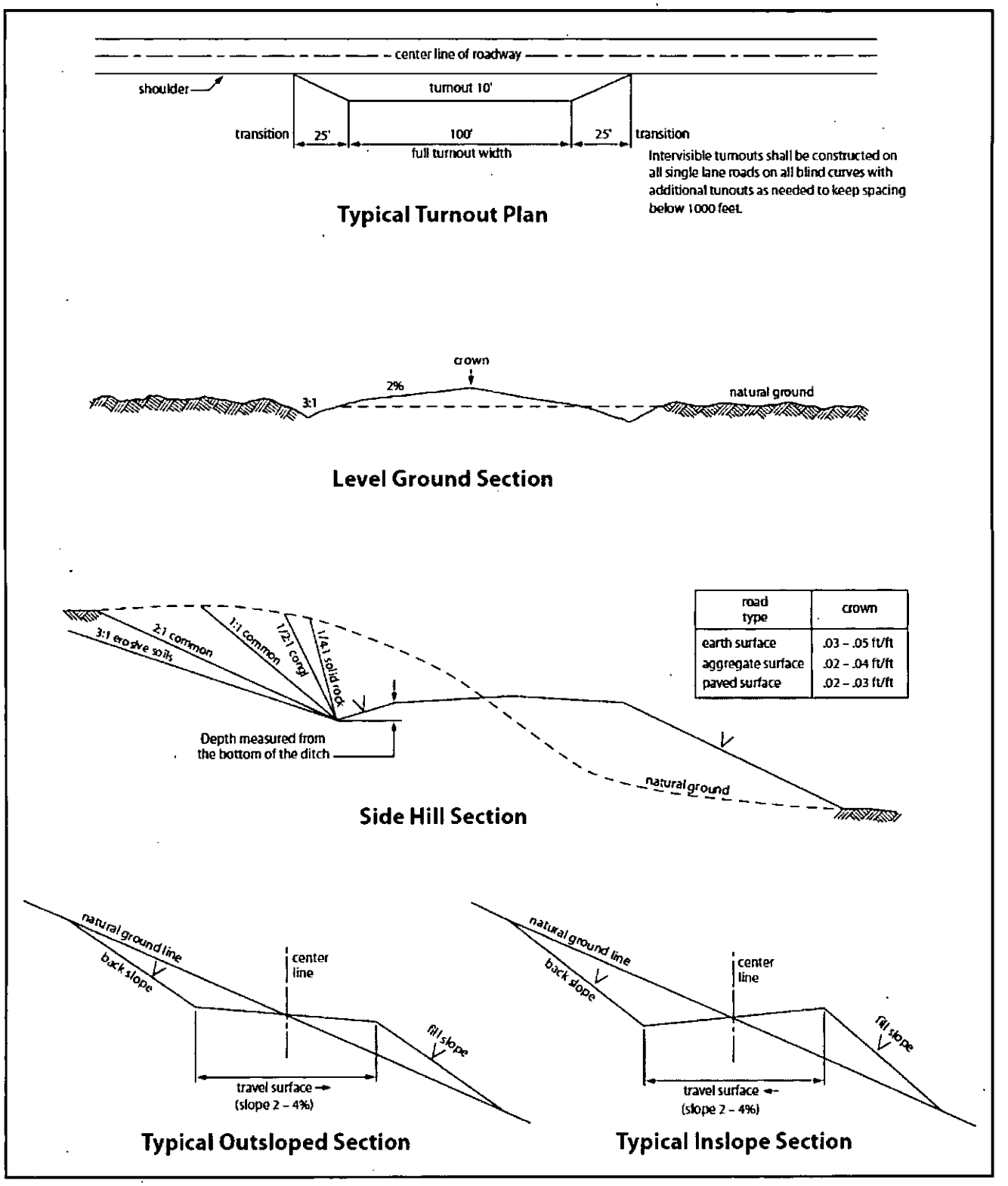


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possibility for water flows in the Artesia Group, Salado, and Queen.
Possibility of lost circulation in the Artesia Group, Rustler, Grayburg, and San Andres.

1. The **13-3/8** inch surface casing shall be set at approximately **800** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **7 X 5-1/2** inch production casing is:

   ☒ Cement as proposed by operator. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi **(Installing 3M and testing to 2,000 psi)**.

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

d. The results of the test shall be reported to the appropriate BLM office.

e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the

largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (*see* 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;

b. Activities of other parties including, but not limited to:
   (1) Land clearing
   (2) Earth-disturbing and earth-moving work
   (3) Blasting
   (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will

be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

18. Special Stipulations:

a. **Lesser Prairie-Chicken:** Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted.

b. This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1 ( ) seed mixture 3

( ) seed mixture 2 ( ) seed mixture 4

(X) seed mixture 2/LPC ( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their

former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the

source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by

drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Below Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:
Pounds of seed x percent purity x percent germination = pounds pure live seed