

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work ☐ DRILL ☒ REENTER

CONFIDENTIAL

1b Type of Well ☐ Oil Well ☐ Gas Well ☒ Other OTH ☒ Single Zone ☐ Multiple Zone2 Name of Operator
CHESAPEAKE OPERATING, INC Contact LINDA GOOD
E-Mail linda.good@chk.com3a Address
P O BOX 18496
OKLAHOMA CITY, OK 73154-04963b Phone No (include area code)
Ph 405-935-42758 Lease Name and Well No
PHILLIPS FEDERAL 19 API Well No
30-015-2553010 Field and Pool, or Exploratory
SWD, DELAWARE CHERRY CANYON
(97003)

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface SWSE 327FSL 2068FEL

At proposed prod zone SWSE 327FSL 2068FEL

11 Sec, T, R, M, or Blk and Survey or Area
Sec 1 T26S R29E Mer NMP14 Distance in miles and direction from nearest town or post office*
20.5 MILES SE OF MALAGA, NM12 County or Parish
EDDY13 State
NM15 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
320.0017 Spacing Unit dedicated to this well
40.0018 Distance from proposed location to nearest well, drilling,
completed, applied for, on this lease, ft19 Proposed Depth
6000 MD20 BLM/BIA Bond No. on file
NM263421 Elevations (Show whether DF, KB, RT, GL, etc)
3000 GL

22 Approximate date work will start

23 Estimated duration

24 Attachments

SWD-1241-0

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall 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
authorized officer

25 Signature
(Electronic Submission)Name (Printed/Typed)
LINDA GOOD Ph 405-935-4275Date
05/14/2010Title
SR REGULATORY COMPLIANCE SPECApproved by (Signature)
/s/ Don Peterson

Name (Printed/Typed)

AUG 19 2010

Title
FIELD MANAGEROffice
CARLSBAD FIELD OFFICEApplication approval does not warrant or certify 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 attachedTitle 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

APPROVAL FOR TWO YEARS

Additional Operator Remarks (see next page)

Electronic Submission #86478 verified by the BLM Well Information System
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad

K 9/14/10

Carlsbad Controlled Water Basin
SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

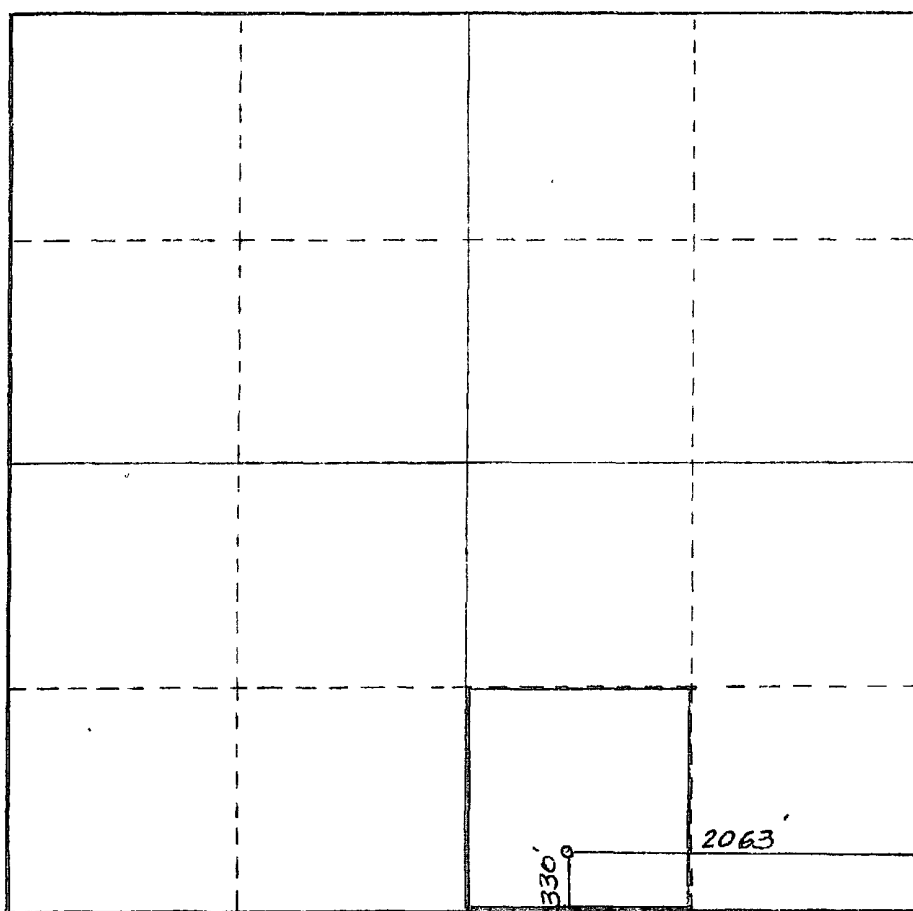
Operator UNITED PETROLEUM CORPORATION		Lease Phillips Federal		Well No. 1
Unit Letter 0	Section 1	Township 26 South	Range 29 East	County Eddy
Actual Footage Location of Well: 2063 feet from the East line and 330 feet from the South line				
Ground Level Elev 3011.	Producing Formation DELAWARE		Pool BRUSHY DRAW	Dedicated Acreage 170 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Name
Terry W. Franklin
Position
Agent
Company
United Petroleum Corporation
Date
12/27/85

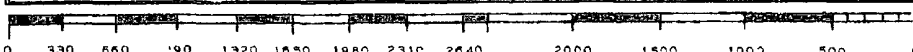
DAN R. REDDY
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
and/or Land Surveyor
5412

Date Surveyed
December 26, 1985

Registered Professional Engineer
and/or Land Surveyor

Dan R. Reddy
Certificate No. **9**

NM DECS NO 5412
original Plat



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO 1004-0135
Expires July 31, 2010**EQ****SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1 Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other UNKNOWN OTH	8 Well Name and No PHILLIPS FEDERAL 1 ✓
2 Name of Operator CHESAPEAKE OPERATING, INC Contact LINDA GOOD E-Mail linda.good@chk.com	9 API Well No
3a Address P.O. BOX 18496 OKLAHOMA CITY, OK 73154-0496	10 Field and Pool, or Exploratory SWD - DELAWARE ✓
3b Phone No (include area code) Ph 405-935-4275	11 County or Parish, and State EDDY COUNTY, NM ✓
4 Location of Well (Footage, Sec, T, R, M, or Survey Description) Sec 1 T26S R29E SWSE 327FSL 2068FEL	

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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.)

PER REQUEST OF THE BLM PLEASE CHANGE THE WELL NAME TO PHILLIPS SWD FEDERAL 1

(CHK PN 831381)

OK - TEN 7/15/10
Linda Good

14 I hereby certify that the foregoing is true and correct Electronic Submission #89537 verified by the BLM Well Information System For CHESAPEAKE OPERATING, INC., sent to the Carlsbad	
Name (Printed/Typed) LINDA GOOD	Title SR. REGULATORY COMPLIANCE SPEC
Signature (Electronic Submission)	Date 07/14/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Don Peterson	Title	AUG 19 2010
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	

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 Operator Remarks:

OTHER SALT WATER DISPOSAL WELL

Chesapeake Operating, Inc. respectfully requests permission to re-enter this well to 6000' to convert to a salt water disposal well

Please find the Surface Use Plan and Re-Entry Plan as required by Onshore Order No 1.

Attached are the Exhibit A-1 to A-3 Survey plats, Exhibit B 1 mile radius plat, Exhibit C Workover Rig, Exhibit D Flow line plats, Exhibit E Arch Survey, Exhibit F Flow Line Arch Survey and Exhibit G Reclamation Diagram

Chesapeake Operating, Inc. has an agreement with the grazing lessee.

Please be advised that Chesapeake Operating, Inc. is considered to be the Operator of the above mentioned well. Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands

(CHK PN 631381)

DISTRICT I
1626 N. French Dr., Hobbs, NM 88240

DISTRICT II
1501 W. Grand Avenue, Artesia NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

✓ AMENDED REPORT

API Number 30-015-25530	Pool Code 96100	Pool Name SWD; Delaware <i>CHERRY CANYON</i>
Property Code	Property Name PHILLIPS FEDERAL	Well Number 1
OGRID No 147179	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3014'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	1	26 S	29 E		327	SOUTH	2068'	EAST	EDDY

Bottom Hole Location If Different From Surface

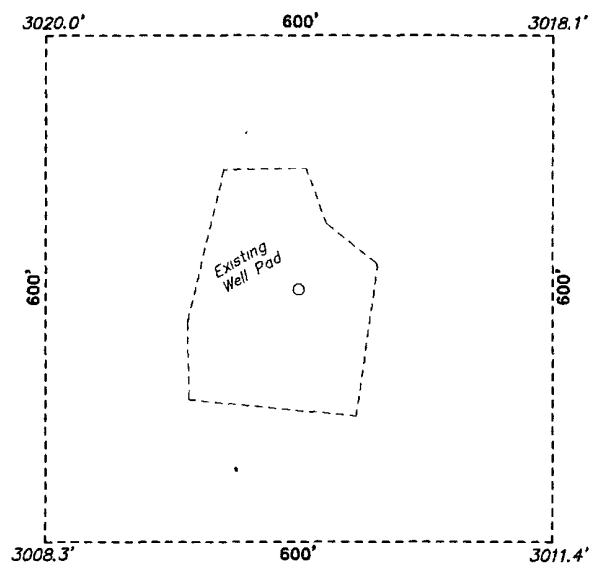
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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

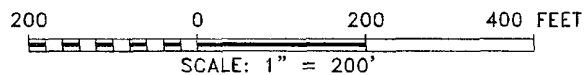
<p>SURFACE LOCATION Lat - N 32.06518071° Long - W 103.9359121° NAD83 - E 664448.759 (NAD-83)</p> <p>3020.0' 3018.1' 3011.4' 3011.4' 3020.0' 3011.4'</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Bryan Arrant</i> 3/9/2010 Signature Date</p> <p>Bryan Arrant Printed Name</p>
	<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>MADE BY: 2009 NEW MEXICO Professional Surveyor 7977 W. L. JONES Professional Surveyor</p>
	<p>Certificate No. Gary L. Jones 7977</p>
	<p>BASIN SURVEYS</p>

EXHIBIT A-1

SECTION 1, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



CHESAPEAKE OPERATING CO.
PHILLIPS FEDERAL #1
ELEV. - 3014'
Lat - N 32.06518071°
Long - W 103.9359121°
NMSPCE- N 387676 097
E 664448.759
(NAD-83)



CHESAPEAKE OPERATING CO.

REF. PHILLIPS FEDERAL #1 / WELL PAD TOPO

THE PHILLIPS FEDERAL #1 LOCATED 327'

FROM THE SOUTH LINE AND 2068' FROM THE EAST LINE OF

SECTION 1, TOWNSHIP 26 SOUTH, RANGE 29 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P O BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 22448

Drawn By. J. SMALL

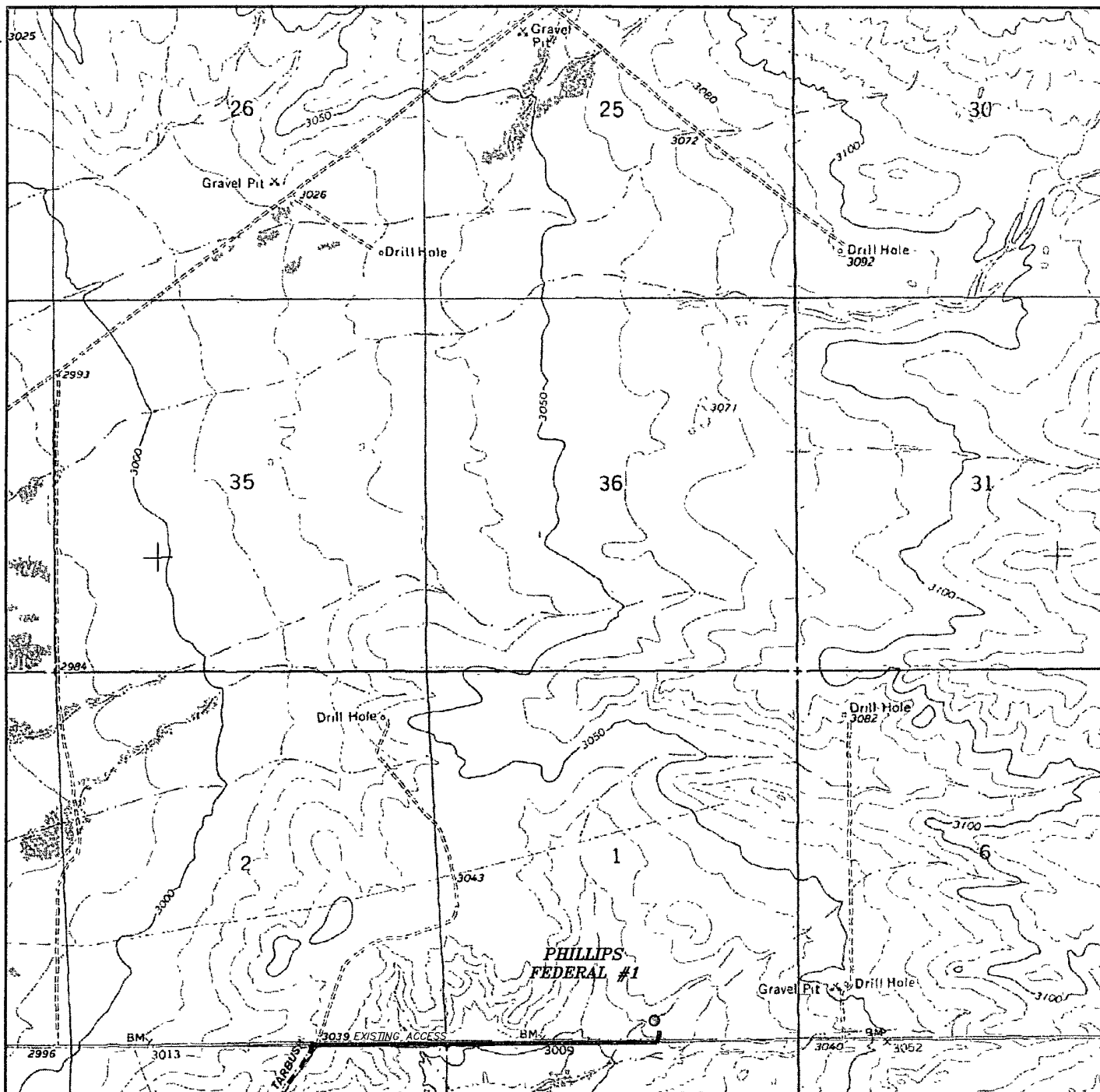
Date 03-10-2010

Disk. JMS 22448

Survey Date 03-03-2010

Sheet 1 of 1 Sheets

EXHIBIT A-2



PHILLIPS FEDERAL #1

Located 327' FSL and 2068' FEL
Section 1, Township 26 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



focused on excellence
in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number. JMS 22448

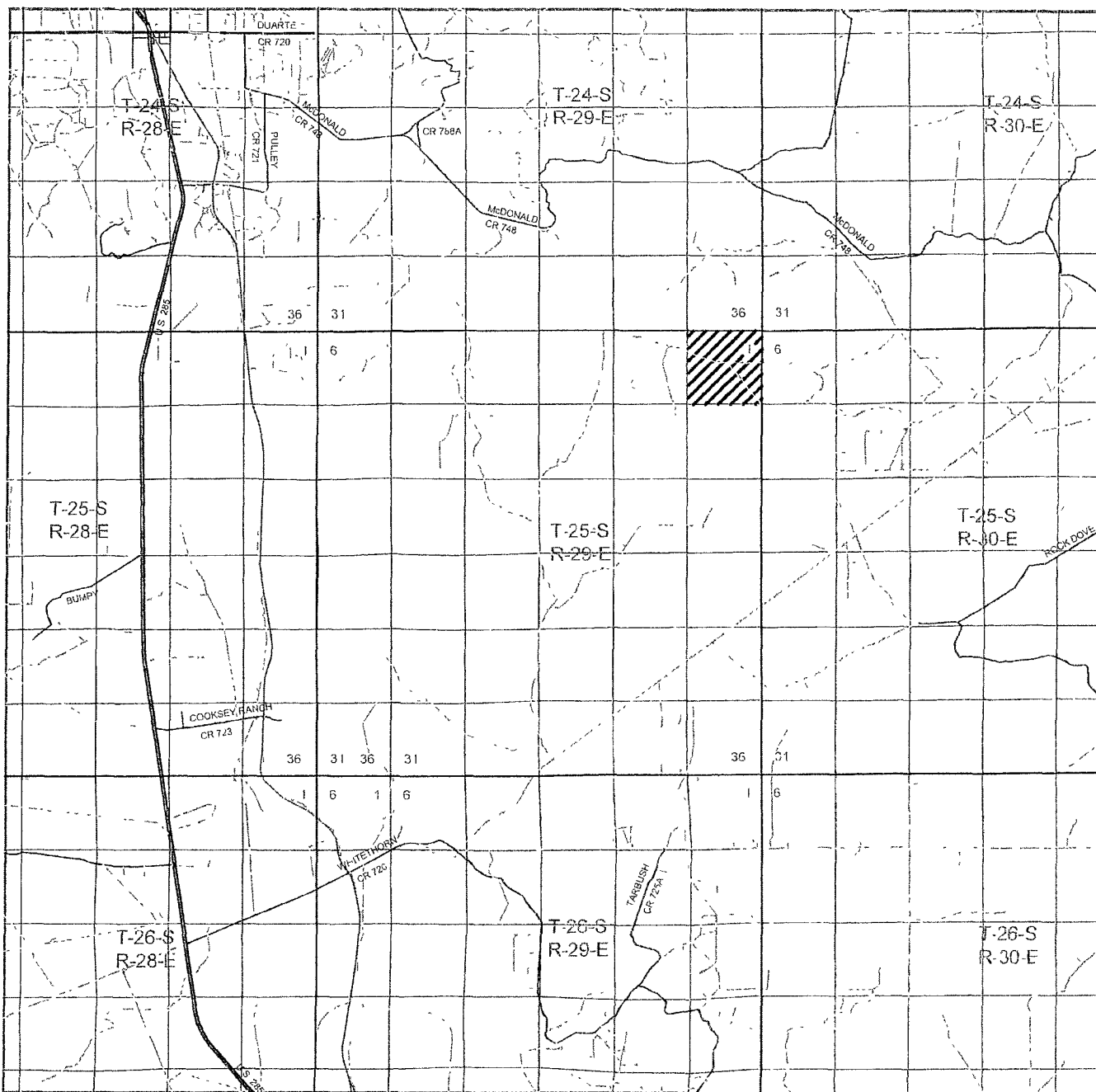
Survey Date: 03-03-2010

Scale: 1" = 2000'

Date: 03-10-2010

**CHESAPEAKE
OPERATING CO.**

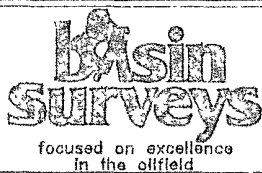
Access Rd Topo
EXHIBIT A-6



PHILLIPS FEDERAL #1

Located 327' FSL and 2068' FEL

Section 1, Township 26 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O Number JMS 22448

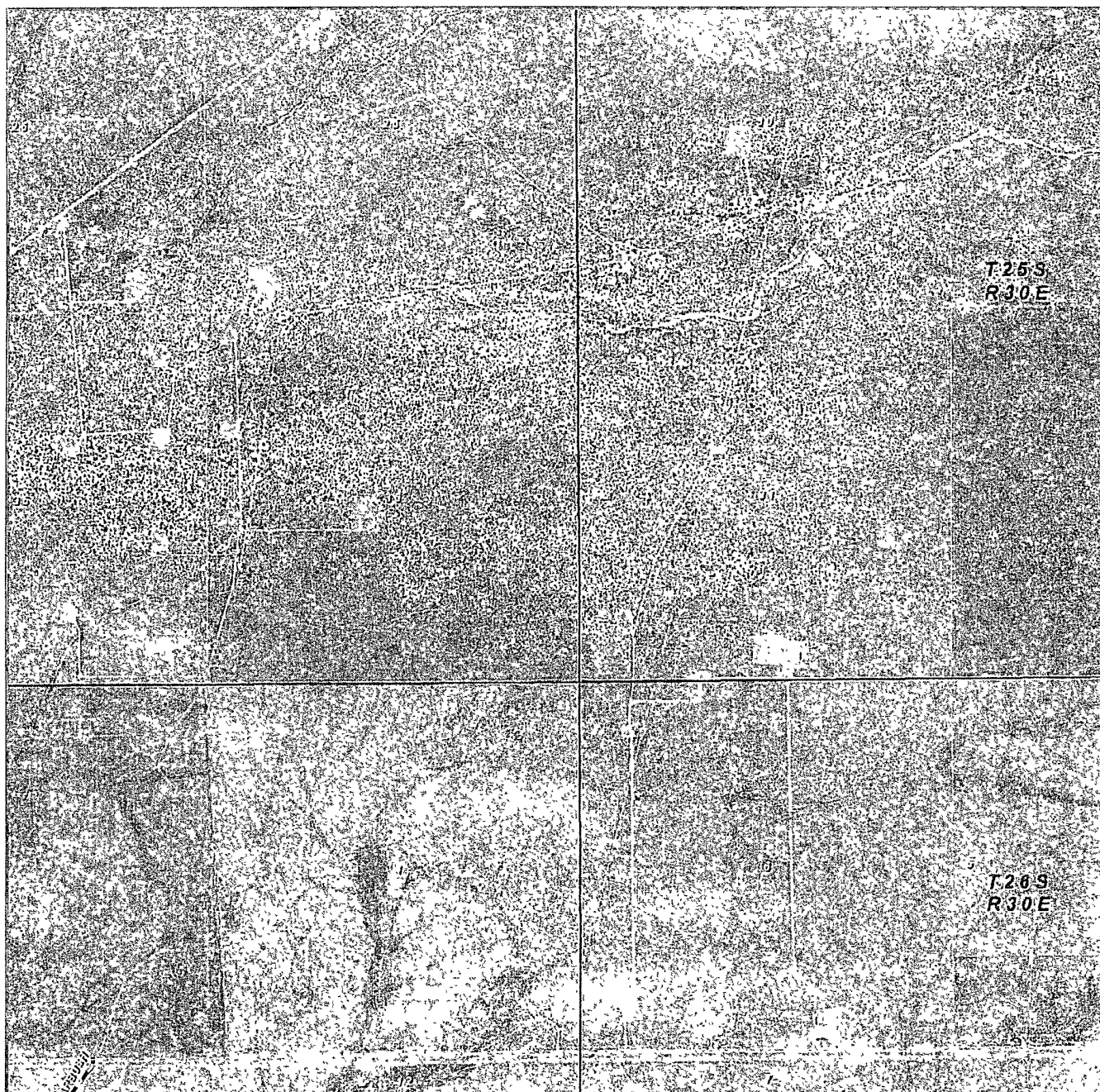
Survey Date: 03-03-2010

Scale 1" = 2 Miles

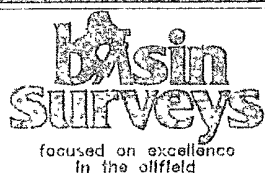
Date 03-10-2010

**CHESAPEAKE
OPERATING CO.**

EXHIBIT A-4



PHILLIPS FEDERAL #1
 Located 327' FSL and 2068' FEL
 Section 1, Township 26 South, Range '29 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basin-surveys.com

W.O. Number JMS 22448

Scale 1" = 2000'

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND

CHESAPEAKE
 OPERATING CO.

EXHIBIT A-5

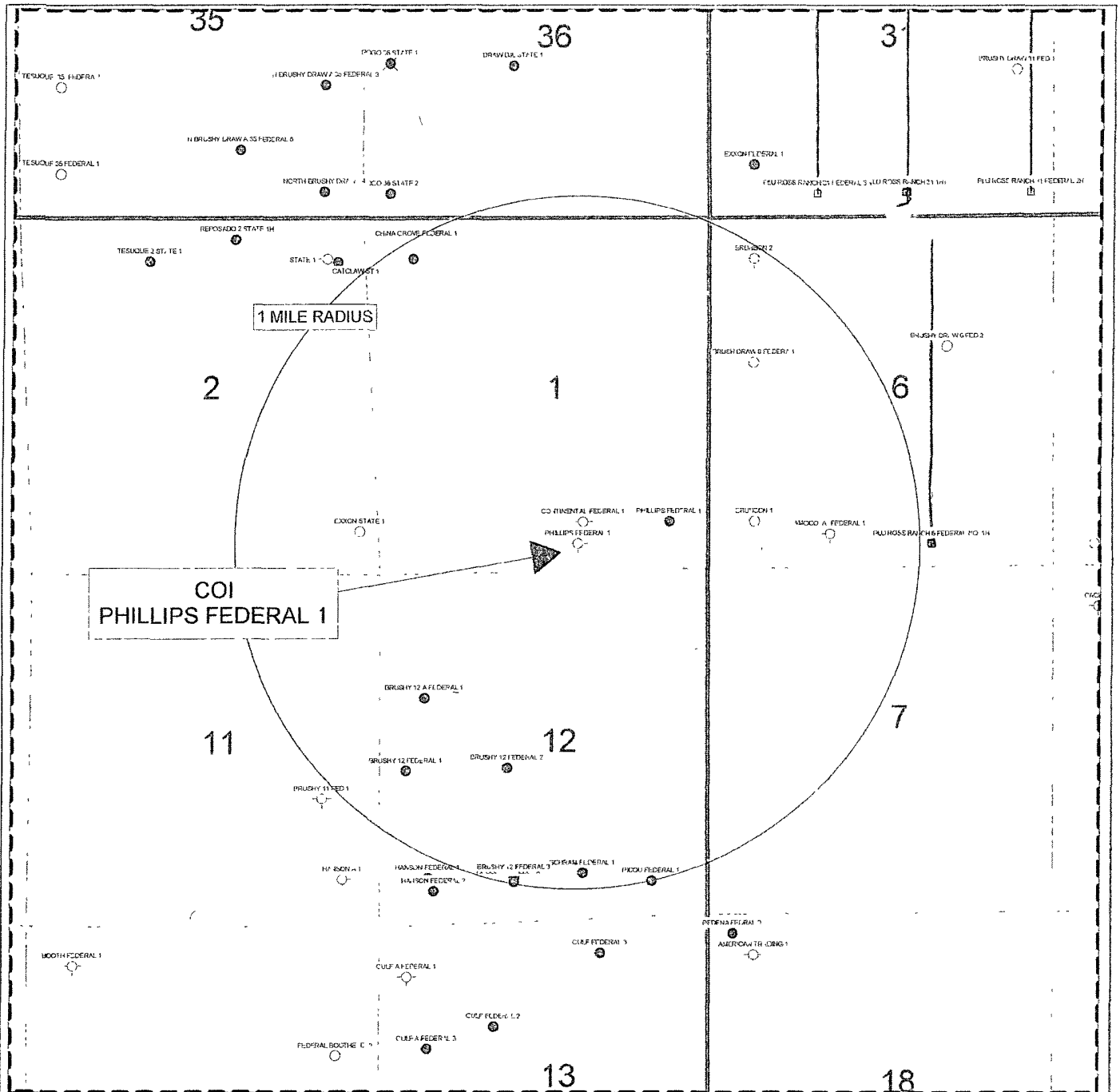

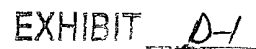
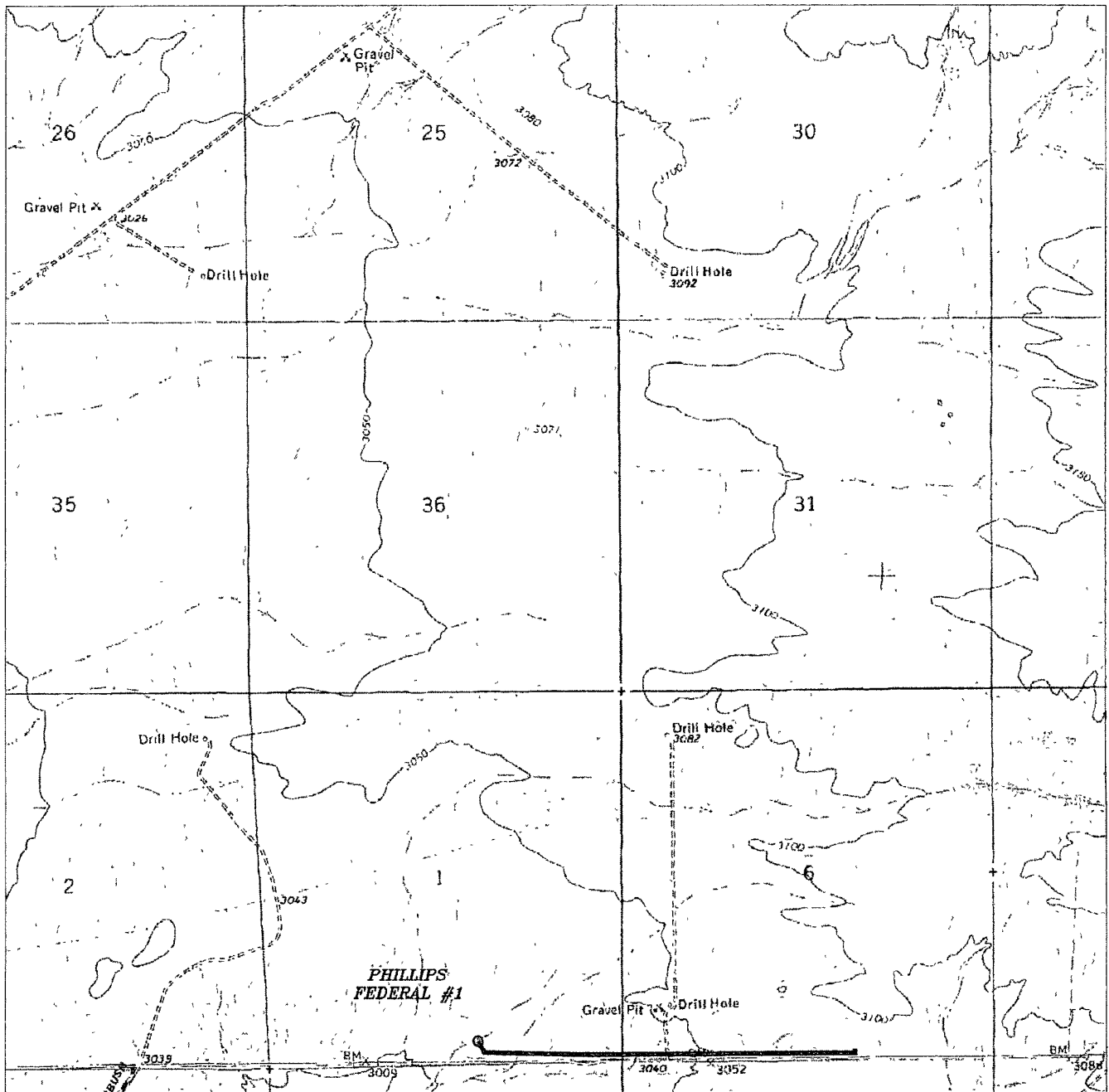


EXHIBIT B

	CHESAPEAKE OPERATING, INC.
<p align="center">Phillips Federal 1 9 Section Plat Eddy Co., NM</p>	
Date: 16 March, 2010	





PROPOSED FLOWLINE TO THE PHILLIPS FEDERAL #1
Section 1, Township 26 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basinsurveys.com

W.O. Number. KJG 22577

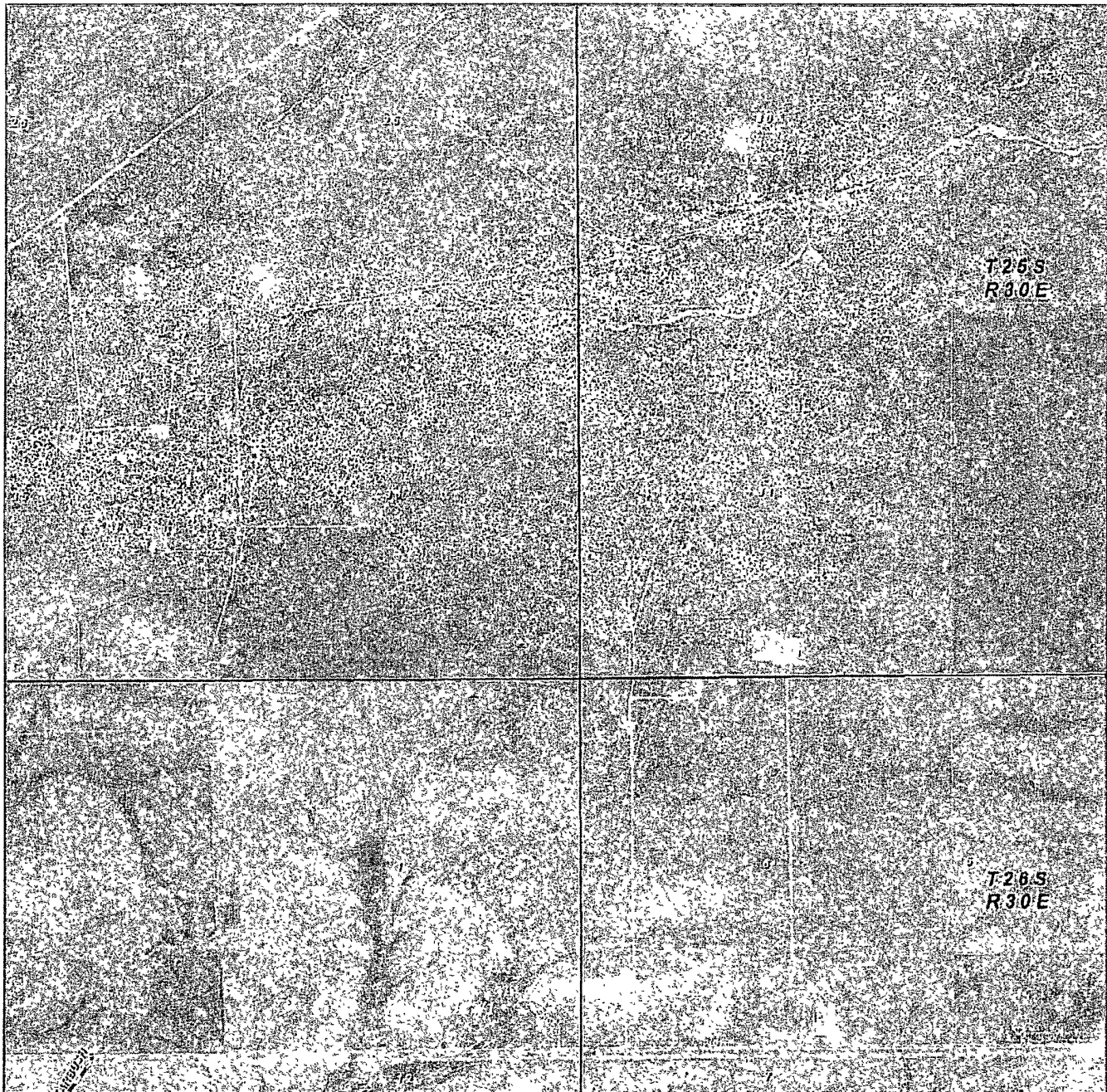
Survey Date. 03-31-2010

Scale: 1" = 2000'

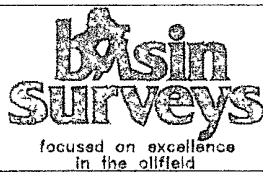
Date 04-06-2010

CHESAPEAKE
OPERATING CO.

EXHIBIT D-2



PHILLIPS FEDERAL #1
Located 327' FSL and 2068' FEL
Section 1, Township 26 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W O Number. JMS 22448

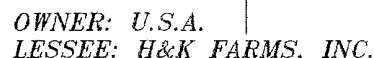
Scale 1" = 2000'

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

**CHESAPEAKE
OPERATING CO.**

EXHIBIT D-3

NEW MEXICO.



A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 6, TOWNSHIP 26 SOUTH, RANGE 30 EAST AND SECTION 1, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY

TOTAL 55591 FEET = 336.92 RODS = 1.05 MILES = 3.83 ACRES

GARY L JONES No 7977
No 5074

Survey Date	03-31-2010	Sheet	1	of	1	Sheets
-------------	------------	-------	---	----	---	--------

EXHIBIT D-4

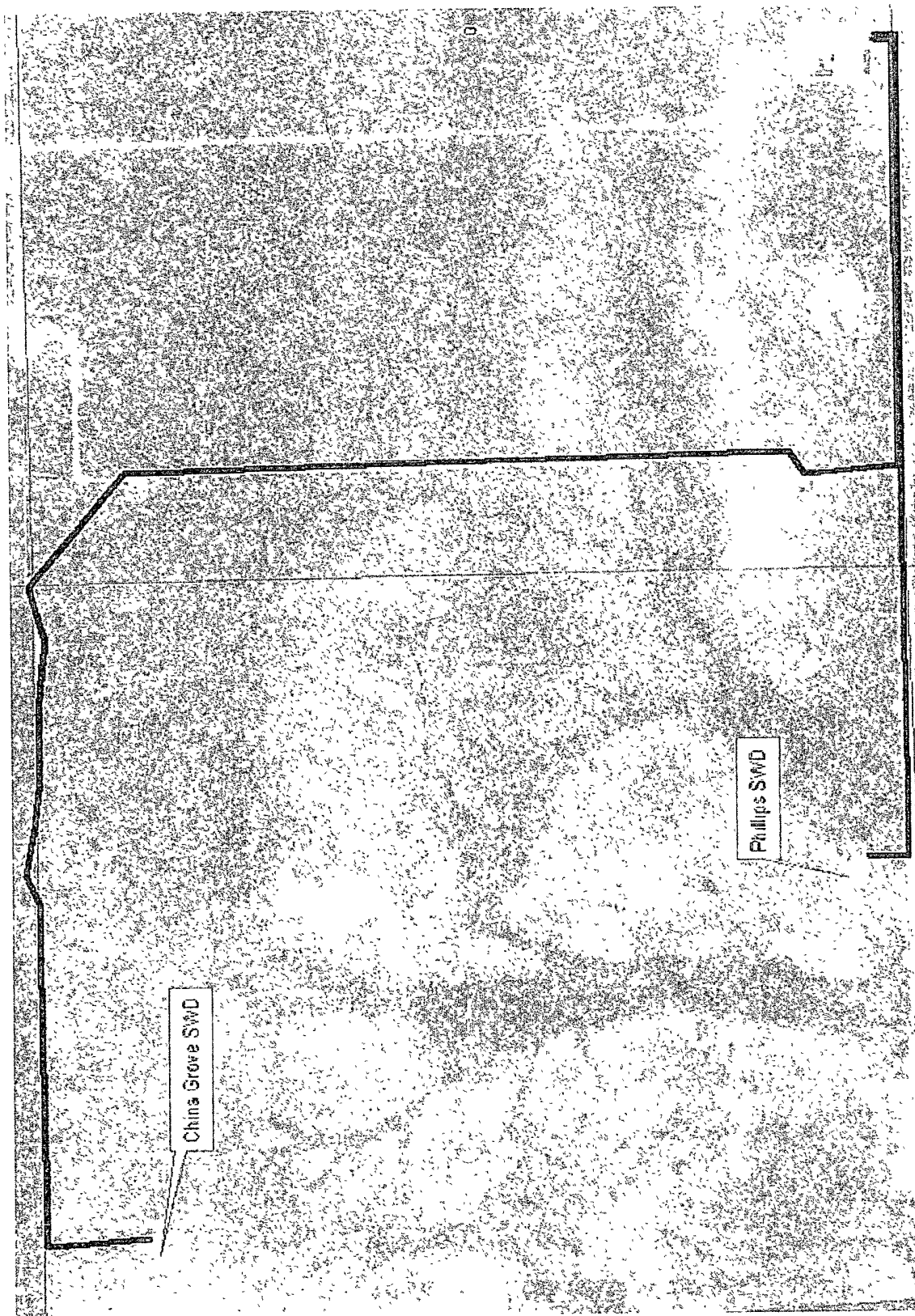


EXHIBIT D-6

ONSHORE OIL & GAS ORDER NO 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (CFR 43, Part 3160) and the approved Application for Permit to Drill or Re-enter. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling and completion operations.

Approval of this application 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.

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

Formation	MD	SUB-SEA
RUSTLER	771'	2252'
SALADO	947'	2076'
CASTILLE	1567'	1456'
BASE OF SALT	3256'	-233'
BELL CANYON	3306'	-283'
CHERRY CANYON	4114'	-1091'
BRUSHY CANYON	5412'	-2389'

2. ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS

The estimated depths at which the top and bottom of the anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Oil/Gas	Bell Canyon	3,306'
Oil/Gas	Brushy Canyon	5,411'

All shows of fresh water and minerals will be reported and protected.

3. Estimated Top of Cement is @ 3030'.

**Phillips Fed 1
Eddy County, New Mexico
Re-enter and Convert to SWD Procedure**

Date: August 4, 2010

Location: 330' FSL & 2063' FEL Sec. 1-T26S-R29E

Casing: 8 5/8" 24# & 32# K-55 0-3,155' ID – 7.921', Drift – 7.796', Burst – 2,950 psi
5 1/2" 17# J-55 3,023'-5,650' ID – 4.892", Drift – 4.767", Burst – 5,320 psi

PBTD/TD: 0'/5,650'

Current Perfs: Bell Canyon 3,315-3,357' (below CIBP)
Brushy Canyon 5,324-5,392' (below CIBP)

Propose Perfs: Cherry Canyon 4220-5150'

Recommended Procedure:

1. Dig out casing and secure casing stub. MIRU PU. NU BOP. Unload, rack and tally 2 7/8" work string.
2. RIH w/ 7 5/8" bit and drill collars on tbg. Drill out cement plugs to 5 1/2" casing stub @ 3,023'. POH w/ bit.
3. RIH w/ 5 1/2" 15.5# J-55 casing with bell collar on bottom. Set bell collar down on top of casing stub. Cement 5 1/2" casing with 500 sxs Class C cement (mixed at 1.5 cu ft/sxs) bringing cement back to surface. WOC.
4. RIH w/ 4 3/4" bit. Drill out cement at casing splice and cement plugs inside 5 1/2" and CIBP @ 3,280'. Clean out to 5,000' but do not drill out CIBP @ 5,000'. POH w/ bit.
5. RIH w/ packer on 2 7/8" tbg to 3,400', just below perfs 3,315-57'. Set packer and pressure test squeeze holes at 4,000' and CIBP. Pull packer to 3,200' just above perfs. Establish injection rate into perfs. POH w/ packer.
6. RIH w/ CI cement retainer on 2 7/8" tbg. Set retainer @ 3,200'. Shear off of retainer and sting back into it. Establish injection rate into perfs. Squeeze perfs per cement recommendation. Sting out of retainer, circulate clean, POH w/ stinger.
7. RIH w/ 4 3/4" bit. Drill out retainer and squeeze. Pressure test squeeze to 500 psi. Continue in hole and drill out CIBP @ 5,000'. Clean out to old PBTD of 5,649'. POH w/ bit.
8. RU wireline co. Set CIBP @ 5,300' and dump bail 35' of cement on top of plug. Perforate Cherry Canyon 5095-5150', 1 spf w/ HSC gun.
9. RIH w/ packer on 2 7/8" tbg to 5,000'. Acidize perfs 5095-5150' w/ 5,000 gal 15% NEFE acid dropping 75 perf balls evenly throughout job. Release packer and drop down through perfs and wipe balls off. Pull packer back up 5,000'. Frac perfs per frac recommendation (anticipate 50,000# sand in X-linked fluid at 30 BPM). POH w/ packer.

10. RU wireline co. Set Composite BP @ 5,000'. Perforate Cherry Canyon 4525-75', 4675-4730', 1 spf w/ HSC gun.
11. RIH w/ packer on 2 7/8" tbg to 4,400'. Acidize perfs 4525-4730' w/ 5,000 gal 15% NEFE acid dropping 150 perf balls evenly throughout job. Release packer and drop down through perfs and wipe balls off. Pull packer back up 4,400'. Frac perfs per frac recommendation (anticipate 50,000# sand in X-linked fluid at 30 BPM). POH w/ packer.
12. RU wireline co. Set Composite BP @ 4,400'. Perforate Cherry Canyon 4220-75', 4290-4,320' 1 spf w/ HSC gun.
13. RIH w/ packer on 2 7/8" tbg to 4,100'. Acidize perfs 4220-4320' w/ 5,000 gal 15% NEFE acid dropping 150 perf balls evenly throughout job. Release packer and drop down through perfs and wipe balls off. Pull packer back up 4,100'. Frac perfs per frac recommendation (anticipate 50,000# sand in X-linked fluid at 30 BPM). POH w/ packer.
14. RIH w/ 4 3/4" bit and drill collars on tubing. Drill BP's @ 4,400' and 5,000'. Cleanout to PBTD. POH w/ bit laying down 2 7/8" workstring.
15. RIH w/ 2 3/8" plastic lined tbg and 5 1/2" Lock-set packer to 4,200'. Load back side with packer fluid. Set packer and pressure test to 500 psi.
16. ND BOP. NU WH. Rig down.

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Phillips Federal 1
327' FSL & 2068' FEL,
Section 11-26S-29E
EDDY County, New Mexico

CONFIDENTIAL - TIGHT HOLE
Lease No. NMNM 23765

RE-ENTRY PLAN

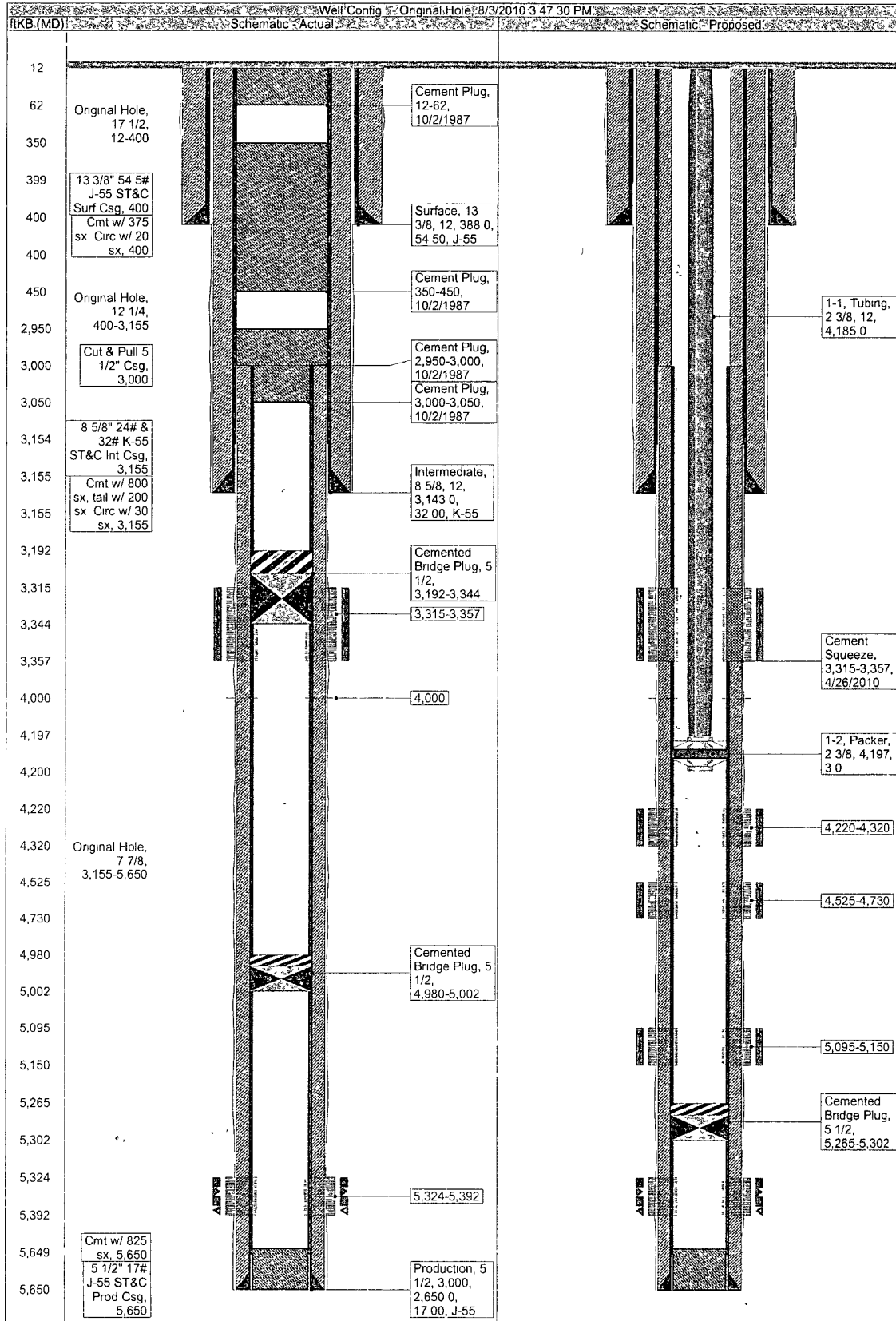
Page 3

12. RIH w/ 2 3/8" plastic lined tbg and 4 1/2" Lock-set packer to 4,200'.
Load back side with packer fluid. Set packer and pressure test to 500 psi.
 13. ND BOP. NU WH. Rig down.
6. We plan to drill out the CIBP's with salt water. *Mud weight 8.4 #/gal per operator*
7. BOP EQUIPMENT: *2000 Per Operator CRW*
Will have a ~~3000~~ *2000* psi rig stack (see proposed schematic, Exhibit F) for drill out; this system will be tested to ~~3000~~ *2000* psi working pressure.
8. Choke Manifold:
None.
- A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill
9. ABNORMAL PRESSURES AND HYDROGEN SULFIDE
- a. The estimated bottom hole pressure is 2500 No abnormal pressures or temperatures are anticipated.
 - b. Hydrogen sulfide gas is not anticipated.

WORKOVER PROPOSAL WBD

WELL: Phillips Fed 1
 FIELD: BRUSHY DRAW DELAWARE
 COUNTY / STATE: EDDY / NEW MEXICO
 LOCATION: SEC 1-26S-29E, 330 FSL & 2063 FEL
 ELEVATION: 3,011.00 GR 3,023.00 RKB

API: 30-015-25530
 SPUD DATE: 1/6/1986



CHESAPEAKE OPERATING, INC.



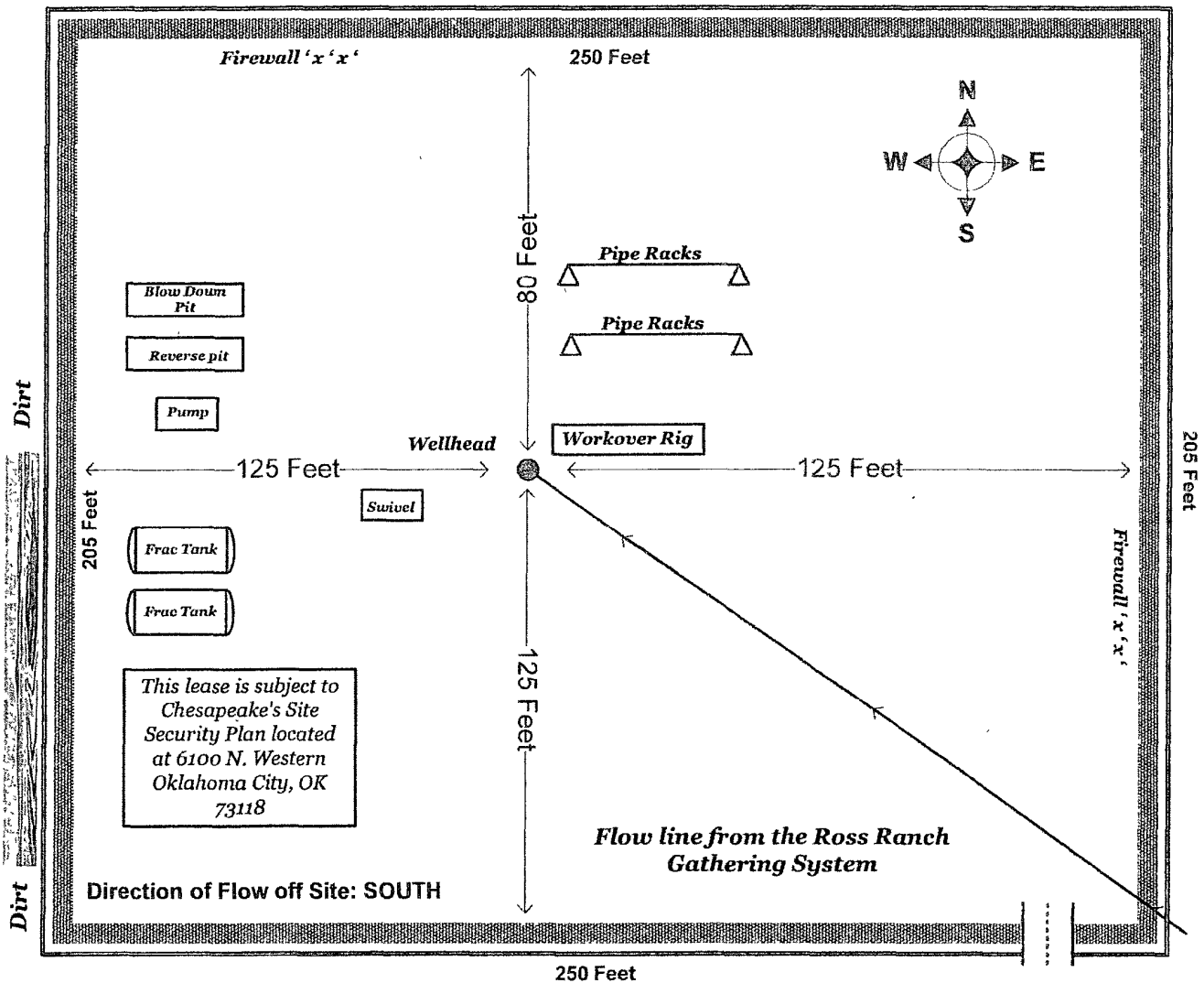
Phillips Federal #1

Lat: N 32.06518071 – Long.: W 103.9359121

S01/T26S/R29E – 327 FSL & 2068 FEL

Eddy Co., New Mexico

****Note: no top soil from the north half of the pad will be stockpiled due to salt contaminants and reserve pit ****



Prepared by: Jackie Reynolds
Date: 5-10-2010

Approved by:
Date:

EXHIBIT C

CHESAPEAKE OPERATING, INC.



Phillips Federal #1

Lat: N 32.06518071 – Long.: W 103.9359121

S01/T26S/R29E – 327 FSL & 2068 FEL

Eddy Co., New Mexico

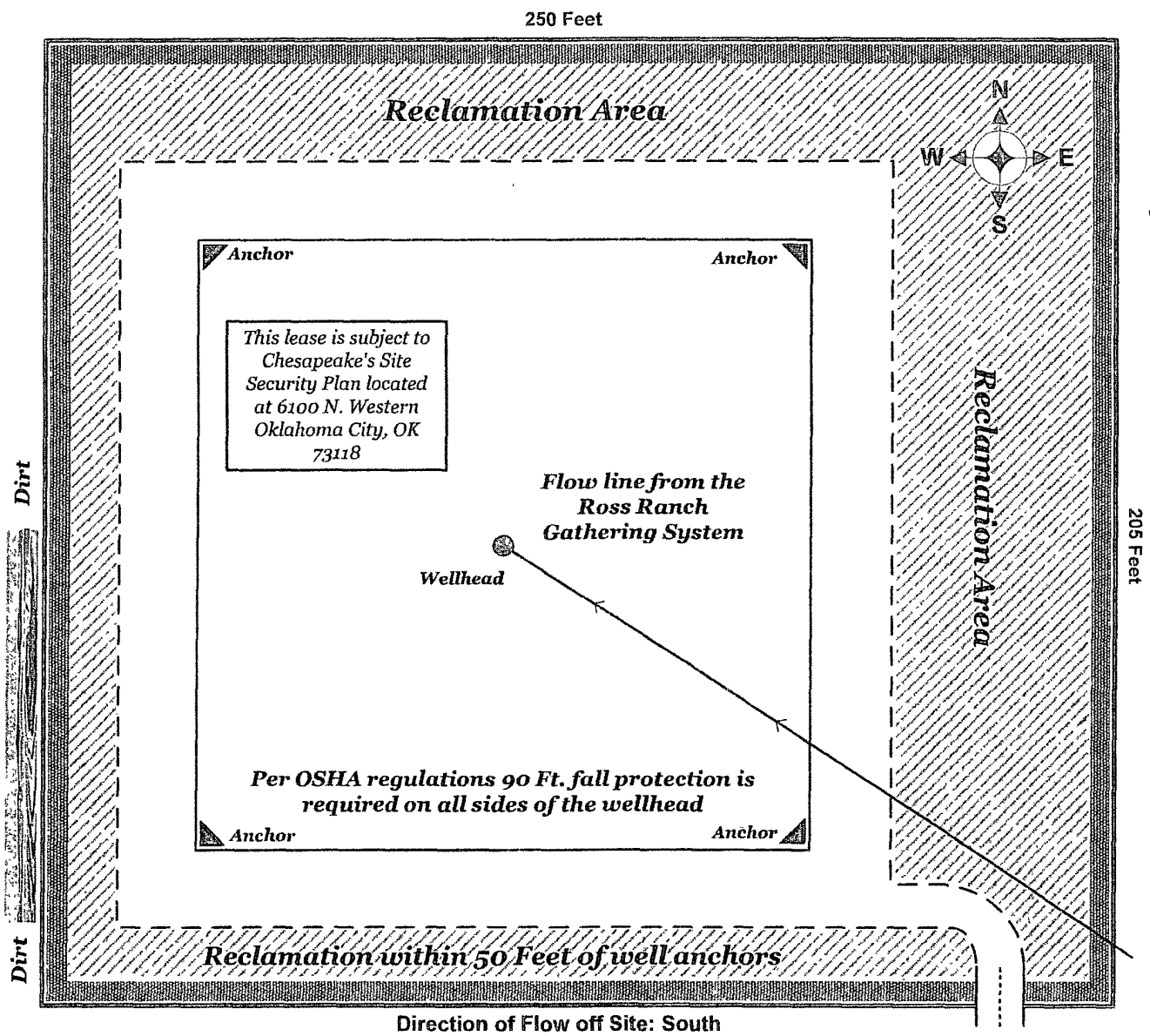


EXHIBIT G

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL Phillips Federal 1

RIG :

COUNTY : Eddy

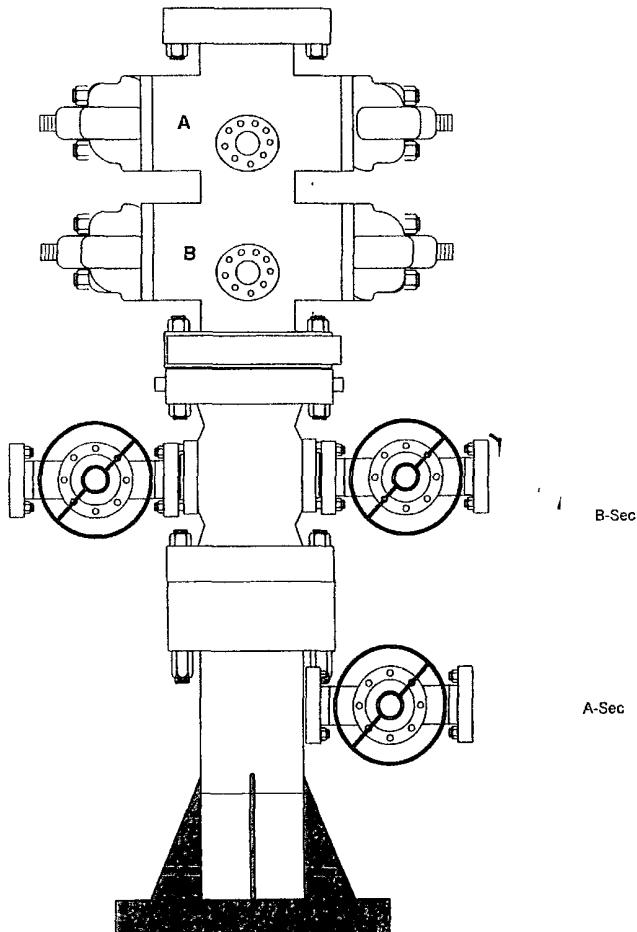
STATE: New Mexico

OPERATION: Re-entry to convert well to Salt Water Disposal

SIZE PRESSURE DESCRIPTION

A	7-1/16"	3000 psi	Pipe Ram
B	7-1/16"	3000 psi	Pipe Ram
B-sec		11" 3M x 7-1-16" 5M	
A-Sec		8-5/8" SOW x 11 x 3M	

2M



ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

1. EXISTING ROADS

- a. Existing county and lease roads will be used to enter proposed access road.
- b. Location, access, road route to nearest county road and vicinity plats attached hereto. See Exhibits A-1 to A-6.

2. EXISTING ACCESS ROAD

- a. An existing access road 285' in length and 14' in travel way width with a maximum disturbance area of 30' will be used, and in accordance with guidelines set forth in the BLM Onshore Orders. No turnouts are expected.
- b. In order to level the location, cut and fill will be required. Please see attached Well Location and Acreage Dedication Plat – Exhibits A-1 to A-6.
- c. A locking gate will be installed at the site entrance.
- d. Any fences cut will be repaired. Cattle guards will be installed, if needed.
- e. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
- f. Corrected driving directions:
From Hwy 285 & Whitehorn road (aka Longhorn rd), follow Whitehorn to the east 9.0 miles to Tarbush rd, follow north for 2.3 miles to pipeline rd, follow east for 0.9 miles to proposed lease road on north side of road.
- g. Chesapeake will build and maintain proposed lease road and use and improve (as necessary) the existing pipeline road from the county road to the proposed lease road. Improvements to pipeline road may include, but is not limited to: patch, blade, water, and roll (compact) road as necessary to accommodate daily operations on the proposed site.

3. LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION – see Exhibit B.

4. LOCATION OF FACILITIES & WORK OVER RIG – Exhibit C

Starting at the Ross Ranch 6 Federal 1H, Flow and Pressure well be monitored at the pump on Ross Ranch 6 Federal 1H, and at injection wells, via Flow Rate Meters, and Pressure Transducers.

Flow and or Pressure differential will be transmitted via radio from the injection wells back to Ross Ranch 6 Federal 1H.

If a Flow or Pressure differential occurs between the Pump or Injection wells the PLC controlling the Pump will receive this differential from the radio's, and Shut down the pump, and Shut-in the main valve. – See Exhibits D-1 to D-6.

Injection line will be 2 7/8 plastic coated tubing, will be buried 3' in the ground and pressure will be 2000 psi.

5. ROW

A right-of-way will be required for the buried pipeline route to the Ross Ranch 6 Fed 1H water gathering system (See Exhibit D-1 to D-6) and for the road route to the nearest county road – See Exhibit A-6.

6. LOCATION AND TYPE OF WATER SUPPLY

Water will be obtained from a private water source. Chesapeake Operating, Inc. will ensure all proper notifications and filings are made with the state.

7. CONSTRUCTION MATERIALS

No construction materials will be used from Section 1-26S-29E. All material (i.e. shale) will be acquired from private or commercial sources.

8. METHODS FOR HANDLING WASTE DISPOSAL

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill.

We will have portables placed on location which will be hauled to sewage.

9. ANCILLARY FACILITIES
None

10. PLANS FOR RECLAMATION OF THE SURFACE

The location will be restored to as near as original condition as possible. Reclamation of the surface shall be done in strict compliance with the existing New Mexico Oil Conservation Division regulations.

Backfilling leveling, and contouring are planned as soon as the workover rig and steel tanks are removed. Wastes and spoils materials will be hauled to disposal immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible. The rehabilitation will begin after the workover rig is removed.

11. SURFACE & MINERAL OWNERSHIP

United States of America
Department of Interior
Bureau of Land Management

GRAZING LESSEE

Byron Paschal
P.O. Box 992
Pecos, TX 79772

(Chesapeake Operating, Inc. has an agreement with the grazing lessee)

12. ADDITIONAL INFORMATION

A Class III cultural resource inventory report was prepared by Boone Archaeological Services, Carlsbad, New Mexico for the proposed location. A copy of the report has been sent to the BLM office under separate cover. See Exhibit E.

An Archeological Survey was also done for the flow line route. – See Exhibit F.

Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Phillips Federal 1
327' FSL & 2068' FEL,
Section 1-26S-29E
Eddy County, NM

CONFIDENTIAL – TIGHT HOLE

Lease No. NMNM 23765

REVISED -- SURFACE USE PLAN
Page 4

13. OPERATOR'S REPRESENTATIVES

District Manager

Rob Jones
P.O. Box 18496
Oklahoma City, OK 73154
405-935-2694 (Office)
405-623-5880 (Cell)
rob.jones@chk.com

Sr. Asset Manager

Jeff Finnell
P.O. Box 14896
Oklahoma City, OK 73154
405-935-4347 (Office)
405-919-3305 (Cell)
jeff.finnell@chk.com

Sr. Field Representative

Bud Cravey
2010 Rankin Hwy
Midland, TX
432-687-2992, x 86151 (Office)
432-575-238-7293 (Cell)
bud.cravey@chk.com

Sr. Reg. Compliance Specialist

Linda Good
P.O. Box 18496
Oklahoma City, OK 73154
405-935-4275 (Office)
405-849-4275 (Fax)
linda.good@chk.com

Sr. Geologist

Robert Martin
P.O. Box 18496
Oklahoma City, OK 73154
405-935-4985 (Office)
405-849-4985 (Cell)
robert.martin@chk.com

Geoscience Coordinator

David Godsey
P.O. Box 14896
Oklahoma City, OK 73154
405-935-7995 (Office)
405-618-0474 (Cell)
david.godsey@chk.com

District Land Coordinator

Craig Barnard
P.O. Box 18496
Oklahoma City, OK 73154
405-879-8401 (Office)
craig.barnard@chk.com

Landman

Justin Zerkle
P.O. Box 18496
Oklahoma City, OK 73154
405-767-4925 Office
justin.zerkle@chk.com

ONSHORE ORDER NO. 1
Chesapeake Operating, Inc.
Phillips Federal 1
327' FSL & 2068' FEL,
Section 11-26S-29E
EDDY County, New Mexico

CONFIDENTIAL – TIGHT HOLE
Lease No. NMNM 23765

OPERATOR CERTIFICATION

CERTIFICATION

I hereby 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 this APD package are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed 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 a false statement.

Executed this 12 day of May, 2010

Name: 
Bud Cravey, Sr. Field Representative

Address: 2010 Rankin Highway, Midland, TX 79701

Telephone: 432-238-7293

E-mail: bud.cravey@chk.com

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHESAPEAKE OPERATING
LEASE NO.:	NM23765
WELL NAME & NO.:	1-PHILLIPS SWD FEDERAL
SURFACE HOLE FOOTAGE:	0327' FNL & 2068' FEL
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 1, T. 26 S., R 29 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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☒ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Water Quality
 - Fence Requirement
 - Cave/Karst
- ☒ **Construction**
 - Notification
 - Topsoil
 - Exclude Reserve Pit Soil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - CIT requirement
 - Waste Material and Fluids
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

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.

Bureau of Land Management, Carlsbad Field Office

620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

Conditions of Approval

Historic properties in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

Date of Issue: 7/9/2010

BLM Report No.: 10-NM-523-346

Project Name:

1. Professional archaeological monitoring. Contact your project archaeologist

These stipulations must be given to your monitor at least 5 days prior to the start of construction.

No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.

2. The archaeological monitor

Observe **all** construction activities within 100 feet of cultural site no. LA 147416.

Ensure that all activities, construction, vehicles, equipment, and personnel remain outside of LA 147416.

Other:

Site Protection and Employee Education: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

For assistance, contact BLM Cultural Resources:

Bruce Boeke

(575) 234-5917

Martin Stein

(575) 234-5967

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)

Water Quality:

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.
- Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion.

Buried Pipeline COAs Only:

- A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, siting valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Fence Requirement:

Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Cave/Karst

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides will be bermed.

Tank Battery Liners and Berms:

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

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. 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 thirty (30) 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

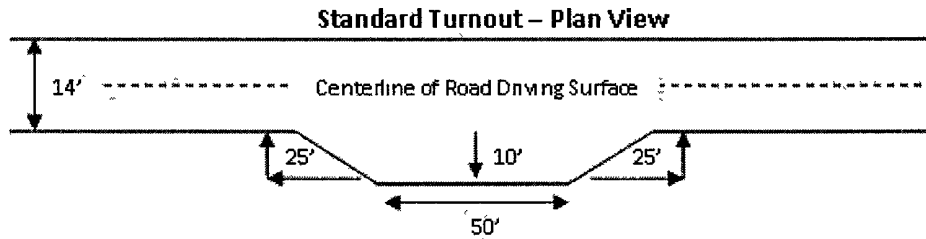
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

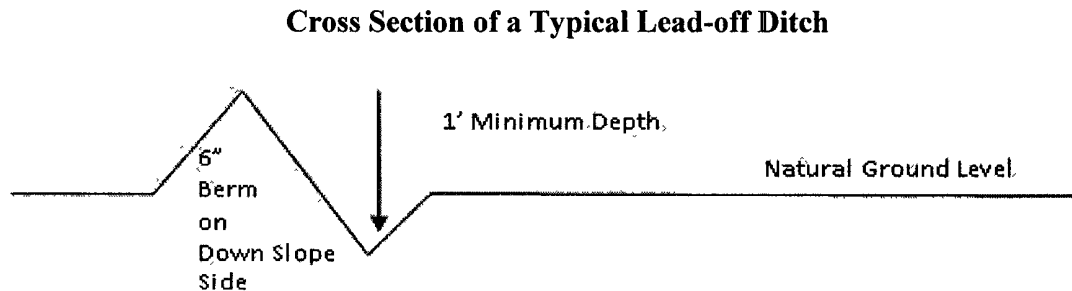
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



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.



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:

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

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

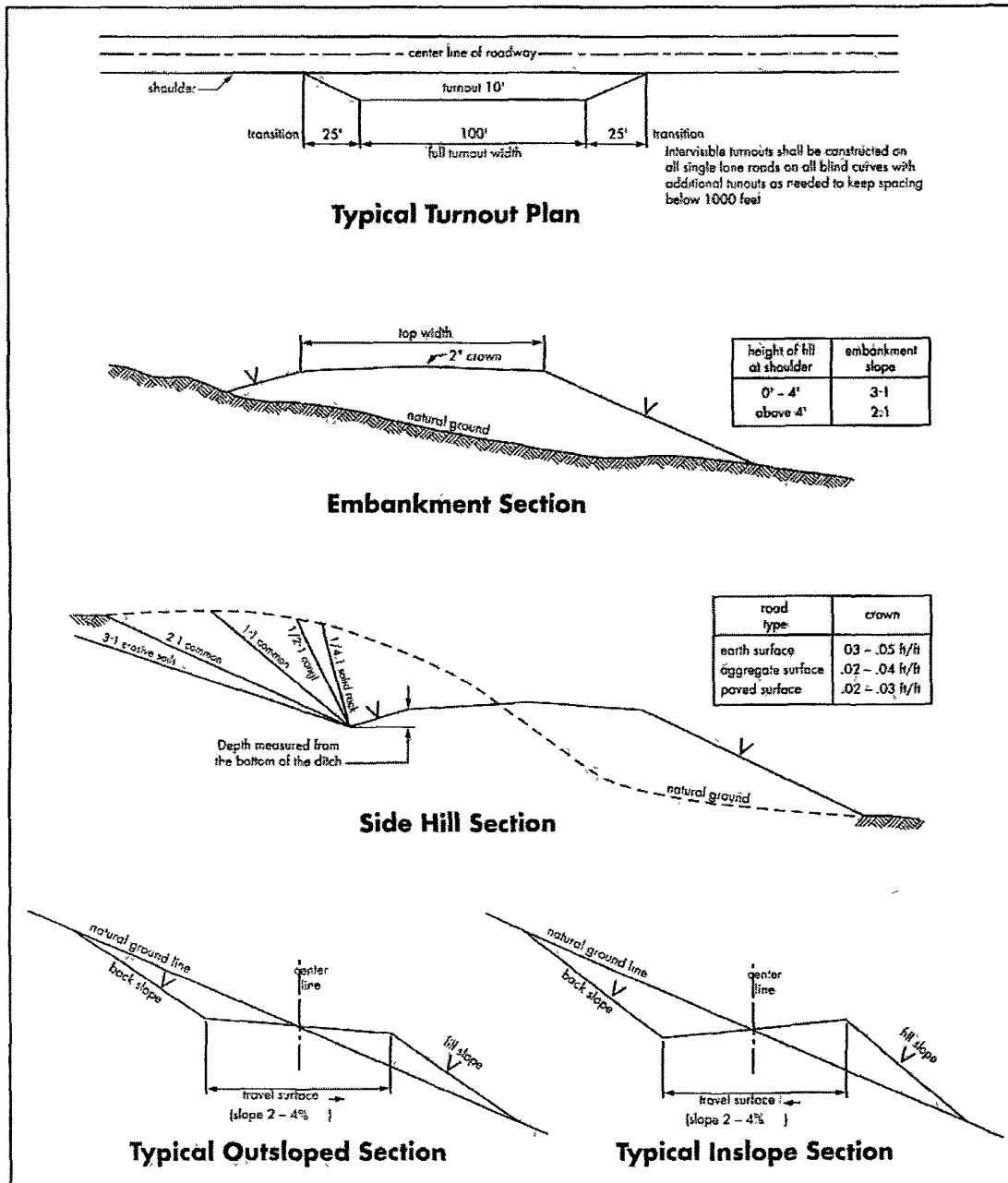
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

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

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

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

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts 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. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING – Re-entry

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

1. The 13-3/8" surface casing is set at 400 feet with cement circulated to surface.
2. The 8-5/8" intermediate casing is set at 3,155 feet cement circulated to surface.
3. The 5-1/2" production casing was set at 5,650 feet, when the well was plugged the casing was cut and pulled at 3,000 feet.
4. The minimum required fill of cement behind the 5-1/2 inch production casing is:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

A CIT is to be performed on the 5-1/2" production casing, after the tie back to surface, per Onshore Oil and Gas Order 2.III.B.1.h. Test pressure to be 1,500 psi.

5. 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 RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below bridge plug set at 3,344' shall be **2000 (2M)** psi.
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 or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.

- 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 (18 hours) or potash (24 hours) prior to initiating the test.
- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.**
- e. 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.

D. DRILL STEM TEST

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

E. WELL COMPLETION

A NOI sundry with the procedure to complete this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion will allow the operator to restrict the injection fluid to the approved formation.

F. 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.

CRW 081310

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.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

A copy of the APD 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. Blading of all vegetation in the right-of-way will not be allowed. Blading is defined as the complete removal of brush and ground vegetation. Clearing of brush species will be allowed. Clearing 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. In areas where clearing is allowed, maximum width of these operations will not exceed **30** feet. Blading is only allowed within the width of the pipeline trench.

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 4-6 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.

<input type="checkbox"/> seed mixture 1	<input checked="" type="checkbox"/> seed mixture 3
<input type="checkbox"/> seed mixture 2	<input type="checkbox"/> seed mixture 4

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.

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).

Seed Mixture 3, for Shallow Sites

The 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 will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will 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). The 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. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria magrostachya</i>)	1.0
Green Spangletop (<i>Leptochloa dubia</i>)	2.0
Side oats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

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