FORM APPROVED Form 3160-3 OMB No 1004-0137 Expires July 31, 2010 (August 2007) UNITED STATES Lease Serial No. DEPARTMENT OF THE INTERIOR NM-14218 BUREAU OF LAND MANAGEMENT 6. If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER N/A 7 If Unit or CA Agreement, Name and No. **✓** DRILL REENTER la Type of work 8. Lease Name and Well No. ✓ Oil Well Gas Well Single Zone Multiple Zone Name of Operator CHEVRON U.S.A. INC. 30-025-3b Phone No. (include 3a. Address 15 SMITH ROAD, MIDLAND, TX 79705 432-687-7375 LNGL MATTIX 7 RVR QN GRAYBURG 11. Sec., T R M. or Blk. and Survey or Area 4. Location of Well (Report location clearly and in accordance with any State requirements \*) At surface 1000' FNL, & 1650' FEL SEC 35, UL B, T-24-S, R-37-E At proposed prod. zone SAME 12 County or Parish 13 State 14 Distance in miles and direction from nearest town or post office LEA NM 17 Spacing Unit dedicated to this well Distance from proposed\* 16 No of acres in lease location to nearest 40 property or lease line, ft (Also to nearest drig unit line, if any) 20 BLM/BIA Bond No. on file 19 Proposed Depth 18 Distance from proposed location\* to nearest well, drilling, completed, 4300' CA0329 Nationwide Bond applied for, on this lease, ft Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 10 DAYS TO DRILL 3170' GL 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form: Well plat certified by a registered surveyor Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). √ 2 A Drilling Plan √3 A Surface Use Plan (if the location is on National Forest System Lands, the Operator certification SUPO must be filed with the appropriate Forest Service Office) Such other site specific information and/or plans as may be required by the 25 Signature Name (Printed/Typed) Denise Pinkerton 04/02/2008 Title Regulatory Specialist Approved by (Signature) Name (Printed/Typed) MAY 0 5 2008 /s/ Don Peterson Is/ Don Peterson Title FIELD MANAGER **CARLSBAD FIELD OFFICE** Application approval does not warrant or certify that the applicant holds legal or equitable little 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 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 any false, fictitious of fraudulent statements or representations as to any matter within its jurisdiction (Continued on page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Capitan Controlled Water Basin

NSL-5825



MAY 0 6 2008

# OPERATOR - LANDOWNER AGREEMENT

Company: CHEVRON U.S.A. INC.

Proposed Well: C.C. FRISTOE B FEDERAL NCT-2 #30

Federal Lease No: NM 14218

This is to advise that Chevron U.S.A. Inc. has an agreement with:

EL PASO NATURAL GAS

8645 Railroad Dr.

EL PASO, TEXAS 79904

Contact: Ed Nichols 915-587-3699

The surface owner, concerning entry and surface restoration after completion of drilling operations at the above described well.

After abandonment of the well, all pits will be filled & leveled; all equipment and trash will be removed from well site. No other requirements were made concerning restoration of the well site.

04-02-2008

Denise Pinkerton Regulatory Specialist Chevron U.S.A. Inc. Midland, Texas 79705

Denise () in Ker ton

# Statement Accepting Responsibility for Operations

**Operator Name:** 

Chevron U.S.A. Inc.

Street or Box:

15 Smith Road

City, State:

Midland, Texas

Zip Code:

79705

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM 14218

Legal Description of Land: C.C. Fristoe B Federal NCT-2 #30

Unit Letter B, Section 35, T-24-S,R-37-E

1000' FNL, 1650' FEL Lea County, New Mexico

Formation(s) (if applicable): Langlie Mattix Seven Rivers Queen Grayburg

Bond Coverage (State if individually bonded or another's bond): Company Bond Nationwide Bond

BLM Bond File No.: CA 0329

Authorized Signature: Dynise Pin Kerton

Title:

Regulatory Specialist

Date:

04-02-2008

#### DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240

# State of New Mexico Energy, Minerals and Natural Resources Department

DISTRICT II

1301 W GRAND AVENUE, ARTESIA, NM 88210

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

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005 Submit to Appropriate District Office

Certificate No. GARY G. EIDSON

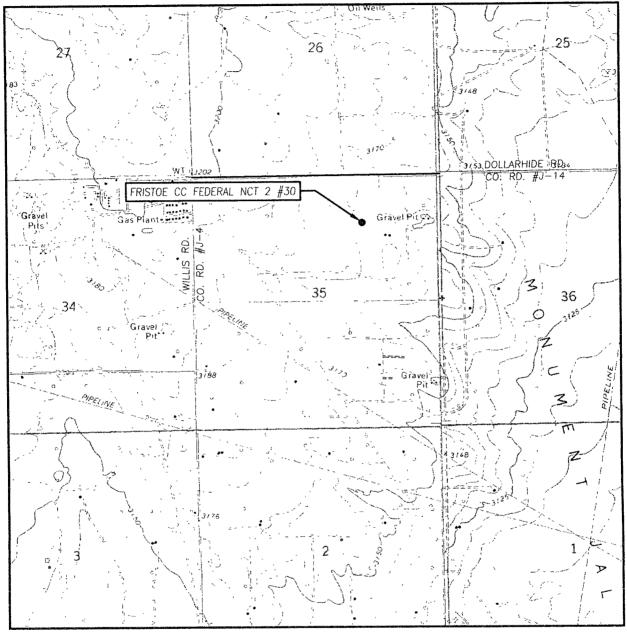
12641

RONALD J. EIDSON 3239

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT IV 1220 S. ST. FRANCIS DE	SANTAFE	NM 87505	WELL LO	CATION	I AND ACREA	AGE DEDICATI	ON PLAT	☐ AMENI	DED REPORT
30.02	umber		37	ool Code 240	Lan	glie Matti	X Neven Rive	45 Queen Bra	ylung
Property Co				PRICEC	Property Name	I NOT 2	•	Well Nu	
OGRID No	<u> </u>			FRISIC	Operator Name	L NCI 2		30 Eleval	
	323			CH	EVRON USA	INC.		317	
		I			Surface Location				
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	35	24-S	37-E		1000	NORTH	1650	EAST	LEA
		L	Bottom Hol	e Location	If Different From S	urface		<u></u>	
UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Deducated Acres	Joint of		Consolidation Code			SL-59 ntil all interes		ONSOLIDATED	
						APPROVED BY THE			
			GEODETIC C NAD 2  Y=4306 X=8723  LAT.=32.1 LONG.=103.	7 NME 848.9 N 810.7 E 78246° N	3.7' = 600' 317 ES	7.4' 1650'	I hereby certificamplete to the bethis organization in mineral interest in hole location or high pursuant to a common working interest, compulsory pooling a signature	PINKET HOP	s true and if, and that if and that or unlessed sed bottom this location timeral or ement or a or the division.
		Activity to the second					I hereby certif was plotted from or under my supe correct to the bes	AROH 12, 200,	on this plat nade by me

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10 FEET JAL NW, N.M.

SEC. 35 TWP. 24-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1000 FNL & 1650' FEL

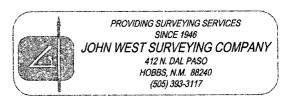
ELEVATION 3170'

OPERATOR CHEVRON USA INC.

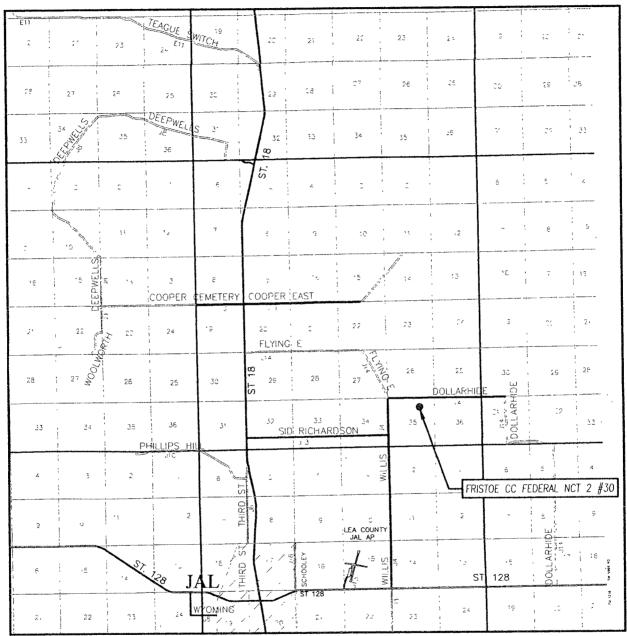
LEASE FRISTOE CC FEDERAL NCT 2

U.S.G.S. TOPOGRAPHIC MAP

JAL NW, N.M.



# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 35 TWP. 24-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1000' FNL & 1650' FEL

ELEVATION 3170'

OPERATOR CHEVRON USA INC.

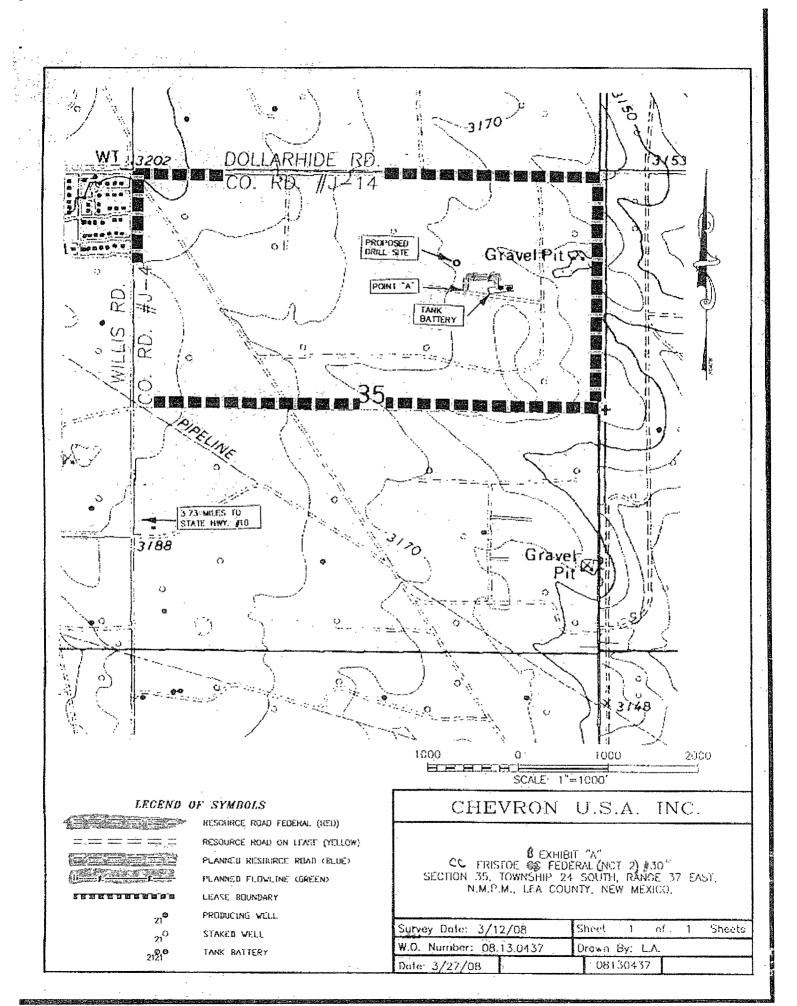
LEASE FRISTOE CC FEDERAL NCT 2



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117



SECTION 35, TOWNSHIP 24 SC	OUTH, RANGE 37 EAST, N.M.P.M.,
160'	NORTH
	FSET 69.2'
OFFSET  3171.2'  ELEV.  LAT.=32	DERAL NCT 2 #30 150' EAST  OFFSET  3168.5'  3170.1' .178274° N 3.130015° W
Of Office of the Control of the Cont	SOUTH FLOWLINE 70.7'
3173.7' •	3171.9'
DIRECTIONS TO LOCATION  FROM THE INTERSECTION OF WILLIS RD. (CO. RD. #J-4) AND DOLLARHIDE RD. (CO. RD. #J-14), GO EAST APPROX. 0.5  MILES ON DOLLARHIDE RD. TURN RIGHT  AND GO APPROX. 0.2 MILES SOUTH TO  LEASE RD. TURN LEFT AND GO APPROX. 0.1 MILE. THIS LOCATION IS 280 FEET  NORTH.	100 0 100 200 Feet  Scale:1"=100'  CHEVRON USA INC.  FRISTOE CC FEDERAL NCT 2 #30 WELL 1000 FEET FROM THE NORTH LINE AND
PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 393-3117	1000 FEET FROM THE NORTH LINE AND   1650 FEET FROM THE EAST LINE OF SECTION 35,   TOWNSHIP 24 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.     Survey Date: 10/4/07   Sheet 1 of 1 Sheets   W.O. Number: 07.11.1365   Dr. By: DSS   Rev. 1:3/12/08   Date: 10/13/07   07111365   Scale: 1"=100"



## <u>DRILLING PROGRAM</u> C.C.Fristoe Federal B NCT-2 #30

## 1. Geologic Name of Surface Formation

a. Tertiary Ogallala Formation

# 2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a.	Yates	2490'	Oil/Gas
b.	Seven Rivers	2710'	Oil/Gas
c.	Queen	3160'	Oil/Gas
d.	Grayburg	3440'	Oil/Gas
e.	San Andreas	3650'	Oil/Gas
f.	Total Depth	4300'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8-5/8" casing at 1015' and circulating cement back to surface. The productive intervals will be isolated by setting 5-1/2" casing to total depth and circulating cement to the surface.

# 3. Casing Program:

<u>Hole</u>	<u>Depth</u>	OD Csg	Weight	<u>Collar</u>	<u>Grade</u>	New/Used
<u>Size</u>						
11"	0'-1015'	8-5/8"	24#	ST&C	J-55	New
7-7/8"	0'-4300'	5-1/2"	15.5#	LT&C	K-55	New
Surface						

	Burst	Collapse	Tension
Req'd S.F.	1.2	0.85	1.8
Calc'd S.F.	5.6	2.9	1.9
Load	MASP, shoe w/ est. frac. at 11.5ppg, 10.0 ppg PP at next shoe f/ AGG.	Saltwater gradient = 8.8 ppg	Buoyed wt w/ 100,000 lbs over- pull.
Backup	Freshwater gradient = 8.3 ppg	Full Evacuation = 0 psi	n/a

Production

	Burst	Collapse	Tension
Req'd S.F.	1.1	0.85	1.8
Calc'd S.F.	1.2	1.8	3.8
Load	Maximum surf. frac. pressure = 4000psi combined w/ treatment fluid HP = 8.3 ppg	Saltwater gradient = 8.8 ppg	Buoyed wt w/ 100,000 lbs over- pull.
Backup	PP = 8.3 ppg	Full Evacuation = 0 psi	n/a

#### Notes:

- 1. S.F. = Safety Factor
- 2. MASP = Maximum Anticipated Surface Pressure
- 3. AGG = Annular Gas Gradient
- 4. HP = Hydrostatic Pressure
- 5. PP = Pore Pressure

### 4. Cement Program:

a. 8-5/8" Surface

Cement with a single stage (through an insert float and shoe) consisting of the following lead and tail: Lead: 250sx Class C with 4% gel and 2% CaCl2 1.74 cu. ft. /sx yield. Tail: 150sx Class C w/ 2%CaCl 14.8ppg, 1.34 cu. ft / sx yield, TOC at 0' (surface). Calculations based on 100% openhole excess (or greater) over theoretical hole volume, with calculated top of tail at 650'.

b. 5 1/2" Production

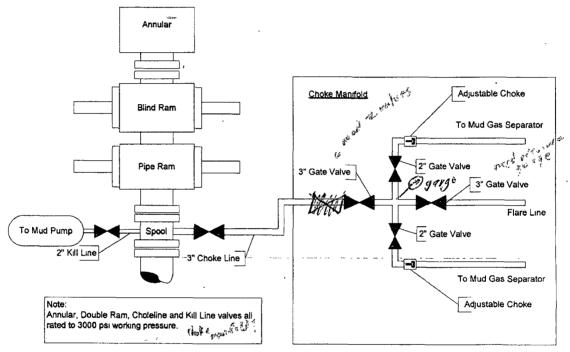
Cement with a single stage (through a float shoe and float collar) consisting of the following lead and tail: <u>Lead</u>: 365 sx 35:65 Poz Class C w/ 6% gel, 5% salt and 1/4pps HOWCO Phenoseal (or equivalent), 2.15 cu. ft / sx yield. <u>Tail</u>: 630sx 50:50 Poz Class C with 2% gel, and 5% Salt and 1/4pps HOWCO Phenoseal (or equivalent), 1.35 cu. ft / sx yield, ), TOC at 0' (surface). Calculations based on 150% open-hole excess (or greater) over theoretical hole volume, with calculated top of tail at 2350'.

The cement volumes pumped could be revised pending the following input.

- 1. On the surface hole, a visible flag (red dye) will be pumped as a part of the pre-flush, when dye reaches surface rig crews will immediately pump calculated tail, to avoid mixing and disposing of excess lead.
- 2. If a caliper log is obtained during open-hole logs. Cement pumped will be a minimum of 35% excess over open-hole log.

## 5. Pressure Control Equipment:

## Capstar 22 - BOPE



### Other BOPE information:

- BOPE will be hydraulically operated. 🗸
- A 3M BOP will be installed on the 8-5/8" casing, but will be tested to as a 2M system.
- Blind rams will be functioned each time the drill string is out of the hole.

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## 6. Proposed Mud Circulation System

<b>Depth</b>	Mud Wt.	<u>Visc</u>	Fluid Loss	Type System
0' - 1015'	8.3	32-40	No Control	Fresh Water
1015' - 4300	10.0	29	No Control	Saturated Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times. Mud weights may be raised to safely accommodate well control events.

## **Auxiliary Well Control and Monitoring Equipment:**

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 8-5/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location from spud shoe until total depth is reached.

# 7. Logging, Coring, and Testing Program:

- a. The open hole electrical logging program will be:
  - i. Total Depth to Intermediate Casing: Gamma Ray, Resistivity, Neutron Density and Caliper.
  - ii. Spectral Gamma Ray and Borehole Sonic.
- b. No coring program is planned.
- c. No Drill Stem Tests are planned

#### 8. Potential Hazards:

a. No abnormal pressures or temperatures are expected. Monitor pH for H2S and if pH drops rapidly, add lime, Barocor 95 or H800 (HOWCO additives) as per mud engineer. Ensure corrosion inhibitors, amines and H2S scavengers are properly maintained in mud system, due to the potential for H2S. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2000 psi and Estimated BHT 95°F.

# 9. Anticipated Starting Date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval. Move in operations and drilling is expected to take approximately 7 days. Production casing will be run utilizing the Capstar 22. After the wellhead is secured the Capstar 22 will be moved to the next drilling location, then the well will be stimulated and competed by a separate rig. Production lines will be laid for the purpose of transporting produced fluids to existing surface facilities.

# PROPOSED DRILLING PROGRAM

C.C.Fristoe B Federal NCT-2 #30

Section 35

**Township 24 South** 

Range 37 East

Lea County, New Mexico

Surface Location: 990' FNL, 1650' FEL

Prepared By:

Rick Parrish

28 February 2008

**WBS Number:** 

**TBD** 

API Number:

**TBD** 

Chevno:

**TBD** 

### PROPOSED WORK

#### **SURFACE HOLE:**

- 1. Call the 1-800 dig number and notify BLM (505-234-5972) 3 working days prior to building location Build location, install 14-3/4" cemented conductor, install cellar prior to moving in rotary tools.
- 2. Move in and rig up rotary tools, including closed loop system. Conduct safety meeting with rig personnel Post drilling permit and emergency response plan in the dog house Notify the BLM and OCD of intent to spud.
- 3. Drill 11" hole to ±975' with fresh water spud mud.
- 4. Run 8-5/8", 24#, J/K-55, STC casing as follows:
  - a) Guide shoe
  - b) 1 joint casing
  - c) Insert float
  - d) Casing to surface Centralize the bottom two joints and every fourth joint thereafter.
- 5 Cement in accordance with attached cementing summary Check float. If float fails, shut in for a minimum of four hours. If cement does not circulate, will need to run temperature survey, notify BLM and 1" back to surface.
- 6. Cut off casing. Install casing (starting) head. Test starting head to 1000 psi (73% of collapse rating)
- 7. Nipple up BOP stack. Test BOPE to 250 psi low for 5 minutes, 1000 psi high. Test casing to 1000 psi.
- 8. Install H<sub>2</sub>S detection equipment prior to drilling out.

#### PRODUCTION HOLE:

- 1. Drill 7-7/8" hole to ±4300' with 10# brine water. Deviation problems are possible.
- 2. Trip out and run open hole logs.
- 3. Trip in hole and trip out of hole laying down drill pipe.
- 4. Run 5-1/2", 15 5#, J/K-55, LTC casing as follows:
  - a) Float shoe
  - b) 1 joint casing
  - c) Float collar
  - d) Casing to surface

Centralize the bottom three joints and across any potential pay.

- 15. Cement in accordance with attached cementing summary
- 16 ND BOPs, set slips, and cut off casing. Install permanent 11" 3000 psi X 7-1/16" 3000 psi tubing head. Test seal to 50% of collapse rating
- 17. Release rig. Rig down and move out rotary tools.

# **POTENTIAL PROBLEMS**

## **SURFACE HOLE:**

Lost returns.

## **PRODUCTION HOLE:**

Deviation. Water flows

# **MUD PROGRAM**

Interval	<u>Type</u>	Weight (ppg)	Vis. (sec/qt)	Fluid Loss (cc)	Remarks
Surface	Fresh Wtr.	8.6	32	No control	Circulate reserve
Production	Brine	10	29	No control	Circulate reserve

Mud up to a starch/PAC system near TD for logging.

# **FORMATIONS**

Name	Depth [feet]	Pressure [psi]
Yates	2505	n/a
Seven Rivers	2675	n/a
Queen	3150	n/a
Grayburg	3450	900
San Andres	3765	1500

# **EVALUATION PROGRAM**

## **OPEN HOLE LOGS:**

Platform Express – Spectral GR, Res, Neu/Den from TD to surface casing point.

## SURFACE CEMENTING PROGRAM

Cement with Lead = 250 sacks Class "C" with 4% Gel & 2% CaCl2 followed with Tail = 150 sacks Class "C" with 2% CaCl2.

Minimum waiting on cement time: 12 hours

#### **CEMENT PROPERTIES:**

Slurry weight: (lead)...... .13 5 ppg

(tail)...... 14.8 ppg

(lead) ... .. 1 74 ft<sup>3</sup> per sack (tail)...... 1.34 ft<sup>3</sup> per sack Slurry yield:

Cement must circulate to surface. If cement does not circulate, run a temperature survey six to eight hours after cementing. Contact the BLM and OCD and the Midland office for proper procedure to bring cement to surface. Normal procedure is to run one inch tubing down the annulus to top of cement, therefore one inch tubing should be on location or readily available.

Cement volume is based on 11" by 8-5/8" annular volume plus 100% excess.

## PRODUCTION CEMENTING PROGRAM

Cement with Lead = 365 sacks 35:65 Poz:Class "C" with 6% Gel & 5% Salt & 1/4 pps Flocele followed with Tail = 630 sacks 50.50 Poz. Class "C" with 2% Gel & 5% Salt & 1/4 pps Flocele.

#### **CEMENT PROPERTIES:**

Slurry weight. (lead).....12.4 ppg

(tail)... ... 14 2 ppg

Slurry yield:

(lead) .....2 15 ft<sup>3</sup> per sack (tail)...... 1.35 ft<sup>3</sup> per sack

Cement is designed to circulate to surface. If cement does not circulate, may run a temperature survey to determine top of cement

Cement volume is based on 7-7/8" by 5-1/2" annular volume plus 150% excess

## **CASING SUMMARY**

#### SURFACE:

975', 8-5", 24 ppf, J/K-55, STC

#### PRODUCTION:

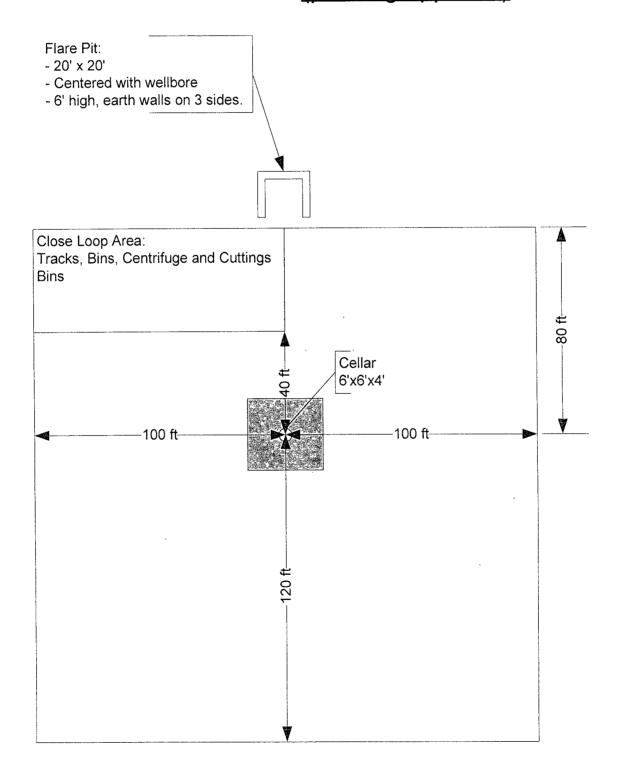
4300', 5-1/2", 15.5 ppf, J/K-55, LTC

# **CASING PROPERTIES**

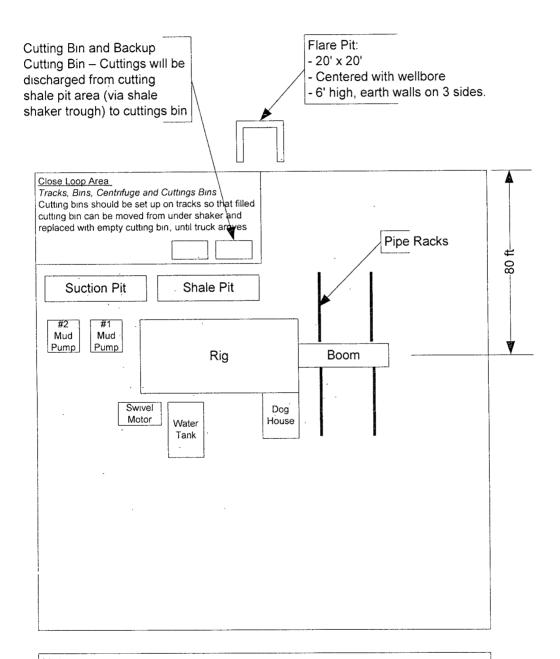
		RST	COLLA		Test
	Rated	(80%)	Rated	<u>(80%)</u>	<u>Pressure</u>
8-5/8", 24 ppf, J-55, STC	2950	2360	1370	1095	1000
5-1/2", 15.5 ppf, J-55, LTC	4810	3845	4040	3230	2000

all casing is new and API approved.

# Capstar 22 – Rig Plat w/ Closed Loop System (pending approval)

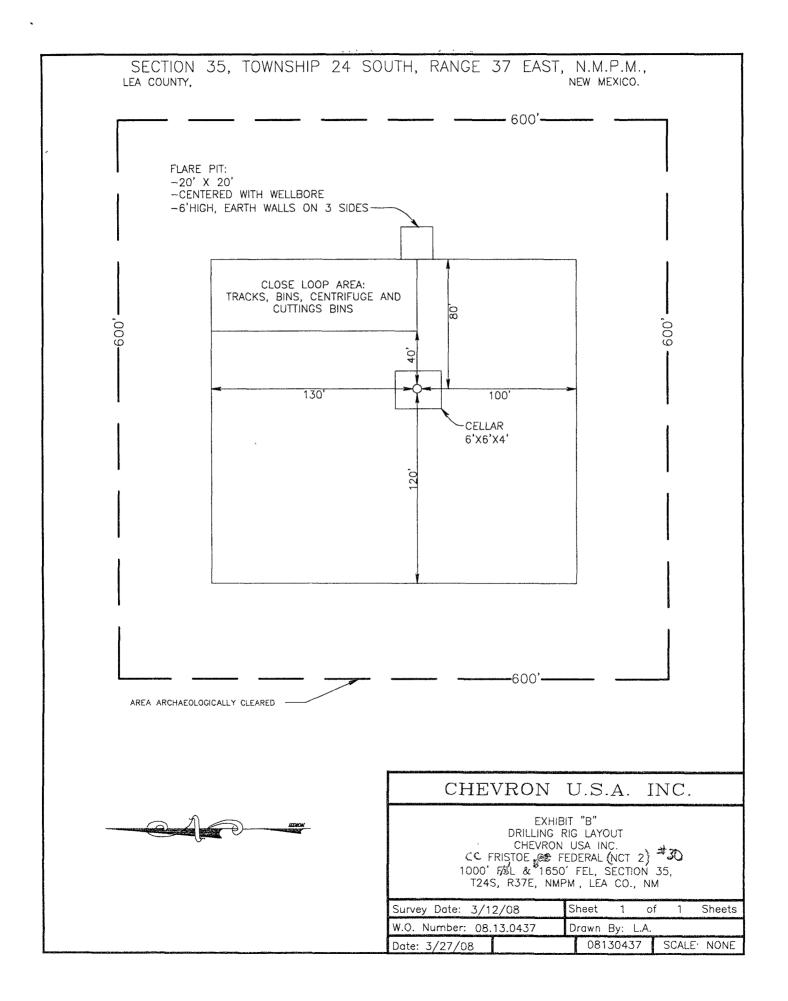


# Capstar 22 – Rig General Layout w/ Closed Loop System

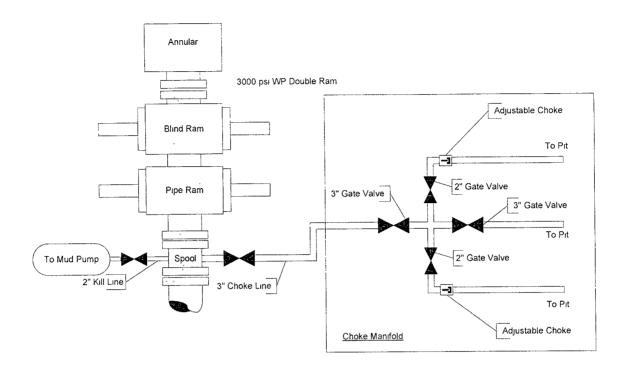


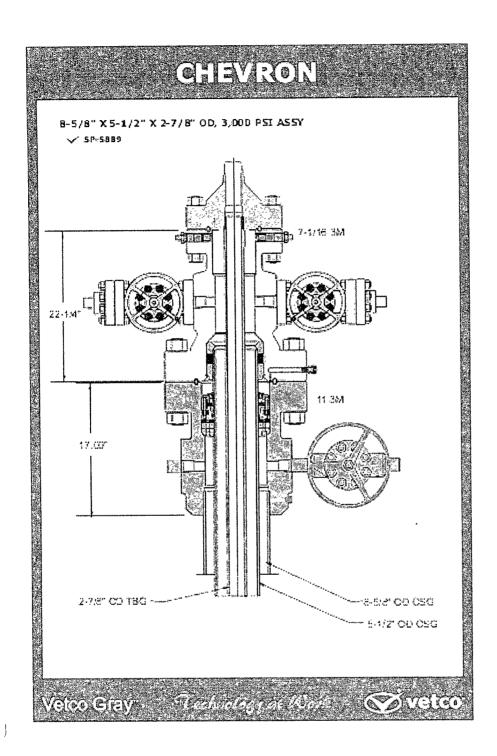
#### Notes

- 1 This drawing is not to scale.
- 2 This drawing is intended to communicate basic rig layout only.
- 3. If modification is required, Chevron MOC (Memorandum of Change) process will be utilized.



# <u>Capstar 22 -</u> <u>BOPE</u>





OPERATOR'S NAME: CHEVRON USA INC
LEASE NO.: NM-14218
WELL NAME & NO.: C C FRISTOE B FEDERAL NCT-2 No. 30
SURFACE HOLE FOOTAGE: 1000'FNL & 1650'FEL
BOTTOM HOLE FOOTAGE Same
LOCATION: Section 35, T. 24 S., R. 37 E., NMPM

COUNTY: Lea County, New Mexico

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## 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. CONSTRUCTION

#### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (505) 393-3612 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

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

## C. RESERVE PITS

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

# D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 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. 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.

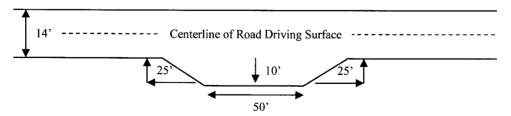
#### Ditching

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:

#### Standard Turnout - Plan View

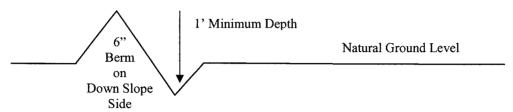


#### **Drainage**

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

#### **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**

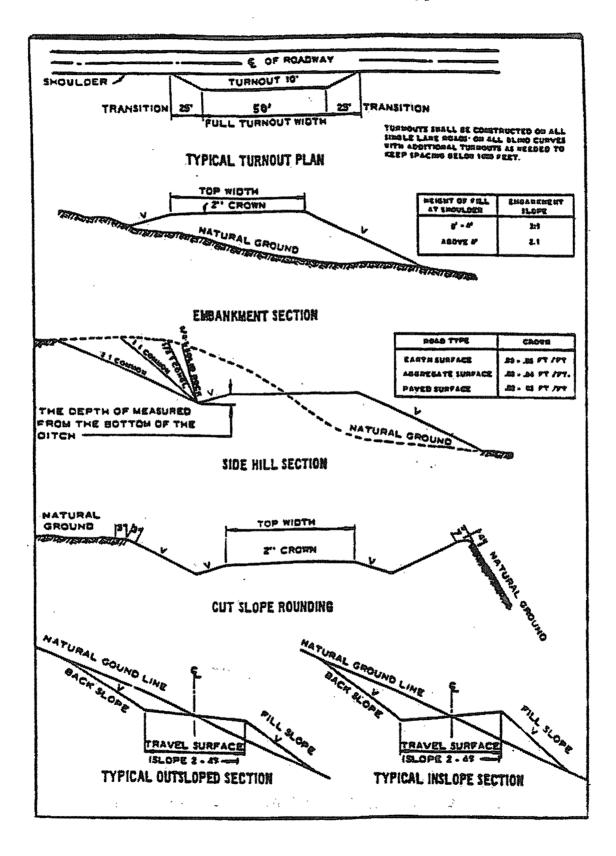
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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



#### VI. 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. BOP/BOPE tests

# **⊠** Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

- 1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the <u>Yates</u> formation. Measurements of >16,000 ppm have been reported in the gas streams of nearby wells.
- 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.

#### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work.

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

1. The <u>8-5/8</u> inch surface casing shall be set at <u>approximately 975 feet (a minimum of 25 feet nto the Rustler Anhydrite and above the salt and cemented to the surface.</u>

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing

- 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.
- b. Wait on cement (WOC) time 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. (This is to include the lead cement).

- 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 <u>5-1/2</u> inch production casing is:
  - Cement to surface. If cement does not circulate see B.1.a-d above.
- 3. 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. BOP/BOPE to be tested per Onshore Order 2.III.A.2.i. during normal drilling operations.
- 2. The appropriate BLM office shall be notified a minimum of **4 hours** in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. 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.
  - d. 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.

LB 4/28/08

# VII. 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

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the APD 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 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 agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- 4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The 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 the 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 the holder, regardless of fault. Upon failure of the 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 the holder of any responsibility as provided herein.

6.	All construction	n and mair	ntenance acti	vity will be confined to the authorized right-of-
wa	y width of _	25	feet.	•
7	Nie biedine en e	.1		

- 7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
- 8. The 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 will be "snaked" around hummocks and dunes rather then suspended across these features.
- 9. The pipeline shall be buried with a minimum of <u>24</u> 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 hehalf, 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.

(March 1989)

## VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

#### A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting 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.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions 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 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.

### Seed Mixture 1, for Loamy 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 <u>no</u> 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 regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/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:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0

<sup>\*</sup>Pounds of pure live seed:

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

# X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.

OPERATOR'S NAME: CHEVRON USA INC

LEASE NO.: | NM-14218

WELL NAME & NO.: C C FRISTOE B FEDERAL NCT-2 No. 30

SURFACE HOLE FOOTAGE: | 1000'FNL & 1650'FEL

BOTTOM HOLE FOOTAGE | Same

LOCATION: | Section 35, T. 24 S., R. 37 E., NMPM

COUNTY: Lea County, New Mexico

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Reserve Pit Closure/Interim Reclamation
Final Abandonment/Reclamation

OPERATOR'S NAME:
LEASE NO.:
WELL NAME & NO.:
SURFACE HOLE FOOTAGE:
BOTTOM HOLE FOOTAGE
LOCATION:
COUNTY:
CHEVRON USA INC
NM-14218
C C FRISTOE B FEDERAL NCT-2 No. 30
1000'FNL & 1650'FEL
Same
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