1625 N. Frence Lance Hobbs, NM 88249

Form 3160-3 (April 2004)

UNITED STATES

FORM APPROVED OMB No. 1004-0137 Expires March 31, 2007

5.	Lease Serial No. NM 01135	
6.	If Indian, Allotee	C

DEPARTMENT OF THE I BUREAU OF LAND MANA	5. Lease Serial No. NM 01135			
APPLICATION FOR PERMIT TO I	6. If Indian, Allotes N/A	or Tribe Name		
la. Type of work: DRILL REENTE	la. Type of work: DRILL REENTER			
1b. Type of Well: Oil Well Gas Well Other	Single Zone Multip	8. Lease Name and Southeast Lu	Well No. 300 2517 sk 34 Federal #5	
2. Name of Operator Edge Petroleum Operating Company, Is	· (22448D)	9. API Well No. 30-02	5-37680	
3a. Address 1301 Travis, Suite 2008 Houston, Texas 77002	3b. Phone No. (include area code) 713-654-8960	10. Field and Pool, or Lusk Delawa	'	
4. Location of Well (Report location clearly and in accordance with any	State requirements.*)	11. Sec., T. R. M. or 1	Blk. and Survey or Area	
At surface 990' FNL & 1650' FWL At proposed prod. zone	Secretary's Poli	Sec 34, T19S,	R32E	
 Distance in miles and direction from nearest town or post office* miles south of Maljamar 		12. County or Parish Lea County	13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No. of acres in lease 40 acres	17. Spacing Unit dedicated to this NE/4 NW/4 of Sec 34	well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320'	19. Proposed Depth 7506' 7890	20. BLM/BIA Bond No. on file NMB 000121		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3561'	22. Approximate date work will star 09/15/2005	t* 23. Estimated duration 20 Days	on	
The following, completed in accordance with the requirements of Onshore	24. Attachments e Oil and Gas Order No.1, Shaur us an	Man Controlled Water	r Booin	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO shall be filed with the appropriate Forest Service Office). 	Lands, the litem 20 above). 5. Operator certific 6. Such other site:	specific information and/or plans a		
25. Signature	authorized offic Name (Printed/Typed)	er.	Date	
Title Othalay Muscle	Lindsay Truesdell		08/23/2005	
Approved by (Signature)	Name (Printed/Typed)		In.	
ISIDENNIS R. STENG-ER	1SI DENNIL	S. R. STENLER	Date JAN 2 4 2006	
FOR STATE DIRECTOR Application approval does not warrant or certify that the applicant holds		W STATE OFFICE		
conduct operations thereon. Conditions of approval, if any, are attached.	refer or edimente, title in titese tikili	o ni me suniestiesse milicii monio	andre die sphuesut m	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri States any false, fictitious or fraudulent statements or representations as to	me for any person knowingly and wo any matter within its jurisdiction.	rillfully to make to any department of	or agency of the United	
*(Instructions on page 2)				

DECLARED WATER BASIN CEMENT BEHIND THE 13 % CASING MUST BE AIRCULATED

WITHESS

APPROVAL SUBJECT TO General requirements and Special stipulations ATTACHED

DECLARED WATER BASIN CEMENT BEHIND THE 10 14 CASING MUST BE CIRCULATED

WINESS

State of New Mexico

DISTRICT I 1625 N. FRENCE DR., HORBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

Revised JUNE 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, New Mexico 87505

Fee Lease - 3 Copies

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505	WELL LOCATION AND A	ACREAGE DEDICATION PLAT	□ AMENDED REPORT
API Number	Pool Code	Pool Name	
30-025-3740	41500 41520	Lusk Delaware Ecr5+	
Property Code	Prope	rty Name	Well Number

50-025-3 (M	Lusk Delaware Corst	•
Property Code	Property Name	Well Number
300257	SE LUSK 34 FEDERAL	5
OGRID No.	Operator Name	Elevation
224400	EDGE PETROLEUM OPERATING COMPANY, INC.	3561'
		-

Surface Location

UL or lot No.	Section	Township	Range	lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	34	19 - S	32-E		990	NORTH	1650	WEST	LEA

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 o	or Infill Co	onsolidation (Code Or	der No.	<u> </u>			I
40									

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

3566 [600,]			OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and betief. Signature
3561. 		Y=590211.3 N X=677528.6 E LAT.=32'37'16.58" N ONG.=103'45'24.24" W		Lindsay Truesdell Printed Name Consultant Title August 23, 2005 Date SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of
LOT 1	LOT 2	LOT 3	LOT 4	JULY 13, 2005 Date Surveyed Seet 18 Signature & Seet 18 Signature
39.46- AC	39.43 AC	39.39 AC	39.36 AC	Manager Company of the Company of th

MULTI POINT SURFACE USE AND OPERATIONS PLAN FOR

EDGE PETROLEUM OPERATING COMPANY, INC. Southeast Lusk "34" Federal #5

Surface Location: 990' FNL & 1650' FEL Section 34, T-19-S, R-32-E Lea County, New Mexico Lease No.: NM 01135

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan to be followed in rehabilitating the surface and environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a location verification map showing the location of the proposed well as staked.
- B. Directions: From the intersection of St. Hwy #243 and Maljamar Road go north on Maljamar Road approximately 3.8 miles. Turn right and go east 1.0 miles and the road bends to the right. Continue east approximately 1.2 miles to the Lusk 34 Federal #1 well and to a proposed road survey at the southeast corner of well. Follow road survey northeast approximately 1447' to this location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: Exhibit "C" is the proposed access road. It will be approximately 1447' long and 12' wide and run Northeast to the SW corner of the location.
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None necessary.
- F. Cuts and Fills: 1' cut to North with 1' fill to South.
- F. Gates and Cattle Guards: None necessary.
- G. Off lease right of way: None required.

3. LOCATION OF EXISTING WELLS:

Existing wells in the immediate area are shown on the Vicinity Map, Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. Edge Petroleum Operating Company, Inc. has Southeast Lusk 34 Federal #1 and South Lusk 33 Federal #1 production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, if required, will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIAL:

Caliche for surfacing the proposed access road and well site pad will be obtained from the location, if available, or from an approved Federal pit. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil Produced during tests will be stored in test tanks.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.

G. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged 500' x 500'.
- B. Mat Size: 225' x 300', plus 150' x 150' reserve pit on the north.
- C. Cut & Fill: 1' cut to North with 1' fill to South
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. The well site will be cleaned of trash leaving the site aesthetically pleasing to the extent possible.
- B. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to be worked.

11. OTHER INFORMATION:

- A. Surface Ownership Bureau of Land Management
- B. Mesa Field Services, P. O. BOX 3072, CARLSBAD, NEW MEXICO 88221, conducted an archaeological survey. No significant archaeological resources were found in the area of the planned access road or of the proposed well site.
- C. Oil & Gas Lease: NM 01135

Township 19 South, Range 32 East NE/4 NW/4 of Section 34

D. RECORD LESSEE:

Edge Petroleum Operating Company, Inc. 50% Pure Energy Group 25% Chisos 25%

E. BOND COVERAGE:

\$25,000 Statewide Oil & Gas Surety Bond BLM Bond #: NMB 000121

12. OPERATOR'S REPRESENTATIVE:

The field representative for assuring compliance with the approved use and operations plan is as follows:

R. K. Ford & Associates 415 West Wall, Suite 1700 Midland, Texas 79701 432-682-0440 (Office) 432-682-0441 (Fax) 432-570-7216 (Home) 432-559-2222 (Cell) Randell@rkford.com (E-mail)

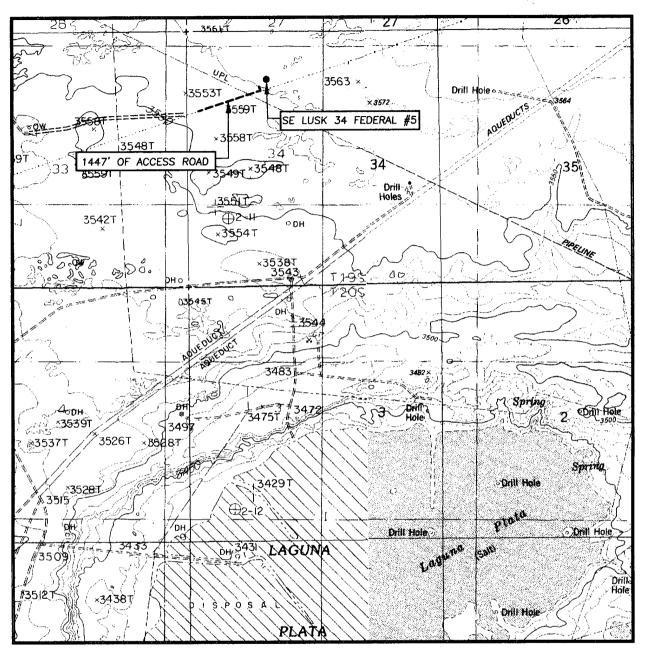
13. **CERTIFICATION**:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Cabal Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

July 25, 2005

Lindsay Truesdell Consultant

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: WILLIAMS SINK, N.M. - 10'

SEC34 TWP.	<u>19-5</u> F	76E32	<u></u>
SURVEY	N.M.P.	.М.	· · · · · · · · · · · · · · · · · · ·
COUNTY	LEA		
DESCRIPTION 99	O' FNL	<u>& 165</u>	O' FWL
ELEVATION	35	61'	
OPERATOR OPE	EDGE P RATING	ETROLE COMPAI	UM NY, INC
LEASE SE L	USK 34	FEDER	AL
U.S.G.S. TOPOG		MAP	



Exhibit "A"



VICINITY MAP

-													
	3:0	29	28	27	26	25	30	29	28	27	26	25	30
	31	32	33	34	35	36	31	32	33	34	35	36	31
	6	5	4	3	2	1	6	5	4	3	2	1	6
	7	8	9	10	11	. 12	7	8	9	10	ii	12	7
R	18 Y LAKE HI26	17	16	15	14	13 8	ୟ ଟେ 18 ଝ	17	16	15	14		원 6 18 원
	HI26 LUSK PI 19	.ANT ₂₀	T 21	19 S	23	24	19	20	21	22	23	24	19
	30	29	28	27	26	es E LUSK J	30 34 FEDER	29 AL #5	28	27	26	25	30
	31	32	33	34	35	36	31	32 LAGUNA TONTO	"	34	35	36	31
	6 0 <u>c</u>	5	4 Laguna Plata	3	2	1	6	5	4	3	2	PARACH.	6
	MAL JAMAR	95H 8	, {	10		12	7 NTO (8	9	10	11	12	7
	18	17	16 ST. 243	15 20 S	14	L AGUNA	18 2	LAGUNA GATUNA 17	5. 62-180	15	14	13	18
	19	20	21 LAGUNA TOSTON	22	23	LA LA	19	20	21	22	23	24	19
	30	29	28	27	26	25 Å	30	57, 176	28	27	26	52 K 80 81	2 30

SCALE: 1" = 2 MILES

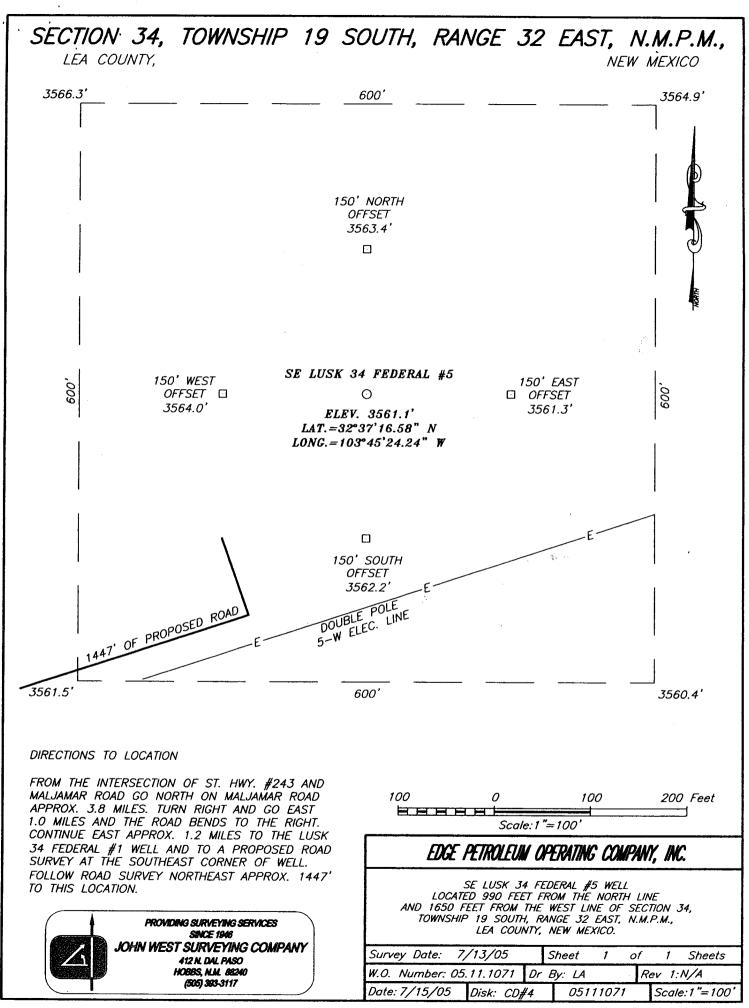
SEC. <u>34</u>	_TWP. <u>_19</u>	<u>9-S</u> RG	E. <u>32</u> -	<u> </u>
SURVEY		N.M.P.M	•	····
COUNTY	· · · · · · · · · · · · · · · · · · ·	LEA		
DESCRIPTION	ON_990'	FNL &	1650'	FWL
ELEVATION		356	1,	
OPERATOR	ED OPERAT	GE PET	ROLEUN MPANY,	INC.
LEASE	SE LUS	K 34 F	EDERAL	



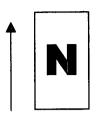
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

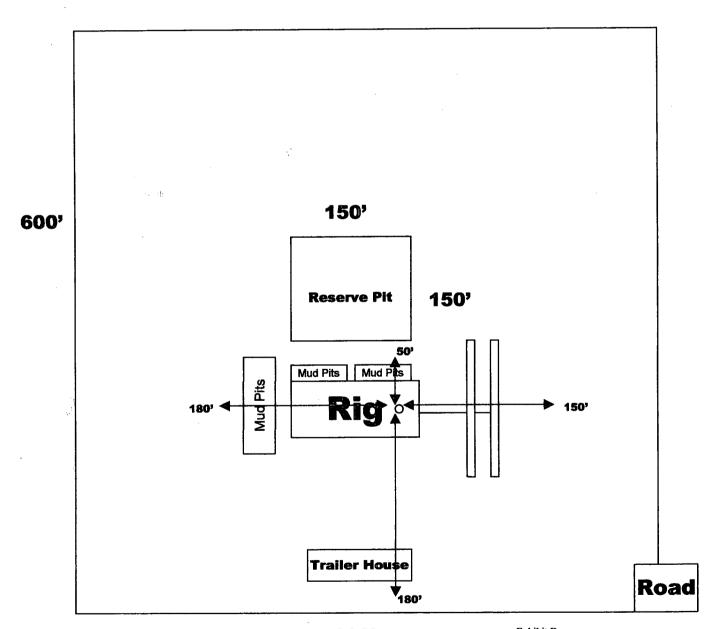
Exhibit "B"





DRILLING RIG LAYOUT Edge Petroleum Operating Co., Inc. Southeast Lusk 34 Federal #5





600'

Exhibit D Surface Use & Operations Plan

DRILLING PROGRAM

EDGE PETROLEUM OPERATING COMPANY, INC. SOUTHEAST LUSK "34" FEDERAL #5

Section 34, T-19-S, R-32-E Lea County, New Mexico

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Orders #1 and #2, and all other applicable federal and state regulations.

1. <u>ESTIMATED TOPS OF GEOLOGIC MARKERS (TVD):</u>

Anhydrite	890'
Yates	2,695'
Capitan	3,062'
Delaware	4,270'
Cherry Canyon	4,755'
Brushy Canyon	6,580'
Total Depth	6.740 7890

2. <u>ESTIMATED DEPTHS TO WATER, OIL, OR GAS FORMATIONS:</u>

Fresh Water

Above 200'

Oil and Gas

Delaware, Atoka Sand, Middle Morrow, Lower Morrow

3. Pressure control equipment: The blow out preventer equipment (BOP) shown in Exhibit #1 will consist of a 3000 psi double ram type preventer for drilling the 12-1/4" hole. The blowout preventer stack for the production (7-7/8") hole as shown on Exhibit #2 will consist of at least a double-ram blowout preventer and annular preventer rated to 3000 psi working pressure. A diagram of the BOPs and choke manifold is attached. All BOPs and accessory equipment will be tested according to Onshore Order #2 before drilling out.

4. PROPOSED CASING PROGRAM:

Hole Size	Interval Cas	ing Size Weight	Grade, Joint
26"	0 – 40' 20 / 20)" 94#	K-55, BTC
17-1/2"		3-3/8" 54.5#	N-80, BTC
12-1/4"	0 - 2 ,540 : <i>30⁸⁰</i> 10)-3/4" 45.5#	K-55, BTC
9-1/2"	0 – 4,300' 7-	5/8" 29.7#	N-80, LTC
6-1/2"	0-7 ,500 ' 4-	1/2" 11.6#	N-80, LTC

There will be a DV Tool (Stage Collar) above an External Casing Packer (ECP) which is to be set inside the 10-3/4" casing at 2950 +/-. Cement will be circulated to surface. Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability. Changes will be relayed to BLM prior to running.

PROPOSED CEMENTING PROGRAM 5.

20" conductor

cemented with ready mix to surface

13-3/8" surface

500 sxs Premium Plus cement, 2% calcium chloride 10-3/4" intermediate 1050 sxs Premium Plus cement, 2% calcium chloride

7-5/8" intermediate 630 sxs interfill "C" cement

175 sxs Premium Plus cement

4-1/2" production

280 sxs Light Cement

280 sxs Super "H" cement .5% Halad, .4% CFR-3, 3# per sx

Gilsonite

PROPOSED MUD SYSTEM: 6.

<u>DEPTH</u>	DESCRIPTION	MUD WEIGHT	VISCOSITY	WATER LOSS
0 - 870'890'	fresh water	8.6 – 8.8 ppg	28 – 30	NC
890' - 3,080'	brine water	10.0 – 10.2 pp	g 28 – 34	NC
3,080' - 4,270'	fresh water	8.4 – 8.6 ppg	28 – 29	NC
4,270' - 6,740'	fresh/brine/mud	8.4 – 10.4 ppg	28 – 40	6-8 cc

7. **TESTING, LOGGING AND CORING PROGRAM:**

Samples :

10' Samples from 5,200'

DST's

Possible Cisco, Strawn & Atoka

Logging

Density, Lateral, Resistivity

Coring

Possible sidewall core

8. ABNORMAL PRESSURES AND TEMPERATURES:

None anticipated. Maximum bottom hole pressure should not exceed 5,200 psi.

This area has a potential H₂S hazard. An H₂S drilling plan is attached.

ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

It is planned that operations will commence on September 15, 2005. Drilling should be completed within 20 days followed by completion operations.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

EDGE PETROLEUM OPERATING COMPANY, INC. Southeast Lusk "34" Federal #5

I. HYDROGEN SULFIDE TRAINING

- A. All regularly assigned personnel, contracted or employed by Cabal Energy Corporation, will receive training from a qualified instructor in the following areas prior to commencing drilling potential hydrogen sulfide bearing formations in this well:
 - 1. The hazards and characteristics of hydrogen sulfide (H₂S).
 - 2. The proper use and maintenance of personal protective equipment and life support systems.
 - The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
 - 4. The proper techniques for first aid and rescue procedures.
- B. In addition, supervisory personnel will be trained in the following areas:
 - 1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
 - Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
 - 3. The contents and requirements of the H₂S Drilling Operations Plan.
- C. There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

- A. Well Control Equipment.
 - 1. Flare line with continuous pilot.
 - 2. Choke manifold with a minimum of one remote choke.
 - 3. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - **4.** Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head and flare.
- **B.** Protective Equipment for Essential Personnel:

Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

- C. H₂S Detection and Monitoring Equipment:
 - 1. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.
 - 2. One portable SO₂ monitor positioned near flare line.
- D. Visual Warning Systems
 - 1. Wind direction indicators are shown on well site diagram.
 - 2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance form the immediate location. Bilingual signs will be used when appropriate. See example attached.

E. Mud Program

1. The Mud Program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weights, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

2. A mud-gas separator will be utilized as needed.

F. Metallurgy:

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and line and valves shall be suitable for H₂S service.

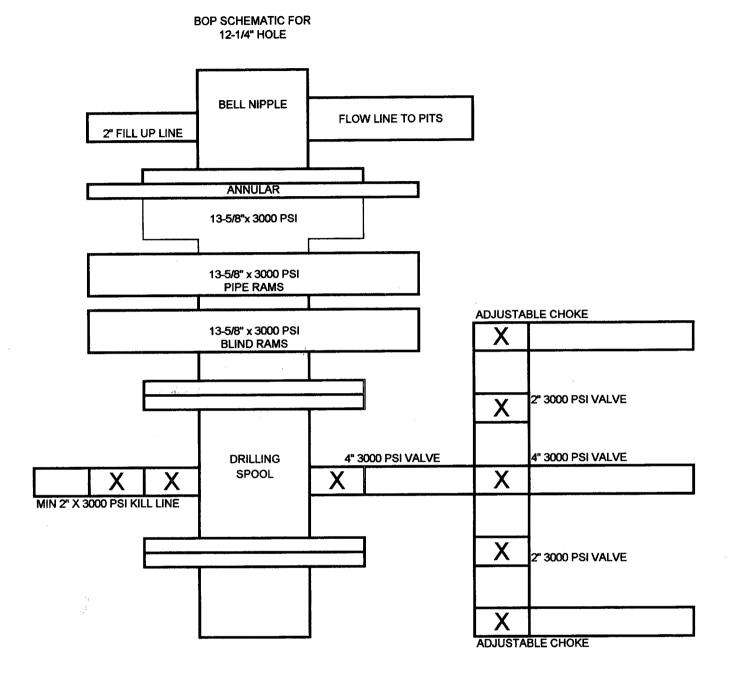
G. Communication:

Cellular telephone communications in company vehicles, rig floor and mud logging trailer.

H. Well Testing:

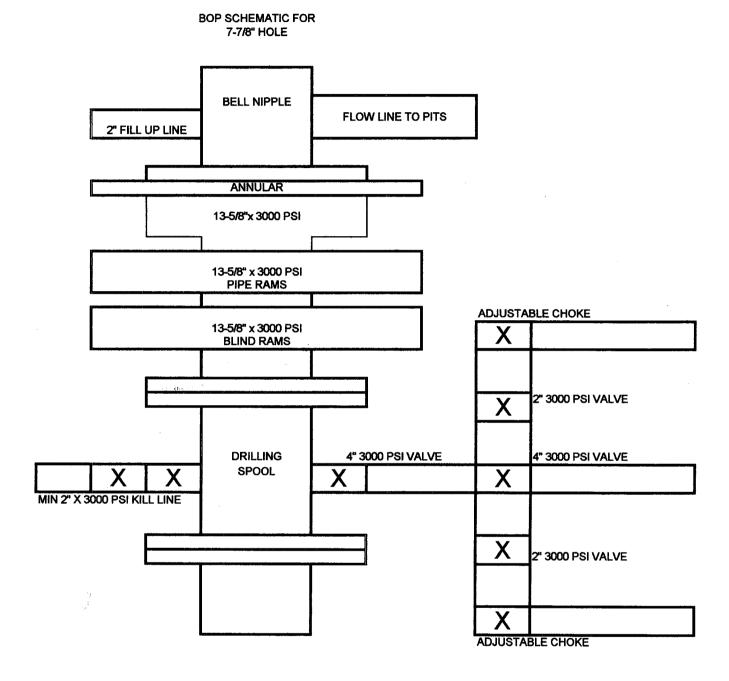
Graphic Control

Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing and an H_2S environment will be conducted during the daylight hours.



Edge Petroleum Operating Company, Inc. Southeast Lusk "34" Federal #5 Lea County, New Mexico

Exhibit 1



Edge Petroleum Operating Company, Inc. Southeast Lusk "34" Federal #5 Lea county, New Mexico

Exhibit 2

United States Department of the Interior Bureau of Land Management Roswell Field Office 2909 Second Street Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:

Edge Petroleum Operating Company, Inc.

Street or Box:

1301 Travis, Suite 2000

City, State:

Houston, Texas

Zip Code:

77002

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 01135

Legal Description of Land:

Township 19 South, Range 32 East, Eddy, New Mexico

NE/4 NW/4 of Section 34

Bond Coverage:

Statewide Oil and Gas Surety Bond, Edge Petroleum Operating Company, Inc.

BLM Bond File No.:

NMB-000121

mosdell

Lindsay Truesde

Agent

July 27, 2005

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIC	THE	FOLI	OWING	DATA	IS REC	DUIRED	ON	THE	WELL	SIG	N
--	-----	------	-------	------	--------	--------	----	-----	------	-----	---

Operator's Name Edge Petroleum Operating Co. Well Name & No. Southeast Lusk 34 Federal #5
Location 990 FNL & 1650 FWL Sec. 34 , T. 19 S, R 32 E.
Lease No. NM-01135 County Lea State New Mexico
The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.
This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.
I. SPECIAL ENVIRONMENT REQUIREMENTS
(X) Lesser Prairie Chicken (stips attached) () San Simon Swale (stips attached) () Other
II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING
(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.
(X) Roads and the drill pad for this well must be surfaced with inches of compacted caliche.
() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximatelyinches in depth. Approximatelycubic yards of topsoil material will be stockpiled for reclamation.
() Other.
III. WELL COMPLETION REQUIREMENTS
() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.
(X) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.
() A. Seed Mixture 1 (Loamy Sites) Side Oats Grama (Bouteloua curtipendula) 5.0 Sand Dropseed (Sporobolus cryptandrus) 1.0 Sand Lovegrass (Eragostis trichodes) 1.0 Plains Bristlegrass (Setaria magrostachya) 2.0
() C. Seed Mixture 3 (Shallow Sites) Side oats Grama (Boute curtipendula) 1.0 () D. Seed Mixture 4 (Gypsum Sites) Alkali Sacaton (Sporobollud airoides) Four-Wing Saltbush (Atriplex canescens) 5.0
() OTHER SEE ATTACHED SEED MIXTURE
Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.
() Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

<u>Reclamation</u>: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and it capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from the BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below: All of Section 34 T. 19 S., R. 32 E.

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks know at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Bureau of Land Management Carlsbad Field Office SENM-S-22 December 1997

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Edge Petroleum Operating Company, Inc. Well No. 5 - Southeast Lusk 34 Federal

Location: 990' FNL & 1650' FWL sec. 34, T. 19 S., R. 32 E.

Lease: NM-01135

I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at (505) 393-3612 in sufficient time for a representative to witness:
- A. Spudding
- B. Cementing casing: 13-3/8 inch 10-3/4 inch 7-5/8 inch 4-1/2 inch
- C. BOP tests
- 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.
- 3. Include the API No. assigned to the well by NMOCD on the subsequent report of setting the first casing string.
- 4. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the <u>Yates</u> formation. A copy of the plan shall be posted at the drilling site.
- 5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

- 1. 13-3/8 inch surface casing must be set at approximately 890 feet (25 feet in the Rustler Anhydrite at approximately 865 feet), below usable water and circulate cement to the surface. If cement does not circulate to the surface this BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. 10-3/4 inch intermediate casing must be set at approximately 3080 feet (30 feet above the top of the Capitan Reef) and circulate cement to the surface. If cement does not circulate to the surface this BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 3. 7-5/8 inch intermediate casing must be set at approximately 4270 feet (at the Base of the Capitan Reef) and the minimum required fill of cement behind the 7-5/8 inch intermediate casing is sufficient to tie back 200 feet into the 10-3/4 inch intermediate casing set at approximately 3080 feet. If cement does not circulate to the surface, a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing may be required prior to drilling out that string. Fresh water mud shall be used to drill the hole for the 7-5/8 inch intermediate casing set at approximately 4270 feet.
- 4. Minimum required fill of cement behind the 4-1/2 inch production casing is sufficient to tie back 500 feet above the uppermost perforation in the pay zone.

III. PRESSURE CONTROL:

- 1. Before drilling below the <u>13-3/8</u> inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the <u>7-5/8</u> inch intermediate casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
- 2. Before drilling below the 13-3/8 inch surface casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi. Before drilling below the 7-5/8 inch intermediate casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

CONDITIONS OF APPROVAL - DRILLING (CONTINUED)

Operator's Name: Edge Petroleum Operating Company, Inc. Well No. 5 - Southeast Lusk 34 Federal

Location: 990' FNL & 1650' FWL sec. 34, T. 19 S., R. 32 E.

Lease: <u>NM-01135</u>

III. PRESSURE CONTROL:

- 3. Before drilling below the <u>7-5/8</u> inch intermediate casing string, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- A. The BLM office shall be notified at (505) 393-3612 in sufficient time for a representative to witness the tests.
- B. The tests shall be done by an independent service company.
- C. The results of the test shall be reported to the BLM Hobbs Office at 414 West Taylor, Hobbs, New Mexico 88240.
- D. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- E. Testing must be done in a safe workman like manner. Hard line connections shall be required.

BLM Serial Number: NM-01135

Company Reference: Edge Petroleum Operating Co. Well No. & Name: Southeast Lusk 34 Federal #5

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS CARLSBAD FIELD OFFICE

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

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

- A. 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.
- B. 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 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this 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.
- C. 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). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil of 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 to Federal lands resulting there from, the Authorized Officer may take such measures as deemed necessary to control and cleanup 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 liability or responsibility.
- E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. 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 make a documented good-faith effort to 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.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/__/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

	Ditching will be required on both sides of the roadway as should be required in the field.	own on the
	Flat-blading is authorized on segment(s) delineated on the at	tached map.
3.	DRAINAGE	

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

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

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

 /_x_/	400 foot intervals.
	foot intervals.
/	locations staked in the field as per spacing intervals above.
	locations delineated on the attached map.

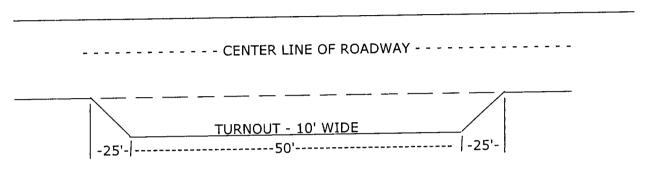
- B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).
- C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

Example: 4% slope: spacing interval = 400 + 100 = 200 feet

4

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The 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 the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS:

New Mexico Oil Conservation Division, District I

	UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MANA	INTER TOR D3,] AGEMENT	_	5. Lease Serial	
Do not use ti	NOTICES AND REP his form for proposals to ell. Use Form 3160-3 (A	drill or to re-	enter an		Allottee or Tribe Name
SUBMIT IN TR	IPLICATE- Other instru	uctions on reve	rse side.	7. If Unit or N/A	CA/Agreement, Name and/or No.
1. Type of Well ✓ Oil Well	Gas Well Other			8. Well Nam	
2. Name of Operator Edge Petrole	eum Operating Company, Inc.			9. API We	st Lusk 34 Federal #5 ll No.
3a. Address 1301 Travis, Suite 2000; Hous 4. Location of Well (Footage, Sec., Sec 34, T-19S, R-32E		3b. Phone No. (inchua 713-654-8960	le area code)	Lusk De	Pool, or Exploratory Area claware or Parish, State anty, New Mexico
12. CHECK A	PPROPRIATE BOX(ES) TO			EPORT, OR	OTHER DATA
If the proposal is to deepen din Attach the Bond under which following completion of the intesting has been completed. F determined that the site is read Edge Petroleum would ling On the 7-5/8" casing External Casing Pacles 10-3/4" casing at 295 We propose the top of	rectionally or recomplete horizontally the work will be performed or provi rvolved operations. If the operation final Abandonment Notices shall be	Deepen Fracture Treat New Construction Plug and Abandon Plug Back nent details, including es y, give subsurface locati de the Bond No. on file results in a multiple con filed only after all requi- ment and Casing Pro DV Tool (Stage Col g Packer is to be set if to surface. y 2400' for the 4-1/2'	ions and measured and to with BLM/BIA. Requirabletion or recompletion rements, including reclan ogram as follows: lar) above an inside the	ny proposed wo ne vertical depth red subsequent r in a new interva nation, have bee	l, a Form 3160-4 shall be filed once
14. Ihereby certify that the for Name (Printed/Typed)	regoing is true and correct			West Control of the C	S SCHOOL ST.
Lindsay Trues	dell	Title	Consultant		
Signature Tuna	Say Musa	Date Date		09/14/2005	
	THIS SPACE FOR	PEUEKAL OR	SIAIE UFFICI	USE	
Approved by Conditions of approval, if any, ar	e attached. Approval of this notice	does not warrant or	Title		Date

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 anymatter within its jurisdiction.

(Instructions on page 2)

SEP 20 2005

GARY GOURLEY PETROLEUM ENGINEER

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Bruzos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-144
June 1, 2004
For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade ta Type of action: Registration of a pit	nk covered by a "general plan"? Yes X or helow-grade tank X Clasure of a pit or below	No □ ~grade tank □		
Operator: _iEdge Petroleum Operating Company, IncTeleph Address: 1301 Travis, Suite 2000; Honston, Texas 77002				
Facility or well name; _Southeast Lusk 34 Federal #SAPI #:	30-025 3768 Dungrander C	Sec 34 T 198 R 32E		
County: Lea Latitude				
Surface Owner: Federal 🖾 State 🔲 Private 🔲 Indian 🔲				
<u>Pit</u>	Below-grade tank			
Type: Drilling M Production Disposal Volume:bbl Type of fluid;				
Workover 🔲 Emergency 🗌	Construction meterial:			
Double-walled, with leak detection? Yes I find, explain why not.				
Liner type: Synthetic ☑ Thickness _12mil Clay ☐				
Pit Volumebb1				
Depth to ground water (vertical distance from bottom of pit to seasonal	Loss than 50 feet	(20 points)		
high water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)		
	100 feet or more	(0 points) 0		
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)		
water source, or less than 1000 feet from all other water sources.)	No	(0 points) 0		
	Less than 200 feet	(20 points)		
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(10 points)		
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 foot or more	(0 points)		
	Ranking Score (Total Points)	0		
your are burying in place) onsite () offsite () If offsite, name of facility remediation start date and end date. (4) Groundwater encountered: No () Attach soil sample results and a diagram of sample locations and excess	Yes If yes, show depth below ground surface_	_		
Additional Comments:				
	•			
I hereby certify that the information above is true and complete to the bes has been/will be constructed or closed according to NMOCD guideling	t of my knowledge and belief. I further certify thes 🖾, a general permit 🔲, or an (uttached) alt	agt the above-described pit or below-grade tank ternative OCD-approved plast [].		
Date: _July 25, 2805	(1)			
Printed Name/Title: Lindsay Truesdell / Consultant	Signature TINOSOM	_Thussall		
Your certification and NMOCD approval of this application/closure does otherwise endanger public health or the environment. Nor does it relieve regulations.	not relieve the operator of limbility should the cont the operator of its responsibility for compliance w	ents of the pit or tank contaminate ground water or the any other federal, state, or local laws and/or		
Approval: PETROLEUM ENGINEER				
Printed Name/Title PETRULEUM ENGINEER	Signature	Deate:		
		FEB 0 3 2006		

Vssbril