New Moxico California to and 1625 N. Franch to and

Form 3160-3 (April 2004)

Hobbs, MM 65230 K-05-37

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

5.	Lease Serial No.
	NM 01135

DEPARTMENT OF THE I BUREAU OF LAND MAN	NTERIOR /	83.	5. Lease Serial No. NM 01135		
APPLICATION FOR PERMIT TO			6. If Indian, Allotee N/A	or Tribe Name	
la. Type of work: DRILL REENTE	ER.	***************************************	N/A	eement, Name and No.	- X
1b. Type of Well:	Single Zone Multip	ole Zone		Well No. < 300 < 300 < 3	57>
2. Name of Operator Edge Petroleum Operating Company, I	nc. <2244D	e)	9. API Well No.	25-3767	7
3a. Address 1301 Travis, Suite 2000 Houston, Texas 77002	3b. Phone No. (include area code) 713-654-8960		10. Field and Pool, or Lusk Delawar	Exploratory	
4. Location of Well Report location clearly and in accordance with an	y State requirements.*) UNIHB		11. Sec., T. R. M. or I	Blk. and Survey or Area	
At proposed prod. zone	Secretary's Potesta		Sec 34, T19S,	R32E	
14. Distance in miles and direction from nearest town or post office* 18 miles south of Maljamar			12. County or Parish Lea County	13. State	
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		g Unit dedicated to this	well	
18. Distance from proposed location*	19. Proposed Depth		BIA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft.	1500 7890'		000121		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3565'	22. Approximate date work will star 09/15/2005	rt*	23. Estimated duration 20 Days	n	
The following, completed in accordance with the requirements of Onshor			greton No. 4 Web	o Roselle	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	Item 20 above). Lands, the 5. Operator certific	ation specific inf		n existing bond on file (see	
25. Signature HVASAY NW SCL	Name (Printed/Typed) Lindsay Truesdell			Date 08/23/2005	
Title Consultant					
Approved by (Signature) 15/ DENNIS R. STENGE.	Name (Printed/Typed) N 15/ DENN	15 K	. STENGER	Date JAN 2	4 200s
FORSTATE DIRECTOR	Office NM S	TATE	OFFICE	24 4 2	2000
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equitable title to those righ	APPR	OVAL FO	R 1 YEAR	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	ime for any person knowingly and voo any matter within its jurisdiction.	villfully to n	nake to any department	or agency of the United	
*(Instructions on page 2)					
DECLARED WATER BASIN 3.47 CEMENT BEHIND THE 1378	·	_	roval 91/9 Eral Reou	uect to Hrements ai	MO
casing must be <u>lirculated</u>)	SPE	Cial Stipui		
MIMES		ATT	ached	1/	
DECLARED WATE	. ~//			KI	
the 1 V S than 2 V S I Law March 2 C C C C C C C C C C C C C C C C C C	U U 572				

CASING MUST BE CIRCULATED

State of New Mexico

DISTRICT I 1625 N. PRENCH DR., HOBBS, NM 88240

DISTRICT II

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

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

1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

1220 S. ST. PRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name		
30-025-3	7679	41500 4152D	4152D Lusk Delaware East		
Property Code		Prope	rty Name	Well Number	
300257		SE LUSK	34 FEDERAL	4	
OGRID No.		Opera	tor Name	Elevation	
224400	EDGE	PETROLEUM OP	ERATING COMPANY, INC.	3565'	

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	Rast/West line	County	Ì
В	34	19-S	32-E		990	NORTH	2310	EAST	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 Acre	Joint o	r Infill Co	nsolidation (Code Oro	ier No.				
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

NAD Y=59 X=67 LAT.=32	COORDINATES 27 NME 0218.3 N 8850.7 E	600,	2310'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Lindsay Truesdell Printed Name Consultant Title August 23, 2005 Date
	3'45'08.78" W	LOT 3	LOT 4	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison and that the same is true and correct to the best of my bettef. JULY 13, 2005 Date Surveyed
LOT 1	LOT 2			Professional Surveyor O Manual 19/05 ME 2 19/05 Description No. Gary Ethern 12841
39.46 AC	39.43 AC	39.39 AC	39.36 AC	AUTO CODIONIA

MULTI POINT SURFACE USE AND OPERATIONS PLAN FOR

EDGE PETROLEUM OPERATING COMPANY, INC. Southeast Lusk "34" Federal #4

Surface Location: 990' FNL & 2310' 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 State 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 2750' to this location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: Exhibit "C" is the proposed access road. It will be approximately 2752' long and 12' wide and run Northeast and South to the NW 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.
- E. 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 NW/4 NE/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. <u>CERTIFICATION</u>:

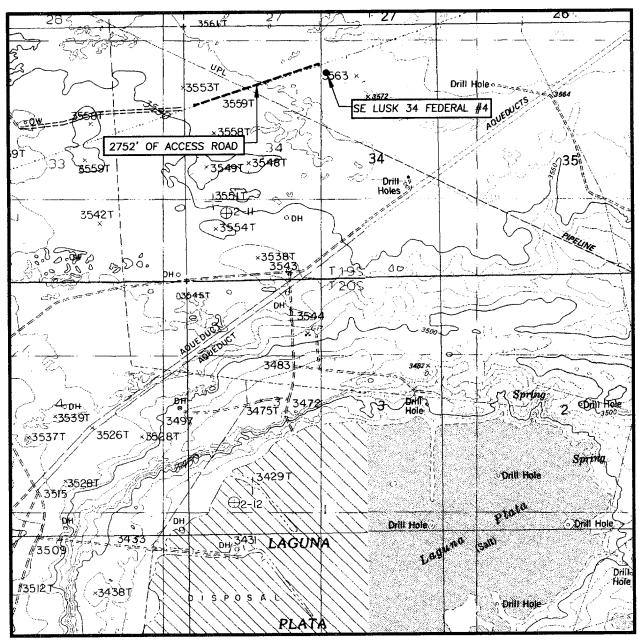
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated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

August 22, 2005

Lindsay Truesdell

Consultant

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 34	TWP. <u>19-S</u> RGE. <u>32-E</u>	
SURVEY	N.M.P.M.	
COUNTY	LEA	
DESCRIPTION	N <u>990' FNL & 2310' F</u>	EL
ELEVATION_	3565'	
_	OPERATING COMPANY,	<u>INC</u>
LEASES	SE LUSK 34 FEDERAL	
	POGRAPHIC MAP	

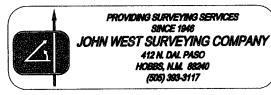


Exhibit "A"



VICINITY MAP

	,											
30	29	28	27	26	జ	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	ı	6	5	4	3	2	1	6
7	8	9	10	11	12	7	8	9	10	11	12	7
IS BRY LAKE	17	16	15	14	13 8	स हुह 18 स	17	16	15	14	13 8	R 34 8 18
HIZE LUSK PI	ANT ₂₀	T 21	19 S 22	23	24	19	20	21	22	23	24	19
39	29	28	27	26	25 E LUSK J	30 34 FEDER	29 AL #4	28	27	26	25	30
31	32	33	34	35	36	31	32 LAGUNA TONTO	33	34	35	36	31
6	5	4 LAGUNA PLATA	3	مدعم	1	6	5	*	3	2	PANCH.	°
MAL JAMAR	H126 8	, {	10	39 11	12	, NTO (8	9	10	ıı	12	7
18	17	16 ST. 243	15 200-C	14		18 7	LAGUNA GATUNA 17	5. 62-180 16	15	14	13	18
19	20	21 LAGUNA TOSTON	20 S	23	L AGUNA	19	20	21	22	23	24	19
30	29	28	27	26	25 👸	30	57. 176	28	27	26	25 gc	∯ 30

SCALE: 1" = 2 MILES

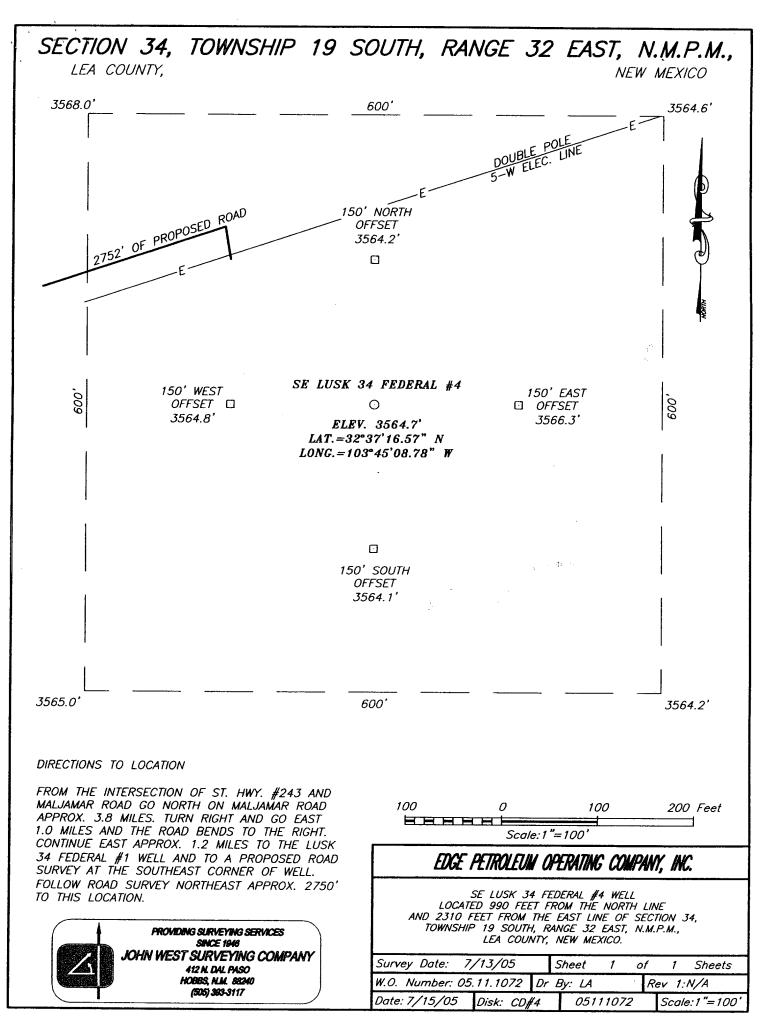
SEC. <u>34</u>	_ TWP. <u>19-S_</u> RGE. <u>32-E</u>
SURVEY	N.M.P.M.
COUNTY	LEA
DESCRIPTION	ON 990' FNL & 2310' FEL
ELEVATION	3565'
OPERATOR	EDGE PETROLEUM OPERATING COMPANY, INC.
LEACE	SE LUCK 34 EEDERAL



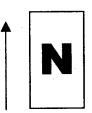
PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 383-3117

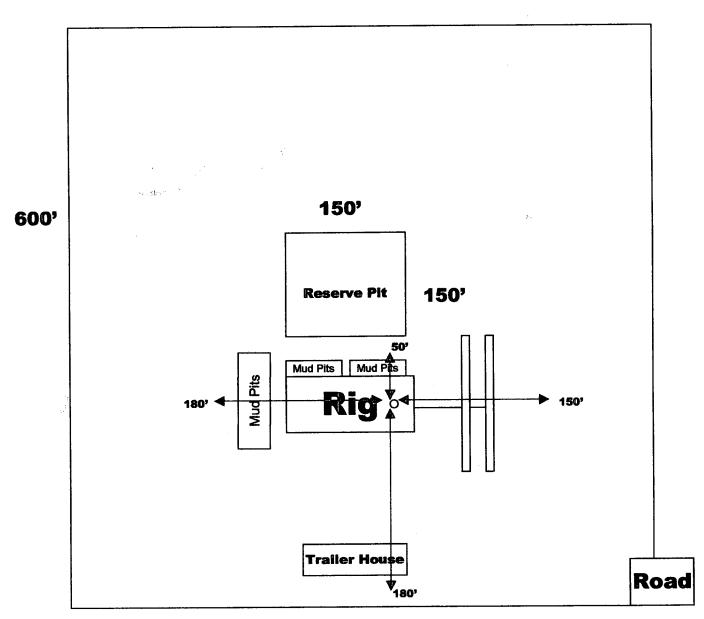
Exhibit "B"





DRILLING RIG LAYOUT Edge Petroleum Operating Co., Inc. Southeast Lusk 34 Federal #4





600'

Exhibit D Surface Use & Operations Plan

DRILLING PROGRAM

EDGE PETROLEUM OPERATING COMPANY, INC. SOUTHEAST LUSK "34" FEDERAL #4

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

Anhydrite	890'
Yates	2,695'
Capitan	3,062'
Delaware	4,270 ' (555)
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:

Interval Casing Size	Weight	Grade, Joint
0 – 40' 20"	94#	K-55, BTC
0 – 870' 890 , 13-3/8"	54.5#	N-80, BTC
0 2 ≥540°3080	45.5#	K-55, BTC
0 – 4,270' 7-5/8"	29.7#	N-80, LTC
0 - 7,500' 4-1/2"	11.6#	N-80, LTC
	0 - 40' 20" 0 - 870'890 13-3/8" 0 - 2,540'3090 10-3/4" 0 - 4,270' 7-5/8"	0 - 40' 20" 94# 0 - 876'890 13-3/8" 54.5# 0 - 2,540'3090 10-3/4" 45.5# 0 - 4,270' 7-5/8" 29.7#

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.

DEPTH (55)	DESCRIPTION	MUD WEIGHT	VISCOSITY	WATER LOSS
0-876' 390'	fresh water	8.6 – 8.8 ppg 10.0 – 10.2 pp	28 – 30 a 28 – 34	NC NC
890' - 3,080' 3,080' - 4,270'	brine water fresh water	8.4 – 8.6 ppg	28 – 29	NC NC
4,270' - 6.740' 7890'	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

ABNORMAL PRESSURES AND TEMPERATURES: 8.

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 #4

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.
 - 3. 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:

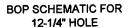
All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and line and valves shall be suitable for H₂S service.

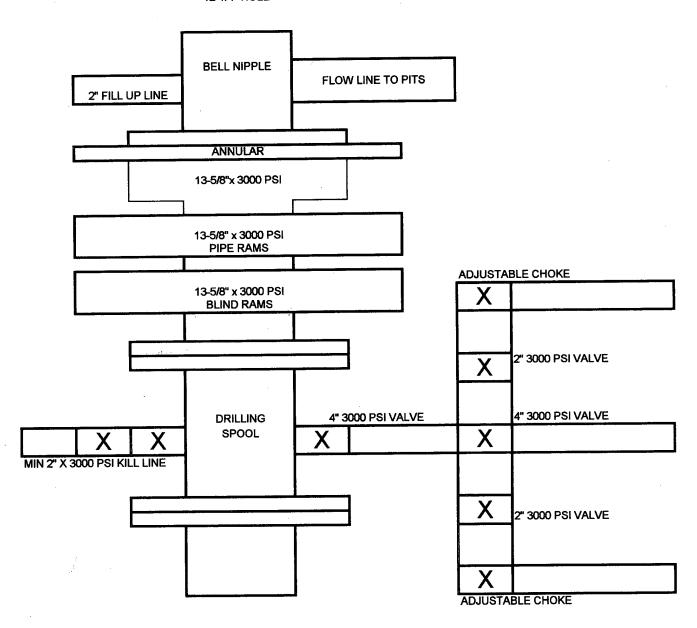
G. Communication:

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

H. Well Testing:

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.

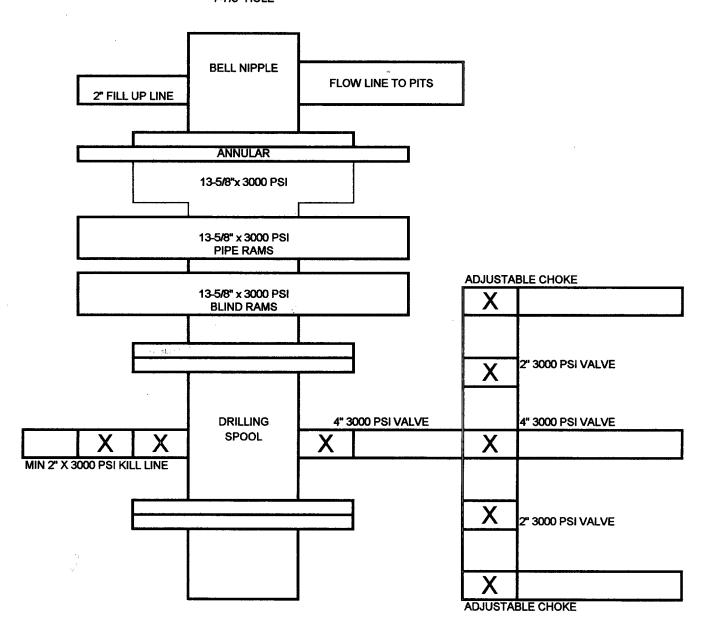




Edge Petroleum Operating Company, Inc. Southeast Lusk "34" Federal #4 Lea County, New Mexico

Exhibit 1

BOP SCHEMATIC FOR 7-7/8" HOLE



Edge Petroleum Operating Company, Inc. Southeast Lusk "34" Federal #4 Lea county, New Mexico

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

NW/4 NE/4 of Section 34

Bond Coverage:

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

BLM Bond File No.:

NMB-000121

Lindsay Truesdell

Agent

July 27, 2005

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

() Other.

Operator's Name Edge Petroleum Operating Co. Well Name & No. Southeast Lusk 34 Federal #4 Location 990 FNL & 2310 FEL 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 with6 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.				

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. 4 - Southeast Lusk 34 Federal

Location: 990' FNL & 2310' FEL sec. 34, T. 19 S., R. 32 E.

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

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: <u>13-3/8</u> inch <u>10-3/4</u> inch <u>7-5/8</u> inch <u>4-1/2</u> 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 <u>at approximately 890 feet (25 feet in the Rustler Anhydrite at approximately 865 feet)</u>, 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 <u>at approximately 4270 feet (at the Base of the Capitan Reef)</u> and the minimum required fill of cement behind the 7-5/8 inch intermediate casing is <u>sufficient to tie-back 200 feet into the 10-3/4 inch-intermediate casing set at approximately 3080 feet.</u> 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 13-3/8 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 7-5/8 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. 4 - Southeast Lusk 34 Federal Location: 990' FNL & 2310' FEL 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 #4

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:

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.

2. 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).

/_X / Ditching will be required on both sides attached map or as staked in the field.	of the roadway as shown on the
// Flat-blading is authorized on segment(s) delineated on the attached map.
3. DRAINAGE	
Drainage control shall be ensured over the enoutsloping, insloping, natural rolling topograp drainage dips.	ntire road through the use of borrow ditches, why, lead-off (turnout) ditches, culverts, and/or
	to drain water with a 1 percent minimum to 3 nterval for lead-off ditches shall be determined amended depending upon existing soil types
SPACING INTERVAL F	FOR TURNOUT DITCHES
Percent slope	• -
0% - 4%	400' - 150'
4% - 6%	
	200' - 100'
8% - 10%	150' - 75'
A typical lead-off ditch has a minimum depth natural ground level. The berm will be on the ditch end will tie into vegetation whenever po	e down-slope side of the lead-off ditch. The ossible.
For this road the spacing interval for lead-off	difches shall he at

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

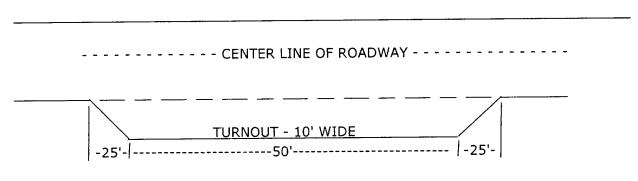
foot intervals.

- В. 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).
- On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-C. off ditch. Drainage dip location and spacing shall be determined by the formula:

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

TURNOUTS 4.

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-ofway 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:

Form 3160-5 (April 2004)

New Mexico Oil Conservation Division, District I

1625 N. French Drive
UNITED STATES 1625 N. French Drive
DEPARTMENT OF THE INTERIOR 53, NM 85249
BUREAU OF LAND MANAGEMENT

5. Lease Serial No.

FORM APPROVED OM B No. 1004-0137 Expires: March 31, 2007

		Expires:	March
5.	Lease	Serial No.	,

SUNDRY NOTICES AND REPORTS ON WELLS			NM 011	NM 01135			
Do not use this form for proposals to drill or to re-enter an			6. If Indian	, Allottee or Tribe Name			
abandoned well. Use Form 3160 - 3 (APD) for such proposals.				N/A	N/A		
SUBMIT IN TRIPLICATE- Other instructions on reverse side.				7. If Unit or CA/Agreement, Name and/or No.			
1. Type of Well ✓ Oil Well	Gas Well Other				N/A 8. Well Name and No.		
2. Name of Operator		·			ast Lusk 34 Federal #4		
2. Name of Operator Edge Petrole	um Operating Company, Inc.			9. API W	ell No.		
3a. Address 3b. Phone No. (include area code) 1301 Travis, Suite 2000; Houston, Texas 77002 713-654-8960				nd Pool, or Exploratory Area			
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)				Delaware			
Sec 34, T-19S, R-32E	990' FNL & 2310' FEL			11. County	11. County or Parish, State		
					ounty, New Mexico		
	PPROPRIATE BOX(ES) TO	INDICATE N.		REPORT, O	R OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION				
[7]	Acidize	Deepen	Production	(Start/Resume)	Water Shut-Off		
Notice of Intent	Alter Casing	Fracture Treat		1	Well Integrity		
Subsequent Report	Casing Repair	New Constru			Other		
Final Abandonment Notice	Change Plans Convert to Injection	☐ Plug and Aba ☐ Plug Back	ndon Temporarily Water Disp				
Edge Petroleum would lii On the 7-5/8" casing e External Casing Pack 10-3/4" casing at 295/ We propose the top of	ke to propose and Alternate Co tet at 4270', we propose to set a er (ECP). The External Casin 1 ± 2. Cement will be circulate cement to be at approximate	ement and Casin a DV Tool (Stage ig Packer is to be d to surface. y 2400' for the 4	g Program as follows: Collar) above an set inside the	y	SEP 2 0 2005 GARY GOURLEY TROLEUM ENGINEER		
14. Thereby certify that the for	egoing is true and correct						
Name (Printed/Typed) Lindsay Truesd	ıdi	1	Title Consultant				
Signature I NO							
	THIS SPACE FOR	FEDERAL (OR STATE OFFI	CE USE			
Approved by			Title		Date		
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.							
Title 18 U.S.C. Section 1001 and Ti	tle 43 U.S.C. Section 1212, make it	a crime for any p	erson knowingly and will	fully to make to a	ny 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)



District 1
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aziec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

For drilling and production facilities, submit to appropriate NMOCD District Office. For downstream facilities, submit to Santa Fe office

Form C-144 June 1, 2004

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tar Type of action: Registration of a pit	nk covered by a "general plan"? Yes 🔀 Nor below-grade tank 🗵 Closure of a pit or below-	No	
Operator: _Edge Petroleum Operating Company, IncTelepha Address: U01 Travia, Suite 2000; Houston, Texas 77002			
	D.025-37679 U/L or Qu/Qur_B_		
	_32"37"16.57" N Congitude _ 103"	45'98.78" W NAD: 1927 ☐ 1983 ☐	
Surface Owner: Federal 🖾 State 🔲 Private 🔲 Indian 🗍			
Pit Type: Drilling Production Disposal Workover Emergency Lined Unlined Liner type: Synthetic Thickness 12 mil Clay	Pelow-grade trail:		
Pit Volumebbi			
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) 0	
Welthead protection area: (Less than 200 feet from a private dornestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) 0	
Distance to surface water: (horizontal distance to all wedands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) •	
	Ranking Score (Total Points)	Ó	
If this is a pit closure: (1) Attach a diagram of the facility showing the pit your are burying in place) onsite [] offsite [] if offsite, name of facility_remediation start date and end date. (4) Groundwater encountered: No [] (5) Attach soil sample results and a diagram of sample locations and excava Additional Comments:	Yes [] If yes, show depth below ground surface	al description of remedial action taken including	
I hereby certify that the information above is true and complete to the best test been/will be constructed or closed according to NMOCD guideline	of my knowledge and belief. I further certify that so ☑, a general permit □, or an (attached) alter	if the above-described pit or below-grade tank reasive OCD-approved plan	
Date: _July 25, 2605 Printed Name/Title: Lindsay Truesdell / Consultant Your certification and NMOCD approval of this application/closure does a otherwise endanger public health or the environment. Nor does it relieve to regulations.	Signature Superator of liability should the contents operator of its responsibility for compliance with	pres of the pit or tank contaminate ground water or any other federal, state, or local laws and/or	
Approval: Printed Name/Title PETROLEUM ENGINEER	Signature	Date:	

FEB 0 3 2006