

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM NM 113962
SUBJECT TO LIKE APPROVAL BY STATE		6. If Indian, Allottee or Tribe Name N/A
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. N/A
2. Name of Operator Edge Petroleum Operating Company, Inc.		8. Lease Name and Well No. East Turkey Track 3 Federal #1
3a. Address 1301 Travis, Suite 2000 Houston, Texas 77002		9. API Well No. 30-015-34435
3b. Phone No. (include area code) 713-654-8960		10. Field and Pool, or Exploratory Hackberry; Morrow, North (Gas)
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface 1793' FNL & 1790' FWL At proposed prod. zone 1320' FSL & 1320' FWL		11. Sec., T. R. M. or Blk. and Survey or Area Sec 3, T-19S, R-30E
14. Distance in miles and direction from nearest town or post office*		12. County or Parish Eddy Co.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 847'		13. State NM
16. No. of acres in lease 320		17. Spacing Unit dedicated to this well W/2 of Sec 3
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. on file NMB 000121
19. Proposed Depth 13,200'		21. Estimated duration 20 Days
22. Approximate date work will start* 10/15/2005		23. Estimated duration 20 Days
24. Attachments		

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

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

25. Signature <i>Lindsay Truesdell</i>	Name (Printed/Typed) Lindsay Truesdell	Date 09/12/2005
Title Consultant		

Approved by (Signature) <i>Janice L. Gamby</i>	Name (Printed/Typed) Janice L. Gamby	Date NOV 10 2005
Title ACTING STATE DIRECTOR		Office NM STATE OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

Sal, 19.5

Caution Controlled Water Risk

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

WITNESS: 20" CEMENT JOB

H2S Contingency Plan or Letter of Statement
before spudding well.

BGA-000

DISTRICT I

1825 N. FRENCH DR., BOBBS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 96785	Pool Name Hackberry: Morrow, North (Gas)
Property Code	Property Name TURKEY TRACK 3 FEDERAL	Well Number 1
OGRID No. 224400	Operator Name EDGE PETROLEUM OPERATING COMPANY, INC.	Elevation 3419'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	3	19-S	30-E		1793	NORTH	1790	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	3	19-S	30-E		1330	SOUTH	1330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>LOT 4</p> <p>Lease # NM NM 8673 NW/4</p> <p>40.35 AC</p> <p>3421.4'</p> <p>1790'</p> <p>3424.4'</p> <p>3415.1'</p> <p>3417.4'</p> <p>600'</p> <p>600'</p> <p>GR. AZ = 191°49'45"</p> <p>HD = 2215.1'</p> <p>LOT 3</p> <p>40.36 AC</p> <p>LOT 2</p> <p>40.38 AC</p> <p>LOT 1</p> <p>40.39 AC</p> <p>GEODETIC COORDINATES NAD 27 NME SURF. Y=615525.2 N X=614219.0 E LAT.=32°41'29.86" N LONG.=103°57'43.44" W</p> <p>LOT 4</p> <p>Lease # NM NM 113962 SW/4</p> <p>1330'</p> <p>B.H.</p> <p>Y=613357.6 N X=613764.9 E</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Lindsay Truesdell</i></p> <p>Signature</p> <p>Lindsay Truesdell</p> <p>Printed Name</p> <p>Consultant</p> <p>Title</p> <p>September 12, 2005</p> <p>Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>AUGUST 17, 2005</p> <p>Date Surveyed</p> <p>Signature <i>GARY BRIDSON</i></p> <p>Professional Surveyor</p> <p>NEW MEXICO</p> <p>05.11.123</p> <p>8/25/05</p> <p>Certificate No. GARY BRIDSON 12841</p>
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District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos 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

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

Form C-144
June 1, 2004

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: <u>Edge Petroleum Operating Company, Inc.</u> Telephone: <u>(713) 654-8960</u> e-mail address: <u>hedgesy@edford.com</u>		
Address: <u>1301 Travis, Suite 2000, Houston, Texas 77002</u>		
Facility or well name: <u>East Turkey Track 3 Federal #1</u> API #: _____ U/L or Qw/Qtr <u>F</u> Sec <u>3</u> T <u>19S</u> R <u>30E</u>		
County: <u>Eddy</u> Latitude <u>32°41'29.86" N</u> Longitude <u>103°57'43.44" W</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
Pit	Below-grade tank	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/>	Volume: _____ bbl Type of fluid: _____	
Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/>	Construction material: _____	
Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/>	Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____	
Pit Volume _____ bbl		
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
Wellhead protection area: (Less than 200 feet from a private domestic 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 wetlands, 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) 0
Ranking Score (Total Points)		0

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility: _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> or an (attached) alternative OCD-approved plan <input type="checkbox"/> .	
Date: <u>September 15, 2005</u>	Signature: <u>Lindsay Truesdell</u>
Printed Name/Title: <u>Lindsay Truesdell / Consultant</u>	
Your certification and NMOC approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Approval: _____	Signature: <u>[Signature]</u>
Printed Name/Title: _____	Date: <u>OCT 5 2005</u>

D. RECORD LESSEE:

Edge Petroleum Exploration Company

100%

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)

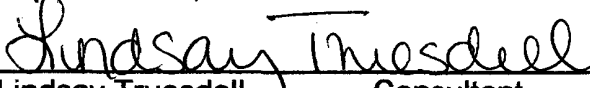
432-559-2222 (Cell)

Randell@rkford.com (E-mail)

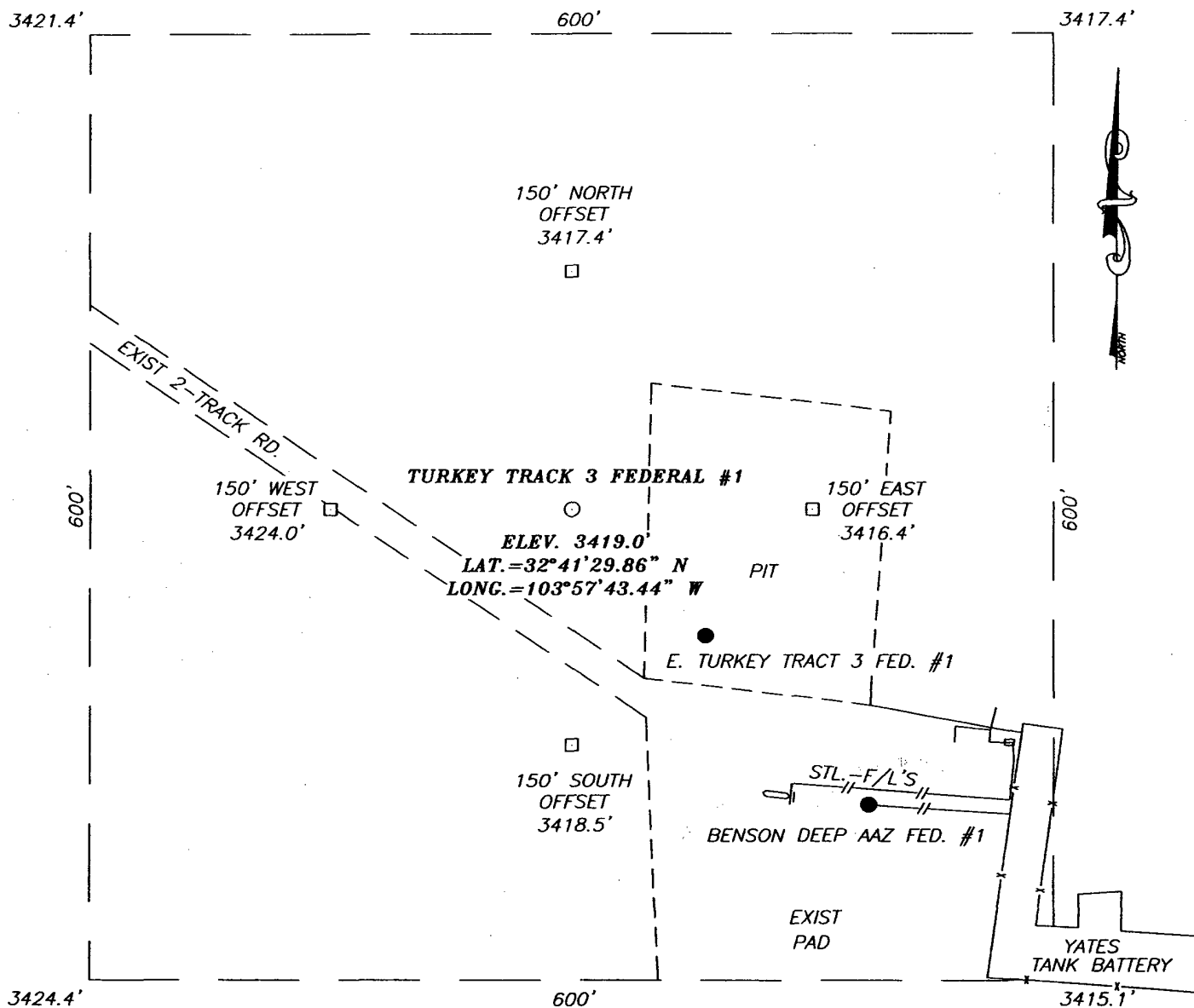
13. CERTIFICATION:

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 Edge Petroleum Operating Company, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

September 12, 2005

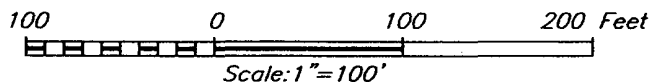

Lindsay Truesdell Consultant

SECTION 3, TOWNSHIP 19 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF EDDY CO. RD. #251 (DUVAL SHAFT RD.) AND CO. RD. #250 (GRUBBS RD.). GO EAST/NE ON GRUBBS RD. APPROX. 1.1 MILES. VEER RIGHT AND GO SOUTH ON CALICHE ROAD APPROX. 1.5 MILES TO YATES BENSON DEEP AAZ FED. #1 WELL. FROM NW CORNER OF PAD FOLLOW OLD 2-TRACK ROAD NW APPROX. 110'. THIS LOCATION IS APPROX. 70' NE.

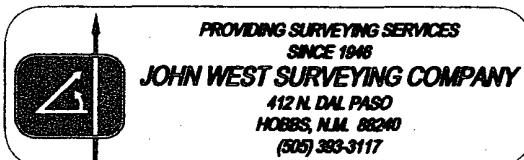


EDGE PETROLEUM OPERATING COMPANY, INC.

TURKEY TRACK 3 FEDERAL #1 WELL
 LOCATED 1793 FEET FROM THE NORTH LINE
 AND 1790 FEET FROM THE WEST LINE OF SECTION 3,
 TOWNSHIP 19 SOUTH, RANGE 30 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 08/17/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.1237	Dr By: J.R.
Date: 08/22/05	Disk: CD#4
05111237	Scale: 1"=100'

Exhibit "B"



DRILLING PROGRAM

EDGE PETROLEUM OPERATING COMPANY, INC.

East Turkey Track 3 Federal #1

Section 6, T-19-S, R-30-E

Eddy 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:

Queen	2,854'
Delaware	3,200'
San Andres	3,500'
Bone Spring lm	6,200'
3 rd Bone Spring sd	10,000'
Wolfcamp	10,200'
Strawn	11,500'
Atoka	11,800'
Morrow	12,500'
Chester	12,900'
Total Depth	13,200'

2. ESTIMATED DEPTHS TO WATER, OIL, OR GAS FORMATIONS:

Fresh Water	Above 200'
Oil and Gas	San Andres, Bone Springs, Atoka

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 (8-1/2") 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:

<u>Hole Size</u>	<u>Interval</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade, Joint</u>
26"	0 - 450'	20"	106#	H-40 STC
17-1/2"	0 - 1,900'	13-3/8"	68#	K-55 STC
12-1/4"	0 - 3,200'	9-5/8"	43.5-47#	K-55 STC
8-1/2"	0 - 13,200'	5-1/2"	23#	N-80 LTC

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.

5. PROPOSED CEMENTING PROGRAM

20" conductor	cemented with ready mix to surface
13-3/8" surface	500 sxs Premium Plus cement, 2% calcium chloride
9-5/8" intermediate	650 sxs Premium Plus cement, 2% calcium chloride
5-1/2" production	280 sxs Light Cement
	280 sxs Super "H" cement .5% Halad, .4% CFR-3, 3# per sx Gilsonite

6. PROPOSED MUD SYSTEM:

<u>DEPTH</u>	<u>DESCRIPTION</u>	<u>MUD WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>
0 – 450'	spud mud	8.4 – 9.4 ppg	32 – 34	NC
450 – 1,900'	brine water	10.0 – 10.1 ppg	28	NC
1,900 – 3,200'	fresh water	8.4 – 8.5 ppg	28	NC
3,200 – 10,600'	fresh water	8.3 – 9.2 ppg	28	NC
10,600 – 13,200'	brine water	9.2 – 9.6 ppg	32 – 40	10 – 6 cc

7. TESTING, LOGGING AND CORING PROGRAM:

Samples	Possible 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 4,900psi. 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 October 15, 2005. Drilling should be completed within 20 days followed by completion operations.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

EDGE PETROLEUM OPERATING COMPANY, INC.

East Turkey Track 3 Federal #1

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.
 - 2.** 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 dog house 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 from 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.

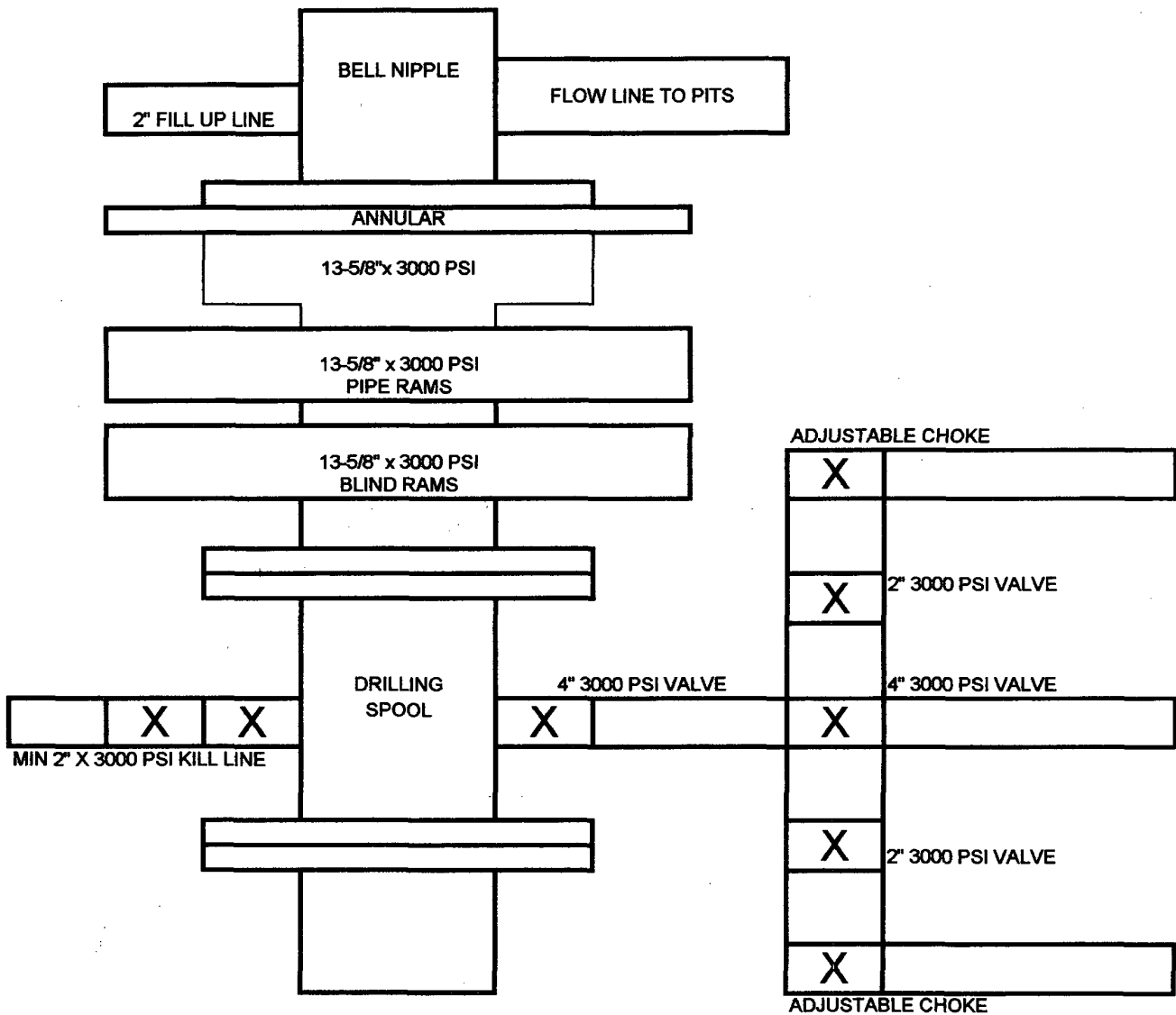
G. Communication:

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 H₂S environment will be conducted during the daylight hours.

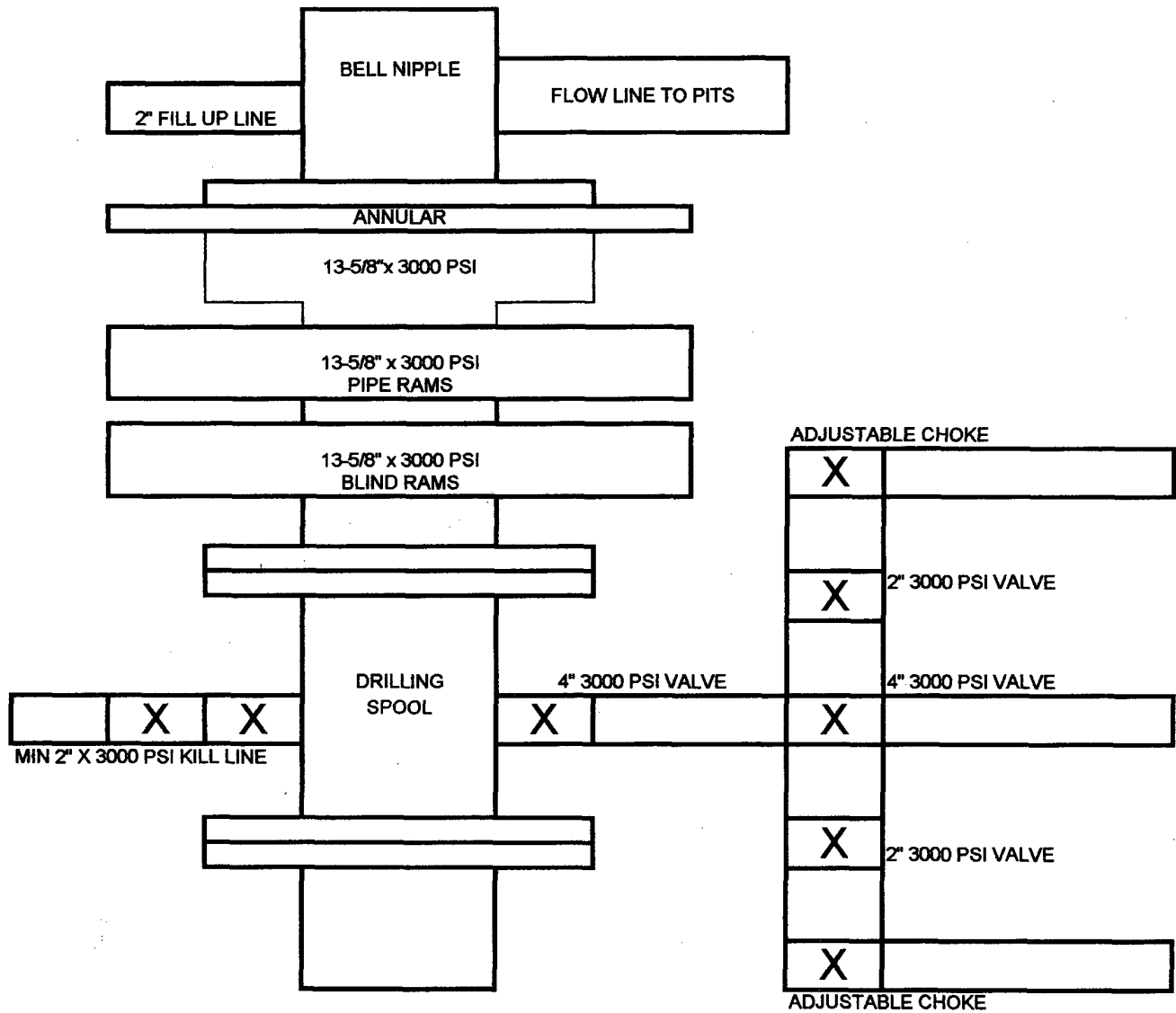
BOP SCHEMATIC FOR
12-1/4" HOLE



Edge Petroleum Operating Company, Inc.
East Turkey Track 3 Federal 31
Eddy County, New Mexico

Exhibit 1

BOP SCHEMATIC FOR
8-1/2" HOLE



Edge Petroleum Operating Company, Inc.
East Turkey Track 3 Federal #1
Eddy County, New Mexico

Exhibit 2

PathFinder Planning Report

Company: Edge Petroleum Corporation
Field: Turkey Track
Site: Section 3, T19-S, R30-E
Well: East Turkey Track 3 Federal #1
Wellpath: Original Hole

Date: 9/1/2005 **Time:** 09:05:06 **Page:**
Co-ordinate(N/E) Reference: Site: Section 3, T19-S, R30-E, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,191.83Azi)
Plan: Plan #2 090105

Page: 1

Field: Turkey Track
Eddy County, New Mexico

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: igrf2005

Site: Section 3, T19-S, R30-E

Eddy County, New Mexico

Site Position:	Northing:	615525.20 ft	Latitude:	32 41	29.861 N
From: Map	Easting:	614219.00 ft	Longitude:	103 57	43.437 W
Position Uncertainty:	0.00 ft		North Reference:		Grid
Ground Level:	3419.00 ft		Grid Convergence:		0.20 deg

Well: East Turkey Track 3 Federal #1

Slot Name:

Well Position:	+N/-S	0.00 ft	Northing:	615525.20 ft	Latitude:	32 41 29.861 N
	+E/-W	0.00 ft	Easting :	614219.00 ft	Longitude:	103 57 43.437 W
Position Uncertainty:		0.00 ft				

Wellpath: Original Hole

Drilled From:	Surface
Tie-on Depth:	0.00 ft
Above System Datum:	Mean Sea Level
Declination:	8.48 deg
Mag Dip Angle:	60.70 deg
+E/-W	Direction
ft	deg
0 00	191.83

Current Datum:	SITE	Height	0.00 ft
Magnetic Data:	9/1/2005		
Field Strength:	49475 nT		
Vertical Section:	Depth From (TVD)	+N/-S	
	ft	ft	
	0.00	0.00	

Plan: Plan #2 090105

Date Composed: 9/1/2005
Version: 1
Tied-to: From Surface

Principal: No

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	191.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	191.83	3300.00	0.00	0.00	0.00	0.00	0.00	191.83	
4027.37	14.55	191.83	4019.58	-89.89	-18.83	2.00	2.00	0.00	191.83	
12478.74	14.55	191.83	12200.00	-2167.60	-454.10	0.00	0.00	0.00	0.00	E Turkey Track 3 Fed #1 P

Survey

[illegible]

PathFinder

Planning Report

Company: Edge Petroleum Corporation
 Field: Turkey Track
 Site: Section 3, T19-S, R30-E
 Well: East Turkey Track 3 Federal #1
 Wellpath: Original Hole

Date: 9/1/2005 Time: 09:05:06 Page: 2
 Co-ordinate(NE) Reference: Site: Section 3, T19-S, R30-E, Grid Nort
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,191.83Azi)
 Plan: Plan #2 090105

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1600.00	0.00	191.83	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1700.00	0.00	191.83	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	191.83	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	191.83	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	13 3/8" Csg Point
2000.00	0.00	191.83	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	191.83	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	191.83	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	191.83	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	191.83	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	191.83	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	191.83	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	191.83	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	191.83	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	191.83	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	191.83	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	191.83	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	191.83	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	9 5/8" Csg Point
3300.00	0.00	191.83	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 3300' w/2° Build Ra
3400.00	2.00	191.83	3399.98	-1.71	-0.36	1.75	2.00	2.00	0.00	
3500.00	4.00	191.83	3499.84	-6.83	-1.43	6.98	2.00	2.00	0.00	
3500.16	4.00	191.83	3500.00	-6.84	-1.43	6.99	0.00	0.00	0.00	San Andres
3600.00	6.00	191.83	3599.45	-15.36	-3.22	15.69	2.00	2.00	0.00	
3700.00	8.00	191.83	3698.70	-27.29	-5.72	27.88	2.00	2.00	0.00	
3800.00	10.00	191.83	3797.47	-42.60	-8.92	43.52	2.00	2.00	0.00	
3900.00	12.00	191.83	3895.62	-61.27	-12.84	62.60	2.00	2.00	0.00	
4000.00	14.00	191.83	3993.06	-83.29	-17.45	85.10	2.00	2.00	0.00	
4027.37	14.55	191.83	4019.58	-89.89	-18.83	91.84	2.00	2.00	0.00	End of Build @ 14.55° Inc
4100.00	14.55	191.83	4089.88	-107.75	-22.57	110.09	0.00	0.00	0.00	
4200.00	14.55	191.83	4186.68	-132.33	-27.72	135.21	0.00	0.00	0.00	
4300.00	14.55	191.83	4283.47	-156.92	-32.87	160.32	0.00	0.00	0.00	
4400.00	14.55	191.83	4380.26	-181.50	-38.02	185.44	0.00	0.00	0.00	
4500.00	14.55	191.83	4477.06	-206.09	-43.17	210.56	0.00	0.00	0.00	
4600.00	14.55	191.83	4573.85	-230.67	-48.32	235.68	0.00	0.00	0.00	
4700.00	14.55	191.83	4670.65	-255.25	-53.47	260.80	0.00	0.00	0.00	
4800.00	14.55	191.83	4767.44	-279.84	-58.62	285.91	0.00	0.00	0.00	
4900.00	14.55	191.83	4864.23	-304.42	-63.77	311.03	0.00	0.00	0.00	
5000.00	14.55	191.83	4961.03	-329.01	-68.93	336.15	0.00	0.00	0.00	
5100.00	14.55	191.83	5057.82	-353.59	-74.08	361.27	0.00	0.00	0.00	
5200.00	14.55	191.83	5154.62	-378.18	-79.23	386.39	0.00	0.00	0.00	
5300.00	14.55	191.83	5251.41	-402.76	-84.38	411.50	0.00	0.00	0.00	
5400.00	14.55	191.83	5348.20	-427.34	-89.53	436.62	0.00	0.00	0.00	
5500.00	14.55	191.83	5445.00	-451.93	-94.68	461.74	0.00	0.00	0.00	
5600.00	14.55	191.83	5541.79	-476.51	-99.83	486.86	0.00	0.00	0.00	
5700.00	14.55	191.83	5638.59	-501.10	-104.98	511.98	0.00	0.00	0.00	
5800.00	14.55	191.83	5735.38	-525.68	-110.13	537.09	0.00	0.00	0.00	
5866.76	14.55	191.83	5800.00	-542.09	-113.57	553.86	0.00	0.00	0.00	Bone Springs
5900.00	14.55	191.83	5832.17	-550.27	-115.28	562.21	0.00	0.00	0.00	
6000.00	14.55	191.83	5928.97	-574.85	-120.43	587.33	0.00	0.00	0.00	
6100.00	14.55	191.83	6025.76	-599.43	-125.58	612.45	0.00	0.00	0.00	
6200.00	14.55	191.83	6122.56	-624.02	-130.73	637.56	0.00	0.00	0.00	
6300.00	14.55	191.83	6219.35	-648.60	-135.88	662.68	0.00	0.00	0.00	
6400.00	14.55	191.83	6316.14	-673.19	-141.03	687.80	0.00	0.00	0.00	
6500.00	14.55	191.83	6412.94	-697.77	-146.18	712.92	0.00	0.00	0.00	

PathFinder

Planning Report

Company: Edge Petroleum Corporation
 Field: Turkey Track
 Site: Section 3, T19-S, R30-E
 Well: East Turkey Track 3 Federal #1
 Wellpath: Original Hole

Date: 9/1/2005
 Co-ordinate(NE) Reference: Site: Section 3, T19-S, R30-E, Grid Nort
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,191.83Azi)
 Plan: Plan #2 090105

Page: 3

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6600.00	14.55	191.83	6509.73	-722.36	-151.33	738.04	0.00	0.00	0.00	
6700.00	14.55	191.83	6606.53	-746.94	-156.48	763.15	0.00	0.00	0.00	
6800.00	14.55	191.83	6703.32	-771.52	-161.63	788.27	0.00	0.00	0.00	
6900.00	14.55	191.83	6800.12	-796.11	-166.78	813.39	0.00	0.00	0.00	
7000.00	14.55	191.83	6896.91	-820.69	-171.93	838.51	0.00	0.00	0.00	
7100.00	14.55	191.83	6993.70	-845.28	-177.08	863.63	0.00	0.00	0.00	
7200.00	14.55	191.83	7090.50	-869.86	-182.23	888.74	0.00	0.00	0.00	
7300.00	14.55	191.83	7187.29	-894.45	-187.38	913.86	0.00	0.00	0.00	
7400.00	14.55	191.83	7284.09	-919.03	-192.53	938.98	0.00	0.00	0.00	
7500.00	14.55	191.83	7380.88	-943.61	-197.68	964.10	0.00	0.00	0.00	
7600.00	14.55	191.83	7477.67	-968.20	-202.83	989.22	0.00	0.00	0.00	
7700.00	14.55	191.83	7574.47	-992.78	-207.98	1014.33	0.00	0.00	0.00	
7800.00	14.55	191.83	7671.26	-1017.37	-213.13	1039.45	0.00	0.00	0.00	
7900.00	14.55	191.83	7768.06	-1041.95	-218.28	1064.57	0.00	0.00	0.00	
8000.00	14.55	191.83	7864.85	-1066.54	-223.43	1089.69	0.00	0.00	0.00	
8100.00	14.55	191.83	7961.64	-1091.12	-228.58	1114.81	0.00	0.00	0.00	
8200.00	14.55	191.83	8058.44	-1115.70	-233.73	1139.92	0.00	0.00	0.00	
8300.00	14.55	191.83	8155.23	-1140.29	-238.88	1165.04	0.00	0.00	0.00	
8400.00	14.55	191.83	8252.03	-1164.87	-244.03	1190.16	0.00	0.00	0.00	
8500.00	14.55	191.83	8348.82	-1189.46	-249.18	1215.28	0.00	0.00	0.00	
8600.00	14.55	191.83	8445.61	-1214.04	-254.33	1240.40	0.00	0.00	0.00	
8700.00	14.55	191.83	8542.41	-1238.63	-259.49	1265.51	0.00	0.00	0.00	
8800.00	14.55	191.83	8639.20	-1263.21	-264.64	1290.63	0.00	0.00	0.00	
8900.00	14.55	191.83	8736.00	-1287.79	-269.79	1315.75	0.00	0.00	0.00	
9000.00	14.55	191.83	8832.79	-1312.38	-274.94	1340.87	0.00	0.00	0.00	
9100.00	14.55	191.83	8929.58	-1336.96	-280.09	1365.99	0.00	0.00	0.00	
9200.00	14.55	191.83	9026.38	-1361.55	-285.24	1391.10	0.00	0.00	0.00	
9300.00	14.55	191.83	9123.17	-1386.13	-290.39	1416.22	0.00	0.00	0.00	
9400.00	14.55	191.83	9219.97	-1410.72	-295.54	1441.34	0.00	0.00	0.00	
9500.00	14.55	191.83	9316.76	-1435.30	-300.69	1466.46	0.00	0.00	0.00	
9600.00	14.55	191.83	9413.55	-1459.88	-305.84	1491.58	0.00	0.00	0.00	
9700.00	14.55	191.83	9510.35	-1484.47	-310.99	1516.69	0.00	0.00	0.00	
9792.62	14.55	191.83	9600.00	-1507.24	-315.76	1539.96	0.00	0.00	0.00	Wolfcamp
9800.00	14.55	191.83	9607.14	-1509.05	-316.14	1541.81	0.00	0.00	0.00	
9900.00	14.55	191.83	9703.94	-1533.64	-321.29	1566.93	0.00	0.00	0.00	
10000.00	14.55	191.83	9800.73	-1558.22	-326.44	1592.05	0.00	0.00	0.00	
10100.00	14.55	191.83	9897.52	-1582.81	-331.59	1617.17	0.00	0.00	0.00	
10200.00	14.55	191.83	9994.32	-1607.39	-336.74	1642.28	0.00	0.00	0.00	
10300.00	14.55	191.83	10091.11	-1631.97	-341.89	1667.40	0.00	0.00	0.00	
10400.00	14.55	191.83	10187.91	-1656.56	-347.04	1692.52	0.00	0.00	0.00	
10500.00	14.55	191.83	10284.70	-1681.14	-352.19	1717.64	0.00	0.00	0.00	
10600.00	14.55	191.83	10381.49	-1705.73	-357.34	1742.75	0.00	0.00	0.00	
10700.00	14.55	191.83	10478.29	-1730.31	-362.49	1767.87	0.00	0.00	0.00	
10800.00	14.55	191.83	10575.08	-1754.89	-367.64	1792.99	0.00	0.00	0.00	
10900.00	14.55	191.83	10671.88	-1779.48	-372.79	1818.11	0.00	0.00	0.00	
10929.05	14.55	191.83	10700.00	-1786.62	-374.29	1825.41	0.00	0.00	0.00	Strawn
11000.00	14.55	191.83	10768.67	-1804.06	-377.94	1843.23	0.00	0.00	0.00	
11100.00	14.55	191.83	10865.47	-1828.65	-383.09	1868.34	0.00	0.00	0.00	
11200.00	14.55	191.83	10962.26	-1853.23	-388.24	1893.46	0.00	0.00	0.00	
11238.99	14.55	191.83	11000.00	-1862.82	-390.25	1903.26	0.00	0.00	0.00	Atoka
11300.00	14.55	191.83	11059.05	-1877.82	-393.39	1918.58	0.00	0.00	0.00	
11400.00	14.55	191.83	11155.85	-1902.40	-398.54	1943.70	0.00	0.00	0.00	
11500.00	14.55	191.83	11252.64	-1926.98	-403.69	1968.82	0.00	0.00	0.00	
11600.00	14.55	191.83	11349.44	-1951.57	-408.84	1993.93	0.00	0.00	0.00	

PathFinder

Planning Report

Company: Edge Petroleum Corporation
 Field: Turkey Track
 Site: Section 3, T19-S, R30-E
 Well: East Turkey Track 3 Federal #1
 Wellpath: Original Hole

Date: 9/1/2005 Time: 09:05:06 Page: 4
 Co-ordinate(NE) Reference: Site: Section 3, T19-S, R30-E, Grid Nort
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,191.83Azi)
 Plan: Plan #2 090105

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
11700.00	14.55	191.83	11446.23	-1976.15	-413.99	2019.05	0.00	0.00	0.00	
11800.00	14.55	191.83	11543.02	-2000.74	-419.14	2044.17	0.00	0.00	0.00	
11807.21	14.55	191.83	11550.00	-2002.51	-419.51	2045.98	0.00	0.00	0.00	Morrow
11900.00	14.55	191.83	11639.82	-2025.32	-424.29	2069.29	0.00	0.00	0.00	
12000.00	14.55	191.83	11736.61	-2049.91	-429.44	2094.41	0.00	0.00	0.00	
12100.00	14.55	191.83	11833.41	-2074.49	-434.59	2119.52	0.00	0.00	0.00	
12200.00	14.55	191.83	11930.20	-2099.07	-439.74	2144.64	0.00	0.00	0.00	
12300.00	14.55	191.83	12026.99	-2123.66	-444.89	2169.76	0.00	0.00	0.00	
12400.00	14.55	191.83	12123.79	-2148.24	-450.04	2194.88	0.00	0.00	0.00	
12478.74	14.55	191.83	12200.00	-2167.60	-454.10	2214.65	0.00	0.00	0.00	E Turkey Track 3 Fed #1 P

Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec
E Turkey Track 3 Fed #1 PBHL -Plan hit target		12200.00	-2167.60	-454.10	613357.60	613764.90	32 41 8.427 N	103 57 48.839 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
450.00	450.00	20.000	26.000	20" Csg Point
1900.00	1900.00	13.375	17.500	13 3/8" Csg Point
3200.00	3200.00	9.625	12.250	9 5/8" Csg Point

Annotation

MD ft	TVD ft	
3300.00	3300.00	KOP @ 3300' w/2° Build Rates
3500.16	3500.00	San Andres
4027.37	4019.58	End of Build @ 14.55° Inclination
5866.76	5800.00	Bone Springs
9792.62	9600.00	Wolfcamp
10929.05	10700.00	Strawn
11238.99	11000.00	Atoka
11807.21	11550.00	Morrow

Edge Petroleum Operating Company, Inc.

East Turkey Track 3 Federal #1 Section 3, T19-S, R30-E Eddy County, New Mexico Plan #2 090105

PATHFINDER

ENERGY SERVICES

COMPANY DETAILS

Edge Petroleum Corporation
1301 Travis St., Ste. 2000
Houston, TX 77002

Calculation Method: Minimum Curvature
Error System: Systematic Ellipse
Scan Method: Closest Approach 3D
Error Surface: Elliptical Cone
Warning Method: Error Ratio

SITE DETAILS

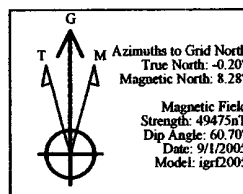
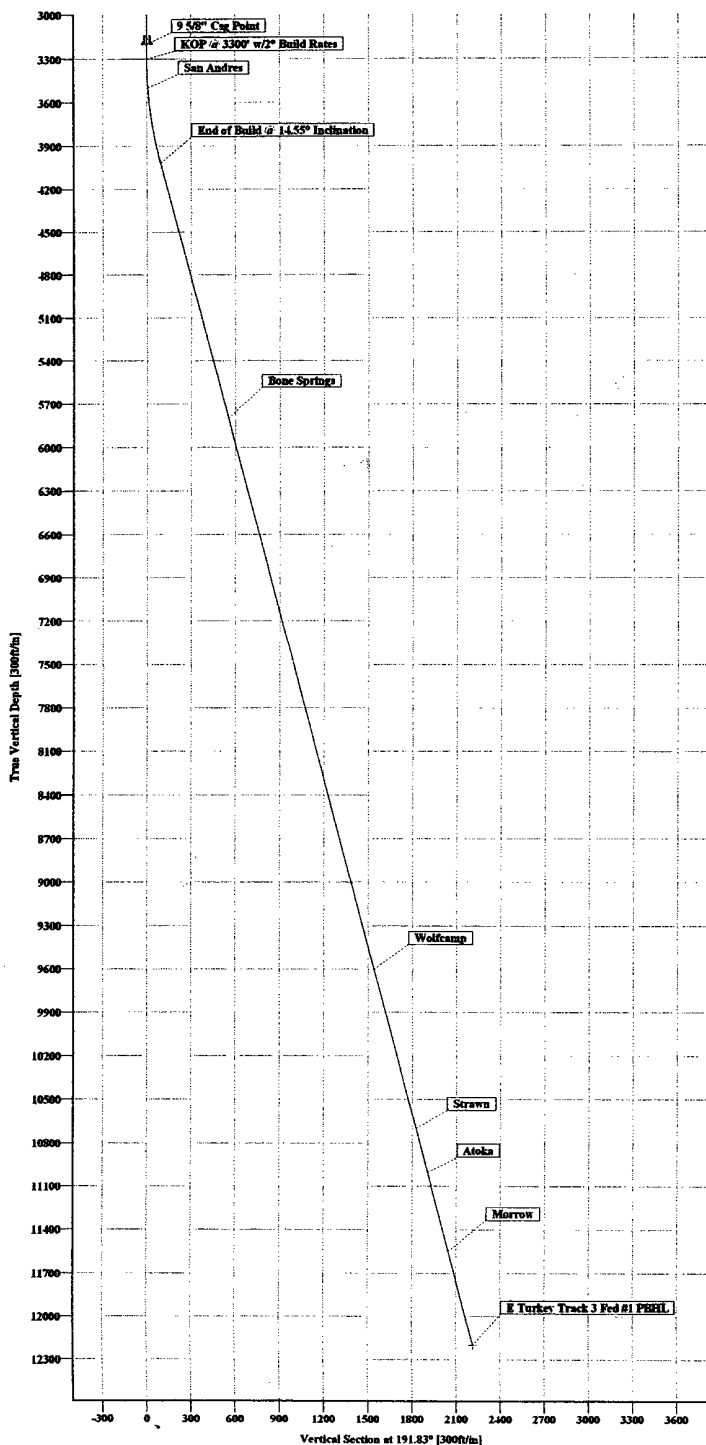
Section 3, T19-S, R30-E
Eddy County, New Mexico

Site Centre Northing: 615525.20
Easting: 614219.00

Ground Level: 3419.00
Positional Uncertainty: 0.00
Convergence: 0.20

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	191.83	0.00	0.00	0.00	0.00	0.00	0.00	
2	3300.00	0.00	191.83	3300.00	0.00	0.00	0.00	191.83	0.00	
3	4027.37	14.55	191.83	4019.58	-89.89	-18.83	2.00	191.83	91.84	
4	12478.74	14.55	191.83	12200.00	-2167.60	-454.10	0.00	0.00	2214.65	E Turkey Track 3 Fed #1 PBHL

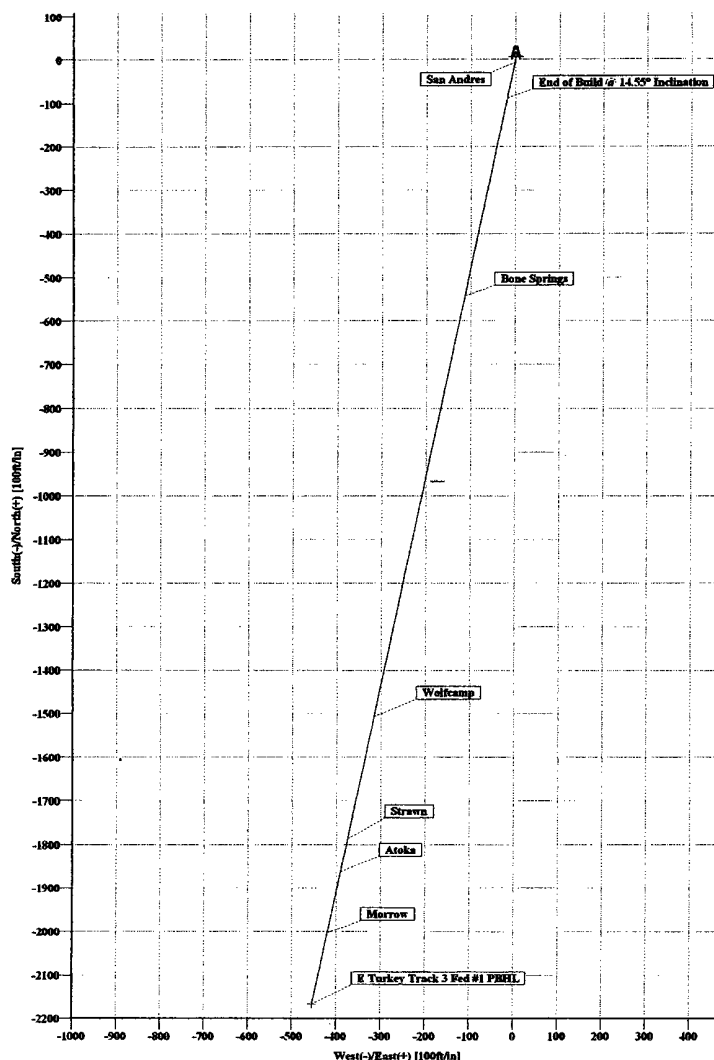


FIELD DETAILS

Turkey Track
Eddy County, New Mexico
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: igrf2005
System Datum: Mean Sea Level
Local North: Grid North

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
East Turkey Track 3 Federal #1	0.00	0.00	615525.20	614219.00	32°41'29.861N	103°57'43.437W	N/A



Recommended Drilling Fluids Program and Cost Estimate

For:

**Edge Petroleum Corporation
1301 Travis, Suite 2000
Houston, TX 77002**

The

East Turkey Track "3" Federal # 1

Located in:

**Sec. 3, T-19-S, R-30-E,
Eddy Co., NM**

Prepared especially for:

**Mr. Daniel Hurd
District Engineer**

"The Nova Difference"

A Commitment to Service and Quality

INTERVAL: 0 - 450		26" hole	2 days	20" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier		10-12 ppb	100 #	70	\$7.28	\$509.60
Ground Paper	Seepage and sweeps		1-3 sacks per 100 feet	40 #	15	\$8.50	\$127.50
Lime	pH additive, flocculant		1 sack per 15 sacks of bentonite	50 #	5	\$4.79	\$23.95
Plastic	Storage aid		Cover mud	1 roll	1	\$37.50	\$37.50
Soda Ash	Calcium remover		1 sack per 15 sacks of bentonite	50 #	10	\$9.10	\$91.00
Interval Total:						<u>\$789.55</u>	

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Solids - % by vol.
0' - 450'	8.4-9.4	32-34	N/C	9.0	3-8

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 200'	Ogalalla	Sand	Seepage, caving
200' - 450'	Dockum	Red shale	Swelling, sloughing clay, excessive solids, mud rings

Interval Notes for 0 - 450

Spud with a conventional Bentonite and Lime slurry using Fresh Water. Circulate the working pits. Add small amounts Soda Ash and Lime to enhance carrying capacity. Maintain the viscosity as needed to clean the hole. Use Ground Paper sweeps periodically to control seepage and aid in hole cleaning. Use the jet and dilute method of solids control to keep the weight below 9.4 ppg. Should losses occur add 6-12 ppb of various LCM's to the system or mix viscous (40-50) Bentonite pills containing LCM to regain returns. Should several attempts fail we would recommend dry drilling to total and sweeping the hole with viscous pills or polymers.

INTERVAL: 450 - 1,900		17.5" hole	3 days	13.375" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Hole sweep		12-14 ppb in sweeps	100 #	120	\$7.28	\$873.60
Cedar Fiber/Fiber Plug	LCM, sealant		10-20 ppb in pills	40 #	50	\$6.14	\$307.00
Ground Paper	Seepage and sweeps		1-3 sacks per 200 feet	40 #	50	\$8.50	\$425.00
Lime	pH additive		.5 ppb	50 #	30	\$4.79	\$143.70
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant		10-20 ppb in pills	40 #	50	\$13.20	\$660.00
MF-55/VisPlus(non-ionic)	Flocculant, hole sweep		1 qt down drill pipe for sweep	5 gal.	2	\$87.00	\$174.00
Interval Total:						<u>\$2,583.30</u>	

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
450' - 1,900'	10.0-10.1	28	N/C	10.0	186K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 900'	Salt	Salt	Dissolution, hole enlargement
450' - 600'	Rustler	Anhydrite	
900' - 1,520'	Salado	Salt, anhydrite & dolomite stringers	Dissolution, hole enlargement, deviation
1,520' - 1,900'	Tansill	Anhydrite, sand	

Interval Notes for 450 - 1,900

Drill out from surface with Brine circulating the reserve. Adjust the pH to 10.0 with Lime. Use Ground Paper sweeps periodically to control seepage and enhance hole cleaning. Viscous (50-60) Salt Gel pills may be necessary to clean the large diameter hole. Small amounts of MF-55 should be used as needed to flocculate fine drill solids and to clean the hole. Add 6-10 ppb of various fibrous LCM's to the viscous pills to control more severe losses.

NOTE: severe losses may be expected below 500'. We suggest sweeping and/or spotting one or two viscous (40-50) Bentonite pills containing 10-20 ppb of various LCM's to regain returns. Dry drill to total depth should returns not be regained with minimal effort.

INTERVAL: 1,900 - 3,200		12.25" hole	3 days	9.625" csg	1 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Hole sweep		12-14 ppb in sweeps	100 #	40	\$7.28	\$291.20
Ground Paper	Seepage and sweeps		1-3 sacks per 200 feet	40 #	10	\$8.50	\$85.00
Lime	pH additive		.5 ppb	50 #	15	\$4.79	\$71.85
MF-55/VisPlus(non-ionic)	Flocculant, hole sweep		1 qt down drill pipe for sweep	5 gal.	1	\$87.00	\$87.00
Interval Total:							<u>\$535.05</u>

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
1,900' - 3,200'	8.4-8.5	28	N/C	10.0	3-15K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
1,900' - 1,910'	Tansill	Anhydrite	
1,910' - 2,900'	Yates	Anhydrite w/red sand stringers, possible salt	
2,900' - 3,200'	Queen	Sand	Casing seat

Interval Notes for 1,900 - 3,200

Drill out from surface with Fresh Water. Circulate the reserve. Adjust the pH to 10.0 with Lime. Use Ground Paper sweeps as needed to control seepage and enhance hole cleaning. Small amounts of MF-55 may be used periodically to flocculate fine drill solids and act as a sweep. For more serious torque and/or drag we suggest sweeping the hole with viscous (45-55) Bentonite pills. Should losses occur, add 6-15 ppb of various LCM's to the pills to regain returns.

NOTE: some chloride increase may occur due to stringers.

INTERVAL: 3,200 - 10,600		8.75" hole	14 days	4 drill bits			
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Caustic Soda	pH additive		.25 ppb	50 #	50	\$23.56	\$1,178.00
EPL-50/Slider C-555	Lubricant		1-3 % by volume if needed	55 gal.	3	\$810.00	\$2,430.00
Graphite	Lubricant		1-4 ppb in sweeps	50 #	20	\$36.94	\$738.80
MF-55/VisPlus(non-ionic)	Flocculant, hole sweep		1 qt down drill pipe for sweep	5 gal.	5	\$87.00	\$435.00
Mica	LCM, sealant		As needed	50 #	60	\$9.42	\$565.20
M-I-X II/Delta P	Seepage and sweeps		1-3 sacks per 100 feet	25 #	60	\$25.50	\$1,530.00
XCD Polymer/Flozan	Viscosifier		20 ppb in pills	25 #	20	\$150.80	\$3,016.00
Interval Total:							<u>\$9,893.00</u>

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
3,200' - 8,000'	8.3-8.4	28	N/C	10.0	3-12K
8,000' - 10,600'	9.0-9.2	28	N/C	10.0	12-90K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
3,200' - 3,375'	Queen	Sand	
3,375' - 3,575'	Grayburg		
3,575' - 3,830'	San Andres	Limestone	
3,830' - 6,030'	Delaware	Limestone, sand	
6,030' - 9,650'	Bone Spring	Limestone, sand	Seepage, lost circ
9,650' - 10,600'	Wolfcamp	Limy shale	Sloughing

Interval Notes for 3,200 - 10,600

Drill out from the intermediate casing with Fresh Water circulating the outer reserve. Use Caustic for 10.0 pH. MF-55 additions will aid in fine solids flocculation and keep the fluid clear. Use Mica additions to aid in seepage control. Use viscous (40-45) XCD Polymer sweeps as needed to the clean the hole and add lubricity. In the event of severe losses, add 10-20 ppb of various LCM's to the sweeps to regain returns. Prior to reaching 9,650' or the top of the Wolfcamp formation begin adding Brine to raise the weight to 9.3-9.6 ppg with chlorides above the 90K ppm range.

Kick off at 3,200' and build deviation at 2 degrees per 100' to achieve approximately 20 degrees inclination. Some lubricants may be necessary to enhance tool operation and decrease the effect of any dog legs that may be formed. We would suggest using graphite in the viscous pills and a metal plating lubricant to treat the system. We have included some lubrication in our cost estimate.

INTERVAL: 10,600 - 13,200		8.75" hole	16 days	5.5" csg	3 drill bits		
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Biocide (STC)	Biocide		1 gal/100 bbls.	5 gal.	35	\$92.81	\$3,248.35
Caustic Soda	pH additive		.25 ppb	50 #	15	\$23.56	\$353.40
EPL-50/Slider C-555	Lubricant		1-3 % by volume if needed	55 gal.	3	\$810.00	\$2,430.00
Graphite	Lubricant		1-4 ppb in sweeps	50 #	30	\$36.94	\$1,108.20
Mica	LCM, sealant		As needed	50 #	30	\$9.42	\$282.60
M-I-X II/Delta P	LCM, sealant		As needed	25 #	30	\$25.50	\$765.00
Silicone Defoamer	Defoamer		As needed	5 gal.	5	\$80.66	\$403.30
Soda Ash	Calcium remover		.5-.75 ppb	50 #	60	\$9.10	\$546.00
White Starch	Filtrate control		2-3 ppb	50 #	80	\$20.46	\$1,636.80
XCD Polymer/Flozan	Viscosifier, hole sweep		.5-.75 ppb	25 #	40	\$150.80	\$6,032.00
Interval Total:							<u>\$16,805.65</u>

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
10,600' - 13,200'	9.2-9.6	32-40	10-6cc	10.0	90-100K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
10,600' - 10,740'	Wolfcamp	Limey shale	Sloughing
10,740' - 10,910'	Strawn	Limestone, chert, sand	Possible gas kick
10,910' - 11,552'	Atoka	Limestone, sand	possible gas kick
11,550' - 12,040'	Morrow	Shaly calcareous sand	Pay Zone
12,040' - 12,200'	Chester	Shale, limestone	TD

Interval Notes for 10,600 - 13,200

Return to the working pits with a clean Cut Brine weighing 9.1-9.3 ppg. Discontinue the use of MF-55. Adjust the pH to 10.0 with Caustic. Pre-treat the system with additions of Soda Ash to lower the total hardness to below 200 ppm and Biocide (STC) to prevent bacteria growth. Add White Starch and Drispac to lower the filtrate to below 10cc. Use XCD Polymer in small amounts to raise the viscosity of the system as the hole dictates. Control any seepage with additions of Mica and MIX II. Small amounts of Silicone Defoamer may be needed to control any foaming. Have all solids control equipment installed and running by mud-up depth to prevent solids build up and reduce dilution costs. Prior to entering the Atoka reduce the filtrate to 8cc or less and reduce it again to 6cc prior to entering the Morrow. Add lubricants only as necessary to control torque/drag.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: EDGE PETROLEUM OPERATING COMPANY, INC.
Well Name & No. 1 - EAST TURKEY TRACK 3 FEDERAL
Location: 1793' FNL & 1790' FWL - SEC 3 - T19S - R30E - EDDY COUNTY (SHL)
1330' FSL & 1330' FWL - SEC 3 - T19S - R30E - EDDY COUNTY (BHL)
Lease: NM-113962

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:
 - A. Spudding
 - B. Cementing casing: 20 inch 13-3/8 inch 9-5/8 inch 5-1/2 inch
 - C. BOP tests
2. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated prior to drilling into the Yates Formation at approximately 1900 feet. A copy of the plan shall be posted at the drilling site.
3. 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.
4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
6. 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. The 20 inch surface casing shall be set at 450 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate 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. The minimum required fill of cement behind the 13-3/8 inch salt protection casing is circulate cement to the surface.
3. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is circulate cement to the surface.
4. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

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III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing strings shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 9-5/8 inch casing shall be 5000 psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
 - The tests shall be done by an independent service company.
 - The results of the test shall be reported to the appropriate BLM office.
 - 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.
 - Testing must be done in a safe workman-like manner. Hard line connections shall be required.
 - BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.