

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-43442
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DUGAN PRODUCTION CORP.		7. If Unit or CA Agreement, Name and No.
3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401		8. Lease Name and Well No. Zoe #91
3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613		9. API Well No. 30-045-33450
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 790' FNL and 990' FEL, Lat. 36.1814, Long. 107.5550 At proposed prod. zone Same as above		10. Field and Pool, or Exploratory Basin Fruitland Coal
14. Distance in miles and direction from nearest town or post office* Approx. 8-miles SW of Blanco Trading Post, NM		11. Sec., T., R., M., or Blk. and Survey or Area A Sec. 19, T24N, R10W NMMPM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 790 Feet	16. No. of Acres in Lease 1271.56 Acres	12. County or Parish San Juan
17. Spacing Unit dedicated to this well E/2 320.0 Acres	18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 2700 Feet	13. State NM
19. Proposed Depth 1335 Feet	20. BLM/BIA Bond No. on file On File	
21. Elevations (Show whether DF, KB, RT, GL, etc.) GL-6588'	22. Approximate date work will start ASAP	23. Estimated duration 5-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>Kurt Fagrelus</i>	Name (Printed/Typed) KURT FAGRELIUS	Date 11/22/05
Title GEOLOGIST		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 3/13/06
Title AFM	Office FFO	

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

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.

A water based gel-mud will be used to drill surface and production casing hole. Standard 2,000 psi BOP will be used to drill production hole. The Fruitland Coal will be completed from approximately 1135' - 1160'. The interval will be fractured.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4



NMOC

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-33450		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 35496	*Property Name ZOE		*Well Number 91
*OGRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 6588

¹⁰ Surface Location

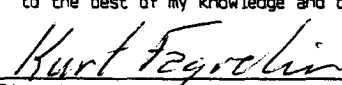

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	19	24N	10W		790	NORTH	990	EAST	SAN JUAN

¹¹ 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

¹² Dedicated Acres 320.0 ACRES - E/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

¹⁶ 1252.68' LOT 1	1337.16'	2674.32'	<div>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature Kurt Fagrelus Printed Name Geology Title 11/7/2005 Date</div> <div>¹⁸ 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 supervision, and that the same is true and correct to the best of my belief. Survey Date: SEPTEMBER 28, 2005 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269</div>
LOT 2			
LOT 3			
LOT 4			
1255.32'	1311.42'	2622.18'	

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-045- <u>33450</u>
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease Federal <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Dugan Production Corp.		6. State Oil & Gas Lease No. Federal NM-43442
3. Address of Operator 709 East Murray Drive, Farmington, NM		7. Lease Name or Unit Agreement Name Zoe
4. Well Location Unit Letter <u>A</u> : <u>790</u> feet from the <u>north</u> line and <u>990</u> feet from the <u>east</u> line Section <u>19</u> Township <u>24N</u> Range <u>10W</u> NMPM County <u>San Juan</u>		8. Well Number <u>91</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>GL-6588'</u>		9. OGRID Number <u>006515</u>
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		
Pit type <u>Drilling</u> Depth to Groundwater <u>+100'</u> Distance from nearest fresh water well <u>+1000'</u> Distance from nearest surface water <u>+200'</u>		
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume _____ bbls; Construction Material <u>Synthetic</u>		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: Reserve pit for drilling (lined) <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

A water based gel-mud will be used to drill surface and production casing hole. Standard 2,000 psi BOP will be used to drill production hole. The Fruitland Coal will be completed from approximately 1135' - 1160'. The interval will be fractured.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

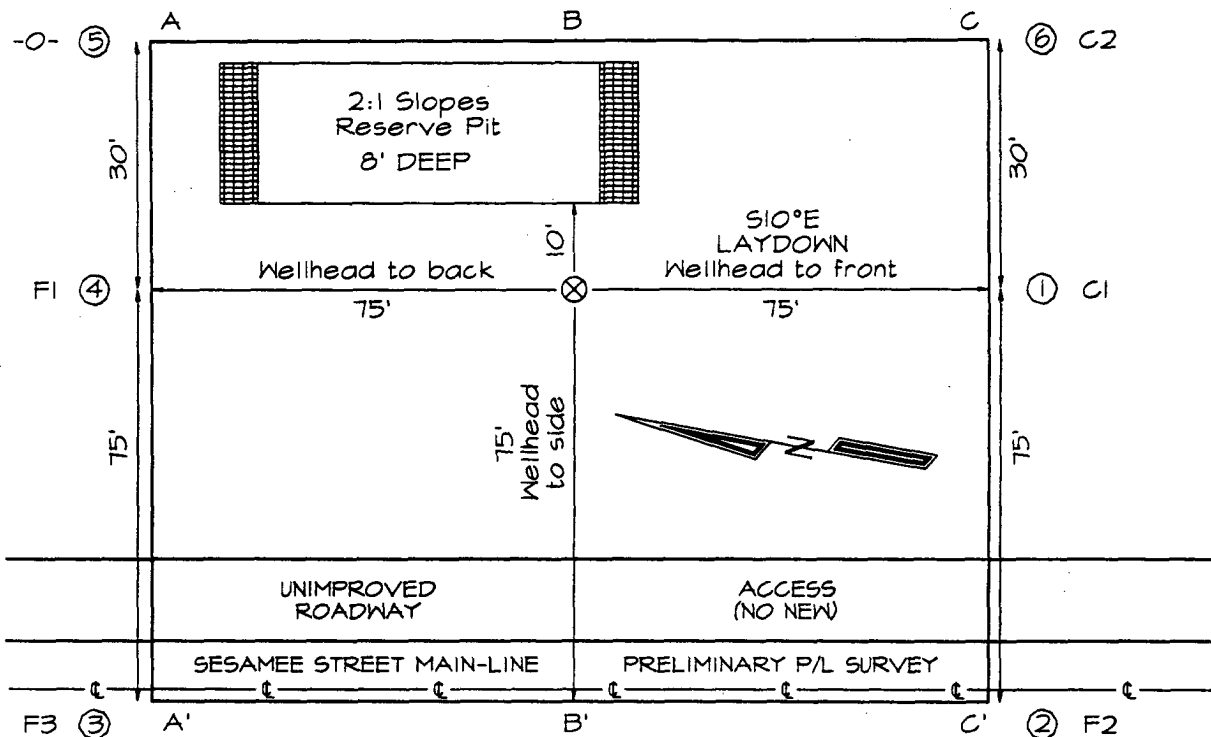
SIGNATURE Kurt Fagrellius TITLE Geology DATE 11/7/2005
Type or print name Kurt Fagrellius E-mail address: kfagrellius@duganproduction.com
For State Use Only Telephone No. 325-1821

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 43 DATE MAR 13 2006
Conditions of Approval (if any):

DUGAN PRODUCTION CORPORATION ZOE #91
790' FNL & 990' FEL, SECTION 19, T24N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6588'

PLAT NOTE:
SURFACE OWNER
Bureau of Land
Management

LATITUDE: 36°18'14"
LONGITUDE: 107°55'50"
DATUM: NAD1927



A-A'						
6598'						
6588'						
6578'						

B-B'						
6598'						
6588'						
6578'						

C-C'						
6598'						
6588'						
6578'						

Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

EXHIBIT B
OPERATIONS PLAN
Zoe #91

APPROXIMATE FORMATION TOPS:

Ojo Alamo	310'
Kirtland	400'
Fruitland	820'
Pictured Cliffs	1160'
Total Depth	1335'

Catch samples every 10 feet from 1050 feet to total depth.

LOGGING PROGRAM:

Run cased hole GR-CCL-CNL from total depth to surface.

CASING PROGRAM:

<u>Hole</u> <u>Size</u>	<u>Casing</u> <u>Size</u>	<u>Wt./ft.</u>	<u>Setting</u> <u>Depth</u>	<u>Grade and</u> <u>Condition</u>
9-7/8"	7"	20#	120'	J-55
6-1/4"	4-1/2"	10.5#	1335'	J-55

Plan to drill a 9-7/8" hole and set 120' of 7" OD, 20#, J-55 surface casing. Then plan to drill a 6-1/4" hole to total depth with gel-water mud program to test the Fruitland Coal. 4-1/2", 10.5#, J-55 production casing will be run and cemented. Cased hole GR-CCL-CNL log will be run. Productive zone will be perforated and fractured. After frac, the well will be cleaned out and production equipment will be installed.

CEMENTING PROGRAM:

Surface: Cement to surface with 70 cf Class B + 2% CaCl₂.
Circulate to surface.

Production Stage-Cement with 130 cf 2% lodense with
1/4# celloflake/sx followed by 70 cf Class "B" with
1/4# celloflake/sx.
Total cement slurry for production stage is 200 cf
Circulate cement to surface.

An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement. An adequate number of casing centralizers will be run through usable water zones to ensure that casing is centralized through these zones. The adequate number of centralizers will be determined based on

API standards. Centralizers to impart a swirling action around the casing will be used just below and into the base of the lowest usable water zone. These devices will assist mud displacement, increase cement bonding potential and create an effective hydraulic seal. A chronological log will be kept which records the pump rate, pump pressure, slurry density, and slurry volume for the cement job. The log will be sent to the BLM after completion of the job.

WELLHEAD EQUIPMENT:

Huber 7"x4-1/2" casing head, 1000# WP, tested to 2000#.

Huber 4-1/2"x2-7/8" tubing head, 1000# WP, tested to 2000#.

BOP and Related Equipment will include for a 2000 psi system:

(Exhibit D)

Annular preventer, double ram, or 2 rams with one being blind and one being a pipe ram.

Kill line (2" minimum)

1 kill line valve (2" minimum)

1 choke line valve

2 chokes

Upper kelly cock valve with handle available

Safety valve and subs to fit all drill string connections in use.

Pressure gauge on choke manifold.

2" minimum choke line.

Fill-up line.

Contacts:

Dugan Prod.Corp. Office & Radio Dispatch: 325-1821

Mark Brown	327-3632 (H)
	320-8247 (M)

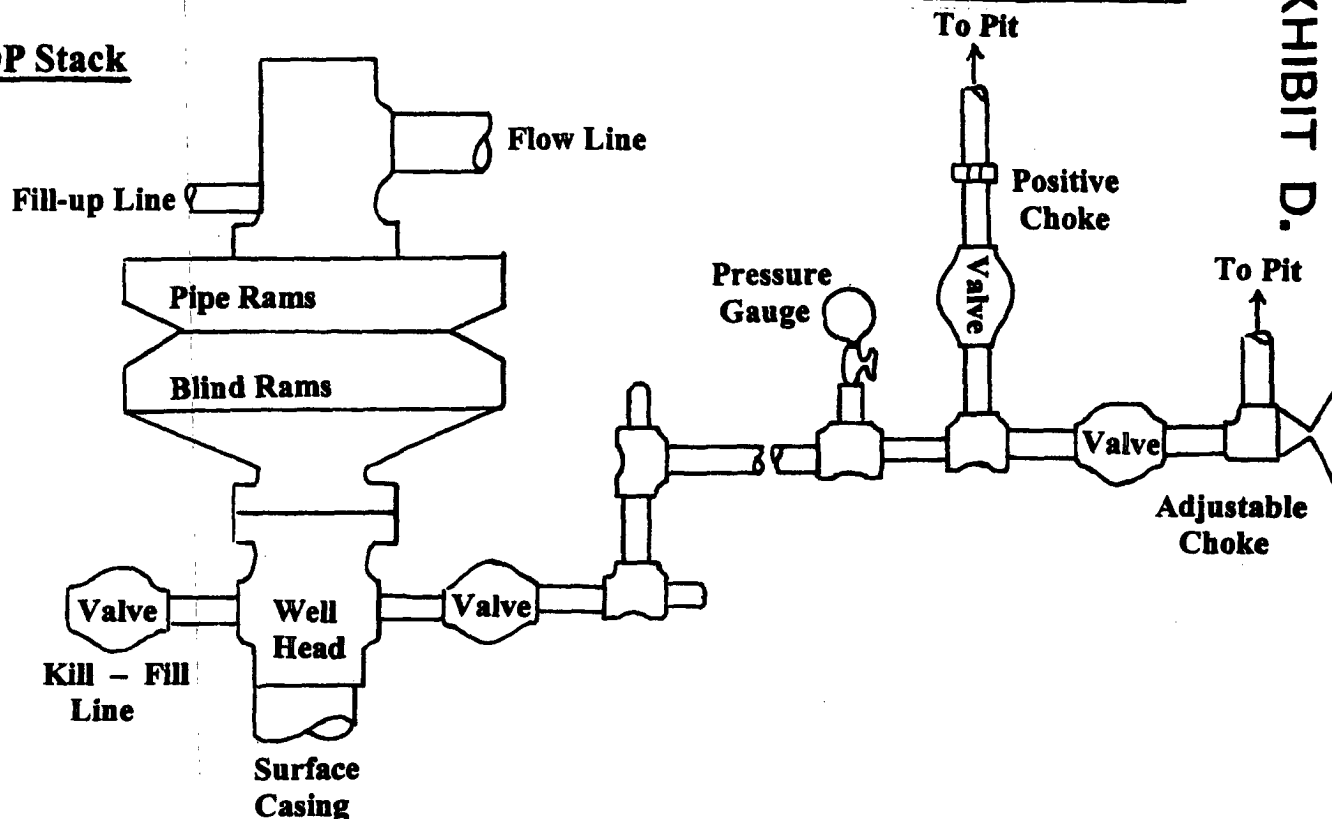
Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

John Alexander	325-6927 (H)
	320-1935 (M)

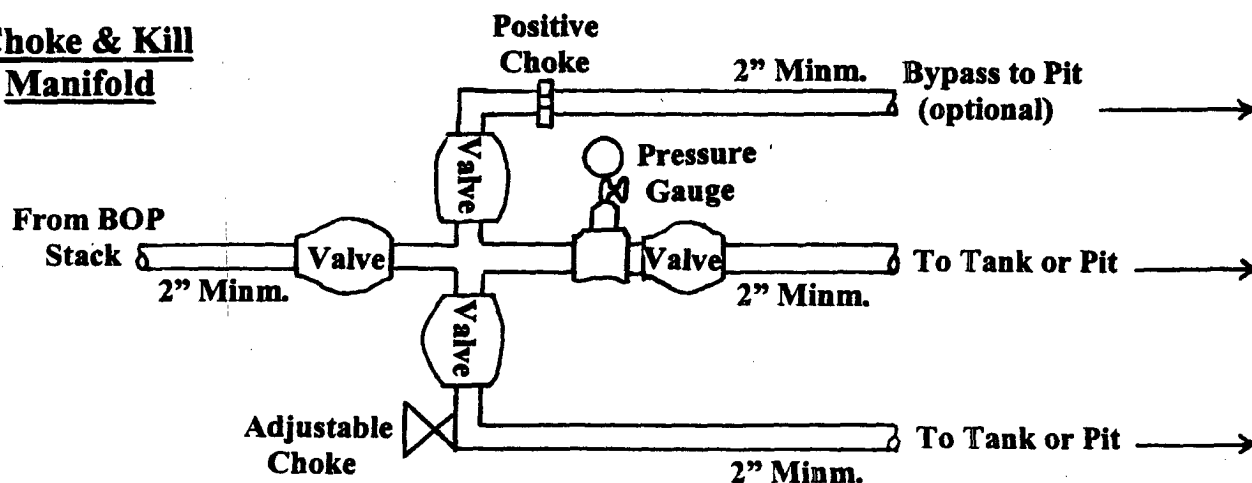
Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

BOP Stack



Choke & Kill Manifold



Working Pressure for all equipment is 2,000 psi or greater

DUGAN PRODUCTION CORP.

Zoe #91

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM 43442
2. Name of Operator Dugan Production Corp.	6. If Indian, Allotted or Tribe Name
3. Address and Telephone No. P.O. Box 420, Farmington, NM 87499 (505) 325 - 1821	7. If Unit or CA, Agreement Designation
Location of Well (Footage, Sec., T., R., M., or Survey Description) 790' FNL & 990' FEL (NE/4 NE/4) Unit A, Sec. 19, T24N, R10W, NMPM	8. Well Name and No. Zoe #91
	9. API Well No. 30 045 33450
	10. Field and Pool, or Exploratory Area Basin Fruitland Coal
	11. County or Parish, State San Juan, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Casing program will be changed as follows:

	Hole Size	Casing Size	Wt./ft.	Setting Depth
Surface casing	11"	8-5/8"	24#	120'
Production casing	7"	5-1/2"	14#	1335'

All cement volumes will remain the same and be circulated to surface.

2005 DEC 14 6M 9 49
070 FARMINGTON NM
RECEIVED
J-55

14. I hereby certify that the foregoing is true and correct

Signed <u>Kurt Fagrellius</u>	Title <u>Geologist</u>	Date <u>12/13/2005</u>
(This space for Federal or State office use)		
Approved by <u>[Signature]</u>	Title <u>AFM</u>	Date <u>3/13/06</u>
Conditions of approval, if any:		