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Form 3160-3  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT 070 Farmington, NM

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED

OMB No. 1004-0136

Expires November 30, 2000

5. Lease Serial No.

NM - 4454

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

Schalk 54 #200S

9. API Well No.

3003927622

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. Sec., T., R., M., or Blk, and Survey or Area

I Sec. 2, T30N, R5W

12. County or Parish

Rio Arriba

13. State

NM

1. Type of Work: ☒ DRILL ☐ REENTERb. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Schalk Development Company

3A. Address

c/o Walsh Engineering, 7415 E. Main, Farmington, NM 87402

3b. Phone No. (include area code)

(505) 327-4892

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface 1545' FSL and 765' FEL

At proposed prod. Zone

14. Distance in miles and direction from nearest town or post office\*

30 miles east of Farmington, NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

765'

16. No. of Acres in lease

640 +

17. Spacing Unit dedicated to this well

E/2 318.93 acres

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

100'

19. Proposed Depth

3362' +/-

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

6557' GR

22. Approximate date work will start\*

June 1, 2004

23. Estimated duration

2 weeks

## 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 office.

25. Signature Paul C. Thompson Name (Printed/Typed) Paul C. Thompson, P.E. Date 2/19/2004

Title

Agent

Approved by (Signature) [Signature] Name (Printed/Typed) FFO Date 6-1-04

Title

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.

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 reverse)

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

OPERATOR

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

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

District II  
PO Drawer DD, 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

Form C-102  
Revised February 21, 1994

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30.039.27622		*Pool Code 71629 ✓	*Pool Name BASIN FRUITLAND COAL ✓
*Property Code 10042	*Property Name SCHALK 54		*Well Number 2005 ✓
*OGRID No. 20389 ✓	*Operator Name SCHALK DEVELOPMENT COMPANY		*Elevation 6557'

<sup>10</sup> Surface Location


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	2	30N	5W		1545	SOUTH	765	EAST	RIO ARriba

<sup>11</sup> Bottom Hole Location If Different From Surface

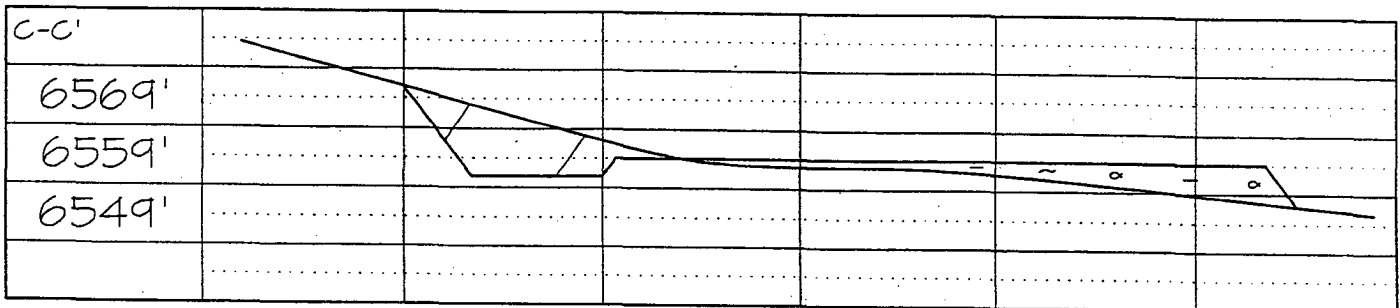
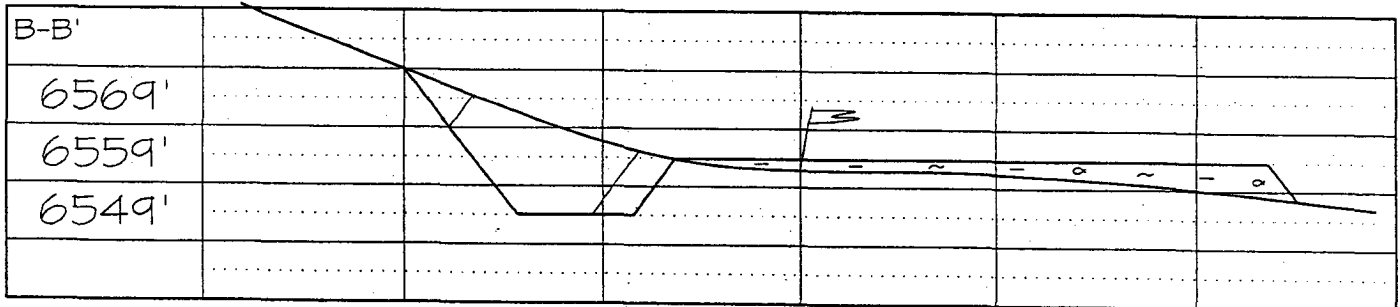
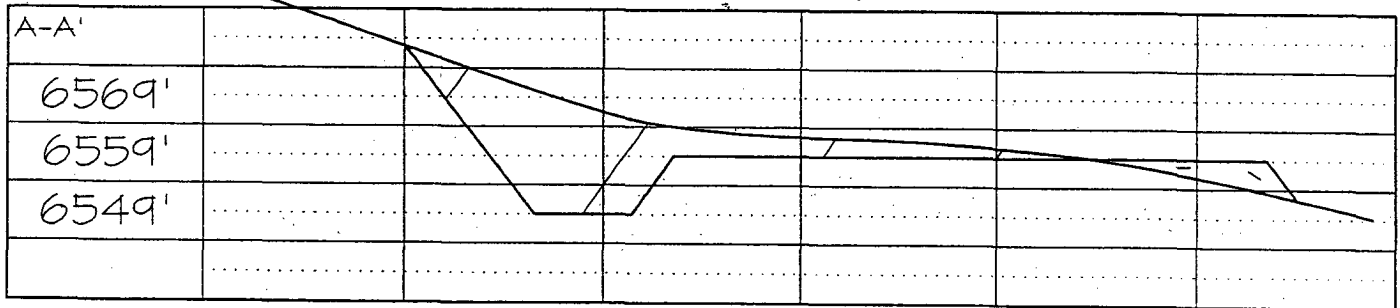
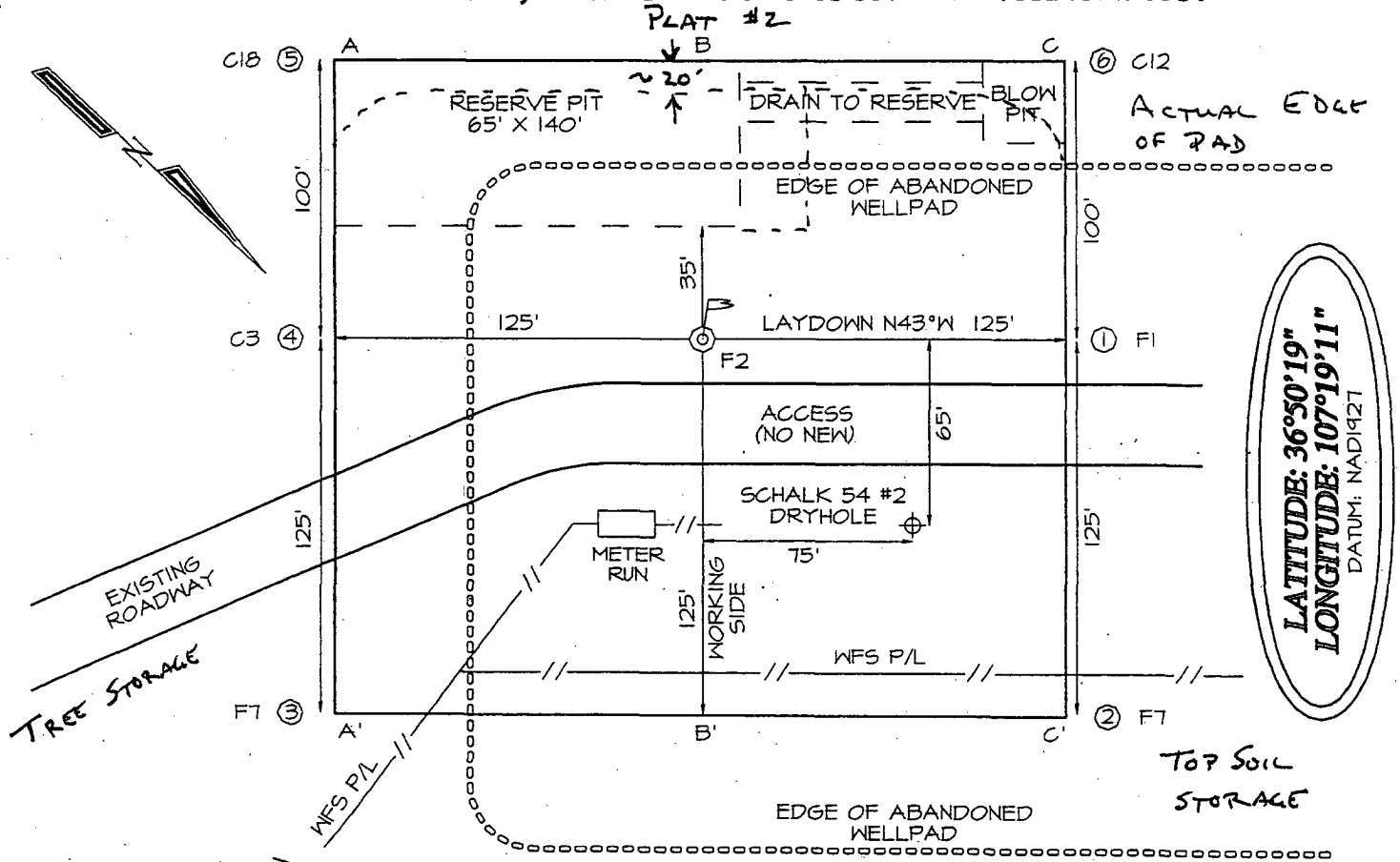
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 318.93 Acres - E/2					<sup>13</sup> Joint or Infill Y	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.		

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

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1298.88'	LOT 8	1320.00'	RECEIVED 2004 FEB 23 AM 11:48 070 Farmington, NM	5280.00'				1303.50'	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <u>Paul C. Thompson</u> Signature <u>Paul C. Thompson</u> Printed Name <u>AGENT</u> Title <u>2/19/04</u> Date
				LOT 7	LOT 6	LOT 5			
2640.00'				5260.20'					<sup>18</sup> 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: NOVEMBER 9, 2003 Signature and Seal of Professional Surveyor  <u>JASON C. EDWARDS</u> Certificate Number 15269
				LAT: 36°50.3185' N LONG: 107°19.1845' W DATUM: NAD27					

SCHALK DEVELOPMENT COMPANY SCHALK 54 #200S  
1545' F. 765' FEL, SECTION 2, T30N, NMPM  
RIO ARriba COUNTY, NEW MEXICO GROUND ELEVATION: 6557'



SCHALK DEVELOPMENT CORPORATION  
OPERATIONS PLAN  
Schalk 54 #200S

I. Surface 1545' FSL & 765' FEL Date: February 19, 2004  
Location: Sec 2 T30N R5W  
Rio Arriba County, NM

Field: Basin Fruitland Coal Elev: GL 6557'  
Surface: Carson Nat'l Forest  
Minerals: NM-4454

II. Geology: Surface formation \_ Nacimiento

A. Formation Tops	Depth
Ojo Alamo	2712'
Kirtland	2835'
Fruitland	3097'
Pictured Cliffs	3362'
Total Depth	3362'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 3097', 3362'.

B. Logging Program: CDL/CNL/GR/SP DIL logs at TD.

C. No over pressured zones are expected in this well. No H<sub>2</sub>S zones will be penetrated in this well. Max. BHP = 1500 psig.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The intermediate hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

The production hole will be drilled and under-reamed with fresh water, then open hole cavitated. An uncemented liner will be run across the Fruitland Coal section.

C. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	200'	9-5/8"	36# J-55
8-3/4"	3150'	7"	20# J-55
6-1/4"	3362'	4-1/2"	10.5# J-55

B. Float Equipment:

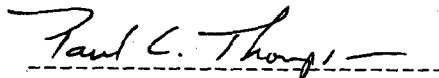
a) Surface Casing: Notched collar and 3 centralizers on the bottom 3 collars.

b) ~~Production~~ <sup>Intermediate</sup> Casing: Cement-nosed guide shoe and float collar on top of the bottom joint. Place 5 centralizers on every other collar starting at the float, and 5 turbolizers spaced every 5<sup>th</sup> collar across the Ojo Alamo.

V. Cementing:

**Surface casing: 9-5/8"** - Use 110 sx (130 cu. ft.) of Cl "B" with 3% CaCl<sub>2</sub>, and ¼ #/sk. celloflake. (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1500 psi for 30 min.

**Intermediate casing: 7"** - - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 20 bbls of fresh water. **Lead** with 330 sx (690 cu. ft.) of Type III 65/35 poz with 8% gel, 1% CaCl<sub>2</sub>, and ¼ #/sk. celloflake. Yield = 2.09 cu. ft./sk; slurry weight = 12.3 PPG). **Tail** with 100 sx (139 cu. ft.) of Type III with 1% CaCl<sub>2</sub>, and ¼ #/sk. celloflake. (Yield = 1.39 cu. ft./sk; slurry weight = 14.5 PPG). Total volume = 829 cu.ft. Use 75% excess in lead and tail to circulate cement to surface.

  
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Paul C. Thompson, P.E.

# Schalk Development Company

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

### Exhibit #1

### Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

