

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF-078387-A
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Amoco Production Company 778		7. UNIT AGREEMENT NAME
Attention: Patty Haefele		8. FARM OR LEASE NAME, WELL NO. 766 Kernaghan B 3B
3. ADDRESS AND TELEPHONE NO. P.O. Box 800, Denver, Colorado 80201 (303) 830-4988		9. API WELL NO. 30-045-29382
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1245' FSL 1840' FEL At proposed prod. zone		10. FIELD AND POOL, OR WILDCAT 72139 Blanco Mesaverde
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 22.35 miles from Aztec, New Mexico		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 0 Section 29 Township 31N Range 8W
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE 1280	17. NO. OF ACRES ASSIGNED TO THIS WELL E/ 320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH 5903	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR., etc.) 6373' GR	This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.	
22. APPROX. DATE WORK WILL START*		01-01-96

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.25"	8.625 J-55	24#	120'	106 cu.ft. Class B, circ to surface
7.875"	5.500" J-55	14#	3340'	129 cu.ft. Class B, circ to surface
4.75"	2.875" N-80	6.5#	5903'	289 cu.ft. Class B, TOC 3050'

Notice of Staking submitted on 10/13/95 as the Kernaghan B #3B.

Lease Description:

T31N-R8W: E/2 28; E/2 29; E/2 30; W/2 33.

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

RECEIVED
MAY 31 1996
OIL CON. DIV.
DIST. 3

RECEIVED
MAY 13 PM 1:19
DISTRICT MANAGER

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Patty Haefele TITLE Staff Assistant DATE 10-16-1995

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
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:

APPROVED AS AMENDED

APPROVED BY _____ TITLE NMOCD DATE MAY 29 1996
See Instructions On Reverse Side
DISTRICT MANAGER

District I
 P.O. Box 1980, Hobbs, NM 88241-1980
 District II
 P.O. Drawer DD, Artesia, NM 88211-0719
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 P.O. 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

RECEIVED
 MAY 13 1995
 MAIL ROOM

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <i>3c-045-29382</i>		Pool Code 72319	Pool Name Blanco Mesaverde
Property Code <i>766</i>	Property Name KERNAGHAN B		Well Number # 3B
OGRID No. 000778	Operator Name AMOCO PRODUCTION COMPANY		Elevation 6373

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
O	29	31 N	8 W		1245	SOUTH	1840	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
320									

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

<p>16</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i></p> <p><i>Patty Haeefe</i></p> <p>Signature Patty Haeefe</p> <p>Printed Name Staff Assistant</p> <p>Title</p> <p>10/9/95</p> <p>Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>August 7, 1995</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor: </p> <p>7016 Certificate Number</p>

BLM RECORD

RECEIVED

MAY 07 1996

AMOCO PRODUCTION COMPANY
DRILLING and COMPLETION PROGRAM

BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE

Lease/Well#: Kernaghan B #3B
County: San Juan New Mexico
Former name:

Surface Location: 1245' FSL & 1840' FEL of Section 29, T31N, R8W
Field:

OBJECTIVE: Mesa Verde Gas

METHOD OF DRILLING APPROXIMATE DEPTHS OF GEOLOGICAL MARKER
TYPE OF TOOLS DEPTH OF DRILLING Actual GL-----Estimated KB 6373 6385
Rotary Ground Level - TD Marker Depth (ft.) SS Elev. (ft.)

LOGGING PROGRAM TYPE	DEPTH	Marker	Depth (ft.)	SS Elev. (ft.)
No open hole logs required.		Ojo Alamo	2,279	4,106
		Kirtland	2,396	3,989
		Fruitland Coal	2,706	3,679
		PC *	3,031	3,354
		Lewis Shale	3,190	3,195
		Cliff House	5,011	1,374
		Menefee Shale *	5,113	1,272
		Point Lookout *	5,453	932
		Mancos	5,853	532
		Gallup		
		Greenhorn		

Logging Program Remarks: Graneros
Dakota
TOTAL DEPTH 5,903 482

* Possible pay
** Probable completion
Ojo Alamo is possible usable water

SPECIAL TESTS DRILL CUTTING SAMPLES DRILLING TIME
TYPE DEPTH INTERVAL, ETC FREQUENCY DEPTH FREQUENCY DEPTH
None Geograph Int - TD

Remarks: Mud Logging Program: None
Coring Program: None

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L, cc's/30 min.
0' - 3340' (1) (2)	Water	8.6 - 9.2	Sufficient to clean hole	N/C
3340' - TD (3)	Air/Mist			

Mud Program Remarks:
1 - The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.
2 - If required to mud up, mud up with a LSND designed for good hole cleaning.
3 - If required to mud up, mud up with a LSND designed for good hole cleaning, API WL between 10-15.

CASING PROGRAM:

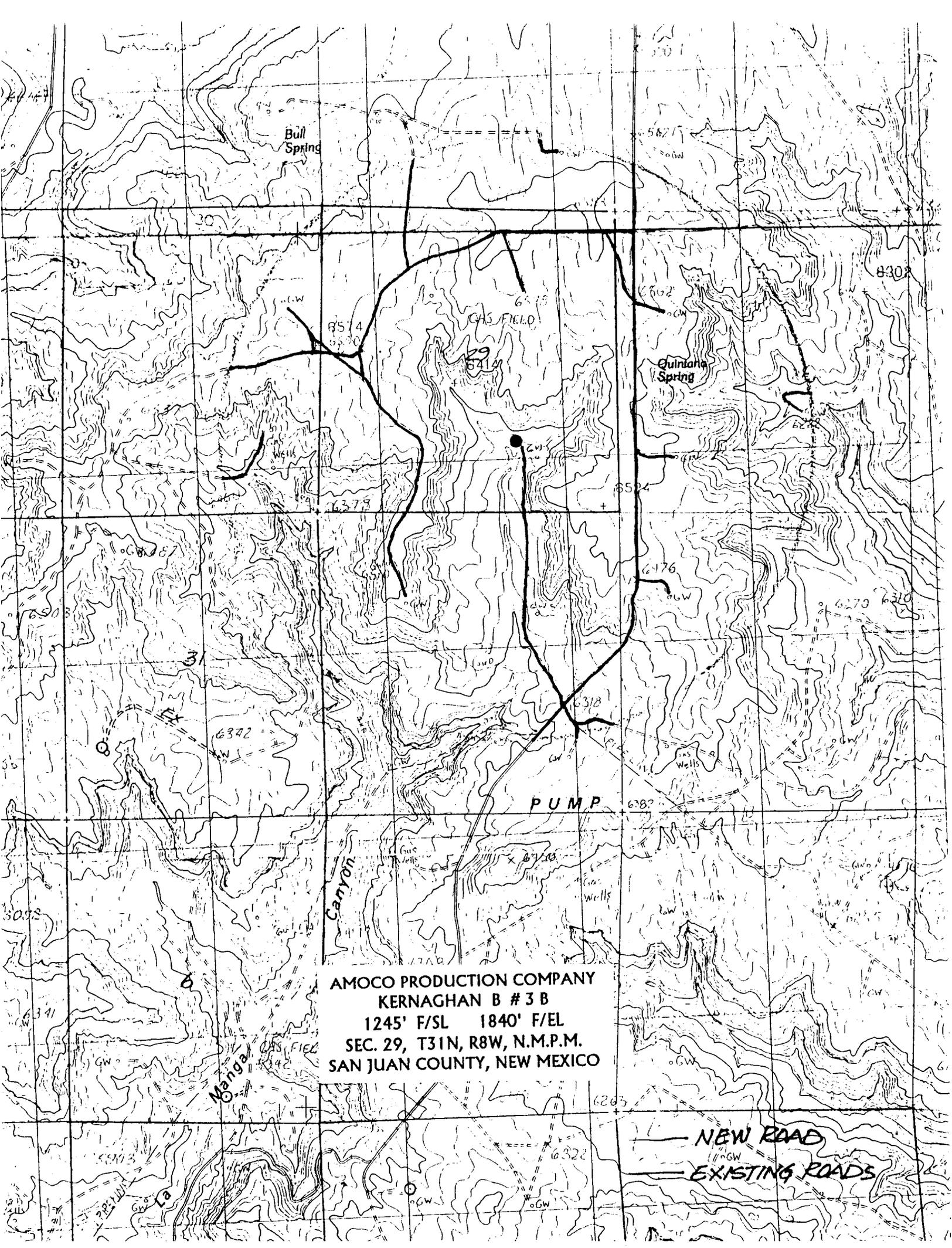
Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor	250 <i>changed from 120'</i>	8-5/8"		
Surface	3,340	5-1/2"	7.875"	1, 2
Production	5,903	2-7/8"	4.75"	3

Casing Program Remarks:
1 - Circulate cement to surface.
2 - Set casing a minimum of 150' into the Lewis Shale
3 - Circulate cement a minimum of 300' into the surface casing overlap.

GENERAL REMARKS:
Business Unit Engineering staff to design completion program.

Form 46 Reviewed by: _____ Logging program reviewed by: _____

PREPARED BY: P. Edwards/Craig/Ovitz	APPROVED:	APPROVED:
Form 46 7-84bw	For Production Dept	For Exploration Dept
Date: 10/12/95	Rev. Date: 5/6/96 7:55	File: kernb03b.xlw



Bull Spring

Quintana Spring

GAS FIELD

PUMP

AMOCO PRODUCTION COMPANY
KERNAGHAN B # 3 B
1245' F/SL 1840' F/EL
SEC. 29, T31N, R8W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

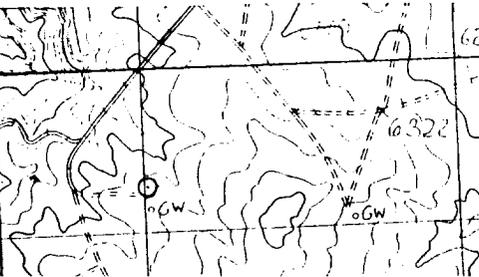
NEW ROAD

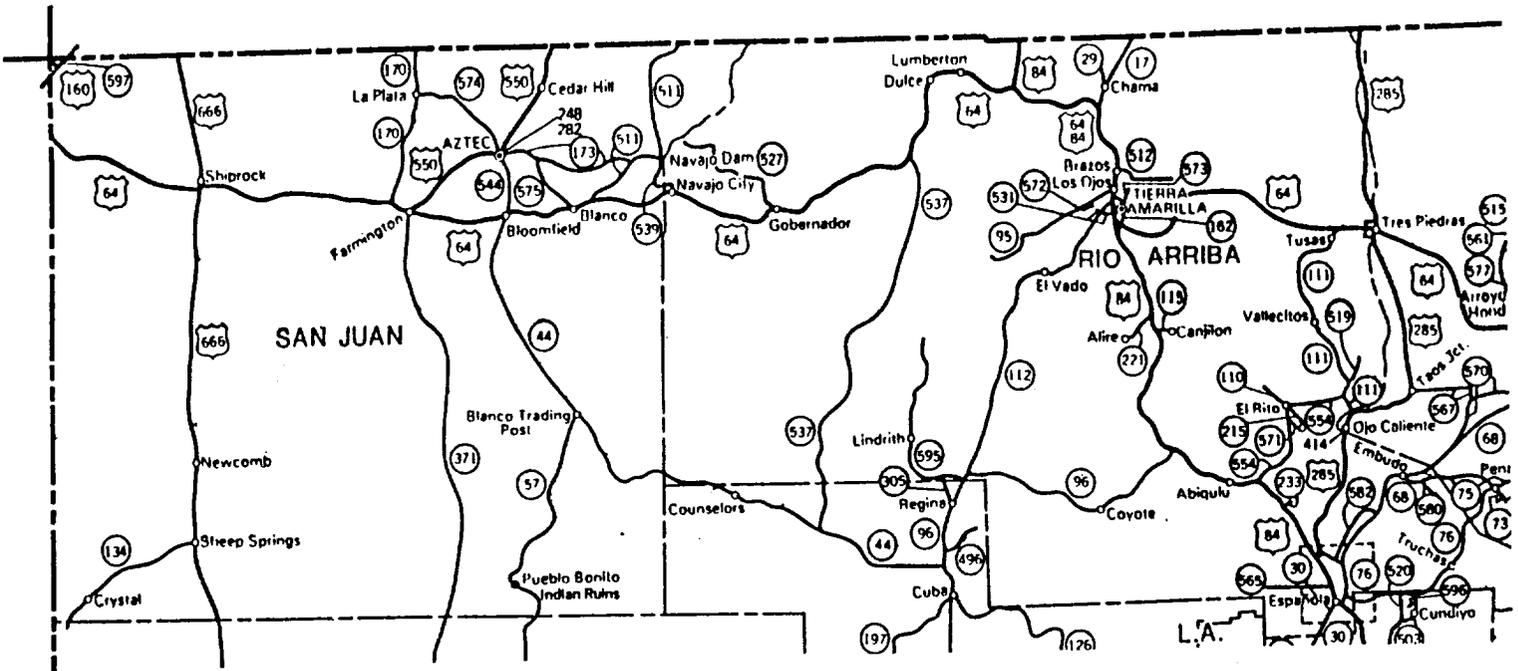
EXISTING ROADS

Canyon

Manga

GAS FIELD





THOMPSON LS # 2R
 1785' F/SL 1140' F/WL
 SEC. 34, T30N, R8W, N.M.P.M.
 RAIL POINT:
 MUD POINT:
 CEMENT POINT:

KERNAGHAN B #3B

