District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address.	[3] OGRID Number
Amoco Production Company P.O. Box 800 Denver, CO 80201	000778
	[5] API Number 30 - 045 - 29302

[4] Property Code	[5] Property Name	[6] Well No.
1136	Storey B LS	4A

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	30N	11W		1185	North	1060	West	San Juan

[8] Proposed 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

W/320 [9] Proposed Pool 1	[10] Proposed Pool 2
Blanco Mesaverde 72319	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	Rotary	P	5889'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	5187'	Mesaverde	Aztec	1/1/96

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.25"	8.625"	24#	120'	90 CL B	Surface
7.875"	5.500"	14#	2763'	414 CL B	Surface
4.75"	2.875"	6.5#	5187'	210 cu B	2450'

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

RECEIVED
NOV 13 1995
OIL CON. DIV.
DIST. 3

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Patty Haefele
Printed name: Patty Haefele
Title: Staff Assistant
Date: Nov. 9, 1995
Phone: (303) 830-4988

OIL CONSERVATION DIVISION

Approved by: Ernie Busch 11-14-95
Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3
Approval Date: NOV 14 1995
Expiration Date: NOV 14 1996
Conditions of Approval:
Attached ☐

C-101 Instructions

Measurements and dimensions are to be in feet/inches. Well locations will refer to the New Mexico Principal Meridian.

IF THIS IS AN AMENDED REPORT CHECK THE BOX LABLED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

1 Operator's OGRID number. If you do not have one it will be assigned and filled in by the District office.

2 Operator's name and address

3 API number of this well. If this is a new drill the OCD will assign the number and fill this in.

4 Property code. If this is a new property the OCD will assign the number and fill it in.

5 Property name that used to be called 'well name'

6 The number of this well on the property.

7 The surveyed location of this well New Mexico Principal Meridian NOTE: If the United States government survey designates a Lot Number for this location use that number in the 'UL or lot no.' box. Otherwise use the OCD Unit Letter.

8 The proposed bottom hole location of this well at TD

9 and 10 The proposed pool(s) to which this well is beeing drilled.

11 Work type code from the following table:

N	New well
E	Re-entry
D	Drill deeper
P	Plugback
A	Add a zone

12 Well type code from the following table:

O	Single oil completion
G	Single gas completion
M	Mutiple completion
I	Injection well
S	SWD well
W	Water supply well
C	Carbon dioxide well

13 Cable or rotary drilling code

C	Propose to cable tool drill
R	Propose to rotary drill

14 Lease type code from the following table:

S	State
P	Private

15 Ground level elevation above sea level

16 Intend to mutiple complete? Yes or No

17 Proposed total depth of this well

18 Geologic formation at TD

19 Name of the intended drilling company if known.

20 Anticipated spud date.

21 Proposed hole size ID inches, proposed casing OD inches, casing weight in pounds per foot, setting depth of the casing or depth and top of liner, proposed cementing volume, and estimated top of cement

22 Brief description of the proposed drilling program and BOP program. Attach additional sheets if necessary.

23 The signature, printed name, and title of the person authorized to make this report. The date this report was signed and the telephone number to call for questions about this report.

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

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

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-29302	72319	Blanco Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
1136	STOREY B LS	# 4A

[7] OGRID No.	[8] Operator Name	[9] Elevation
000778	AMOCO PRODUCTION COMPANY	5889

[10] Surface Location

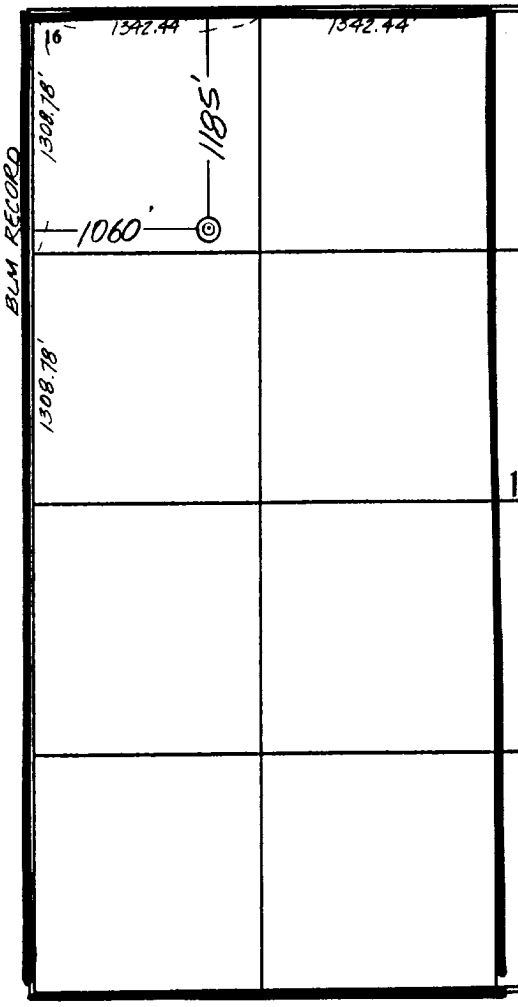
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	30 N	11 W		1185	NORTH	1060	WEST	SAN JUAN

[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	[13] Joint or Infill	[14] Consolidation Code	[15] 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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Patty Haefele
Signature
Patty Haefele
Printed Name
Staff Assistant
Title
Oct. 20, 1995
Date

[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.

August 2, 1995
Date of Survey

Signature and Seal of Professional Surveyor:

GARY D. VANN NEW MEXICO 7016 REGISTERED PROFESSIONAL LAND SURVEYOR

7016
Certificate Number

RECEIVED
NOV 13 1995
OIL CON. DIV.
DIST. 3

AMOCO PRODUCTION COMPANY

DRILLING and COMPLETION PROGRAM

Lease/Well#: Storey B LS #4A
County: San Juan New Mexico
Former name:
Surface Location: 1185' FNL & 1060' FWL of Section 11, T30N, R11W
Field:

OBJECTIVE: Mesa Verde Gas

METHOD OF DRILLING

TYPE OF TOOLS: Rotary
DEPTH OF DRILLING: Ground Level - TD

LOGGING PROGRAM

TYPE: No open hole logs required.
DEPTH:

Logging Program Remarks:

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Actual GL----------Estimated KB	5889	5901
Marker	Depth (ft.)	SS Elev. (ft.)
Ojo Alamo	963	4,938
Kirtland	1,073	4,828
Fruitland Coal	1,954	3,947
PC *	2,378	3,523
Lewis Shale	2,613	3,288
Cliff House	3,935	1,966
Menefee Shale *	4,252	1,649
Point Lookout *	4,737	1,164
Mancos	5,137	764
Gallup		
Greenhorn		
Graneros		
Dakota		
TOTAL DEPTH	5,187	714

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

SPECIAL TESTS

TYPE: None
DEPTH INTERVAL, ETC:

Remarks:

DRILL CUTTING SAMPLES

FREQUENCY:
DEPTH:

DRILLING TIME

FREQUENCY: Geolograph
DEPTH: 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' - 2763' (1) (2)	Water	8.6 - 9.2	Sufficient to clean hole	N/C
2763' - 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	120	8-5/8"		
Surface	2,763	5-1/2"	7.875"	1, 2
Production	5,187	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:	APPROVED:	APPROVED:
P. Edwards/Craig/Ovitz		
Form 46 7-84bw	For Production Dept	For Exploration Dept
Date: 10/12/95	Rev. Date: 10/12/95 15:01	File: stobls4a.xlw

Version No. 1
10/12/95
983A1.XLS

CEMENTING PROGRAM

Storey 'B' LS #4A

blp

Well Name: Storey 'B' LS #4A
Location: Sec 11, T30N, R11W
County: San Juan
State: New Mexico

Field:
API No.
Well Flac
Formation: Mesa Verde
KB Elev. (est.) 5901 ft.
GL Elev. (est.) 5889 ft.

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Circ. Out (bbl.)
Conductor	120	12.25	8.625	8R, ST&C	Surface	NA	
Surface	2,763	7.88	5.500	8R, ST&C	Surface	NA	
Production	5,187	4.75	2.875	8R, EUE	2450	NA	

Casing Properties: (No Safety Factor Included)

Casing String	Size (in.)	Weight (lb/ft.)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Conductor	8.625	24	J-55	2950	1370	244	0.0636	7.972
Surface	5.500	14	J-55	4270	3120	172	0.0244	6.241
Production	2.875	6.5	N-80	10570	11160	144	0.00579	2.347

Mud Program:

Apx. Interval (ft.)	Mud Type	Mud Weight (lb/gal)
0 - SCP	Water/Spud	8.6-9.2
SCP - TD	Air/Mist	NA

Recommended Mud Properties Prior Cementing:

PV	<20
YP	<10
Fluid Loss	<15

Cementing Program:

	Conductor	Surface	Production
Excess %, Bit	75	60	30
Excess %, Caliper	NA	NA	20
BHST (est. deg. F)	60	100	140
Pipe Movement	NA	Rotate/Reciprocate	Rotate/Reciprocate
Rate, Max. (bpm)	6	6	4
Rate, Recommended (bpm)	6	6	4
Pressure, Max. (psi)	200	2000	2000
Shoe Joint	40	80	40
Batch Mix	NA	NA	NA
Circulating prior cmtng (hr.)	0.5	1.5	1
Time Between Stages,(hr.)	NA	NA	NA
Special Instructions	1,6,7	1,6,8	2,4,6

1 Do not wash pumps and lines
2 Wash pumps and lines.
3 Do not reverse out
4 Run Blend Test on Cement
5 Record Rate , Pressure, and Density on 3.5" disk
6 Confirm densometer with pressurized mud scales
7 1" cement to surface if cement is not circulated.
8 If cement is not circulated to the surface, run temp. survey 10-12 hr. after landing plug.

Notes:

*** Displace top plug on the production casing job with 0.2% Clay Fix II or 2% KCl water.
*** Do not wash up on top of plug. Wash pumps and lines. We want to do rig less completions.

CEMENTING PROGRAM

Storey 'B' LS #4A

Conductor:

Preflush	10 bbl.	Fresh Water	
Slurry 1 TOC@Surface	90 sk	Standard Cement + 2% CaCl2 (not mixed) or 1.5 cu. yard Ready Mix	106 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft3/sk)	water (gal/sk)
slurry 1	15.60	1.18	5.20

Casing Equipment: (Halliburton) 8 5/8", 8R, ST&C

1 Top Wooden Plug

Surface:

Preflush	20 bbl. 20 bbl.	Mud Flush Fresh Water + dye marker	
Lead Slurry 1 TOC@Surface	314 sk	50/50 Standard Cement/Blended Silicalite + 02% gel (total) + 0.5% Versaset + 0.4% Halad-344 + 02% CaCl2 + 1/4 lb/sk flocele	637 cu. ft.
Tail slurry 2	100 sk	Standard Cement + 0.4% Halad-344 + 0.4% CFR-3 + 2.0% Microbond + 5 lb/sk gilsonite + 1/4 lb/sk flocele	129 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft3/sk)	water (gal/sk)
slurry 1	12.00	2.03	11.45
slurry 2	15.11	1.29	5.40

Casing Equipment: (Halliburton) 5 1/2", 8R, ST&C

1	Type Regular Guide Shoe	
1	Super Seal II Float Collar	
1	Weld A	
14	S-4 Centralizer	1 ea. on 1st 12 joints, 1 ea. above and below Ojo Alamo
1	Top Rubber Plug	

CEMENTING PROGRAM

Storey 'B' LS #4A

Production:

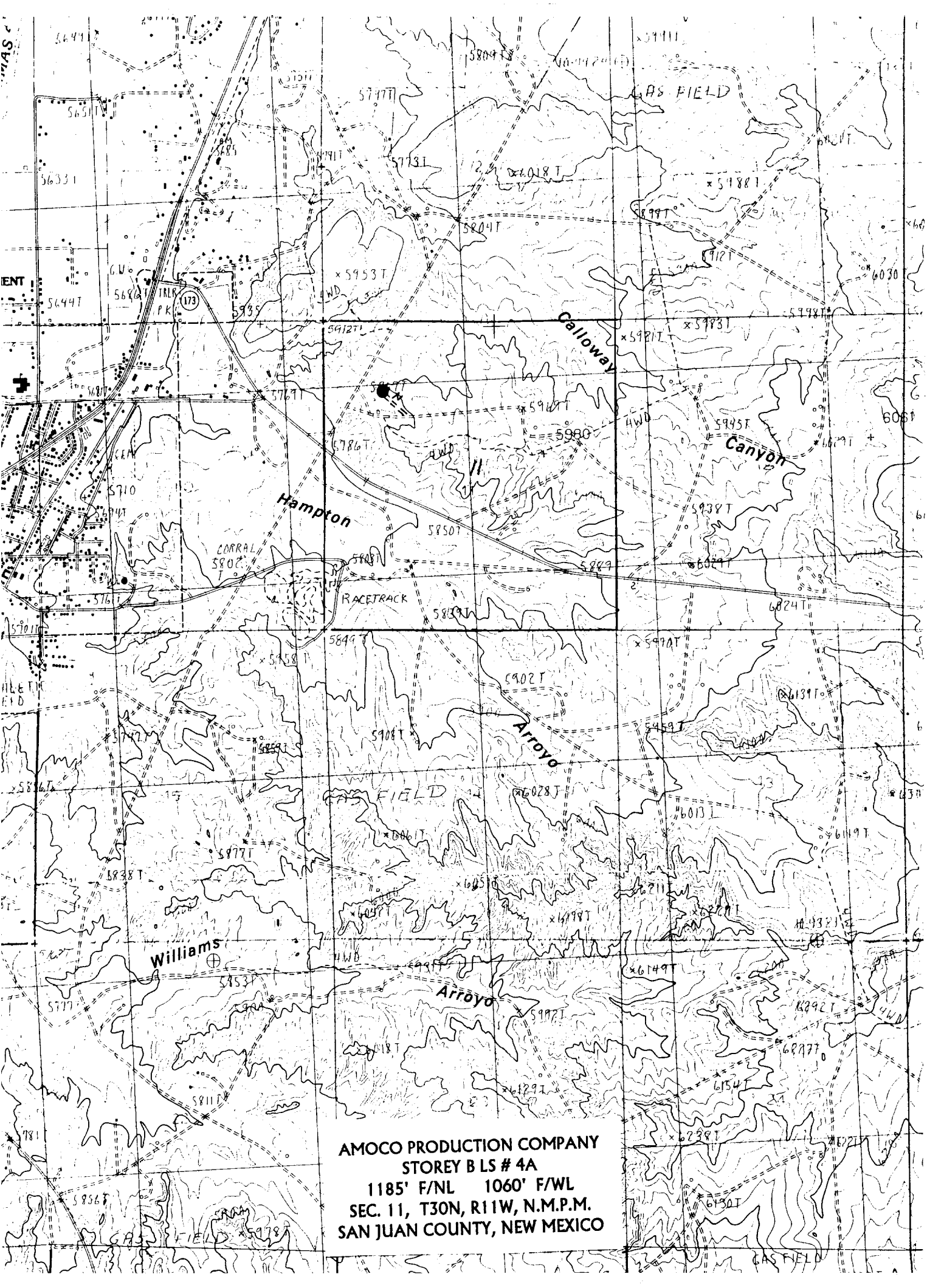
Preflush	05 bbl.	Chemical Wash	
	02 bbl.	Fresh Water	
Lead Cement Slurry 1 TOC @ 2450 ft.	210 sk	50/50 Std. Cmt/Poz A + 2% gel (total) + 5 lb/sk gilsonite + 0.4% Halad-344 + 1/4 lb/sk flocele	277 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft3/sk)	water (gal/sk)
slurry 1	13.50	1.32	5.59

Note: The job should be pumped at 4 bpm max rate. Do not exceed 2 bpm on displacement. Slow to 2 bpm for the displacement. Displace with 2% KCl or 0.2% Clay Fix II water. This is to be a rigless completion. Wash pumps and lines before displacing.

Casing Equipment: Halliburton 2 7/8", 8R, EUE, (no need to cut long pin)

1 Super Seal II Float Shoe
10 S-4 Fluidmaster Centralizer (2 7/8" * 4 3/4")
1 Lock Clamp
1 Weld A
1 Omega Latch Down Plug and Baffle


GAS FIELD
Calloway
Canyon
Hampton
CORRAL
RACETRACK
Arroyo
FIELD
Williams
Arroyo
GAS FIELD
AMOCO PRODUCTION COMPANY
STOREY B LS # 4A
1185' F/NL 1060' F/WL
SEC. 11, T30N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO