

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

AUG 08 2008

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

BUREAU OF LAND MANAGEMENT
Farmington Field Office

1a. Type of Work DRILL	5. Lease Number NM-04207 Unit Reporting Number RCVD NOV 17 '08 OIL CONS. DIV.	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP	7. Unit Agreement Name DIST. 3 Allison Unit NMMN-38372-C	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name	
4. Location of Well Surf: Unit M(SWSW), 830' FSL & 1040' FWL Bottomhole: Unit C(NENW), 100' FNL & 1800' FWL Surf: Latitude 36.98987° N Longitude 107.50558° W Bottomhole: Latitude 36.99982° N Longitude 107.50298° W	9. Well Number #145S 10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 7, T32N, R6W API # 30-045-34768	
14. Distance in Miles from Nearest Town 17 miles/Ignacio	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 830'	17. Acres Assigned to Well 272.85 Acres - W/2	
16. Acres in Lease 919.05		
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 50' from Allison Unit #24 (MV)		
19. Proposed Depth 3176'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6517' GR	22. Approx. Date Work will Start DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Crystal Tafoya</u> Crystal Tafoya (Regulatory Technician)	8/8/08 Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

Example Master Plan Type 2

Bond Numbers NMB-000015 and NMB-000089

HOLD C104 FOR
NOV 18 2008

Hold C104
for Directional Survey

As Drilled

As Drilled

As Drilled

As Drilled

As Drilled

As Drilled

As Drilled

As Drilled

As Drilled

As Drilled

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

District I
1625 N. French Dr., Hobbs, 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 & Natural Resources Department

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

RECEIVED

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

Bureau of Land Management
Farmington Field Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-34768	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 6784	*Property Name ALLISON UNIT	*Well Number 1455
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP	*Elevation 6517

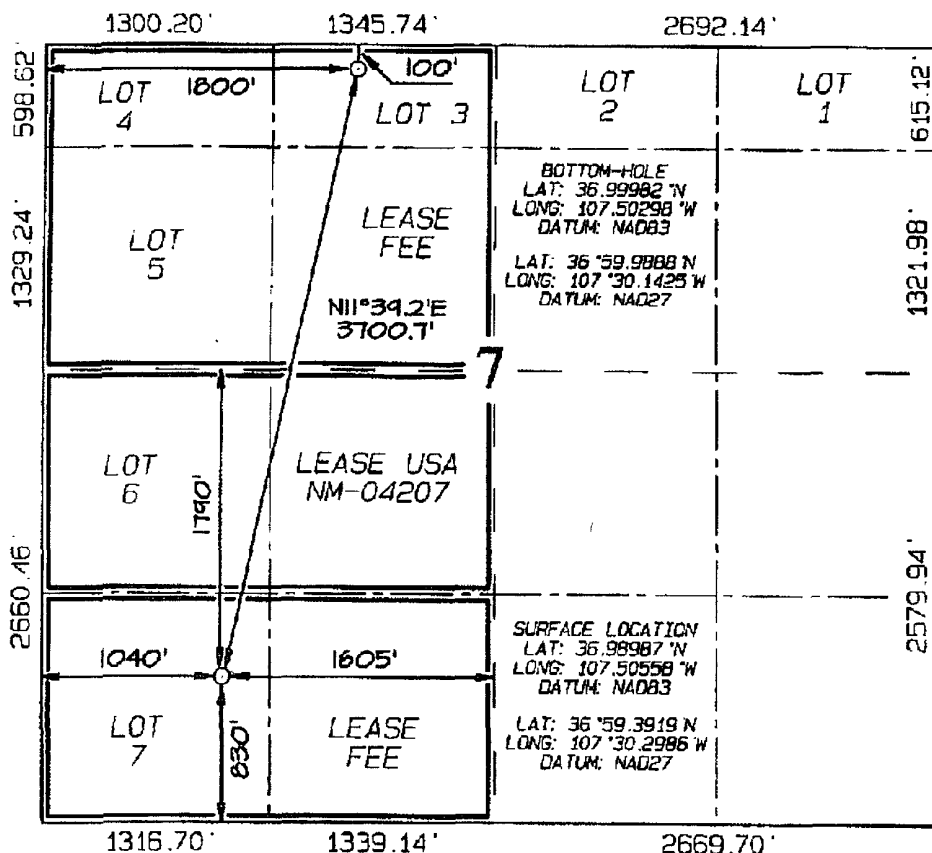
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot	Feet from the	North/South line	Feet from the	East/West line	County
M	7	32N	6W		830	SOUTH	1040	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot	Feet from the	North/South line	Feet from the	East/West line	County
C	7	32N	6W		100	NORTH	1800	WEST	SAN JUAN
¹² Dedicated Acres 272.85 Acres - (W/2)					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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Crystal Tafoya 7/31/08
Signature Date
Crystal Tafoya 7-31-08
Printed Name

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: JANUARY 30, 2007

Signature and Seal of Professional Surveyor



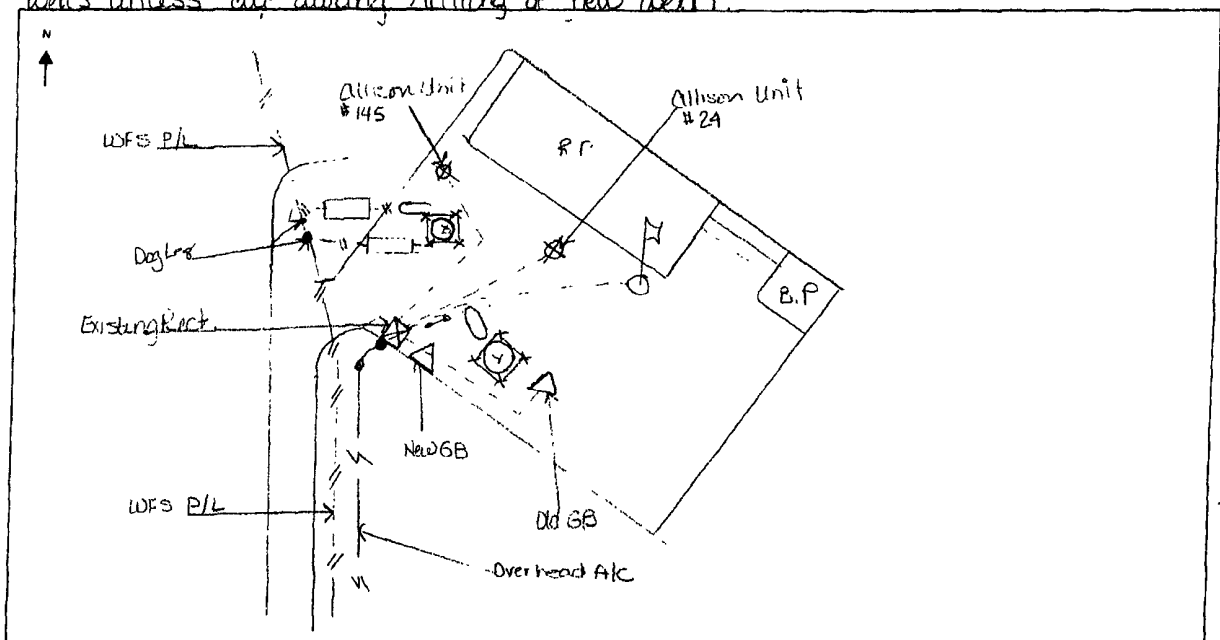
Jason C. Edwards
Certificate Number 15269



CATHODIC PROTECTION PLAN FOR NEW WELLS

WELL NAME Allison Unit #145 LEGALS M-7-32-6 COUNTY San Juan

PURPOSED C.P. SYSYTEM: Drill New GB Southeast of existing rectifier. Upgrade to new rectifier. Trench approx 175' of #8 pig from proposed well (#145) to rectifier. Tie in existing well's G.I. new rectifier (should not have to trench new cables to existing wells unless cut during drilling of new well).



EXISTING WELLHEAD	METER HOUSE	G.B.	POWER SOURCE	CABLE	NEW WELL	OVERHEAD A.C.

COMMENTS: $2.2 \pm 3.6 \text{ amp} / 21.35 \text{ V} = 21.4 \text{ V} / 5.8 \text{ a} = 3.68 \text{ ohm GB}$
 H# 80 (86 383)

NEAREST POWER SOURCE HP + Existing Rect (H# 80 (86 383)) DISTANCE: same location
 PIPELINES IN AREA: WFS P/L

TECHNICIAN: Hick Hoffmeyer DATE: 9/13/07

6 CR 5412 BLOOMFIELD, N.M. 87413
 OFFICE: 505-634-0271 CELL: 505-793-6953

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

ALLISON UNIT 145S

DEVELOPMENT

Lease:		AFE #: WAN.CDR.7041		AFE \$: 3,785,509.76	
Field Name: hBR_SAN JUAN		Rig: Aztec Rig 777		State: NM	County: SAN JUAN
Geologist:		Phone:		Geophysicist:	
Geoscientist: Sturdy, Michael D		Phone: 505-326-9850		Prod. Engineer:	
Res. Engineer: Poore, John W		Phone: +1 505-599-4038		Proj. Field Lead:	
Primary Objective (Zones):					
Zone	Zone Name				
JCV	BASIN FRUITLAND COAL (GAS)				
Location: Surface Datum Code: NAD 27					
Latitude: 36.989865		Longitude: -107.504974		X:	Y:
Footage X: 1040 FWL		Footage Y: 830 FSL		Elevation: 6517 (FT)	Section: 07
Tolerance:		Range: 006W			
Location: Bottom Hole Datum Code: NAD 27					
Latitude: 36.999815		Longitude: -107.502374		X:	Y:
Footage X: 1800 FWL		Footage Y: 100 FNL		Elevation: (FT)	Section: 07
Tolerance:		Range: 006W			
Location Type: Restricted		Start Date (Est.): 1/1/2008		Completion Date:	
Formation Data: Assume KB = 6532		Units = FT			
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT
Surface Casing	600	5932	☐		
OJO ALAMO	2244	4288	☐		
OJO ALAMO 62' F/SHL	2293	4239	☐		
KIRTLAND	2352	4180	☐		
KIRTLAND 99' F/SHL	2386	4146	☐		
FRUITLAND	2797	3735	☐	200	Gas
FRUITLAND COAL 471' F/SHL	2848	3684	☐		
TD 3701' F/SHL UPPER LATERAL	2996	3536	☐		
EXIT MOTHERBORE 746' F/SHL	2999	3533	☐		
PATH 3000' F/SL UPPER LATERAL	3002	3530	☐		
PATH 2000' F/SHL UPPER LATERAL	3016	3516	☐		
T/UPPER COAL 828' F/SHL UPPER LATERAL	3023	3509	☐		
PATH 1000' F/SHL UPPER LATERAL	3024	3508	☐		
LAND UPPER COAL 867' F/SHL	3026	3506	☐		
T/UPPER TARGET 818' F/SHL	3033	3499	☐		
B/UPPER TARGET 824' F/SHL	3035	3497	☐		
EXIT MOTHERBORE 917' F/SHL LOWER LATERAL	3079	3453	☐		
TD 3701' F/SHL LOWER LATERAL	3090	3442	☐		
PATH 3000' F/SHL LOWER LATERAL	3095	3437	☐		

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

ALLISON UNIT 145S

DEVELOPMENT

PATH 2000' F/SHL LOWER LATERAL	3103	3429	☐	
T/LOWER COAL 1010' F/SHL	3105	3427	☐	
LAND LOWER COAL 1038' F/SHL	3106	3426	☐	
T/LOWER TARGET 981' F/SHL	3109	3423	☐	
PICTURED CLIFFS	3175	3357	☐	Gas
Total Depth	3176	3356	☐	8-3/4" hole. 7", 23 ppf, L-80, LTC casing. Cement with 1326 cu. ft. Circulate cement to surface.
B/LOWER TARGET 1005' F/SHL	3412	3120	☐	

Reference Wells:		
Reference Type	Well Name	Comments
Production	ALLISON UNIT 61	7-32N-6W

Logging Program:	
Intermediate Logs:	☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs:	☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other
MWD from start of build in motherbore and start of openhole section to TD in laterals.	
Mudlog from kick off point to TD in motherbore and from start of openhole section in TD in both laterals	

Additional Information:					
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks

Allison Unit 145S

Directional Plan (Plan No. 1) accompanies this document

GL 6517'
KB 6532' (Aztec 777)**surface location:**

BHL, mainbore

upper lateral, beginning of productive interval

upper lateral, end of productive interval

lower lateral, beginning of productive interval

lower lateral, end of productive interval

State of Colorado

T32N, R06W, Section 7, 830' FSL, 1040' FWL

T32N, R06W, Section 7, 1933' FSL, 1174' FWL

T32N, R06W, Section 7, 1679' FSL, 1218' FWL

T32N, R06W, Section 7, 100' FNL, 1800' FWL

T32N, R06W, Section 7, 2708' FNL, 1250' FWL

T32N, R06W, Section 7, 100' FNL, 1800' FWL

MD ft	TVD ft	
NA	NA	
3734	3177	7" casing depth
3315	2999	casing exit / top of 4-1/2" liner / junction to mainbore
6274	2993	lateral total depth & 4-1/2" casing depth
3504	3079	casing exit / top of 4-1/2" liner / junction to mainbore
6291	3086	lateral total depth & 4-1/2" casing depth

12-1/4" Hole and 9-5/8" Casing at 600' (tentative depth)**Casing description:** 9-5/8" 32.3 #/ft, H-40, STC**cementing program:** Cement to surface with 490 ft³ (volume includes 150% excess in open hole), mixed at 14.6 ppg with calcium chloride to accelerate, compressive strength 500 psi after 8 hours.**centralizers:** one at 10' above shoe and one on each casing collar.

casing exits

8-3/4" Hole & 7" Casing (motherbore)**casing description:** 7", 23#/ft, L-80, LTC**cementing program:** Cement to surface with 1326 ft³ volume includes 135% excess in open hole), to consist of 1094 ft³ lead slurry mixed at 12.1 ppg and 232 ft³ tail slurry mixed at 14.6 ppg. Slurries are extended to achieve stated densities and may include various additives to control seepage. TOC for tail: 100' MD above base of Kirtland Shale**centralizers:** one at 10' above shoe, one at 30' above shoe, one at 10' above float collar and one each on casing collars of 2nd, 3rd, 4th and 5th joints.**Two Laterals, Upper and Lower**

each consisting of 6-1/4" Hole & 4-1/2" Liner

casing description: 4-1/2" 11.6#/ft, L-80, BTC

uncemented, pre-drilled and plugged, with two holes per joint

BOP program and drilling mud program will be per basin-wide standards for top-set coal wells.

Directions from the Intersection of State Hwy 172 & State Hwy 151 in Ignacio, CO
to Burlington Resources Oil & Gas Company Allison Unit #145S
830' FSL & 1040' FWL, Section 7, T32N, R6W, NMPM, San Juan County, NM

From the intersection of State Hwy 172 & State Hwy 151 in Ignacio, Colorado, travel Easterly on State Hwy 151 for 12.0 miles to County Road #330;

Go right (Southerly) on County Road #330 for 1.9 miles to County Road #4020;

Go right (Westerly) on County Road #4020 for 1.8 miles to fork in road;

Go left (North-easterly) @ Self Ranch gate for 0.6 miles to 4-way intersection;

Go left (Northerly) for 0.2 miles to staked location which partially overlaps an existing wellpad.



Project: San Juan County, NM
 Site: Sec 7, T32N, R6W (AU 145S)
 Well: AU 145S
 Wellbore: Motherbore
 Plan: Plan #1 (AU 145S/Motherbore)

SECTION DETAILS

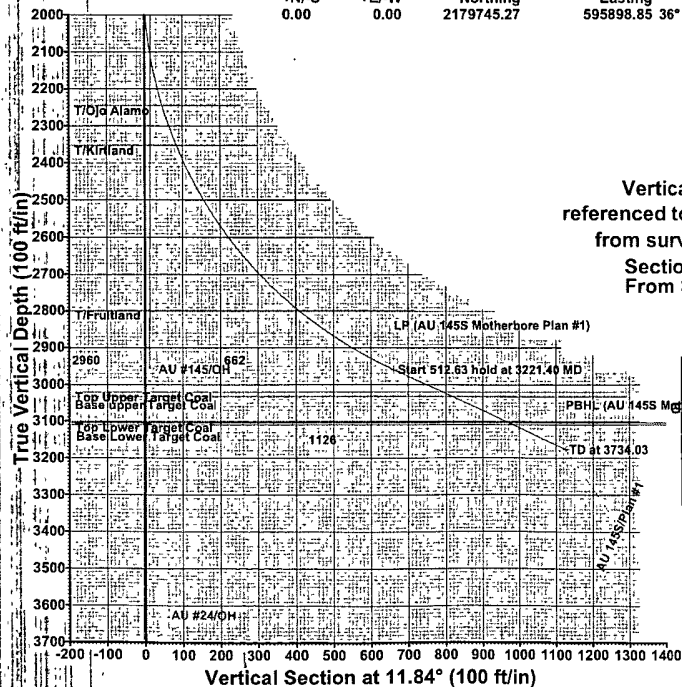
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1921.40	0.00	0.00	1921.40	0.00	0.00	0.00	0.00	0.00	
3	3221.40	65.00	11.84	2959.95	647.55	135.75	5.00	11.84	661.63	
4	3734.03	65.00	11.84	3176.60	1102.27	231.08	0.00	0.00	1126.23	

WELL DETAILS: AU 145S

Ground Elevation: 6517.00
 RKB Elevation: WELL @ 6532.00ft (Original Well Elev)
 Rig Name: Original Well Elev

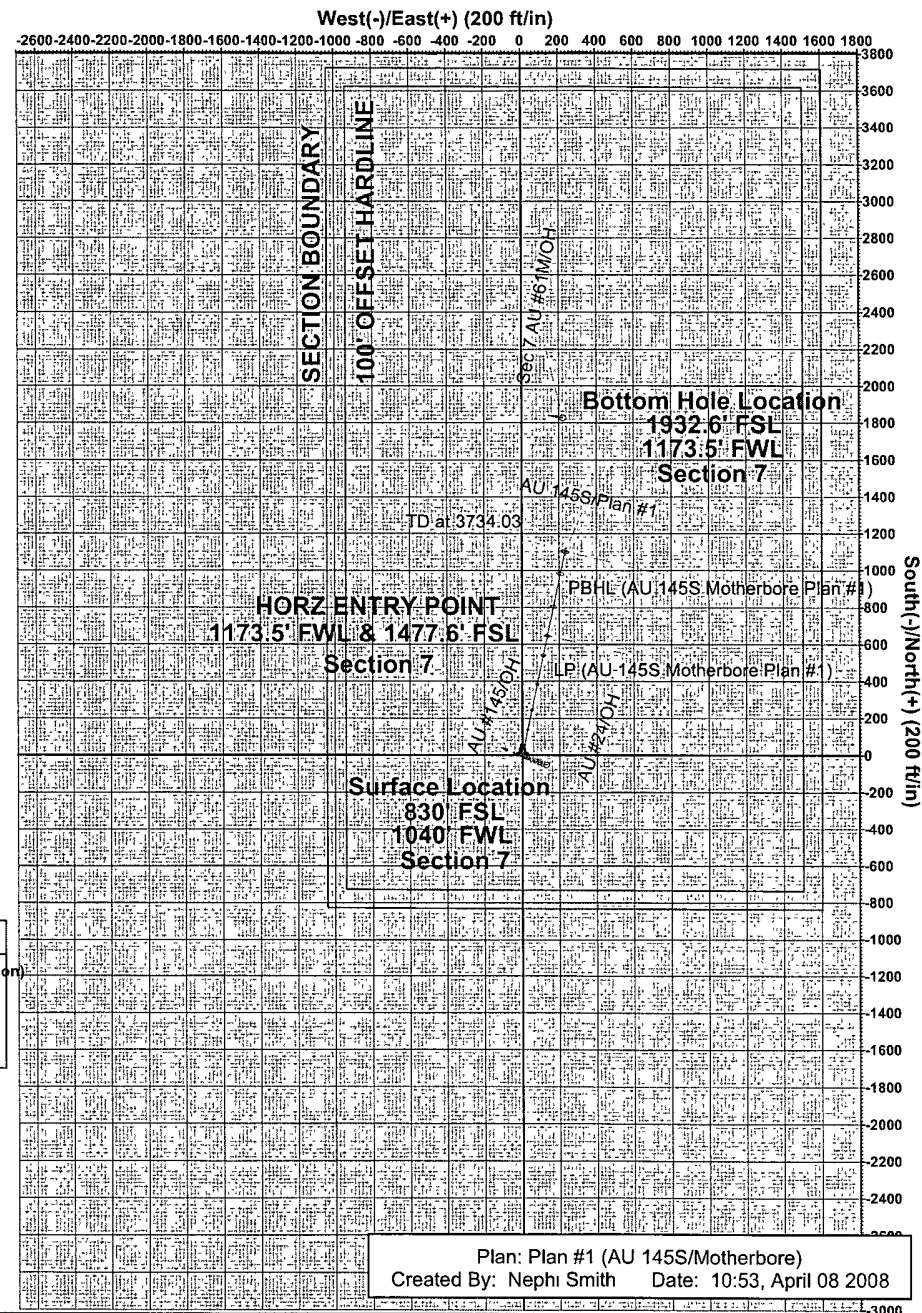
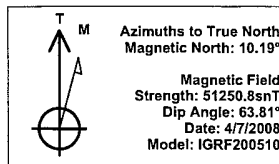
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	2179745.27	595898.85	36° 59' 23.51409 N	07° 30' 17.90578 W	

Vertical Section Azimuth of 11.84° is referenced to True North and was obtained from survey plat provided by customer.
 Section Boundaries Calculated From Surveyors Coordinates.



PROJECT DETAILS: San Juan County, NM

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003
 System Datum: Mean Sea Level





Project: San Juan County, NM
Site: Sec 7, T32N, R6W (AU 145S)
Well: AU 145S

Wellbore: Lower Lateral

Plan: Plan #1 (AU 145S/Lower Lateral)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	3503.56	65.00	11.84	3079.20	897.84	188.22	0.00	0.00	917.35	
2	3628.56	90.00	11.84	3106.04	1016.33	213.06	20.00	0.00	1038.43	
3	3637.56	90.18	11.84	3106.02	1025.14	214.91	2.00	0.00	1047.42	
4	4576.22	90.18	11.84	3103.08	1943.82	407.50	0.00	0.00	1986.08	
5	4590.14	90.46	11.84	3103.00	1957.45	410.36	2.00	0.00	2000.00	T1 (AU 145S LL)
6	4590.24	90.46	11.84	3103.00	1957.54	410.38	2.00	180.00	2000.10	
7	5576.22	90.46	11.84	3095.15	2922.52	612.68	0.00	0.00	2986.05	T2 (AU 145S LL)
8	5590.17	90.74	11.84	3095.00	2936.17	615.54	2.00	0.00	3000.00	
9	6291.39	90.74	11.84	3086.00	3622.42	759.40	0.00	0.00	3701.16	PBHL (AU 145S LL)

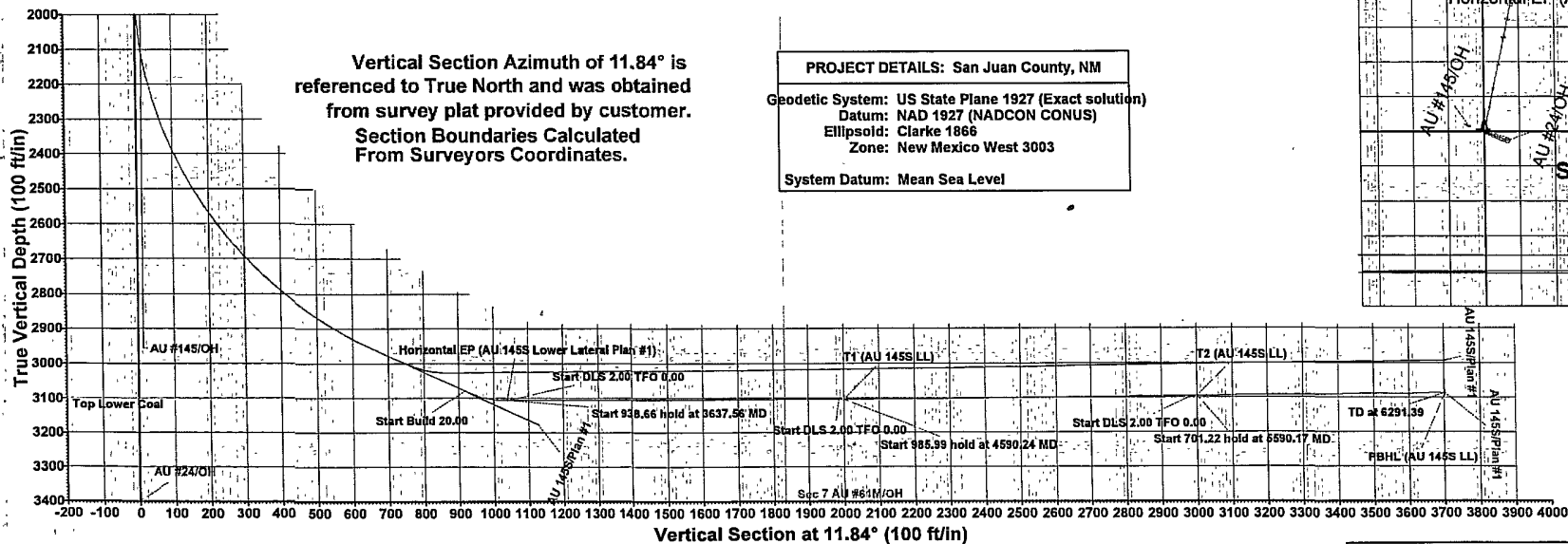
WELL DETAILS: AU 145S

Ground Elevation: 6517.00
RKB Elevation: WELL @ 6532.00ft (Original Well Elev)
Rig Name: Original Well Elev

+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	2179745.27	595898.85	36° 59' 23.51409 N	07° 30' 17.90578 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

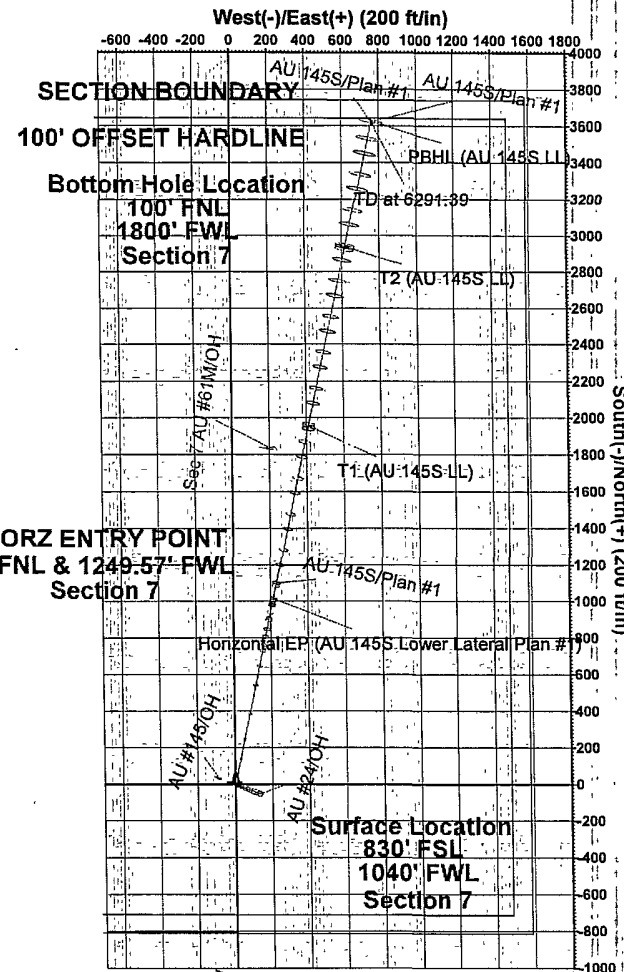
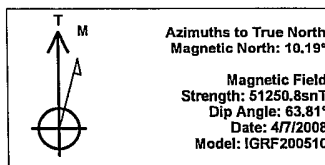
Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PBHL (AU 145S LL)	3086.00	3622.42	759.40	2183370.29	596645.75	Point
T2 (AU 145S LL)	3095.00	2936.17	615.54	2182683.55	596504.26	Point
T1 (AU 145S LL)	3103.00	1957.45	410.36	2181704.12	596302.46	Point



Vertical Section Azimuth of 11.84° is referenced to True North and was obtained from survey plat provided by customer. Section Boundaries Calculated From Surveyors Coordinates.

PROJECT DETAILS: San Juan County, NM

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level



Plan: Plan #1 (AU 145S/Lower Lateral)
Created By: Nephi Smith Date: 11:12, April 08 2008



Project: San Juan County, NM
Site: Sec 7, T32N, R6W (AU 145S)
Well: AU 145S
Wellbore: Upper Lateral
Plan: Plan #1 (AU 145S/Upper Lateral)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	3314.74	65.00	11.84	2999.40	730.35	153.11	0.00	0.00	746.23	
2	3439.74	90.00	11.84	3026.24	848.84	177.95	20.00	0.00	867.30	
3	3489.15	90.99	11.84	3025.81	897.20	188.09	2.00	0.00	916.70	
4	3545.97	90.99	11.84	3024.83	952.80	199.75	0.00	0.00	973.51	
5	3572.46	90.46	11.84	3024.50	978.72	205.18	2.00	-180.00	1000.00	T1 (AU 145S UL)
6	3572.61	90.46	11.84	3024.50	978.87	205.21	2.00	-180.00	1000.15	
7	4555.15	90.46	11.84	3016.69	1940.48	406.80	0.00	0.00	1982.66	
8	4572.49	90.80	11.84	3016.50	1957.45	410.36	2.00	0.00	2000.00	T2 (AU 145S UL)
9	4572.49	90.80	11.84	3016.50	1957.45	410.36	2.00	0.00	2000.00	
10	5571.84	90.80	11.84	3002.51	2935.44	615.38	0.00	0.00	2999.25	T3 (AU 145S UL)
11	5572.59	90.82	11.84	3002.50	2936.17	615.54	2.00	-0.81	3000.00	
12	6273.82	90.82	11.84	2992.50	3622.42	759.40	0.00	0.00	3701.16	PBHL (AU 145S UL)

WELL DETAILS: AU 145S

Ground Elevation: 6517.00
RKB Elevation: WELL @ 6532.00ft (Original Well Elev)
Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	2179745.27	595898.85	36° 59' 23.51409 N	07° 30' 17.90578 W	

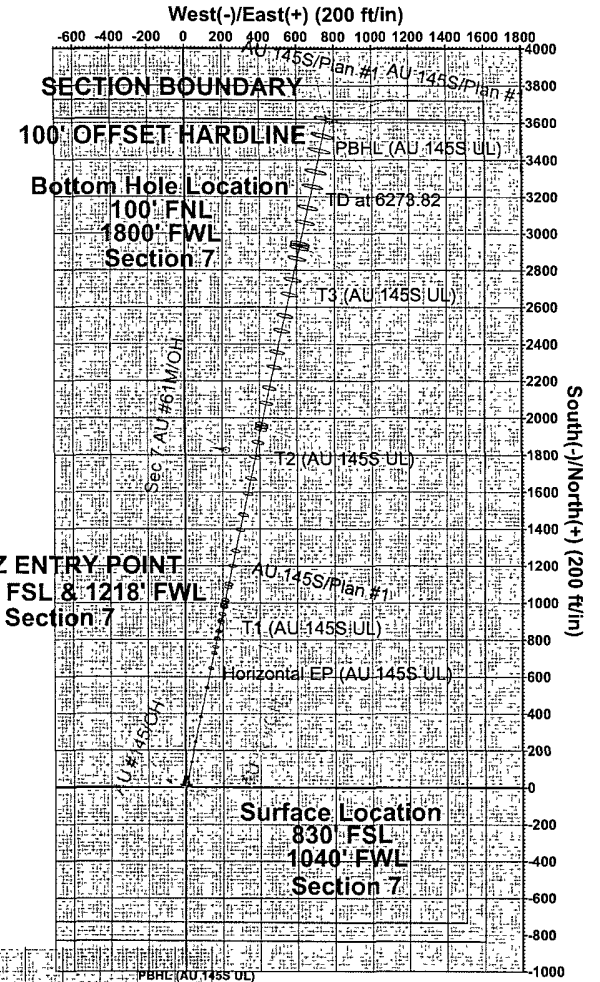
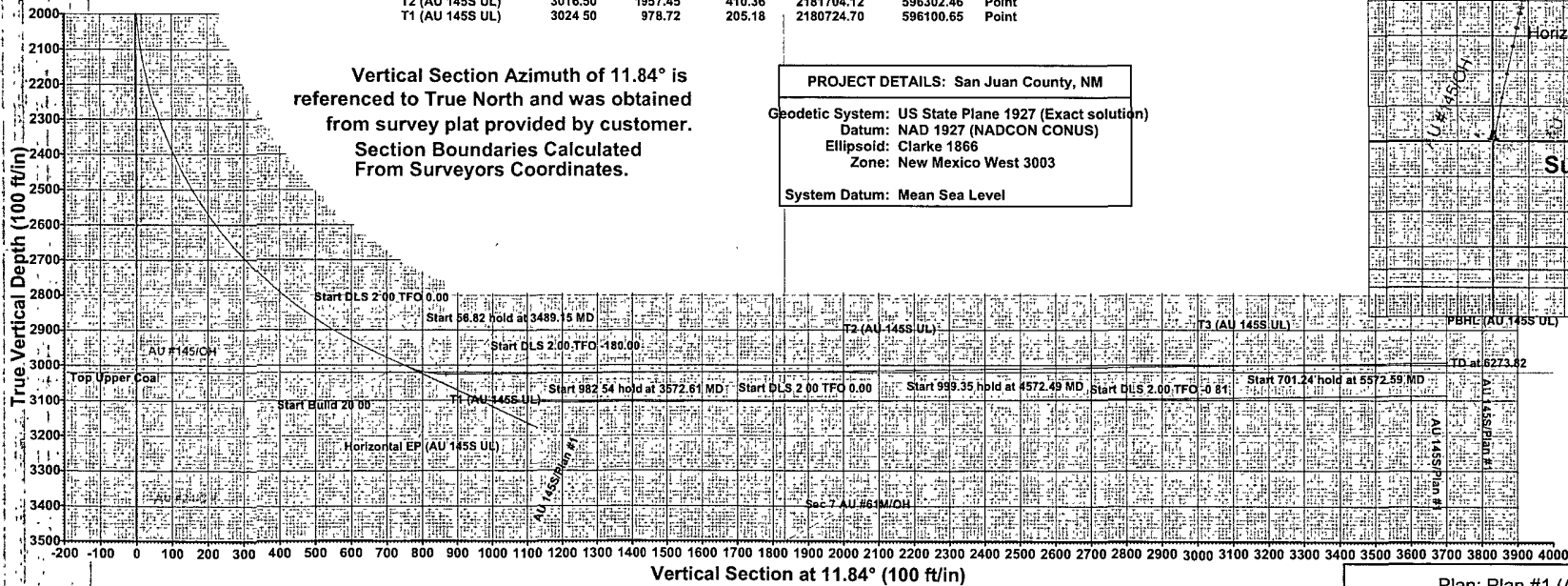
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (AU 145S UL)	2992.50	3622.42	759.40	2183370.29	596645.75	Point
T3 (AU 145S UL)	3002.50	2936.17	615.54	2182683.55	596504.26	Point
T2 (AU 145S UL)	3016.50	1957.45	410.36	2181704.12	596302.46	Point
T1 (AU 145S UL)	3024.50	978.72	205.18	2180724.70	596100.65	Point

PROJECT DETAILS: San Juan County, NM

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003

System Datum: Mean Sea Level



Plan: Plan #1 (AU 145S/Upper Lateral)
Created By: Nephi Smith Date: 11:30, April 08 2008

Allison Unit 145S

Directional Plan (Plan No. 1) accompanies this document

GL 6517'
KB 6532' (Aztec 777)

surface location:

BHL, mainbore

upper lateral, beginning of productive interval

upper lateral, end of productive interval

lower lateral, beginning of productive interval

lower lateral, end of productive interval

State of Colorado

T32N, R06W, Section 7, 830' FSL, 1040' FWL

T32N, R06W, Section 7, 1933' FSL, 1174' FWL

T32N, R06W, Section 7, 1679' FSL, 1218' FWL

T32N, R06W, Section 7, 100' FNL, 1800' FWL

T32N, R06W, Section 7, 2708' FNL, 1250' FWL

T32N, R06W, Section 7, 100' FNL, 1800' FWL

MD
ft

TVD
ft

NA

NA

3734

3177

7" casing depth

3315

2999

casing exit / top of 4-1/2" liner / junction to mainbore

6274

2993

lateral total depth & 4-1/2" casing depth

3504

3079

casing exit / top of 4-1/2" liner / junction to mainbore

6291

3086

lateral total depth & 4-1/2" casing depth

12-1/4" Hole and 9-5/8" Casing at 600' (tentative depth)

Casing description: 9-5/8" 32.3 #/ft, H-40, STC

cementing program: Cement to surface with 490 ft³ (volume includes 150% excess in open hole), mixed at 14.6 ppg with calcium chloride to accelerate, compressive strength 500 psi after 8 hours.

centralizers: one at 10' above shoe and one on each casing collar.

casing exits

8-3/4" Hole & 7" Casing (motherbore)

casing description: 7", 23#/ft, L-80, LTC

cementing program: Cement to surface with 1326 ft³ volume includes 135% excess in open hole), to consist of 1094 ft³ lead slurry mixed at 12.1 ppg and 232 ft³ tail slurry mixed at 14.6 ppg. Slurries are extended to achieve stated densities and may include various additives to control seepage. TOC for tail:

100' MD above base of Kirtland Shale

centralizers: one at 10' above shoe, one at 30' above shoe, one at 10' above float collar and one each on casing collars of 2nd, 3rd, 4th and 5th joints.

Two Laterals, Upper and Lower

each consisting of 6-1/4" Hole & 4-1/2" Liner

casing description: 4-1/2" 11.6#/ft, L-80, BTC

uncemented, pre-drilled and plugged, with two holes per joint

BOP program and drilling mud program will be per basin-wide standards for top-set coal wells.