

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 Dr.
Santa Fe, NM 87505

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

☒ AMENDED REPORT

As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-29509	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 17033	⁵ Property Name ROSA UNIT	⁶ Well Number 243A
⁷ OGRID No. 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY	⁹ Elevation 6651'

¹⁰ Surface Location

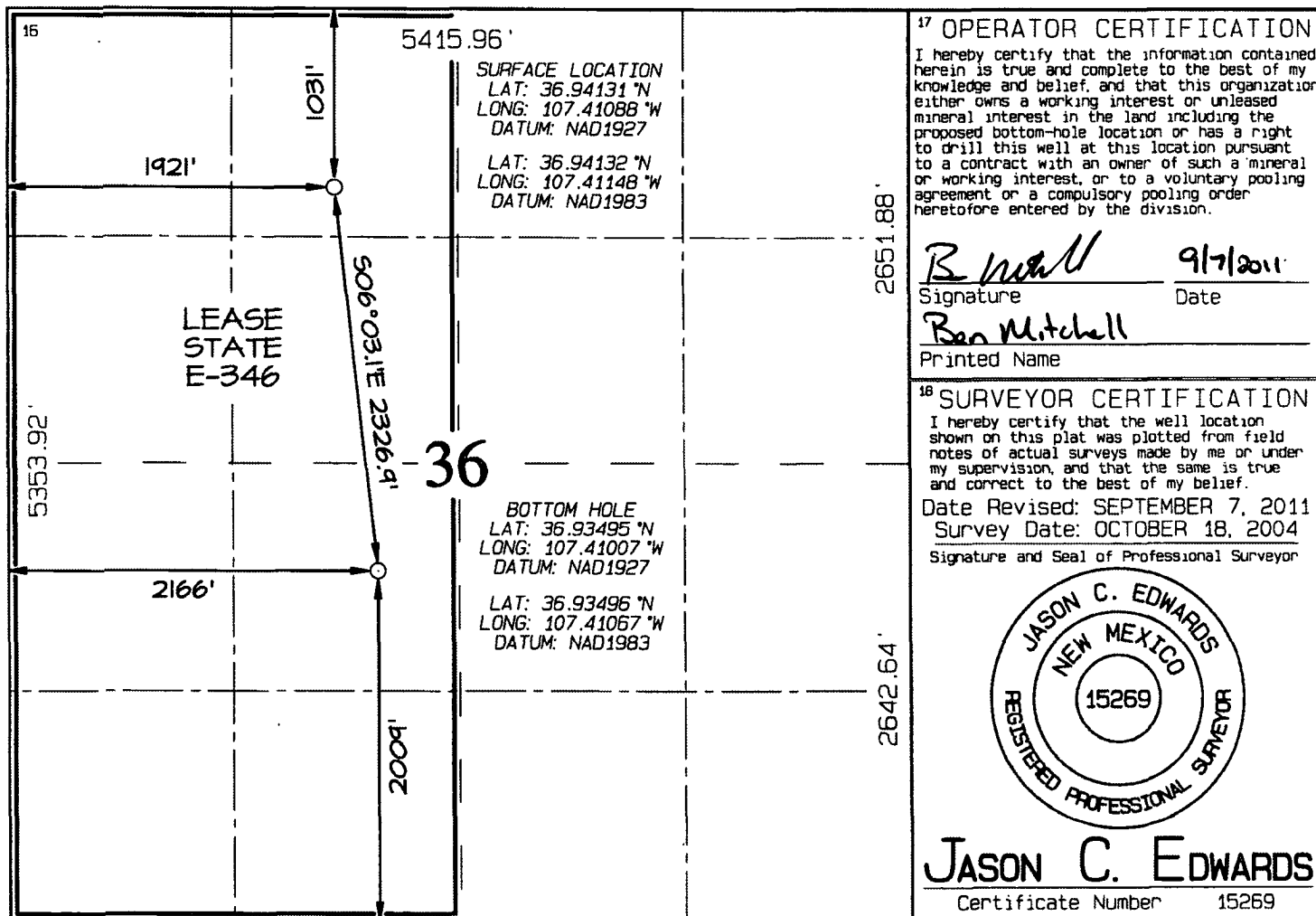
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	36	32N	6W		1031	NORTH	1921	WEST	RIO ARriba

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
K	36	32N	6W		2009	SOUTH	2166	WEST	RIO ARriba

¹² Dedicated Acres 320.0 Acres - (W/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD SEP 8 '11 OIL CON. DIV.
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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





Williams Energy

Rosa Unit #243A STK
Sec36 T32N-R6W - #243A
Rio Arriba Co. NM
GL: 6651' KB: 14'

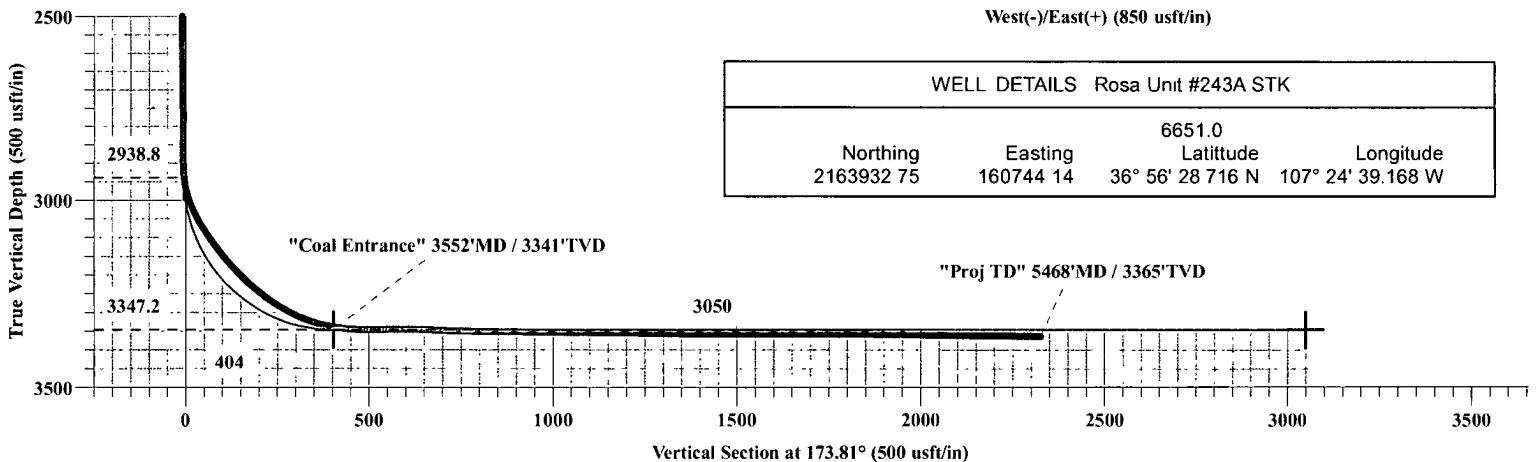
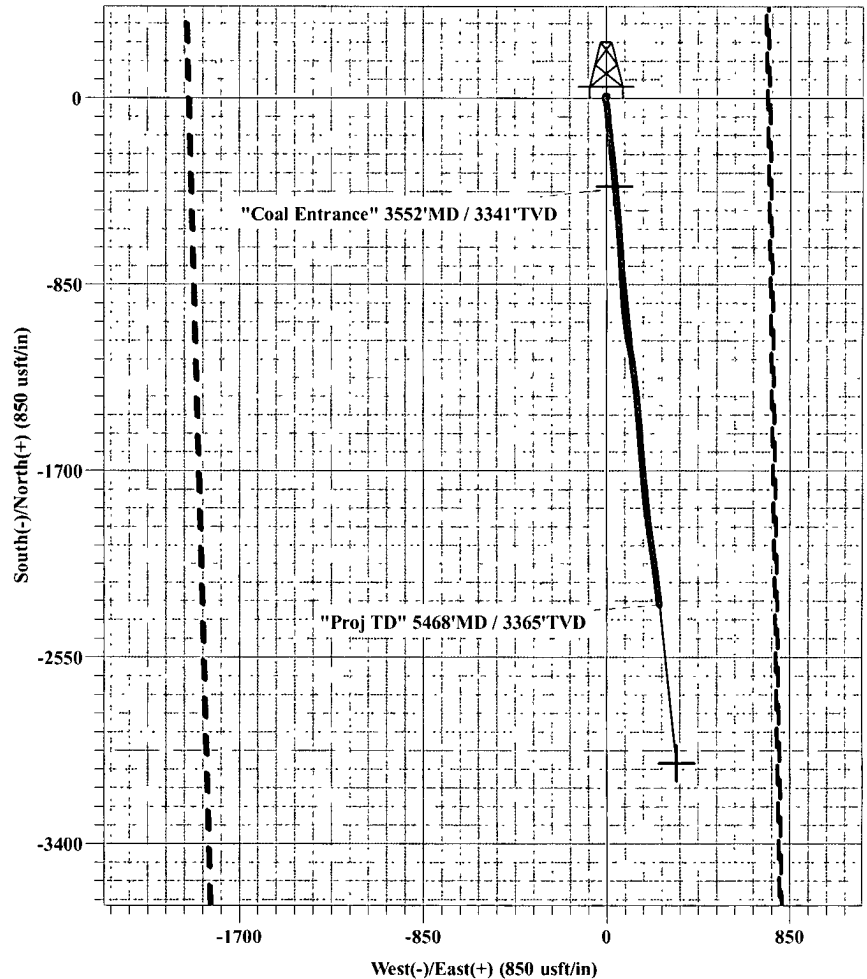


A Schlumberger Company

EOW
No Hardlines Crossed

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
LAND-243A	3347 0	-401 9	39 0	2163530 40	160778 24	Point
TD-243A	3347 0	-3032 9	324 5	2160896 09	161031 65	Point



WELL DETAILS Rosa Unit #243A STK				
Northing	Easting	Latitude	Longitude	
2163932 75	160744 14	36° 56' 28 716 N	107° 24' 39.168 W	

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
2939 0	0 18	216 27	2938 8	5 1	-4 3	0 00	0 00	-5 6	
3581 0	90 00	173 81	3347 2	-401 9	39 0	14 00	-42 46	403 7	
6227 5	90 00	173 81	3347 0	-3032 9	324 5	0 00	0 00	3050 2	TD-243A

Plan: Design #3 (Rosa Unit #243A STK/STK)

Created By: Frank C. Scardino

Date: 8/29/2011

Williams Energy

Rio Arriba Co. NM

Sec36 T32N-R6W - #243A

Rosa Unit #243A STK

STK

Design: STK

Standard Survey Report

29 August, 2011

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec36 T32N-R6W - #243A
Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6665 0usft (Original Well Elev)
Site:	Sec36 T32N-R6W - #243A	MD Reference:	WELL @ 6665 0usft (Original Well Elev)
Well:	Rosa Unit #243A STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Project	Rio Arriba Co NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site: Sec36 T32N-R6W - #243A					
Site Position:		Northing:	2,163,932.75 usft	Latitude:	36° 56' 28 716 N
From:	Lat/Long	Easting:	160,744 15 usft	Longitude:	107° 24' 39 168 W
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0 70 °

Well	Rosa Unit #243A STK					
Well Position	+N/-S	0 0 usft	Northing:	2,163,932.75 usft	Latitude:	36° 56' 28.716 N
	+E/-W	0 0 usft	Easting:	160,744.15 usft	Longitude:	107° 24' 39.168 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level:	6,651.0 usft

Wellbore	STK				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/10/11	9 75	63 70	50,880

Design	STK				
Audit Notes:					
Version:	1 0	Phase:	ACTUAL	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0 0	0 0	0 0	173 81	

Survey Program	Date 08/29/11				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200 0	5,468 0	Survey #1 (STK)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0 0	0 00	0 00	0 0	0 0	0 0	0 0	0 00	0 00	0 00	
200 0	1 09	23 76	200 0	1 7	0 8	-1 6	0 55	0 55	0 00	
400 0	1 36	19 56	399 9	5 7	2 3	-5 4	0 14	0 14	-2 10	
600 0	0 52	30 51	599 9	8 7	3 6	-8 3	0 43	-0 42	5 48	
800 0	0 28	168 04	799 9	9 0	4 1	-8 5	0 38	-0 12	68 77	
1,000 0	0 57	199 22	999 9	7 6	3 9	-7 2	0 18	0 15	15 59	
1,200 0	0 36	240 95	1,199 9	6 4	3 0	-6 0	0 19	-0 11	20 87	
1,400 0	0 28	230 49	1,399 9	5 8	2 1	-5 5	0 05	-0 04	-5 23	
1,600 0	0 15	286 22	1,599 9	5 5	1 5	-5 3	0 12	-0 07	27 87	
1,800 0	0 86	325 53	1,799 9	6 8	0 4	-6 8	0 37	0 36	19 66	

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec36 T32N-R6W - #243A
Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6665 0usft (Original Well Elev)
Site:	Sec36 T32N-R6W - #243A	MD Reference:	WELL @ 6665 0usft (Original Well Elev)
Well:	Rosa Unit #243A STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,000.0	0.68	323.55	1,999.9	9.0	-1.2	-9.1	0.09	-0.09	-0.99	
2,200.0	0.61	267.18	2,199.9	9.9	-2.9	-10.2	0.31	-0.04	-28.19	
2,400.0	0.31	144.40	2,399.9	9.4	-3.7	-9.8	0.41	-0.15	-61.39	
2,600.0	0.64	187.61	2,599.8	7.9	-3.5	-8.2	0.23	0.17	21.61	
2,800.0	0.53	198.05	2,799.8	5.9	-4.0	-6.3	0.08	-0.06	5.22	
2,841.0	0.40	239.70	2,840.8	5.7	-4.1	-6.1	0.86	-0.32	101.59	
2,873.0	0.30	266.50	2,872.8	5.6	-4.3	-6.0	0.59	-0.31	83.75	
2,905.0	1.30	217.00	2,904.8	5.3	-4.6	-5.8	3.53	3.13	-154.69	
2,930.0	4.31	200.54	2,929.8	4.2	-5.1	-4.7	12.34	12.04	-65.84	
2,962.0	10.11	179.48	2,961.5	0.3	-5.5	-0.8	19.62	18.13	-65.81	
2,989.0	16.53	161.73	2,987.8	-5.8	-4.3	5.3	27.93	23.78	-65.74	
3,021.0	23.83	163.16	3,017.8	-16.3	-1.0	16.1	22.86	22.81	4.47	
3,052.0	29.11	170.95	3,045.6	-29.8	2.0	29.8	20.35	17.03	25.13	
3,084.0	32.62	175.12	3,073.0	-46.0	4.0	46.2	12.84	10.97	13.03	
3,116.0	35.26	174.82	3,099.6	-63.8	5.5	64.1	8.27	8.25	-0.94	
3,148.0	37.37	174.73	3,125.4	-82.7	7.3	83.0	6.60	6.59	-0.28	
3,180.0	40.01	174.28	3,150.3	-102.6	9.2	103.0	8.30	8.25	-1.41	
3,212.0	42.38	173.31	3,174.4	-123.6	11.5	124.1	7.67	7.41	-3.03	
3,244.0	44.67	173.68	3,197.6	-145.5	14.0	146.1	7.20	7.16	1.16	
3,275.0	47.84	173.84	3,219.1	-167.7	16.4	168.5	10.23	10.23	0.52	
3,307.0	51.00	173.59	3,239.9	-191.9	19.1	192.8	9.89	9.88	-0.78	
3,340.0	54.08	173.34	3,259.9	-217.9	22.0	219.0	9.35	9.33	-0.76	
3,371.0	57.42	173.52	3,277.4	-243.4	25.0	244.6	10.78	10.77	0.58	
3,403.0	60.85	173.40	3,293.8	-270.6	28.1	272.1	10.72	10.72	-0.38	
3,435.0	65.42	173.34	3,308.3	-299.0	31.4	300.6	14.28	14.28	-0.19	
3,466.0	70.26	173.32	3,319.9	-327.5	34.7	329.3	15.61	15.61	-0.06	
3,498.0	74.39	173.71	3,329.7	-357.8	38.2	359.8	12.96	12.91	1.22	
3,529.0	78.52	174.07	3,336.9	-387.7	41.4	389.9	13.37	13.32	1.16	
3,552.0	81.24	174.61	3,341.0	-410.3	43.6	412.6	12.07	11.84	2.35	
"Coal Entrance" 3552' MD / 3341' TVD										
3,561.0	82.31	174.82	3,342.2	-419.1	44.4	421.5	12.07	11.85	2.33	
3,590.0	86.35	173.34	3,345.1	-447.8	47.4	450.3	14.83	13.93	-5.10	
3,653.0	90.22	174.87	3,347.0	-510.5	53.9	513.3	6.60	6.14	2.43	
3,718.0	90.75	176.51	3,346.4	-575.3	58.8	578.3	2.65	0.82	2.52	
3,781.0	89.16	176.10	3,346.5	-638.1	62.8	641.2	2.61	-2.52	-0.65	
3,844.0	87.49	175.77	3,348.3	-701.0	67.3	704.1	2.70	-2.65	-0.52	
3,907.0	88.29	176.87	3,350.7	-763.8	71.3	767.0	2.16	1.27	1.75	
3,971.0	90.04	178.18	3,351.6	-827.7	74.1	830.9	3.42	2.73	2.05	
4,035.0	89.69	177.14	3,351.7	-891.7	76.7	894.7	1.71	-0.55	-1.63	
4,098.0	89.34	174.31	3,352.3	-954.5	81.4	957.7	4.53	-0.56	-4.49	
4,162.0	90.13	172.48	3,352.6	-1,018.0	88.8	1,021.7	3.11	1.23	-2.86	
4,226.0	88.29	169.76	3,353.4	-1,081.3	98.6	1,085.6	5.13	-2.88	-4.25	
4,289.0	89.34	169.31	3,354.7	-1,143.2	110.1	1,148.4	1.81	1.67	-0.71	
4,353.0	89.43	171.62	3,355.4	-1,206.3	120.7	1,212.3	3.61	0.14	3.61	

Survey Report

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Site:	Sec36 T32N-R6W - #243A	MD Reference:	WELL @ 6665 0usft (Original Well Elev)
Well:	Rosa Unit #243A STK	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,416 0	89 08	172 49	3,356 3	-1,268 7	129 4	1,275 2	1 49	-0 56	1 38
4,479 0	88 90	173 16	3,357 4	-1,331 2	137 3	1,338 2	1 10	-0 29	1 06
4,544 0	89 60	174 32	3,358 2	-1,395 8	144 3	1,403 2	2 08	1 08	1 78
4,607 0	89 43	175 42	3,358 7	-1,458 5	150 0	1,466 2	1 77	-0 27	1 75
4,670 0	89 96	175 86	3,359 1	-1,521 4	154 8	1,529 2	1 09	0 84	0 70
4,734 0	90 31	175 40	3,358 9	-1,585 2	159 6	1,593 1	0 90	0 55	-0 72
4,798 0	90 31	175 59	3,358 6	-1,649 0	164 7	1,657 1	0 30	0 00	0 30
4,861 0	89 69	174 61	3,358 6	-1,711 7	170 0	1,720 1	1 84	-0 98	-1 56
4,926 0	89 60	175 09	3,359 0	-1,776 5	175 9	1,785 1	0 75	-0 14	0 74
4,989 0	89 87	173 51	3,359 3	-1,839 2	182 1	1,848 1	2 54	0 43	-2 51
5,054 0	89 08	171 75	3,359 9	-1,903 6	190 5	1,913 1	2 97	-1 22	-2 71
5,117 0	89 25	171 68	3,360 8	-1,966 0	199 5	1,976 0	0 29	0 27	-0 11
5,181 0	88 99	172 15	3,361 8	-2,029 3	208 5	2,040 0	0 84	-0 41	0 73
5,246 0	89 87	172 49	3,362 4	-2,093 7	217 2	2,104 9	1 45	1 35	0 52
5,309 0	89 60	172 17	3,362 7	-2,156 2	225 6	2,167 9	0 66	-0 43	-0 51
5,373 0	89 08	173 08	3,363 5	-2,219 6	233 9	2,231 9	1 64	-0 81	1 42
5,468 0	89 08	173 08	3,365 0	-2,313 9	245 3	2,326 9	0 00	0 00	0 00
"Proj TD" 5468'MD / 3365'TVD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,552 0	3,341 0	-410 3	43 6	"Coal Entrance" 3552'MD / 3341'TVD
5,468 0	3,365 0	-2,313 9	245 3	"Proj TD" 5468'MD / 3365'TVD

Checked By: _____ Approved By: _____ Date: _____