

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2001

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Lime Rock Resources A, L.P. 1111 Bagby St. Suite 4600 Houston, TX 77002		² OGRID Number 255333
		³ API Number 30 - 015-38600
³ Property Code 30551	⁵ Property Name Eagle 4 State Com	⁶ Well No. 2H
⁹ Proposed Pool 1 Willow Lake; Delaware, SW (64453)		¹⁰ Proposed Pool 2

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	4	25-S	28-E		1700'	North	150'	East	Eddy

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
E	4	25-	28-E		1700'	North	330'	West	Eddy

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 2998'
¹⁶ Multiple N	¹⁷ Proposed Depth 4,711'	¹⁸ Formation Delaware	¹⁹ Contractor United Drilling	²⁰ Spud Date 4/19/11

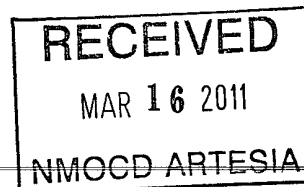
Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8" STC	36# J-55	600'	200 SX 35/63 Poz/C lead	Surface
12 1/4"	9 5/8" STC	36# J-55	600'	140 SX "C" Tail	"
8 3/4"	7" LTC	23# N-80	4811' TVD	230 sx 35/65 Poz/C lead	2000'
8 3/4"	7" LTC	23# N-80	4811' TVD	130 SX cl "C" Tail	2000'
6 1/8"	4 1/2" BTC liner	11.6# N-80	4811' TVD	No Cmt.	

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.
Lime Rock Resources A, L.P. proposes to drill/test the Delaware formation. Approximately 600' will be drilled with fresh water, then set and cement 9 5/8" surface casing, to 600'.
Drill 8 3/4" hole to T.D. at approx. 4,811'. Run OH logs. Set 7" casing to T.D. and cement will be circulated back to 2000 feet. Will run 4 1/2" BTC Liner from 4,500' to 9,502' MTD with TVD@ 4,711'. Will perforate the Cherry Canyon formation and stimulate, as necessary, for optimum production. Produce well by flowing or pumping.

H2S levels are not expected to be high enough to require an H2 S program.

See Exhibit "A" for BOP.



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

Signature:

George R. Smith

Printed name:
George R. Smith

Title
Agent for Lime Rock Resources A, L.P.:

E-mail Address
gr.smith1@hotmail.com

Date:
3/14/11

Phone
575-623-4940

OIL CONSERVATION DIVISION

Approved by:

Acqui Dean
Geologist

Approval Date:

3/23/2011

Expiration Date:

3/23/2013

Conditions of Approval Attached ☐

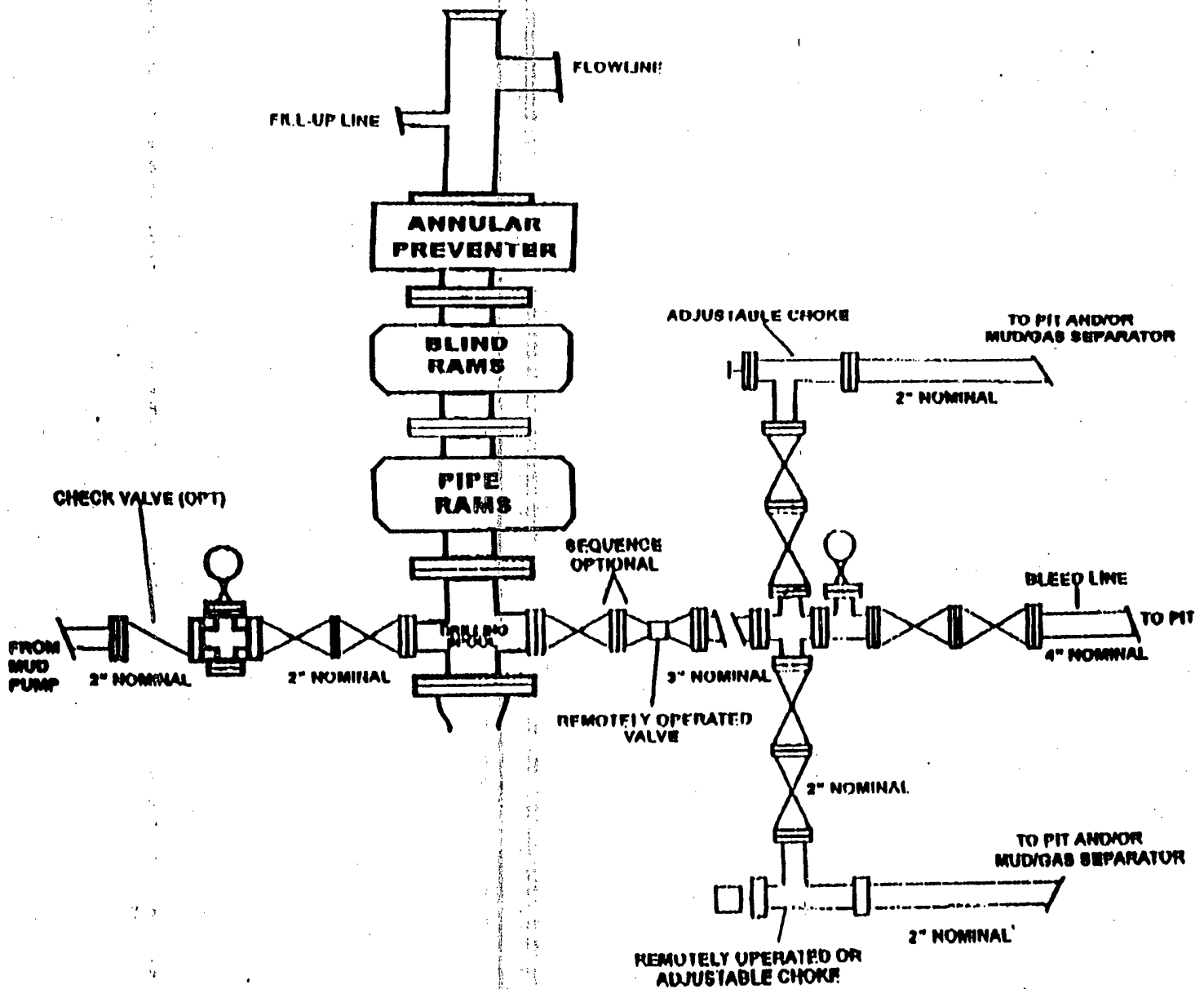
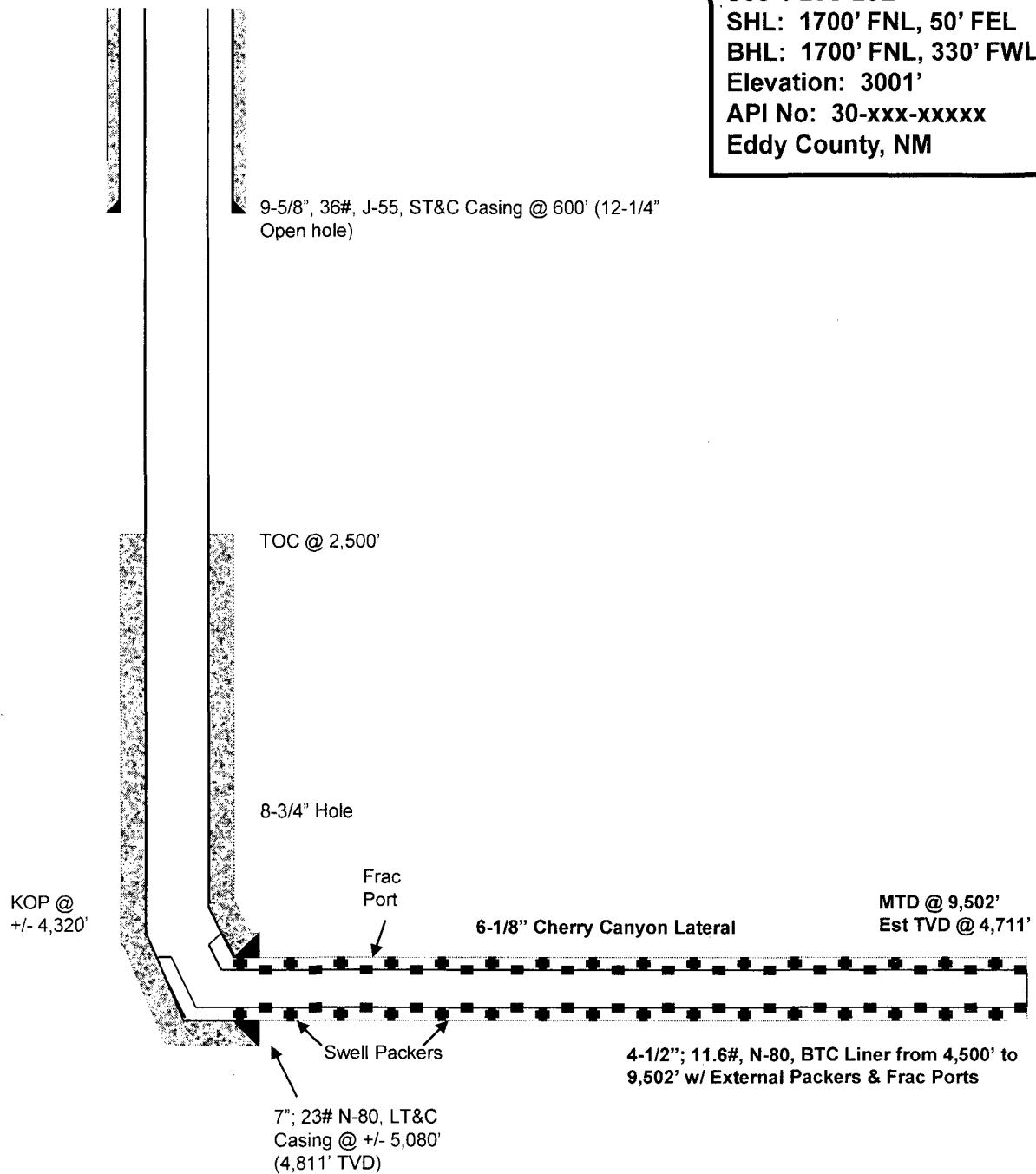
**BOP DIAGRAM
3000# SYSTEM**

EXHIBIT "A"
LIME ROCK RESOURCES A, L.P.
BOP Specifications



**LIME ROCK
RESOURCES**

**Lime Rock Resources
Eagle 4 State 2-H
Sec 4-25S-28E
SHL: 1700' FNL, 50' FEL
BHL: 1700' FNL, 330' FWL
Elevation: 3001'
API No: 30-xxx-xxxxx
Eddy County, NM**



Lime Rock Resources

**Eddy County, NM
Eagle 4 State 2H
Eagle 4 State 2H
OH**

Plan: Plan #1

PathFinder X&Y Report

28 February, 2011



A Schlumberger Company

Project: Eddy County, NM
 Site: Eagle 4 State 2H
 Well: Eagle 4 State 2H
 Wellbore: OH
 Plan: Plan #1 (Eagle 4 State 2H/OH)

WELL DETAILS: Eagle 4 State 2H

Ground Elevation:: 3001.00
 RKB Elevation: EST KB=15' @ 3016.00ft
 Rig Name:

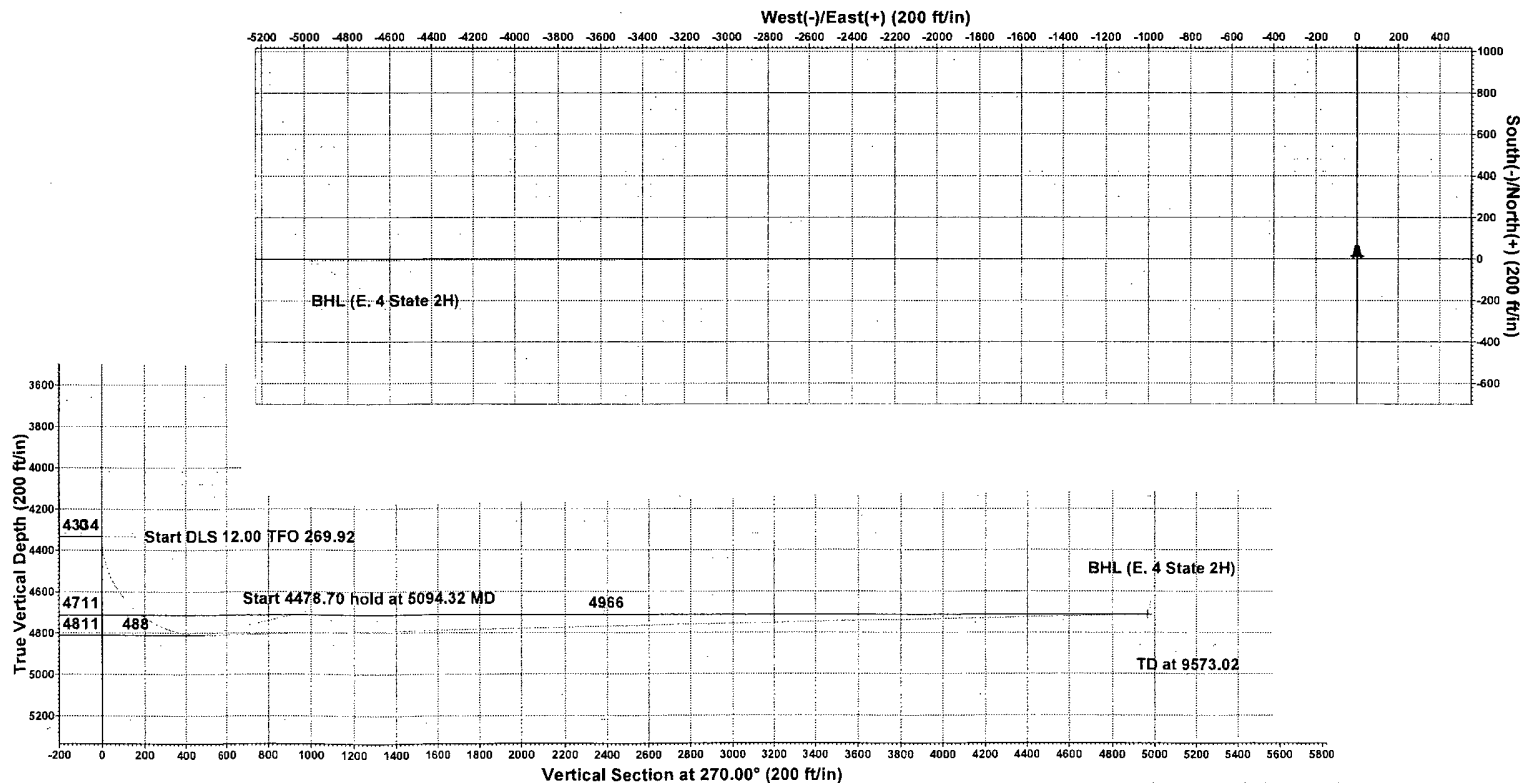
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	422638.60	577329.10	32.161704	-104.083441	

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	4333.66	0.00	0.00	4333.66	0.00	0.00	0.00	0.00	0.00	
3	5094.32	91.28	269.92	4811.00	-0.67	-488.12	12.00	269.92	488.12	
4	9573.02	91.28	269.92	4711.00	-6.80	-4965.70	0.00	0.00	4965.70	BHL (E. 4 State 2H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
BHL (E. 4 State 2H)	4711.00	-6.80	-4965.70	422631.80	572363.40	Point



Azimuths to Grid North
 True North: -0.13°
 Magnetic North: 7.72°

Magnetic Field
 Strength: 48552.3nT
 Dip Angle: 60.04°
 Date: 2011/02/28
 Model: IGRF2010

PROJECT DETAILS: Eddy County, NM
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001

System Datum: Mean Sea Level
 Local North: Grid

Pathfinder

PathFinder X&Y Report

PATHFINDER
A Schlumberger Company

Company: Lime Rock Resources
Project: Eddy County, NM
Site: Eagle 4 State 2H
Well: Eagle 4 State 2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Eagle 4 State 2H
TVD Reference: EST KB=15' @ 3016.00ft
MD Reference: EST KB=15' @ 3016.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 1 Smith Database

Project Eddy County, NM

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Eagle 4 State 2H

Site Position:		Northing:	422,638.60 ft	Latitude:	32.161704
From:	Map	Easting:	577,329.10 ft	Longitude:	-104.083441
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.13 °

Well Eagle 4 State 2H

Well Position	+N-S	0.00 ft	Northing:	422,638.60 ft	Latitude:	32.161704
	+E-W	0.00 ft	Easting:	577,329.10 ft	Longitude:	-104.083441
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,001.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/02/28	7.85	60.04	48,552

Design Plan #1

Audit Notes:

Version: **Phase:** PROTOTYPE **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	270.00

Survey Tool Program **Date** 2011/02/28

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	9,572.50	Plan #1 (OH)	MWD	MWD - Standard

Pathfinder

PathFinder X&Y Report



Company: Lime Rock Resources
Project: Eddy County, NM
Site: Eagle 4 State 2H
Well: Eagle 4 State 2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Eagle 4 State 2H
TVD Reference: EST KB=15' @ 3016.00ft
MD Reference: EST KB=15' @ 3016.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 1 Smith Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,016.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
100.00	0.00	0.00	100.00	-2,916.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
200.00	0.00	0.00	200.00	-2,816.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
300.00	0.00	0.00	300.00	-2,716.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
400.00	0.00	0.00	400.00	-2,616.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
500.00	0.00	0.00	500.00	-2,516.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
600.00	0.00	0.00	600.00	-2,416.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
700.00	0.00	0.00	700.00	-2,316.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
800.00	0.00	0.00	800.00	-2,216.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
900.00	0.00	0.00	900.00	-2,116.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,000.00	0.00	0.00	1,000.00	-2,016.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,100.00	0.00	0.00	1,100.00	-1,916.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,200.00	0.00	0.00	1,200.00	-1,816.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,300.00	0.00	0.00	1,300.00	-1,716.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,400.00	0.00	0.00	1,400.00	-1,616.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,500.00	0.00	0.00	1,500.00	-1,516.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,600.00	0.00	0.00	1,600.00	-1,416.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,700.00	0.00	0.00	1,700.00	-1,316.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,800.00	0.00	0.00	1,800.00	-1,216.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
1,900.00	0.00	0.00	1,900.00	-1,116.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,000.00	0.00	0.00	2,000.00	-1,016.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,100.00	0.00	0.00	2,100.00	-916.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,200.00	0.00	0.00	2,200.00	-816.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,300.00	0.00	0.00	2,300.00	-716.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,400.00	0.00	0.00	2,400.00	-616.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,500.00	0.00	0.00	2,500.00	-516.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,600.00	0.00	0.00	2,600.00	-416.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10

Pathfinder

PathFinder X&Y Report



Company: Lime Rock Resources
Project: Eddy County, NM
Site: Eagle 4 State 2H
Well: Eagle 4 State 2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Eagle 4 State 2H
TVD Reference: EST KB=15' @ 3016.00ft
MD Reference: EST KB=15' @ 3016.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 1 Smith Database

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-316.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,800.00	0.00	0.00	2,800.00	-216.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
2,900.00	0.00	0.00	2,900.00	-116.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,000.00	0.00	0.00	3,000.00	-16.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,100.00	0.00	0.00	3,100.00	84.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,200.00	0.00	0.00	3,200.00	184.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,300.00	0.00	0.00	3,300.00	284.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,400.00	0.00	0.00	3,400.00	384.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,500.00	0.00	0.00	3,500.00	484.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,600.00	0.00	0.00	3,600.00	584.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,700.00	0.00	0.00	3,700.00	684.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,800.00	0.00	0.00	3,800.00	784.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
3,900.00	0.00	0.00	3,900.00	884.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
4,000.00	0.00	0.00	4,000.00	984.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
4,100.00	0.00	0.00	4,100.00	1,084.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
4,200.00	0.00	0.00	4,200.00	1,184.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
4,300.00	0.00	0.00	4,300.00	1,284.00	0.00	0.00	0.00	0.00	422,638.60	577,329.10
4,333.66	0.00	0.00	4,333.66	1,317.66	0.00	0.00	0.00	0.00	422,638.60	577,329.10
4,350.00	1.96	269.92	4,350.00	1,334.00	0.00	-0.28	0.28	12.00	422,638.60	577,328.82
4,375.00	4.96	269.92	4,374.95	1,358.95	0.00	-1.79	1.79	12.00	422,638.60	577,327.31
4,400.00	7.96	269.92	4,399.79	1,383.79	-0.01	-4.60	4.60	12.00	422,638.59	577,324.50
4,425.00	10.96	269.92	4,424.44	1,408.44	-0.01	-8.71	8.71	12.00	422,638.59	577,320.39
4,450.00	13.96	269.92	4,448.85	1,432.85	-0.02	-14.10	14.10	12.00	422,638.58	577,315.00
4,475.00	16.96	269.92	4,472.94	1,456.94	-0.03	-20.77	20.77	12.00	422,638.57	577,308.33
4,500.00	19.96	269.92	4,496.66	1,480.66	-0.04	-28.68	28.68	12.00	422,638.56	577,300.42
4,525.00	22.96	269.92	4,519.92	1,503.92	-0.05	-37.83	37.83	12.00	422,638.55	577,291.27
4,550.00	25.96	269.92	4,542.67	1,526.67	-0.07	-48.18	48.18	12.00	422,638.53	577,280.92

Pathfinder

PathFinder X&Y Report



Company: Lime Rock Resources
Project: Eddy County, NM
Site: Eagle 4 State 2H
Well: Eagle 4 State 2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Eagle 4 State 2H
TVD Reference: EST KB=15' @ 3016.00ft
MD Reference: EST KB=15' @ 3016.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 1 Smith Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
4,575.00	28.96	269.92	4,564.85	1,548.85	-0.08	-59.71	59.71	12.00	422,638.52	577,269.39
4,600.00	31.96	269.92	4,586.40	1,570.40	-0.10	-72.38	72.38	12.00	422,638.50	577,256.72
4,625.00	34.96	269.92	4,607.25	1,591.25	-0.12	-86.16	86.16	12.00	422,638.48	577,242.94
4,650.00	37.96	269.92	4,627.36	1,611.36	-0.14	-101.02	101.02	12.00	422,638.46	577,228.08
4,675.00	40.96	269.92	4,646.66	1,630.66	-0.16	-116.90	116.90	12.00	422,638.44	577,212.20
4,700.00	43.96	269.92	4,665.10	1,649.10	-0.18	-133.78	133.78	12.00	422,638.42	577,195.32
4,725.00	46.96	269.92	4,682.63	1,666.63	-0.21	-151.60	151.60	12.00	422,638.39	577,177.50
4,750.00	49.96	269.92	4,699.21	1,683.21	-0.23	-170.31	170.31	12.00	422,638.37	577,158.79
4,775.00	52.96	269.92	4,714.78	1,698.78	-0.26	-189.86	189.86	12.00	422,638.34	577,139.24
4,800.00	55.96	269.92	4,729.31	1,713.31	-0.29	-210.20	210.20	12.00	422,638.31	577,118.90
4,825.00	58.96	269.92	4,742.76	1,726.76	-0.32	-231.27	231.27	12.00	422,638.28	577,097.83
4,850.00	61.96	269.92	4,755.08	1,739.08	-0.35	-253.02	253.02	12.00	422,638.25	577,076.08
4,875.00	64.96	269.92	4,766.25	1,750.25	-0.38	-275.38	275.38	12.00	422,638.22	577,053.72
4,900.00	67.96	269.92	4,776.23	1,760.23	-0.41	-298.30	298.30	12.00	422,638.19	577,030.80
4,925.00	70.96	269.92	4,785.00	1,769.00	-0.44	-321.71	321.71	12.00	422,638.16	577,007.39
4,950.00	73.96	269.92	4,792.54	1,776.54	-0.47	-345.54	345.54	12.00	422,638.13	576,983.56
4,975.00	76.96	269.92	4,798.81	1,782.81	-0.51	-369.74	369.74	12.00	422,638.09	576,959.36
5,000.00	79.96	269.92	4,803.81	1,787.81	-0.54	-394.23	394.23	12.00	422,638.06	576,934.87
5,025.00	82.96	269.92	4,807.53	1,791.53	-0.57	-418.95	418.95	12.00	422,638.03	576,910.15
5,050.00	85.96	269.92	4,809.94	1,793.94	-0.61	-443.83	443.83	12.00	422,637.99	576,885.27
5,075.00	88.96	269.92	4,811.05	1,795.05	-0.64	-468.81	468.81	12.00	422,637.96	576,860.29
5,094.32	91.28	269.92	4,811.00	1,795.00	-0.67	-488.12	488.12	12.00	422,637.93	576,840.98
5,100.00	91.28	269.92	4,810.88	1,794.88	-0.68	-493.80	493.80	0.00	422,637.92	576,835.30
5,200.00	91.28	269.92	4,808.65	1,792.65	-0.81	-593.78	593.78	0.00	422,637.79	576,735.32
5,300.00	91.28	269.92	4,806.41	1,790.41	-0.95	-693.75	693.75	0.00	422,637.65	576,635.35
5,400.00	91.28	269.92	4,804.18	1,788.18	-1.09	-793.73	793.73	0.00	422,637.51	576,535.37
5,500.00	91.28	269.92	4,801.95	1,785.95	-1.22	-893.70	893.70	0.00	422,637.38	576,435.40

Pathfinder

PathFinder X&Y Report

PATHFINDER
A Schlumberger Company

Company: Lime Rock Resources
Project: Eddy County, NM
Site: Eagle 4 State 2H
Well: Eagle 4 State 2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Eagle 4 State 2H
TVD Reference: EST KB=15' @ 3016.00ft
MD Reference: EST KB=15' @ 3016.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 1 Smith Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,600.00	91.28	269.92	4,799.71	1,783.71	-1.36	-993.68	993.68	0.00	422,637.24	576,335.42
5,700.00	91.28	269.92	4,797.48	1,781.48	-1.50	-1,093.65	1,093.65	0.00	422,637.10	576,235.45
5,800.00	91.28	269.92	4,795.25	1,779.25	-1.63	-1,193.63	1,193.63	0.00	422,636.97	576,135.47
5,900.00	91.28	269.92	4,793.01	1,777.01	-1.77	-1,293.60	1,293.60	0.00	422,636.83	576,035.50
6,000.00	91.28	269.92	4,790.78	1,774.78	-1.91	-1,393.58	1,393.58	0.00	422,636.69	575,935.52
6,100.00	91.28	269.92	4,788.55	1,772.55	-2.05	-1,493.55	1,493.55	0.00	422,636.55	575,835.55
6,200.00	91.28	269.92	4,786.32	1,770.32	-2.18	-1,593.53	1,593.53	0.00	422,636.42	575,735.57
6,300.00	91.28	269.92	4,784.08	1,768.08	-2.32	-1,693.50	1,693.50	0.00	422,636.28	575,635.60
6,400.00	91.28	269.92	4,781.85	1,765.85	-2.46	-1,793.48	1,793.48	0.00	422,636.14	575,535.62
6,500.00	91.28	269.92	4,779.62	1,763.62	-2.59	-1,893.45	1,893.45	0.00	422,636.01	575,435.65
6,600.00	91.28	269.92	4,777.38	1,761.38	-2.73	-1,993.43	1,993.43	0.00	422,635.87	575,335.67
6,700.00	91.28	269.92	4,775.15	1,759.15	-2.87	-2,093.40	2,093.40	0.00	422,635.73	575,235.70
6,800.00	91.28	269.92	4,772.92	1,756.92	-3.00	-2,193.38	2,193.38	0.00	422,635.60	575,135.72
6,900.00	91.28	269.92	4,770.69	1,754.69	-3.14	-2,293.35	2,293.35	0.00	422,635.46	575,035.75
7,000.00	91.28	269.92	4,768.45	1,752.45	-3.28	-2,393.33	2,393.33	0.00	422,635.32	574,935.77
7,100.00	91.28	269.92	4,766.22	1,750.22	-3.41	-2,493.30	2,493.30	0.00	422,635.19	574,835.80
7,200.00	91.28	269.92	4,763.99	1,747.99	-3.55	-2,593.28	2,593.28	0.00	422,635.05	574,735.82
7,300.00	91.28	269.92	4,761.75	1,745.75	-3.69	-2,693.25	2,693.25	0.00	422,634.91	574,635.85
7,400.00	91.28	269.92	4,759.52	1,743.52	-3.83	-2,793.23	2,793.23	0.00	422,634.77	574,535.87
7,500.00	91.28	269.92	4,757.29	1,741.29	-3.96	-2,893.20	2,893.20	0.00	422,634.64	574,435.90
7,600.00	91.28	269.92	4,755.06	1,739.06	-4.10	-2,993.18	2,993.18	0.00	422,634.50	574,335.92
7,700.00	91.28	269.92	4,752.82	1,736.82	-4.24	-3,093.15	3,093.15	0.00	422,634.36	574,235.95
7,800.00	91.28	269.92	4,750.59	1,734.59	-4.37	-3,193.13	3,193.13	0.00	422,634.23	574,135.97
7,900.00	91.28	269.92	4,748.36	1,732.36	-4.51	-3,293.10	3,293.10	0.00	422,634.09	574,036.00
8,000.00	91.28	269.92	4,746.12	1,730.12	-4.65	-3,393.08	3,393.08	0.00	422,633.95	573,936.02
8,100.00	91.28	269.92	4,743.89	1,727.89	-4.78	-3,493.05	3,493.05	0.00	422,633.82	573,836.05
8,200.00	91.28	269.92	4,741.66	1,725.66	-4.92	-3,593.03	3,593.03	0.00	422,633.68	573,736.07

Pathfinder

PathFinder X&Y Report



Company: Lime Rock Resources
Project: Eddy County, NM
Site: Eagle 4 State 2H
Well: Eagle 4 State 2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well Eagle 4 State 2H
TVD Reference: EST KB=15' @ 3016.00ft
MD Reference: EST KB=15' @ 3016.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 1 Smith Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,300.00	91.28	269.92	4,739.43	1,723.43	-5.06	-3,693.00	3,693.00	0.00	422,633.54	573,636.10
8,400.00	91.28	269.92	4,737.19	1,721.19	-5.19	-3,792.98	3,792.98	0.00	422,633.41	573,536.12
8,500.00	91.28	269.92	4,734.96	1,718.96	-5.33	-3,892.95	3,892.95	0.00	422,633.27	573,436.15
8,600.00	91.28	269.92	4,732.73	1,716.73	-5.47	-3,992.93	3,992.93	0.00	422,633.13	573,336.17
8,700.00	91.28	269.92	4,730.49	1,714.49	-5.60	-4,092.90	4,092.90	0.00	422,633.00	573,236.20
8,800.00	91.28	269.92	4,728.26	1,712.26	-5.74	-4,192.88	4,192.88	0.00	422,632.86	573,136.22
8,900.00	91.28	269.92	4,726.03	1,710.03	-5.88	-4,292.85	4,292.85	0.00	422,632.72	573,036.25
9,000.00	91.28	269.92	4,723.79	1,707.79	-6.02	-4,392.83	4,392.83	0.00	422,632.58	572,936.27
9,100.00	91.28	269.92	4,721.56	1,705.56	-6.15	-4,492.80	4,492.80	0.00	422,632.45	572,836.30
9,200.00	91.28	269.92	4,719.33	1,703.33	-6.29	-4,592.78	4,592.78	0.00	422,632.31	572,736.32
9,300.00	91.28	269.92	4,717.10	1,701.10	-6.43	-4,692.75	4,692.75	0.00	422,632.17	572,636.35
9,400.00	91.28	269.92	4,714.86	1,698.86	-6.56	-4,792.73	4,792.73	0.00	422,632.04	572,536.37
9,500.00	91.28	269.92	4,712.63	1,696.63	-6.70	-4,892.70	4,892.70	0.00	422,631.90	572,436.40
9,573.02	91.28	269.92	4,711.00	1,695.00	-6.80	-4,965.70	4,965.70	0.00	422,631.80	572,363.40

BHL (E. 4 State 2H)

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
BHL (E. 4 State 2H) - plan hits target center - Point	0.00	0.00	4,711.00	-6.80	-4,965.70	422,631.80	572,363.40	32.161716	-104.099488

Checked By: _____ Approved By: _____ Date: _____

Plan%20#1[1].txt

4100.00	0.00	0.00	4100.00	0.00	0.00
4200.00	0.00	0.00	4200.00	0.00	0.00
4300.00	0.00	0.00	4300.00	0.00	0.00
4333.66	0.00	0.00	4333.66	0.00	0.00
4350.00	1.96	269.92	4350.00	0.00	-0.28
4375.00	4.96	269.92	4374.95	0.00	-1.79
4400.00	7.96	269.92	4399.79	-0.01	-4.60
4425.00	10.96	269.92	4424.44	-0.01	-8.71
4450.00	13.96	269.92	4448.85	-0.02	-14.10
4475.00	16.96	269.92	4472.94	-0.03	-20.77
4500.00	19.96	269.92	4496.66	-0.04	-28.68
4525.00	22.96	269.92	4519.92	-0.05	-37.83
4550.00	25.96	269.92	4542.67	-0.07	-48.18
4575.00	28.96	269.92	4564.85	-0.08	-59.71
4600.00	31.96	269.92	4586.40	-0.10	-72.38
4625.00	34.96	269.92	4607.25	-0.12	-86.16
4650.00	37.96	269.92	4627.36	-0.14	-101.02
4675.00	40.96	269.92	4646.66	-0.16	-116.90
4700.00	43.96	269.92	4665.10	-0.18	-133.78
4725.00	46.96	269.92	4682.63	-0.21	-151.60
4750.00	49.96	269.92	4699.21	-0.23	-170.31
4775.00	52.96	269.92	4714.78	-0.26	-189.86
4800.00	55.96	269.92	4729.31	-0.29	-210.20
4825.00	58.96	269.92	4742.76	-0.32	-231.27
4850.00	61.96	269.92	4755.08	-0.35	-253.02
4875.00	64.96	269.92	4766.25	-0.38	-275.38
4900.00	67.96	269.92	4776.23	-0.41	-298.30
4925.00	70.96	269.92	4785.00	-0.44	-321.71
4950.00	73.96	269.92	4792.54	-0.47	-345.54
4975.00	76.96	269.92	4798.81	-0.51	-369.74
5000.00	79.96	269.92	4803.81	-0.54	-394.23
5025.00	82.96	269.92	4807.53	-0.57	-418.95
5050.00	85.96	269.92	4809.94	-0.61	-443.83
5075.00	88.96	269.92	4811.05	-0.64	-468.81
5094.32	91.28	269.92	4811.00	-0.67	-488.12
5100.00	91.28	269.92	4810.88	-0.68	-493.80
5200.00	91.28	269.92	4808.65	-0.81	-593.78
5300.00	91.28	269.92	4806.41	-0.95	-693.75
5400.00	91.28	269.92	4804.18	-1.09	-793.73
5500.00	91.28	269.92	4801.95	-1.22	-893.70
5600.00	91.28	269.92	4799.71	-1.36	-993.68
5700.00	91.28	269.92	4797.48	-1.50	-1093.65
5800.00	91.28	269.92	4795.25	-1.63	-1193.63
5900.00	91.28	269.92	4793.01	-1.77	-1293.60
6000.00	91.28	269.92	4790.78	-1.91	-1393.58
6100.00	91.28	269.92	4788.55	-2.05	-1493.55
6200.00	91.28	269.92	4786.32	-2.18	-1593.53
6300.00	91.28	269.92	4784.08	-2.32	-1693.50
6400.00	91.28	269.92	4781.85	-2.46	-1793.48
6500.00	91.28	269.92	4779.62	-2.59	-1893.45
6600.00	91.28	269.92	4777.38	-2.73	-1993.43
6700.00	91.28	269.92	4775.15	-2.87	-2093.40
6800.00	91.28	269.92	4772.92	-3.00	-2193.38
6900.00	91.28	269.92	4770.69	-3.14	-2293.35
7000.00	91.28	269.92	4768.45	-3.28	-2393.33
7100.00	91.28	269.92	4766.22	-3.41	-2493.30
7200.00	91.28	269.92	4763.99	-3.55	-2593.28
7300.00	91.28	269.92	4761.75	-3.69	-2693.25
7400.00	91.28	269.92	4759.52	-3.83	-2793.23
7500.00	91.28	269.92	4757.29	-3.96	-2893.20
7600.00	91.28	269.92	4755.06	-4.10	-2993.18
7700.00	91.28	269.92	4752.82	-4.24	-3093.15
7800.00	91.28	269.92	4750.59	-4.37	-3193.13

plan%20#1[1].txt

7900.00	91.28	269.92	4748.36	-4.51	-3293.10
8000.00	91.28	269.92	4746.12	-4.65	-3393.08
8100.00	91.28	269.92	4743.89	-4.78	-3493.05
8200.00	91.28	269.92	4741.66	-4.92	-3593.03
8300.00	91.28	269.92	4739.43	-5.06	-3693.00
8400.00	91.28	269.92	4737.19	-5.19	-3792.98
8500.00	91.28	269.92	4734.96	-5.33	-3892.95
8600.00	91.28	269.92	4732.73	-5.47	-3992.93
8700.00	91.28	269.92	4730.49	-5.60	-4092.90
8800.00	91.28	269.92	4728.26	-5.74	-4192.88
8900.00	91.28	269.92	4726.03	-5.88	-4292.85
9000.00	91.28	269.92	4723.79	-6.02	-4392.83
9100.00	91.28	269.92	4721.56	-6.15	-4492.80
9200.00	91.28	269.92	4719.33	-6.29	-4592.78
9300.00	91.28	269.92	4717.10	-6.43	-4692.75
9400.00	91.28	269.92	4714.86	-6.56	-4792.73
9500.00	91.28	269.92	4712.63	-6.70	-4892.70
9573.02	91.28	269.92	4711.00	-6.80	-4965.70