

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO 1004-0137
Expires July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Drv ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff Resrv.,
Other

S

2 Name of Operator
ENCORE OPERATING LP3 Address 777 Main St STE 1400
FT Worth, TX 761023a Phone No (include area code)
817-877-9955

4 Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface 660 FNL & 1260 FEL

At top prod interval reported below

At total depth

14 Date Spudded
12/09/200715 Date T D Reached
02/06/200816 Date Completed 05/05/2008
☐ D & A ☒ Ready to Prod.17 Elevations (DF, RKB, RT, GL)*
3263'18 Total Depth MD
TVD 11,55019. Plug Back T D MD
TVD 11,45920 Depth Bridge Plug Set MD
TVD 11,23521 Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL22 Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt (#/ft)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No of Sks & Type of Cement	Slurry Vol (BBL)	Cement Top*	Amount Pulled
17 1/2	13 3/8	48#	0	622		675 C	21	surface	
12 1/4	9 5/8	40#	0	2609	1859'	1045 C	370	surface	
8 3/4	7	26#	0	9837'	8009	1550 C	529	2000	
* 6 1/8	4 1/2	11.6#	9412	11550		210 H	60	9412	

24 Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 3/8	11150							

25 Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Morrow	11069	11192	11069 - 11192	2 spf	56	open
B)						
C)						
D)						

27 Acid, Fracture, Treatment, Cement Squeeze, etc.

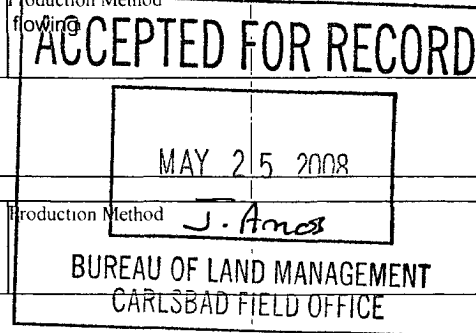
Depth Interval	Amount and Type of Material
11069 - 11192	FRAC: w/ 60900 # 20/40 versaprop

28 Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
5/6/08	5/12/08	24	→	0	483	0		3620	flowing
Choke Size	Tbg. Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
13/64	1000	1100	→	0	483	0	0	active	

28a Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						



*(See instructions and spaces for additional data on page 2)

* Liner was not Authorized/Permitted. Submit post request for authorization J. Amos

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

29 Disposition of Gas (Solid, used for fuel, vented, etc.)

Sold

30 Summary of Porous Zones (Include Aquifers).

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31 Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas Depth
				Wolfcamp	8936
				Cisco	9705
				canyon	9842
				Strawn	10030
				AToka	10402
				Morrow	10833
				Middle Morrow	10934
				Banett	11416

32 Additional remarks (include plugging procedure)

33 Indicate which items have been attached by placing a check in the appropriate boxes

- ☒ Electrical/Mechanical Logs (1 full set req'd)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other

34 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Ann Burdette Wiley
 Signature [Signature]

Title Reg. Manager
 Date 5/13/08

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 representations as to any matter within its jurisdiction

(Continued on page 3)

(Form 3160-4, page 2)



Scientific Drilling

ENCORE

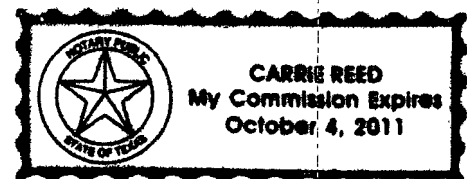
Field: Burton Flat
Site: Eddy County, NM
Well: Encore 31 Avalon #1
Wellpath: VH - Job #32K0108023/027/080
Survey: 01/31/08

This survey is correct to the best of my knowledge
and is supported by actual field data.

.....*Robert M. ...*.....Company Representative

Notorized this date 10/2 of March, 2007.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: ENCORE
Field: Burton Flat
Site: Eddy County, NM
Well: Encore 31 Avalon #1
Wellpath: VH - Job #32K0108023/027

Date: 03/09/2008 Time: 11:51:03
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,206.29Azi)
Survey Calculation Method: Minimum Curvature

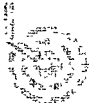
Page: 1
Db: Sybase

Survey: 01/09/08
KSRG 0'-7800'
Company: Scientific Drilling Internatio
Tool: Keeper, Keeper Gyro

Start Date: 01/09/2008
Engineer: Pena w/P&M
Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.44	74.01	100.00	-0.26	0.11	0.37	0.44	0.38	74.01
200.00	0.47	49.17	200.00	-0.89	0.48	1.05	0.20	1.15	65.42
300.00	1.20	46.88	299.98	-2.25	1.46	2.12	0.73	2.58	55.42
400.00	1.68	63.45	399.95	-4.40	2.83	4.20	0.63	5.07	55.98
500.00	1.06	114.51	499.93	-5.60	3.11	6.35	1.31	7.07	63.94
600.00	1.33	150.81	599.91	-4.97	1.71	7.76	0.79	7.95	77.58
700.00	1.72	158.48	699.87	-3.30	-0.70	8.88	0.44	8.90	94.51
800.00	1.60	173.73	799.83	-1.12	-3.48	9.58	0.46	10.19	109.99
900.00	1.31	178.85	899.80	1.07	-6.01	9.75	0.32	11.46	121.66
1000.00	1.17	166.44	999.77	2.87	-8.15	10.02	0.30	12.91	129.13
1100.00	1.06	143.85	1099.76	4.08	-9.89	10.80	0.45	14.65	132.48
1200.00	0.94	147.75	1199.74	4.94	-11.33	11.79	0.14	16.35	133.87
1300.00	0.75	156.13	1299.73	5.78	-12.62	12.49	0.23	17.76	135.31
1400.00	0.87	176.84	1399.72	6.87	-13.98	12.79	0.31	18.95	137.53
1500.00	0.59	202.41	1499.71	8.04	-15.21	12.64	0.42	19.78	140.28
1600.00	0.55	223.04	1599.71	9.01	-16.04	12.12	0.21	20.10	142.93
1700.00	0.71	243.71	1699.70	9.96	-16.66	11.23	0.28	20.10	146.02
1800.00	0.79	267.43	1799.69	10.79	-16.97	9.99	0.32	19.69	149.52
1900.00	1.26	286.09	1899.68	11.32	-16.70	8.24	0.57	18.62	153.72
2000.00	0.90	288.17	1999.66	11.62	-16.15	6.44	0.36	17.38	158.25
2100.00	0.60	307.31	2099.65	11.63	-15.58	5.28	0.39	16.45	161.29
2200.00	0.44	262.30	2199.65	11.75	-15.32	4.48	0.42	15.96	163.69
2300.00	0.32	272.46	2299.64	12.08	-15.36	3.82	0.14	15.83	166.03
2400.00	0.19	297.24	2399.64	12.19	-15.27	3.40	0.17	15.64	167.46
2500.00	0.47	321.17	2499.64	12.01	-14.87	2.99	0.31	15.17	168.63
2600.00	0.22	336.88	2599.64	11.71	-14.38	2.66	0.27	14.62	169.52
2700.00	0.25	307.85	2699.64	11.54	-14.07	2.41	0.12	14.27	170.28
2800.00	0.17	322.63	2799.64	11.44	-13.82	2.15	0.10	13.98	171.16
2900.00	0.34	356.48	2899.64	11.11	-13.40	2.04	0.22	13.56	171.34
3000.00	0.24	336.17	2999.64	10.72	-12.91	1.94	0.14	13.06	171.47
3100.00	0.31	1.80	3099.64	10.34	-12.45	1.86	0.14	12.59	171.50
3200.00	0.30	5.04	3199.63	9.85	-11.92	1.89	0.02	12.07	170.98
3300.00	0.29	316.86	3299.63	9.52	-11.48	1.74	0.24	11.61	171.37
3400.00	0.15	356.05	3399.63	9.31	-11.16	1.56	0.20	11.27	172.04
3500.00	0.39	317.51	3499.63	9.08	-10.78	1.32	0.29	10.86	173.01
3600.00	0.33	342.10	3599.63	8.75	-10.25	1.00	0.16	10.30	174.41
3700.00	0.37	347.34	3699.63	8.29	-9.67	0.84	0.05	9.70	175.01
3800.00	0.39	324.68	3799.62	7.88	-9.07	0.58	0.15	9.09	176.36
3900.00	0.36	320.55	3899.62	7.59	-8.55	0.18	0.04	8.55	178.79
4000.00	0.57	318.66	3999.62	7.27	-7.94	-0.35	0.21	7.94	182.51
4100.00	0.63	313.57	4099.61	6.92	-7.18	-1.07	0.08	7.26	188.51
4200.00	0.72	317.82	4199.61	6.52	-6.34	-1.90	0.10	6.62	196.64
4300.00	1.11	298.75	4299.59	6.25	-5.41	-3.17	0.49	6.27	210.35
4400.00	1.09	283.22	4399.58	6.42	-4.72	-4.94	0.30	6.84	226.29
4500.00	1.21	290.26	4499.56	6.75	-4.14	-6.86	0.19	8.01	238.87
4600.00	1.33	287.73	4599.53	7.03	-3.42	-8.95	0.13	9.59	249.08
4700.00	1.41	286.23	4699.50	7.42	-2.72	-11.24	0.09	11.57	256.37
4800.00	1.49	285.77	4799.47	7.87	-2.03	-13.67	0.08	13.82	261.56



Scientific
Drilling

Scientific Drilling International Survey Report

Company: ENCORE
Field: Burton Flat
Site: Eddy County, NM
Well: Encore 31 Avalon #1
Wellpath: VH - Job #32K0108023/027

Date: 03/09/2008 Time: 11:51:03 Page: 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,206.29Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	1.51	284.50	4899.44	8.38	-1.34	-16.20	0.04	16.26	265.26
5000.00	1.47	283.76	4999.40	8.93	-0.71	-18.72	0.04	18.73	267.83
5100.00	1.34	283.61	5099.37	9.46	-0.13	-21.10	0.13	21.10	269.65
5200.00	1.15	283.22	5199.35	9.95	0.38	-23.22	0.19	23.22	270.93
5300.00	1.33	292.42	5299.33	10.25	1.05	-25.27	0.27	25.29	272.37
5400.00	1.25	292.41	5399.30	10.41	1.91	-27.35	0.08	27.41	273.99
5500.00	1.49	280.72	5499.27	10.83	2.56	-29.63	0.37	29.74	274.94
5600.00	1.49	276.55	5599.24	11.62	2.95	-32.20	0.11	32.34	275.24
5700.00	1.56	273.97	5699.20	12.57	3.20	-34.85	0.10	35.00	275.24
5800.00	1.38	270.75	5799.17	13.61	3.31	-37.41	0.20	37.56	275.05
5900.00	1.14	261.57	5899.15	14.69	3.18	-39.60	0.31	39.73	274.59
6000.00	1.11	259.95	5999.13	15.84	2.86	-41.54	0.04	41.64	273.94
6100.00	0.67	255.65	6099.11	16.79	2.55	-43.06	0.44	43.14	273.39
6200.00	0.65	306.63	6199.11	17.07	2.74	-44.08	0.57	44.17	273.56
6300.00	0.36	74.88	6299.11	16.76	3.16	-44.23	0.92	44.35	274.09
6400.00	0.32	90.31	6399.10	16.43	3.24	-43.65	0.10	43.77	274.25
6500.00	0.41	145.53	6499.10	16.48	2.95	-43.17	0.35	43.27	273.90
6600.00	1.01	116.80	6599.09	16.66	2.25	-42.18	0.68	42.24	273.06
6700.00	1.32	118.89	6699.07	16.72	1.30	-40.39	0.31	40.41	271.84
6800.00	1.61	138.11	6799.04	17.30	-0.30	-38.44	0.57	38.44	269.55
6900.00	1.69	143.21	6899.00	18.49	-2.53	-36.62	0.17	36.70	266.05
7000.00	1.70	161.65	6998.96	20.21	-5.12	-35.27	0.54	35.64	261.74
7100.00	1.73	145.71	7098.91	22.01	-7.77	-33.95	0.48	34.83	257.10
7200.00	1.80	157.73	7198.87	23.79	-10.47	-32.50	0.38	34.15	252.14
7300.00	1.47	166.33	7298.83	25.81	-13.17	-31.61	0.41	34.24	247.37
7400.00	2.85	147.06	7398.75	28.07	-16.51	-29.95	1.54	34.20	241.14
7500.00	2.10	138.94	7498.66	30.04	-19.97	-27.40	0.83	33.90	233.90
7600.00	2.31	128.92	7598.59	31.19	-22.62	-24.62	0.44	33.44	227.43
7700.00	3.29	123.43	7698.46	31.99	-25.47	-20.66	1.01	32.80	219.05
7800.00	5.09	108.39	7798.20	31.73	-28.45	-14.06	2.09	31.73	206.29



Scientific
Drilling

Scientific Drilling International Survey Report

Company: ENCORE
Field: Burton Flat
Site: Eddy County, NM
Well: Encore 31 Avalon #1
Wellpath: VH - Job #32K0108023/027

Date: 03/09/2008 Time: 11:54.51 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,135.07Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 01/31/08
KSRG 7900'-10852'

Start Date: 01/31/2008

Company: Scientific Drilling Internatio
Tool: Keeper;Keeper Gyro

Engineer: Pena w/P&M
Tied-to: From: Definitive Path

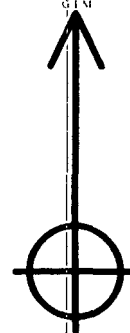
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
7800.00	5.09	108.39	7798.20	10.22	-28.45	-14.06	0.00	31.73	206.29
7900.00	7.10	108.09	7897.63	19.69	-31.77	-3.97	2.01	32.02	187.13
8000.00	7.03	107.44	7996.87	30.62	-35.52	7.74	0.11	36.36	167.71
8100.00	5.35	112.67	8096.28	40.35	-39.15	17.88	1.77	43.04	155.45
8200.00	4.50	119.74	8195.91	48.44	-42.90	25.59	1.04	49.95	149.18
8300.00	3.84	118.95	8295.65	55.44	-46.46	31.93	0.66	56.37	145.51
8400.00	2.83	117.99	8395.48	61.02	-49.24	37.04	1.01	61.62	143.05
8500.00	2.06	115.74	8495.38	65.08	-51.18	40.84	0.78	65.48	141.42
8600.00	1.47	111.33	8595.34	67.95	-52.43	43.65	0.61	68.22	140.22
8700.00	1.06	102.33	8695.31	69.90	-53.09	45.75	0.45	70.08	139.25
8800.00	0.52	63.47	8795.30	70.82	-53.09	47.06	0.73	70.94	138.45
8900.00	0.44	41.66	8895.30	70.94	-52.60	47.72	0.20	71.02	137.78
9000.00	0.42	5.62	8995.30	70.68	-51.95	48.01	0.27	70.73	137.26
9100.00	0.43	340.83	9095.29	70.11	-51.23	47.92	0.18	70.15	136.91
9200.00	0.62	152.84	9195.29	70.29	-51.35	48.05	1.05	70.33	136.91
9300.00	0.47	196.67	9295.29	71.00	-52.23	48.18	0.43	71.05	137.31
9400.00	0.53	112.78	9395.29	71.62	-52.80	48.48	0.67	71.68	137.44
9500.00	0.22	154.98	9495.28	72.23	-53.15	48.99	0.40	72.29	137.33
9600.00	0.64	130.53	9595.28	72.97	-53.69	49.50	0.45	73.03	137.33
9700.00	0.74	143.80	9695.27	74.16	-54.57	50.30	0.19	74.22	137.33
9800.00	0.64	124.55	9795.27	75.35	-55.41	51.15	0.25	75.41	137.29
9900.00	0.94	107.87	9895.26	76.63	-55.98	52.39	0.37	76.67	136.90
10000.00	1.57	123.49	9995.23	78.70	-56.99	54.31	0.71	78.72	136.38
10100.00	1.32	135.04	10095.20	81.20	-58.56	56.27	0.38	81.21	136.14
10200.00	1.16	120.51	10195.18	83.33	-59.89	57.95	0.35	83.34	135.94
10300.00	1.04	146.24	10295.16	85.20	-61.16	59.33	0.50	85.21	135.87
10400.00	1.80	128.99	10395.13	87.65	-62.90	61.05	0.86	87.66	135.85
10500.00	2.41	129.44	10495.06	91.30	-65.22	63.90	0.61	91.31	135.59
10600.00	3.49	132.40	10594.93	96.44	-68.61	67.77	1.09	96.44	135.35
10700.00	4.72	135.45	10694.67	103.59	-73.60	72.90	1.25	103.59	135.27
10800.00	5.68	132.63	10794.26	112.65	-79.88	79.43	0.99	112.65	135.16
10852.00	6.15	133.74	10845.98	118.01	-83.55	83.34	0.93	118.01	135.07



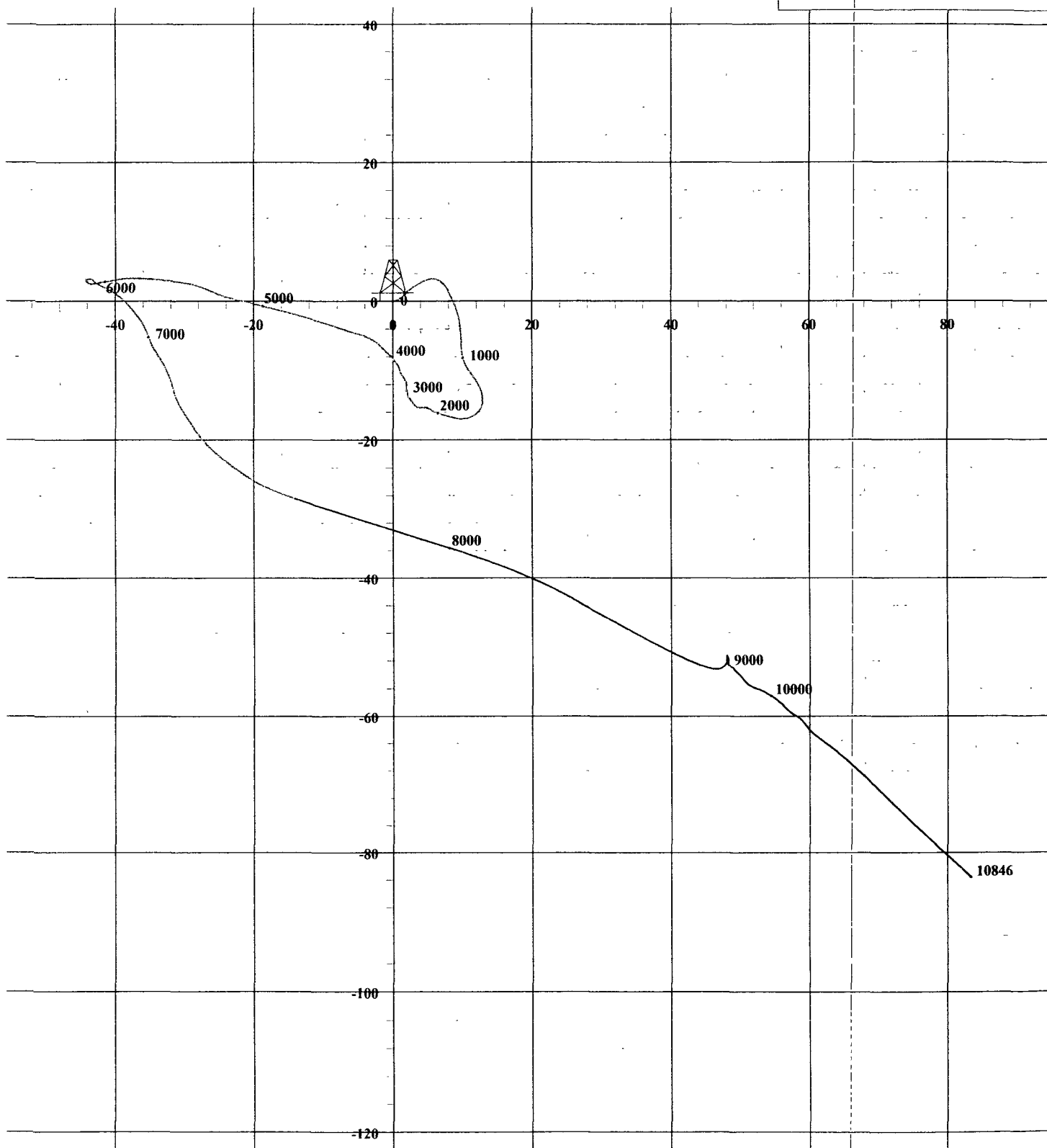
Scientific
Drilling

Field: Burton Flat
Site: Eddy County, NM
Well: Encore 31 Avalon #1
Wellpath: VH - Job #32K0108023/027/080
Survey: 01/31/08



Azimuths to Grid North
True North 0.00°
Magnetic North 0.00°
Magnetic Field
Strength 0.0T
Dip Angle 0.00°
Date 01/31/2008
Model igr2000

South(-)/North(+) [20ft/in]



West(-)/East(+) [20ft/in]

THERMAL MULTIGATE DECAY LOG

Company	ENCORE OPERATING	Well	ENCORE 31 AVALON No. 1	Field	AVALON DELAWARE; MORROW	County	EDDY	State	NM
API No	N/A	Serv #	5724289	Other Services					
Location:	N/A								
Sec. N/A Twp: N/A Rge: N/A									
Permanent Datum	GL	Elevation	3293	Elevation					
Log Measured From	KB	30 Ft above perm datum		KB	3323				
Drilling Measured From	KB			DF	3322				
				GL	3293				
Date @ Time Logged	01 MAR 2008	Type Fluid in Hole	WATER						
Run No	ONE	Density of Fluid	N/A						
Depth - Driller	11550	Fluid Level	N/A						
Depth - Logger	11438	Cement Top Est Logged	NOT LOGGED						
Bottom - Logged Interval	11438	Equipment / Location	10842965 / HOBBS						
Top - Log Interval	8000	Recorded by	MERCED FLORES						
Max Recorded Temp	NOT RECORDED	Witnessed by	MR RONNIE HAWKIN'S						
CEMENTING DATA	Surface	Protection	Production	Liner					
	String	String	String						
Date / Time Cemented									
Primary / Squeeze									
Expected									
Compressive Strength	psi@	hrs	psi@	hrs	psi@	hrs	psi@	hrs	
Cement Volume									
Cement Type / Weight	/	/	/	/	/	/	/	/	
Formulation									
Mud Type / Mud Wgt	/	/	/	/	/	/	/	/	
Borehole Record				Casing & Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To		
				4 5	11 6#	9425	11449		
				7	26#	SURFACE	9820		

HALLIBURTON

DUAL SPACED NEUTRON

CORRECTED

COMPANY ENCORE OPERATING, L.P.

WELL ENCORE 31 AVALON No. 1

FIELD AVALON DELEWARE; MORROW

COUNTY EDDY STATE NEW MEXIC

COMPANY ENCORE OPERATING, L.P.

WELL ENCORE 31 AVALON No. 1

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API No 30-015-35714
Location 660' FNL & 1260' FEL

Other Services
HFWS/ISAT

Sect 31 Twp 20S Rge 28E

Permanent Datum GL Elev 3323

Log measured from KB 30.0 above perm datum

Drilling measured from KB

Elev KB 3323.0

DF 3322.0

GL 3293.0

Date 03/28/08

Run No TWO

Depth - Driller 11550.0

Depth - Logger 11434.0

Bottom - Logged Interval 11434.0

Top - Logged Interval 4000.0

Casing - Driller 4.50 @ 11434.0 7.0 @ 9425.0 @

Casing - Logger 11434.0

Bit Size 6.125 8.75@9425

Type Fluid in Hole

Dens | Visc.

Ph | Fluid Loss

Source of Sample

Rm @ Meas Temp @ @ @ @

Rmf @ Meas Temp @ @ @ @

Rmc @ Meas Temp @ @ @ @

Source Rmf | Rmc | | | |

Rm @ BHT @ @ @ @

Time Since Circ 8.0 HR

Time on Bottom 09.39

Max Rec Temp 186.0 @ 11343 @ @

Equip | Location 700 | HOBBS | |

Recorded By KYLE ROEMMICH

Witnessed By RONNIE HAWKINS