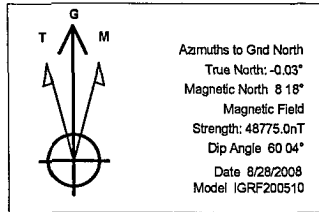


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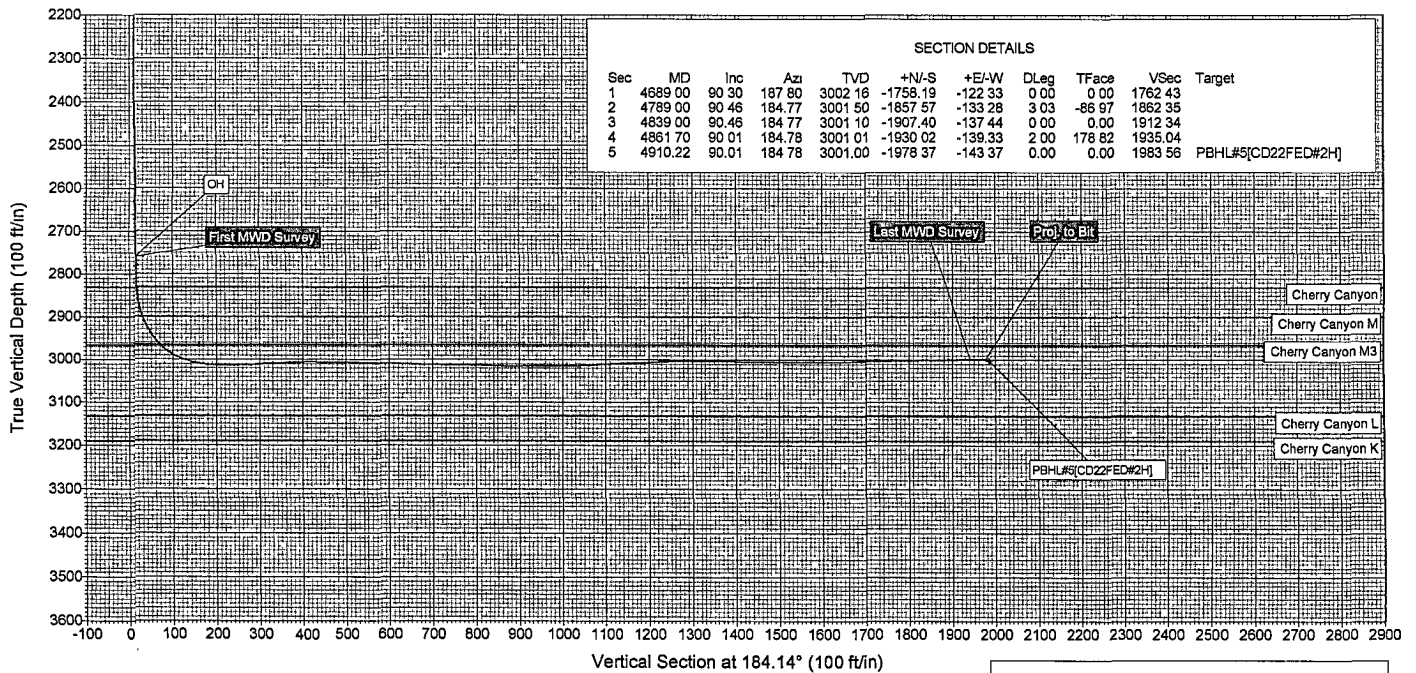
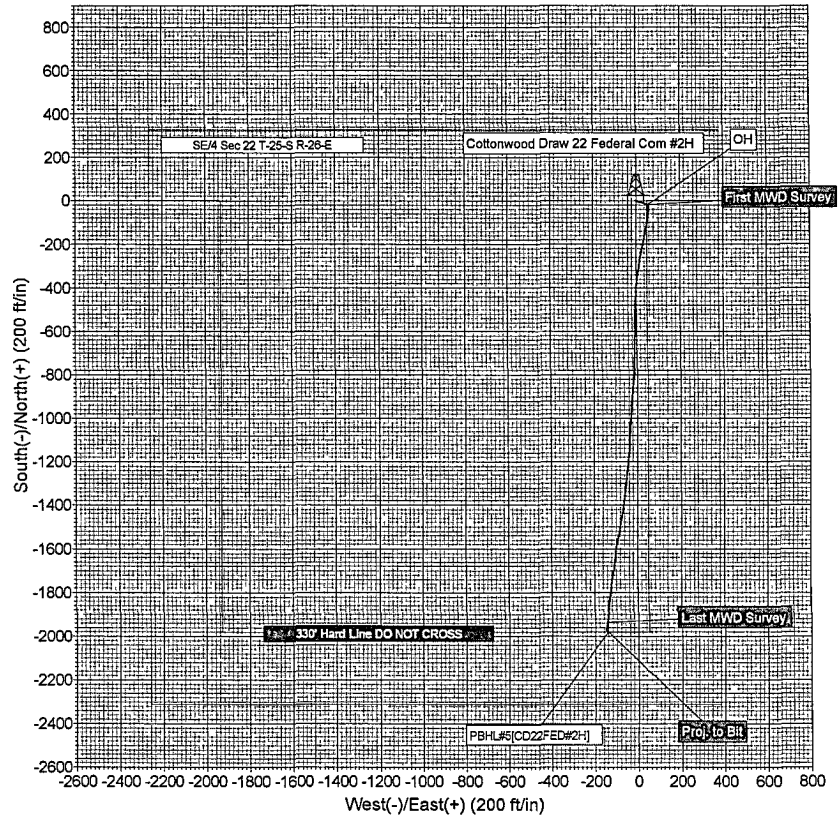
Project: Eddy Co., New Mexico
 Site: Cottonwood Draw 22 Federal Com #2H
 Well: Cottonwood Draw "22" Federal #2H
 Wellbore: Lateral #1
 Plan: Plan #5 (Cottonwood Draw "22" Federal #2H/Lateral #1)



PROJECT DETAILS Eddy Co., New Mexico
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

ANNOTATIONS

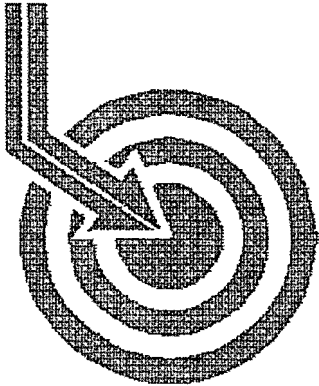
TVD	MD	Annotation
3002.16	4689.00	Build & Turn 0.16"/100' :: TFO -86.97
3001.50	4789.00	EOB Hold 90.49° INC :: 184.77° AZI
3001.10	4839.00	Drop -2.00"/100' :: TFO 178.82
3001.01	4861.70	EOD Hold 90.01° INC :: 184.78° AZI



Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	4689.00	90.30	187.80	3002.16	-1758.19	-122.33	0.00	0.00	1762.43	
2	4789.00	90.46	184.77	3001.50	-1857.57	-133.28	3.03	-86.97	1862.35	
3	4839.00	90.46	184.77	3001.10	-1907.40	-137.44	0.00	0.00	1912.34	
4	4861.70	90.01	184.78	3001.01	-1930.02	-139.33	2.00	178.82	1935.04	
5	4910.22	90.01	184.78	3001.00	-1978.37	-143.37	0.00	0.00	1963.56	PBHL#5(CD22FED#2H)

Final

Plan: Plan #5 (Cottonwood Draw "22" Federal #2H/Lateral #1)
 Created By: Heather Vannoy Date: December 18, 2008



Scientific Drilling

CIMAREX ENERGY

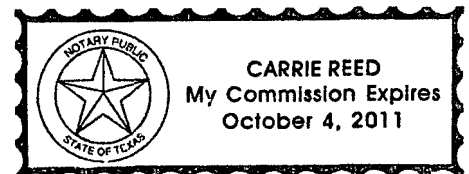
Field: Cottonwood Draw
 Site: Eddy County, NM
 Well: Cottonwood Draw 22 Federal Com #2
 Wellpath: VH - Job #32K1208974
 Survey: 12/07/08

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

.....*L. Wharton*.....Company Representative

Notorized this date 31st of December, 2008.

Carrie Reed
 Notary Signature
 County of Midland
 State of Texas





Scientific Drilling International Survey Report

Company: CIMAREX ENERGY
Field: Cottonwood Draw
Site: Eddy County, NM
Well: Cottonwood Draw 22 Federal Com
Wellpath: VH - Job #32K1208974

Date: 01/11/2009 Time: 21:01:35 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,184.15Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 12/07/08 Start Date: 12/07/2008
KSRG 0'-2760'
Company: Scientific Drilling Internatio Engineer: Madrid w/GeoGyro
Tool: Keeper;Keeper Gyro Tied-to: From Surface

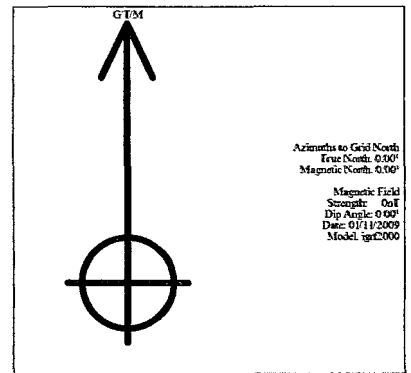
Survey

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	359.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.13	177.58	100.00	0.11	-0.11	0.00	0.13	0.11	177.58
200.00	0.30	164.44	200.00	0.47	-0.48	0.08	0.18	0.49	170.54
300.00	0.36	190.44	300.00	1.03	-1.04	0.09	0.16	1.04	174.88
400.00	0.47	142.28	400.00	1.65	-1.67	0.29	0.35	1.70	170.26
500.00	0.38	143.41	499.99	2.20	-2.26	0.74	0.09	2.38	162.00
600.00	0.37	138.54	599.99	2.68	-2.77	1.15	0.03	3.00	157.52
700.00	0.29	99.93	699.99	2.93	-3.06	1.61	0.23	3.46	152.23
800.00	0.34	114.29	799.99	3.06	-3.22	2.13	0.09	3.86	146.55
900.00	0.29	119.80	899.99	3.27	-3.47	2.62	0.06	4.35	142.96
1000.00	0.34	105.50	999.98	3.44	-3.68	3.13	0.09	4.83	139.63
1100.00	0.89	107.59	1099.98	3.68	-3.99	4.15	0.55	5.76	133.87
1200.00	1.13	111.44	1199.96	4.15	-4.59	5.81	0.25	7.40	128.28
1300.00	1.33	105.23	1299.94	4.67	-5.25	7.85	0.24	9.44	123.79
1400.00	1.69	103.70	1399.90	5.14	-5.91	10.40	0.36	11.96	119.59
1500.00	2.04	104.28	1499.85	5.69	-6.69	13.56	0.35	15.12	116.28
1600.00	2.11	102.51	1599.79	6.28	-7.53	17.08	0.09	18.67	113.79
1700.00	2.22	101.96	1699.71	6.81	-8.33	20.77	0.11	22.38	111.86
1800.00	2.23	103.49	1799.64	7.39	-9.19	24.56	0.06	26.22	110.51
1900.00	2.03	101.41	1899.57	7.92	-9.99	28.19	0.21	29.90	109.52
2000.00	2.17	103.94	1999.50	8.47	-10.80	31.76	0.17	33.54	108.78
2100.00	1.97	106.99	2099.44	9.17	-11.76	35.24	0.23	37.15	108.45
2200.00	1.95	107.05	2199.38	9.94	-12.76	38.51	0.02	40.57	108.33
2300.00	1.89	106.10	2299.32	10.66	-13.71	41.72	0.07	43.92	108.19
2400.00	1.85	111.41	2399.27	11.48	-14.76	44.81	0.18	47.18	108.23
2500.00	1.70	104.92	2499.22	12.23	-15.73	47.75	0.25	50.27	108.24
2600.00	1.81	110.63	2599.17	12.96	-16.67	50.66	0.21	53.33	108.21
2700.00	1.69	114.09	2699.13	13.91	-17.83	53.48	0.16	56.37	108.44
2760.00	1.49	110.59	2759.11	14.43	-18.46	55.02	0.37	58.03	108.55



**Scientific
Drilling**

Field: Cottonwood Draw
Site: Eddy County, NM
Well: Cottonwood Draw 22 Federal Com #2
Wellpath: VH - Job #32K1208974
Survey: 12/07/08



West(-)/East(+) [10ft/in]

South(-)/North(+) [10ft/in]

