

Results of Directional Survey

API number:	30-025-26446		
OGRID:		Operator:	CHEVRON U S A INC
		Property:	CENTRAL DRINKARD UNIT # 427H

surface	ULSTR:	G	29	T 21S	R 37E
				2530 FNL	2430 FEL

BH Loc	ULSTR:	M	29	T 21S	R 37E
9423	MD	6588.1	TVD	878 FSL	1066 FWL
				4402 FNL	4214 FEL

Top Perf/OH	ULSTR:	G	29	T 21S	R 37E
6418	MD	6416.4	TVD	2524 FNL	2359 FEL

Bot Perf/OH	ULSTR:	M	29	T 21S	R 37E
9423	MD	9395.6	TVD	878 FSL	1066 FWL
				4402 FNL	4214 FEL

	MD	N/S	E/W	VD
	6356	11.90	72.10	6354.8
TOP PERFS/OH	6418	6.09	71.06	6416.41
	6451	3.00	70.50	6449.20
	9212	-1798.00	-1587.10	6577.20
BOT PERFS/OH	9423	-1872.19	-1784.49	6588.09
	9243	-1808.90	-1616.10	6578.80

NEXT TO LAST	9212	-1798.00	-1587.10	6577.20
LAST READING	9243	-1808.90	-1616.10	6578.80
TD	9423	-1872.19	-1784.49	6588.09

Surface Location	2530 FN	2430 FE
Projected BHL	4402 FN	4214 FE
Location of		
Top Perfs/OH	2524 FN	2359 FE
Bottom Perfs/OH	4402 FN	4214 FE

SUMMARY of Subsurface Locations

Surface Location	G-29-21S-37E	2530 FN	2430 FE	Vert. Depth
Top Perfs/OH	G-29-21S-37E	2524 FN	2359 FE	6416.41
Bottom Perfs/OH	M-29-21S-37E	4402 FN	4214 FE	6588.09
Projected TD	M-29-21S-37E	4402 FN	4214 FE	6588.09

APR 16 2012

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Scientific Drilling

Chevron

Lea County, New Mexico
Central Drinkard Unit (427H)
427H
Lateral

SUR: G-29-21s-37e, 2530/N & 2430/E
BHL: M-29-21s-37e, 4402/N & 4214/E
API # 30-025-26446

Design: Actual

Final Survey Report

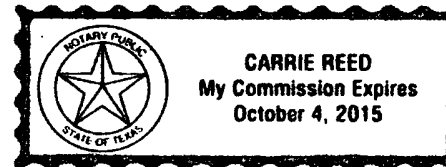
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notarized this date 29th of November, 2011.

Carrie Reed

Notary Signature
County of Midland
State of Texas





SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 427H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498.0usft (Key #555)
Site:	Central Drinkard Unit (427H)	MD Reference:	RKB @ 3498 0usft (Key #555)
Well:	427H	North Reference:	Gnd
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Project	Lea County, New Mexico		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Central Drinkard Unit (427H)		
Site Position:		Northing:	529,390 60 usft
From:	Map	Easting:	854,610 50 usft
Position Uncertainty:	0 0 usft	Slot Radius:	0 "
		Latitude:	32° 27' 4 549 N
		Longitude:	103° 19' 3 912 W
		Grid Convergence:	0.55 °

Well	427H		
Well Position	+N/-S	0 0 usft	Northing: 529,390.60 usft
	+E/-W	0 0 usft	Easting: 854,610 50 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 27' 4 549 N
		Longitude:	103° 19' 3 912 W
		Ground Level:	3,482 0 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/30/2011	7 46	60 44	48,761

Design	Actual			
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	223 72



SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 427H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498 0usft (Key #555)
Site:	Central Drinkard Unit (427H)	MD Reference:	RKB @ 3498 0usft (Key #555)
Well:	427H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey Program		Date	11/29/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100 0	6,356 0	Survey #1 (Lateral)	SDI Gyro	Gyroscopic Survey	
6,451.0	9,416 0	Survey #2 (Lateral)	SDI MWD	MWD Survey	

Survey											
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (")	Northing (usft)	Easting (usft)	
0 0	0 00	0.00	0.0	0 0	0 0	0 00	0 0	0.00	529,390.60	854,610.50	
100 0	0 23	69.02	100 0	0.1	0 2	0.23	0 2	69 02	529,390 67	854,610 69	
200.0	0 23	67 07	200.0	0 2	0.6	0 01	0 6	68 37	529,390 82	854,611 06	
300 0	0 25	54 60	300 0	0.4	0 9	0 06	1 0	65 18	529,391 03	854,611 42	
400 0	0 25	52.65	400 0	0.7	1.3	0 01	1 4	61.72	529,391.29	854,611.77	
500.0	0.23	51 78	500.0	0.9	1 6	0.02	1 9	59 59	529,391 54	854,612 10	
600 0	0 21	51 26	600 0	1.2	1 9	0 02	2 2	58.22	529,391.78	854,612 41	
700 0	0 23	59.23	700 0	1 4	2.2	0.04	2 6	57 81	529,392 00	854,612 72	
800 0	0 23	50 26	800 0	1 6	2 5	0 04	3.0	57 40	529,392 23	854,613 05	
900 0	0.49	72 03	900.0	1.9	3 1	0 29	3.6	58 71	529,392 49	854,613 61	
1,000.0	0.49	76 56	1,000.0	2.1	3.9	0.04	4 5	61 66	529,392 72	854,614 43	
1,100.0	0.46	95 14	1,100 0	2.2	4 7	0.16	5.2	65 29	529,392.78	854,615 25	
1,200 0	0.42	80.33	1,200 0	2.2	5.5	0 12	5.9	68 14	529,392.81	854,616 01	
1,300 0	0.59	66.65	1,300 0	2.5	6 3	0 21	6 8	68 68	529,393.08	854,616 84	
1,400 0	0.60	67.62	1,400 0	2.9	7 3	0.01	7 8	68 48	529,393 48	854,617 80	
1,500.0	0.65	65.32	1,500.0	3.3	8 3	0 06	8.9	68.23	529,393 91	854,618 80	
1,600.0	0.66	66 31	1,600 0	3.8	9 3	0 02	10.1	67.95	529,394 38	854,619 84	
1,700.0	0.99	45 45	1,699 9	4.6	10 5	0.44	11.5	66 22	529,395 22	854,620 98	
1,800.0	1 27	42.35	1,799.9	6.0	11.8	0 29	13 3	62.96	529,396 65	854,622 35	
1,900.0	2 24	44.44	1,899 9	8.3	14.0	0.97	16 2	59 39	529,398 86	854,624 46	
2,000 0	2 74	50.36	1,999.8	11 2	17.2	0 56	20 5	56 93	529,401 78	854,627.67	



SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 427H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498 0usft (Key #555)
Site:	Central Dnnkard Unit (427H)	MD Reference:	RKB @ 3498 0usft (Key #555)
Well:	427H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
2,100.0	2.97	55.08	2,099.7	14.2	21.1	0.33	25.5	56.13	529,404.79	854,631.64	
2,200.0	3.07	54.16	2,199.5	17.2	25.4	0.11	30.7	55.87	529,407.84	854,635.93	
2,300.0	2.96	55.25	2,299.4	20.3	29.7	0.12	36.0	55.70	529,410.88	854,640.22	
2,400.0	2.99	55.08	2,399.3	23.2	34.0	0.03	41.2	55.63	529,413.84	854,644.48	
2,500.0	2.33	59.23	2,499.1	25.8	37.9	0.69	45.8	55.76	529,416.38	854,648.37	
2,600.0	1.58	66.08	2,599.1	27.4	40.9	0.78	49.2	56.19	529,417.97	854,651.37	
2,700.0	1.26	75.36	2,699.1	28.2	43.2	0.39	51.6	56.85	529,418.81	854,653.70	
2,800.0	1.01	86.51	2,799.0	28.5	45.1	0.33	53.4	57.69	529,419.14	854,655.64	
2,900.0	0.87	89.09	2,899.0	28.6	46.8	0.15	54.8	58.55	529,419.21	854,657.28	
3,000.0	0.67	96.99	2,999.0	28.6	48.1	0.23	56.0	59.32	529,419.15	854,658.62	
3,100.0	0.58	104.01	3,099.0	28.4	49.2	0.12	56.8	60.04	529,418.96	854,659.69	
3,200.0	0.48	117.75	3,199.0	28.0	50.1	0.16	57.4	60.74	529,418.64	854,660.55	
3,300.0	0.43	118.00	3,299.0	27.7	50.8	0.05	57.8	61.40	529,418.27	854,661.26	
3,400.0	0.37	122.61	3,399.0	27.3	51.4	0.07	58.2	61.99	529,417.92	854,661.86	
3,500.0	0.22	144.57	3,499.0	27.0	51.7	0.19	58.4	62.45	529,417.59	854,662.24	
3,600.0	0.22	177.14	3,599.0	26.6	51.9	0.12	58.3	62.81	529,417.24	854,662.36	
3,700.0	0.24	184.43	3,699.0	26.2	51.9	0.04	58.1	63.16	529,416.84	854,662.36	
3,800.0	0.30	185.93	3,799.0	25.8	51.8	0.06	57.9	63.56	529,416.37	854,662.31	
3,900.0	0.39	202.13	3,899.0	25.2	51.7	0.13	57.5	64.00	529,415.79	854,662.16	
4,000.0	0.45	199.82	3,999.0	24.5	51.4	0.06	56.9	64.51	529,415.11	854,661.90	
4,100.0	0.36	211.41	4,099.0	23.9	51.1	0.12	56.4	64.96	529,414.47	854,661.60	
4,200.0	0.11	264.61	4,199.0	23.6	50.8	0.31	56.0	65.10	529,414.19	854,661.34	
4,300.0	0.10	316.11	4,299.0	23.6	50.7	0.09	55.9	64.99	529,414.25	854,661.18	
4,400.0	0.28	58.41	4,399.0	23.8	50.8	0.32	56.1	64.87	529,414.44	854,661.33	
4,500.0	0.70	81.44	4,499.0	24.1	51.6	0.46	57.0	65.02	529,414.66	854,662.14	
4,600.0	0.85	89.16	4,599.0	24.2	53.0	0.18	58.2	65.49	529,414.76	854,663.49	
4,700.0	0.93	89.75	4,699.0	24.2	54.5	0.08	59.7	66.10	529,414.77	854,665.04	



SDI
Final Survey Report



Company: Chevron
Project: Lea County, New Mexico
Site: Central Drinkard Unit (427H)
Well: 427H
Wellbore: Lateral
Design: Actual

Local Co-ordinate Reference: Well 427H
TVD Reference: RKB @ 3498 0usft (Key #555)
MD Reference: RKB @ 3498 0usft (Key #555)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM-Houston-District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
4,800 0	0 80	85 44	4,798 9	24 2	56 1	0.15	61 1	66 62	529,414 83	854,666 55	
4,900 0	0 72	96 90	4,898 9	24.2	57 4	0.17	62 3	67 12	529,414 81	854,667 87	
5,000 0	0 66	100 64	4,998 9	24 0	58.6	0 07	63 3	67 69	529,414 63	854,669 06	
5,100 0	0.67	96 78	5,098.9	23.9	59.7	0 05	64.3	68 22	529,414.46	854,670 21	
5,200 0	0.70	100 79	5,198.9	23.7	60 9	0 06	65 3	68 75	529,414 27	854,671 39	
5,300.0	0 74	105.02	5,298 9	23 4	62 1	0.07	66 4	69.36	529,413 99	854,672.61	
5,400 0	0 85	114 74	5,398 9	22.9	63 4	0 17	67 4	70 13	529,413.51	854,673 91	
5,500 0	0.90	118 66	5,498 9	22 2	64.8	0.08	68 5	71.06	529,412 83	854,675.27	
5,600.0	0 82	136.16	5,598 9	21.3	66.0	0 27	69 3	72 08	529,411.93	854,676 46	
5,700.0	0 88	147 45	5,698.9	20 2	66 9	0 18	69 8	73 21	529,410 77	854,677 36	
5,800 0	0.95	148 76	5,798 9	18 8	67 7	0.07	70 3	74.47	529,409 41	854,678 21	
5,900 0	0 94	148 16	5,898 8	17.4	68.6	0 01	70 7	75 76	529,408 01	854,679.07	
6,000 0	0 66	157 59	5,998.8	16 2	69 2	0.31	71 1	76.85	529,406 78	854,679 72	
6,100 0	0.65	157 38	6,098 8	15 1	69.7	0 01	71 3	77 75	529,405.72	854,680 16	
6,200 0	1.06	136 38	6,198 8	13 9	70.5	0 51	71.9	78 83	529,404.53	854,681.02	
6,300 0	0.92	143 32	6,298 8	12.6	71 6	0 18	72.7	80 01	529,403.22	854,682.13	
6,356 0	0 87	144.63	6,354.8	11 9	72 1	0 10	73 1	80 63	529,402 51	854,682.65	
SDI Gyro Tie-in											
6,451.0	10 31	193 79	6,449 2	3 0	70 5	10 28	70 6	87 53	529,393.64	854,681 04	
6,482 0	16.34	194 72	6,479 4	-3 9	68 8	19.46	68 9	93 23	529,386.72	854,679.27	
6,508 0	21.32	197 34	6,504 0	-11 9	66.4	19 42	67 5	100 18	529,378.67	854,676 93	
6,539 0	27.37	202 70	6,532 2	-23 9	62.0	20 76	66 4	111 08	529,366 70	854,672.49	
6,573 0	33.29	207 33	6,561 6	-39 4	54 7	18 71	67.4	125 78	529,351 19	854,665 18	
6,603 0	47 37	206 18	6,584.4	-56 7	46 0	47 00	73 0	140 96	529,333 88	854,656 49	
6,636 0	65 81	204 65	6,602.5	-81.5	34 3	56.01	88.4	157 20	529,309 09	854,644.76	
6,667 0	75.47	203 52	6,612 7	-108.2	22 3	31.35	110.5	168 33	529,282 42	854,632.84	
6,698 0	80.90	204 23	6,619 1	-135.9	10 1	17.66	136 3	175 77	529,254.69	854,620 56	



SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 427H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498 0usft (Key #555)
Site:	Central Drinkard Unit (427H)	MD Reference:	RKB @ 3498 0usft (Key #555)
Well:	427H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
6,729.0	85.92	204.96	6,622.6	-163.9	-2.7	16.36	163.9	180.96	529,226.70	854,607.75	
6,759.0	87.78	204.98	6,624.3	-191.1	-15.4	6.20	191.7	184.61	529,199.54	854,595.11	
6,790.0	87.58	204.90	6,625.5	-219.1	-28.5	0.69	221.0	187.40	529,171.46	854,582.04	
6,821.0	89.43	204.85	6,626.4	-247.3	-41.5	5.97	250.7	189.53	529,143.34	854,569.01	
6,852.0	90.67	204.49	6,626.3	-275.4	-54.4	4.17	280.8	191.18	529,115.17	854,556.07	
6,883.0	90.67	204.41	6,626.0	-303.6	-67.3	0.26	311.0	192.49	529,086.95	854,543.24	
6,915.0	90.64	204.75	6,625.6	-332.7	-80.6	1.07	342.4	193.61	529,057.86	854,529.93	
6,946.0	92.69	205.37	6,624.7	-360.8	-93.7	6.91	372.8	194.56	529,029.79	854,516.81	
6,977.0	93.30	206.13	6,623.1	-388.7	-107.1	3.14	403.2	195.41	529,001.90	854,503.36	
7,008.0	93.74	206.82	6,621.2	-416.4	-120.9	2.64	433.6	196.20	528,974.21	854,489.56	
7,039.0	91.61	205.47	6,619.7	-444.2	-134.6	8.13	464.1	196.86	528,946.41	854,475.92	
7,071.0	91.41	204.89	6,618.9	-473.1	-148.2	1.92	495.8	197.39	528,917.46	854,462.31	
7,102.0	90.64	203.61	6,618.3	-501.4	-160.9	4.82	526.6	197.79	528,889.20	854,449.58	
7,133.0	90.94	203.87	6,617.9	-529.8	-173.4	1.28	557.4	198.12	528,860.83	854,437.10	
7,164.0	90.97	203.78	6,617.4	-558.1	-185.9	0.31	588.3	198.42	528,832.48	854,424.58	
7,196.0	90.44	201.82	6,617.0	-587.6	-198.3	6.34	620.2	198.65	528,802.98	854,412.18	
7,227.0	90.27	201.90	6,616.8	-616.4	-209.9	0.61	651.1	198.80	528,774.21	854,400.64	
7,258.0	90.47	202.19	6,616.6	-645.1	-221.5	1.14	682.1	198.95	528,745.48	854,389.00	
7,290.0	90.07	201.37	6,616.5	-674.8	-233.4	2.85	714.1	199.08	528,715.76	854,377.13	
7,321.0	90.20	200.53	6,616.4	-703.8	-244.5	2.74	745.0	199.15	528,686.81	854,366.05	
7,352.0	90.37	200.13	6,616.2	-732.9	-255.2	1.40	776.0	199.20	528,657.74	854,355.28	
7,384.0	90.91	200.89	6,615.9	-762.8	-266.4	2.91	808.0	199.25	528,627.77	854,344.07	
7,415.0	91.21	200.91	6,615.3	-791.8	-277.5	0.97	839.0	199.31	528,598.82	854,333.01	
7,446.0	91.31	200.93	6,614.6	-820.7	-288.6	0.33	870.0	199.37	528,569.87	854,321.94	
7,477.0	91.45	200.97	6,613.9	-849.7	-299.6	0.47	901.0	199.43	528,540.93	854,310.86	
7,508.0	90.91	199.84	6,613.2	-878.7	-310.4	4.04	931.9	199.46	528,511.88	854,300.06	
7,539.0	90.94	199.66	6,612.7	-907.9	-320.9	0.59	962.9	199.47	528,482.71	854,289.58	



SDI
Final Survey Report



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Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498.0usft (Key #555)
Site:	Central Drinkard Unit (427H)	MD Reference:	RKB @ 3498.0usft (Key #555)
Well:	427H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
7,589.0	90.13	199.18	6,612.3	-955.0	-337.5	1.88	1,012.9	199.46	528,435.55	854,272.96	
7,620.0	89.83	199.37	6,612.3	-984.3	-347.8	1.15	1,043.9	199.46	528,406.29	854,262.73	
7,652.0	89.93	199.49	6,612.3	-1,014.5	-358.4	0.49	1,075.9	199.46	528,376.11	854,252.08	
7,682.0	92.15	197.40	6,611.8	-1,042.9	-367.9	10.16	1,105.9	199.43	528,347.66	854,242.59	
7,713.0	92.72	196.82	6,610.5	-1,072.5	-377.0	2.62	1,136.9	199.37	528,318.06	854,233.48	
7,743.0	91.92	196.60	6,609.3	-1,101.2	-385.6	2.77	1,166.8	199.30	528,289.35	854,224.86	
7,775.0	90.03	196.25	6,608.7	-1,131.9	-394.7	6.01	1,198.8	199.22	528,258.66	854,215.81	
7,805.0	90.00	196.35	6,608.7	-1,160.7	-403.1	0.35	1,228.7	199.15	528,229.87	854,207.39	
7,837.0	90.00	196.41	6,608.7	-1,191.4	-412.1	0.19	1,260.7	199.08	528,199.17	854,198.37	
7,868.0	90.64	198.44	6,608.5	-1,221.0	-421.4	6.87	1,291.7	199.04	528,169.59	854,189.09	
7,899.0	90.24	203.35	6,608.3	-1,250.0	-432.5	15.89	1,322.7	199.08	528,140.64	854,178.03	
7,930.0	89.53	208.67	6,608.4	-1,277.8	-446.1	17.31	1,353.4	199.24	528,112.79	854,164.45	
7,962.0	88.32	212.11	6,609.0	-1,305.4	-462.2	11.39	1,384.8	199.50	528,085.20	854,148.26	
7,993.0	87.51	215.06	6,610.1	-1,331.2	-479.4	9.86	1,414.9	199.80	528,059.39	854,131.13	
8,024.0	87.08	218.31	6,611.6	-1,356.0	-497.9	10.56	1,444.5	200.16	528,034.56	854,112.63	
8,055.0	87.51	222.53	6,613.0	-1,379.6	-517.9	13.67	1,473.6	200.58	528,010.99	854,092.56	
8,087.0	88.42	227.71	6,614.2	-1,402.2	-540.6	16.43	1,502.8	201.08	527,988.44	854,069.91	
8,118.0	89.09	232.82	6,614.8	-1,422.0	-564.4	16.62	1,529.9	201.65	527,968.63	854,046.08	
8,149.0	89.80	238.27	6,615.1	-1,439.5	-590.0	17.73	1,555.7	202.29	527,951.10	854,020.53	
8,180.0	91.48	243.20	6,614.8	-1,454.6	-617.0	16.80	1,580.1	202.98	527,935.95	853,993.50	
8,212.0	92.55	246.89	6,613.7	-1,468.1	-646.0	12.00	1,604.0	203.75	527,922.46	853,964.51	
8,243.0	94.75	249.59	6,611.7	-1,479.6	-674.7	11.22	1,626.2	204.51	527,910.99	853,935.78	
8,274.0	96.23	249.66	6,608.7	-1,490.3	-703.6	4.78	1,648.1	205.27	527,900.25	853,906.85	
8,305.0	96.50	249.97	6,605.3	-1,501.0	-732.6	1.32	1,670.2	206.02	527,889.62	853,877.94	
8,337.0	95.83	250.12	6,601.8	-1,511.8	-762.5	2.14	1,693.2	206.76	527,878.76	853,848.03	
8,368.0	91.85	249.99	6,599.8	-1,522.4	-791.5	12.85	1,715.9	207.47	527,868.21	853,818.96	
8,399.0	91.85	250.48	6,598.8	-1,532.9	-820.7	1.58	1,738.7	208.16	527,857.74	853,789.80	



SDI
Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 427H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498.0usft (Key #555)
Site:	Central Drinkard Unit (427H)	MD Reference:	RKB @ 3498.0usft (Key #555)
Well:	427H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
8,431.0	93.36	250.40	6,597.3	-1,543.6	-850.8	4.73	1,762.5	208.86	527,847.03	853,759.68	
8,462.0	93.19	250.21	6,595.5	-1,554.0	-880.0	0.82	1,785.8	209.52	527,836.60	853,730.54	
8,493.0	93.37	250.31	6,593.8	-1,564.4	-909.1	0.66	1,809.4	210.16	527,826.15	853,701.41	
8,524.0	94.42	250.74	6,591.7	-1,574.8	-938.2	3.66	1,833.1	210.79	527,815.84	853,672.26	
8,555.0	94.55	250.65	6,589.2	-1,585.0	-967.4	0.51	1,856.9	211.40	527,805.62	853,643.09	
8,586.0	95.05	250.56	6,586.6	-1,595.2	-996.6	1.64	1,880.9	211.99	527,795.36	853,613.95	
8,617.0	95.50	250.44	6,583.8	-1,605.5	-1,025.6	1.50	1,905.2	212.57	527,785.06	853,584.85	
8,649.0	96.50	250.47	6,580.4	-1,616.2	-1,055.6	3.13	1,930.4	213.15	527,774.41	853,554.86	
8,680.0	95.33	251.83	6,577.3	-1,626.1	-1,084.8	5.77	1,954.8	213.71	527,764.45	853,525.68	
8,711.0	95.32	251.93	6,574.4	-1,635.7	-1,114.2	0.32	1,979.1	214.26	527,754.85	853,496.35	
8,742.0	96.09	251.92	6,571.3	-1,645.3	-1,143.5	2.48	2,003.7	214.80	527,745.28	853,467.02	
8,773.0	96.54	251.86	6,567.9	-1,654.9	-1,172.8	1.46	2,028.3	215.32	527,735.70	853,437.74	
8,804.0	93.27	251.77	6,565.2	-1,664.5	-1,202.1	10.55	2,053.2	215.84	527,726.07	853,408.40	
8,836.0	90.71	252.44	6,564.1	-1,674.4	-1,232.5	8.27	2,079.1	216.36	527,716.24	853,377.97	
8,867.0	90.94	252.23	6,563.7	-1,683.8	-1,262.1	1.00	2,104.3	216.85	527,706.83	853,348.43	
8,898.0	88.99	252.15	6,563.7	-1,693.2	-1,291.6	6.30	2,129.6	217.34	527,697.35	853,318.92	
8,929.0	88.85	252.36	6,564.3	-1,702.7	-1,321.1	0.81	2,155.1	217.81	527,687.91	853,289.40	
8,961.0	88.05	251.38	6,565.1	-1,712.6	-1,351.5	3.95	2,181.7	218.28	527,677.95	853,259.00	
8,992.0	87.81	251.05	6,566.3	-1,722.6	-1,380.8	1.32	2,207.7	218.72	527,667.98	853,229.67	
9,023.0	88.69	250.73	6,567.2	-1,732.8	-1,410.1	3.02	2,234.0	219.14	527,657.83	853,200.39	
9,055.0	89.06	250.28	6,567.8	-1,743.4	-1,440.3	1.82	2,261.4	219.56	527,647.16	853,170.23	
9,086.0	87.81	249.76	6,568.7	-1,754.0	-1,469.4	4.37	2,288.2	219.95	527,636.57	853,141.11	
9,117.0	86.17	249.98	6,570.3	-1,764.7	-1,498.5	5.34	2,315.1	220.34	527,625.91	853,112.04	
9,149.0	86.27	249.55	6,572.4	-1,775.7	-1,528.4	1.38	2,342.9	220.72	527,614.87	853,082.08	
9,180.0	85.30	249.14	6,574.7	-1,786.6	-1,557.3	3.40	2,370.1	221.08	527,603.96	853,053.16	
9,212.0	85.60	249.03	6,577.2	-1,798.0	-1,587.1	1.00	2,398.3	221.44	527,592.58	853,023.36	
9,243.0	88.76	249.92	6,578.8	-1,808.9	-1,616.1	10.59	2,425.7	221.78	527,581.72	852,994.37	



SDI Final Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well 427H
Project:	Lea County, New Mexico	TVD Reference:	RKB @ 3498 0usft (Key #555)
Site:	Central Drnkard Unit (427H)	MD Reference:	RKB @ 3498 0usft (Key #555)
Well:	427H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM-Houston-District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
9,274.0	89 70	250 62	6,579 2	-1,819.3	-1,645.3	3 78	2,453.0	222 12	527,571 26	852,965.19	
9,305.0	89 39	250 79	6,579.4	-1,829.6	-1,674 6	1 14	2,480 2	222 47	527,561 02	852,935.93	
9,337.0	89 09	250 48	6,579.9	-1,840.2	-1,704 8	1 35	2,508.5	222.81	527,550 41	852,905.74	
9,368.0	87 48	249 47	6,580 8	-1,850 8	-1,733 9	6 13	2,536.1	223 13	527,539.80	852,876.63	
9,416 0	87.48	249 47	6,582.9	-1,867 6	-1,778 8	0 00	2,579 2	223 60	527,522.98	852,831 72	
Projected Depth											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,356 0	6,354.8	11 9	72.1	SDI Gyro Tie-in
9,416 0	6,582.9	-1,867.6	-1,778.8	Projected Depth



Scientific Drilling

Lea County, New Mexico
Central Drinkard Unit (427H)
Actual vs Plan #7
Rig: Key #555

427H

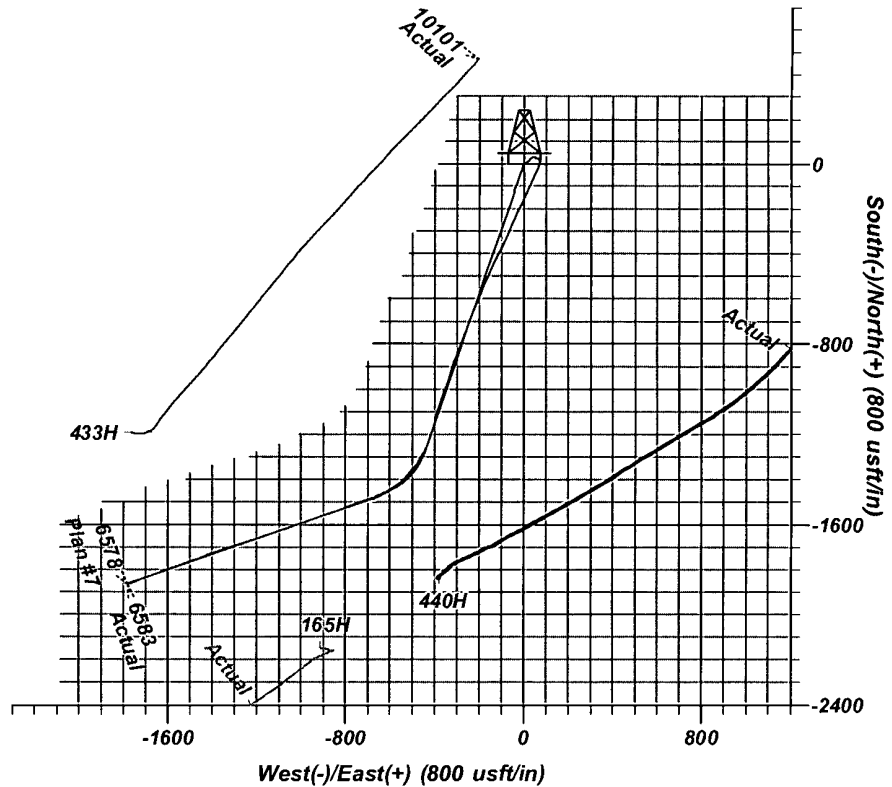
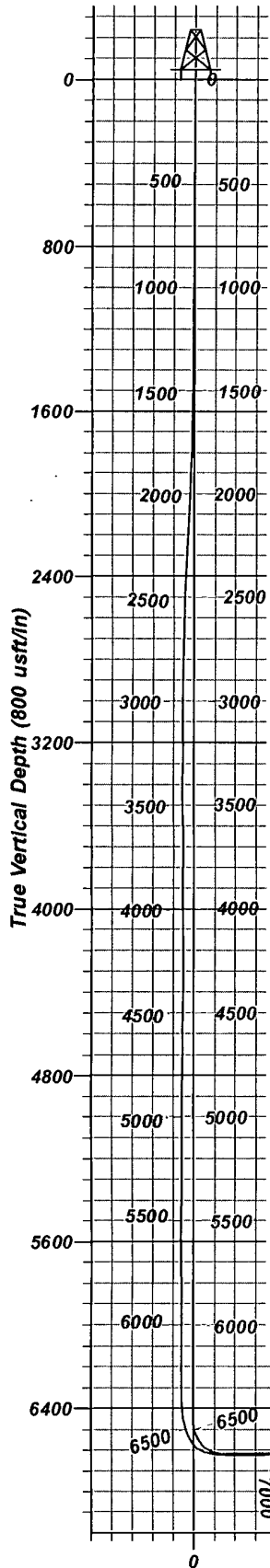


Plan View Depths Shown are
True Vertical Depths

Section View Depths Shown are
Measured Depths

WELL DETAILS: 427H

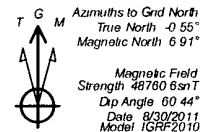
Ground Level:	3482.0
Northing	529390.60
Easting	854610.50
Latitude	32° 27' 4.549 N
Longitude	103° 19' 3.912 W



Bottom Hole Closure

9416.0' MD 87.48° Inc 249.47° Az 6582.9' TVD
1867.6' South 1778.8' West of Surface Location
2579.2' Closure Distance 223.60° Closure Azimuth

Vertical Section at 223.72° (800 usft/in)



Scientific Drilling Houston District
281-443-4600
Date 12:06, November 29 2011