

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

GUNNER FEDERAL PROJECT (BULLDOG 2634)

GUNNER 8 FED COM 705H

OWB

Design: AWP

Standard Survey Report

01 June, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

Project	BULLDOG PROSPECT (NM-E)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	GUNNER 8 FED COM 705H, ACTIVE			
Well Position	+N/-S	0.0 usft	Northing:	393,435.80 usfi
	+E/-W	0.0 usft	Easting:	758,640.50 usfi
Position Uncertainty		3.0 usft	Wellhead Elevation:	usfi
			Latitude:	32° 4' 44.108 N
			Longitude:	103° 29' 53.850 W
			Ground Level:	3,333.0 usfi

Wellbore	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/31/2020	6.61	59.90	47,573.99597806

Design	AWP
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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	180.63

Survey Program	Date 6/1/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	11,903.0	GYRO-INTERMEDIATE (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
12,070.0	22,998.0	MWD-CURVE/LAT (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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
100.0	0.44	171.01	100.0	-0.4	0.1	0.4	0.44	0.44	0.00
125.0	0.43	165.06	125.0	-0.6	0.1	0.6	0.18	-0.04	-23.80
150.0	0.49	175.48	150.0	-0.8	0.1	0.8	0.41	0.24	41.68
175.0	0.54	176.33	175.0	-1.0	0.1	1.0	0.20	0.20	3.40
200.0	0.56	179.99	200.0	-1.2	0.2	1.2	0.16	0.08	14.64
225.0	0.62	183.34	225.0	-1.5	0.1	1.5	0.28	0.24	13.40
250.0	0.59	183.74	250.0	-1.7	0.1	1.7	0.12	-0.12	1.60
275.0	0.51	178.91	275.0	-2.0	0.1	2.0	0.37	-0.32	-19.32
300.0	0.53	179.66	300.0	-2.2	0.1	2.2	0.08	0.08	3.00
325.0	0.50	180.23	325.0	-2.4	0.1	2.4	0.12	-0.12	2.28
350.0	0.54	183.92	350.0	-2.7	0.1	2.7	0.21	0.16	14.76
375.0	0.55	180.56	375.0	-2.9	0.1	2.9	0.13	0.04	-13.44
400.0	0.54	189.40	400.0	-3.1	0.1	3.1	0.34	-0.04	35.36

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Design:	AWP	Database:	edm

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)
425.0	0.50	194.29	425.0	-3.4	0.0	3.4	0.24	-0.16	19.56
450.0	0.48	200.77	450.0	-3.6	0.0	3.6	0.24	-0.08	25.92
475.0	0.53	197.83	475.0	-3.8	-0.1	3.8	0.23	0.20	-11.76
500.0	0.52	202.03	500.0	-4.0	-0.2	4.0	0.16	-0.04	16.80
525.0	0.52	209.05	525.0	-4.2	-0.3	4.2	0.25	0.00	28.08
550.0	0.58	214.79	550.0	-4.4	-0.4	4.4	0.33	0.24	22.96
575.0	0.61	217.13	575.0	-4.6	-0.5	4.6	0.15	0.12	9.36
600.0	0.63	223.32	600.0	-4.8	-0.7	4.8	0.28	0.08	24.76
625.0	0.70	225.17	625.0	-5.0	-0.9	5.0	0.29	0.28	7.40
650.0	0.72	227.08	650.0	-5.2	-1.1	5.2	0.12	0.08	7.64
675.0	0.69	225.83	675.0	-5.4	-1.4	5.5	0.13	-0.12	-5.00
700.0	0.44	236.40	700.0	-5.6	-1.6	5.6	1.08	-1.00	42.28
725.0	0.59	223.48	725.0	-5.7	-1.7	5.8	0.76	0.60	-51.68
750.0	0.66	227.88	750.0	-5.9	-1.9	6.0	0.34	0.28	17.60
775.0	0.74	226.37	775.0	-6.1	-2.1	6.2	0.33	0.32	-6.04
800.0	0.64	225.31	800.0	-6.4	-2.4	6.4	0.40	-0.40	-4.24
825.0	0.66	222.32	825.0	-6.6	-2.6	6.6	0.16	0.08	-11.96
850.0	0.67	223.21	850.0	-6.8	-2.8	6.8	0.06	0.04	3.56
875.0	0.63	224.88	875.0	-7.0	-3.0	7.0	0.18	-0.16	6.68
900.0	0.71	219.71	900.0	-7.2	-3.1	7.2	0.40	0.32	-20.68
925.0	0.72	224.37	925.0	-7.4	-3.4	7.5	0.24	0.04	18.64
950.0	0.72	221.19	950.0	-7.7	-3.6	7.7	0.16	0.00	-12.72
975.0	0.66	218.12	975.0	-7.9	-3.8	7.9	0.28	-0.24	-12.28
1,000.0	0.64	217.95	1,000.0	-8.1	-3.9	8.2	0.08	-0.08	-0.68
1,025.0	0.66	220.73	1,024.9	-8.3	-4.1	8.4	0.15	0.08	11.12
1,050.0	0.62	215.85	1,049.9	-8.5	-4.3	8.6	0.27	-0.16	-19.52
1,075.0	0.77	217.57	1,074.9	-8.8	-4.5	8.8	0.61	0.60	6.88
1,100.0	0.70	225.86	1,099.9	-9.0	-4.7	9.1	0.51	-0.28	33.16
1,125.0	0.72	232.02	1,124.9	-9.2	-4.9	9.3	0.32	0.08	24.64
1,150.0	0.71	239.79	1,149.9	-9.4	-5.2	9.5	0.39	-0.04	31.08
1,175.0	1.29	292.13	1,174.9	-9.4	-5.6	9.4	4.10	2.32	209.36
1,200.0	2.17	308.12	1,199.9	-9.0	-6.2	9.1	3.98	3.52	63.96
1,225.0	2.36	309.45	1,224.9	-8.4	-7.0	8.4	0.79	0.76	5.32
1,250.0	2.46	310.82	1,249.9	-7.7	-7.8	7.8	0.46	0.40	5.48
1,275.0	2.47	311.89	1,274.9	-7.0	-8.6	7.1	0.19	0.04	4.28
1,300.0	2.46	311.69	1,299.8	-6.3	-9.4	6.4	0.05	-0.04	-0.80
1,325.0	2.43	314.23	1,324.8	-5.5	-10.2	5.6	0.45	-0.12	10.16
1,350.0	2.45	311.92	1,349.8	-4.8	-10.9	4.9	0.40	0.08	-9.24
1,375.0	2.45	312.59	1,374.8	-4.1	-11.7	4.2	0.11	0.00	2.68
1,400.0	2.40	311.05	1,399.7	-3.4	-12.5	3.5	0.33	-0.20	-6.16
1,425.0	2.39	314.49	1,424.7	-2.7	-13.3	2.8	0.58	-0.04	13.76
1,450.0	2.42	312.96	1,449.7	-1.9	-14.0	2.1	0.28	0.12	-6.12

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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)
1,475.0	2.41	312.09	1,474.7	-1.2	-14.8	1.4	0.15	-0.04	-3.48
1,500.0	2.30	313.12	1,499.7	-0.5	-15.6	0.7	0.47	-0.44	4.12
1,525.0	2.28	312.32	1,524.6	0.1	-16.3	0.0	0.15	-0.08	-3.20
1,550.0	2.36	311.54	1,549.6	0.8	-17.1	-0.6	0.34	0.32	-3.12
1,575.0	2.33	314.53	1,574.6	1.5	-17.8	-1.3	0.50	-0.12	11.96
1,600.0	2.49	313.69	1,599.6	2.2	-18.6	-2.0	0.66	0.64	-3.36
1,625.0	3.02	306.74	1,624.5	3.0	-19.5	-2.8	2.50	2.12	-27.80
1,650.0	2.44	309.68	1,649.5	3.7	-20.4	-3.5	2.39	-2.32	11.76
1,675.0	2.43	313.62	1,674.5	4.5	-21.2	-4.2	0.67	-0.04	15.76
1,700.0	2.45	312.47	1,699.5	5.2	-22.0	-4.9	0.21	0.08	-4.60
1,725.0	2.47	311.59	1,724.4	5.9	-22.8	-5.6	0.17	0.08	-3.52
1,750.0	2.51	313.42	1,749.4	6.6	-23.6	-6.4	0.36	0.16	7.32
1,775.0	2.54	313.48	1,774.4	7.4	-24.4	-7.1	0.12	0.12	0.24
1,800.0	2.66	313.10	1,799.4	8.2	-25.2	-7.9	0.48	0.48	-1.52
1,825.0	2.70	312.46	1,824.3	9.0	-26.1	-8.7	0.20	0.16	-2.56
1,850.0	2.65	314.02	1,849.3	9.8	-26.9	-9.5	0.35	-0.20	6.24
1,875.0	2.83	315.04	1,874.3	10.6	-27.8	-10.3	0.75	0.72	4.08
1,900.0	2.77	314.08	1,899.3	11.5	-28.7	-11.1	0.30	-0.24	-3.84
1,925.0	2.75	313.92	1,924.2	12.3	-29.5	-12.0	0.09	-0.08	-0.64
1,950.0	2.84	313.86	1,949.2	13.1	-30.4	-12.8	0.36	0.36	-0.24
1,975.0	3.01	314.63	1,974.2	14.0	-31.3	-13.7	0.70	0.68	3.08
2,000.0	2.85	314.99	1,999.1	14.9	-32.2	-14.6	0.64	-0.64	1.44
2,025.0	2.80	314.82	2,024.1	15.8	-33.1	-15.4	0.20	-0.20	-0.68
2,050.0	2.79	313.94	2,049.1	16.6	-34.0	-16.3	0.18	-0.04	-3.52
2,075.0	2.65	313.63	2,074.1	17.5	-34.8	-17.1	0.56	-0.56	-1.24
2,100.0	2.84	318.02	2,099.0	18.3	-35.6	-17.9	1.13	0.76	17.56
2,125.0	2.85	315.93	2,124.0	19.2	-36.5	-18.8	0.42	0.04	-8.36
2,150.0	2.80	318.29	2,149.0	20.1	-37.3	-19.7	0.51	-0.20	9.44
2,175.0	2.73	319.57	2,173.9	21.0	-38.1	-20.6	0.37	-0.28	5.12
2,200.0	2.85	322.30	2,198.9	22.0	-38.9	-21.6	0.72	0.48	10.92
2,225.0	2.81	323.09	2,223.9	23.0	-39.6	-22.5	0.22	-0.16	3.16
2,250.0	2.79	322.99	2,248.8	23.9	-40.4	-23.5	0.08	-0.08	-0.40
2,275.0	2.81	325.62	2,273.8	24.9	-41.1	-24.5	0.52	0.08	10.52
2,300.0	2.98	325.76	2,298.8	26.0	-41.8	-25.5	0.68	0.68	0.56
2,325.0	3.07	330.32	2,323.7	27.1	-42.5	-26.6	1.03	0.36	18.24
2,350.0	3.01	331.46	2,348.7	28.3	-43.1	-27.8	0.34	-0.24	4.56
2,375.0	3.04	332.38	2,373.7	29.4	-43.8	-28.9	0.23	0.12	3.68
2,400.0	3.09	333.44	2,398.6	30.6	-44.4	-30.1	0.30	0.20	4.24
2,425.0	3.15	333.98	2,423.6	31.8	-45.0	-31.3	0.27	0.24	2.16
2,450.0	3.20	334.26	2,448.6	33.1	-45.6	-32.6	0.21	0.20	1.12
2,475.0	3.14	335.11	2,473.5	34.3	-46.2	-33.8	0.30	-0.24	3.40
2,500.0	3.13	337.33	2,498.5	35.6	-46.7	-35.1	0.49	-0.04	8.88
2,525.0	3.10	339.72	2,523.5	36.8	-47.2	-36.3	0.53	-0.12	9.56

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2,550.0	3.04	341.62	2,548.4	38.1	-47.7	-37.6	0.47	-0.24	7.60
2,575.0	3.11	345.95	2,573.4	39.4	-48.0	-38.9	0.97	0.28	17.32
2,600.0	3.23	351.56	2,598.3	40.7	-48.3	-40.2	1.33	0.48	22.44
2,625.0	3.07	349.41	2,623.3	42.1	-48.5	-41.6	0.80	-0.64	-8.60
2,650.0	3.07	350.69	2,648.3	43.4	-48.8	-42.9	0.27	0.00	5.12
2,675.0	3.06	351.44	2,673.2	44.7	-49.0	-44.2	0.17	-0.04	3.00
2,700.0	3.22	351.99	2,698.2	46.1	-49.2	-45.6	0.65	0.64	2.20
2,725.0	3.13	351.67	2,723.2	47.5	-49.4	-46.9	0.37	-0.36	-1.28
2,750.0	3.11	352.18	2,748.1	48.8	-49.6	-48.3	0.14	-0.08	2.04
2,775.0	3.38	353.75	2,773.1	50.2	-49.7	-49.7	1.14	1.08	6.28
2,800.0	3.51	354.19	2,798.0	51.7	-49.9	-51.2	0.53	0.52	1.76
2,825.0	3.63	356.39	2,823.0	53.3	-50.0	-52.7	0.73	0.48	8.80
2,850.0	3.72	357.56	2,847.9	54.9	-50.1	-54.3	0.47	0.36	4.68
2,875.0	3.70	357.95	2,872.9	56.5	-50.2	-55.9	0.13	-0.08	1.56
2,900.0	3.42	350.93	2,897.8	58.0	-50.3	-57.5	2.07	-1.12	-28.08
2,925.0	3.32	338.72	2,922.8	59.4	-50.7	-58.9	2.89	-0.40	-48.84
2,950.0	3.32	337.70	2,947.7	60.8	-51.2	-60.2	0.24	0.00	-4.08
2,975.0	3.25	337.32	2,972.7	62.1	-51.8	-61.5	0.29	-0.28	-1.52
3,000.0	3.29	338.26	2,997.7	63.4	-52.3	-62.8	0.27	0.16	3.76
3,025.0	3.40	342.42	3,022.6	64.8	-52.8	-64.2	1.07	0.44	16.64
3,050.0	3.49	347.17	3,047.6	66.2	-53.2	-65.7	1.20	0.36	19.00
3,075.0	3.70	348.48	3,072.5	67.8	-53.5	-67.2	0.90	0.84	5.24
3,100.0	3.63	351.91	3,097.5	69.4	-53.8	-68.8	0.92	-0.28	13.72
3,125.0	3.70	355.63	3,122.4	70.9	-54.0	-70.3	0.99	0.28	14.88
3,150.0	3.92	1.23	3,147.4	72.6	-54.0	-72.0	1.73	0.88	22.40
3,175.0	4.07	5.19	3,172.3	74.3	-53.9	-73.7	1.26	0.60	15.84
3,200.0	4.08	9.10	3,197.2	76.1	-53.7	-75.5	1.11	0.04	15.64
3,225.0	4.14	8.35	3,222.2	77.9	-53.4	-77.3	0.32	0.24	-3.00
3,250.0	3.95	3.44	3,247.1	79.6	-53.2	-79.0	1.58	-0.76	-19.64
3,275.0	3.76	357.42	3,272.1	81.3	-53.2	-80.7	1.79	-0.76	-24.08
3,300.0	3.66	356.27	3,297.0	82.9	-53.3	-82.3	0.50	-0.40	-4.60
3,325.0	3.67	356.40	3,322.0	84.5	-53.4	-83.9	0.05	0.04	0.52
3,350.0	3.68	356.82	3,346.9	86.1	-53.5	-85.5	0.11	0.04	1.68
3,375.0	3.75	353.88	3,371.9	87.7	-53.6	-87.1	0.81	0.28	-11.76
3,400.0	4.11	347.76	3,396.8	89.4	-53.9	-88.8	2.21	1.44	-24.48
3,425.0	4.33	345.42	3,421.7	91.2	-54.3	-90.6	1.12	0.88	-9.36
3,450.0	4.41	345.22	3,446.7	93.0	-54.8	-92.4	0.33	0.32	-0.80
3,475.0	4.60	347.68	3,471.6	95.0	-55.3	-94.3	1.08	0.76	9.84
3,500.0	4.76	350.39	3,496.5	97.0	-55.7	-96.3	1.09	0.64	10.84
3,525.0	4.96	352.88	3,521.4	99.0	-56.0	-98.4	1.16	0.80	9.96
3,550.0	5.17	355.86	3,546.3	101.2	-56.2	-100.6	1.35	0.84	11.92
3,575.0	5.12	355.75	3,571.2	103.5	-56.4	-102.9	0.20	-0.20	-0.44

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
3,600.0	5.11	355.84	3,596.1	105.7	-56.5	-105.1	0.05	-0.04	0.36
3,625.0	4.81	348.89	3,621.0	107.8	-56.8	-107.2	2.68	-1.20	-27.80
3,650.0	4.71	333.48	3,645.9	109.8	-57.5	-109.1	5.12	-0.40	-61.64
3,675.0	4.72	324.48	3,670.8	111.5	-58.5	-110.9	2.96	0.04	-36.00
3,700.0	4.70	322.41	3,695.8	113.2	-59.7	-112.5	0.68	-0.08	-8.28
3,725.0	4.78	322.44	3,720.7	114.8	-61.0	-114.1	0.32	0.32	0.12
3,750.0	4.83	321.37	3,745.6	116.5	-62.3	-115.8	0.41	0.20	-4.28
3,775.0	4.77	321.06	3,770.5	118.1	-63.6	-117.4	0.26	-0.24	-1.24
3,800.0	4.72	321.56	3,795.4	119.7	-64.9	-119.0	0.26	-0.20	2.00
3,825.0	4.58	312.95	3,820.3	121.2	-66.3	-120.5	2.84	-0.56	-34.44
3,850.0	4.29	297.08	3,845.3	122.3	-67.8	-121.6	5.03	-1.16	-63.48
3,875.0	4.28	286.35	3,870.2	123.0	-69.6	-122.2	3.20	-0.04	-42.92
3,900.0	4.28	286.22	3,895.1	123.5	-71.4	-122.7	0.04	0.00	-0.52
3,925.0	4.31	285.05	3,920.1	124.0	-73.2	-123.2	0.37	0.12	-4.68
3,950.0	4.31	286.32	3,945.0	124.5	-75.0	-123.7	0.38	0.00	5.08
3,975.0	4.33	289.48	3,969.9	125.1	-76.8	-124.3	0.96	0.08	12.64
4,000.0	4.29	295.15	3,994.8	125.8	-78.5	-125.0	1.71	-0.16	22.68
4,025.0	4.28	300.79	4,019.8	126.7	-80.1	-125.8	1.69	-0.04	22.56
4,050.0	4.37	305.75	4,044.7	127.7	-81.7	-126.8	1.54	0.36	19.84
4,075.0	4.40	308.24	4,069.6	128.9	-83.2	-128.0	0.77	0.12	9.96
4,100.0	4.52	309.08	4,094.5	130.1	-84.8	-129.2	0.55	0.48	3.36
4,125.0	4.69	309.52	4,119.5	131.4	-86.3	-130.4	0.69	0.68	1.76
4,150.0	4.98	310.43	4,144.4	132.7	-87.9	-131.7	1.20	1.16	3.64
4,175.0	4.80	309.93	4,169.3	134.1	-89.6	-133.1	0.74	-0.72	-2.00
4,200.0	4.56	299.67	4,194.2	135.3	-91.2	-134.2	3.48	-0.96	-41.04
4,225.0	4.55	286.36	4,219.1	136.0	-93.0	-135.0	4.22	-0.04	-53.24
4,250.0	4.68	282.64	4,244.0	136.5	-95.0	-135.5	1.30	0.52	-14.88
4,275.0	4.67	282.04	4,269.0	137.0	-97.0	-135.9	0.20	-0.04	-2.40
4,300.0	4.74	282.65	4,293.9	137.4	-99.0	-136.3	0.34	0.28	2.44
4,325.0	5.00	283.88	4,318.8	137.9	-101.0	-136.8	1.12	1.04	4.92
4,350.0	4.99	285.30	4,343.7	138.5	-103.1	-137.3	0.50	-0.04	5.68
4,375.0	5.24	286.55	4,368.6	139.1	-105.3	-137.9	1.09	1.00	5.00
4,400.0	5.27	287.27	4,393.5	139.7	-107.5	-138.5	0.29	0.12	2.88
4,425.0	5.27	287.03	4,418.4	140.4	-109.7	-139.2	0.09	0.00	-0.96
4,450.0	5.30	286.70	4,443.3	141.1	-111.9	-139.8	0.17	0.12	-1.32
4,475.0	5.06	285.61	4,468.2	141.7	-114.0	-140.4	1.04	-0.96	-4.36
4,500.0	3.68	277.75	4,493.1	142.1	-115.9	-140.8	6.00	-5.52	-31.44
4,525.0	2.37	275.35	4,518.1	142.3	-117.2	-141.0	5.26	-5.24	-9.60
4,550.0	1.95	268.58	4,543.0	142.3	-118.1	-141.0	1.96	-1.68	-27.08
4,575.0	1.60	266.28	4,568.0	142.3	-118.9	-140.9	1.43	-1.40	-9.20
4,600.0	1.02	266.95	4,593.0	142.2	-119.5	-140.9	2.32	-2.32	2.68
4,625.0	0.58	265.28	4,618.0	142.2	-119.8	-140.9	1.76	-1.76	-6.68
4,650.0	0.12	278.54	4,643.0	142.2	-120.0	-140.9	1.86	-1.84	53.04

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
4,675.0	0.54	55.14	4,668.0	142.3	-119.9	-140.9	2.53	1.68	546.40
4,700.0	0.89	56.87	4,693.0	142.4	-119.7	-141.1	1.40	1.40	6.92
4,725.0	0.94	57.98	4,718.0	142.7	-119.3	-141.3	0.21	0.20	4.44
4,750.0	1.19	54.37	4,743.0	142.9	-118.9	-141.6	1.03	1.00	-14.44
4,775.0	1.34	58.06	4,768.0	143.2	-118.5	-141.9	0.68	0.60	14.76
4,800.0	1.42	60.03	4,793.0	143.5	-118.0	-142.2	0.37	0.32	7.88
4,825.0	1.50	67.33	4,818.0	143.8	-117.4	-142.5	0.81	0.32	29.20
4,850.0	1.59	73.57	4,843.0	144.0	-116.8	-142.7	0.76	0.36	24.96
4,875.0	1.70	96.13	4,868.0	144.1	-116.1	-142.8	2.61	0.44	90.24
4,900.0	2.08	123.81	4,893.0	143.8	-115.3	-142.5	3.91	1.52	110.72
4,925.0	2.39	132.40	4,917.9	143.2	-114.6	-141.9	1.82	1.24	34.36
4,950.0	2.71	134.51	4,942.9	142.4	-113.7	-141.2	1.33	1.28	8.44
4,975.0	3.03	136.96	4,967.9	141.5	-112.9	-140.3	1.37	1.28	9.80
5,000.0	3.04	137.33	4,992.9	140.6	-112.0	-139.3	0.09	0.04	1.48
5,025.0	3.05	137.11	5,017.8	139.6	-111.1	-138.4	0.06	0.04	-0.88
5,050.0	2.39	144.86	5,042.8	138.7	-110.3	-137.5	3.02	-2.64	31.00
5,075.0	1.38	150.66	5,067.8	138.0	-109.9	-136.8	4.11	-4.04	23.20
5,100.0	1.00	150.04	5,092.8	137.5	-109.6	-136.3	1.52	-1.52	-2.48
5,125.0	0.96	162.67	5,117.8	137.2	-109.4	-135.9	0.88	-0.16	50.52
5,150.0	0.93	158.97	5,142.8	136.8	-109.3	-135.5	0.27	-0.12	-14.80
5,175.0	0.89	158.78	5,167.8	136.4	-109.2	-135.2	0.16	-0.16	-0.76
5,200.0	0.94	159.55	5,192.8	136.0	-109.0	-134.8	0.21	0.20	3.08
5,225.0	0.88	158.81	5,217.8	135.7	-108.9	-134.4	0.24	-0.24	-2.96
5,250.0	0.99	160.88	5,242.8	135.3	-108.7	-134.1	0.46	0.44	8.28
5,275.0	1.03	162.29	5,267.7	134.9	-108.6	-133.6	0.19	0.16	5.64
5,300.0	0.94	153.54	5,292.7	134.5	-108.4	-133.2	0.70	-0.36	-35.00
5,325.0	0.99	157.83	5,317.7	134.1	-108.3	-132.9	0.35	0.20	17.16
5,350.0	0.97	155.40	5,342.7	133.7	-108.1	-132.5	0.18	-0.08	-9.72
5,375.0	0.94	154.96	5,367.7	133.3	-107.9	-132.1	0.12	-0.12	-1.76
5,400.0	0.94	149.17	5,392.7	132.9	-107.7	-131.7	0.38	0.00	-23.16
5,425.0	0.91	159.36	5,417.7	132.6	-107.6	-131.4	0.67	-0.12	40.76
5,450.0	0.86	152.21	5,442.7	132.2	-107.4	-131.0	0.48	-0.20	-28.60
5,475.0	0.77	153.71	5,467.7	131.9	-107.2	-130.7	0.37	-0.36	6.00
5,500.0	0.78	150.77	5,492.7	131.6	-107.1	-130.4	0.16	0.04	-11.76
5,525.0	0.72	147.67	5,517.7	131.3	-106.9	-130.1	0.29	-0.24	-12.40
5,550.0	0.74	148.61	5,542.7	131.1	-106.7	-129.9	0.09	0.08	3.76
5,575.0	0.69	138.63	5,567.7	130.8	-106.6	-129.6	0.54	-0.20	-39.92
5,600.0	0.63	147.63	5,592.7	130.6	-106.4	-129.4	0.48	-0.24	36.00
5,625.0	0.49	146.95	5,617.7	130.4	-106.3	-129.2	0.56	-0.56	-2.72
5,650.0	0.49	154.86	5,642.7	130.2	-106.2	-129.0	0.27	0.00	31.64
5,675.0	0.51	156.54	5,667.7	130.0	-106.1	-128.8	0.10	0.08	6.72
5,700.0	0.43	143.64	5,692.7	129.8	-106.0	-128.6	0.53	-0.32	-51.60

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
5,725.0	0.43	168.75	5,717.7	129.6	-105.9	-128.5	0.75	0.00	100.44
5,750.0	0.29	170.33	5,742.7	129.5	-105.9	-128.3	0.56	-0.56	6.32
5,775.0	0.18	168.70	5,767.7	129.4	-105.8	-128.2	0.44	-0.44	-6.52
5,800.0	0.14	190.84	5,792.7	129.3	-105.8	-128.1	0.29	-0.16	88.56
5,825.0	0.06	214.72	5,817.7	129.3	-105.9	-128.1	0.35	-0.32	95.52
5,850.0	0.11	228.52	5,842.7	129.2	-105.9	-128.1	0.21	0.20	55.20
5,875.0	0.09	246.73	5,867.7	129.2	-105.9	-128.0	0.15	-0.08	72.84
5,900.0	0.13	244.81	5,892.7	129.2	-106.0	-128.0	0.16	0.16	-7.68
5,925.0	0.15	252.18	5,917.7	129.2	-106.0	-128.0	0.11	0.08	29.48
5,950.0	0.16	237.53	5,942.7	129.2	-106.1	-128.0	0.16	0.04	-58.60
5,975.0	0.24	248.66	5,967.7	129.1	-106.2	-127.9	0.35	0.32	44.52
6,000.0	0.22	253.74	5,992.7	129.1	-106.3	-127.9	0.11	-0.08	20.32
6,025.0	0.16	256.65	6,017.7	129.1	-106.3	-127.9	0.24	-0.24	11.64
6,050.0	0.14	258.89	6,042.7	129.0	-106.4	-127.9	0.08	-0.08	8.96
6,075.0	0.25	248.74	6,067.7	129.0	-106.5	-127.8	0.46	0.44	-40.60
6,100.0	0.15	224.08	6,092.7	129.0	-106.5	-127.8	0.52	-0.40	-98.64
6,125.0	0.19	249.79	6,117.7	128.9	-106.6	-127.8	0.34	0.16	102.84
6,150.0	0.20	252.37	6,142.7	128.9	-106.7	-127.7	0.05	0.04	10.32
6,175.0	0.20	222.49	6,167.7	128.9	-106.8	-127.7	0.41	0.00	-119.52
6,200.0	0.15	254.41	6,192.7	128.8	-106.8	-127.6	0.43	-0.20	127.68
6,225.0	0.13	226.04	6,217.7	128.8	-106.9	-127.6	0.29	-0.08	-113.48
6,250.0	0.19	243.85	6,242.7	128.8	-106.9	-127.6	0.31	0.24	71.24
6,275.0	0.18	225.03	6,267.7	128.7	-107.0	-127.5	0.25	-0.04	-75.28
6,300.0	0.21	228.22	6,292.7	128.7	-107.1	-127.5	0.13	0.12	12.76
6,325.0	0.21	240.28	6,317.7	128.6	-107.1	-127.4	0.18	0.00	48.24
6,350.0	0.17	239.65	6,342.7	128.6	-107.2	-127.4	0.16	-0.16	-2.52
6,375.0	0.20	238.81	6,367.7	128.5	-107.3	-127.3	0.12	0.12	-3.36
6,400.0	0.26	246.43	6,392.7	128.5	-107.4	-127.3	0.27	0.24	30.48
6,425.0	0.24	221.98	6,417.7	128.4	-107.5	-127.2	0.43	-0.08	-97.80
6,450.0	0.11	245.11	6,442.7	128.4	-107.5	-127.2	0.58	-0.52	92.52
6,475.0	0.20	235.41	6,467.7	128.3	-107.6	-127.1	0.37	0.36	-38.80
6,500.0	0.21	223.37	6,492.7	128.3	-107.6	-127.1	0.18	0.04	-48.16
6,525.0	0.19	236.01	6,517.7	128.2	-107.7	-127.0	0.19	-0.08	50.56
6,550.0	0.25	242.71	6,542.7	128.2	-107.8	-127.0	0.26	0.24	26.80
6,575.0	0.06	252.98	6,567.7	128.1	-107.8	-126.9	0.77	-0.76	41.08
6,600.0	0.10	256.37	6,592.7	128.1	-107.9	-126.9	0.16	0.16	13.56
6,625.0	0.22	263.10	6,617.7	128.1	-107.9	-126.9	0.49	0.48	26.92
6,650.0	0.15	273.93	6,642.7	128.1	-108.0	-126.9	0.31	-0.28	43.32
6,675.0	0.12	242.69	6,667.7	128.1	-108.1	-126.9	0.31	-0.12	-124.96
6,700.0	0.17	262.50	6,692.7	128.1	-108.1	-126.9	0.28	0.20	79.24
6,725.0	0.13	270.10	6,717.7	128.1	-108.2	-126.9	0.18	-0.16	30.40
6,750.0	0.19	263.34	6,742.7	128.1	-108.3	-126.9	0.25	0.24	-27.04
6,775.0	0.19	276.19	6,767.7	128.1	-108.4	-126.9	0.17	0.00	51.40

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
6,800.0	0.20	254.33	6,792.7	128.1	-108.4	-126.9	0.30	0.04	-87.44
6,825.0	0.17	276.71	6,817.7	128.1	-108.5	-126.9	0.31	-0.12	89.52
6,850.0	0.19	261.57	6,842.7	128.1	-108.6	-126.9	0.21	0.08	-60.56
6,875.0	0.18	255.91	6,867.7	128.0	-108.7	-126.8	0.08	-0.04	-22.64
6,900.0	0.16	255.78	6,892.7	128.0	-108.8	-126.8	0.08	-0.08	-0.52
6,925.0	0.21	255.43	6,917.7	128.0	-108.8	-126.8	0.20	0.20	-1.40
6,950.0	0.14	266.83	6,942.7	128.0	-108.9	-126.8	0.31	-0.28	45.60
6,975.0	0.17	259.83	6,967.7	128.0	-109.0	-126.8	0.14	0.12	-28.00
7,000.0	0.15	258.59	6,992.7	128.0	-109.0	-126.8	0.08	-0.08	-4.96
7,025.0	0.11	267.18	7,017.7	128.0	-109.1	-126.8	0.18	-0.16	34.36
7,050.0	0.17	310.85	7,042.7	128.0	-109.1	-126.8	0.47	0.24	174.68
7,075.0	0.13	290.32	7,067.7	128.0	-109.2	-126.8	0.27	-0.16	-82.12
7,100.0	0.13	305.28	7,092.7	128.1	-109.3	-126.8	0.14	0.00	59.84
7,125.0	0.19	291.84	7,117.7	128.1	-109.3	-126.9	0.28	0.24	-53.76
7,150.0	0.10	263.85	7,142.7	128.1	-109.4	-126.9	0.45	-0.36	-111.96
7,175.0	0.22	282.13	7,167.7	128.1	-109.4	-126.9	0.52	0.48	73.12
7,200.0	0.18	292.70	7,192.7	128.1	-109.5	-126.9	0.22	-0.16	42.28
7,225.0	0.22	302.48	7,217.7	128.2	-109.6	-126.9	0.21	0.16	39.12
7,250.0	0.23	313.78	7,242.7	128.2	-109.7	-127.0	0.18	0.04	45.20
7,275.0	0.25	317.06	7,267.7	128.3	-109.8	-127.1	0.10	0.08	13.12
7,300.0	0.19	306.99	7,292.7	128.4	-109.8	-127.1	0.28	-0.24	-40.28
7,325.0	0.21	307.79	7,317.7	128.4	-109.9	-127.2	0.08	0.08	3.20
7,350.0	0.20	307.05	7,342.7	128.5	-110.0	-127.3	0.04	-0.04	-2.96
7,375.0	0.18	312.22	7,367.7	128.5	-110.0	-127.3	0.11	-0.08	20.68
7,400.0	0.24	335.77	7,392.7	128.6	-110.1	-127.4	0.42	0.24	94.20
7,425.0	0.24	319.14	7,417.7	128.7	-110.1	-127.5	0.28	0.00	-66.52
7,450.0	0.18	326.76	7,442.7	128.8	-110.2	-127.5	0.26	-0.24	30.48
7,475.0	0.19	335.00	7,467.7	128.8	-110.2	-127.6	0.11	0.04	32.96
7,500.0	0.23	353.78	7,492.7	128.9	-110.3	-127.7	0.32	0.16	75.12
7,525.0	0.20	325.76	7,517.7	129.0	-110.3	-127.8	0.43	-0.12	-112.08
7,550.0	0.37	329.93	7,542.7	129.1	-110.3	-127.9	0.68	0.68	16.68
7,575.0	0.26	337.14	7,567.7	129.2	-110.4	-128.0	0.47	-0.44	28.84
7,600.0	0.24	318.11	7,592.7	129.3	-110.5	-128.1	0.34	-0.08	-76.12
7,625.0	0.27	339.14	7,617.7	129.4	-110.5	-128.2	0.39	0.12	84.12
7,650.0	0.25	311.01	7,642.7	129.5	-110.6	-128.3	0.51	-0.08	-112.52
7,675.0	0.21	280.58	7,667.7	129.6	-110.7	-128.3	0.51	-0.16	-121.72
7,700.0	0.17	304.71	7,692.7	129.6	-110.7	-128.4	0.35	-0.16	96.52
7,725.0	0.16	291.69	7,717.7	129.6	-110.8	-128.4	0.15	-0.04	-52.08
7,750.0	0.11	282.94	7,742.7	129.6	-110.9	-128.4	0.22	-0.20	-35.00
7,775.0	0.10	339.72	7,767.7	129.7	-110.9	-128.4	0.40	-0.04	227.12
7,800.0	0.10	315.37	7,792.7	129.7	-110.9	-128.5	0.17	0.00	-97.40
7,825.0	0.12	282.53	7,817.7	129.7	-111.0	-128.5	0.26	0.08	-131.36

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
7,850.0	0.09	253.98	7,842.7	129.7	-111.0	-128.5	0.24	-0.12	-114.20
7,875.0	0.20	297.45	7,867.7	129.7	-111.1	-128.5	0.59	0.44	173.88
7,900.0	0.16	264.83	7,892.7	129.8	-111.1	-128.5	0.43	-0.16	-130.48
7,925.0	0.19	289.94	7,917.7	129.8	-111.2	-128.5	0.33	0.12	100.44
7,950.0	0.31	253.10	7,942.7	129.8	-111.3	-128.5	0.78	0.48	-147.36
7,975.0	0.22	260.97	7,967.7	129.7	-111.4	-128.5	0.39	-0.36	31.48
8,000.0	0.35	273.54	7,992.7	129.7	-111.5	-128.5	0.57	0.52	50.28
8,025.0	0.25	242.41	8,017.7	129.7	-111.7	-128.5	0.75	-0.40	-124.52
8,050.0	0.34	237.82	8,042.7	129.6	-111.8	-128.4	0.37	0.36	-18.36
8,075.0	0.30	247.40	8,067.7	129.6	-111.9	-128.3	0.27	-0.16	38.32
8,100.0	0.34	255.17	8,092.7	129.5	-112.0	-128.3	0.24	0.16	31.08
8,125.0	0.28	248.98	8,117.7	129.5	-112.2	-128.2	0.27	-0.24	-24.76
8,150.0	0.33	235.81	8,142.7	129.4	-112.3	-128.2	0.34	0.20	-52.68
8,175.0	0.32	229.82	8,167.7	129.3	-112.4	-128.1	0.14	-0.04	-23.96
8,200.0	0.35	227.38	8,192.7	129.2	-112.5	-128.0	0.13	0.12	-9.76
8,225.0	0.39	229.57	8,217.7	129.1	-112.6	-127.9	0.17	0.16	8.76
8,250.0	0.33	214.98	8,242.7	129.0	-112.7	-127.8	0.44	-0.24	-58.36
8,275.0	0.34	221.24	8,267.7	128.9	-112.8	-127.7	0.15	0.04	25.04
8,300.0	0.35	221.72	8,292.7	128.8	-112.9	-127.5	0.04	0.04	1.92
8,325.0	0.33	216.86	8,317.7	128.7	-113.0	-127.4	0.14	-0.08	-19.44
8,350.0	0.37	214.65	8,342.7	128.6	-113.1	-127.3	0.17	0.16	-8.84
8,375.0	0.34	204.28	8,367.7	128.4	-113.2	-127.2	0.28	-0.12	-41.48
8,400.0	0.32	211.86	8,392.7	128.3	-113.2	-127.0	0.19	-0.08	30.32
8,425.0	0.40	215.89	8,417.7	128.2	-113.3	-126.9	0.34	0.32	16.12
8,450.0	0.31	201.36	8,442.7	128.0	-113.4	-126.8	0.51	-0.36	-58.12
8,475.0	0.34	212.96	8,467.7	127.9	-113.5	-126.6	0.29	0.12	46.40
8,500.0	0.36	186.56	8,492.7	127.8	-113.5	-126.5	0.64	0.08	-105.60
8,525.0	0.37	196.67	8,517.7	127.6	-113.6	-126.4	0.26	0.04	40.44
8,550.0	0.46	190.16	8,542.7	127.4	-113.6	-126.2	0.41	0.36	-26.04
8,575.0	0.47	197.94	8,567.7	127.2	-113.6	-126.0	0.26	0.04	31.12
8,600.0	0.43	211.40	8,592.7	127.1	-113.7	-125.8	0.45	-0.16	53.84
8,625.0	0.43	206.83	8,617.7	126.9	-113.8	-125.6	0.14	0.00	-18.28
8,650.0	0.40	238.32	8,642.7	126.8	-113.9	-125.5	0.91	-0.12	125.96
8,675.0	0.52	273.08	8,667.7	126.7	-114.1	-125.5	1.19	0.48	139.04
8,700.0	0.53	274.07	8,692.7	126.7	-114.4	-125.5	0.05	0.04	3.96
8,725.0	0.53	289.38	8,717.7	126.8	-114.6	-125.5	0.56	0.00	61.24
8,750.0	0.51	284.88	8,742.7	126.9	-114.8	-125.6	0.18	-0.08	-18.00
8,775.0	0.50	283.79	8,767.7	126.9	-115.0	-125.6	0.06	-0.04	-4.36
8,800.0	0.61	289.95	8,792.7	127.0	-115.2	-125.7	0.50	0.44	24.64
8,825.0	1.59	316.82	8,817.7	127.3	-115.6	-126.0	4.33	3.92	107.48
8,850.0	2.09	320.05	8,842.7	127.9	-116.1	-126.6	2.04	2.00	12.92
8,875.0	2.09	321.45	8,867.6	128.6	-116.7	-127.3	0.20	0.00	5.60
8,900.0	2.03	320.09	8,892.6	129.3	-117.3	-128.0	0.31	-0.24	-5.44

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
8,925.0	2.08	324.03	8,917.6	130.0	-117.8	-128.7	0.60	0.20	15.76
8,950.0	2.03	320.29	8,942.6	130.7	-118.4	-129.4	0.57	-0.20	-14.96
8,975.0	1.94	321.56	8,967.6	131.4	-118.9	-130.1	0.40	-0.36	5.08
9,000.0	2.04	319.96	8,992.6	132.0	-119.5	-130.7	0.46	0.40	-6.40
9,025.0	2.01	318.99	9,017.5	132.7	-120.0	-131.4	0.18	-0.12	-3.88
9,050.0	2.05	318.05	9,042.5	133.4	-120.6	-132.0	0.21	0.16	-3.76
9,075.0	2.03	315.71	9,067.5	134.0	-121.2	-132.7	0.34	-0.08	-9.36
9,100.0	1.89	314.01	9,092.5	134.6	-121.8	-133.3	0.61	-0.56	-6.80
9,125.0	1.89	314.73	9,117.5	135.2	-122.4	-133.8	0.09	0.00	2.88
9,150.0	1.81	314.25	9,142.5	135.8	-123.0	-134.4	0.33	-0.32	-1.92
9,175.0	1.83	312.81	9,167.5	136.3	-123.6	-134.9	0.20	0.08	-5.76
9,200.0	1.82	310.42	9,192.4	136.9	-124.2	-135.5	0.31	-0.04	-9.56
9,225.0	1.86	311.15	9,217.4	137.4	-124.8	-136.0	0.19	0.16	2.92
9,250.0	1.94	309.49	9,242.4	137.9	-125.4	-136.5	0.39	0.32	-6.64
9,275.0	1.92	308.41	9,267.4	138.4	-126.1	-137.0	0.17	-0.08	-4.32
9,300.0	1.97	305.35	9,292.4	139.0	-126.8	-137.5	0.46	0.20	-12.24
9,325.0	1.82	307.83	9,317.4	139.4	-127.4	-138.0	0.68	-0.60	9.92
9,350.0	1.80	304.76	9,342.4	139.9	-128.1	-138.5	0.40	-0.08	-12.28
9,375.0	1.78	302.96	9,367.4	140.3	-128.7	-138.9	0.24	-0.08	-7.20
9,400.0	1.80	303.23	9,392.3	140.8	-129.4	-139.3	0.09	0.08	1.08
9,425.0	1.76	300.10	9,417.3	141.2	-130.0	-139.7	0.42	-0.16	-12.52
9,450.0	1.77	298.49	9,442.3	141.6	-130.7	-140.1	0.20	0.04	-6.44
9,475.0	1.81	296.46	9,467.3	141.9	-131.4	-140.5	0.30	0.16	-8.12
9,500.0	1.85	293.72	9,492.3	142.3	-132.1	-140.8	0.38	0.16	-10.96
9,525.0	1.75	294.37	9,517.3	142.6	-132.8	-141.1	0.41	-0.40	2.60
9,550.0	1.89	289.78	9,542.3	142.9	-133.6	-141.4	0.81	0.56	-18.36
9,575.0	1.83	290.38	9,567.3	143.2	-134.3	-141.7	0.25	-0.24	2.40
9,600.0	1.89	287.00	9,592.2	143.4	-135.1	-141.9	0.50	0.24	-13.52
9,625.0	1.94	285.60	9,617.2	143.6	-135.9	-142.1	0.27	0.20	-5.60
9,650.0	1.96	283.66	9,642.2	143.9	-136.7	-142.3	0.28	0.08	-7.76
9,675.0	2.25	279.24	9,667.2	144.0	-137.6	-142.5	1.33	1.16	-17.68
9,700.0	2.26	280.05	9,692.2	144.2	-138.6	-142.7	0.13	0.04	3.24
9,725.0	2.38	277.11	9,717.2	144.4	-139.6	-142.8	0.68	0.48	-11.76
9,750.0	2.49	273.95	9,742.1	144.5	-140.6	-142.9	0.69	0.44	-12.64
9,775.0	2.50	273.16	9,767.1	144.5	-141.7	-142.9	0.14	0.04	-3.16
9,800.0	2.54	270.10	9,792.1	144.6	-142.8	-143.0	0.56	0.16	-12.24
9,825.0	2.62	270.83	9,817.1	144.6	-144.0	-143.0	0.35	0.32	2.92
9,850.0	2.67	270.88	9,842.0	144.6	-145.1	-143.0	0.20	0.20	0.20
9,875.0	2.71	270.33	9,867.0	144.6	-146.3	-143.0	0.19	0.16	-2.20
9,900.0	2.76	270.38	9,892.0	144.6	-147.5	-143.0	0.20	0.20	0.20
9,925.0	2.77	269.04	9,916.9	144.6	-148.7	-142.9	0.26	0.04	-5.36
9,950.0	2.76	268.64	9,941.9	144.6	-149.9	-142.9	0.09	-0.04	-1.60

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
9,975.0	2.71	264.48	9,966.9	144.5	-151.1	-142.8	0.82	-0.20	-16.64
10,000.0	2.47	258.45	9,991.9	144.3	-152.2	-142.6	1.45	-0.96	-24.12
10,025.0	2.57	255.41	10,016.8	144.1	-153.3	-142.4	0.67	0.40	-12.16
10,050.0	2.48	253.27	10,041.8	143.8	-154.3	-142.1	0.52	-0.36	-8.56
10,075.0	2.54	250.53	10,066.8	143.4	-155.4	-141.7	0.54	0.24	-10.96
10,100.0	2.56	248.77	10,091.8	143.1	-156.4	-141.3	0.32	0.08	-7.04
10,125.0	2.65	247.94	10,116.7	142.6	-157.5	-140.9	0.39	0.36	-3.32
10,150.0	2.62	248.02	10,141.7	142.2	-158.5	-140.4	0.12	-0.12	0.32
10,175.0	2.60	247.31	10,166.7	141.8	-159.6	-140.0	0.15	-0.08	-2.84
10,200.0	2.73	244.91	10,191.7	141.3	-160.6	-139.5	0.69	0.52	-9.60
10,225.0	2.76	241.44	10,216.6	140.8	-161.7	-139.0	0.68	0.12	-13.88
10,250.0	2.90	237.62	10,241.6	140.1	-162.8	-138.3	0.94	0.56	-15.28
10,275.0	3.03	234.62	10,266.6	139.4	-163.8	-137.6	0.81	0.52	-12.00
10,300.0	3.16	234.19	10,291.5	138.6	-164.9	-136.8	0.53	0.52	-1.72
10,325.0	3.43	233.61	10,316.5	137.8	-166.1	-135.9	1.09	1.08	-2.32
10,350.0	3.61	233.97	10,341.4	136.9	-167.3	-135.0	0.73	0.72	1.44
10,375.0	3.73	232.84	10,366.4	135.9	-168.6	-134.1	0.56	0.48	-4.52
10,400.0	3.67	232.99	10,391.3	135.0	-169.9	-133.1	0.24	-0.24	0.60
10,425.0	3.77	233.47	10,416.3	134.0	-171.2	-132.1	0.42	0.40	1.92
10,450.0	3.83	235.05	10,441.2	133.0	-172.6	-131.1	0.48	0.24	6.32
10,475.0	4.11	233.33	10,466.2	132.0	-174.0	-130.1	1.22	1.12	-6.88
10,500.0	4.12	231.91	10,491.1	130.9	-175.4	-129.0	0.41	0.04	-5.68
10,525.0	3.99	233.77	10,516.0	129.8	-176.8	-127.9	0.74	-0.52	7.44
10,550.0	4.09	233.73	10,541.0	128.8	-178.2	-126.8	0.40	0.40	-0.16
10,575.0	4.13	233.15	10,565.9	127.7	-179.7	-125.7	0.23	0.16	-2.32
10,600.0	4.14	232.84	10,590.9	126.7	-181.1	-124.6	0.10	0.04	-1.24
10,625.0	4.01	237.30	10,615.8	125.6	-182.5	-123.6	1.37	-0.52	17.84
10,650.0	3.99	243.13	10,640.7	124.8	-184.1	-122.7	1.63	-0.08	23.32
10,675.0	4.33	264.94	10,665.7	124.3	-185.8	-122.2	6.43	1.36	87.24
10,700.0	4.77	274.21	10,690.6	124.3	-187.7	-122.2	3.42	1.76	37.08
10,725.0	4.89	277.84	10,715.5	124.5	-189.8	-122.4	1.31	0.48	14.52
10,750.0	4.85	277.96	10,740.4	124.8	-191.9	-122.7	0.17	-0.16	0.48
10,775.0	4.50	280.50	10,765.3	125.1	-194.0	-123.0	1.63	-1.40	10.16
10,800.0	3.65	280.31	10,790.3	125.4	-195.7	-123.3	3.40	-3.40	-0.76
10,825.0	2.61	282.82	10,815.2	125.7	-197.0	-123.5	4.19	-4.16	10.04
10,850.0	1.53	305.81	10,840.2	126.0	-197.9	-123.8	5.37	-4.32	91.96
10,875.0	0.68	327.99	10,865.2	126.4	-198.2	-124.2	3.74	-3.40	88.72
10,900.0	0.25	30.77	10,890.2	126.5	-198.3	-124.3	2.43	-1.72	251.12
10,925.0	0.56	89.48	10,915.2	126.6	-198.1	-124.4	1.92	1.24	234.84
10,950.0	0.80	93.82	10,940.2	126.6	-197.8	-124.4	0.98	0.96	17.36
10,975.0	0.83	97.07	10,965.2	126.5	-197.5	-124.3	0.22	0.12	13.00
11,000.0	0.89	101.05	10,990.2	126.5	-197.1	-124.3	0.34	0.24	15.92
11,025.0	1.44	88.03	11,015.2	126.4	-196.6	-124.3	2.43	2.20	-52.08

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
11,050.0	1.82	93.85	11,040.2	126.4	-195.9	-124.3	1.66	1.52	23.28
11,075.0	2.12	96.29	11,065.2	126.4	-195.0	-124.2	1.25	1.20	9.76
11,100.0	2.49	96.18	11,090.1	126.2	-194.0	-124.1	1.48	1.48	-0.44
11,125.0	2.53	96.50	11,115.1	126.1	-192.9	-124.0	0.17	0.16	1.28
11,150.0	2.48	96.42	11,140.1	126.0	-191.9	-123.9	0.20	-0.20	-0.32
11,175.0	2.63	98.22	11,165.1	125.9	-190.7	-123.7	0.68	0.60	7.20
11,200.0	2.53	101.82	11,190.0	125.7	-189.6	-123.6	0.76	-0.40	14.40
11,225.0	2.33	102.76	11,215.0	125.4	-188.6	-123.3	0.82	-0.80	3.76
11,250.0	2.09	110.48	11,240.0	125.2	-187.7	-123.1	1.53	-0.96	30.88
11,275.0	1.84	121.41	11,265.0	124.8	-186.9	-122.7	1.80	-1.00	43.72
11,300.0	1.80	134.75	11,290.0	124.3	-186.3	-122.2	1.70	-0.16	53.36
11,325.0	1.85	141.80	11,315.0	123.7	-185.8	-121.7	0.92	0.20	28.20
11,350.0	2.02	157.15	11,340.0	123.0	-185.3	-120.9	2.17	0.68	61.40
11,375.0	2.23	166.66	11,364.9	122.1	-185.1	-120.1	1.64	0.84	38.04
11,400.0	2.32	171.73	11,389.9	121.1	-184.9	-119.1	0.88	0.36	20.28
11,425.0	2.51	176.04	11,414.9	120.1	-184.8	-118.0	1.05	0.76	17.24
11,450.0	2.66	175.01	11,439.9	119.0	-184.7	-116.9	0.63	0.60	-4.12
11,475.0	2.87	172.87	11,464.8	117.8	-184.5	-115.7	0.94	0.84	-8.56
11,500.0	2.93	171.96	11,489.8	116.5	-184.4	-114.5	0.30	0.24	-3.64
11,525.0	3.17	172.46	11,514.8	115.2	-184.2	-113.2	0.97	0.96	2.00
11,550.0	3.48	174.37	11,539.7	113.8	-184.0	-111.7	1.32	1.24	7.64
11,575.0	3.66	175.62	11,564.7	112.2	-183.9	-110.2	0.78	0.72	5.00
11,600.0	3.79	178.47	11,589.6	110.6	-183.8	-108.5	0.90	0.52	11.40
11,625.0	4.14	172.75	11,614.6	108.9	-183.7	-106.8	2.11	1.40	-22.88
11,650.0	3.96	185.40	11,639.5	107.1	-183.6	-105.1	3.64	-0.72	50.60
11,675.0	3.72	190.08	11,664.5	105.5	-183.9	-103.4	1.58	-0.96	18.72
11,700.0	3.54	190.73	11,689.4	103.9	-184.2	-101.9	0.74	-0.72	2.60
11,725.0	3.25	188.18	11,714.4	102.4	-184.4	-100.4	1.31	-1.16	-10.20
11,750.0	3.04	185.94	11,739.3	101.1	-184.6	-99.0	0.97	-0.84	-8.96
11,775.0	3.08	189.17	11,764.3	99.8	-184.7	-97.7	0.71	0.16	12.92
11,800.0	3.07	195.12	11,789.2	98.4	-185.0	-96.4	1.28	-0.04	23.80
11,825.0	3.14	199.24	11,814.2	97.2	-185.4	-95.1	0.94	0.28	16.48
11,850.0	3.09	202.91	11,839.2	95.9	-185.9	-93.8	0.82	-0.20	14.68
11,875.0	2.94	204.70	11,864.1	94.7	-186.4	-92.6	0.71	-0.60	7.16
11,900.0	3.08	203.30	11,889.1	93.5	-187.0	-91.4	0.63	0.56	-5.60
11,903.0	3.00	204.11	11,892.1	93.3	-187.0	-91.3	3.03	-2.67	27.00
12,070.0	1.75	174.41	12,059.0	86.8	-188.6	-84.7	1.03	-0.75	-17.78
12,102.0	1.74	169.54	12,090.9	85.8	-188.4	-83.8	0.46	-0.03	-15.22
12,197.0	2.40	167.51	12,185.9	82.5	-187.8	-80.4	0.70	0.69	-2.14
12,291.0	2.45	171.73	12,279.8	78.6	-187.0	-76.5	0.20	0.05	4.49
12,323.0	2.28	173.89	12,311.8	77.3	-186.9	-75.2	0.60	-0.53	6.75
12,354.0	2.66	181.88	12,342.7	75.9	-186.8	-73.9	1.65	1.23	25.77

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
12,386.0	3.34	188.95	12,374.7	74.3	-187.0	-72.2	2.42	2.13	22.09
12,408.0	4.14	185.78	12,396.7	72.8	-187.2	-70.8	3.75	3.64	-14.41
12,440.0	5.81	178.02	12,428.5	70.1	-187.2	-68.0	5.61	5.22	-24.25
12,471.0	9.27	167.13	12,459.3	66.1	-186.6	-64.0	12.03	11.16	-35.13
12,503.0	13.27	169.32	12,490.6	60.0	-185.4	-57.9	12.57	12.50	6.84
12,534.0	18.43	174.62	12,520.4	51.6	-184.3	-49.5	17.27	16.65	17.10
12,566.0	21.23	177.57	12,550.5	40.7	-183.5	-38.7	9.29	8.75	9.22
12,598.0	20.96	181.12	12,580.4	29.2	-183.4	-27.2	4.08	-0.84	11.09
12,629.0	24.92	178.36	12,608.9	17.2	-183.3	-15.1	13.23	12.77	-8.90
12,661.0	28.65	177.50	12,637.5	2.7	-182.8	-0.7	11.72	11.66	-2.69
12,694.0	33.07	176.29	12,665.8	-14.2	-181.9	16.2	13.52	13.39	-3.67
12,725.0	37.94	176.01	12,691.1	-32.1	-180.7	34.1	15.72	15.71	-0.90
12,756.0	47.66	175.61	12,713.8	-53.1	-179.1	55.1	31.37	31.35	-1.29
12,788.0	58.12	176.35	12,733.1	-78.5	-177.3	80.5	32.74	32.69	2.31
12,827.0	70.11	179.61	12,750.1	-113.5	-176.2	115.4	31.64	30.74	8.36
12,859.0	75.83	180.49	12,759.4	-144.1	-176.2	146.0	18.07	17.88	2.75
12,890.0	80.65	180.45	12,765.7	-174.4	-176.4	176.4	15.55	15.55	-0.13
12,953.0	86.45	181.05	12,772.8	-237.0	-177.3	238.9	9.25	9.21	0.95
13,047.0	86.47	180.93	12,778.6	-330.8	-178.9	332.8	0.13	0.02	-0.13
13,142.0	89.83	178.71	12,781.7	-425.7	-178.6	427.7	4.24	3.54	-2.34
13,237.0	92.13	180.33	12,780.1	-520.7	-177.8	522.6	2.96	2.42	1.71
13,331.0	90.28	178.18	12,778.1	-614.7	-176.6	616.6	3.02	-1.97	-2.29
13,425.0	91.49	179.39	12,776.6	-708.6	-174.6	710.5	1.82	1.29	1.29
13,520.0	91.25	180.69	12,774.4	-803.6	-174.6	805.5	1.39	-0.25	1.37
13,615.0	90.98	182.88	12,772.5	-898.5	-177.6	900.4	2.32	-0.28	2.31
13,709.0	87.80	182.60	12,773.5	-992.4	-182.1	994.4	3.40	-3.38	-0.30
13,803.0	89.50	183.35	12,775.7	-1,086.3	-187.0	1,088.3	1.98	1.81	0.80
13,898.0	88.42	180.92	12,777.5	-1,181.2	-190.5	1,183.2	2.80	-1.14	-2.56
13,993.0	88.77	180.02	12,779.8	-1,276.1	-191.3	1,278.2	1.02	0.37	-0.95
14,088.0	87.27	179.39	12,783.1	-1,371.1	-190.8	1,373.1	1.71	-1.58	-0.66
14,182.0	87.77	179.62	12,787.1	-1,465.0	-190.0	1,467.0	0.59	0.53	0.24
14,276.0	89.95	179.40	12,789.0	-1,559.0	-189.2	1,560.9	2.33	2.32	-0.23
14,371.0	89.80	177.47	12,789.2	-1,653.9	-186.6	1,655.9	2.04	-0.16	-2.03
14,466.0	88.51	174.49	12,790.6	-1,748.7	-179.9	1,750.5	3.42	-1.36	-3.14
14,560.0	88.25	176.59	12,793.3	-1,842.3	-172.6	1,844.1	2.25	-0.28	2.23
14,656.0	89.73	179.12	12,795.0	-1,938.2	-169.0	1,940.0	3.05	1.54	2.64
14,751.0	90.10	178.97	12,795.1	-2,033.2	-167.4	2,034.9	0.42	0.39	-0.16
14,847.0	89.88	178.60	12,795.1	-2,129.2	-165.4	2,130.9	0.45	-0.23	-0.39
14,942.0	89.28	178.73	12,795.8	-2,224.2	-163.2	2,225.8	0.65	-0.63	0.14
15,037.0	89.62	182.14	12,796.7	-2,319.1	-163.9	2,320.8	3.61	0.36	3.59
15,131.0	89.18	182.07	12,797.7	-2,413.1	-167.4	2,414.8	0.47	-0.47	-0.07
15,226.0	89.67	178.15	12,798.7	-2,508.1	-167.5	2,509.8	4.16	0.52	-4.13
15,320.0	89.47	177.57	12,799.4	-2,602.0	-164.0	2,603.6	0.65	-0.21	-0.62

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
15,414.0	89.59	176.33	12,800.1	-2,695.8	-159.0	2,697.4	1.33	0.13	-1.32
15,509.0	89.90	175.63	12,800.6	-2,790.6	-152.4	2,792.1	0.81	0.33	-0.74
15,603.0	89.18	174.59	12,801.3	-2,884.3	-144.4	2,885.7	1.35	-0.77	-1.11
15,698.0	92.32	174.93	12,800.1	-2,978.8	-135.7	2,980.2	3.32	3.31	0.36
15,794.0	92.87	177.82	12,795.7	-3,074.5	-129.6	3,075.8	3.06	0.57	3.01
15,889.0	92.52	179.89	12,791.3	-3,169.4	-127.7	3,170.6	2.21	-0.37	2.18
15,984.0	91.53	179.33	12,787.9	-3,264.4	-127.1	3,265.6	1.20	-1.04	-0.59
16,079.0	90.18	182.63	12,786.5	-3,359.3	-128.7	3,360.5	3.75	-1.42	3.47
16,174.0	90.09	181.33	12,786.3	-3,454.3	-132.0	3,455.5	1.37	-0.09	-1.37
16,269.0	90.42	176.76	12,785.8	-3,549.2	-130.4	3,550.4	4.82	0.35	-4.81
16,364.0	87.33	176.02	12,787.7	-3,644.0	-124.4	3,645.2	3.34	-3.25	-0.78
16,459.0	89.69	184.21	12,790.2	-3,738.9	-124.6	3,740.0	8.97	2.48	8.62
16,553.0	89.45	179.85	12,790.9	-3,832.8	-127.9	3,834.0	4.65	-0.26	-4.64
16,648.0	89.47	181.41	12,791.8	-3,927.8	-129.0	3,929.0	1.64	0.02	1.64
16,742.0	90.54	194.63	12,791.8	-4,020.7	-142.1	4,022.0	14.11	1.14	14.06
16,836.0	89.48	189.48	12,791.8	-4,112.5	-161.7	4,114.1	5.59	-1.13	-5.48
16,932.0	91.27	188.79	12,791.1	-4,207.3	-176.9	4,209.0	2.00	1.86	-0.72
17,026.0	88.10	177.12	12,791.6	-4,301.0	-181.8	4,302.8	12.86	-3.37	-12.41
17,121.0	90.12	175.85	12,793.1	-4,395.8	-176.0	4,397.5	2.51	2.13	-1.34
17,216.0	87.28	171.34	12,795.3	-4,490.2	-165.4	4,491.7	5.61	-2.99	-4.75
17,310.0	90.26	176.00	12,797.3	-4,583.5	-155.0	4,585.0	5.88	3.17	4.96
17,405.0	89.45	174.12	12,797.5	-4,678.2	-146.8	4,679.5	2.15	-0.85	-1.98
17,499.0	90.52	174.00	12,797.6	-4,771.7	-137.1	4,772.9	1.15	1.14	-0.13
17,594.0	92.46	175.83	12,795.1	-4,866.3	-128.7	4,867.4	2.81	2.04	1.93
17,689.0	86.64	172.48	12,795.8	-4,960.7	-119.0	4,961.7	7.07	-6.13	-3.53
17,784.0	85.89	174.87	12,802.0	-5,054.9	-108.6	5,055.8	2.63	-0.79	2.52
17,879.0	85.25	175.25	12,809.4	-5,149.3	-100.4	5,150.1	0.78	-0.67	0.40
17,973.0	91.44	182.61	12,812.1	-5,243.1	-98.7	5,243.9	10.23	6.59	7.83
18,068.0	90.76	180.91	12,810.3	-5,338.1	-101.6	5,338.9	1.93	-0.72	-1.79
18,162.0	88.69	175.65	12,810.7	-5,432.0	-98.8	5,432.7	6.01	-2.20	-5.60
18,257.0	88.07	177.40	12,813.4	-5,526.8	-93.0	5,527.5	1.95	-0.65	1.84
18,352.0	91.11	180.76	12,814.1	-5,621.7	-91.5	5,622.4	4.77	3.20	3.54
18,446.0	93.58	179.58	12,810.2	-5,715.6	-91.8	5,716.3	2.91	2.63	-1.26
18,541.0	92.48	179.04	12,805.2	-5,810.5	-90.6	5,811.1	1.29	-1.16	-0.57
18,636.0	92.01	180.91	12,801.5	-5,905.4	-90.6	5,906.1	2.03	-0.49	1.97
18,730.0	91.22	180.58	12,798.8	-5,999.4	-91.8	6,000.0	0.91	-0.84	-0.35
18,825.0	88.37	183.04	12,799.2	-6,094.3	-94.8	6,095.0	3.96	-3.00	2.59
18,920.0	89.87	188.35	12,800.6	-6,188.8	-104.2	6,189.6	5.81	1.58	5.59
19,015.0	88.41	185.27	12,802.1	-6,283.1	-115.5	6,284.0	3.59	-1.54	-3.24
19,109.0	88.95	181.81	12,804.2	-6,376.9	-121.3	6,377.8	3.72	0.57	-3.68
19,204.0	88.85	182.46	12,806.1	-6,471.8	-124.8	6,472.8	0.69	-0.11	0.68
19,299.0	89.97	183.74	12,807.0	-6,566.6	-130.0	6,567.7	1.79	1.18	1.35

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
19,394.0	90.06	182.08	12,807.0	-6,661.5	-134.8	6,662.6	1.75	0.09	-1.75
19,488.0	90.93	180.30	12,806.2	-6,755.5	-136.7	6,756.6	2.11	0.93	-1.89
19,584.0	89.99	179.43	12,805.4	-6,851.5	-136.5	6,852.6	1.33	-0.98	-0.91
19,678.0	88.64	180.70	12,806.5	-6,945.5	-136.6	6,946.6	1.97	-1.44	1.35
19,773.0	86.58	176.80	12,810.5	-7,040.3	-134.6	7,041.4	4.64	-2.17	-4.11
19,867.0	89.25	176.87	12,813.9	-7,134.1	-129.4	7,135.1	2.84	2.84	0.07
19,962.0	91.43	177.26	12,813.4	-7,229.0	-124.5	7,229.9	2.33	2.29	0.41
20,057.0	92.63	178.09	12,810.0	-7,323.9	-120.7	7,324.7	1.54	1.26	0.87
20,151.0	92.05	177.40	12,806.2	-7,417.7	-117.0	7,418.5	0.96	-0.62	-0.73
20,245.0	92.27	178.45	12,802.6	-7,511.6	-113.6	7,512.4	1.14	0.23	1.12
20,340.0	88.55	178.88	12,801.9	-7,606.5	-111.3	7,607.3	3.94	-3.92	0.45
20,435.0	88.54	178.98	12,804.4	-7,701.5	-109.6	7,702.2	0.11	-0.01	0.11
20,530.0	88.45	179.25	12,806.8	-7,796.4	-108.1	7,797.2	0.30	-0.09	0.28
20,625.0	89.08	179.58	12,808.9	-7,891.4	-107.1	7,892.1	0.75	0.66	0.35
20,720.0	91.43	180.17	12,808.5	-7,986.4	-106.9	7,987.1	2.55	2.47	0.62
20,816.0	90.40	177.96	12,806.9	-8,082.4	-105.4	8,083.0	2.54	-1.07	-2.30
20,910.0	89.32	179.53	12,807.2	-8,176.3	-103.3	8,177.0	2.03	-1.15	1.67
21,005.0	90.06	180.25	12,807.7	-8,271.3	-103.1	8,272.0	1.09	0.78	0.76
21,098.0	90.11	178.73	12,807.5	-8,364.3	-102.3	8,365.0	1.64	0.05	-1.63
21,194.0	90.91	178.26	12,806.7	-8,460.3	-99.8	8,460.9	0.97	0.83	-0.49
21,288.0	89.77	179.81	12,806.1	-8,554.3	-98.2	8,554.8	2.05	-1.21	1.65
21,383.0	88.86	181.79	12,807.3	-8,649.3	-99.5	8,649.8	2.29	-0.96	2.08
21,477.0	90.26	183.78	12,808.0	-8,743.1	-104.1	8,743.8	2.59	1.49	2.12
21,572.0	89.55	184.96	12,808.1	-8,837.9	-111.3	8,838.5	1.45	-0.75	1.24
21,667.0	87.61	183.44	12,810.5	-8,932.6	-118.3	8,933.3	2.59	-2.04	-1.60
21,761.0	88.12	180.33	12,814.0	-9,026.4	-121.4	9,027.2	3.35	0.54	-3.31
21,856.0	88.88	179.88	12,816.5	-9,121.4	-121.5	9,122.2	0.93	0.80	-0.47
21,951.0	89.29	176.62	12,818.0	-9,216.3	-118.6	9,217.1	3.46	0.43	-3.43
22,046.0	87.87	174.68	12,820.4	-9,311.0	-111.4	9,311.7	2.53	-1.49	-2.04
22,140.0	90.95	175.09	12,821.3	-9,404.6	-103.1	9,405.2	3.31	3.28	0.44
22,235.0	90.71	174.26	12,820.0	-9,499.2	-94.2	9,499.7	0.91	-0.25	-0.87
22,329.0	89.30	173.49	12,819.9	-9,592.7	-84.2	9,593.0	1.71	-1.50	-0.82
22,424.0	92.19	176.56	12,818.7	-9,687.3	-76.0	9,687.5	4.44	3.04	3.23
22,519.0	92.52	176.23	12,814.8	-9,782.0	-70.0	9,782.2	0.49	0.35	-0.35
22,613.0	95.29	177.98	12,808.4	-9,875.7	-65.3	9,875.8	3.48	2.95	1.86
22,707.0	95.20	178.08	12,799.8	-9,969.2	-62.1	9,969.3	0.14	-0.10	0.11
22,802.0	94.54	178.05	12,791.7	-10,063.8	-58.9	10,063.9	0.70	-0.69	-0.03
22,896.0	93.75	178.18	12,785.0	-10,157.5	-55.8	10,157.5	0.85	-0.84	0.14
22,939.0	94.47	178.34	12,781.9	-10,200.4	-54.5	10,200.4	1.72	1.67	0.37
LAST GORDON MWD @ 22939'MD									
22,951.0	94.47	178.34	12,780.9	-10,212.3	-54.1	10,212.3	0.00	0.00	0.00
LTP: 22951' MD									
22,998.0	94.47	178.34	12,777.3	-10,259.2	-52.8	10,259.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FED COM 705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=26' @ 3359.0usft (McVAY 8)
Well:	GUNNER 8 FED COM 705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWP	Database:	edm

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)
PTD @ 22998'MD									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
22,939.0	12,781.9	-10,200.4	-54.5	LAST GORDON MWD @ 22939'MD	
22,951.0	12,780.9	-10,212.3	-54.1	LTP: 22951' MD	
22,998.0	12,777.3	-10,259.2	-52.8	PTD @ 22998'MD	

Checked By: _____ Approved By: _____ Date: _____