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Concho Resources, Inc.

Eddy County (NAD27 NME)

(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E

Littlefield 33 Fed Com #708H

API# 30-015-45165

OWB

Design: AWB

Standard Survey Report

03 February, 2019

INTREPID

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well: Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33 T-26-S R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM.5000.15 Single User.Db

Project:	Eddy County (NAD27 NME)		
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		

Site:	(Littlefield 33 Fed Com) Sec-33 T-26-S R-29-E		
Site Position:		Northing:	364,187.99 usft
From:	Map	Easting:	606,535.56 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 2.883 N
		Longitude:	103° 59' 22.784 W
		Grid Convergence:	0.18 °

Well:	Littlefield 33 Fed Com #708H					
Well Position	+N/-S	0.0 usft	Northing:	364,137.80 usft	Latitude:	32° 0' 2.441 N
	+E/-W	0.0 usft	Easting:	604,790.40 usft	Longitude:	103° 59' 43.052 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,863.5 usft	

Wellbore:	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	09/06/18	7.00	59.77	47,639.22019571

Design:	AWB
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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	357.18

Survey Program		Date	02/03/19	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	9,303.0	SDI Gyro Svys (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
9,472.0	17,085.0	Intrepid MWD Crv/Lat (OWB)	MWD+IFR1+MS	MWD + IFR1 + Multi-Station Correction

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)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	100.0	0.23	313.85	100.0	0.1	-0.1	0.1	0.23	0.23	0.00
	125.0	0.17	325.00	125.0	0.2	-0.2	0.2	0.28	-0.24	44.60
	150.0	0.18	20.95	150.0	0.3	-0.2	0.3	0.66	0.04	223.80
	175.0	0.31	108.88	175.0	0.3	-0.1	0.3	1.41	0.52	351.72
	200.0	0.65	118.73	200.0	0.2	0.1	0.2	1.39	1.36	39.40
	225.0	1.04	119.72	225.0	0.0	0.4	0.0	1.56	1.56	3.96
	250.0	1.28	120.67	250.0	-0.2	0.8	-0.3	0.96	0.96	3.80
	275.0	1.49	124.00	275.0	-0.6	1.3	-0.6	0.90	0.84	13.32
	300.0	1.83	124.07	300.0	-1.0	1.9	-1.1	1.36	1.36	0.28

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Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
325.0	2.01	124.75	325.0	-1.4	2.6	-1.6	0.73	0.72	2.72
350.0	2.04	126.11	349.9	-2.0	3.3	-2.1	0.23	0.12	5.44
375.0	2.08	127.06	374.9	-2.5	4.1	-2.7	0.21	0.16	3.80
400.0	2.09	127.42	399.9	-3.0	4.8	-3.3	0.07	0.04	1.44
425.0	2.05	124.39	424.9	-3.6	5.5	-3.8	0.47	-0.16	-12.12
450.0	2.12	124.69	449.9	-4.1	6.3	-4.4	0.28	0.28	1.20
475.0	1.91	119.59	474.9	-4.6	7.0	-4.9	1.10	-0.84	-20.40
500.0	1.92	130.03	499.8	-5.0	7.7	-5.4	1.39	0.04	41.76
525.0	1.76	128.88	524.8	-5.5	8.3	-5.9	0.66	-0.64	-4.60
550.0	1.71	131.14	549.8	-6.0	8.9	-6.5	0.34	-0.20	9.04
575.0	1.64	140.17	574.8	-6.5	9.4	-7.0	1.09	-0.28	36.12
600.0	1.64	141.13	599.8	-7.1	9.9	-7.6	0.11	0.00	3.84
625.0	1.60	142.31	624.8	-7.7	10.3	-8.2	0.21	-0.16	4.72
650.0	1.69	142.06	649.8	-8.2	10.7	-8.7	0.36	0.36	-1.00
675.0	1.54	149.43	674.8	-8.8	11.1	-9.3	1.02	-0.60	29.48
700.0	1.56	156.89	699.8	-9.4	11.4	-10.0	0.81	0.08	29.84
725.0	1.44	174.05	724.8	-10.0	11.6	-10.6	1.85	-0.48	68.64
750.0	1.33	196.21	749.7	-10.6	11.5	-11.2	2.17	-0.44	88.64
775.0	1.42	211.44	774.7	-11.2	11.3	-11.7	1.50	0.36	60.92
800.0	1.41	223.67	799.7	-11.7	10.9	-12.2	1.21	-0.04	48.92
825.0	1.40	230.59	824.7	-12.1	10.5	-12.6	0.68	-0.04	27.68
850.0	1.23	250.68	849.7	-12.3	10.0	-12.8	1.95	-0.68	80.36
875.0	1.49	284.83	874.7	-12.4	9.4	-12.8	3.35	1.04	136.60
900.0	2.11	299.66	899.7	-12.0	8.7	-12.5	3.08	2.48	59.32
925.0	2.25	297.93	924.7	-11.6	7.9	-12.0	0.62	0.56	-6.92
950.0	2.28	294.45	949.7	-11.2	7.0	-11.5	0.56	0.12	-13.92
975.0	2.26	287.94	974.6	-10.8	6.1	-11.1	1.03	-0.08	-26.04
1,000.0	2.26	286.81	999.6	-10.5	5.1	-10.7	0.18	0.00	-4.52
1,025.0	2.28	285.70	1,024.6	-10.2	4.2	-10.4	0.19	0.08	-4.44
1,050.0	2.29	288.62	1,049.6	-9.9	3.2	-10.1	0.47	0.04	11.68
1,075.0	2.27	286.64	1,074.6	-9.6	2.3	-9.7	0.33	-0.08	-7.92
1,100.0	2.35	287.86	1,099.5	-9.3	1.3	-9.4	0.38	0.32	4.88
1,125.0	2.33	288.15	1,124.5	-9.0	0.3	-9.0	0.09	-0.08	1.16
1,150.0	2.29	286.93	1,149.5	-8.7	-0.6	-8.7	0.25	-0.16	-4.88
1,175.0	2.37	289.97	1,174.5	-8.4	-1.6	-8.3	0.59	0.32	12.16
1,200.0	2.20	290.34	1,199.5	-8.0	-2.5	-7.9	0.68	-0.68	1.48
1,225.0	2.14	291.48	1,224.4	-7.7	-3.4	-7.5	0.30	-0.24	4.56
1,250.0	2.11	288.53	1,249.4	-7.4	-4.3	-7.2	0.45	-0.12	-11.80
1,275.0	2.25	290.35	1,274.4	-7.1	-5.2	-6.8	0.62	0.56	7.28
1,300.0	2.26	290.11	1,299.4	-6.7	-6.1	-6.4	0.06	0.04	-0.96
1,325.0	2.28	289.87	1,324.4	-6.4	-7.0	-6.0	0.09	0.08	-0.96
1,350.0	2.30	289.64	1,349.4	-6.1	-8.0	-5.7	0.09	0.08	-0.92
1,375.0	2.32	289.42	1,374.3	-5.7	-8.9	-5.3	0.09	0.08	-0.88

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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)
1,400.0	2.34	289.19	1,399.3	-5.4	-9.9	-4.9	0.09	0.08	-0.92
1,425.0	2.36	288.97	1,424.3	-5.0	-10.8	-4.5	0.09	0.08	-0.88
1,450.0	2.60	285.90	1,449.3	-4.7	-11.9	-4.1	1.10	0.96	-12.28
1,475.0	2.66	282.96	1,474.2	-4.4	-13.0	-3.8	0.59	0.24	-11.76
1,500.0	2.77	282.90	1,499.2	-4.2	-14.1	-3.5	0.44	0.44	-0.24
1,525.0	3.22	274.99	1,524.2	-4.0	-15.4	-3.2	2.44	1.80	-31.64
1,550.0	3.53	270.98	1,549.1	-3.9	-16.9	-3.1	1.56	1.24	-16.04
1,575.0	3.63	270.52	1,574.1	-3.9	-18.5	-3.0	0.42	0.40	-1.84
1,600.0	3.73	266.60	1,599.0	-3.9	-20.1	-2.9	1.08	0.40	-15.68
1,625.0	4.05	264.23	1,624.0	-4.1	-21.7	-3.0	1.43	1.28	-9.48
1,650.0	4.31	256.85	1,648.9	-4.4	-23.5	-3.2	2.39	1.04	-29.52
1,675.0	4.33	256.67	1,673.8	-4.8	-25.4	-3.5	0.10	0.08	-0.72
1,700.0	4.35	255.53	1,698.8	-5.2	-27.2	-3.9	0.35	0.08	-4.56
1,725.0	4.30	256.17	1,723.7	-5.7	-29.0	-4.3	0.28	-0.20	2.56
1,750.0	4.12	256.10	1,748.6	-6.2	-30.8	-4.6	0.72	-0.72	-0.28
1,775.0	4.04	255.42	1,773.6	-6.6	-32.5	-5.0	0.37	-0.32	-2.72
1,800.0	4.00	255.93	1,798.5	-7.0	-34.2	-5.3	0.21	-0.16	2.04
1,825.0	4.01	255.35	1,823.4	-7.5	-35.9	-5.7	0.17	0.04	-2.32
1,850.0	4.06	254.39	1,848.4	-7.9	-37.6	-6.1	0.34	0.20	-3.84
1,875.0	4.13	252.91	1,873.3	-8.4	-39.3	-6.5	0.51	0.28	-5.92
1,900.0	4.54	252.64	1,898.2	-9.0	-41.1	-6.9	1.64	1.64	-1.08
1,925.0	5.17	252.24	1,923.2	-9.6	-43.2	-7.5	2.52	2.52	-1.60
1,950.0	5.18	252.78	1,948.1	-10.3	-45.3	-8.1	0.20	0.04	2.16
1,975.0	5.22	251.72	1,972.9	-11.0	-47.5	-8.6	0.42	0.16	-4.24
2,000.0	5.21	253.37	1,997.8	-11.7	-49.6	-9.2	0.60	-0.04	6.60
2,025.0	4.84	251.14	2,022.7	-12.3	-51.7	-9.8	1.67	-1.48	-8.92
2,050.0	4.08	248.45	2,047.7	-13.0	-53.6	-10.3	3.15	-3.04	-10.76
2,075.0	3.68	246.20	2,072.6	-13.6	-55.1	-10.9	1.71	-1.60	-9.00
2,100.0	3.59	246.73	2,097.6	-14.3	-56.6	-11.5	0.38	-0.36	2.12
2,125.0	3.21	243.44	2,122.5	-14.9	-57.9	-12.0	1.71	-1.52	-13.16
2,150.0	3.18	243.86	2,147.5	-15.5	-59.2	-12.6	0.15	-0.12	1.68
2,175.0	3.20	243.42	2,172.4	-16.1	-60.4	-13.1	0.13	0.08	-1.76
2,200.0	3.21	244.69	2,197.4	-16.8	-61.7	-13.7	0.29	0.04	5.08
2,225.0	3.39	264.51	2,222.4	-17.1	-63.0	-14.0	4.60	0.72	79.28
2,250.0	4.11	275.76	2,247.3	-17.1	-64.7	-13.9	4.10	2.88	45.00
2,275.0	4.30	274.32	2,272.2	-16.9	-66.5	-13.7	0.87	0.76	-5.76
2,300.0	4.39	273.25	2,297.2	-16.8	-68.4	-13.4	0.48	0.36	-4.28
2,325.0	4.32	275.43	2,322.1	-16.7	-70.3	-13.2	0.72	-0.28	8.72
2,350.0	4.31	275.38	2,347.0	-16.5	-72.1	-12.9	0.04	-0.04	-0.20
2,375.0	4.10	276.21	2,372.0	-16.3	-74.0	-12.7	0.87	-0.84	3.32
2,400.0	3.98	273.22	2,396.9	-16.2	-75.7	-12.4	0.97	-0.48	-11.96
2,425.0	3.94	271.02	2,421.8	-16.1	-77.4	-12.3	0.63	-0.16	-8.80
2,450.0	3.88	267.32	2,446.8	-16.1	-79.1	-12.2	1.04	-0.24	-14.80

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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)
2,475.0	3.88	262.83	2,471.7	-16.3	-80.8	-12.3	1.21	0.00	-17.96
2,500.0	4.23	259.00	2,496.7	-16.6	-82.6	-12.5	1.77	1.40	-15.32
2,525.0	4.29	257.66	2,521.6	-16.9	-84.4	-12.8	0.46	0.24	-5.36
2,550.0	4.37	256.74	2,546.5	-17.3	-86.2	-13.1	0.42	0.32	-3.68
2,575.0	4.47	252.12	2,571.4	-17.9	-88.1	-13.5	1.48	0.40	-18.48
2,600.0	4.43	250.68	2,596.4	-18.5	-89.9	-14.0	0.47	-0.16	-5.76
2,625.0	4.25	250.04	2,621.3	-19.1	-91.7	-14.6	0.75	-0.72	-2.56
2,650.0	4.21	249.20	2,646.2	-19.8	-93.4	-15.1	0.29	-0.16	-3.36
2,675.0	4.12	248.17	2,671.2	-20.4	-95.1	-15.7	0.47	-0.36	-4.12
2,700.0	4.10	248.03	2,696.1	-21.1	-96.8	-16.3	0.09	-0.08	-0.56
2,725.0	4.09	248.96	2,721.0	-21.7	-98.5	-16.9	0.27	-0.04	3.72
2,750.0	4.09	248.46	2,746.0	-22.4	-100.1	-17.4	0.14	0.00	-2.00
2,775.0	4.48	248.38	2,770.9	-23.1	-101.8	-18.0	1.56	1.56	-0.32
2,800.0	5.34	248.50	2,795.8	-23.9	-103.8	-18.7	3.44	3.44	0.48
2,825.0	5.56	246.66	2,820.7	-24.8	-106.0	-19.5	1.12	0.88	-7.36
2,850.0	5.49	246.87	2,845.6	-25.7	-108.2	-20.4	0.29	-0.28	0.84
2,875.0	5.56	246.34	2,870.5	-26.7	-110.5	-21.2	0.35	0.28	-2.12
2,900.0	5.58	247.25	2,895.3	-27.6	-112.7	-22.1	0.36	0.08	3.64
2,925.0	5.68	247.10	2,920.2	-28.6	-114.9	-22.9	0.40	0.40	-0.60
2,950.0	5.67	246.34	2,945.1	-29.6	-117.2	-23.8	0.30	-0.04	-3.04
2,975.0	5.59	247.29	2,970.0	-30.5	-119.5	-24.6	0.49	-0.32	3.80
3,000.0	5.63	247.47	2,994.9	-31.5	-121.7	-25.4	0.17	0.16	0.72
3,025.0	5.64	248.05	3,019.7	-32.4	-124.0	-26.3	0.23	0.04	2.32
3,050.0	5.85	248.82	3,044.6	-33.3	-126.3	-27.1	0.89	0.84	3.08
3,075.0	6.25	253.25	3,069.5	-34.2	-128.8	-27.8	2.46	1.60	17.72
3,100.0	6.45	254.22	3,094.3	-34.9	-131.5	-28.4	0.91	0.80	3.88
3,125.0	6.50	254.34	3,119.2	-35.7	-134.2	-29.1	0.21	0.20	0.48
3,150.0	6.48	255.53	3,144.0	-36.4	-136.9	-29.7	0.54	-0.08	4.76
3,175.0	6.50	255.57	3,168.8	-37.1	-139.7	-30.2	0.08	0.08	0.16
3,200.0	6.40	256.77	3,193.7	-37.8	-142.4	-30.8	0.67	-0.40	4.80
3,225.0	6.44	255.01	3,218.5	-38.5	-145.1	-31.3	0.80	0.16	-7.04
3,250.0	6.30	254.89	3,243.4	-39.2	-147.8	-31.9	0.56	-0.56	-0.48
3,275.0	6.08	256.22	3,268.2	-39.9	-150.4	-32.4	1.05	-0.88	5.32
3,300.0	6.12	255.79	3,293.1	-40.5	-153.0	-33.0	0.24	0.16	-1.72
3,325.0	6.09	254.62	3,317.9	-41.2	-155.5	-33.5	0.51	-0.12	-4.68
3,350.0	5.96	254.00	3,342.8	-41.9	-158.1	-34.1	0.58	-0.52	-2.48
3,375.0	6.07	255.29	3,367.7	-42.6	-160.6	-34.7	0.70	0.44	5.16
3,400.0	6.14	255.25	3,392.5	-43.3	-163.1	-35.2	0.28	0.28	-0.16
3,425.0	6.03	256.61	3,417.4	-43.9	-165.7	-35.7	0.73	-0.44	5.44
3,450.0	6.73	263.92	3,442.2	-44.4	-168.5	-36.1	4.28	2.80	29.24
3,475.0	7.18	266.20	3,467.1	-44.7	-171.5	-36.2	2.11	1.80	9.12
3,500.0	7.30	266.54	3,491.9	-44.9	-174.6	-36.2	0.51	0.48	1.36
3,525.0	7.30	267.76	3,516.6	-45.0	-177.8	-36.2	0.62	0.00	4.88
3,550.0	7.31	267.68	3,541.4	-45.1	-181.0	-36.2	0.06	0.04	-0.32

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H.
Project:	Eddy County (NAD27-NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S-R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
3,575.0	7.23	267.35	3,566.2	-45.3	-184.1	-36.2	0.36	-0.32	-1.32
3,600.0	7.08	266.10	3,591.1	-45.5	-187.2	-36.2	0.86	-0.60	-5.00
3,625.0	6.97	264.84	3,615.9	-45.7	-190.3	-36.3	0.76	-0.44	-5.04
3,650.0	6.83	264.87	3,640.7	-46.0	-193.3	-36.4	0.56	-0.56	0.12
3,675.0	6.71	264.32	3,665.5	-46.2	-196.2	-36.5	0.55	-0.48	-2.20
3,700.0	6.58	264.63	3,690.3	-46.5	-199.1	-36.7	0.54	-0.52	1.24
3,725.0	6.59	263.59	3,715.2	-46.8	-201.9	-36.8	0.48	0.04	-4.16
3,750.0	6.52	263.59	3,740.0	-47.1	-204.8	-37.0	0.28	-0.28	0.00
3,775.0	6.37	262.94	3,764.9	-47.5	-207.6	-37.2	0.67	-0.60	-2.60
3,800.0	6.28	262.51	3,789.7	-47.8	-210.3	-37.4	0.41	-0.36	-1.72
3,825.0	6.15	262.82	3,814.6	-48.2	-213.0	-37.6	0.54	-0.52	1.24
3,850.0	6.04	261.54	3,839.4	-48.5	-215.6	-37.9	0.70	-0.44	-5.12
3,875.0	5.89	261.22	3,864.3	-48.9	-218.2	-38.1	0.61	-0.60	-1.28
3,900.0	5.89	261.27	3,889.1	-49.3	-220.7	-38.4	0.02	0.00	0.20
3,925.0	5.83	259.70	3,914.0	-49.7	-223.2	-38.7	0.68	-0.24	-6.28
3,950.0	5.79	261.26	3,938.9	-50.1	-225.7	-39.0	0.65	-0.16	6.24
3,975.0	5.92	259.75	3,963.8	-50.6	-228.2	-39.3	0.81	0.52	-6.04
4,000.0	5.85	259.70	3,988.6	-51.0	-230.8	-39.6	0.28	-0.28	-0.20
4,025.0	5.85	259.85	4,013.5	-51.5	-233.3	-39.9	0.06	0.00	0.60
4,050.0	5.79	259.09	4,038.4	-51.9	-235.8	-40.3	0.39	-0.24	-3.04
4,075.0	5.71	259.14	4,063.2	-52.4	-238.2	-40.6	0.32	-0.32	0.20
4,100.0	5.71	258.32	4,088.1	-52.9	-240.7	-41.0	0.33	0.00	-3.28
4,125.0	5.54	258.17	4,113.0	-53.4	-243.1	-41.4	0.68	-0.68	-0.60
4,150.0	5.47	256.96	4,137.9	-53.9	-245.4	-41.8	0.54	-0.28	-4.84
4,175.0	5.32	256.57	4,162.8	-54.4	-247.7	-42.2	0.62	-0.60	-1.56
4,200.0	5.45	256.19	4,187.7	-55.0	-250.0	-42.6	0.54	0.52	-1.52
4,225.0	5.38	256.25	4,212.5	-55.6	-252.3	-43.1	0.28	-0.28	0.24
4,250.0	5.46	256.89	4,237.4	-56.1	-254.6	-43.5	0.40	0.32	2.56
4,275.0	5.44	255.60	4,262.3	-56.7	-256.9	-44.0	0.50	-0.08	-5.16
4,300.0	6.15	260.14	4,287.2	-57.2	-259.3	-44.4	3.38	2.84	18.16
4,325.0	6.69	260.86	4,312.0	-57.7	-262.1	-44.7	2.18	2.16	2.88
4,350.0	6.67	262.64	4,336.9	-58.1	-265.0	-45.0	0.83	-0.08	7.12
4,375.0	6.71	261.57	4,361.7	-58.5	-267.8	-45.2	0.52	0.16	-4.28
4,400.0	6.60	261.60	4,386.5	-58.9	-270.7	-45.5	0.44	-0.44	0.12
4,425.0	6.54	260.94	4,411.4	-59.3	-273.5	-45.8	0.39	-0.24	-2.64
4,450.0	6.34	260.16	4,436.2	-59.8	-276.3	-46.1	0.87	-0.80	-3.12
4,475.0	6.27	260.07	4,461.1	-60.3	-279.0	-46.5	0.28	-0.28	-0.36
4,500.0	6.14	259.25	4,485.9	-60.7	-281.7	-46.8	0.63	-0.52	-3.28
4,525.0	6.04	260.27	4,510.8	-61.2	-284.3	-47.2	0.59	-0.40	4.08
4,550.0	6.04	258.48	4,535.6	-61.7	-286.9	-47.5	0.75	0.00	-7.16
4,575.0	5.88	258.83	4,560.5	-62.2	-289.4	-47.9	0.66	-0.64	1.40
4,600.0	5.86	257.52	4,585.4	-62.7	-291.9	-48.3	0.54	-0.08	-5.24
4,625.0	5.70	257.75	4,610.2	-63.3	-294.4	-48.7	0.65	-0.64	0.92

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed.Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed.Com) Sec.33 T.26-S.1R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed.Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
4,650.0	5.75	257.62	4,635.1	-63.8	-296.8	-49.1	0.21	0.20	-0.52
4,675.0	5.73	256.24	4,660.0	-64.4	-299.2	-49.6	0.56	-0.08	-5.52
4,700.0	5.64	254.22	4,684.9	-65.0	-301.6	-50.1	0.88	-0.36	-8.08
4,725.0	5.61	255.88	4,709.7	-65.6	-304.0	-50.6	0.66	-0.12	6.64
4,750.0	5.49	253.98	4,734.6	-66.3	-306.3	-51.1	0.88	-0.48	-7.60
4,775.0	5.46	254.45	4,759.5	-66.9	-308.6	-51.7	0.22	-0.12	1.88
4,800.0	5.43	253.15	4,784.4	-67.6	-310.9	-52.2	0.51	-0.12	-5.20
4,825.0	5.29	253.17	4,809.3	-68.3	-313.1	-52.8	0.56	-0.56	0.08
4,850.0	5.43	253.03	4,834.2	-68.9	-315.4	-53.3	0.56	0.56	-0.56
4,875.0	5.44	252.69	4,859.1	-69.6	-317.6	-53.9	0.13	0.04	-1.36
4,900.0	5.46	253.30	4,884.0	-70.3	-319.9	-54.5	0.25	0.08	2.44
4,925.0	5.45	252.87	4,908.8	-71.0	-322.2	-55.1	0.17	-0.04	-1.72
4,950.0	5.39	253.34	4,933.7	-71.7	-324.4	-55.7	0.30	-0.24	1.88
4,975.0	5.34	253.69	4,958.6	-72.4	-326.7	-56.2	0.24	-0.20	1.40
5,000.0	5.32	254.07	4,983.5	-73.0	-328.9	-56.7	0.16	-0.08	1.52
5,025.0	5.19	253.08	5,008.4	-73.7	-331.1	-57.3	0.63	-0.52	-3.96
5,050.0	5.01	252.37	5,033.3	-74.3	-333.2	-57.8	0.76	-0.72	-2.84
5,075.0	5.02	253.01	5,058.2	-75.0	-335.3	-58.4	0.23	0.04	2.56
5,100.0	4.85	251.81	5,083.1	-75.6	-337.4	-58.9	0.80	-0.68	-4.80
5,125.0	4.86	249.97	5,108.0	-76.3	-339.4	-59.5	0.62	0.04	-7.36
5,150.0	4.75	250.01	5,132.9	-77.0	-341.3	-60.1	0.44	-0.44	0.16
5,175.0	4.77	250.82	5,157.9	-77.7	-343.3	-60.7	0.28	0.08	3.24
5,200.0	4.80	250.09	5,182.8	-78.4	-345.3	-61.3	0.27	0.12	-2.92
5,225.0	4.77	248.90	5,207.7	-79.1	-347.2	-62.0	0.41	-0.12	-4.76
5,250.0	4.69	249.92	5,232.6	-79.9	-349.1	-62.6	0.46	-0.32	4.08
5,275.0	4.65	249.67	5,257.5	-80.6	-351.1	-63.2	0.18	-0.16	-1.00
5,300.0	4.44	249.93	5,282.4	-81.3	-352.9	-63.8	0.84	-0.84	1.04
5,325.0	4.43	250.38	5,307.4	-81.9	-354.7	-64.4	0.14	-0.04	1.80
5,350.0	4.14	251.05	5,332.3	-82.5	-356.5	-64.9	1.18	-1.16	2.68
5,375.0	4.26	247.41	5,357.2	-83.2	-358.2	-65.5	1.17	0.48	-14.56
5,400.0	3.83	250.99	5,382.2	-83.8	-359.9	-66.0	1.99	-1.72	14.32
5,425.0	3.76	248.49	5,407.1	-84.4	-361.4	-66.5	0.72	-0.28	-10.00
5,450.0	3.78	248.77	5,432.1	-85.0	-362.9	-67.0	0.11	0.08	1.12
5,475.0	3.79	248.42	5,457.0	-85.6	-364.5	-67.6	0.10	0.04	-1.40
5,500.0	3.68	246.64	5,481.9	-86.2	-366.0	-68.1	0.64	-0.44	-7.12
5,525.0	3.81	245.82	5,506.9	-86.9	-367.5	-68.7	0.56	0.52	-3.28
5,550.0	3.66	246.32	5,531.8	-87.5	-369.0	-69.3	0.61	-0.60	2.00
5,575.0	3.83	245.38	5,556.8	-88.2	-370.5	-69.9	0.72	0.68	-3.76
5,600.0	3.81	243.24	5,581.7	-88.9	-372.0	-70.5	0.58	-0.08	-8.56
5,625.0	3.72	245.05	5,606.7	-89.6	-373.4	-71.2	0.60	-0.36	7.24
5,650.0	3.71	243.73	5,631.6	-90.3	-374.9	-71.8	0.34	-0.04	-5.28
5,675.0	3.60	244.72	5,656.6	-91.0	-376.3	-72.4	0.51	-0.44	3.96
5,700.0	3.55	245.06	5,681.5	-91.7	-377.7	-73.0	0.22	-0.20	1.36

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33, T-26-S, R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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	3.44	242.70	5,706.5	-92.4	-379.1	-73.6	0.72	-0.44	-9.44	
5,750.0	3.47	243.08	5,731.4	-93.0	-380.4	-74.2	0.15	0.12	1.52	
5,775.0	3.24	241.27	5,756.4	-93.7	-381.7	-74.8	1.01	-0.92	-7.24	
5,800.0	3.40	241.03	5,781.3	-94.4	-383.0	-75.5	0.64	0.64	-0.96	
5,825.0	3.32	241.60	5,806.3	-95.1	-384.3	-76.1	0.35	-0.32	2.28	
5,850.0	3.33	243.42	5,831.3	-95.8	-385.6	-76.7	0.42	0.04	7.28	
5,875.0	3.31	241.49	5,856.2	-96.5	-386.9	-77.3	0.45	-0.08	-7.72	
5,900.0	3.33	241.19	5,881.2	-97.2	-388.1	-78.0	0.11	0.08	-1.20	
5,925.0	3.31	242.98	5,906.1	-97.8	-389.4	-78.6	0.42	-0.08	7.16	
5,950.0	3.36	240.69	5,931.1	-98.5	-390.7	-79.2	0.57	0.20	-9.16	
5,975.0	3.33	239.13	5,956.1	-99.3	-392.0	-79.9	0.38	-0.12	-6.24	
6,000.0	3.22	238.46	5,981.0	-100.0	-393.2	-80.5	0.47	-0.44	-2.68	
6,025.0	3.24	239.01	6,006.0	-100.7	-394.4	-81.2	0.15	0.08	2.20	
6,050.0	3.22	238.15	6,030.9	-101.5	-395.6	-81.9	0.21	-0.08	-3.44	
6,075.0	3.09	237.85	6,055.9	-102.2	-396.8	-82.6	0.52	-0.52	-1.20	
6,100.0	3.02	239.98	6,080.9	-102.9	-397.9	-83.2	0.53	-0.28	8.52	
6,125.0	3.14	237.92	6,105.8	-103.6	-399.0	-83.8	0.65	0.48	-8.24	
6,150.0	3.12	236.79	6,130.8	-104.3	-400.2	-84.5	0.26	-0.08	-4.52	
6,175.0	3.10	235.96	6,155.7	-105.1	-401.3	-85.2	0.20	-0.08	-3.32	
6,200.0	3.25	230.87	6,180.7	-105.9	-402.4	-86.0	1.28	0.60	-20.36	
6,225.0	3.18	231.64	6,205.7	-106.8	-403.5	-86.8	0.33	-0.28	3.08	
6,250.0	2.93	238.67	6,230.6	-107.5	-404.6	-87.5	1.80	-1.00	28.12	
6,275.0	2.58	242.11	6,255.6	-108.1	-405.7	-88.0	1.55	-1.40	13.76	
6,300.0	2.33	240.06	6,280.6	-108.6	-406.6	-88.5	1.06	-1.00	-8.20	
6,325.0	2.17	240.21	6,305.6	-109.1	-407.4	-89.0	0.64	-0.64	0.60	
6,350.0	2.22	238.17	6,330.5	-109.6	-408.3	-89.4	0.37	0.20	-8.16	
6,375.0	2.21	239.01	6,355.5	-110.1	-409.1	-89.9	0.14	-0.04	-3.36	
6,400.0	2.21	241.97	6,380.5	-110.6	-409.9	-90.3	0.46	0.00	11.84	
6,425.0	2.25	240.83	6,405.5	-111.1	-410.8	-90.7	0.24	0.16	-4.56	
6,450.0	1.92	246.89	6,430.5	-111.5	-411.6	-91.1	1.59	-1.32	24.24	
6,475.0	1.42	264.15	6,455.5	-111.7	-412.3	-91.3	2.82	-2.00	69.04	
6,500.0	1.24	279.89	6,480.5	-111.6	-412.9	-91.2	1.62	-0.72	62.96	
6,525.0	1.18	280.49	6,505.4	-111.6	-413.4	-91.1	0.25	-0.24	2.40	
6,550.0	1.18	281.30	6,530.4	-111.5	-413.9	-91.0	0.07	0.00	3.24	
6,575.0	1.23	283.74	6,555.4	-111.3	-414.4	-90.8	0.29	0.20	9.76	
6,600.0	1.16	278.63	6,580.4	-111.2	-414.9	-90.7	0.51	-0.28	-20.44	
6,625.0	1.15	289.01	6,605.4	-111.1	-415.4	-90.6	0.84	-0.04	41.52	
6,650.0	1.12	283.95	6,630.4	-111.0	-415.9	-90.4	0.42	-0.12	-20.24	
6,675.0	1.09	289.37	6,655.4	-110.8	-416.3	-90.2	0.43	-0.12	21.68	
6,700.0	1.12	293.30	6,680.4	-110.7	-416.8	-90.0	0.33	0.12	15.72	
6,725.0	1.11	289.07	6,705.4	-110.5	-417.2	-89.8	0.33	-0.04	-16.92	
6,750.0	1.13	285.59	6,730.4	-110.3	-417.7	-89.7	0.28	0.08	-13.92	
6,775.0	1.17	290.77	6,755.4	-110.2	-418.2	-89.5	0.45	0.16	20.72	
6,800.0	1.12	279.93	6,780.4	-110.1	-418.7	-89.3	0.89	-0.20	-43.36	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33-T-26-S-R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db.

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)
6,825.0	1.18	282.65	6,805.4	-110.0	-419.2	-89.2	0.32	0.24	10.88
6,850.0	1.24	278.21	6,830.4	-109.9	-419.7	-89.1	0.45	0.24	-17.76
6,875.0	1.27	272.50	6,855.4	-109.8	-420.2	-89.0	0.51	0.12	-22.84
6,900.0	1.30	275.15	6,880.4	-109.8	-420.8	-88.9	0.27	0.12	10.60
6,925.0	1.30	264.66	6,905.4	-109.8	-421.3	-88.9	0.95	0.00	-41.96
6,950.0	1.31	264.50	6,930.4	-109.8	-421.9	-88.9	0.04	0.04	-0.64
6,975.0	1.36	261.17	6,955.4	-109.9	-422.5	-89.0	0.37	0.20	-13.32
7,000.0	1.31	266.46	6,980.3	-110.0	-423.1	-89.0	0.53	-0.20	21.16
7,025.0	1.41	265.06	7,005.3	-110.0	-423.7	-89.0	0.42	0.40	-5.60
7,050.0	1.44	261.34	7,030.3	-110.1	-424.3	-89.1	0.39	0.12	-14.88
7,075.0	1.46	266.49	7,055.3	-110.1	-424.9	-89.1	0.53	0.08	20.60
7,100.0	1.54	262.22	7,080.3	-110.2	-425.6	-89.2	0.55	0.32	-17.08
7,125.0	1.56	264.24	7,105.3	-110.3	-426.2	-89.2	0.23	0.08	8.08
7,150.0	1.72	269.68	7,130.3	-110.3	-426.9	-89.2	0.89	0.64	21.76
7,175.0	1.66	278.50	7,155.3	-110.3	-427.7	-89.1	1.07	-0.24	35.28
7,200.0	1.78	278.07	7,180.3	-110.2	-428.4	-89.0	0.48	0.48	-1.72
7,225.0	1.79	282.61	7,205.3	-110.0	-429.2	-88.8	0.57	0.04	18.16
7,250.0	1.51	296.37	7,230.2	-109.8	-429.9	-88.5	1.93	-1.12	55.04
7,275.0	1.45	305.09	7,255.2	-109.5	-430.4	-88.2	0.93	-0.24	34.88
7,300.0	1.30	299.90	7,280.2	-109.1	-430.9	-87.8	0.78	-0.60	-20.76
7,325.0	1.21	300.52	7,305.2	-108.9	-431.4	-87.5	0.36	-0.36	2.48
7,350.0	0.61	273.97	7,330.2	-108.7	-431.7	-87.4	2.87	-2.40	-106.20
7,375.0	0.68	246.18	7,355.2	-108.8	-432.0	-87.4	1.27	0.28	-111.16
7,400.0	0.61	238.16	7,380.2	-108.9	-432.3	-87.5	0.46	-0.28	-32.08
7,425.0	0.64	234.29	7,405.2	-109.1	-432.5	-87.7	0.21	0.12	-15.48
7,450.0	0.69	243.30	7,430.2	-109.2	-432.7	-87.8	0.46	0.20	36.04
7,475.0	0.62	230.83	7,455.2	-109.4	-433.0	-87.9	0.63	-0.28	-49.88
7,500.0	0.68	241.35	7,480.2	-109.5	-433.2	-88.1	0.53	0.24	42.08
7,525.0	0.68	237.68	7,505.2	-109.7	-433.5	-88.2	0.17	0.00	-14.68
7,550.0	0.65	241.33	7,530.2	-109.8	-433.7	-88.4	0.21	-0.12	14.60
7,575.0	0.72	238.95	7,555.2	-110.0	-434.0	-88.5	0.30	0.28	-9.52
7,600.0	0.73	236.71	7,580.2	-110.1	-434.2	-88.6	0.12	0.04	-8.96
7,625.0	0.70	233.10	7,605.2	-110.3	-434.5	-88.8	0.22	-0.12	-14.44
7,650.0	0.61	229.08	7,630.2	-110.5	-434.7	-89.0	0.40	-0.36	-16.08
7,675.0	0.60	241.76	7,655.2	-110.6	-434.9	-89.1	0.54	-0.04	50.72
7,700.0	0.63	227.21	7,680.2	-110.8	-435.2	-89.3	0.63	0.12	-58.20
7,725.0	0.60	232.31	7,705.2	-111.0	-435.4	-89.4	0.25	-0.12	20.40
7,750.0	0.65	228.04	7,730.2	-111.1	-435.6	-89.6	0.27	0.20	-17.08
7,775.0	0.73	215.76	7,755.2	-111.4	-435.8	-89.8	0.67	0.32	-49.12
7,800.0	0.48	246.61	7,780.2	-111.5	-436.0	-90.0	1.61	-1.00	123.40
7,825.0	0.38	268.86	7,805.2	-111.6	-436.1	-90.0	0.77	-0.40	89.00
7,850.0	0.42	259.72	7,830.2	-111.6	-436.3	-90.0	0.30	0.16	-36.56
7,875.0	0.41	251.86	7,855.2	-111.6	-436.5	-90.0	0.23	-0.04	-31.44

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)	
7,900.0	0.32	253.22	7,880.2	-111.7	-436.6	-90.1	0.36	-0.36	5.44	
7,925.0	0.31	270.52	7,905.2	-111.7	-436.8	-90.1	0.38	-0.04	69.20	
7,950.0	0.40	244.91	7,930.2	-111.8	-436.9	-90.1	0.72	0.36	-102.44	
7,975.0	0.26	242.36	7,955.2	-111.8	-437.0	-90.2	0.56	-0.56	-10.20	
8,000.0	0.24	246.87	7,980.2	-111.9	-437.1	-90.2	0.11	-0.08	18.04	
8,025.0	0.38	225.57	8,005.2	-111.9	-437.3	-90.3	0.72	0.56	-85.20	
8,050.0	0.32	195.34	8,030.2	-112.1	-437.3	-90.4	0.77	-0.24	-120.92	
8,075.0	0.53	181.77	8,055.2	-112.2	-437.4	-90.6	0.93	0.84	-54.28	
8,100.0	0.56	171.16	8,080.2	-112.5	-437.3	-90.8	0.42	0.12	-42.44	
8,125.0	0.79	155.41	8,105.2	-112.8	-437.2	-91.1	1.17	0.92	-63.00	
8,150.0	0.87	143.74	8,130.2	-113.1	-437.1	-91.4	0.75	0.32	-46.68	
8,175.0	1.01	141.59	8,155.2	-113.4	-436.8	-91.8	0.58	0.56	-8.60	
8,200.0	1.14	143.89	8,180.2	-113.8	-436.5	-92.2	0.55	0.52	9.20	
8,225.0	1.20	145.38	8,205.2	-114.2	-436.2	-92.6	0.27	0.24	5.96	
8,250.0	1.16	141.23	8,230.2	-114.6	-435.9	-93.0	0.38	-0.16	-16.60	
8,275.0	1.12	142.11	8,255.2	-115.0	-435.6	-93.4	0.17	-0.16	3.52	
8,300.0	1.21	143.95	8,280.2	-115.4	-435.3	-93.8	0.39	0.36	7.36	
8,325.0	1.08	141.63	8,305.2	-115.8	-435.0	-94.3	0.55	-0.52	-9.28	
8,350.0	1.10	142.15	8,330.1	-116.2	-434.7	-94.6	0.09	0.08	2.08	
8,375.0	1.11	144.21	8,355.1	-116.6	-434.4	-95.0	0.16	0.04	8.24	
8,400.0	0.93	146.20	8,380.1	-116.9	-434.2	-95.4	0.73	-0.72	7.96	
8,425.0	0.74	138.48	8,405.1	-117.2	-434.0	-95.7	0.88	-0.76	-30.88	
8,450.0	0.62	141.32	8,430.1	-117.4	-433.8	-96.0	0.50	-0.48	11.36	
8,475.0	0.57	137.66	8,455.1	-117.6	-433.6	-96.2	0.25	-0.20	-14.64	
8,500.0	0.62	135.47	8,480.1	-117.8	-433.4	-96.4	0.22	0.20	-8.76	
8,525.0	0.50	128.74	8,505.1	-118.0	-433.2	-96.5	0.55	-0.48	-26.92	
8,550.0	0.75	110.13	8,530.1	-118.1	-433.0	-96.7	1.28	1.00	-74.44	
8,575.0	0.95	96.71	8,555.1	-118.2	-432.6	-96.8	1.12	0.80	-53.68	
8,600.0	1.13	81.69	8,580.1	-118.2	-432.2	-96.8	1.30	0.72	-60.08	
8,625.0	1.23	81.75	8,605.1	-118.1	-431.7	-96.7	0.40	0.40	0.24	
8,650.0	1.18	84.16	8,630.1	-118.0	-431.2	-96.7	0.28	-0.20	9.64	
8,675.0	1.24	77.97	8,655.1	-118.0	-430.6	-96.6	0.57	0.24	-24.76	
8,700.0	1.18	84.98	8,680.1	-117.9	-430.1	-96.6	0.64	-0.24	28.04	
8,725.0	1.14	83.13	8,705.1	-117.8	-429.6	-96.6	0.22	-0.16	-7.40	
8,750.0	0.91	96.55	8,730.1	-117.8	-429.2	-96.6	1.32	-0.92	53.68	
8,775.0	0.88	121.80	8,755.1	-117.9	-428.8	-96.7	1.57	-0.12	101.00	
8,800.0	0.94	179.95	8,780.1	-118.2	-428.6	-97.0	3.54	0.24	232.60	
8,825.0	1.20	196.63	8,805.1	-118.7	-428.7	-97.5	1.61	1.04	66.72	
8,850.0	1.28	200.27	8,830.1	-119.2	-428.9	-98.0	0.45	0.32	14.56	
8,875.0	1.27	199.56	8,855.1	-119.7	-429.1	-98.5	0.07	-0.04	-2.84	
8,900.0	1.42	200.82	8,880.1	-120.3	-429.3	-99.0	0.61	0.60	5.04	
8,925.0	1.29	198.54	8,905.1	-120.8	-429.5	-99.6	0.56	-0.52	-9.12	
8,950.0	1.36	203.25	8,930.0	-121.4	-429.7	-100.1	0.52	0.28	18.84	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33 T-26-S-R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)	
8,975.0	1.28	198.66	8,955.0	-121.9	-429.9	-100.6	0.53	-0.32	-18.36	
9,000.0	1.34	205.13	8,980.0	-122.5	-430.1	-101.2	0.64	0.24	25.88	
9,025.0	1.28	203.68	9,005.0	-123.0	-430.3	-101.7	0.27	-0.24	-5.80	
9,050.0	1.39	209.21	9,030.0	-123.5	-430.6	-102.2	0.68	0.44	22.12	
9,075.0	1.26	202.21	9,055.0	-124.0	-430.9	-102.7	0.83	-0.52	-28.00	
9,100.0	1.33	208.77	9,080.0	-124.5	-431.1	-103.2	0.66	0.28	26.24	
9,125.0	1.30	205.95	9,105.0	-125.0	-431.4	-103.7	0.29	-0.12	-11.28	
9,150.0	1.31	209.88	9,130.0	-125.5	-431.6	-104.2	0.36	0.04	15.72	
9,175.0	1.40	208.46	9,155.0	-126.1	-431.9	-104.7	0.38	0.36	-5.68	
9,200.0	1.20	213.32	9,180.0	-126.5	-432.2	-105.1	0.91	-0.80	19.44	
9,225.0	1.30	216.97	9,205.0	-127.0	-432.5	-105.6	0.51	0.40	14.60	
9,250.0	1.16	214.10	9,230.0	-127.4	-432.8	-106.0	0.61	-0.56	-11.48	
9,275.0	1.36	216.86	9,255.0	-127.9	-433.2	-106.4	0.84	0.80	11.04	
9,300.0	1.18	214.81	9,280.0	-128.3	-433.5	-106.8	0.74	-0.72	-8.20	
9,303.0	1.20	216.59	9,283.0	-128.4	-433.5	-106.9	1.40	0.67	59.33	
9,472.0	1.43	217.98	9,451.9	-131.4	-435.9	-109.9	0.14	0.14	0.82	
9,551.0	7.59	5.49	9,530.7	-127.0	-436.0	-105.4	11.18	7.80	186.72	
9,583.0	14.76	11.53	9,562.1	-120.9	-435.0	-99.4	22.67	22.41	18.88	
9,614.0	20.82	10.01	9,591.6	-111.6	-433.2	-90.2	19.60	19.55	-4.90	
9,635.0	24.49	10.46	9,611.0	-103.7	-431.8	-82.3	17.50	17.48	2.14	
9,666.0	29.94	10.25	9,638.5	-89.7	-429.2	-68.5	17.58	17.58	-0.68	
9,698.0	36.17	7.19	9,665.3	-72.5	-426.6	-51.4	20.15	19.47	-9.56	
9,729.0	41.91	3.77	9,689.4	-53.0	-424.8	-32.1	19.77	18.52	-11.03	
9,761.0	44.70	1.43	9,712.7	-31.1	-423.8	-10.2	10.06	8.72	-7.31	
9,792.0	45.65	0.12	9,734.5	-9.1	-423.5	11.7	4.29	3.06	-4.23	
9,823.0	46.53	359.18	9,756.0	13.2	-423.7	34.0	3.58	2.84	-3.03	
9,855.0	48.79	359.60	9,777.6	36.8	-423.9	57.6	7.13	7.06	1.31	
9,887.0	50.43	359.64	9,798.3	61.2	-424.1	82.0	5.13	5.13	0.13	
9,909.6	52.57	359.99	9,812.4	78.9	-424.1	99.7	9.56	9.48	1.53	
FTP @ 9909.6'MD, 330°FSL & 325°FWL										
9,918.0	53.37	0.11	9,817.5	85.6	-424.1	106.4	9.56	9.49	1.47	
9,950.0	56.20	0.68	9,835.9	111.7	-423.9	132.5	8.96	8.84	1.78	
9,981.0	56.89	0.39	9,853.0	137.6	-423.7	158.3	2.36	2.23	-0.94	
10,012.0	56.54	359.92	9,870.0	163.5	-423.6	184.2	1.70	-1.13	-1.52	
10,043.0	58.06	1.33	9,886.8	189.6	-423.3	210.2	6.22	4.90	4.55	
10,075.0	60.48	3.28	9,903.1	217.1	-422.2	237.6	9.20	7.56	6.09	
10,106.0	63.33	4.12	9,917.7	244.4	-420.5	264.8	9.50	9.19	2.71	
10,137.0	66.49	3.96	9,930.8	272.4	-418.5	292.6	10.20	10.19	-0.52	
10,168.0	72.84	3.40	9,941.6	301.4	-416.6	321.5	20.55	20.48	-1.81	
10,200.0	76.29	3.60	9,950.1	332.2	-414.7	352.1	10.80	10.78	0.63	
10,231.0	79.35	2.18	9,956.7	362.4	-413.2	382.3	10.84	9.87	-4.58	
10,262.0	82.65	1.33	9,961.5	393.0	-412.3	412.8	10.98	10.65	-2.74	
10,293.0	86.15	0.46	9,964.5	423.9	-411.8	443.6	11.63	11.29	-2.81	
10,324.0	89.15	0.42	9,965.8	454.8	-411.5	474.5	9.68	9.68	-0.13	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)	
10,422.0	89.89	1.35	9,966.6	552.8	-410.0	572.3	1.21	0.76	0.95	
10,517.0	88.91	358.94	9,967.6	647.8	-409.8	667.2	2.74	-1.03	-2.54	
10,611.0	87.80	355.99	9,970.3	741.7	-413.9	761.1	3.35	-1.18	-3.14	
10,705.0	90.06	359.23	9,972.1	835.5	-417.9	855.1	4.20	2.40	3.45	
10,799.0	89.61	0.82	9,972.4	929.5	-417.8	949.0	1.76	-0.48	1.69	
10,893.0	88.21	358.84	9,974.1	1,023.5	-418.1	1,042.8	2.58	-1.49	-2.11	
10,987.0	91.16	359.28	9,974.7	1,117.5	-419.6	1,136.8	3.17	3.14	0.47	
11,080.0	91.39	359.54	9,972.6	1,210.5	-420.6	1,229.7	0.37	0.25	0.28	
11,174.0	90.36	357.69	9,971.2	1,304.4	-422.9	1,323.6	2.25	-1.10	-1.97	
11,268.0	90.11	359.78	9,970.8	1,398.4	-425.0	1,417.6	2.24	-0.27	2.22	
11,363.0	88.68	358.97	9,971.8	1,493.4	-426.0	1,512.5	1.73	-1.51	-0.85	
11,456.0	89.04	358.27	9,973.6	1,586.3	-428.2	1,605.5	0.85	0.39	-0.75	
11,551.0	89.11	0.99	9,975.2	1,681.3	-428.8	1,700.4	2.86	0.07	2.86	
11,644.0	91.24	5.48	9,974.9	1,774.1	-423.6	1,792.8	5.34	2.29	4.83	
11,739.0	90.47	6.05	9,973.5	1,868.6	-414.1	1,886.7	1.01	-0.81	0.60	
11,832.0	90.15	3.28	9,973.0	1,961.3	-406.5	1,978.9	3.00	-0.34	-2.98	
11,927.0	89.54	2.71	9,973.2	2,056.2	-401.5	2,073.4	0.88	-0.64	-0.60	
12,021.0	89.43	2.00	9,974.1	2,150.1	-397.7	2,167.0	0.76	-0.12	-0.76	
12,115.0	89.79	1.66	9,974.7	2,244.0	-394.7	2,260.7	0.53	0.38	-0.36	
12,209.0	90.08	1.82	9,974.8	2,338.0	-391.8	2,354.4	0.35	0.31	0.17	
12,304.0	90.64	2.56	9,974.2	2,432.9	-388.2	2,449.1	0.98	0.59	0.78	
12,397.0	89.38	2.13	9,974.2	2,525.8	-384.4	2,541.7	1.43	-1.35	-0.46	
12,491.0	90.22	2.16	9,974.5	2,619.8	-380.9	2,635.3	0.89	0.89	0.03	
12,585.0	89.10	1.75	9,975.1	2,713.7	-377.6	2,729.0	1.27	-1.19	-0.44	
12,679.0	87.67	1.18	9,977.7	2,807.7	-375.2	2,822.7	1.64	-1.52	-0.61	
12,772.0	87.32	0.46	9,981.8	2,900.6	-373.9	2,915.4	0.86	-0.38	-0.77	
12,866.0	87.86	359.82	9,985.7	2,994.5	-373.7	3,009.2	0.89	0.57	-0.68	
12,960.0	88.09	359.32	9,989.1	3,088.4	-374.4	3,103.1	0.59	0.24	-0.53	
13,054.0	88.66	358.61	9,991.7	3,182.4	-376.1	3,197.0	0.97	0.61	-0.76	
13,148.0	89.33	357.96	9,993.4	3,276.3	-378.9	3,291.0	0.99	0.71	-0.69	
13,242.0	90.07	1.79	9,993.9	3,370.3	-379.1	3,384.8	4.15	0.79	4.07	
13,336.0	90.45	2.71	9,993.4	3,464.2	-375.4	3,478.5	1.06	0.40	0.98	
13,430.0	91.23	1.99	9,992.1	3,558.1	-371.6	3,572.1	1.13	0.83	-0.77	
13,524.0	89.85	1.29	9,991.2	3,652.1	-368.9	3,665.8	1.65	-1.47	-0.74	
13,618.0	88.05	359.73	9,992.9	3,746.0	-368.0	3,759.6	2.53	-1.91	-1.66	
13,713.0	89.45	0.43	9,995.0	3,841.0	-367.9	3,854.5	1.65	1.47	0.74	
13,807.0	88.40	356.81	9,996.7	3,935.0	-370.2	3,948.4	4.01	-1.12	-3.85	
13,902.0	87.39	354.70	10,000.2	4,029.6	-377.2	4,043.3	2.46	-1.06	-2.22	
13,996.0	89.17	355.80	10,003.0	4,123.2	-385.0	4,137.2	2.23	1.89	1.17	
14,091.0	88.61	355.74	10,004.9	4,218.0	-392.0	4,232.1	0.59	-0.59	-0.06	
14,185.0	89.17	357.26	10,006.7	4,311.8	-397.7	4,326.1	1.72	0.60	1.62	
14,279.0	89.45	359.31	10,007.8	4,405.7	-400.5	4,420.1	2.20	0.30	2.18	
14,373.0	89.94	1.41	10,008.3	4,499.7	-399.9	4,513.9	2.29	0.52	2.23	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
14,467.0	90.35	2.45	10,008.1	4,593.7	-396.8	4,607.6	1.19	0.44	1.11
14,561.0	90.26	2.40	10,007.6	4,687.6	-392.8	4,701.2	0.11	-0.10	-0.05
14,655.0	90.91	1.99	10,006.6	4,781.5	-389.2	4,794.9	0.82	0.69	-0.44
14,749.0	89.24	1.92	10,006.5	4,875.4	-386.0	4,888.5	1.78	-1.78	-0.07
14,843.0	88.52	1.14	10,008.4	4,969.4	-383.5	4,982.2	1.13	-0.77	-0.83
14,938.0	89.85	0.82	10,009.7	5,064.4	-381.9	5,077.0	1.44	1.40	-0.34
15,032.0	88.28	0.30	10,011.2	5,158.3	-380.9	5,170.8	1.76	-1.67	-0.55
15,126.0	86.07	359.73	10,015.9	5,252.2	-380.9	5,264.6	2.43	-2.35	-0.61
15,220.0	88.80	0.63	10,020.1	5,346.1	-380.6	5,358.4	3.06	2.90	0.96
15,313.0	87.51	359.06	10,023.1	5,439.1	-380.9	5,451.2	2.18	-1.39	-1.69
15,408.0	89.61	359.43	10,025.5	5,534.0	-382.1	5,546.1	2.24	2.21	0.39
15,502.0	91.11	0.86	10,024.9	5,628.0	-381.9	5,640.0	2.20	1.60	1.52
15,596.0	90.62	0.53	10,023.5	5,722.0	-380.7	5,733.8	0.63	-0.52	-0.35
15,690.0	91.16	359.02	10,022.0	5,816.0	-381.1	5,827.7	1.71	0.57	-1.61
15,784.0	91.16	359.21	10,020.1	5,909.9	-382.6	5,921.6	0.20	0.00	0.20
15,877.0	88.93	358.44	10,020.0	6,002.9	-384.5	6,014.6	2.54	-2.40	-0.83
15,971.0	90.16	2.14	10,020.8	6,096.9	-384.0	6,108.4	4.15	1.31	3.94
16,066.0	91.19	2.75	10,019.6	6,191.8	-379.9	6,203.0	1.26	1.08	0.64
16,159.0	89.43	0.82	10,019.1	6,284.8	-377.0	6,295.7	2.81	-1.89	-2.08
16,253.0	89.76	358.86	10,019.8	6,378.7	-377.3	6,389.6	2.11	0.35	-2.09
16,347.0	89.36	359.58	10,020.5	6,472.7	-378.6	6,483.5	0.88	-0.43	0.77
16,440.0	88.25	0.74	10,022.5	6,565.7	-378.3	6,576.4	1.73	-1.19	1.25
16,534.0	89.90	3.51	10,024.0	6,659.6	-374.8	6,670.0	3.43	1.76	2.95
16,628.0	87.49	1.88	10,026.1	6,753.5	-370.4	6,763.5	3.09	-2.56	-1.73
16,722.0	89.71	3.49	10,028.4	6,847.3	-366.0	6,857.1	2.92	2.36	1.71
16,816.0	85.42	0.27	10,032.4	6,941.2	-362.9	6,950.6	5.70	-4.56	-3.43
16,910.0	86.63	359.86	10,038.9	7,034.9	-362.8	7,044.3	1.36	1.29	-0.44
16,955.3	89.17	0.81	10,040.6	7,080.2	-362.6	7,089.5	5.98	5.61	2.09
LTP @ 16955.3' MD, 330° FNL & 323° FWL									
17,027.0	93.19	2.31	10,039.1	7,151.8	-360.6	7,160.9	5.98	5.61	2.09
LAST SVY									
17,085.0	93.19	2.31	10,035.9	7,209.7	-358.3	7,218.6	0.00	0.00	0.00
Projection to TD @ 17085' MD, 200° FNL & 326° FWL									

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well: Littlefield 33 Fed Com #708H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2888.5usft (Latshaw 44)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2888.5usft (Latshaw 44)
Well:	Littlefield 33 Fed Com #708H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Design Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	
Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude Longitude
FTP (Littlefield 33 Fed		0.00	0.00	9,968.0	78.9	-420.4	364,216.70	604,370.00	32° 0' 3.234 N 103° 59' 47.932 W
- actual wellpath misses target center by 128.4usft at 9995.0usft MD (9860.7 TVD, 149.4 N, -423.6 E)									
- Point									
4823'VS (Littlefield 33		1.20	0.53	10,014.0	4,810.3	-377.3	368,948.10	604,413.10	32° 0' 50.058 N 103° 59' 47.260 W
- actual wellpath misses target center by 13.3usft at 14684.2usft MD (10006.3 TVD, 4810.7 N, -388.2 E)									
- Rectangle (sides W60.0 H969.8 D20.0)									
5323'VS (Littlefield 33		0.43	0.53	10,018.0	5,311.1	-372.6	369,448.90	604,417.75	32° 0' 55.014 N 103° 59' 47.188 W
- actual wellpath misses target center by 8.3usft at 15184.9usft MD (10019.0 TVD, 5311.1 N, -380.9 E)									
- Rectangle (sides W60.0 H500.9 D20.0)									
LTP (Littlefield 33 Fed		0.00	0.00	10,030.0	7,080.1	-356.2	371,217.90	604,434.20	32° 1' 12.520 N 103° 59' 46.933 W
- actual wellpath misses target center by 12.4usft at 16954.8usft MD (10040.6 TVD, 7079.7 N, -362.6 E)									
- Point									
PBHL (Littlefield 33 Fed		0.36	0.53	10,030.0	7,210.1	-355.0	371,347.90	604,435.40	32° 1' 13.807 N 103° 59' 46.914 W
- actual wellpath misses target center by 6.8usft at 17085.0usft MD (10035.9 TVD, 7209.7 N, -358.3 E)									
- Rectangle (sides W60.0 H1,899.1 D20.0)									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
459.1	459.0	Rustler			
612.2	612.0	TOS			
2,616.7	2,613.0	BOS (Fletcher)			
2,802.2	2,798.0	LMAR (Top Delaware)			
2,835.3	2,831.0	BLCN			
3,717.8	3,708.0	CYCN			
4,993.5	4,977.0	BYCN			
6,509.5	6,490.0	Bone Sprg (BSGL)			
6,708.6	6,689.0	U Avalon Sh			
7,105.7	7,086.0	L Avalon Sh			
7,426.8	7,407.0	FBSG_sand			
8,155.8	8,136.0	SBSG_sand			
8,575.9	8,556.0	SBSG_sand base			
9,291.0	9,271.0	TBSG_sand			
9,673.5	9,645.0	WFMP			

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
9,909.6	9,812.4	78.9	-424.1	FTP @ 9909.6'MD, 330'FSL & 325'FWL	
16,955.3	10,040.6	7,080.2	-362.6	LTP @ 16955.3'MD, 330'FNL & 323'FWL	
17,027.0	10,039.1	7,151.8	-360.6	LAST SVY	
17,085.0	10,035.9	7,209.7	-358.3	Projection to TD @ 17085'MD, 200'FNL & 326'FWL	

Checked By: _____	Approved By: _____	Date: _____
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