



Concho Resources, Inc.

Lea County, NM (NAD 27 NME)

(Huckleberry State Com) Sec-27_T-21-S_R-33-E

Huckleberry State Com #507H

API# 30-025-45209

OWB

Design: AWB

Standard Survey Report

03 June, 2019

INTREPID



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Project	Lea County, NM (NAD 27 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	(Huckleberry State Com) Sec-27_T-21-S_R-33-E				
Site Position:		Northing:	530,664.00 usft	Latitude:	32° 27' 23.619 N
From:	Map	Easting:	737,122.90 usft	Longitude:	103° 33' 52.502 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	Huckleberry State Com #507H				
Well Position	+N/-S	0.0 usft	Northing:	530,663.80 usft	Latitude: 32° 27' 23.621 N
	+E/-W	0.0 usft	Easting:	737,062.90 usft	Longitude: 103° 33' 53.202 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level: 3,714.8 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2019/01/17	6.80	60.26	47,911.10135804

Design	AWB				
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	355.13	

Survey Program	Date 2019/06/03			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	10,091.2	SDI Gyro Svys (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
10,113.0	21,299.0	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	0.45	228.99	100.0	-0.3	-0.3	-0.2	0.45	0.45	0.00	
125.0	0.48	237.23	125.0	-0.4	-0.5	-0.3	0.29	0.12	32.96	
150.0	0.40	235.10	150.0	-0.5	-0.6	-0.4	0.33	-0.32	-8.52	
175.0	0.43	240.12	175.0	-0.6	-0.8	-0.5	0.19	0.12	20.08	
200.0	0.35	248.47	200.0	-0.7	-0.9	-0.6	0.39	-0.32	33.40	
225.0	0.07	264.97	225.0	-0.7	-1.0	-0.6	1.13	-1.12	66.00	
250.0	0.14	248.31	250.0	-0.7	-1.1	-0.6	0.30	0.28	-66.64	
275.0	0.03	324.08	275.0	-0.7	-1.1	-0.6	0.54	-0.44	303.08	
300.0	0.18	54.43	300.0	-0.7	-1.1	-0.6	0.73	0.60	361.40	



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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	0.29	63.12	325.0	-0.6	-1.0	-0.5	0.46	0.44	34.76
350.0	0.58	60.60	350.0	-0.5	-0.8	-0.5	1.16	1.16	-10.08
375.0	0.47	63.83	375.0	-0.4	-0.6	-0.4	0.46	-0.44	12.92
400.0	0.31	79.24	400.0	-0.4	-0.4	-0.3	0.76	-0.64	61.64
425.0	0.44	93.14	425.0	-0.4	-0.3	-0.3	0.63	0.52	55.60
450.0	0.44	66.51	450.0	-0.3	-0.1	-0.3	0.81	0.00	-106.52
475.0	0.43	82.90	475.0	-0.3	0.1	-0.3	0.50	-0.04	65.56
500.0	0.35	98.42	500.0	-0.3	0.3	-0.3	0.53	-0.32	62.08
525.0	0.46	88.87	525.0	-0.3	0.4	-0.3	0.51	0.44	-38.20
550.0	0.53	110.73	550.0	-0.3	0.6	-0.4	0.80	0.28	87.44
575.0	0.37	107.77	575.0	-0.4	0.8	-0.5	0.65	-0.64	-11.84
600.0	0.37	107.88	600.0	-0.4	1.0	-0.5	0.00	0.00	0.44
625.0	0.28	143.35	625.0	-0.5	1.1	-0.6	0.86	-0.36	141.88
650.0	0.45	68.36	650.0	-0.5	1.2	-0.6	1.86	0.68	-299.96
675.0	0.24	183.00	675.0	-0.5	1.3	-0.7	2.37	-0.84	458.56
700.0	0.39	199.00	700.0	-0.7	1.3	-0.8	0.69	0.60	64.00
725.0	0.34	227.17	725.0	-0.8	1.2	-0.9	0.74	-0.20	112.68
750.0	0.39	237.48	750.0	-0.9	1.1	-1.0	0.33	0.20	41.24
775.0	0.30	246.09	775.0	-1.0	0.9	-1.1	0.41	-0.36	34.44
800.0	0.38	239.99	800.0	-1.0	0.8	-1.1	0.35	0.32	-24.40
825.0	0.34	244.64	825.0	-1.1	0.7	-1.2	0.20	-0.16	18.60
850.0	0.30	254.48	850.0	-1.2	0.5	-1.2	0.27	-0.16	39.36
875.0	0.34	246.11	875.0	-1.2	0.4	-1.2	0.25	0.16	-33.48
900.0	0.35	241.30	900.0	-1.3	0.3	-1.3	0.12	0.04	-19.24
925.0	0.31	238.99	925.0	-1.4	0.1	-1.4	0.17	-0.16	-9.24
950.0	0.38	241.01	950.0	-1.4	0.0	-1.4	0.28	0.28	8.08
975.0	0.40	242.12	975.0	-1.5	-0.1	-1.5	0.09	0.08	4.44
1,000.0	0.47	221.97	1,000.0	-1.6	-0.3	-1.6	0.67	0.28	-80.60
1,025.0	0.35	210.83	1,025.0	-1.8	-0.4	-1.7	0.57	-0.48	-44.56
1,050.0	0.51	221.10	1,050.0	-1.9	-0.5	-1.9	0.71	0.64	41.08
1,075.0	0.48	224.10	1,075.0	-2.1	-0.6	-2.0	0.16	-0.12	12.00
1,100.0	0.47	213.19	1,100.0	-2.2	-0.8	-2.2	0.36	-0.04	-43.64
1,125.0	0.41	200.33	1,125.0	-2.4	-0.9	-2.3	0.46	-0.24	-51.44
1,150.0	0.50	190.17	1,150.0	-2.6	-0.9	-2.5	0.48	0.36	-40.64
1,175.0	0.50	186.20	1,175.0	-2.8	-0.9	-2.7	0.14	0.00	-15.88
1,200.0	0.45	183.11	1,200.0	-3.0	-1.0	-2.9	0.22	-0.20	-12.36
1,225.0	0.47	160.34	1,225.0	-3.2	-0.9	-3.1	0.73	0.08	-91.08
1,250.0	0.40	136.63	1,250.0	-3.4	-0.8	-3.3	0.77	-0.28	-94.84
1,275.0	0.44	137.69	1,275.0	-3.5	-0.7	-3.4	0.16	0.16	4.24
1,300.0	0.43	137.95	1,300.0	-3.6	-0.6	-3.6	0.04	-0.04	1.04
1,325.0	0.44	119.92	1,325.0	-3.8	-0.4	-3.7	0.55	0.04	-72.12
1,350.0	0.43	105.85	1,350.0	-3.8	-0.3	-3.8	0.43	-0.04	-56.28
1,375.0	0.54	83.99	1,375.0	-3.9	-0.1	-3.8	0.85	0.44	-87.44

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1,400.0	0.44	91.45	1,400.0	-3.8	0.2	-3.8	0.47	-0.40	29.84
1,425.0	0.15	93.84	1,425.0	-3.8	0.3	-3.9	1.16	-1.16	9.56
1,450.0	0.34	101.89	1,450.0	-3.9	0.4	-3.9	0.77	0.76	32.20
1,475.0	0.56	91.22	1,475.0	-3.9	0.6	-3.9	0.94	0.88	-42.68
1,500.0	0.82	77.30	1,500.0	-3.8	0.9	-3.9	1.23	1.04	-55.68
1,525.0	1.03	69.41	1,525.0	-3.7	1.3	-3.8	0.98	0.84	-31.56
1,550.0	0.94	68.41	1,550.0	-3.6	1.7	-3.7	0.37	-0.36	-4.00
1,575.0	0.88	80.49	1,575.0	-3.5	2.0	-3.6	0.80	-0.24	48.32
1,600.0	1.08	77.11	1,600.0	-3.4	2.5	-3.6	0.83	0.80	-13.52
1,625.0	1.08	76.55	1,624.9	-3.3	2.9	-3.5	0.04	0.00	-2.24
1,650.0	1.06	74.36	1,649.9	-3.2	3.4	-3.4	0.18	-0.08	-8.76
1,675.0	0.80	98.24	1,674.9	-3.1	3.8	-3.4	1.85	-1.04	95.52
1,700.0	0.78	137.08	1,699.9	-3.3	4.1	-3.6	2.10	-0.08	155.36
1,725.0	0.86	145.52	1,724.9	-3.6	4.3	-3.9	0.58	0.32	33.76
1,750.0	0.98	134.58	1,749.9	-3.9	4.5	-4.2	0.85	0.48	-43.76
1,775.0	0.98	147.25	1,774.9	-4.2	4.8	-4.6	0.87	0.00	50.68
1,800.0	0.91	154.63	1,799.9	-4.5	5.0	-5.0	0.56	-0.28	29.52
1,805.4	0.91	154.63	1,805.3	-4.6	5.0	-5.0	0.00	0.00	0.00
Rustler									
1,825.0	0.93	154.85	1,824.9	-4.9	5.2	-5.3	0.10	0.10	1.12
1,850.0	0.90	158.04	1,849.9	-5.3	5.3	-5.7	0.24	-0.12	12.76
1,875.0	0.80	147.30	1,874.9	-5.6	5.5	-6.0	0.75	-0.40	-42.96
1,899.4	1.06	152.58	1,899.3	-5.9	5.7	-6.4	1.13	1.08	21.65
TOS									
1,900.0	1.07	152.68	1,899.9	-6.0	5.7	-6.4	1.13	1.09	16.17
1,925.0	1.04	150.78	1,924.9	-6.4	5.9	-6.8	0.18	-0.12	-7.60
1,950.0	1.13	158.44	1,949.9	-6.8	6.1	-7.3	0.68	0.36	30.64
1,975.0	1.23	171.73	1,974.9	-7.3	6.3	-7.8	1.16	0.40	53.16
2,000.0	1.55	210.59	1,999.9	-7.8	6.1	-8.3	3.89	1.28	155.44
2,025.0	1.77	215.34	2,024.9	-8.4	5.7	-8.9	1.04	0.88	19.00
2,050.0	2.26	224.25	2,049.9	-9.1	5.2	-9.5	2.32	1.96	35.64
2,075.0	2.39	226.29	2,074.8	-9.8	4.4	-10.2	0.62	0.52	8.16
2,100.0	2.62	228.56	2,099.8	-10.6	3.6	-10.8	1.00	0.92	9.08
2,125.0	2.70	230.08	2,124.8	-11.3	2.8	-11.5	0.43	0.32	6.08
2,150.0	2.53	231.14	2,149.8	-12.0	1.9	-12.2	0.71	-0.68	4.24
2,175.0	2.78	229.82	2,174.7	-12.8	1.0	-12.8	1.03	1.00	-5.28
2,200.0	2.87	231.78	2,199.7	-13.6	0.0	-13.5	0.53	0.36	7.84
2,225.0	2.97	236.86	2,224.7	-14.3	-1.0	-14.2	1.11	0.40	20.32
2,250.0	3.15	257.38	2,249.6	-14.8	-2.2	-14.6	4.42	0.72	82.08
2,275.0	3.44	269.13	2,274.6	-15.0	-3.6	-14.6	2.93	1.16	47.00
2,300.0	3.52	271.68	2,299.6	-15.0	-5.2	-14.5	0.70	0.32	10.20
2,325.0	3.47	276.60	2,324.5	-14.8	-6.7	-14.2	1.22	-0.20	19.68
2,350.0	3.03	282.72	2,349.5	-14.6	-8.1	-13.9	2.24	-1.76	24.48
2,375.0	2.42	294.18	2,374.4	-14.3	-9.2	-13.4	3.26	-2.44	45.84



Intrepid
Survey Report



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2,400.0	2.27	299.37	2,399.4	-13.8	-10.1	-12.9	1.04	-0.60	20.76
2,425.0	2.25	302.57	2,424.4	-13.3	-11.0	-12.3	0.51	-0.08	12.80
2,450.0	2.24	306.20	2,449.4	-12.7	-11.8	-11.7	0.57	-0.04	14.52
2,475.0	2.25	307.54	2,474.4	-12.1	-12.5	-11.0	0.21	0.04	5.36
2,500.0	2.31	306.16	2,499.3	-11.6	-13.3	-10.4	0.33	0.24	-5.52
2,525.0	2.34	309.38	2,524.3	-10.9	-14.1	-9.7	0.54	0.12	12.88
2,550.0	2.39	311.83	2,549.3	-10.3	-14.9	-9.0	0.45	0.20	9.80
2,575.0	2.55	312.84	2,574.3	-9.5	-15.7	-8.2	0.66	0.64	4.04
2,600.0	2.78	314.72	2,599.3	-8.7	-16.6	-7.3	0.98	0.92	7.52
2,625.0	2.93	316.85	2,624.2	-7.8	-17.4	-6.3	0.73	0.60	8.52
2,650.0	3.04	317.64	2,649.2	-6.9	-18.3	-5.3	0.47	0.44	3.16
2,675.0	3.14	322.12	2,674.1	-5.8	-19.2	-4.2	1.05	0.40	17.92
2,700.0	3.03	313.53	2,699.1	-4.9	-20.1	-3.1	1.90	-0.44	-34.36
2,725.0	2.77	315.33	2,724.1	-4.0	-21.0	-2.2	1.10	-1.04	7.20
2,750.0	1.57	309.58	2,749.1	-3.3	-21.7	-1.5	4.87	-4.80	-23.00
2,775.0	1.13	296.41	2,774.1	-3.0	-22.2	-1.1	2.14	-1.76	-52.68
2,800.0	0.94	286.71	2,799.1	-2.8	-22.6	-0.9	1.03	-0.76	-38.80
2,825.0	0.74	268.87	2,824.0	-2.8	-22.9	-0.8	1.31	-0.80	-71.36
2,850.0	0.72	264.53	2,849.0	-2.8	-23.3	-0.8	0.24	-0.08	-17.36
2,875.0	0.58	246.92	2,874.0	-2.9	-23.5	-0.8	0.97	-0.56	-70.44
2,900.0	0.61	243.32	2,899.0	-3.0	-23.8	-0.9	0.19	0.12	-14.40
2,925.0	0.56	232.12	2,924.0	-3.1	-24.0	-1.0	0.50	-0.20	-44.80
2,950.0	0.12	217.65	2,949.0	-3.2	-24.1	-1.1	1.78	-1.76	-57.88
2,975.0	0.68	214.55	2,974.0	-3.3	-24.2	-1.3	2.24	2.24	-12.40
3,000.0	0.70	219.93	2,999.0	-3.6	-24.4	-1.5	0.27	0.08	21.52
3,025.0	0.70	212.78	3,024.0	-3.8	-24.5	-1.7	0.35	0.00	-28.60
3,050.0	0.66	209.18	3,049.0	-4.1	-24.7	-2.0	0.23	-0.16	-14.40
3,075.0	0.84	230.49	3,074.0	-4.3	-24.9	-2.2	1.32	0.72	85.24
3,100.0	1.27	255.55	3,099.0	-4.5	-25.3	-2.3	2.48	1.72	100.24
3,125.0	2.00	252.10	3,124.0	-4.7	-26.0	-2.5	2.95	2.92	-13.80
3,150.0	2.30	254.78	3,149.0	-5.0	-26.9	-2.7	1.27	1.20	10.72
3,175.0	2.47	257.83	3,174.0	-5.2	-27.9	-2.8	0.85	0.68	12.20
3,200.0	3.00	261.66	3,199.0	-5.4	-29.1	-2.9	2.24	2.12	15.32
3,225.0	2.82	260.52	3,223.9	-5.6	-30.3	-3.0	0.76	-0.72	-4.56
3,250.0	2.89	258.70	3,248.9	-5.8	-31.6	-3.1	0.46	0.28	-7.28
3,275.0	2.69	260.89	3,273.9	-6.1	-32.8	-3.3	0.91	-0.80	8.76
3,300.0	1.51	286.78	3,298.8	-6.1	-33.7	-3.2	5.94	-4.72	103.56
3,325.0	1.42	295.63	3,323.8	-5.8	-34.3	-2.9	0.97	-0.36	35.40
3,350.0	1.11	326.17	3,348.8	-5.5	-34.7	-2.5	2.92	-1.24	122.16
3,375.0	1.06	345.07	3,373.8	-5.1	-34.9	-2.1	1.44	-0.20	75.60
3,400.0	1.10	0.01	3,398.8	-4.6	-34.9	-1.6	1.13	0.16	59.76
3,425.0	1.57	18.88	3,423.8	-4.0	-34.8	-1.1	2.55	1.88	75.48
3,450.0	1.48	17.34	3,448.8	-3.4	-34.6	-0.5	0.40	-0.36	-6.16

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
3,475.0	1.58	22.44	3,473.8	-2.8	-34.4	0.1	0.68	0.40	20.40
3,500.0	1.53	24.01	3,498.8	-2.2	-34.1	0.7	0.26	-0.20	6.28
3,525.0	1.72	23.95	3,523.8	-1.5	-33.8	1.4	0.76	0.76	-0.24
3,540.5	1.80	22.76	3,539.3	-1.1	-33.6	1.8	0.57	0.52	-7.64
BOS / Tansill									
3,550.0	1.85	22.09	3,548.8	-0.8	-33.5	2.1	0.57	0.52	-7.11
3,575.0	1.41	7.24	3,573.8	-0.1	-33.3	2.7	2.43	-1.76	-59.40
3,600.0	1.13	344.74	3,598.7	0.4	-33.4	3.3	2.27	-1.12	-90.00
3,625.0	1.09	323.39	3,623.7	0.9	-33.6	3.7	1.65	-0.16	-85.40
3,650.0	1.25	304.65	3,648.7	1.2	-33.9	4.1	1.65	0.64	-74.96
3,675.0	2.75	281.75	3,673.7	1.5	-34.7	4.4	6.68	6.00	-91.60
3,700.0	3.53	273.61	3,698.7	1.6	-36.1	4.7	3.59	3.12	-32.56
3,725.0	3.73	272.77	3,723.6	1.7	-37.7	4.9	0.83	0.80	-3.36
3,735.7	3.67	270.80	3,734.3	1.8	-38.4	5.0	1.33	-0.59	-18.47
Yates									
3,750.0	3.59	268.05	3,748.6	1.7	-39.3	5.1	1.33	-0.54	-19.19
3,775.0	2.95	253.86	3,773.5	1.5	-40.7	5.0	4.11	-2.56	-56.76
3,800.0	2.21	244.19	3,798.5	1.2	-41.7	4.7	3.42	-2.96	-38.68
3,803.8	2.18	241.65	3,802.3	1.1	-41.9	4.6	2.68	-0.74	-67.11
Seven Rivers									
3,825.0	2.11	226.57	3,823.5	0.6	-42.5	4.2	2.68	-0.34	-71.08
3,850.0	1.64	206.40	3,848.5	0.0	-43.0	3.6	3.21	-1.88	-80.68
3,875.0	1.49	188.34	3,873.5	-0.7	-43.2	3.0	2.05	-0.60	-72.24
3,900.0	1.35	168.03	3,898.5	-1.3	-43.2	2.4	2.08	-0.56	-81.24
3,925.0	1.16	157.10	3,923.5	-1.8	-43.0	1.9	1.22	-0.76	-43.72
3,950.0	0.95	156.86	3,948.5	-2.2	-42.8	1.4	0.84	-0.84	-0.96
3,961.8	0.77	149.25	3,960.3	-2.4	-42.8	1.3	1.82	-1.54	-64.25
Capitan Reef									
3,975.0	0.59	135.55	3,973.5	-2.5	-42.7	1.1	1.82	-1.35	-104.13
4,000.0	0.40	99.77	3,998.5	-2.6	-42.5	1.0	1.42	-0.76	-143.12
4,025.0	0.36	56.61	4,023.5	-2.6	-42.3	1.0	1.13	-0.16	-172.64
4,050.0	0.69	37.58	4,048.5	-2.4	-42.2	1.2	1.48	1.32	-76.12
4,075.0	0.57	31.49	4,073.5	-2.2	-42.0	1.4	0.55	-0.48	-24.36
4,100.0	0.59	28.46	4,098.5	-2.0	-41.9	1.6	0.15	0.08	-12.12
4,125.0	0.71	27.51	4,123.5	-1.7	-41.8	1.8	0.48	0.48	-3.80
4,150.0	0.58	16.64	4,148.4	-1.4	-41.7	2.1	0.71	-0.52	-43.48
4,175.0	0.57	2.82	4,173.4	-1.2	-41.6	2.3	0.55	-0.04	-55.28
4,200.0	0.62	342.70	4,198.4	-1.0	-41.6	2.6	0.85	0.20	-80.48
4,225.0	0.73	319.54	4,223.4	-0.7	-41.8	2.8	1.17	0.44	-92.64
4,250.0	0.89	314.55	4,248.4	-0.4	-42.0	3.1	0.70	0.64	-19.96
4,275.0	0.81	275.08	4,273.4	-0.3	-42.3	3.3	2.32	-0.32	-157.88
4,300.0	0.92	297.41	4,298.4	-0.2	-42.7	3.4	1.41	0.44	89.32
4,325.0	1.10	302.31	4,323.4	0.0	-43.1	3.7	0.80	0.72	19.60
4,350.0	1.08	300.55	4,348.4	0.3	-43.5	4.0	0.16	-0.08	-7.04



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
4,375.0	1.28	310.24	4,373.4	0.6	-43.9	4.3	1.13	0.80	38.76
4,400.0	1.42	314.12	4,398.4	1.0	-44.3	4.7	0.67	0.56	15.52
4,425.0	1.30	316.86	4,423.4	1.4	-44.8	5.2	0.55	-0.48	10.96
4,450.0	1.41	311.39	4,448.4	1.8	-45.2	5.6	0.68	0.44	-21.88
4,475.0	1.25	317.98	4,473.4	2.2	-45.6	6.1	0.88	-0.64	26.36
4,500.0	1.10	314.79	4,498.4	2.6	-45.9	6.5	0.65	-0.60	-12.76
4,525.0	1.05	331.48	4,523.4	3.0	-46.2	6.9	1.26	-0.20	66.76
4,550.0	0.88	345.16	4,548.4	3.3	-46.4	7.3	1.14	-0.68	54.72
4,575.0	0.88	353.26	4,573.4	3.7	-46.5	7.7	0.50	0.00	32.40
4,600.0	0.83	354.76	4,598.4	4.1	-46.5	8.0	0.22	-0.20	6.00
4,625.0	0.83	358.35	4,623.4	4.5	-46.5	8.4	0.21	0.00	14.36
4,650.0	1.06	4.35	4,648.4	4.9	-46.5	8.8	1.00	0.92	24.00
4,675.0	1.00	7.49	4,673.4	5.3	-46.5	9.2	0.33	-0.24	12.56
4,700.0	0.95	10.35	4,698.4	5.7	-46.4	9.7	0.28	-0.20	11.44
4,725.0	0.99	9.11	4,723.4	6.2	-46.3	10.1	0.18	0.16	-4.96
4,750.0	1.05	5.48	4,748.4	6.6	-46.3	10.5	0.35	0.24	-14.52
4,775.0	0.82	8.51	4,773.4	7.0	-46.2	10.9	0.94	-0.92	12.12
4,800.0	0.49	7.09	4,798.4	7.3	-46.2	11.2	1.32	-1.32	-5.68
4,825.0	0.28	339.00	4,823.3	7.4	-46.2	11.3	1.11	-0.84	-112.36
4,850.0	0.17	269.20	4,848.3	7.5	-46.2	11.4	1.09	-0.44	-279.20
4,875.0	0.27	247.39	4,873.3	7.5	-46.3	11.4	0.51	0.40	-87.24
4,900.0	0.39	278.79	4,898.3	7.5	-46.5	11.4	0.85	0.48	125.60
4,925.0	0.31	241.56	4,923.3	7.5	-46.6	11.4	0.94	-0.32	-148.92
4,950.0	0.26	245.37	4,948.3	7.4	-46.7	11.3	0.21	-0.20	15.24
4,975.0	0.30	235.70	4,973.3	7.3	-46.8	11.3	0.25	0.16	-38.68
5,000.0	0.24	249.96	4,998.3	7.3	-46.9	11.2	0.36	-0.24	57.04
5,025.0	0.34	236.22	5,023.3	7.2	-47.0	11.2	0.48	0.40	-54.96
5,050.0	0.24	233.86	5,048.3	7.1	-47.2	11.1	0.40	-0.40	-9.44
5,075.0	0.26	231.30	5,073.3	7.1	-47.2	11.1	0.09	0.08	-10.24
5,100.0	0.26	227.67	5,098.3	7.0	-47.3	11.0	0.07	0.00	-14.52
5,125.0	0.20	222.75	5,123.3	6.9	-47.4	10.9	0.25	-0.24	-19.68
5,150.0	0.31	217.45	5,148.3	6.9	-47.5	10.9	0.45	0.44	-21.20
5,175.0	0.24	220.64	5,173.3	6.8	-47.5	10.8	0.29	-0.28	12.76
5,200.0	0.33	210.51	5,198.3	6.7	-47.6	10.7	0.41	0.36	-40.52
5,225.0	0.17	208.22	5,223.3	6.6	-47.7	10.6	0.64	-0.64	-9.16
5,250.0	0.27	221.34	5,248.3	6.5	-47.7	10.5	0.45	0.40	52.48
5,275.0	0.29	209.30	5,273.3	6.4	-47.8	10.4	0.25	0.08	-48.16
5,300.0	0.25	213.96	5,298.3	6.3	-47.9	10.3	0.18	-0.16	18.64
5,325.0	0.15	198.15	5,323.3	6.2	-47.9	10.3	0.45	-0.40	-63.24
5,350.0	0.35	220.14	5,348.3	6.1	-48.0	10.2	0.87	0.80	87.96
5,359.0	0.31	217.63	5,357.3	6.1	-48.0	10.1	0.48	-0.45	-28.03
Base of Reef (BLCN)									
5,375.0	0.24	211.06	5,373.3	6.0	-48.0	10.1	0.48	-0.44	-40.95



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
5,400.0	0.27	210.31	5,398.3	5.9	-48.1	10.0	0.12	0.12	-3.00
5,425.0	0.23	205.93	5,423.3	5.8	-48.1	9.9	0.18	-0.16	-17.52
5,450.0	0.07	192.01	5,448.3	5.8	-48.2	9.8	0.65	-0.64	-55.68
5,475.0	0.57	214.38	5,473.3	5.6	-48.2	9.7	2.02	2.00	89.48
5,500.0	0.25	203.68	5,498.3	5.5	-48.3	9.6	1.31	-1.28	-42.80
5,525.0	0.86	197.27	5,523.3	5.3	-48.4	9.4	2.45	2.44	-25.64
5,550.0	2.95	221.91	5,548.3	4.6	-48.9	8.7	8.79	8.36	98.56
5,575.0	4.21	227.15	5,573.3	3.5	-50.0	7.7	5.20	5.04	20.96
5,600.0	4.97	231.17	5,598.2	2.2	-51.5	6.6	3.30	3.04	16.08
5,625.0	5.15	228.61	5,623.1	0.8	-53.2	5.3	1.15	0.72	-10.24
5,650.0	5.15	228.39	5,648.0	-0.7	-54.9	4.0	0.08	0.00	-0.88
5,675.0	5.29	229.03	5,672.9	-2.2	-56.6	2.6	0.61	0.56	2.56
5,700.0	5.19	229.28	5,697.8	-3.7	-58.3	1.3	0.41	-0.40	1.00
5,725.0	5.01	230.60	5,722.7	-5.1	-60.0	0.0	0.86	-0.72	5.28
5,750.0	5.04	230.81	5,747.6	-6.5	-61.7	-1.3	0.14	0.12	0.84
5,775.0	4.89	230.64	5,772.5	-7.9	-63.4	-2.5	0.60	-0.60	-0.68
5,800.0	4.89	230.90	5,797.4	-9.2	-65.0	-3.7	0.09	0.00	1.04
5,809.9	4.95	230.70	5,807.3	-9.8	-65.7	-4.2	0.62	0.60	-2.04
CYCN									
5,825.0	5.04	230.40	5,822.3	-10.6	-66.7	-4.9	0.62	0.60	-1.98
5,850.0	5.03	231.64	5,847.2	-12.0	-68.4	-6.1	0.44	-0.04	4.96
5,875.0	6.29	237.80	5,872.1	-13.4	-70.4	-7.4	5.59	5.04	24.64
5,900.0	7.33	243.85	5,896.9	-14.8	-73.0	-8.6	5.05	4.16	24.20
5,925.0	7.82	244.52	5,921.7	-16.3	-76.0	-9.8	1.99	1.96	2.68
5,950.0	8.20	246.12	5,946.5	-17.7	-79.2	-10.9	1.76	1.52	6.40
5,975.0	7.84	245.97	5,971.2	-19.1	-82.3	-12.1	1.44	-1.44	-0.60
6,000.0	8.16	246.02	5,996.0	-20.5	-85.5	-13.2	1.28	1.28	0.20
6,025.0	8.20	246.49	6,020.7	-22.0	-88.8	-14.4	0.31	0.16	1.88
6,050.0	8.33	245.70	6,045.5	-23.4	-92.1	-15.5	0.69	0.52	-3.16
6,075.0	8.49	246.80	6,070.2	-24.9	-95.4	-16.7	0.91	0.64	4.40
6,100.0	8.30	247.04	6,094.9	-26.3	-98.8	-17.9	0.77	-0.76	0.96
6,125.0	8.36	246.91	6,119.7	-27.8	-102.1	-19.0	0.25	0.24	-0.52
6,150.0	8.46	246.85	6,144.4	-29.2	-105.5	-20.1	0.40	0.40	-0.24
6,175.0	8.23	247.78	6,169.1	-30.6	-108.8	-21.2	1.07	-0.92	3.72
6,200.0	8.12	247.84	6,193.9	-31.9	-112.1	-22.3	0.44	-0.44	0.24
6,225.0	8.59	249.88	6,218.6	-33.2	-115.5	-23.3	2.22	1.88	8.16
6,250.0	8.86	252.74	6,243.3	-34.5	-119.1	-24.2	2.04	1.08	11.44
6,275.0	9.46	256.52	6,268.0	-35.5	-122.9	-24.9	3.40	2.40	15.12
6,300.0	9.87	260.24	6,292.6	-36.4	-127.0	-25.4	2.99	1.64	14.88
6,325.0	10.05	260.30	6,317.3	-37.1	-131.3	-25.8	0.72	0.72	0.24
6,350.0	10.13	262.41	6,341.9	-37.7	-135.6	-26.1	1.51	0.32	8.44
6,375.0	10.26	262.64	6,366.5	-38.3	-140.0	-26.3	0.54	0.52	0.92
6,400.0	10.22	262.53	6,391.1	-38.9	-144.4	-26.5	0.18	-0.16	-0.44
6,425.0	10.25	262.85	6,415.7	-39.5	-148.8	-26.7	0.26	0.12	1.28

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
6,450.0	9.65	264.72	6,440.3	-39.9	-153.1	-26.8	2.73	-2.40	7.48
6,475.0	9.18	265.79	6,465.0	-40.3	-157.2	-26.8	2.01	-1.88	4.28
6,500.0	8.70	267.14	6,489.7	-40.5	-161.1	-26.7	2.10	-1.92	5.40
6,525.0	8.65	267.41	6,514.4	-40.7	-164.8	-26.5	0.26	-0.20	1.08
6,550.0	8.64	266.75	6,539.1	-40.9	-168.6	-26.4	0.40	-0.04	-2.64
6,575.0	8.48	268.31	6,563.8	-41.0	-172.3	-26.3	1.13	-0.64	6.24
6,600.0	8.50	268.15	6,588.5	-41.1	-176.0	-26.1	0.12	0.08	-0.64
6,625.0	8.37	268.77	6,613.3	-41.2	-179.7	-25.8	0.63	-0.52	2.48
6,650.0	8.48	268.49	6,638.0	-41.3	-183.3	-25.6	0.47	0.44	-1.12
6,675.0	8.02	269.34	6,662.7	-41.4	-186.9	-25.4	1.90	-1.84	3.40
6,700.0	7.95	271.74	6,687.5	-41.4	-190.4	-25.1	1.36	-0.28	9.60
6,725.0	7.86	272.00	6,712.3	-41.3	-193.8	-24.7	0.39	-0.36	1.04
6,750.0	7.42	273.65	6,737.0	-41.1	-197.1	-24.2	1.97	-1.76	6.60
6,775.0	7.69	272.61	6,761.8	-40.9	-200.4	-23.8	1.21	1.08	-4.16
6,800.0	7.83	274.85	6,786.6	-40.7	-203.8	-23.3	1.33	0.56	8.96
6,825.0	7.57	274.58	6,811.4	-40.4	-207.1	-22.7	1.05	-1.04	-1.08
6,850.0	7.49	274.24	6,836.2	-40.2	-210.4	-22.2	0.37	-0.32	-1.36
6,875.0	7.56	274.67	6,860.9	-39.9	-213.7	-21.6	0.36	0.28	1.72
6,900.0	7.77	274.63	6,885.7	-39.6	-217.0	-21.1	0.84	0.84	-0.16
6,925.0	7.98	273.50	6,910.5	-39.4	-220.4	-20.6	1.04	0.84	-4.52
6,950.0	8.82	267.70	6,935.2	-39.4	-224.0	-20.2	4.77	3.36	-23.20
6,975.0	9.00	266.71	6,959.9	-39.6	-227.9	-20.1	0.95	0.72	-3.96
7,000.0	9.08	266.79	6,984.6	-39.8	-231.8	-20.0	0.32	0.32	0.32
7,025.0	9.20	266.69	7,009.3	-40.0	-235.8	-19.9	0.48	0.48	-0.40
7,050.0	9.03	266.84	7,034.0	-40.2	-239.7	-19.7	0.69	-0.68	0.60
7,075.0	8.81	266.42	7,058.7	-40.5	-243.6	-19.6	0.92	-0.88	-1.68
7,100.0	8.74	266.41	7,083.4	-40.7	-247.4	-19.6	0.28	-0.28	-0.04
7,125.0	8.81	265.74	7,108.1	-41.0	-251.2	-19.5	0.50	0.28	-2.68
7,150.0	8.81	265.95	7,132.8	-41.2	-255.0	-19.4	0.13	0.00	0.84
7,175.0	8.48	266.52	7,157.5	-41.5	-258.8	-19.4	1.36	-1.32	2.28
7,200.0	8.31	264.96	7,182.2	-41.8	-262.4	-19.3	1.14	-0.68	-6.24
7,225.0	8.26	264.92	7,207.0	-42.1	-266.0	-19.3	0.20	-0.20	-0.16
7,242.5	8.34	264.56	7,224.3	-42.3	-268.5	-19.4	0.56	0.48	-2.05
BYCN									
7,250.0	8.38	264.41	7,231.7	-42.4	-269.6	-19.4	0.56	0.48	-2.02
7,275.0	8.43	262.97	7,256.4	-42.8	-273.3	-19.5	0.87	0.20	-5.76
7,300.0	8.36	263.12	7,281.2	-43.3	-276.9	-19.6	0.29	-0.28	0.60
7,325.0	8.35	263.00	7,305.9	-43.7	-280.5	-19.7	0.08	-0.04	-0.48
7,350.0	8.54	262.33	7,330.6	-44.2	-284.1	-19.9	0.86	0.76	-2.68
7,375.0	8.67	261.99	7,355.4	-44.7	-287.8	-20.1	0.56	0.52	-1.36
7,400.0	8.49	260.80	7,380.1	-45.2	-291.5	-20.3	1.01	-0.72	-4.76
7,425.0	8.99	260.04	7,404.8	-45.9	-295.3	-20.6	2.05	2.00	-3.04
7,450.0	8.79	260.36	7,429.5	-46.5	-299.1	-21.0	0.82	-0.80	1.28



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
7,475.0	8.86	260.07	7,454.2	-47.2	-302.9	-21.3	0.33	0.28	-1.16
7,500.0	8.95	259.04	7,478.9	-47.9	-306.7	-21.7	0.73	0.36	-4.12
7,525.0	8.69	259.13	7,503.6	-48.6	-310.4	-22.1	1.04	-1.04	0.36
7,550.0	8.56	258.82	7,528.3	-49.3	-314.1	-22.5	0.55	-0.52	-1.24
7,575.0	8.60	258.77	7,553.0	-50.0	-317.8	-22.9	0.16	0.16	-0.20
7,600.0	8.72	258.17	7,577.7	-50.8	-321.5	-23.3	0.60	0.48	-2.40
7,625.0	8.77	259.04	7,602.5	-51.5	-325.2	-23.8	0.57	0.20	3.48
7,650.0	8.60	258.21	7,627.2	-52.3	-328.9	-24.2	0.84	-0.68	-3.32
7,675.0	8.70	258.01	7,651.9	-53.1	-332.6	-24.6	0.42	0.40	-0.80
7,700.0	8.80	259.00	7,676.6	-53.8	-336.3	-25.1	0.72	0.40	3.96
7,725.0	8.85	258.18	7,701.3	-54.6	-340.0	-25.5	0.54	0.20	-3.28
7,750.0	8.84	258.97	7,726.0	-55.3	-343.8	-26.0	0.49	-0.04	3.16
7,775.0	8.59	259.33	7,750.7	-56.1	-347.5	-26.4	1.02	-1.00	1.44
7,800.0	8.69	260.23	7,775.4	-56.7	-351.2	-26.7	0.67	0.40	3.60
7,825.0	8.60	261.02	7,800.1	-57.3	-354.9	-27.0	0.60	-0.36	3.16
7,850.0	8.58	261.51	7,824.9	-57.9	-358.6	-27.3	0.30	-0.08	1.96
7,875.0	8.63	262.60	7,849.6	-58.4	-362.3	-27.5	0.68	0.20	4.36
7,900.0	8.55	262.81	7,874.3	-58.9	-366.0	-27.6	0.34	-0.32	0.84
7,925.0	8.37	263.67	7,899.0	-59.3	-369.7	-27.7	0.88	-0.72	3.44
7,950.0	7.97	265.00	7,923.8	-59.7	-373.2	-27.8	1.77	-1.60	5.32
7,975.0	8.01	265.62	7,948.5	-60.0	-376.7	-27.8	0.38	0.16	2.48
8,000.0	8.13	265.68	7,973.3	-60.2	-380.2	-27.7	0.48	0.48	0.24
8,025.0	7.73	267.11	7,998.0	-60.4	-383.6	-27.7	1.78	-1.60	5.72
8,050.0	7.93	265.23	8,022.8	-60.7	-387.0	-27.6	1.30	0.80	-7.52
8,075.0	8.49	257.11	8,047.6	-61.2	-390.5	-27.9	5.14	2.24	-32.48
8,100.0	8.80	253.04	8,072.3	-62.2	-394.2	-28.5	2.74	1.24	-16.28
8,125.0	8.69	251.86	8,097.0	-63.3	-397.8	-29.4	0.84	-0.44	-4.72
8,150.0	8.58	252.31	8,121.7	-64.5	-401.4	-30.2	0.52	-0.44	1.80
8,175.0	8.78	252.34	8,146.4	-65.6	-405.0	-31.0	0.80	0.80	0.12
8,200.0	8.94	252.15	8,171.1	-66.8	-408.6	-31.9	0.65	0.64	-0.76
8,225.0	9.00	252.50	8,195.8	-68.0	-412.3	-32.8	0.32	0.24	1.40
8,250.0	8.61	254.46	8,220.5	-69.1	-416.0	-33.5	1.97	-1.56	7.84
8,275.0	8.76	260.67	8,245.2	-69.9	-419.7	-34.0	3.80	0.60	24.84
8,300.0	8.76	262.93	8,269.9	-70.4	-423.5	-34.2	1.38	0.00	9.04
8,325.0	8.73	264.13	8,294.6	-70.9	-427.2	-34.4	0.74	-0.12	4.80
8,350.0	8.68	265.02	8,319.4	-71.2	-431.0	-34.4	0.57	-0.20	3.56
8,375.0	8.67	264.63	8,344.1	-71.6	-434.8	-34.4	0.24	-0.04	-1.56
8,400.0	8.49	264.50	8,368.8	-71.9	-438.5	-34.4	0.72	-0.72	-0.52
8,425.0	8.31	265.53	8,393.5	-72.2	-442.1	-34.5	0.94	-0.72	4.12
8,450.0	8.32	265.40	8,418.3	-72.5	-445.7	-34.4	0.09	0.04	-0.52
8,475.0	8.46	264.77	8,443.0	-72.8	-449.3	-34.4	0.67	0.56	-2.52
8,500.0	8.45	264.44	8,467.7	-73.2	-453.0	-34.5	0.20	-0.04	-1.32
8,525.0	8.35	265.71	8,492.5	-73.5	-456.6	-34.5	0.84	-0.40	5.08
8,550.0	8.32	266.68	8,517.2	-73.7	-460.3	-34.4	0.58	-0.12	3.88



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
8,575.0	8.45	266.26	8,541.9	-74.0	-463.9	-34.3	0.57	0.52	-1.68
8,600.0	8.19	267.15	8,566.7	-74.2	-467.5	-34.2	1.16	-1.04	3.56
8,625.0	8.53	266.34	8,591.4	-74.4	-471.1	-34.1	1.44	1.36	-3.24
8,650.0	8.35	266.30	8,616.1	-74.6	-474.8	-34.0	0.72	-0.72	-0.16
8,675.0	8.42	266.61	8,640.9	-74.8	-478.4	-34.0	0.33	0.28	1.24
8,700.0	8.54	266.62	8,665.6	-75.1	-482.1	-33.9	0.48	0.48	0.04
8,725.0	8.79	262.51	8,690.3	-75.4	-485.9	-33.9	2.67	1.00	-16.44
8,750.0	9.18	260.22	8,715.0	-76.0	-489.7	-34.2	2.12	1.56	-9.16
8,775.0	9.22	259.74	8,739.7	-76.7	-493.7	-34.5	0.35	0.16	-1.92
8,800.0	9.12	259.98	8,764.4	-77.4	-497.6	-34.9	0.43	-0.40	0.96
8,825.0	9.00	259.71	8,789.0	-78.1	-501.5	-35.2	0.51	-0.48	-1.08
8,846.5	9.02	259.23	8,810.3	-78.7	-504.8	-35.6	0.36	0.08	-2.24
Bone Spring (BSGL)									
8,850.0	9.02	259.15	8,813.7	-78.8	-505.3	-35.6	0.36	0.08	-2.23
8,875.0	8.76	259.51	8,838.4	-79.5	-509.1	-36.0	1.06	-1.04	1.44
8,900.0	9.07	259.18	8,863.1	-80.2	-512.9	-36.4	1.26	1.24	-1.32
8,925.0	9.09	259.95	8,887.8	-81.0	-516.8	-36.8	0.49	0.08	3.08
8,950.0	9.46	260.12	8,912.5	-81.7	-520.8	-37.2	1.48	1.48	0.68
8,975.0	9.21	260.07	8,937.2	-82.4	-524.8	-37.5	1.00	-1.00	-0.20
9,000.0	8.82	260.67	8,961.8	-83.0	-528.6	-37.8	1.60	-1.56	2.40
9,025.0	8.53	261.54	8,986.6	-83.6	-532.3	-38.1	1.27	-1.16	3.48
9,050.0	8.21	261.59	9,011.3	-84.1	-535.9	-38.3	1.28	-1.28	0.20
9,075.0	8.07	261.26	9,036.0	-84.7	-539.4	-38.6	0.59	-0.56	-1.32
9,100.0	7.74	261.42	9,060.8	-85.2	-542.8	-38.8	1.32	-1.32	0.64
9,125.0	7.37	259.56	9,085.6	-85.7	-546.1	-39.1	1.77	-1.48	-7.44
9,150.0	6.79	260.39	9,110.4	-86.3	-549.1	-39.3	2.36	-2.32	3.32
9,175.0	6.42	258.34	9,135.2	-86.8	-551.9	-39.6	1.75	-1.48	-8.20
9,200.0	6.72	256.35	9,160.1	-87.4	-554.7	-40.0	1.51	1.20	-7.96
9,225.0	6.99	255.60	9,184.9	-88.1	-557.6	-40.5	1.14	1.08	-3.00
9,250.0	7.05	254.98	9,209.7	-88.9	-560.6	-41.0	0.39	0.24	-2.48
9,275.0	7.29	255.15	9,234.5	-89.7	-563.6	-41.5	0.96	0.96	0.68
9,299.0	7.70	255.37	9,258.3	-90.5	-566.6	-42.1	1.72	1.72	0.92
U Avalon Sh									
9,300.0	7.72	255.38	9,259.3	-90.5	-566.8	-42.1	1.72	1.72	0.87
9,325.0	8.20	255.35	9,284.1	-91.4	-570.1	-42.7	1.92	1.92	-0.12
9,350.0	8.48	255.81	9,308.8	-92.3	-573.6	-43.3	1.15	1.12	1.84
9,375.0	8.75	256.21	9,333.5	-93.2	-577.3	-43.9	1.11	1.08	1.60
9,400.0	8.65	256.04	9,358.2	-94.1	-580.9	-44.5	0.41	-0.40	-0.68
9,425.0	8.51	255.87	9,382.9	-95.0	-584.5	-45.1	0.57	-0.56	-0.68
9,440.5	8.40	256.50	9,398.3	-95.6	-586.8	-45.4	0.91	-0.68	4.05
L Avalon Sh									
9,450.0	8.34	256.89	9,407.7	-95.9	-588.1	-45.6	0.91	-0.68	4.13
9,475.0	8.02	256.18	9,432.4	-96.7	-591.6	-46.2	1.34	-1.28	-2.84
9,500.0	7.58	256.82	9,457.2	-97.5	-594.9	-46.7	1.79	-1.76	2.56



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S-R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
9,525.0	7.18	257.79	9,482.0	-98.2	-598.0	-47.1	1.68	-1.60	3.88
9,550.0	6.88	258.98	9,506.8	-98.8	-601.0	-47.5	1.33	-1.20	4.76
9,575.0	7.81	259.02	9,531.6	-99.5	-604.1	-47.8	3.72	3.72	0.16
9,600.0	8.53	260.90	9,556.3	-100.1	-607.6	-48.1	3.07	2.88	7.52
9,625.0	8.98	260.83	9,581.0	-100.7	-611.4	-48.4	1.80	1.80	-0.28
9,650.0	9.23	261.15	9,605.7	-101.3	-615.3	-48.7	1.02	1.00	1.28
9,675.0	9.26	261.21	9,630.4	-101.9	-619.3	-49.0	0.13	0.12	0.24
9,700.0	9.40	259.93	9,655.1	-102.6	-623.3	-49.3	1.00	0.56	-5.12
9,725.0	9.33	259.67	9,679.7	-103.3	-627.3	-49.7	0.33	-0.28	-1.04
9,750.0	9.12	259.83	9,704.4	-104.0	-631.2	-50.1	0.85	-0.84	0.64
9,775.0	8.94	260.82	9,729.1	-104.7	-635.1	-50.4	0.95	-0.72	3.96
9,800.0	8.84	261.58	9,753.8	-105.3	-638.9	-50.6	0.62	-0.40	3.04
9,825.0	8.69	262.35	9,778.5	-105.8	-642.7	-50.9	0.76	-0.60	3.08
9,850.0	8.33	262.51	9,803.2	-106.3	-646.3	-51.0	1.44	-1.44	0.64
9,875.0	7.84	261.98	9,828.0	-106.8	-649.8	-51.2	1.98	-1.96	-2.12
9,900.0	7.66	262.17	9,852.8	-107.2	-653.1	-51.4	0.73	-0.72	0.76
9,925.0	7.26	261.51	9,877.5	-107.7	-656.4	-51.6	1.64	-1.60	-2.64
9,944.9	7.35	260.09	9,897.3	-108.1	-658.9	-51.8	1.01	0.44	-7.14
B Avalon Sh									
9,950.0	7.37	259.73	9,902.3	-108.2	-659.5	-51.8	1.01	0.45	-7.04
9,975.0	7.53	258.50	9,927.1	-108.8	-662.7	-52.2	0.90	0.64	-4.92
10,000.0	7.69	257.88	9,951.9	-109.5	-665.9	-52.6	0.72	0.64	-2.48
10,025.0	7.67	257.80	9,976.7	-110.2	-669.2	-53.0	0.09	-0.08	-0.32
10,050.0	7.47	258.32	10,001.5	-110.9	-672.4	-53.4	0.85	-0.80	2.08
10,075.0	7.18	259.08	10,026.3	-111.5	-675.5	-53.8	1.22	-1.16	3.04
10,091.2	7.15	259.39	10,042.4	-111.9	-677.5	-54.0	0.30	-0.18	1.91
10,109.3	6.69	262.79	10,060.3	-112.2	-679.7	-54.1	3.40	-2.54	18.79
FBSG_sand									
10,113.0	6.60	263.54	10,064.0	-112.3	-680.1	-54.1	3.40	-2.46	20.34
10,208.0	6.17	259.08	10,158.4	-113.8	-690.5	-54.8	0.69	-0.45	-4.69
10,302.0	10.60	268.00	10,251.4	-115.1	-704.1	-54.9	4.90	4.71	9.49
10,333.0	13.96	273.37	10,281.7	-115.0	-710.7	-54.2	11.44	10.84	17.32
10,365.0	16.58	280.06	10,312.5	-114.0	-719.1	-52.5	9.85	8.19	20.91
10,396.0	18.23	287.03	10,342.1	-111.8	-728.1	-49.6	8.57	5.32	22.48
10,428.0	20.22	296.59	10,372.3	-107.8	-737.8	-44.8	11.62	6.22	29.88
10,459.0	22.31	303.22	10,401.2	-102.2	-747.5	-38.4	10.27	6.74	21.39
10,490.0	24.17	308.87	10,429.7	-95.0	-757.4	-30.4	9.36	6.00	18.23
10,522.0	26.68	315.92	10,458.6	-85.7	-767.5	-20.3	12.28	7.84	22.03
10,553.0	28.18	322.80	10,486.1	-74.9	-776.8	-8.7	11.30	4.84	22.19
10,585.0	29.40	326.14	10,514.2	-62.3	-785.7	4.6	6.31	3.81	10.44
10,617.0	31.77	335.80	10,541.7	-48.1	-793.5	19.4	17.03	7.41	30.19
10,648.0	33.61	341.69	10,567.8	-32.5	-799.6	35.5	11.85	5.94	19.00
10,680.0	34.86	347.68	10,594.3	-15.2	-804.3	53.1	11.23	3.91	18.72



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
10,687.3	35.25	349.49	10,600.3	-11.1	-805.2	57.3	15.17	5.37	24.71
SBSG_sand									
10,711.0	36.70	355.09	10,619.5	2.7	-807.0	71.2	15.17	6.11	23.65
10,743.0	39.87	357.31	10,644.6	22.5	-808.3	91.0	10.80	9.91	6.94
10,774.0	42.92	357.19	10,667.8	43.0	-809.3	111.5	9.84	9.84	-0.39
10,806.0	45.97	358.00	10,690.7	65.3	-810.2	133.9	9.69	9.53	2.53
10,837.0	48.03	356.82	10,711.8	88.0	-811.3	156.5	7.20	6.65	-3.81
10,869.0	48.82	356.03	10,733.0	111.9	-812.8	180.5	3.08	2.47	-2.47
10,901.0	49.59	355.31	10,754.0	136.0	-814.6	204.7	2.95	2.41	-2.25
10,933.0	51.20	354.32	10,774.4	160.6	-816.8	229.3	5.57	5.03	-3.09
10,964.0	53.09	355.90	10,793.4	185.0	-818.9	253.8	7.30	6.10	5.10
10,996.0	57.46	356.72	10,811.6	211.2	-820.6	280.1	13.82	13.66	2.56
11,027.0	62.34	357.59	10,827.1	238.0	-821.9	306.9	15.93	15.74	2.81
11,058.0	66.97	358.86	10,840.4	266.0	-822.8	334.9	15.39	14.94	4.10
11,090.0	72.01	0.20	10,851.6	295.9	-823.0	364.7	16.23	15.75	4.19
11,121.0	77.50	0.61	10,859.8	325.8	-822.8	394.5	17.76	17.71	1.32
11,161.0	84.75	0.40	10,865.9	365.3	-822.4	433.8	18.13	18.13	-0.53
11,193.0	89.27	0.51	10,867.6	397.3	-822.2	465.6	14.13	14.13	0.34
11,255.0	91.46	1.10	10,867.2	459.3	-821.3	527.3	3.66	3.53	0.95
11,265.7	91.78	1.14	10,866.9	470.0	-821.1	538.0	2.98	2.96	0.39
FTP @ 11265.7'MD, 330'FSL & 323'FWL									
11,350.0	94.27	1.47	10,862.5	554.1	-819.2	621.7	2.98	2.96	0.39
11,444.0	93.84	1.08	10,855.8	647.9	-817.1	714.9	0.62	-0.46	-0.41
11,538.0	94.41	0.63	10,849.1	741.6	-815.7	808.2	0.77	0.61	-0.48
11,633.0	92.65	0.75	10,843.2	836.4	-814.6	902.5	1.86	-1.85	0.13
11,727.0	92.70	359.67	10,838.8	930.3	-814.2	996.1	1.15	0.05	-1.15
11,822.0	93.42	359.40	10,833.7	1,025.2	-815.0	1,090.7	0.81	0.76	-0.28
11,916.0	92.54	358.04	10,828.9	1,119.0	-817.1	1,184.3	1.72	-0.94	-1.45
12,011.0	92.84	357.15	10,824.4	1,213.8	-821.1	1,279.1	0.99	0.32	-0.94
12,105.0	92.87	357.13	10,819.7	1,307.6	-825.8	1,373.0	0.04	0.03	-0.02
12,199.0	92.41	358.09	10,815.4	1,401.4	-829.7	1,466.8	1.13	-0.49	1.02
12,293.0	92.02	357.78	10,811.8	1,495.3	-833.1	1,560.6	0.53	-0.41	-0.33
12,388.0	91.65	358.65	10,808.7	1,590.2	-836.0	1,655.4	0.99	-0.39	0.92
12,482.0	92.46	359.95	10,805.3	1,684.1	-837.2	1,749.1	1.63	0.86	1.38
12,576.0	93.09	0.39	10,800.8	1,778.0	-836.9	1,842.6	0.82	0.67	0.47
12,671.0	94.56	0.87	10,794.5	1,872.8	-835.8	1,937.0	1.63	1.55	0.51
12,765.0	95.29	0.27	10,786.4	1,966.4	-834.9	2,030.2	1.00	0.78	-0.64
12,860.0	94.22	0.51	10,778.5	2,061.1	-834.3	2,124.5	1.15	-1.13	0.25
12,955.0	94.34	0.40	10,771.4	2,155.8	-833.5	2,218.8	0.17	0.13	-0.12
13,049.0	92.56	0.48	10,765.8	2,249.7	-832.8	2,312.2	1.90	-1.89	0.09
13,144.0	91.86	359.80	10,762.1	2,344.6	-832.6	2,406.8	1.03	-0.74	-0.72
13,239.0	91.79	359.73	10,759.1	2,439.5	-833.0	2,501.4	0.10	-0.07	-0.07
13,333.0	92.31	359.82	10,755.7	2,533.5	-833.3	2,595.1	0.56	0.55	0.10
13,428.0	93.60	0.09	10,750.8	2,628.3	-833.4	2,689.6	1.39	1.36	0.28

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
13,522.0	91.97	0.19	10,746.2	2,722.2	-833.2	2,783.1	1.74	-1.73	0.11
13,616.0	92.14	359.52	10,742.9	2,816.2	-833.4	2,876.7	0.73	0.18	-0.71
13,710.0	92.19	359.44	10,739.3	2,910.1	-834.3	2,970.4	0.10	0.05	-0.09
13,804.0	92.74	358.54	10,735.3	3,004.0	-835.9	3,064.1	1.12	0.59	-0.96
13,899.0	93.08	358.54	10,730.5	3,098.8	-838.3	3,158.8	0.36	0.36	0.00
13,992.0	91.32	358.01	10,726.9	3,191.7	-841.1	3,251.6	1.98	-1.89	-0.57
14,085.0	92.49	358.43	10,723.8	3,284.6	-844.0	3,344.4	1.34	1.26	0.45
14,179.0	92.73	358.26	10,719.5	3,378.5	-846.7	3,438.2	0.31	0.26	-0.18
14,272.0	93.44	357.88	10,714.5	3,471.3	-849.9	3,530.9	0.87	0.76	-0.41
14,366.0	93.13	358.59	10,709.1	3,565.1	-852.7	3,624.6	0.82	-0.33	0.76
14,460.0	90.98	358.97	10,705.8	3,659.0	-854.7	3,718.4	2.32	-2.29	0.40
14,554.0	91.98	359.09	10,703.3	3,753.0	-856.3	3,812.1	1.07	1.06	0.13
14,648.0	92.57	359.04	10,699.6	3,846.9	-857.9	3,905.8	0.63	0.63	-0.05
14,741.0	91.50	359.05	10,696.3	3,939.8	-859.4	3,998.5	1.15	-1.15	0.01
14,837.0	90.85	0.14	10,694.3	4,035.8	-860.1	4,094.2	1.32	-0.68	1.14
14,931.0	91.66	0.72	10,692.3	4,129.8	-859.4	4,187.8	1.06	0.86	0.62
15,026.0	91.97	0.92	10,689.3	4,224.7	-858.0	4,282.3	0.39	0.33	0.21
15,120.0	93.15	0.67	10,685.1	4,318.6	-856.7	4,375.7	1.28	1.26	-0.27
15,214.0	92.47	1.10	10,680.5	4,412.5	-855.3	4,469.1	0.86	-0.72	0.46
15,309.0	92.42	0.73	10,676.4	4,507.4	-853.8	4,563.6	0.39	-0.05	-0.39
15,403.0	93.75	0.54	10,671.3	4,601.2	-852.7	4,657.0	1.43	1.41	-0.20
15,498.0	92.33	0.80	10,666.3	4,696.1	-851.6	4,751.4	1.52	-1.49	0.27
15,592.0	90.57	0.55	10,663.9	4,790.0	-850.5	4,845.0	1.89	-1.87	-0.27
15,686.0	89.54	359.79	10,663.8	4,884.0	-850.2	4,938.6	1.36	-1.10	-0.81
15,780.0	89.50	359.51	10,664.6	4,978.0	-850.8	5,032.3	0.30	-0.04	-0.30
15,874.0	89.24	358.99	10,665.7	5,072.0	-852.0	5,126.0	0.62	-0.28	-0.55
15,969.0	90.36	358.94	10,666.0	5,167.0	-853.7	5,220.8	1.18	1.18	-0.05
16,064.0	90.26	358.62	10,665.5	5,262.0	-855.8	5,315.6	0.35	-0.11	-0.34
16,158.0	90.09	358.49	10,665.2	5,356.0	-858.1	5,409.5	0.23	-0.18	-0.14
16,253.0	90.12	358.22	10,665.0	5,450.9	-860.9	5,504.3	0.29	0.03	-0.28
16,348.0	90.10	357.64	10,664.8	5,545.9	-864.3	5,599.2	0.61	-0.02	-0.61
16,471.0	89.76	0.10	10,665.0	5,668.8	-866.7	5,721.9	2.02	-0.28	2.00
16,565.0	89.80	0.83	10,665.3	5,762.8	-866.0	5,815.5	0.78	0.04	0.78
16,660.0	90.59	0.67	10,665.0	5,857.8	-864.7	5,910.1	0.85	0.83	-0.17
16,754.0	91.46	0.78	10,663.3	5,951.8	-863.5	6,003.6	0.93	0.93	0.12
16,848.0	93.79	1.73	10,659.0	6,045.7	-861.5	6,097.0	2.68	2.48	1.01
16,943.0	91.65	359.65	10,654.5	6,140.5	-860.3	6,191.4	3.14	-2.25	-2.19
17,037.0	89.59	359.30	10,653.5	6,234.5	-861.2	6,285.1	2.22	-2.19	-0.37
17,131.0	90.01	359.00	10,653.8	6,328.5	-862.6	6,378.9	0.55	0.45	-0.32
17,226.0	89.10	359.13	10,654.6	6,423.5	-864.1	6,473.7	0.97	-0.96	0.14
17,320.0	89.61	359.07	10,655.6	6,517.5	-865.6	6,567.4	0.55	0.54	-0.06
17,415.0	90.48	358.88	10,655.6	6,612.5	-867.3	6,662.2	0.94	0.92	-0.20
17,509.0	91.36	358.93	10,654.0	6,706.4	-869.1	6,756.0	0.94	0.94	0.05

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Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
17,603.0	91.02	359.70	10,652.1	6,800.4	-870.2	6,849.7	0.90	-0.36	0.82
17,698.0	91.58	359.88	10,649.9	6,895.4	-870.6	6,944.4	0.62	0.59	0.19
17,791.0	91.45	359.67	10,647.5	6,988.3	-870.9	7,037.0	0.27	-0.14	-0.23
17,886.0	92.36	359.35	10,644.3	7,083.3	-871.8	7,131.7	1.02	0.96	-0.34
17,981.0	90.65	0.19	10,641.8	7,178.2	-872.1	7,226.4	2.01	-1.80	0.88
18,075.0	88.69	1.42	10,642.4	7,272.2	-870.8	7,319.9	2.46	-2.09	1.31
18,170.0	88.83	0.88	10,644.4	7,367.2	-868.9	7,414.4	0.59	0.15	-0.57
18,265.0	89.27	0.27	10,646.0	7,462.2	-868.0	7,508.9	0.79	0.46	-0.64
18,359.0	90.47	0.21	10,646.2	7,556.2	-867.6	7,602.5	1.28	1.28	-0.06
18,454.0	87.11	0.35	10,648.2	7,651.1	-867.1	7,697.1	3.54	-3.54	0.15
18,549.0	87.79	359.22	10,652.4	7,746.0	-867.5	7,791.7	1.39	0.72	-1.19
18,635.0	88.57	359.69	10,655.2	7,832.0	-868.3	7,877.4	1.06	0.91	0.55
18,730.0	89.55	0.19	10,656.7	7,927.0	-868.4	7,972.1	1.16	1.03	0.53
18,825.0	90.62	0.59	10,656.6	8,022.0	-867.7	8,066.7	1.20	1.13	0.42
18,919.0	91.62	0.70	10,654.8	8,115.9	-866.7	8,160.2	1.07	1.06	0.12
19,014.0	92.14	0.33	10,651.6	8,210.9	-865.8	8,254.7	0.67	0.55	-0.39
19,109.0	92.73	359.71	10,647.6	8,305.8	-865.8	8,349.3	0.90	0.62	-0.65
19,204.0	90.95	359.49	10,644.6	8,400.7	-866.4	8,444.0	1.89	-1.87	-0.23
19,298.0	89.60	358.79	10,644.1	8,494.7	-867.9	8,537.7	1.62	-1.44	-0.74
19,393.0	90.20	358.01	10,644.3	8,589.7	-870.5	8,632.6	1.04	0.63	-0.82
19,487.0	90.74	356.79	10,643.5	8,683.6	-874.8	8,726.5	1.42	0.57	-1.30
19,582.0	88.58	357.16	10,644.1	8,778.4	-879.8	8,821.4	2.31	-2.27	0.39
19,676.0	88.53	357.58	10,646.4	8,872.3	-884.1	8,915.3	0.45	-0.05	0.45
19,770.0	88.84	356.88	10,648.6	8,966.2	-888.6	9,009.3	0.81	0.33	-0.74
19,864.0	88.70	357.57	10,650.6	9,060.0	-893.2	9,103.2	0.75	-0.15	0.73
19,959.0	90.60	357.45	10,651.2	9,155.0	-897.3	9,198.1	2.00	2.00	-0.13
20,053.0	91.27	356.64	10,649.7	9,248.8	-902.2	9,292.0	1.12	0.71	-0.86
20,148.0	91.19	356.24	10,647.6	9,343.6	-908.1	9,387.0	0.43	-0.08	-0.42
20,219.0	91.66	356.02	10,645.8	9,414.4	-912.8	9,457.9	0.73	0.66	-0.31
20,313.0	92.23	356.41	10,642.7	9,508.2	-919.0	9,551.9	0.73	0.61	0.41
20,408.0	91.53	358.02	10,639.5	9,603.0	-923.7	9,646.7	1.85	-0.74	1.69
20,502.0	90.35	359.39	10,638.0	9,697.0	-925.8	9,740.5	1.92	-1.26	1.46
20,597.0	90.22	0.86	10,637.5	9,792.0	-925.6	9,835.2	1.55	-0.14	1.55
20,692.0	90.33	1.97	10,637.1	9,886.9	-923.2	9,929.6	1.17	0.12	1.17
20,786.0	89.12	2.18	10,637.5	9,980.9	-919.8	10,022.9	1.31	-1.29	0.22
20,881.0	89.24	1.31	10,638.9	10,075.8	-916.9	10,117.3	0.92	0.13	-0.92
20,975.0	88.06	1.28	10,641.1	10,169.8	-914.8	10,210.7	1.26	-1.26	-0.03
21,070.0	88.20	0.48	10,644.2	10,264.7	-913.4	10,305.2	0.85	0.15	-0.84
21,165.0	89.23	359.84	10,646.3	10,359.7	-913.1	10,399.8	1.28	1.08	-0.67
21,169.2	89.23	359.80	10,646.4	10,363.9	-913.1	10,404.0	0.89	0.02	-0.89
LTP @ 21169.2'MD, 330'FNL & 310'FWL									
21,220.0	89.24	359.35	10,647.1	10,414.7	-913.5	10,454.6	0.89	0.02	-0.89
LAST SVY									
21,299.0	89.24	359.35	10,648.1	10,493.6	-914.4	10,533.4	0.00	0.00	0.00

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Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	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)
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Projection to TD @ 21299'MD, 200.3'FNL & 309.6'FWL

Design Targets
Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
WP#2 (Huckleberry S	-0.37	359.54	10,638.0	9,470.0	-885.7	540,133.80	736,177.19	32° 28' 57.391 N	103° 34' 2.746 W
- actual wellpath misses target center by 31.4usft at 20272.9usft MD (10644.1 TVD, 9468.2 N, -916.5 E)									
- Rectangle (sides W60.0 H4,775.3 D30.0)									
PBHL (Huckleberry SI	0.35	359.54	10,644.0	10,494.1	-894.0	541,157.90	736,168.90	32° 29' 7.525 N	103° 34' 2.757 W
- actual wellpath misses target center by 20.8usft at 21299.0usft MD (10648.1 TVD, 10493.6 N, -914.4 E)									
- Rectangle (sides W60.0 H1,024.2 D30.0)									
LTP (Huckleberry Sta	0.00	0.00	10,644.0	10,364.1	-893.0	541,027.90	736,169.90	32° 29' 6.238 N	103° 34' 2.756 W
- actual wellpath misses target center by 20.2usft at 21169.3usft MD (10646.4 TVD, 10363.9 N, -913.1 E)									
- Point									
WP#1 (Huckleberry S	-2.17	359.54	10,670.0	4,695.0	-847.0	535,358.80	736,215.87	32° 28' 10.139 N	103° 34' 2.694 W
- actual wellpath misses target center by 5.9usft at 15496.8usft MD (10666.4 TVD, 4694.9 N, -851.6 E)									
- Rectangle (sides W60.0 H4,225.0 D30.0)									
FTP (Huckleberry Sta	0.00	0.00	10,830.0	470.0	-814.2	531,133.80	736,248.70	32° 27' 28.330 N	103° 34' 2.665 W
- actual wellpath misses target center by 37.5usft at 11267.8usft MD (10866.8 TVD, 472.1 N, -821.1 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,805.4	1,805.3	Rustler			
1,899.4	1,899.3	TOS			
3,540.5	3,539.3	BOS / Tansill			
3,735.7	3,734.3	Yates			
3,803.8	3,802.3	Seven Rivers			
3,961.8	3,960.3	Capitan Reef			
5,359.0	5,357.3	Base of Reef (BLCN)			
5,809.9	5,807.3	CYCN			
7,242.5	7,224.3	BYCN			
8,846.5	8,810.3	Bone Spring (BSGL)			
9,299.0	9,258.3	U Avalon Sh			
9,440.5	9,398.3	L Avalon Sh			
9,944.9	9,897.3	B Avalon Sh			
10,109.3	10,060.3	FBSG_sand			
10,687.3	10,600.3	SBSG_sand			



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Huckleberry State Com #507H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB @ 3739.8usft (Latshaw 44)
Site:	(Huckleberry State Com) Sec-27_T-21-S_R-33-E	MD Reference:	KB @ 3739.8usft (Latshaw 44)
Well:	Huckleberry State Com #507H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,265.7	10,866.9	470.0	-821.1	FTP @ 11265.7'MD, 330'FSL & 323'FWL
21,169.2	10,646.4	10,363.9	-913.1	LTP @ 21169.2'MD, 330'FNL & 310'FWL
21,220.0	10,647.1	10,414.7	-913.5	LAST SVY
21,299.0	10,648.1	10,493.6	-914.4	Projection to TD @ 21299'MD, 200.3'FNL & 309.6'FWL

Checked By: _____ Approved By: _____ Date: _____