

CONCHO

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DISTRICT II-ARTESIA O.C.D.

Concho Resources, Inc.

Eddy County (NAD27 NME)

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

Littlefield 33 Fed Com #705H

API# 30-015-45162

ST01

Design: AWB

Standard Survey Report

06 January, 2019

INTREPID

Company:	Concho Resources, Inc	Local Co-ordinate Reference:	Well: Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	Latitude:	32° 0' 2.883 N
From:	Map	Easting:	606,535.56 usft	Longitude:	103° 59' 22.784 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well	Littlefield 33 Fed.Com.#705H					
Well Position	+N/-S	0.0 usft	Northing:	364,192.20 usft	Latitude:	32° 0' 2.926 N
	+E/-W	0.0 usft	Easting:	606,475.40 usft	Longitude:	103° 59' 23.483 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,860.4 usft

Wellbore		ST01			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/21/18	6.97	59.77	47,610.22475226

Design:	AWB				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	9,332.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	358.36	

Survey Program		Date	01/06/19	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	9,332.0	SDI Gyro Svy (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
9,418.0	17,079.0	Intrepid MWD ST01 Crv/Lat (ST01)	MWD+IFR1+MS	MWD + IFR1 + Multi-Station Correction

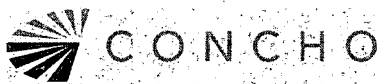
Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.42	167.64	100.0	-0.4	0.1	-0.4	0.42	0.42	0.00	
125.0	0.46	137.99	125.0	-0.5	0.2	-0.5	0.91	0.16	-118.60	
150.0	0.56	141.20	150.0	-0.7	0.3	-0.7	0.42	0.40	12.84	
175.0	0.82	120.97	175.0	-0.9	0.5	-0.9	1.41	1.04	-80.92	
200.0	1.21	106.33	200.0	-1.0	0.9	-1.1	1.86	1.56	-58.56	
225.0	1.45	103.08	225.0	-1.2	1.5	-1.2	1.01	0.96	-13.00	
250.0	1.69	99.50	250.0	-1.3	2.2	-1.4	1.04	0.96	-14.32	
275.0	2.11	92.43	275.0	-1.4	3.0	-1.5	1.92	1.68	-28.28	
300.0	2.44	86.47	299.9	-1.4	4.0	-1.5	1.62	1.32	-23.84	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	2.67	84.67	324.9	-1.3	5.1	-1.4	0.97	0.92	-7.20
350.0	2.71	86.09	349.9	-1.2	6.3	-1.4	0.31	0.16	5.68
375.0	2.81	91.39	374.9	-1.2	7.5	-1.4	1.10	0.40	21.20
400.0	2.86	96.41	399.8	-1.3	8.7	-1.5	1.01	0.20	20.08
425.0	2.61	102.52	424.8	-1.5	9.9	-1.7	1.53	-1.00	24.44
450.0	2.48	110.26	449.8	-1.8	10.9	-2.1	1.47	-0.52	30.96
475.0	2.15	123.90	474.8	-2.2	11.8	-2.6	2.56	-1.32	54.56
500.0	2.01	140.49	499.7	-2.8	12.5	-3.2	2.46	-0.56	66.36
525.0	1.99	148.61	524.7	-3.5	13.0	-3.9	1.14	-0.08	32.48
550.0	2.03	153.34	549.7	-4.3	13.4	-4.7	0.68	0.16	18.92
575.0	2.17	158.92	574.7	-5.1	13.8	-5.5	0.99	0.56	22.32
600.0	2.15	159.26	599.7	-6.0	14.1	-6.4	0.10	-0.08	1.36
625.0	2.21	160.63	624.7	-6.9	14.5	-7.3	0.32	0.24	5.48
650.0	2.24	159.94	649.6	-7.8	14.8	-8.2	0.16	0.12	-2.76
675.0	2.14	159.73	674.6	-8.7	15.1	-9.1	0.40	-0.40	-0.84
700.0	2.23	160.53	699.6	-9.6	15.5	-10.1	0.38	0.36	3.20
725.0	2.23	161.55	724.6	-10.5	15.8	-11.0	0.16	0.00	4.08
750.0	2.17	162.75	749.6	-11.4	16.1	-11.9	0.30	-0.24	4.80
775.0	2.15	163.36	774.5	-12.3	16.3	-12.8	0.12	-0.08	2.44
800.0	2.11	169.77	799.5	-13.3	16.6	-13.7	0.97	-0.16	25.64
825.0	2.39	183.87	824.5	-14.2	16.6	-14.7	2.47	1.12	56.40
850.0	2.94	202.83	849.5	-15.3	16.3	-15.8	4.13	2.20	75.84
875.0	3.74	217.88	874.4	-16.6	15.6	-17.0	4.72	3.20	60.20
900.0	4.30	221.39	899.4	-17.9	14.4	-18.3	2.45	2.24	14.04
925.0	4.31	220.62	924.3	-19.3	13.2	-19.7	0.23	0.04	-3.08
950.0	4.30	221.41	949.2	-20.7	12.0	-21.1	0.24	-0.04	3.16
975.0	4.40	222.79	974.2	-22.2	10.7	-22.5	0.58	0.40	5.52
1,000.0	4.41	226.13	999.1	-23.5	9.4	-23.8	1.03	0.04	13.36
1,025.0	4.37	233.72	1,024.0	-24.8	7.9	-25.0	2.33	-0.16	30.36
1,050.0	3.94	239.71	1,049.0	-25.8	6.4	-25.9	2.44	-1.72	23.96
1,075.0	4.29	240.47	1,073.9	-26.6	4.8	-26.8	1.42	1.40	3.04
1,100.0	4.52	241.82	1,098.8	-27.6	3.2	-27.7	1.01	0.92	5.40
1,125.0	4.42	240.55	1,123.7	-28.5	1.5	-28.5	0.56	-0.40	-5.08
1,150.0	4.32	239.98	1,148.7	-29.5	-0.2	-29.4	0.44	-0.40	-2.28
1,175.0	4.18	241.59	1,173.6	-30.4	-1.8	-30.3	0.74	-0.56	6.44
1,200.0	4.25	242.29	1,198.5	-31.2	-3.4	-31.1	0.35	0.28	2.80
1,225.0	4.28	240.88	1,223.5	-32.1	-5.1	-32.0	0.44	0.12	-5.64
1,250.0	4.25	241.23	1,248.4	-33.0	-6.7	-32.8	0.16	-0.12	1.40
1,275.0	4.11	241.33	1,273.3	-33.9	-8.3	-33.6	0.56	-0.56	0.40
1,300.0	4.09	241.42	1,298.3	-34.7	-9.9	-34.4	0.08	-0.08	0.36
1,325.0	4.09	239.98	1,323.2	-35.6	-11.4	-35.3	0.41	0.00	-5.76
1,350.0	4.10	239.84	1,348.1	-36.5	-13.0	-36.1	0.06	0.04	-0.56
1,375.0	3.94	240.48	1,373.1	-37.4	-14.5	-37.0	0.66	-0.64	2.56

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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	4.02	239.07	1,398.0	-38.3	-16.0	-37.8	0.51	0.32	-5.64
1,425.0	3.92	239.43	1,423.0	-39.1	-17.5	-38.6	0.41	-0.40	1.44
1,450.0	4.03	239.50	1,447.9	-40.0	-19.0	-39.5	0.44	0.44	0.28
1,475.0	3.99	237.64	1,472.8	-40.9	-20.5	-40.3	0.54	-0.16	-7.44
1,500.0	3.90	238.91	1,497.8	-41.8	-21.9	-41.2	0.50	-0.36	5.08
1,525.0	3.66	237.65	1,522.7	-42.7	-23.3	-42.0	1.02	-0.96	-5.04
1,550.0	3.39	237.17	1,547.7	-43.5	-24.6	-42.8	1.09	-1.08	-1.92
1,575.0	3.13	235.85	1,572.6	-44.3	-25.8	-43.6	1.08	-1.04	-5.28
1,600.0	2.91	236.44	1,597.6	-45.0	-26.9	-44.3	0.89	-0.88	2.36
1,625.0	2.99	233.04	1,622.6	-45.8	-27.9	-45.0	0.77	0.32	-13.60
1,650.0	2.88	234.69	1,647.5	-46.5	-29.0	-45.7	0.55	-0.44	6.60
1,675.0	2.93	236.09	1,672.5	-47.3	-30.0	-46.4	0.35	0.20	5.60
1,700.0	2.92	235.70	1,697.5	-48.0	-31.1	-47.1	0.09	-0.04	-1.56
1,725.0	3.16	235.74	1,722.4	-48.7	-32.2	-47.8	0.96	0.96	0.16
1,750.0	3.28	237.37	1,747.4	-49.5	-33.3	-48.5	0.60	0.48	6.52
1,775.0	3.49	242.73	1,772.3	-50.2	-34.6	-49.2	1.52	0.84	21.44
1,800.0	3.50	241.63	1,797.3	-50.9	-36.0	-49.9	0.27	0.04	-4.40
1,825.0	3.58	243.21	1,822.3	-51.7	-37.3	-50.6	0.50	0.32	6.32
1,850.0	3.57	241.97	1,847.2	-52.4	-38.7	-51.2	0.31	-0.04	-4.96
1,875.0	3.51	243.74	1,872.2	-53.1	-40.1	-51.9	0.50	-0.24	7.08
1,900.0	3.47	243.06	1,897.1	-53.8	-41.5	-52.6	0.23	-0.16	-2.72
1,925.0	3.48	244.16	1,922.1	-54.4	-42.8	-53.2	0.27	0.04	4.40
1,950.0	3.56	244.48	1,947.0	-55.1	-44.2	-53.8	0.33	0.32	1.28
1,975.0	3.50	244.67	1,972.0	-55.8	-45.6	-54.4	0.24	-0.24	0.76
2,000.0	3.57	243.85	1,996.9	-56.4	-47.0	-55.1	0.35	0.28	-3.28
2,025.0	3.23	243.21	2,021.9	-57.1	-48.3	-55.7	1.37	-1.36	-2.56
2,050.0	2.81	237.51	2,046.8	-57.7	-49.5	-56.3	2.06	-1.68	-22.80
2,075.0	2.71	235.67	2,071.8	-58.4	-50.5	-56.9	0.53	-0.40	-7.36
2,100.0	2.65	233.51	2,096.8	-59.1	-51.4	-57.6	0.47	-0.24	-8.64
2,125.0	2.58	232.63	2,121.8	-59.8	-52.3	-58.2	0.32	-0.28	-3.52
2,150.0	2.29	223.90	2,146.7	-60.5	-53.1	-58.9	1.88	-1.16	-34.92
2,175.0	2.27	221.12	2,171.7	-61.2	-53.8	-59.6	0.45	-0.08	-11.12
2,200.0	2.28	221.33	2,196.7	-61.9	-54.4	-60.4	0.05	0.04	0.84
2,225.0	2.19	212.91	2,221.7	-62.7	-55.0	-61.1	1.36	-0.36	-33.68
2,250.0	2.20	204.40	2,246.7	-63.6	-55.5	-61.9	1.30	0.04	-34.04
2,275.0	2.23	202.55	2,271.6	-64.4	-55.9	-62.8	0.31	0.12	-7.40
2,300.0	2.78	201.78	2,296.6	-65.5	-56.3	-63.8	2.20	2.20	-3.08
2,325.0	3.03	200.27	2,321.6	-66.6	-56.7	-65.0	1.05	1.00	-6.04
2,350.0	3.10	201.04	2,346.6	-67.9	-57.2	-66.2	0.32	0.28	3.08
2,375.0	2.98	200.94	2,371.5	-69.1	-57.7	-67.4	0.48	-0.48	-0.40
2,400.0	3.05	198.86	2,396.5	-70.4	-58.1	-68.7	0.52	0.28	-8.32
2,425.0	3.10	200.60	2,421.4	-71.6	-58.6	-69.9	0.42	0.20	6.96
2,450.0	3.10	200.80	2,446.4	-72.9	-59.1	-71.2	0.04	0.00	0.80



Intrepid Survey Report



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Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
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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	3.13	196.71	2,471.4	-74.2	-59.5	-72.4	0.90	0.12	-16.36
2,500.0	3.16	194.83	2,496.3	-75.5	-59.9	-73.8	0.43	0.12	-7.52
2,525.0	3.16	193.28	2,521.3	-76.8	-60.2	-75.1	0.34	0.00	-6.20
2,550.0	3.09	192.08	2,546.3	-78.2	-60.5	-76.4	0.38	-0.28	-4.80
2,575.0	3.26	188.85	2,571.2	-79.5	-60.8	-77.8	0.99	0.68	-12.92
2,600.0	3.37	189.13	2,596.2	-81.0	-61.0	-79.2	0.44	0.44	1.12
2,625.0	3.63	194.47	2,621.1	-82.4	-61.3	-80.7	1.67	1.04	21.36
2,650.0	4.60	211.08	2,646.1	-84.1	-62.0	-82.3	6.11	3.88	66.44
2,675.0	4.69	215.49	2,671.0	-85.8	-63.1	-83.9	1.47	0.36	17.64
2,700.0	4.90	219.30	2,695.9	-87.4	-64.4	-85.5	1.53	0.84	15.24
2,725.0	5.01	229.31	2,720.8	-89.0	-65.9	-87.0	3.48	0.44	40.04
2,750.0	5.30	241.03	2,745.7	-90.2	-67.7	-88.3	4.36	1.16	46.88
2,775.0	5.10	244.02	2,770.6	-91.3	-69.7	-89.2	1.35	-0.80	11.96
2,800.0	5.14	244.18	2,795.5	-92.2	-71.7	-90.2	0.17	0.16	0.64
2,825.0	5.08	244.32	2,820.4	-93.2	-73.8	-91.1	0.25	-0.24	0.56
2,850.0	5.12	244.83	2,845.3	-94.2	-75.8	-92.0	0.24	0.16	2.04
2,875.0	5.13	244.71	2,870.2	-95.1	-77.8	-92.9	0.06	0.04	-0.48
2,900.0	4.75	245.14	2,895.1	-96.0	-79.7	-93.7	1.53	-1.52	1.72
2,925.0	5.12	243.98	2,920.0	-97.0	-81.7	-94.6	1.53	1.48	-4.64
2,950.0	5.04	246.27	2,944.9	-97.9	-83.7	-95.5	0.87	-0.32	9.16
2,975.0	5.22	245.55	2,969.8	-98.8	-85.7	-96.3	0.76	0.72	-2.88
3,000.0	5.09	246.00	2,994.7	-99.7	-87.8	-97.2	0.54	-0.52	1.80
3,025.0	4.72	246.35	3,019.6	-100.6	-89.7	-98.0	1.48	-1.48	1.40
3,050.0	3.90	247.16	3,044.6	-101.3	-91.5	-98.7	3.29	-3.28	3.24
3,075.0	5.03	245.91	3,069.5	-102.1	-93.2	-99.4	4.54	4.52	-5.00
3,100.0	4.96	246.18	3,094.4	-103.0	-95.2	-100.2	0.30	-0.28	1.08
3,125.0	4.97	246.48	3,119.3	-103.9	-97.2	-101.0	0.11	0.04	1.20
3,150.0	4.87	246.40	3,144.2	-104.7	-99.2	-101.8	0.40	-0.40	-0.32
3,175.0	4.87	245.90	3,169.1	-105.6	-101.1	-102.6	0.17	0.00	-2.00
3,200.0	4.79	247.15	3,194.0	-106.4	-103.0	-103.4	0.53	-0.32	5.00
3,225.0	4.73	246.74	3,218.9	-107.2	-105.0	-104.2	0.28	-0.24	-1.64
3,250.0	4.80	247.39	3,243.8	-108.0	-106.9	-104.9	0.35	0.28	2.60
3,275.0	4.63	247.51	3,268.8	-108.8	-108.8	-105.7	0.68	-0.68	0.48
3,300.0	4.47	246.12	3,293.7	-109.6	-110.6	-106.4	0.78	-0.64	-5.56
3,325.0	4.56	244.47	3,318.6	-110.4	-112.4	-107.2	0.63	0.36	-6.60
3,350.0	4.66	243.64	3,343.5	-111.3	-114.2	-108.0	0.48	0.40	-3.32
3,375.0	4.40	246.58	3,368.4	-112.1	-116.0	-108.8	1.39	-1.04	11.76
3,400.0	4.49	245.61	3,393.4	-112.9	-117.7	-109.5	0.47	0.36	-3.88
3,425.0	4.47	245.75	3,418.3	-113.7	-119.5	-110.3	0.09	-0.08	0.56
3,450.0	4.37	245.28	3,443.2	-114.5	-121.3	-111.0	0.43	-0.40	-1.88
3,475.0	4.42	245.74	3,468.1	-115.3	-123.0	-111.8	0.24	0.20	1.84
3,500.0	4.43	245.73	3,493.1	-116.1	-124.8	-112.5	0.04	0.04	-0.04
3,525.0	4.51	245.77	3,518.0	-116.9	-126.6	-113.2	0.32	0.32	0.16
3,550.0	4.39	245.88	3,542.9	-117.7	-128.3	-114.0	0.48	-0.48	0.44

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	4.35	245.20	3,567.8	-118.5	-130.1	-114.7	0.26	-0.16	-2.72
3,600.0	4.18	245.20	3,592.8	-119.3	-131.7	-115.5	0.68	-0.68	0.00
3,625.0	4.13	243.76	3,617.7	-120.1	-133.4	-116.2	0.46	-0.20	-5.76
3,650.0	4.15	245.32	3,642.6	-120.8	-135.0	-116.9	0.46	0.08	6.24
3,675.0	4.01	244.87	3,667.6	-121.6	-136.6	-117.6	0.57	-0.56	-1.80
3,700.0	3.90	245.63	3,692.5	-122.3	-138.2	-118.3	0.49	-0.44	3.04
3,725.0	3.90	245.20	3,717.5	-123.0	-139.7	-119.0	0.12	0.00	-1.72
3,750.0	3.97	245.25	3,742.4	-123.7	-141.3	-119.6	0.28	0.28	0.20
3,775.0	3.98	244.95	3,767.3	-124.5	-142.9	-120.3	0.09	0.04	-1.20
3,800.0	3.87	245.05	3,792.3	-125.2	-144.4	-121.0	0.44	-0.44	0.40
3,825.0	3.85	245.17	3,817.2	-125.9	-145.9	-121.7	0.09	-0.08	0.48
3,850.0	3.79	245.39	3,842.2	-126.6	-147.5	-122.3	0.25	-0.24	0.88
3,875.0	3.79	244.64	3,867.1	-127.3	-149.0	-123.0	0.20	0.00	-3.00
3,900.0	3.72	244.15	3,892.1	-128.0	-150.4	-123.6	0.31	-0.28	-1.96
3,925.0	3.70	243.33	3,917.0	-128.7	-151.9	-124.3	0.23	-0.08	-3.28
3,950.0	3.71	243.31	3,942.0	-129.4	-153.3	-125.0	0.04	0.04	-0.08
3,975.0	3.77	243.64	3,966.9	-130.2	-154.8	-125.7	0.25	0.24	1.32
4,000.0	3.70	244.29	3,991.9	-130.9	-156.2	-126.4	0.33	-0.28	2.60
4,025.0	3.64	242.79	4,016.8	-131.6	-157.7	-127.0	0.45	-0.24	-6.00
4,050.0	3.66	242.91	4,041.8	-132.3	-159.1	-127.7	0.09	0.08	0.48
4,075.0	3.65	243.39	4,066.7	-133.0	-160.5	-128.4	0.13	-0.04	1.92
4,100.0	3.65	244.49	4,091.7	-133.7	-161.9	-129.1	0.28	0.00	4.40
4,125.0	3.55	242.89	4,116.6	-134.4	-163.4	-129.7	0.57	-0.40	-6.40
4,150.0	3.57	241.46	4,141.6	-135.2	-164.7	-130.4	0.36	0.08	-5.72
4,175.0	3.48	242.52	4,166.5	-135.9	-166.1	-131.1	0.44	-0.36	4.24
4,200.0	3.45	241.11	4,191.5	-136.6	-167.4	-131.7	0.36	-0.12	-5.64
4,225.0	3.56	242.66	4,216.4	-137.3	-168.8	-132.4	0.58	0.44	6.20
4,250.0	3.50	242.18	4,241.4	-138.0	-170.1	-133.1	0.27	-0.24	-1.92
4,275.0	3.50	241.99	4,266.3	-138.7	-171.5	-133.8	0.05	0.00	-0.76
4,300.0	3.46	238.71	4,291.3	-139.5	-172.8	-134.5	0.81	-0.16	-13.12
4,325.0	3.51	238.08	4,316.2	-140.3	-174.1	-135.2	0.25	0.20	-2.52
4,350.0	3.38	238.26	4,341.2	-141.1	-175.4	-136.0	0.52	-0.52	0.72
4,375.0	3.46	239.29	4,366.1	-141.8	-176.6	-136.7	0.40	0.32	4.12
4,400.0	3.45	239.43	4,391.1	-142.6	-177.9	-137.5	0.05	-0.04	0.56
4,425.0	3.55	238.35	4,416.1	-143.4	-179.2	-138.2	0.48	0.40	-4.32
4,450.0	3.47	238.58	4,441.0	-144.2	-180.5	-139.0	0.32	-0.32	0.92
4,475.0	3.42	236.59	4,466.0	-145.0	-181.8	-139.8	0.52	-0.20	-7.96
4,500.0	3.38	238.53	4,490.9	-145.8	-183.1	-140.5	0.49	-0.16	7.76
4,525.0	3.50	235.88	4,515.9	-146.6	-184.3	-141.3	0.80	0.48	-10.60
4,550.0	3.38	236.30	4,540.8	-147.5	-185.6	-142.1	0.49	-0.48	1.68
4,575.0	3.48	235.36	4,565.8	-148.3	-186.8	-142.9	0.46	0.40	-3.76
4,600.0	3.48	236.49	4,590.7	-149.1	-188.1	-143.7	0.27	0.00	4.52
4,625.0	3.45	236.99	4,615.7	-150.0	-189.3	-144.5	0.17	-0.12	2.00



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27-NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33-T-26-S-R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	3.47	236.59	4,640.6	-150.8	-190.6	-145.3	0.13	0.08	-1.60	
4,675.0	3.41	235.96	4,665.6	-151.6	-191.8	-146.1	0.28	-0.24	-2.52	
4,700.0	3.47	233.83	4,690.6	-152.5	-193.1	-146.9	0.56	0.24	-8.52	
4,725.0	3.51	235.44	4,715.5	-153.4	-194.3	-147.8	0.42	0.16	6.44	
4,750.0	3.44	234.78	4,740.5	-154.2	-195.5	-148.6	0.32	-0.28	-2.64	
4,775.0	3.33	235.57	4,765.4	-155.1	-196.8	-149.4	0.48	-0.44	3.16	
4,800.0	3.39	236.81	4,790.4	-155.9	-198.0	-150.2	0.38	0.24	4.96	
4,825.0	3.42	234.90	4,815.3	-156.7	-199.2	-151.0	0.47	0.12	-7.64	
4,850.0	3.44	235.45	4,840.3	-157.6	-200.4	-151.8	0.15	0.08	2.20	
4,875.0	3.42	235.06	4,865.2	-158.4	-201.7	-152.6	0.12	-0.08	-1.56	
4,900.0	3.29	235.13	4,890.2	-159.3	-202.9	-153.4	0.52	-0.52	0.28	
4,925.0	3.23	233.57	4,915.2	-160.1	-204.0	-154.2	0.43	-0.24	-6.24	
4,950.0	3.09	233.44	4,940.1	-160.9	-205.1	-155.0	0.56	-0.56	-0.52	
4,975.0	3.17	233.82	4,965.1	-161.7	-206.2	-155.8	0.33	0.32	1.52	
5,000.0	3.22	233.76	4,990.0	-162.6	-207.3	-156.6	0.20	0.20	-0.24	
5,025.0	3.08	232.50	5,015.0	-163.4	-208.4	-157.4	0.62	-0.56	-5.04	
5,050.0	3.06	231.70	5,040.0	-164.2	-209.5	-158.2	0.19	-0.08	-3.20	
5,075.0	3.05	230.42	5,064.9	-165.0	-210.5	-159.0	0.28	-0.04	-5.12	
5,100.0	3.07	230.51	5,089.9	-165.9	-211.6	-159.8	0.08	0.08	0.36	
5,125.0	3.08	230.57	5,114.9	-166.7	-212.6	-160.6	0.04	0.04	0.24	
5,150.0	3.06	229.20	5,139.8	-167.6	-213.6	-161.4	0.30	-0.08	-5.48	
5,175.0	3.02	229.00	5,164.8	-168.5	-214.6	-162.3	0.17	-0.16	-0.80	
5,200.0	3.10	229.10	5,189.8	-169.3	-215.6	-163.1	0.32	0.32	0.40	
5,225.0	3.14	229.95	5,214.7	-170.2	-216.7	-164.0	0.24	0.16	3.40	
5,250.0	3.16	229.52	5,239.7	-171.1	-217.7	-164.8	0.12	0.08	-1.72	
5,275.0	3.14	228.84	5,264.6	-172.0	-218.8	-165.7	0.17	-0.08	-2.72	
5,300.0	3.00	229.41	5,289.6	-172.9	-219.8	-166.5	0.57	-0.56	2.28	
5,325.0	2.95	229.19	5,314.6	-173.7	-220.8	-167.4	0.21	-0.20	-0.88	
5,350.0	2.91	229.40	5,339.5	-174.6	-221.7	-168.2	0.17	-0.16	0.84	
5,375.0	2.79	231.55	5,364.5	-175.4	-222.7	-168.9	0.64	-0.48	8.60	
5,400.0	2.86	230.78	5,389.5	-176.1	-223.6	-169.7	0.32	0.28	-3.08	
5,425.0	2.83	231.10	5,414.4	-176.9	-224.6	-170.4	0.14	-0.12	1.28	
5,450.0	3.10	233.04	5,439.4	-177.7	-225.6	-171.2	1.15	1.08	7.76	
5,475.0	2.83	228.28	5,464.4	-178.5	-226.6	-172.0	1.46	-1.08	-19.04	
5,500.0	2.75	228.29	5,489.4	-179.3	-227.5	-172.8	0.32	-0.32	0.04	
5,525.0	2.71	230.85	5,514.3	-180.1	-228.4	-173.5	0.51	-0.16	10.24	
5,550.0	2.72	228.26	5,539.3	-180.9	-229.3	-174.3	0.49	0.04	-10.36	
5,575.0	2.64	230.57	5,564.3	-181.6	-230.2	-175.0	0.54	-0.32	9.24	
5,600.0	2.67	228.90	5,589.2	-182.4	-231.1	-175.7	0.33	0.12	-6.68	
5,625.0	2.59	228.21	5,614.2	-183.1	-232.0	-176.4	0.34	-0.32	-2.76	
5,650.0	2.64	229.10	5,639.2	-183.9	-232.8	-177.2	0.26	0.20	3.56	
5,675.0	2.63	226.82	5,664.2	-184.7	-233.7	-177.9	0.42	-0.04	-9.12	
5,700.0	2.62	226.17	5,689.1	-185.5	-234.5	-178.7	0.13	-0.04	-2.60	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec 33 T-26-S R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid:
Wellbore:	ST01	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	2.69	226.89	5,714.1	-186.3	-235.4	-179.5	0.31	0.28	2.88
5,750.0	2.65	227.25	5,739.1	-187.1	-236.2	-180.2	0.17	-0.16	1.44
5,775.0	2.65	228.38	5,764.1	-187.8	-237.1	-181.0	0.21	0.00	4.52
5,800.0	2.58	227.21	5,789.0	-188.6	-237.9	-181.7	0.35	-0.28	-4.68
5,825.0	2.56	226.04	5,814.0	-189.4	-238.7	-182.5	0.22	-0.08	-4.68
5,850.0	2.55	226.53	5,839.0	-190.1	-239.5	-183.2	0.10	-0.04	1.96
5,875.0	2.57	227.80	5,864.0	-190.9	-240.4	-183.9	0.24	0.08	5.08
5,900.0	2.59	226.09	5,888.9	-191.7	-241.2	-184.7	0.32	0.08	-6.84
5,925.0	2.58	225.84	5,913.9	-192.4	-242.0	-185.5	0.06	-0.04	-1.00
5,950.0	2.58	226.69	5,938.9	-193.2	-242.8	-186.2	0.15	0.00	3.40
5,975.0	2.58	225.44	5,963.9	-194.0	-243.6	-187.0	0.23	0.00	-5.00
6,000.0	2.54	227.78	5,988.8	-194.8	-244.4	-187.7	0.45	-0.16	9.36
6,025.0	2.56	227.27	6,013.8	-195.5	-245.2	-188.4	0.12	0.08	-2.04
6,050.0	2.47	227.59	6,038.8	-196.3	-246.0	-189.2	0.36	-0.36	1.28
6,075.0	2.36	227.91	6,063.8	-197.0	-246.8	-189.8	0.44	-0.44	1.28
6,100.0	2.09	236.10	6,088.7	-197.6	-247.6	-190.4	1.67	-1.08	32.76
6,125.0	1.62	254.74	6,113.7	-197.9	-248.3	-190.7	3.04	-1.88	74.56
6,150.0	1.60	255.25	6,138.7	-198.1	-249.0	-190.9	0.10	-0.08	2.04
6,175.0	1.59	252.71	6,163.7	-198.3	-249.7	-191.1	0.29	-0.04	-10.16
6,200.0	1.57	253.20	6,188.7	-198.5	-250.3	-191.3	0.10	-0.08	1.96
6,225.0	1.62	254.67	6,213.7	-198.7	-251.0	-191.4	0.26	0.20	5.88
6,250.0	1.62	251.93	6,238.7	-198.9	-251.7	-191.6	0.31	0.00	-10.96
6,275.0	1.66	247.86	6,263.7	-199.1	-252.3	-191.8	0.49	0.16	-16.28
6,300.0	1.64	243.24	6,288.7	-199.4	-253.0	-192.1	0.54	-0.08	-18.48
6,325.0	1.61	245.07	6,313.6	-199.7	-253.6	-192.4	0.24	-0.12	7.32
6,350.0	1.64	242.81	6,338.6	-200.1	-254.3	-192.7	0.28	0.12	-9.04
6,375.0	1.64	242.41	6,363.6	-200.4	-254.9	-193.0	0.05	0.00	-1.60
6,400.0	1.59	238.27	6,388.6	-200.7	-255.5	-193.3	0.51	-0.20	-16.56
6,425.0	1.63	234.18	6,413.6	-201.1	-256.1	-193.7	0.49	0.16	-16.36
6,450.0	1.60	236.12	6,438.6	-201.5	-256.7	-194.1	0.25	-0.12	7.76
6,475.0	1.63	233.70	6,463.6	-201.9	-257.2	-194.5	0.30	0.12	-9.68
6,500.0	1.67	234.47	6,488.6	-202.4	-257.8	-194.9	0.18	0.16	3.08
6,525.0	1.47	233.74	6,513.6	-202.8	-258.4	-195.3	0.80	-0.80	-2.92
6,550.0	0.75	240.50	6,538.6	-203.0	-258.8	-195.5	2.92	-2.88	27.04
6,575.0	0.14	208.06	6,563.6	-203.1	-258.9	-195.6	2.55	-2.44	-129.76
6,600.0	0.17	93.54	6,588.6	-203.2	-258.9	-195.7	1.05	0.12	-458.08
6,625.0	0.47	101.22	6,613.6	-203.2	-258.8	-195.7	1.21	1.20	30.72
6,650.0	0.80	107.25	6,638.6	-203.3	-258.5	-195.8	1.34	1.32	24.12
6,675.0	0.90	106.03	6,663.6	-203.4	-258.2	-195.9	0.41	0.40	-4.88
6,700.0	1.14	112.16	6,688.6	-203.5	-257.7	-196.1	1.05	0.96	24.52
6,725.0	1.30	116.17	6,713.5	-203.7	-257.3	-196.3	0.73	0.64	16.04
6,750.0	1.46	122.67	6,738.5	-204.0	-256.7	-196.6	0.89	0.64	26.00
6,775.0	1.68	125.92	6,763.5	-204.4	-256.2	-197.0	0.95	0.88	13.00
6,800.0	1.85	124.32	6,788.5	-204.9	-255.5	-197.5	0.71	0.68	-6.40



Intrepid
Survey Report



Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	1.89	122.60	6,813.5	-205.3	-254.9	-197.9	0.28	0.16	-6.88
6,850.0	2.01	125.26	6,838.5	-205.8	-254.1	-198.4	0.60	0.48	10.64
6,875.0	2.03	125.80	6,863.5	-206.3	-253.4	-199.0	0.11	0.08	2.16
6,900.0	2.07	126.70	6,888.5	-206.8	-252.7	-199.5	0.21	0.16	3.60
6,925.0	2.04	125.50	6,913.4	-207.3	-252.0	-200.1	0.21	-0.12	-4.80
6,950.0	1.98	124.18	6,938.4	-207.8	-251.3	-200.6	0.30	-0.24	-5.28
6,975.0	1.90	124.72	6,963.4	-208.3	-250.6	-201.1	0.33	-0.32	2.16
7,000.0	1.82	128.08	6,988.4	-208.8	-249.9	-201.6	0.54	-0.32	13.44
7,025.0	1.48	133.40	7,013.4	-209.3	-249.4	-202.1	1.49	-1.36	21.28
7,050.0	0.75	138.92	7,038.4	-209.6	-249.0	-202.4	2.95	-2.92	22.08
7,075.0	0.42	166.61	7,063.4	-209.8	-248.9	-202.6	1.70	-1.32	110.76
7,100.0	0.36	201.76	7,088.4	-210.0	-248.9	-202.8	0.97	-0.24	140.60
7,125.0	0.47	234.24	7,113.4	-210.1	-249.0	-202.9	1.02	0.44	129.92
7,150.0	0.69	262.00	7,138.4	-210.2	-249.2	-203.0	1.40	0.88	111.04
7,175.0	0.90	267.92	7,163.4	-210.2	-249.6	-203.0	0.90	0.84	23.68
7,200.0	1.09	269.96	7,188.4	-210.2	-250.0	-203.0	0.77	0.76	8.16
7,225.0	1.15	269.30	7,213.4	-210.2	-250.5	-203.0	0.25	0.24	-2.64
7,250.0	1.19	268.79	7,238.4	-210.3	-251.0	-203.0	0.17	0.16	-2.04
7,275.0	1.33	265.52	7,263.4	-210.3	-251.6	-203.0	0.63	0.56	-13.08
7,300.0	1.39	262.54	7,288.4	-210.3	-252.2	-203.1	0.37	0.24	-11.92
7,325.0	1.45	254.83	7,313.3	-210.5	-252.8	-203.2	0.80	0.24	-30.84
7,350.0	1.53	253.87	7,338.3	-210.6	-253.4	-203.3	0.34	0.32	-3.84
7,375.0	1.59	255.93	7,363.3	-210.8	-254.1	-203.5	0.33	0.24	8.24
7,400.0	1.58	255.81	7,388.3	-211.0	-254.7	-203.6	0.04	-0.04	-0.48
7,425.0	1.63	254.13	7,413.3	-211.2	-255.4	-203.8	0.27	0.20	-6.72
7,450.0	1.72	254.58	7,438.3	-211.4	-256.1	-204.0	0.36	0.36	1.80
7,475.0	1.76	253.83	7,463.3	-211.6	-256.8	-204.1	0.18	0.16	-3.00
7,500.0	1.76	253.58	7,488.3	-211.8	-257.6	-204.3	0.03	0.00	-1.00
7,525.0	1.79	254.11	7,513.3	-212.0	-258.3	-204.5	0.14	0.12	2.12
7,550.0	1.87	252.38	7,538.2	-212.2	-259.1	-204.7	0.39	0.32	-6.92
7,575.0	1.79	249.84	7,563.2	-212.5	-259.8	-205.0	0.46	-0.32	-10.16
7,600.0	1.79	256.35	7,588.2	-212.7	-260.6	-205.2	0.81	0.00	26.04
7,625.0	1.40	259.36	7,613.2	-212.9	-261.3	-205.3	1.60	-1.56	12.04
7,650.0	1.34	257.91	7,638.2	-213.0	-261.8	-205.4	0.28	-0.24	-5.80
7,675.0	1.38	262.82	7,663.2	-213.1	-262.4	-205.5	0.49	0.16	19.64
7,700.0	1.27	260.10	7,688.2	-213.2	-263.0	-205.6	0.51	-0.44	-10.88
7,725.0	1.23	262.42	7,713.2	-213.3	-263.5	-205.6	0.26	-0.16	9.28
7,750.0	1.16	265.67	7,738.2	-213.3	-264.1	-205.7	0.39	-0.28	13.00
7,775.0	1.23	265.11	7,763.2	-213.3	-264.6	-205.7	0.28	0.28	-2.24
7,800.0	1.26	261.92	7,788.2	-213.4	-265.1	-205.7	0.30	0.12	-12.76
7,825.0	1.21	261.03	7,813.2	-213.5	-265.7	-205.8	0.21	-0.20	-3.56
7,850.0	1.17	263.92	7,838.2	-213.6	-266.2	-205.9	0.29	-0.16	11.56
7,875.0	1.31	263.82	7,863.2	-213.6	-266.7	-205.9	0.56	0.56	-0.40

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec 33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	1.40	259.43	7,888.1	-213.7	-267.3	-206.0	0.55	0.36	-17.56
7,925.0	1.33	256.89	7,913.1	-213.8	-267.9	-206.1	0.37	-0.28	-10.16
7,950.0	1.21	256.08	7,938.1	-214.0	-268.4	-206.2	0.49	-0.48	-3.24
7,975.0	0.88	257.25	7,963.1	-214.1	-268.9	-206.3	1.32	-1.32	4.68
8,000.0	0.69	259.88	7,988.1	-214.1	-269.2	-206.3	0.77	-0.76	10.52
8,025.0	0.68	266.54	8,013.1	-214.2	-269.5	-206.4	0.32	-0.04	26.64
8,050.0	0.71	257.28	8,038.1	-214.2	-269.8	-206.4	0.46	0.12	-37.04
8,075.0	0.65	265.09	8,063.1	-214.3	-270.1	-206.4	0.44	-0.24	31.24
8,100.0	0.55	262.29	8,088.1	-214.3	-270.3	-206.5	0.42	-0.40	-11.20
8,125.0	0.32	254.14	8,113.1	-214.3	-270.5	-206.5	0.95	-0.92	-32.60
8,150.0	0.16	213.95	8,138.1	-214.4	-270.6	-206.5	0.89	-0.64	-160.76
8,175.0	0.20	138.60	8,163.1	-214.4	-270.6	-206.6	0.89	0.16	-301.40
8,200.0	0.35	138.87	8,188.1	-214.5	-270.5	-206.7	0.60	0.60	1.08
8,225.0	0.33	136.94	8,213.1	-214.6	-270.4	-206.8	0.09	-0.08	-7.72
8,250.0	0.22	147.43	8,238.1	-214.7	-270.3	-206.9	0.48	-0.44	41.96
8,275.0	0.26	187.30	8,263.1	-214.8	-270.3	-207.0	0.67	0.16	159.48
8,300.0	0.32	189.46	8,288.1	-214.9	-270.3	-207.1	0.24	0.24	8.64
8,325.0	0.27	204.57	8,313.1	-215.1	-270.4	-207.3	0.37	-0.20	60.44
8,350.0	0.24	209.86	8,338.1	-215.2	-270.4	-207.3	0.15	-0.12	21.16
8,375.0	0.44	214.72	8,363.1	-215.3	-270.5	-207.5	0.81	0.80	19.44
8,400.0	0.57	209.59	8,388.1	-215.5	-270.6	-207.7	0.55	0.52	-20.52
8,425.0	0.61	208.02	8,413.1	-215.7	-270.8	-207.9	0.17	0.16	-6.28
8,450.0	0.76	214.36	8,438.1	-216.0	-270.9	-208.1	0.67	0.60	25.36
8,475.0	0.89	209.40	8,463.1	-216.3	-271.1	-208.4	0.59	0.52	-19.84
8,500.0	0.93	206.53	8,488.1	-216.6	-271.3	-208.8	0.24	0.16	-11.48
8,525.0	0.90	206.52	8,513.1	-217.0	-271.5	-209.1	0.12	-0.12	-0.04
8,550.0	0.99	204.22	8,538.1	-217.3	-271.6	-209.5	0.39	0.36	-9.20
8,575.0	0.92	190.49	8,563.1	-217.7	-271.8	-209.9	0.95	-0.28	-54.92
8,600.0	0.47	200.81	8,588.1	-218.0	-271.8	-210.2	1.86	-1.80	41.28
8,625.0	0.43	269.08	8,613.1	-218.1	-272.0	-210.3	2.02	-0.16	273.08
8,650.0	0.46	285.28	8,638.1	-218.1	-272.2	-210.2	0.52	0.12	64.80
8,675.0	0.56	295.58	8,663.1	-218.0	-272.4	-210.1	0.54	0.40	41.20
8,700.0	0.70	274.65	8,688.1	-218.0	-272.6	-210.1	1.07	0.56	-83.72
8,725.0	0.73	261.15	8,713.1	-218.0	-272.9	-210.1	0.68	0.12	-54.00
8,750.0	0.90	268.75	8,738.1	-218.0	-273.3	-210.1	0.80	0.68	30.40
8,775.0	0.97	260.24	8,763.1	-218.0	-273.7	-210.1	0.62	0.28	-34.04
8,800.0	1.07	263.15	8,788.1	-218.1	-274.1	-210.2	0.45	0.40	11.64
8,825.0	0.95	271.69	8,813.1	-218.1	-274.6	-210.2	0.77	-0.48	34.16
8,850.0	0.97	281.22	8,838.1	-218.1	-275.0	-210.1	0.64	0.08	38.12
8,875.0	0.85	287.94	8,863.1	-218.0	-275.4	-210.0	0.64	-0.48	26.88
8,900.0	0.76	302.41	8,888.1	-217.8	-275.7	-209.9	0.89	-0.36	57.88
8,925.0	0.73	323.51	8,913.1	-217.6	-275.9	-209.6	1.10	-0.12	84.40
8,950.0	0.62	331.52	8,938.1	-217.4	-276.1	-209.4	0.58	-0.44	32.04

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	0.42	341.75	8,963.1	-217.2	-276.2	-209.2	0.88	-0.80	40.92	
9,000.0	0.31	7.37	8,988.1	-217.0	-276.2	-209.0	0.78	-0.44	102.48	
9,025.0	0.34	30.27	9,013.1	-216.9	-276.2	-208.9	0.53	0.12	91.60	
9,050.0	0.20	51.82	9,038.1	-216.8	-276.1	-208.8	0.68	-0.56	86.20	
9,075.0	0.29	50.93	9,063.1	-216.7	-276.0	-208.7	0.36	0.36	-3.56	
9,100.0	0.24	44.15	9,088.1	-216.6	-275.9	-208.7	0.24	-0.20	-27.12	
9,125.0	0.23	47.39	9,113.1	-216.6	-275.8	-208.6	0.07	-0.04	12.96	
9,150.0	0.21	14.50	9,138.1	-216.5	-275.8	-208.5	0.50	-0.08	-131.56	
9,175.0	0.16	109.85	9,163.1	-216.5	-275.7	-208.5	1.10	-0.20	381.40	
9,200.0	0.08	339.63	9,188.1	-216.5	-275.7	-208.5	0.88	-0.32	-520.88	
9,225.0	0.09	310.13	9,213.1	-216.4	-275.7	-208.5	0.18	0.04	-118.00	
9,250.0	0.06	269.38	9,238.1	-216.4	-275.8	-208.4	0.24	-0.12	-163.00	
9,275.0	0.18	286.44	9,263.1	-216.4	-275.8	-208.4	0.50	0.48	68.24	
9,300.0	0.17	284.25	9,288.1	-216.4	-275.9	-208.4	0.05	-0.04	-8.76	
9,325.0	0.39	312.30	9,313.1	-216.3	-276.0	-208.3	1.01	0.88	112.20	
9,332.0	0.12	262.31	9,320.1	-216.3	-276.0	-208.3	4.66	-3.86	-714.14	
Tie to SDI Gyro										
9,418.0	0.70	217.28	9,406.1	-216.7	-276.4	-208.7	0.72	0.67	-52.36	
9,441.0	0.46	223.54	9,429.1	-216.9	-276.6	-208.9	1.08	-1.04	27.22	
9,504.0	8.02	359.81	9,491.9	-212.7	-276.8	-204.7	13.27	12.00	216.30	
9,535.0	13.97	356.18	9,522.3	-206.8	-277.0	-198.8	19.31	19.19	-11.71	
9,567.0	20.52	356.24	9,552.8	-197.3	-277.6	-189.3	20.47	20.47	0.19	
9,598.0	27.01	358.49	9,581.2	-184.9	-278.2	-176.8	21.14	20.94	7.26	
9,645.0	36.84	0.56	9,621.0	-160.0	-278.3	-152.0	21.04	20.91	4.40	
9,692.0	40.08	0.47	9,657.8	-130.8	-278.1	-122.8	6.89	6.89	-0.19	
9,739.0	42.97	0.46	9,693.0	-99.7	-277.8	-91.7	6.15	6.15	-0.02	
9,771.0	45.61	0.76	9,715.9	-77.3	-277.6	-69.3	8.28	8.25	0.94	
9,802.0	45.44	0.33	9,737.6	-55.2	-277.4	-47.2	1.13	-0.55	-1.39	
9,833.0	47.05	1.09	9,759.1	-32.8	-277.1	-24.9	5.49	5.19	2.45	
9,865.0	49.34	1.43	9,780.4	-9.0	-276.6	-1.1	7.20	7.16	1.06	
9,896.0	51.41	0.88	9,800.2	14.9	-276.1	22.8	6.82	6.68	-1.77	
9,914.3	51.46	0.69	9,811.6	29.2	-275.9	37.1	0.85	0.26	-1.03	
FTP @ 9914.3'MD, 330°FSL & 491.7°FEL										
9,927.0	51.49	0.56	9,819.5	39.2	-275.8	47.0	0.85	0.26	-1.03	
9,958.0	51.88	0.59	9,838.7	63.5	-275.5	71.3	1.26	1.26	0.10	
9,990.0	53.47	0.81	9,858.1	88.9	-275.2	96.7	5.00	4.97	0.69	
10,037.0	57.31	0.40	9,884.8	127.6	-274.8	135.4	8.20	8.17	-0.87	
10,084.0	59.88	1.23	9,909.3	167.7	-274.2	175.5	5.67	5.47	1.77	
10,131.0	65.00	2.65	9,931.0	209.3	-272.8	217.0	11.22	10.89	3.02	
10,178.0	68.00	3.73	9,949.8	252.4	-270.4	260.0	6.72	6.38	2.30	
10,225.0	70.53	3.75	9,966.4	296.2	-267.6	303.7	5.38	5.38	0.04	
10,273.0	75.14	3.24	9,980.6	342.0	-264.8	349.4	9.66	9.60	-1.06	
10,320.0	82.20	3.64	9,989.8	388.0	-262.0	395.3	15.04	15.02	0.85	
10,366.0	88.28	1.23	9,993.6	433.7	-260.1	441.0	14.21	13.22	-5.24	

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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)
10,453.0	89.09	357.98	9,995.6	520.7	-260.7	527.9	3.85	0.93	-3.74
10,548.0	90.21	356.32	9,996.2	615.6	-265.4	622.9	2.11	1.18	-1.75
10,640.0	87.30	356.38	9,998.2	707.3	-271.2	714.8	3.16	-3.16	0.07
10,734.0	89.00	357.26	10,001.2	801.1	-276.4	808.7	2.04	1.81	0.94
10,829.0	90.74	2.75	10,001.4	896.1	-276.4	903.6	6.06	1.83	5.78
10,923.0	88.11	2.51	10,002.4	990.0	-272.1	997.4	2.81	-2.80	-0.26
11,016.0	88.84	1.75	10,004.8	1,082.9	-268.7	1,090.1	1.13	0.78	-0.82
11,110.0	89.96	2.32	10,005.8	1,176.8	-265.3	1,183.9	1.34	1.19	0.61
11,203.0	88.53	1.83	10,007.1	1,269.8	-262.0	1,276.7	1.63	-1.54	-0.53
11,297.0	88.31	2.30	10,009.6	1,363.7	-258.6	1,370.5	0.55	-0.23	0.50
11,391.0	87.69	2.27	10,012.9	1,457.5	-254.8	1,464.2	0.66	-0.66	-0.03
11,485.0	89.40	0.46	10,015.3	1,551.5	-252.6	1,558.0	2.65	1.82	-1.93
11,579.0	92.00	0.95	10,014.2	1,645.4	-251.4	1,652.0	2.81	2.77	0.52
11,672.0	92.40	359.24	10,010.6	1,738.4	-251.3	1,744.8	1.89	0.43	-1.84
11,766.0	93.01	358.39	10,006.2	1,832.2	-253.2	1,838.7	1.11	0.65	-0.90
11,860.0	87.47	359.69	10,005.8	1,926.2	-254.8	1,932.7	6.05	-5.89	1.38
11,954.0	87.74	1.64	10,009.7	2,020.1	-253.7	2,026.5	2.09	0.29	2.07
12,049.0	87.49	3.15	10,013.7	2,114.9	-249.7	2,121.2	1.61	-0.26	1.59
12,142.0	83.98	2.74	10,020.6	2,207.5	-245.0	2,213.6	3.80	-3.77	-0.44
12,236.0	84.91	1.51	10,029.7	2,301.0	-241.5	2,307.0	1.64	0.99	-1.31
12,330.0	90.18	0.57	10,033.7	2,394.9	-239.8	2,400.8	5.69	5.61	-1.00
12,424.0	91.86	359.92	10,032.0	2,488.9	-239.4	2,494.7	1.92	1.79	-0.69
12,518.0	92.98	359.50	10,028.0	2,582.8	-239.9	2,588.6	1.27	1.19	-0.45
12,611.0	94.75	359.36	10,021.8	2,675.6	-240.8	2,681.4	1.91	1.90	-0.15
12,705.0	89.29	359.49	10,018.5	2,769.5	-241.7	2,775.2	5.81	-5.81	0.14
12,798.0	90.24	0.06	10,018.8	2,862.5	-242.1	2,868.2	1.19	1.02	0.61
12,892.0	91.36	359.64	10,017.5	2,956.5	-242.4	2,962.2	1.27	1.19	-0.45
12,987.0	89.82	359.85	10,016.6	3,051.4	-242.8	3,057.1	1.64	-1.62	0.22
13,081.0	89.15	359.97	10,017.4	3,145.4	-242.9	3,151.1	0.72	-0.71	0.13
13,174.0	86.74	359.08	10,020.7	3,238.4	-243.7	3,244.0	2.76	-2.59	-0.96
13,268.0	88.44	359.43	10,024.7	3,332.3	-244.9	3,337.9	1.85	1.81	0.37
13,362.0	93.13	1.57	10,023.4	3,426.2	-244.1	3,431.8	5.48	4.99	2.28
13,456.0	88.17	357.81	10,022.3	3,520.2	-244.6	3,525.7	6.62	-5.28	-4.00
13,550.0	88.50	359.19	10,025.1	3,614.1	-247.1	3,619.7	1.51	0.35	1.47
13,644.0	89.23	359.27	10,026.9	3,708.1	-248.3	3,713.7	0.78	0.78	0.09
13,738.0	88.67	359.82	10,028.7	3,802.1	-249.1	3,807.6	0.83	-0.60	0.59
13,832.0	89.73	0.83	10,030.0	3,896.0	-248.5	3,901.6	1.56	1.13	1.07
13,926.0	90.99	0.92	10,029.4	3,990.0	-247.1	3,995.5	1.34	1.34	0.10
14,020.0	91.08	0.16	10,027.7	4,084.0	-246.2	4,089.4	0.81	0.10	-0.81
14,114.0	85.92	358.18	10,030.1	4,177.9	-247.6	4,183.3	5.88	-5.49	-2.11
14,208.0	88.44	359.94	10,034.8	4,271.8	-249.1	4,277.2	3.27	2.68	1.87
14,302.0	90.35	0.89	10,035.8	4,365.8	-248.4	4,371.1	2.27	2.03	1.01
14,396.0	92.42	1.19	10,033.5	4,459.7	-246.7	4,465.0	2.23	2.20	0.32

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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)
14,490.0	92.56	1.58	10,029.4	4,553.6	-244.5	4,558.7	0.44	0.15	0.41
14,584.0	89.19	0.78	10,028.0	4,647.6	-242.5	4,652.6	3.68	-3.59	-0.85
14,677.0	87.38	358.83	10,030.7	4,740.5	-242.8	4,745.5	2.86	-1.95	-2.10
14,771.0	91.56	0.83	10,031.6	4,834.5	-243.1	4,839.5	4.93	4.45	2.13
14,864.0	93.01	0.46	10,027.9	4,927.4	-242.1	4,932.3	1.61	1.56	-0.40
14,959.0	91.05	359.32	10,024.5	5,022.3	-242.3	5,027.2	2.39	-2.06	-1.20
15,053.0	90.41	357.50	10,023.3	5,116.3	-244.9	5,121.2	2.05	-0.68	-1.94
15,147.0	89.31	357.64	10,023.6	5,210.2	-248.8	5,215.2	1.18	-1.17	0.15
15,241.0	88.22	0.12	10,025.6	5,304.2	-250.7	5,309.2	2.88	-1.16	2.64
15,335.0	84.71	2.74	10,031.4	5,397.9	-248.3	5,402.8	4.66	-3.73	2.79
15,429.0	85.89	2.86	10,039.1	5,491.5	-243.8	5,496.2	1.26	1.26	0.13
15,523.0	90.35	4.35	10,042.2	5,585.2	-237.9	5,589.7	5.00	4.74	1.59
15,617.0	89.57	3.70	10,042.2	5,679.0	-231.3	5,683.3	1.08	-0.83	-0.69
15,711.0	88.73	2.44	10,043.6	5,772.9	-226.2	5,777.0	1.61	-0.89	-1.34
15,805.0	90.13	3.17	10,044.6	5,866.7	-221.6	5,870.7	1.68	1.49	0.78
15,899.0	90.46	2.92	10,044.1	5,960.6	-216.6	5,964.4	0.44	0.35	-0.27
15,993.0	91.08	2.71	10,042.8	6,054.5	-212.0	6,058.1	0.70	0.66	-0.22
16,087.0	92.11	2.06	10,040.2	6,148.4	-208.1	6,151.8	1.30	1.10	-0.69
16,182.0	87.04	0.75	10,040.9	6,243.3	-205.8	6,246.6	5.51	-5.34	-1.38
16,275.0	88.44	2.25	10,044.6	6,336.2	-203.4	6,339.4	2.21	1.51	1.61
16,369.0	87.04	359.83	10,048.3	6,430.1	-201.6	6,433.2	2.97	-1.49	-2.57
16,463.0	87.10	359.85	10,053.1	6,524.0	-201.9	6,527.1	0.07	0.06	0.02
16,557.0	85.81	358.22	10,058.9	6,617.8	-203.5	6,620.9	2.21	-1.37	-1.73
16,651.0	92.00	358.43	10,060.7	6,711.7	-206.2	6,714.8	6.59	6.59	0.22
16,745.0	90.10	359.39	10,059.0	6,805.6	-208.0	6,808.8	2.26	-2.02	1.02
16,838.0	88.84	359.66	10,059.8	6,898.6	-208.8	6,901.8	1.39	-1.35	0.29
16,933.0	88.31	358.33	10,062.2	6,993.6	-210.5	6,996.7	1.51	-0.56	-1.40
16,948.8	88.42	358.25	10,062.7	7,009.4	-210.9	7,012.5	0.87	0.72	-0.48
LTP @ 16948.8'MD, 330'FNL & 531.9'FEL									
17,013.0	88.89	357.95	10,064.2	7,073.5	-213.1	7,076.7	0.87	0.73	-0.47
LAST SVY									
17,079.0	88.89	357.95	10,065.4	7,139.4	-215.4	7,142.7	0.00	0.00	0.00
Projection to TD @ 17079'MD, 200'FNL & 539.5'FEL									

Company:	Concho Resources, Inc.	Local Co-ordinate Reference:	Well Littlefield 33 Fed Com #705H
Project:	Eddy County (NAD27 NME)	TVD Reference:	KB @ 2891.4usft (Precision 106)
Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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	- actual wellpath misses target center by 148.8usft at 10020.4usft MD (9875.6 TVD, 113.7 N, -274.9 E)	0.00	0.00	9,998.0	29.2	-269.4	364,221.40	606,206.00	32° 0' 3.224 N 103° 59' 26.610 W
- Point									
1000'VS (Littlefield 33	- actual wellpath misses target center by 11.8usft at 10926.4usft MD (10002.5 TVD, 993.4 N, -272.0 E)	0.00	0.00	10,007.0	992.9	-261.1	365,185.10	606,214.30	32° 0' 12.761 N 103° 59' 26.478 W
- Point									
1500'VS (Littlefield 33	- actual wellpath misses target center by 5.0usft at 11426.6usft MD (10014.2 TVD, 1493.1 N, -253.6 E)	0.00	0.00	10,010.0	1,493.3	-256.5	365,685.50	606,218.94	32° 0' 17.713 N 103° 59' 26.406 W
- Point									
5400'VS (Littlefield 33	- actual wellpath misses target center by 29.4usft at 15334.2usft MD (10031.3 TVD, 5397.1 N, -248.4 E)	-1.83	180.53	10,040.0	5,395.9	-220.3	369,588.10	606,255.13	32° 0' 56.334 N 103° 59' 25.842 W
- Rectangle (sides W60.0 H494.6 D30.0)									
PBHL (Littlefield 33 Fed	- actual wellpath misses target center by 19.1usft at 17078.3usft MD (10065.4 TVD, 7138.7 N, -215.4 E)	0.02	0.53	10,050.0	7,139.4	-204.1	371,331.60	606,271.30	32° 1' 13.588 N 103° 59' 25.590 W
- Rectangle (sides W60.0 H1,243.3 D30.0)									
5900'VS (Littlefield 33	- actual wellpath misses target center by 7.0usft at 15834.7usft MD (10044.5 TVD, 5896.4 N, -220.0 E)	-1.06	180.53	10,050.0	5,896.2	-215.6	370,088.40	606,259.77	32° 1' 1.285 N 103° 59' 25.770 W
- Rectangle (sides W60.0 H500.0 D30.0)									
LTP (Littlefield 33 Fed	- actual wellpath misses target center by 13.8usft at 16948.3usft MD (10062.6 TVD, 7008.9 N, -210.9 E)	0.00	0.01	10,050.1	7,009.4	-205.2	371,201.60	606,270.20	32° 1' 12.302 N 103° 59' 25.607 W
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
490.5	490.2	Rustler				
643.6	643.2	TOS				
2,648.1	2,644.2	BOS (Fletcher)				
2,833.8	2,829.2	LMAR (Top Delaware)				
2,867.0	2,862.2	BLCN				
3,746.8	3,739.2	CYCN				
5,018.2	5,008.2	BYCN				
6,532.6	6,521.2	Bone Sprg (BSGL)				
6,731.7	6,720.2	U Avalon Sh				
7,128.8	7,117.2	L Avalon Sh				
7,449.9	7,438.2	FBSG_sand				
8,179.1	8,167.2	SBSG_sand				
8,599.1	8,587.2	SBSG_sand base				
9,314.1	9,302.2	TBSG_sand				
9,709.6	9,671.2	WFMP				

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Site:	(Littlefield 33 Fed Com) Sec-33_T-26-S_R-29-E	MD Reference:	KB @ 2891.4usft (Precision 106)
Well:	Littlefield 33 Fed Com #705H	North Reference:	Grid
Wellbore:	ST01	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)	
9,332.0	9,320.1	-216.3	-276.0	Tie to SDI Gyro
9,914.3	9,811.6	29.2	-275.9	FTP @ 9914.3'MD, 330'FSL & 491.7'FEL
16,948.8	10,062.7	7,009.4	-210.9	LTP @ 16948.8'MD, 330'FNL & 531.9'FEL
17,013.0	10,064.2	7,073.5	-213.1	LAST SVY
17,079.0	10,065.4	7,139.4	-215.4	Projection to TD @ 17079'MD, 200'FNL & 539.5'FEL

Checked By: _____	Approved By: _____	Date: _____
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