

December 18, 2014

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

RECEIVED

Attn: Kanicia Castillo

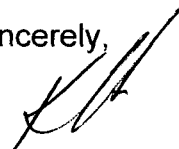
30-015-40276

RE: **Burch Keely Unit #626**

Please find enclosed a copy of the survey from 0.00' to 965.00' ran on the above referenced well.

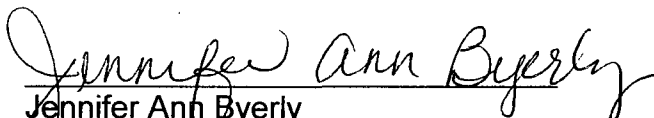
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

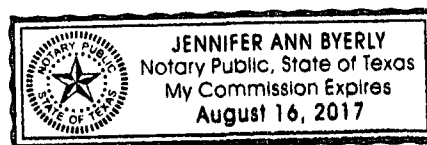
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 18 day of December
A.D., 2014, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: Concho
Lease/Well: Burch Keely Unit /#626
Location: Sec24 T17S R29E
Rig Name: Basic 38
State/County: New Mexico/Eddy
Latitude: 32.82, Longitude: -104.02
GRID North is 0.17 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 13 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

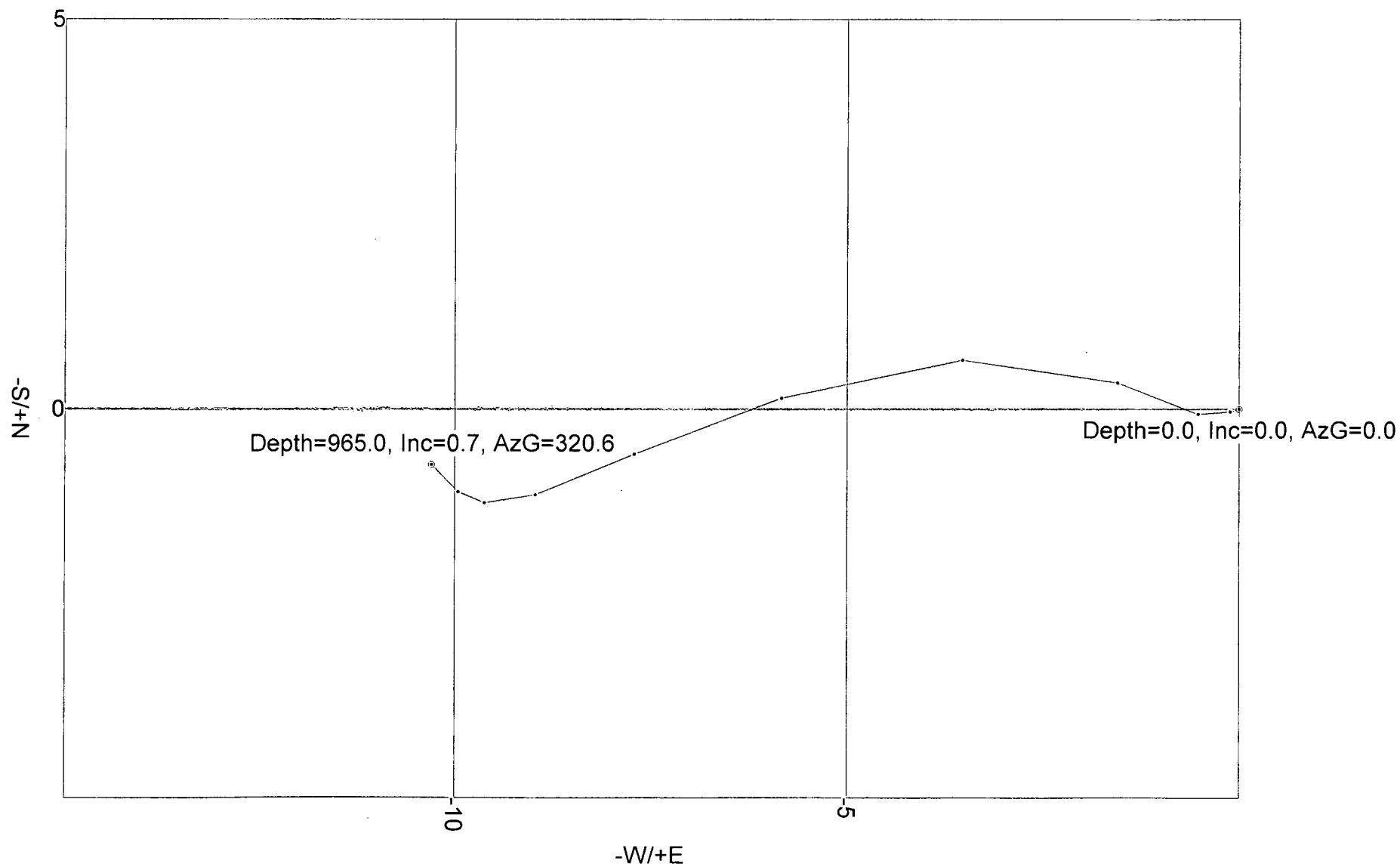
Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 12/18/2014 / 10:39

VES Survey International
West Texas
(432) 563-5444
Surveyor: Noe Garza
Burch Keely Unit #626 / API 30-015-40276

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.14	253.68	100.00	-0.03	-0.11	-0.03	0.12	253.68	0.14
200.00	0.34	270.43	200.00	-0.07	-0.53	-0.07	0.53	263.00	0.22
300.00	0.95	298.91	299.99	0.34	-1.56	0.34	1.59	282.28	0.67
400.00	1.44	264.94	399.97	0.63	-3.53	0.63	3.59	280.12	0.84
500.00	1.29	250.30	499.94	0.14	-5.84	0.14	5.84	271.39	0.38
600.00	1.02	247.11	599.92	-0.58	-7.71	-0.58	7.73	265.69	0.28
700.00	0.55	248.38	699.91	-1.10	-8.97	-1.10	9.04	262.99	0.47
800.00	0.25	290.14	799.91	-1.20	-9.62	-1.20	9.70	262.87	0.40
900.00	0.17	295.92	899.91	-1.06	-9.96	-1.06	10.02	263.91	0.08
965.00	0.70	320.60	964.91	-0.71	-10.30	-0.71	10.32	266.03	0.84



VES Survey International
West Texas
(432) 563-5444
Surveyor: Noe Garza
Burch Keely Unit #626 / API 30-015-40276



VES Survey Date: 12/2/2014

OPERATOR COG Operating
WELL/LEASE Burch Keely Unit #626
COUNTY Eddy Co., NM

STATE OF NEW MEXICO
DEVIATION REPORT

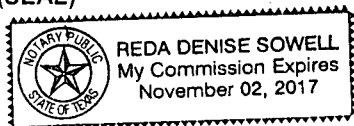
141	0.75
522	1.25
987	0.20
1113	0.20
1050	0.20
1177	0.10
1240	1.00
1303	2.20
1555	4.80
1619	4.80
1682	6.90
1745	8.90
1809	8.90
1872	9.20
2506	10.00
2663	9.50
2758	9.20
2822	9.00
2885	9.40
3012	9.30
3455	10.00
3518	9.40
3581	9.40
3645	9.60
3708	9.00
3771	8.80
4340	8.60
4403	8.90
4466	9.30
4529	9.50
4625	9.10
4688	9.00

SIGNED BY: *Ron Scandolari*
RON SCANDOLARI, VP-CONTRACT DRILLING

STATE OF TEXAS
COUNTY OF MIDLAND

ON THIS 15 DAY OF December, 2014, BEFORE ME, R SOWELL, A NOTARY
PUBLIC, PERSONALLY APPEARED RON SCANDOLARI, WHO ACKNOWLEDGED AND EXECUTED
THIS DOCUMENT. WITNESS MY HAND AND OFFICIAL SEAL.

(SEAL)



Reda Denise Sowell
NOTARY PUBLIC

NM OIL CONSERVATION

ARTESIA DISTRICT

FEB 2 2015

RECEIVED



COG Operating LLC

Eddy County, NM (NAD27 NME)

Burch Keely Unit

#626

WB1 / Job #1412399

Design: Surveys (Basic 38)

Standard Survey Report

06 December, 2014



PHOENIX
TECHNOLOGY SERVICES



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #626
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3633.00usft (Basic 38)
Site:	Burch Keely Unit	MD Reference:	KB @ 3633.00usft (Basic 38)
Well:	#626	North Reference:	Grid
Wellbore:	WB1 / Job #1412399	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Basic 38)	Database:	Compass 5000 GCR

Project:	Eddy County, NM (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:	Burch Keely Unit		
Site Position:		Northing:	666,591.10 usft
From:	Map	Easting:	596,305.50 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 49' 55.74916 N
		Longitude:	104° 1' 11.28420 W
		Grid Convergence:	0.17 °

Well:	#626		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Ground Level:	3,621.00 usft
		Latitude:	32° 49' 18.57299 N
		Longitude:	104° 1' 14.33394 W

Wellbore:	WB1 / Job #1412399		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	12/2/2014	7.41
			Dip Angle
			60.58
			Field Strength
			48,578

Design:	Surveys (Basic 38)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			163.58

Survey Program	Date: 12/6/2014		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	965.00	VEV Gyro Survey (WB1 / Job #1412399)	VES-ISCWSA-GYRO-3
965.00	4,792.00	Phoenix MWD Survey (WB1 / Job #14123)	PHX+MWD+IGRF
			Description
			Biaxial Semi-Cont. Gyro
			PHX+MWD+IGRF v3: standard declination

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.14	253.68	100.00	-0.03	-0.12	0.00	0.14	0.14	0.00	
200.00	0.34	270.43	200.00	-0.07	-0.53	-0.09	0.21	0.20	16.75	
300.00	0.95	298.91	299.99	0.34	-1.55	-0.76	0.67	0.61	28.48	
400.00	1.44	264.94	399.97	0.63	-3.53	-1.60	0.84	0.49	-33.97	
500.00	1.29	250.30	499.94	0.14	-5.84	-1.78	0.38	-0.15	-14.64	
600.00	1.02	247.11	599.92	-0.59	-7.72	-1.62	0.28	-0.27	-3.19	
700.00	0.55	248.38	699.91	-1.11	-8.99	-1.47	0.47	-0.47	1.27	
800.00	0.25	290.14	799.91	-1.21	-9.64	-1.56	0.40	-0.30	41.76	
900.00	0.17	295.92	899.91	-1.07	-9.98	-1.79	0.08	-0.08	5.78	



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #626
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3633.00usft (Basic 38)
Site:	Burch-Keely Unit	MD Reference:	KB @ 3633.00usft (Basic 38)
Well:	#626	North Reference:	Grid
Wellbore:	WB1 // Job #1412399	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Basic 38)	Database:	Compass 5000 GCR

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)
965.00	0.70	320.60	964.91	-0.73	-10.32	-2.22	0.85	0.82	37.97
Tie-on to VES Gyro Survey									
1,050.00	0.20	178.40	1,049.91	-0.47	-10.64	-2.56	1.02	-0.59	-167.29
First Phoenix MWD Survey									
1,113.00	0.20	349.20	1,112.91	-0.47	-10.66	-2.56	0.63	0.00	271.11
1,177.00	0.10	54.90	1,176.91	-0.33	-10.63	-2.69	0.29	-0.16	102.66
1,240.00	1.00	192.20	1,239.90	-0.84	-10.71	-2.22	1.71	1.43	217.94
1,303.00	2.20	186.80	1,302.88	-2.58	-10.97	-0.63	1.92	1.90	-8.57
1,366.00	3.20	175.20	1,365.81	-5.53	-10.96	2.21	1.80	1.59	-18.41
1,429.00	2.60	178.80	1,428.73	-8.71	-10.78	5.31	0.99	-0.95	5.71
1,492.00	3.10	176.10	1,491.65	-11.84	-10.64	8.35	0.82	0.79	-4.29
1,555.00	4.80	167.60	1,554.50	-16.11	-9.96	12.64	2.85	2.70	-13.49
1,619.00	4.80	170.40	1,618.27	-21.37	-8.93	17.97	0.37	0.00	4.38
1,682.00	6.90	166.90	1,680.94	-27.65	-7.64	24.37	3.38	3.33	-5.56
1,745.00	8.90	164.90	1,743.34	-36.05	-5.51	33.02	3.20	3.17	-3.17
1,809.00	8.90	164.30	1,806.57	-45.59	-2.88	42.92	0.15	0.00	-0.94
1,872.00	8.80	161.10	1,868.82	-54.84	0.00	52.61	0.80	-0.16	-5.08
1,936.00	9.20	160.00	1,932.03	-64.28	3.33	62.60	0.68	0.63	-1.72
1,999.00	9.20	160.40	1,994.22	-73.76	6.75	72.66	0.10	0.00	0.63
2,062.00	8.80	160.70	2,056.45	-83.05	10.03	82.50	0.64	-0.63	0.48
2,125.00	9.00	161.30	2,118.69	-92.27	13.20	92.24	0.35	0.32	0.95
2,189.00	9.10	161.10	2,181.89	-101.80	16.45	102.29	0.16	0.16	-0.31
2,252.00	9.60	161.10	2,244.05	-111.48	19.76	112.52	0.79	0.79	0.00
2,315.00	9.30	161.90	2,306.20	-121.29	23.04	122.86	0.52	-0.48	1.27
2,378.00	9.40	162.50	2,368.36	-131.03	26.17	133.09	0.22	0.16	0.95
2,442.00	9.80	163.10	2,431.46	-141.23	29.33	143.76	0.64	0.63	0.94
2,505.00	10.10	163.40	2,493.52	-151.65	32.46	154.65	0.48	0.48	0.48
2,569.00	10.00	162.50	2,556.54	-162.33	35.74	165.81	0.29	-0.16	-1.41
2,632.00	9.50	160.40	2,618.63	-172.45	39.13	176.47	0.97	-0.79	-3.33
2,695.00	9.60	160.40	2,680.75	-182.29	42.63	186.91	0.16	0.16	0.00
2,758.00	9.20	160.00	2,742.91	-191.97	46.12	197.18	0.64	-0.63	-0.63
2,822.00	9.00	161.40	2,806.10	-201.53	49.47	207.29	0.47	-0.31	2.19
2,885.00	9.40	161.10	2,868.29	-211.06	52.70	217.35	0.64	0.63	-0.48
2,949.00	9.20	163.10	2,931.45	-220.90	55.88	227.69	0.59	-0.31	3.13
3,012.00	9.30	166.20	2,993.63	-230.67	58.56	237.81	0.81	0.16	4.92
3,075.00	9.10	164.70	3,055.82	-240.42	61.09	247.88	0.50	-0.32	-2.38
3,138.00	9.00	164.80	3,118.04	-249.98	63.70	257.79	0.16	-0.16	0.16
3,202.00	8.80	162.60	3,181.27	-259.48	66.47	267.69	0.62	-0.31	-3.44
3,265.00	8.80	161.60	3,243.52	-268.65	69.44	277.32	0.24	0.00	-1.59
3,328.00	9.10	161.60	3,305.76	-277.95	72.53	287.12	0.48	0.48	0.00
3,391.00	9.50	162.40	3,367.93	-287.63	75.67	297.29	0.67	0.63	1.27
3,445.00	10.00	162.00	3,421.15	-296.34	78.47	306.43	0.93	0.93	-0.74
3,518.00	9.40	162.80	3,493.10	-308.06	82.19	318.73	0.84	-0.82	1.10



Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #626
Project:	Eddy County NM (NAD27 NME)	TVD Reference:	KB @ 3633.00usft (Basic 38)
Site:	Burch Keely Unit	MD Reference:	KB @ 3633.00usft (Basic 38)
Well:	#626	North Reference:	Grid
Wellbore:	WB1 / Job #1412399	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Basic 38)	Database:	Compass 5000 GCR

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)
3,581.00	9.40	162.70	3,555.26	-317.89	85.24	329.02	0.03	0.00	-0.16
3,645.00	9.60	163.80	3,618.38	-328.00	88.29	339.58	0.42	0.31	1.72
3,708.00	9.00	163.50	3,680.55	-337.77	91.15	349.76	0.96	-0.95	-0.48
3,771.00	8.80	162.20	3,742.79	-347.09	94.02	359.51	0.45	-0.32	-2.06
3,834.00	9.10	163.80	3,805.03	-356.46	96.89	369.31	0.62	0.48	2.54
3,897.00	9.40	164.70	3,867.21	-366.21	99.64	379.43	0.53	0.48	1.43
3,961.00	9.80	164.60	3,930.31	-376.50	102.46	390.11	0.63	0.63	-0.16
4,024.00	9.30	163.90	3,992.44	-386.56	105.30	400.56	0.81	-0.79	-1.11
4,087.00	9.10	161.80	4,054.63	-396.18	108.26	410.63	0.62	-0.32	-3.33
4,150.00	9.30	160.40	4,116.82	-405.71	111.53	420.69	0.48	0.32	-2.22
4,214.00	9.40	161.60	4,179.97	-415.54	114.91	431.08	0.34	0.16	1.88
4,277.00	8.80	161.60	4,242.17	-424.99	118.06	441.03	0.95	-0.95	0.00
4,340.00	8.60	161.10	4,304.45	-434.02	121.10	450.56	0.34	-0.32	-0.79
4,403.00	8.90	161.90	4,366.72	-443.11	124.14	460.13	0.51	0.48	1.27
4,466.00	9.30	162.60	4,428.92	-452.60	127.18	470.09	0.66	0.63	1.11
4,529.00	9.50	160.40	4,491.08	-462.36	130.45	480.38	0.65	0.32	-3.49
4,593.00	9.10	160.60	4,554.24	-472.11	133.90	490.70	0.63	-0.63	0.31
4,656.00	9.00	161.40	4,616.45	-481.48	137.13	500.60	0.26	-0.16	1.27
4,717.00	9.20	162.20	4,676.68	-490.64	140.14	510.24	0.39	0.33	1.31
4,742.00	9.20	162.10	4,701.36	-494.45	141.36	514.24	0.06	0.00	-0.40
Last Phoenix MWD Survey									
4,792.00	9.20	162.10	4,750.72	-502.05	143.82	522.23	0.00	0.00	0.00
Projection to TD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
965.00	964.91	-0.73	-10.32	Tie-on to VES Gyro Survey
1,050.00	1,049.91	-0.47	-10.64	First Phoenix MWD Survey
4,742.00	4,701.36	-494.45	141.36	Last Phoenix MWD Survey
4,792.00	4,750.72	-502.05	143.82	Projection to TD

Checked By: _____ Approved By: _____ Date: _____