



PHOENIX
TECHNOLOGY SERVICES

November 14, 2013

Oil Conservation Division
State of New Mexico
1625 N. French Drive
Hobbs, New Mexico 88240

HOBBS OCD

DEC 02 2013

RECEIVED

Dear District 1 - Hobbs

Re: Chevron Corporation
Limestone 11-23-33 #1H
Lea County, New Mexico
API # 30-025-41360
Job No. 1311084

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Zacharia Dawson	1H	565	13,037	08/10/2013	09/29/2013	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Kelly Jo Walter

Kelly Jo Walter
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4364 8868

DEC 02 2013

NEVIS ENERGY SERVICES INC. ^{DEC 02 2013} SURVEY DATA CERTIFICATION



RECEIVED

PHOENIX JOB NUMBER 1311084

OPERATOR Chevron

WELL NAME Limestone 11-23-33 #1H

COUNTY & STATE

Lea County, NM

API WELL NUMBER	30-025-41360
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PROPOSED DIRECTION	179.53
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TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
ft	. ft	0	0	0	0	Surface

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
15-Oct-13	150 ft	0.4	86.7

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
11-Nov-13	15,610 ft	90.9	175.3

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
11-Nov-13	15,673 ft	90.9	175.3

Zak Dawson

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.88
DECLINATION OR GRID	GRID

11-11-2013

TODAY'S DATE

MWD SUPERVISOR 1

Derek Webster

DIRECTIONAL DRILLER 1

Keith Scheppler

MWD SUPERVISOR 2

Zak Dawson

DIRECTIONAL DRILLER 2

Craig Cannon

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

HOBBS OCD

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6101 Fax: (505) 393-0720

District II

911 S. Elgin St., Artesa, NM 88210
Phone: (505) 348-1283 Fax: (505) 798-9720

District III

1600 Rio Diablos Road, Aztec, NM 87410
Phone: (505) 334-6138 Fax: (505) 334-6170

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

HOBBS OCD

AUG 22 2013

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Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-41360	Pool Code 7320	Pool Name BRINNINSTOOL BONE SPRING
Property Code 40094	Property Name LIMESTONE 11 23 33 FED	Well Number 1H
OCRID No. 4323	Operator Name CHEVRON U.S.A. INC.	Elevation 3560'

" Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	11	23 SOUTH	33 EAST, N.M.P.M.		150'	NORTH	650'	WEST	LEA

" Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	11	23 SOUTH	33 EAST, N.M.P.M.		330'	SOUTH	650'	WEST	LEA

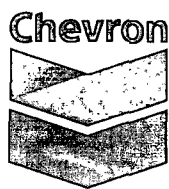
Dedicated Acres	Joint or Initial	Consolidation Code	Order No.
160			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

Proposed Penetration Point: 330' FNL & 650' FWL Project Area Producing Area	LIMESTONE 11 23 33 FED 1H X= 742,248 NAD27 Y= 483,188 LAT: 32.325962 LONG. 103.549088 X= 783,431 NAD83 Y= 483,248 LAT: 32.326036 LONG. 103.549580 ELEVATION - 3560' NAD83	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that the information either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location, or has a right to drill the well and/or location pursuant to a contract with the owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Bryan Arant</i> 2/26/2013 Signature Date (Bryan Arant (agent for Chevron)) Printed Name bryan.arant@chevron.com E-mail Address
	PROPOSED BOTTOM HOLE LOCATION X= 742,287 NAD27 Y= 478,403 LAT: 32.312811 LONG. 103.549085 X= 783,470 NAD83 Y= 478,463 LAT: 32.312934 LONG. 103.549566	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Feb 26, 2013 Date of Survey <i>WM. J. DANIEL II</i> Signature and Seal of Professional Surveyor 15078 REGISTERED PROFESSIONAL SURVEYOR Certificate Number 15078

AUG 26 2013

dm



Chevron

Lea County NM (NAD27 NME)

Limestone 11-23-33 Fed

#1H

WB1/Job #1311084

HOBBS OCD

DEC 02 2013

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Survey: Phoenix MWD Survey

Phoenix Final Survey Report

12 November, 2013





Phoenix Technology Services

Phoenix Final Survey Report



Company: Chevron
Project: Lea County NM (NAD27 NME)
Site: Limestone 11-23-33 Fed
Well: #1H
Wellbore: WB1/Job #1311084
Design: Surveys (Ensign 153)

Local Co-ordinate Reference: Well #1H
TVD Reference: KB @ 3584.50usft (Ensign 153)
MD Reference: KB @ 3584.50usft (Ensign 153)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB

Project	Lea 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	Limestone 11-23-33 Fed		
Site Position:		Northing:	472,629.00 usft
From:	Map	Easting:	744,970.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 17' 48.78318 N
		Longitude:	103° 32' 25.94334 W
		Grid Convergence:	0.42 °

Well	#1H		
Well Position	+N/-S	0.00 usft	Northing: 483,188.00 usft
	+E/-W	0.00 usft	Easting: 742,248.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 19' 33.46585 N
		Longitude:	103° 32' 56.75379 W
		Ground Level:	3,560.00 usft

Wellbore	WB1/Job #1311084				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/30/13	7.29	60.23	48,441

Design	Surveys (Ensign 153)			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.53

Survey Program	Date 11/12/13			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
150.00	15,673.00	Phoenix MWD Survey (WB1/Job #131108)	MWD	MWD - Standard

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150.00	0.40	86.70	150.00	0.03	0.52	-0.03	0.27	
First Phoenix MWD Survey								
300.00	0.60	96.40	299.99	-0.03	1.83	0.04	0.14	
480.00	0.70	95.30	479.98	-0.23	3.86	0.27	0.06	
667.00	0.60	100.30	666.97	-0.51	5.96	0.56	0.06	
849.00	0.70	81.20	848.96	-0.51	7.99	0.58	0.13	
1,028.00	0.40	80.20	1,027.95	-0.24	9.69	0.32	0.17	
1,073.00	0.40	68.10	1,072.95	-0.16	9.99	0.24	0.19	
1,205.00	0.40	61.20	1,204.95	0.24	10.82	-0.15	0.04	
1,385.00	0.50	63.50	1,384.94	0.89	12.08	-0.79	0.06	
1,563.00	0.40	59.40	1,562.93	1.55	13.31	-1.44	0.06	



Phoenix Technology Services

Phoenix Final Survey Report



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Site: Limestone 11-23-33 Fed
Well: #1H
Wellbore: WB1/Job #1311084
Design: Surveys (Ensign 153)

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #1H
KB @ 3584.50usft (Ensign 153)
KB @ 3584.50usft (Ensign 153)
Grid
Minimum Curvature
GCR DB

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,742.00	0.40	45.40	1,741.93	2.31	14.29	-2.19	0.05
1,921.00	0.40	34.40	1,920.93	3.27	15.09	-3.14	0.04
2,100.00	0.40	14.40	2,099.92	4.39	15.59	-4.26	0.08
2,279.00	0.40	20.50	2,278.92	5.58	15.97	-5.45	0.02
2,458.00	0.80	33.80	2,457.91	7.20	16.88	-7.06	0.24
2,636.00	1.40	40.60	2,635.87	9.88	18.99	-9.73	0.34
2,815.00	1.80	45.60	2,814.80	13.51	22.42	-13.33	0.24
2,994.00	2.20	50.70	2,993.69	17.65	27.09	-17.43	0.24
3,173.00	2.70	52.90	3,172.53	22.37	33.11	-22.10	0.28
3,351.00	3.10	52.00	3,350.30	27.87	40.25	-27.53	0.23
3,530.00	0.80	59.40	3,529.19	31.48	45.14	-31.11	1.29
3,709.00	0.90	65.70	3,708.17	32.70	47.49	-32.31	0.08
3,887.00	0.90	63.30	3,886.14	33.90	50.02	-33.49	0.02
4,066.00	0.70	70.20	4,065.13	34.90	52.30	-34.47	0.12
4,245.00	1.30	100.70	4,244.10	34.90	55.32	-34.44	0.44
4,424.00	2.00	99.70	4,423.02	33.99	60.40	-33.50	0.39
4,603.00	2.40	103.60	4,601.89	32.58	67.12	-32.03	0.24
4,781.00	2.60	120.30	4,779.73	29.67	74.23	-29.06	0.42
4,953.00	2.20	167.70	4,951.59	24.48	78.30	-23.83	1.14
5,080.00	2.10	167.20	5,078.50	19.83	79.34	-19.17	0.08
5,258.00	1.80	167.50	5,256.40	13.92	80.66	-13.25	0.17
5,437.00	1.70	167.60	5,435.31	8.58	81.84	-7.91	0.06
5,615.00	0.90	84.30	5,613.28	6.14	83.80	-5.45	1.03
5,795.00	1.50	212.90	5,793.26	4.30	83.93	-3.61	1.21
5,974.00	1.50	228.00	5,972.20	0.77	80.91	-0.10	0.22
6,152.00	2.70	276.50	6,150.09	-0.32	75.02	0.93	1.15
6,331.00	2.80	277.10	6,328.88	0.70	66.49	-0.15	0.06
6,510.00	2.60	277.70	6,507.68	1.78	58.13	-1.31	0.11
6,689.00	2.70	281.00	6,686.49	3.13	49.96	-2.72	0.10
6,867.00	2.90	285.30	6,864.28	5.12	41.51	-4.78	0.16
7,046.00	2.90	282.70	7,043.05	7.31	32.72	-7.04	0.07
7,225.00	3.00	276.20	7,221.81	8.81	23.65	-8.62	0.19
7,404.00	3.00	275.00	7,400.57	9.73	14.32	-9.61	0.04
7,583.00	2.80	272.10	7,579.34	10.29	5.29	-10.25	0.14
7,761.00	1.70	276.00	7,757.20	10.73	-1.68	-10.74	0.62
7,940.00	1.50	280.80	7,936.13	11.45	-6.62	-11.50	0.13
8,119.00	1.60	279.70	8,115.06	12.31	-11.39	-12.40	0.06
8,298.00	1.50	280.40	8,294.00	13.15	-16.16	-13.28	0.06
8,476.00	0.40	2.10	8,471.98	14.19	-18.42	-14.34	0.84
8,655.00	0.40	343.00	8,650.97	15.41	-18.58	-15.57	0.07
8,834.00	0.40	337.70	8,829.97	16.59	-19.00	-16.74	0.02
9,013.00	0.40	321.20	9,008.96	17.65	-19.63	-17.81	0.06
9,192.00	0.50	277.60	9,187.96	18.24	-20.80	-18.41	0.19
9,370.00	0.80	316.30	9,365.95	19.25	-22.43	-19.43	0.29



Phoenix Technology Services

Phoenix Final Survey Report



Company: Chevron
 Project: Lea County NM (NAD27 NME)
 Site: Limestone 11-23-33 Fed
 Well: #1H
 Wellbore: WB1/Job #1311084
 Design: Surveys (Ensign 153)

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well #1H
 KB @ 3584.50usft (Ensign 153)
 KB @ 3584.50usft (Ensign 153)
 Grid
 Minimum Curvature
 GCR DB

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
9,549.00	0.90	297.30	9,544.93	20.79	-24.54	-20.99	0.17
9,728.00	1.30	283.10	9,723.89	21.90	-27.77	-22.13	0.27
9,907.00	1.30	237.40	9,902.85	21.26	-31.45	-21.52	0.56
10,085.00	1.60	292.70	10,080.80	21.14	-35.45	-21.43	0.77
10,244.00	1.50	280.20	10,239.75	22.36	-39.54	-22.68	0.22
10,423.00	1.80	277.60	10,418.67	23.15	-44.64	-23.51	0.17
10,508.00	1.80	270.10	10,503.63	23.33	-47.30	-23.71	0.28
10,557.00	1.90	174.40	10,552.61	22.52	-47.99	-22.91	5.60
10,602.00	5.80	163.00	10,597.50	19.60	-47.25	-19.99	8.79
10,647.00	10.10	174.20	10,642.06	13.50	-46.18	-13.88	10.11
10,691.00	14.10	181.50	10,685.08	4.30	-45.93	-4.67	9.72
10,736.00	18.30	179.20	10,728.28	-8.25	-45.98	7.87	9.44
10,781.00	22.40	178.80	10,770.47	-23.89	-45.70	23.52	9.12
10,826.00	27.30	175.90	10,811.29	-42.77	-44.78	42.40	11.22
10,870.00	32.60	174.80	10,849.40	-64.66	-42.99	64.30	12.11
10,915.00	38.00	174.60	10,886.11	-90.54	-40.58	90.20	12.00
10,960.00	43.60	174.20	10,920.16	-119.79	-37.71	119.48	12.46
11,004.00	50.50	174.80	10,950.12	-151.83	-34.63	151.54	15.71
11,049.00	57.50	175.50	10,976.56	-188.08	-31.57	187.82	15.61
11,094.00	62.00	176.30	10,999.22	-226.85	-28.79	226.60	10.12
11,138.00	64.40	176.30	11,019.06	-266.03	-26.26	265.81	5.45
11,183.00	67.40	176.30	11,037.43	-307.02	-23.61	306.82	6.67
11,228.00	70.40	176.50	11,053.63	-348.92	-20.97	348.73	6.68
11,273.00	72.20	175.00	11,068.06	-391.42	-17.81	391.26	5.10
11,317.00	75.00	173.60	11,080.48	-433.42	-13.62	433.29	7.06
11,362.00	78.30	172.40	11,090.87	-476.87	-8.28	476.78	7.78
11,407.00	82.90	171.10	11,098.22	-520.79	-1.91	520.76	10.61
11,452.00	89.30	171.50	11,101.28	-565.15	4.88	565.17	14.25
11,496.00	91.00	174.50	11,101.16	-608.81	10.24	608.87	7.84
11,541.00	91.30	175.80	11,100.26	-653.64	14.05	653.73	2.96
11,586.00	91.60	177.60	11,099.12	-698.55	16.64	698.66	4.05
11,675.00	91.20	179.70	11,096.95	-787.49	18.73	787.62	2.40
11,765.00	90.40	179.10	11,095.69	-877.48	19.67	877.61	1.11
11,854.00	90.10	178.30	11,095.30	-966.45	21.69	966.60	0.96
11,943.00	90.00	177.60	11,095.22	-1,055.40	24.88	1,055.56	0.79
12,035.00	90.70	178.20	11,094.66	-1,147.33	28.25	1,147.52	1.00
12,124.00	91.80	179.00	11,092.72	-1,236.28	30.42	1,236.49	1.53
12,213.00	93.00	178.30	11,088.99	-1,325.18	32.52	1,325.40	1.56
12,303.00	92.50	179.00	11,084.67	-1,415.05	34.63	1,415.28	0.96
12,392.00	92.40	179.50	11,080.87	-1,503.96	35.80	1,504.20	0.57
12,482.00	91.40	180.40	11,077.89	-1,593.91	35.88	1,594.15	1.49
12,571.00	89.60	181.90	11,077.11	-1,682.88	34.09	1,683.10	2.63
12,661.00	90.00	181.80	11,077.42	-1,772.83	31.18	1,773.03	0.46
12,750.00	90.40	182.10	11,077.11	-1,861.78	28.16	1,861.95	0.56
12,840.00	91.10	181.90	11,075.93	-1,951.72	25.02	1,951.85	0.81



Phoenix Technology Services

Phoenix Final Survey Report



Company: Chevron
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 Site: Limestone 11-23-33 Fed
 Well: #1H
 Wellbore: WB1/Job #1311084
 Design: Surveys (Ensign 153)

Local Co-ordinate Reference: Well #1H
 TVD Reference: KB @ 3584.50usft (Ensign 153)
 MD Reference: KB @ 3584.50usft (Ensign 153)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: GCR DB

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
12,929.00	90.30	182.20	11,074.85	-2,040.65	21.83	2,040.76	0.96
13,018.00	90.00	183.40	11,074.61	-2,129.54	17.48	2,129.61	1.39
13,108.00	89.00	182.70	11,075.40	-2,219.41	12.70	2,219.44	1.36
13,197.00	89.50	182.90	11,076.56	-2,308.30	8.35	2,308.29	0.61
13,286.00	88.40	182.00	11,078.20	-2,397.20	4.54	2,397.15	1.60
13,376.00	87.80	181.10	11,081.18	-2,487.11	2.11	2,487.05	1.20
13,465.00	88.50	180.90	11,084.05	-2,576.05	0.56	2,575.97	0.82
13,554.00	88.80	180.70	11,086.15	-2,665.02	-0.68	2,664.92	0.41
13,644.00	89.10	180.60	11,087.80	-2,755.00	-1.70	2,754.89	0.35
13,735.00	89.60	180.40	11,088.83	-2,845.99	-2.50	2,845.87	0.59
13,822.00	90.00	180.70	11,089.14	-2,932.98	-3.33	2,932.86	0.57
13,912.00	89.20	179.80	11,089.76	-3,022.98	-3.73	3,022.85	1.34
14,001.00	89.50	179.70	11,090.77	-3,111.97	-3.34	3,111.84	0.36
14,091.00	90.00	179.70	11,091.17	-3,201.97	-2.87	3,201.84	0.56
14,180.00	88.40	179.50	11,092.41	-3,290.96	-2.24	3,290.83	1.81
14,269.00	88.70	179.10	11,094.66	-3,379.92	-1.16	3,379.80	0.56
14,359.00	89.00	179.00	11,096.47	-3,469.89	0.33	3,469.78	0.35
14,448.00	89.50	178.60	11,097.63	-3,558.86	2.20	3,558.76	0.72
14,538.00	90.20	178.90	11,097.87	-3,648.84	4.16	3,648.75	0.85
14,627.00	88.20	179.10	11,099.11	-3,737.81	5.71	3,737.73	2.26
14,716.00	88.40	178.40	11,101.75	-3,826.75	7.65	3,826.69	0.82
14,806.00	88.70	178.40	11,104.03	-3,916.69	10.17	3,916.64	0.33
14,895.00	88.70	177.90	11,106.05	-4,005.62	13.04	4,005.59	0.56
14,985.00	88.70	177.40	11,108.09	-4,095.52	16.73	4,095.52	0.56
15,074.00	89.30	177.60	11,109.64	-4,184.42	20.61	4,184.45	0.71
15,163.00	89.50	177.60	11,110.57	-4,273.34	24.34	4,273.39	0.22
15,253.00	89.10	177.70	11,111.67	-4,363.26	28.03	4,363.34	0.46
15,342.00	89.00	177.10	11,113.15	-4,452.15	32.06	4,452.26	0.68
15,431.00	89.60	176.50	11,114.24	-4,541.00	37.03	4,541.16	0.95
15,521.00	90.20	175.90	11,114.39	-4,630.81	43.00	4,631.00	0.94
15,610.00	90.90	175.30	11,113.54	-4,719.54	49.82	4,719.79	1.04
Last Phoenix MWD Survey							
15,673.00	90.90	175.30	11,112.55	-4,782.32	54.99	4,782.61	0.00
Projection to TD							

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
150.00	150.00	0.03	0.52	First Phoenix MWD Survey
15,610.00	11,113.54	-4,719.54	49.82	Last Phoenix MWD Survey
15,673.00	11,112.55	-4,782.32	54.99	Projection to TD

Checked By: _____ Approved By: _____ Date: _____