

"AS DRILLED"

DISTRICT I
1835 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1501 West Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Elc Brance Rd., Artesia, N.M. 87410

DISTRICT IV
1830 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-108
Revised July 18, 2010

Submit One Copy to
Appropriate District Office

XX AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35460		*Pool Code 71599/72319	*Pool Name BASIN DAKOTA/BLANCO MESAVERDE
*Property Code 37221	*Property Name STATE GAS COM A		*Well Number 1E
*OGUID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 5880'

10 Surface Location

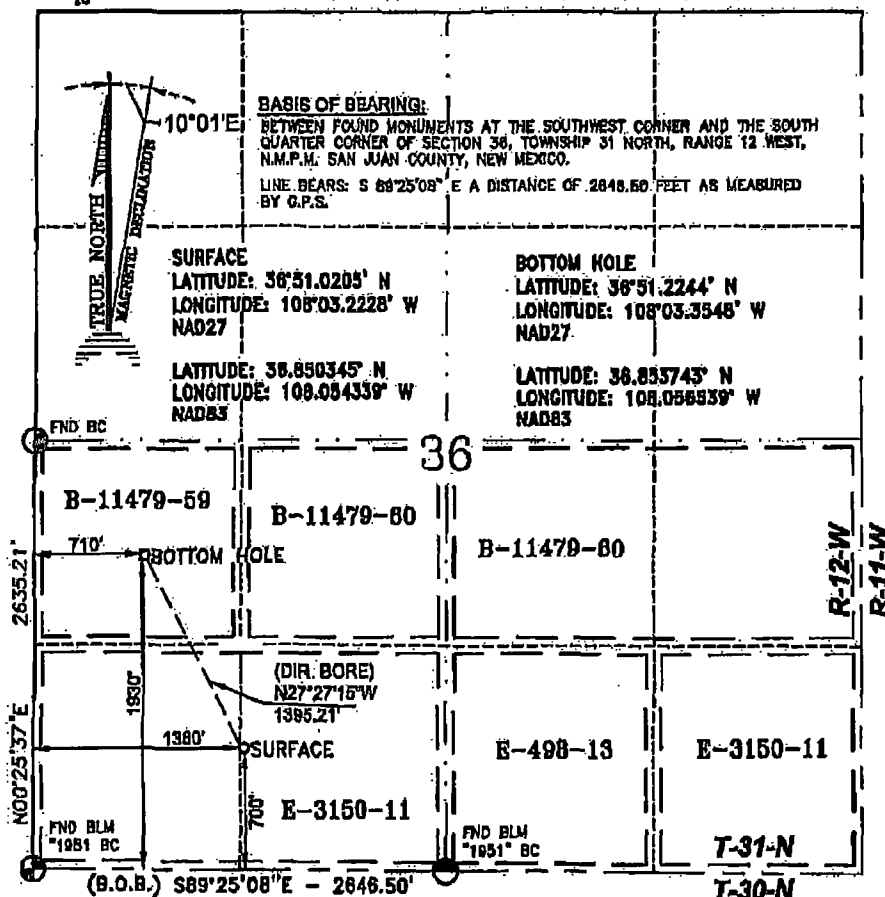
UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
N	36	31-N	12-W		700'	SOUTH	1380'	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
L	36	31-N	12-W		1925	SOUTH	733	WEST	SAN JUAN

*Dedicated Acres DK 320.00 ACRES S/2 MV 320.00 ACRES S/2	*Lot or 1/4	*Consolidation Code	*Order No.
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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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this information either came from a working interest or operator interest in the land including the proposed bottom hole location or was a right to drill the well at this location pursuant to a contract with an owner of such a mineral or a working interest, or to a temporary pooling agreement or a compulsory pooling order heretofore entered by the state.

Dollie L. Busse
Signature Date 12-5-14
Dollie L. Busse
Printed Name
dollie.l.busse@cop.com
E-mail Address

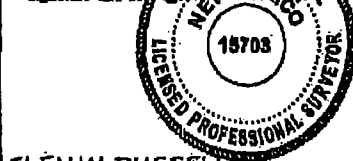
18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my belief.

JULY 19, 2011

Date of Survey

Signature and Seal



GLEN W. RUSSELL
Certificate Number

15703

OIL CONS. DIV DIST. 3

DEC 17 2014

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-108
Revised July 16, 2010

DISTRICT II
1801 West Grand Avenue, Artesia, N.M. 88210

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

**Submit One Copy to
Appropriate District Office**

DISTRICT III
1000 Rio Blanco Rd., Artee, N.M. 87410

DISTRICT IV
1880 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35460		*Pool Code 71599 / 72319	*Pool Name BASIN DAKOTA/BLANCO MESAVERDE
*Property Code 31694	*Property Name STATE GAS COM A		*Well Number 1E
*GOMD No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 5880'

10 Surface Location

UL or lot no:	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
N	36	31-N	12-W		700'	SOUTH	1380'	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 14n	Feet from the	North/South line	Feet from the	East/West line	County
L	36	31-N	12-W		1925	SOUTH	733	WEST	SAN JUAN

Dedicated Acres
DK 320.00 ACRES S/2
MV 320.00 ACRES S/2

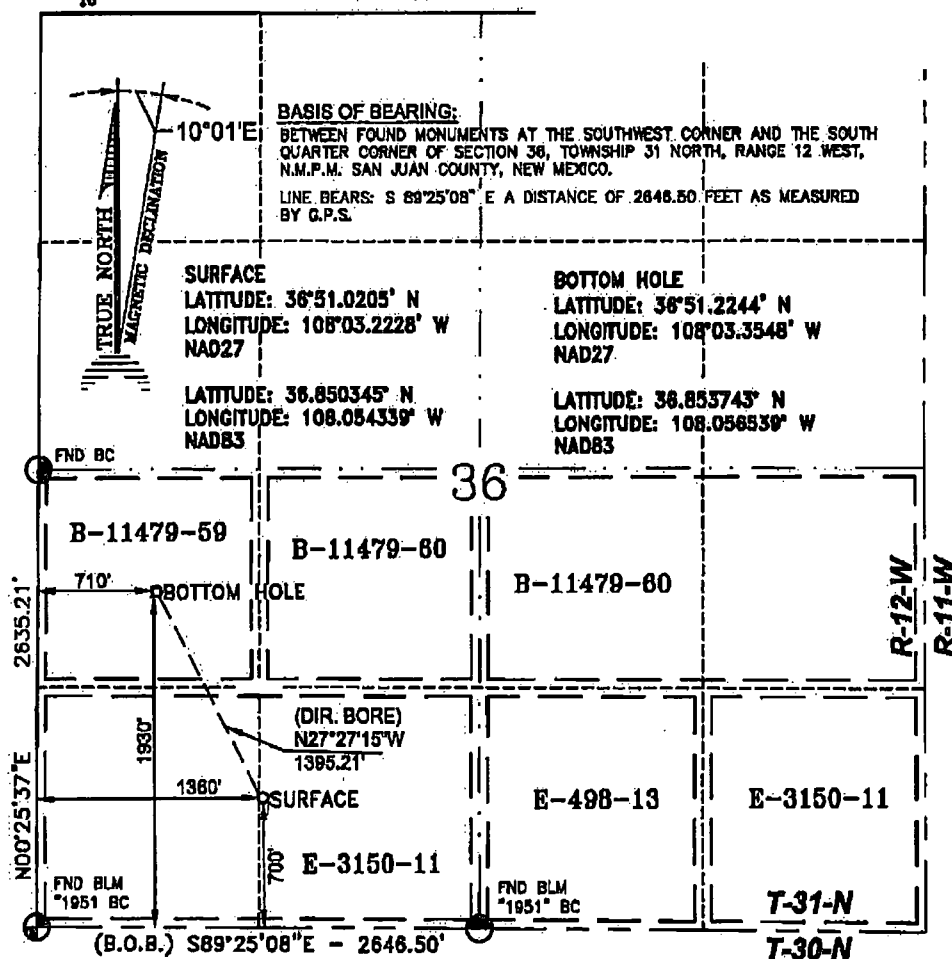
Joint or Indiv

March 1960

NO ALLOWABLE WILL BE ASSIGNED TO
OR A NON-STANDA

DENIED

**HAVE BEEN CONSOLIDATED
VISION**



OPERATOR CERTIFICATION

entity that the defendant contributed herein to trust and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed Indian hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the state.

Dollie L. Busse 12-5-14
Signature Date
Dollie L. Busse
Printed Name
dollie.l.busse@cop.com
E-mail Address

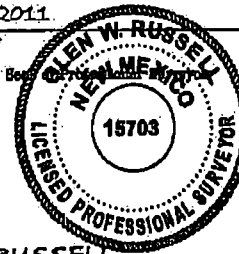
18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plot 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.

JULY 19, 2011

Date of Survey _____

Signature and Date _____



GLEN W. RUSSELL
Certificate Number 15703

COP Deviation Report STATE GAS COM A #1E

Operator CONOCOPHILLIPS COMPANY		Legal WellName STATE GAS COM A #1E		API / UWI 3004535460		County SAN JUAN		State/Province NEW MEXICO	
Surface Legal Location 036-031N-012W-N				N/S Dist (ft) 700.00		N/S Ref FSL		E/W Dist (ft) 1,360.00	
Date 10/13/2014				Description INCLINATION SURVEY					
Survey Data									
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company				
10/13/2014	135.00	0.60	0.00	Inc-Drop	Mo Te Drilling Inc				
10/13/2014	236.00	0.90	0.00	Inc-Drop	Mo Te Drilling Inc				
11/14/2014	7,040.00	3.00	0.00	Inc-WL	Phoenix Services LLC				
Date 10/13/2014				Description DIRECTIONAL SURVEY					
Survey Data									
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company				
11/6/2014	296.00	1.10	271.10	IncAzi-MWD	CATHERDRAL				
11/6/2014	326.00	1.60	300.90	IncAzi-MWD	CATHERDRAL				
11/6/2014	357.00	2.10	321.50	IncAzi-MWD	CATHERDRAL				
11/6/2014	388.00	2.80	329.40	IncAzi-MWD	CATHERDRAL				
11/6/2014	418.00	3.30	334.40	IncAzi-MWD	CATHERDRAL				
11/6/2014	449.00	4.00	340.10	IncAzi-MWD	CATHERDRAL				
11/6/2014	480.00	4.50	342.30	IncAzi-MWD	CATHERDRAL				
11/6/2014	510.00	5.20	345.80	IncAzi-MWD	CATHERDRAL				
11/6/2014	541.00	6.00	345.70	IncAzi-MWD	CATHERDRAL				
11/6/2014	572.00	7.00	346.50	IncAzi-MWD	CATHERDRAL				
11/6/2014	602.00	7.70	345.90	IncAzi-MWD	CATHERDRAL				
11/6/2014	633.00	8.40	341.30	IncAzi-MWD	CATHERDRAL				
11/6/2014	664.00	9.40	338.90	IncAzi-MWD	CATHERDRAL				
11/6/2014	695.00	10.20	335.10	IncAzi-MWD	CATHERDRAL				
11/6/2014	726.00	11.10	332.00	IncAzi-MWD	CATHERDRAL				
11/6/2014	757.00	12.00	332.00	IncAzi-MWD	CATHERDRAL				
11/6/2014	787.00	13.10	328.30	IncAzi-MWD	CATHERDRAL				
11/6/2014	818.00	14.10	326.30	IncAzi-MWD	CATHERDRAL				
11/6/2014	848.00	15.20	318.80	IncAzi-MWD	CATHERDRAL				
11/6/2014	878.00	16.20	326.40	IncAzi-MWD	CATHERDRAL				
11/6/2014	908.00	17.50	328.10	IncAzi-MWD	CATHERDRAL				
11/6/2014	939.00	18.60	329.50	IncAzi-MWD	CATHERDRAL				
11/6/2014	970.00	19.90	330.50	IncAzi-MWD	CATHERDRAL				
11/6/2014	1,000.00	21.00	332.00	IncAzi-MWD	CATHERDRAL				

I, the undersigned, certify that I acting in my capacity as DRILLING ENGINEER for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this DECEMBER 9, 2014

DOLLIE L. BUSSSE

Notary Public in and for San Juan County, New Mexico

OIL CONS. DIV DIST. 3

DEC 10 2014

My Commission expires AUGUST 6, 2018



COP Deviation Report

STATE GAS COM A #1E

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
11/6/2014	1,032.00	22.30	332.00	IncAzi-MWD	CATHERDRAL
11/6/2014	1,064.00	23.30	332.00	IncAzi-MWD	CATHERDRAL
11/6/2014	1,096.00	24.30	332.60	IncAzi-MWD	CATHERDRAL
11/6/2014	1,128.00	24.70	332.60	IncAzi-MWD	CATHERDRAL
11/6/2014	1,192.00	24.50	332.00	IncAzi-MWD	CATHERDRAL
11/6/2014	1,256.00	25.90	332.20	IncAzi-MWD	CATHERDRAL
11/6/2014	1,320.00	26.10	331.90	IncAzi-MWD	CATHERDRAL
11/6/2014	1,384.00	26.70	331.30	IncAzi-MWD	CATHERDRAL
11/6/2014	1,447.00	27.10	331.00	IncAzi-MWD	CATHERDRAL
11/6/2014	1,511.00	27.30	330.40	IncAzi-MWD	CATHERDRAL
11/6/2014	1,576.00	27.70	331.20	IncAzi-MWD	CATHERDRAL
11/6/2014	1,639.00	27.70	332.30	IncAzi-MWD	CATHERDRAL
11/6/2014	1,639.00	27.70	332.30	IncAzi-MWD	CATHERDRAL
11/6/2014	1,702.00	27.80	333.10	IncAzi-MWD	CATHERDRAL
11/6/2014	1,766.00	27.20	334.70	IncAzi-MWD	CATHERDRAL
11/6/2014	1,829.00	27.00	334.10	IncAzi-MWD	CATHERDRAL
11/6/2014	1,892.00	26.40	333.20	IncAzi-MWD	CATHERDRAL
11/6/2014	1,956.00	26.10	334.80	IncAzi-MWD	CATHERDRAL
11/6/2014	2,020.00	25.50	334.80	IncAzi-MWD	CATHERDRAL
11/6/2014	2,084.00	24.90	333.90	IncAzi-MWD	CATHERDRAL
11/6/2014	2,148.00	24.10	332.00	IncAzi-MWD	CATHERDRAL
11/6/2014	2,212.00	23.80	332.40	IncAzi-MWD	CATHERDRAL
11/6/2014	2,276.00	23.60	334.40	IncAzi-MWD	CATHERDRAL
11/6/2014	2,340.00	23.20	334.60	IncAzi-MWD	CATHERDRAL
11/7/2014	2,404.00	22.50	333.80	IncAzi-MWD	CATHERDRAL
11/7/2014	2,468.00	22.00	333.00	IncAzi-MWD	CATHERDRAL
11/7/2014	2,532.00	22.20	332.50	IncAzi-MWD	CATHERDRAL
11/7/2014	2,597.00	22.50	332.60	IncAzi-MWD	CATHERDRAL
11/7/2014	2,661.00	22.40	333.40	IncAzi-MWD	CATHERDRAL
11/7/2014	2,724.00	22.50	335.00	IncAzi-MWD	CATHERDRAL
11/7/2014	2,789.00	22.00	335.30	IncAzi-MWD	CATHERDRAL
11/7/2014	2,852.00	22.40	335.80	IncAzi-MWD	CATHERDRAL
11/7/2014	2,916.00	22.80	335.50	IncAzi-MWD	CATHERDRAL
11/7/2014	2,980.00	22.30	333.30	IncAzi-MWD	CATHERDRAL
11/6/2014	3,044.00	21.90	332.80	IncAzi-MWD	CATHERDRAL

I, the undersigned, certify that I acting in my capacity as _____ for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this _____

OIL CONS. DIV DIST. 3

DEC 10 2014

Notary Public in and for San Juan County, New Mexico

My Commission expires _____

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
11/7/2014	3,108.00	22.20	332.70	IncAzi-MWD	CATHERDRAL
11/6/2014	3,172.00	22.70	333.40	IncAzi-MWD	CATHERDRAL
11/7/2014	3,236.00	22.90	332.70	IncAzi-MWD	CATHERDRAL
11/7/2014	3,300.00	22.60	332.10	IncAzi-MWD	CATHERDRAL
11/7/2014	3,364.00	23.70	336.10	IncAzi-MWD	CATHERDRAL
11/7/2014	3,428.00	24.60	335.60	IncAzi-MWD	CATHERDRAL
11/7/2014	3,492.00	23.60	334.20	IncAzi-MWD	CATHERDRAL
11/7/2014	3,555.00	23.30	333.10	IncAzi-MWD	CATHERDRAL
11/7/2014	3,618.00	22.90	332.20	IncAzi-MWD	CATHERDRAL
11/7/2014	3,681.00	20.90	330.70	IncAzi-MWD	CATHERDRAL
11/7/2014	3,744.00	19.80	328.70	IncAzi-MWD	CATHERDRAL
11/7/2014	3,807.00	19.70	333.20	IncAzi-MWD	CATHERDRAL
11/7/2014	3,870.00	19.30	334.20	IncAzi-MWD	CATHERDRAL
11/7/2014	3,934.00	17.10	333.50	IncAzi-MWD	CATHERDRAL
11/7/2014	3,998.00	14.70	332.60	IncAzi-MWD	CATHERDRAL
11/8/2014	4,062.00	12.00	333.00	IncAzi-MWD	CATHERDRAL
11/8/2014	4,126.00	10.20	332.80	IncAzi-MWD	CATHERDRAL
11/8/2014	4,190.00	8.20	331.50	IncAzi-MWD	CATHERDRAL
11/8/2014	4,254.00	6.10	329.60	IncAzi-MWD	CATHERDRAL
11/8/2014	4,318.00	4.10	330.60	IncAzi-MWD	CATHERDRAL
11/8/2014	4,383.00	3.10	337.70	IncAzi-MWD	CATHERDRAL
11/8/2014	4,481.00	1.90	341.50	IncAzi-MWD	CATHERDRAL
11/8/2014	4,529.00	1.90	341.30	Projection	CATHERDRAL

I, the undersigned, certify that I acting in my capacity as _____ for ConocoPhillips Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to me this _____

Notary Public in and for San Juan County, New Mexico

My Commission expires _____

OIL CONS. DIV DIST. 3
DEC 10 2014



Conoco Phillips
San Juan County, NM
S36-T31N-R12W
State Gas Com A 1E
BHA #1

Job No. 145382
Survey Date: 05 November 2014

OIL CONS. DIV DIST. 3

DEC 10 2014

Cathedral Energy Services Ltd.
Survey Report

17 November 2014



Database:	Example Projects Database	Local Coordinate Reference:	State Gas Com A 1E
Company:	Conoco Phillips	TVD Reference:	RKB
Project:	San Juan County, NM	MD Reference:	RKB
Site:	S36-T31N-R12W	North reference:	True North
Well:	State Gas Com A 1E	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Gas Com A 1E		
Design:	BHA #1		

Project	San Juan County, NM	System Datum:	Mean Sea Level
Map System:	NAD27 New Mexico State Planes		
Geo Datum:	NAD 1927 (US48, AK, HI, and Canada)		
Map Zone:	Western Zone		

Site	S36-T31N-R12W				
Site Position:		Northing:	+2128860.06	Latitude:	36.85034160° N
From:	Map	Easting:	+435519.75	Longitude:	108.05371329° W
Position Uncertainty:	0.00ft	Slot Radius:	0in	Grid Convergence:	-0.13°

Well	State Gas Com A 1E					
Well Position:	+N/-S	0.00ft	Northing:	+2128860.06	Latitude:	36.85034160° N
	+E/-W	0.00ft	Easting:	+435519.75	Longitude:	108.05371329° W
Position Uncertainty:	1.25ft	Wellhead Elevation:	5897.00ft	Ground Level:	5880.00ft	

Wellbore	State Gas Com A 1E
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/5/2014	9.62	63.42	50427.2

Design	BHA #1			
Audit Notes:				
Version:	145382	Phase:	Tie On Depth:	0.00ft

Vertical Section:	Depth from TVD (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	332.65

Survey Program		11/8/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	4529.00	BHA #1	ISCWSA New MWD	ISCWSA New MWD

Survey	Measured Depth (ft)	Incl. (°)	Az. (°)	Vertical Depth (ft)	Sub Sea Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Closure Distance (ft)	Closure Azimuth (°)	Dogleg Rate (°/100ft)	Comments/ Formations
	0.00	0.00	0.00	0.00	-5897.00	0.00	0.00	0.00	0.00	0.00	0.000	ISCWSA New MWD
	296.00	1.10	271.10	295.98	-5601.02	0.05	-2.84	1.35	2.84	271.10	0.372	
	326.00	1.60	300.90	325.97	-5571.03	0.28	-3.49	1.85	3.50	274.51	2.819	
	357.00	2.10	321.50	356.96	-5540.04	0.94	-4.21	2.77	4.32	282.60	2.659	
	388.00	2.80	329.40	387.93	-5509.07	2.04	-4.95	4.09	5.36	292.37	2.502	
	418.00	3.30	334.40	417.89	-5479.11	3.45	-5.70	5.68	6.66	301.18	1.886	
	449.00	4.00	340.10	448.82	-5448.18	5.27	-6.45	7.64	8.33	309.24	2.541	
	480.00	4.50	342.30	479.74	-5417.26	7.44	-7.19	9.92	10.35	316.00	1.696	
	510.00	5.20	345.80	509.63	-5387.37	9.88	-7.88	12.40	12.64	321.43	2.532	
	541.00	6.00	345.70	540.48	-5356.52	12.82	-8.63	15.35	15.45	326.06	2.581	
	572.00	7.00	346.50	571.28	-5325.72	16.22	-9.47	18.76	18.78	329.73	3.239	
	602.00	7.70	345.90	601.04	-5295.96	19.95	-10.38	22.49	22.49	332.50	2.347	
	633.00	8.40	341.30	631.73	-5265.27	24.11	-11.62	26.75	26.76	334.28	3.067	
	664.00	9.40	338.90	662.36	-5234.64	28.61	-13.25	31.50	31.53	335.15	3.440	
	695.00	10.20	335.10	692.91	-5204.09	33.47	-15.32	36.76	36.81	335.40	3.317	

Database:	Example Projects Database	Local Coordinate Reference:	State Gas Com A 1E
Company:	Conoco Phillips	TVD Reference:	RKB
Project:	San Juan County, NM	MD Reference:	RKB
Site:	S36-T31N-R12W	North reference:	True North
Well:	State Gas Com A 1E	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Gas Com A 1E		
Design:	BHA #1		

Survey	Measured Depth (ft)	Incl. (°)	Az. (°)	Vertical Depth (ft)	Sub Sea Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Closure Distance (ft)	Closure Azimuth (°)	Dogleg Rate (°/100ft)	Comments/ Formations
	726.00	11.10	332.00	723.37	-5173.63	38.59	-17.88	42.49	42.53	335.15	3.441	
	757.00	12.00	332.00	753.74	-5143.26	44.07	-20.79	48.70	48.73	334.74	2.903	
	787.00	13.10	328.30	783.03	-5113.97	49.72	-24.04	55.21	55.23	334.19	4.540	
	818.00	14.10	326.30	813.16	-5083.84	55.85	-27.98	62.46	62.47	333.39	3.564	
	848.00	15.20	318.80	842.18	-5054.82	61.85	-32.60	69.91	69.91	332.21	7.302	
	878.00	16.20	326.40	871.07	-5025.93	68.29	-37.51	77.89	77.92	331.22	7.615	
	908.00	17.50	328.10	899.78	-4997.22	75.61	-42.21	86.55	86.59	330.83	4.634	
	939.00	18.60	329.50	929.25	-4967.75	83.83	-47.18	96.13	96.19	330.63	3.814	
	970.00	19.90	330.50	958.52	-4938.48	92.68	-52.29	106.34	106.41	330.57	4.326	
	1000.00	21.00	332.00	986.63	-4910.37	101.87	-57.33	116.82	116.89	330.63	4.061	
	1032.00	22.30	332.00	1016.37	-4880.63	112.29	-62.87	128.62	128.69	330.76	4.063	
	1064.00	23.30	332.00	1045.87	-4851.13	123.24	-68.69	141.02	141.09	330.87	3.125	
	1096.00	24.30	332.60	1075.15	-4821.85	134.68	-74.69	153.94	154.00	330.99	3.215	
	1128.00	24.70	332.60	1104.27	-4792.73	146.46	-80.80	167.21	167.27	331.12	1.250	
	1135.05	24.68	332.53	1110.67	-4786.33	149.07	-82.15	170.15	170.21	331.14	0.500	EOB
	1192.00	24.50	332.00	1162.46	-4734.54	170.05	-93.18	193.85	193.90	331.28	0.500	
	1256.00	25.90	332.20	1220.37	-4676.63	194.13	-105.93	221.09	221.15	331.38	2.192	
	1320.00	26.10	331.90	1277.89	-4619.11	218.91	-119.08	249.15	249.20	331.46	0.374	
	1384.00	26.70	331.30	1335.21	-4561.79	243.94	-132.62	277.60	277.66	331.47	1.026	
	1447.00	27.10	331.00	1391.40	-4505.60	268.91	-146.37	306.09	306.16	331.44	0.670	
	1511.00	27.30	330.40	1448.32	-4448.68	294.42	-160.69	335.33	335.41	331.38	0.530	
	1576.00	27.70	331.20	1505.98	-4391.02	320.62	-175.33	365.33	365.43	331.33	0.838	
	1639.00	27.70	332.30	1561.76	-4335.24	346.41	-189.19	394.61	394.71	331.36	0.812	
	1702.00	27.80	333.10	1617.51	-4279.49	372.48	-202.64	423.94	424.03	331.45	0.612	
	1766.00	27.20	334.70	1674.28	-4222.72	399.01	-215.65	453.48	453.56	331.61	1.487	
	1829.00	27.00	334.10	1730.36	-4166.64	424.90	-228.05	482.17	482.23	331.78	0.538	
	1892.00	26.40	333.20	1786.64	-4110.36	450.26	-240.61	510.47	510.52	331.88	1.148	
	1956.00	26.10	334.80	1844.05	-4052.95	475.70	-253.02	538.77	538.80	331.99	1.201	
	2020.00	25.50	334.80	1901.67	-3995.33	500.90	-264.88	566.60	566.63	332.13	0.938	
	2084.00	24.90	333.90	1959.57	-3937.43	525.47	-276.67	593.84	593.86	332.23	1.112	
	2148.00	24.10	332.00	2017.81	-3879.19	549.11	-288.73	620.38	620.39	332.26	1.754	
	2212.00	23.80	332.40	2076.30	-3820.70	572.09	-300.85	646.36	646.37	332.26	0.533	
	2276.00	23.60	334.40	2134.91	-3762.09	595.09	-312.37	672.07	672.09	332.30	1.294	
	2340.00	23.20	334.60	2193.64	-3703.36	618.03	-323.31	697.48	697.49	332.38	0.637	
	2404.00	22.50	333.80	2252.62	-3644.38	640.40	-334.12	722.32	722.33	332.45	1.197	
	2468.00	22.00	333.00	2311.85	-3585.15	662.07	-344.97	746.55	746.56	332.48	0.913	
	2532.00	22.20	332.50	2371.15	-3525.85	683.48	-356.00	770.63	770.63	332.49	0.429	
	2597.00	22.50	332.60	2431.27	-3465.73	705.41	-367.39	795.35	795.35	332.49	0.465	
	2661.00	22.40	333.40	2490.42	-3406.58	727.19	-378.49	819.79	819.79	332.50	0.502	
	2724.00	22.50	335.00	2548.64	-3348.36	748.85	-388.96	843.83	843.83	332.55	0.983	
	2789.00	22.00	335.30	2608.80	-3288.20	771.18	-399.30	868.42	868.42	332.63	0.789	
	2852.00	22.40	335.80	2667.13	-3229.87	792.85	-409.15	892.20	892.20	332.70	0.702	
	2916.00	22.80	335.50	2726.22	-3170.78	815.25	-419.29	916.76	916.76	332.78	0.650	
	2980.00	22.30	333.30	2785.33	-3111.67	837.39	-429.89	941.28	941.29	332.83	1.532	
	3044.00	21.90	332.80	2844.62	-3052.38	858.85	-440.80	965.36	965.37	332.83	0.691	
	3108.00	22.20	332.70	2903.94	-2993.06	880.21	-451.81	989.39	989.39	332.83	0.472	
	3172.00	22.70	333.40	2963.09	-2933.91	902.00	-462.88	1013.83	1013.83	332.83	0.886	
	3236.00	22.90	332.70	3022.09	-2874.91	924.10	-474.12	1038.63	1038.63	332.84	0.527	
	3300.00	22.60	332.10	3081.11	-2815.89	946.04	-485.59	1063.38	1063.38	332.83	0.593	
	3364.00	23.70	336.10	3139.96	-2757.04	968.67	-496.55	1088.51	1088.52	332.86	2.998	

Database:	Example Projects Database	Local Coordinate Reference:	State Gas Com A 1E
Company:	Conoco Phillips	TVD Reference:	RKB
Project:	San Juan County, NM	MD Reference:	RKB
Site:	S36-T31N-R12W	North reference:	True North
Well:	State Gas Com A 1E	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Gas Com A 1E		
Design:	BHA #1		

Survey	Measured Depth (ft)	Incl. (°)	Az. (°)	Vertical Depth (ft)	Sub Sea Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Closure Distance (ft)	Closure Azimuth (°)	Dogleg Rate (°/100ft)	Comments/ Formations
	3428.00	24.60	335.60	3198.36	-2698.64	992.56	-507.27	1114.66	1114.67	332.93	1.442	
	3492.00	23.60	334.20	3256.78	-2640.22	1016.22	-518.35	1140.77	1140.79	332.98	1.800	
	3555.00	23.30	333.10	3314.58	-2582.42	1038.69	-529.47	1165.83	1165.85	332.99	0.842	
	3618.00	22.90	332.20	3372.53	-2524.47	1060.64	-540.83	1190.55	1190.57	332.98	0.847	
	3681.00	20.90	330.70	3430.98	-2466.02	1081.29	-552.04	1214.04	1214.06	332.95	3.296	
	3744.00	19.80	328.70	3490.05	-2406.95	1100.21	-563.09	1235.92	1235.93	332.90	2.066	
	3807.00	19.70	333.20	3549.34	-2347.66	1118.80	-573.42	1257.18	1257.19	332.86	2.418	
	3870.00	19.30	334.20	3608.73	-2288.27	1137.65	-582.74	1278.21	1278.22	332.88	0.827	
	3934.00	17.10	333.50	3669.52	-2227.48	1155.60	-591.54	1298.19	1298.20	332.89	3.454	
	3998.00	14.70	332.60	3731.07	-2165.93	1171.23	-599.48	1315.72	1315.73	332.90	3.770	
	4062.00	12.00	333.00	3793.34	-2103.66	1184.37	-606.24	1330.50	1330.51	332.89	4.221	
	4126.00	10.20	332.80	3856.14	-2040.86	1195.34	-611.85	1342.82	1342.83	332.89	2.813	
	4190.00	8.20	331.50	3919.31	-1977.69	1204.39	-616.61	1353.05	1353.06	332.89	3.142	
	4254.00	6.10	329.60	3982.81	-1914.19	1211.34	-620.51	1361.01	1361.02	332.88	3.302	
	4318.00	4.10	330.60	4046.55	-1850.45	1216.26	-623.36	1366.69	1366.70	332.86	3.128	
	4383.00	3.10	337.70	4111.42	-1785.58	1219.91	-625.17	1370.76	1370.77	332.87	1.682	
	4481.00	1.90	341.50	4209.33	-1687.67	1223.91	-626.69	1375.01	1375.02	332.89	1.235	
	4487.70	1.90	341.47	4216.03	-1680.97	1224.12	-626.76	1375.23	1375.24	332.89	0.014	EOD
	4529.00	1.90	341.30	4257.30	-1639.70	1225.41	-627.19	1376.58	1376.59	332.90	0.014	

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
-hit/miss target										
-Shape										
EOB	24.44	332.65	1110.22	152.01	-78.63	+2129012.25	+435441.47	36.85075915° N	108.05398201° W	
- survey misses the target center by 4.61ft at 1135.05ft MD (1110.67TVD, +149.26, -81.81)										
- Circle										
EOD	0.00	359.87	4216.03	1238.73	-640.73	+2130100.27	+434881.88	36.85374420° N	108.05590324° W	
- survey misses the target center by 20.22ft at 4487.70ft MD (4216.03TVD, +1225.56, -623.93)										
- Circle										

Checked By:	Approved By:	Date:
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AFFIRMATION

(Applicant must sign in front of a notary public)



Carin Rathjen

11/17/14

Official Signature of Applicant

Date

Subscribed and sworn to or affirmed before me this 17th day of
November, 2014, in the county of Denver,

State of Colorado.

Nancy Barrett

Signature of Notary Public

9-18-16

Commission Expiration Date

