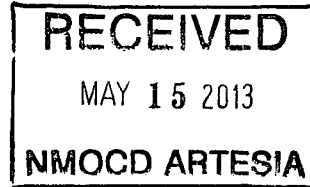




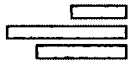
Weatherford®



Drilling Services

30-015-41363

Proposal



devon

COTTON DRAW UNIT 219H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

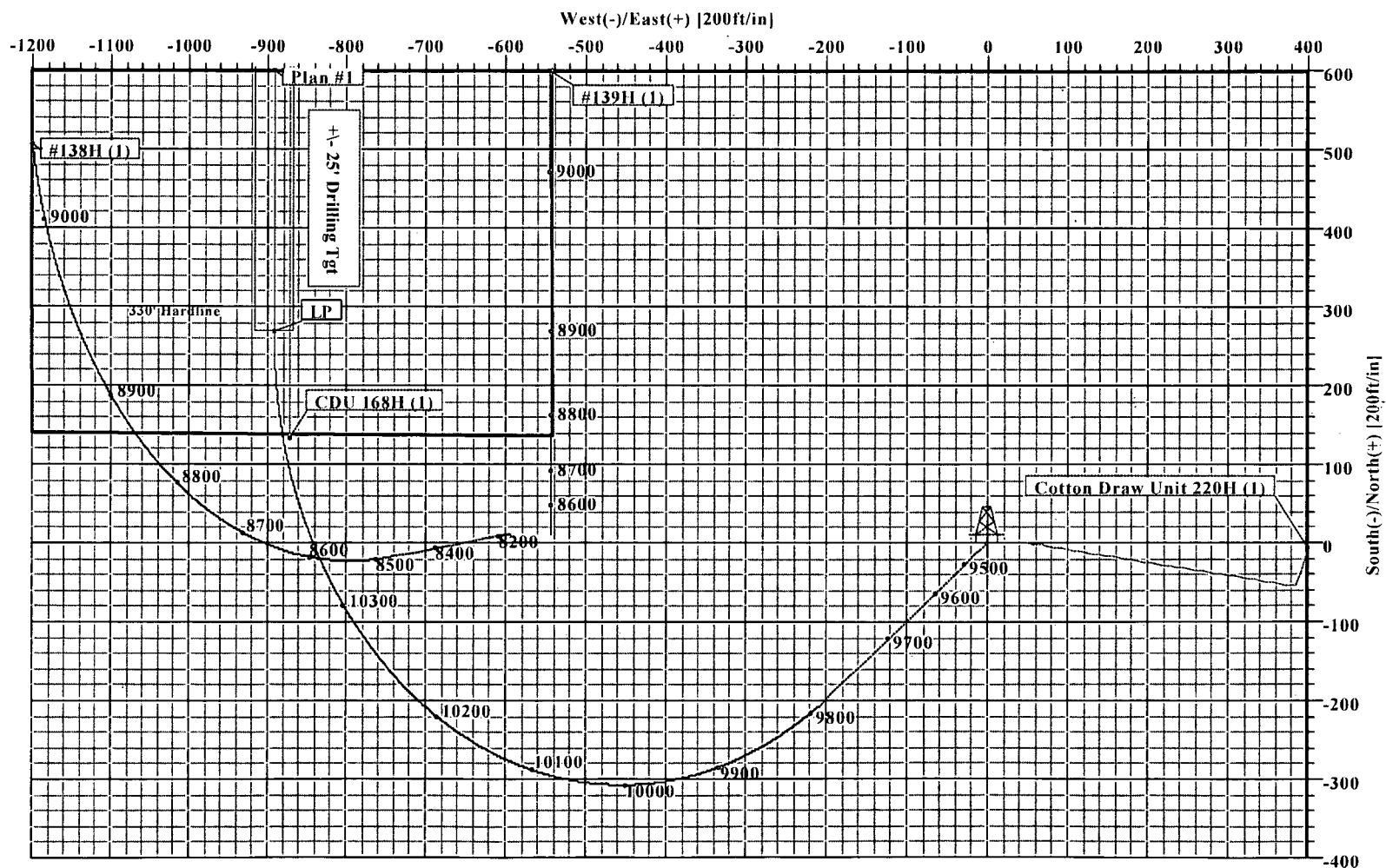
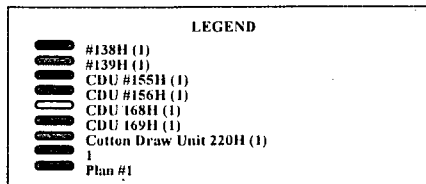
MAY 9, 2013

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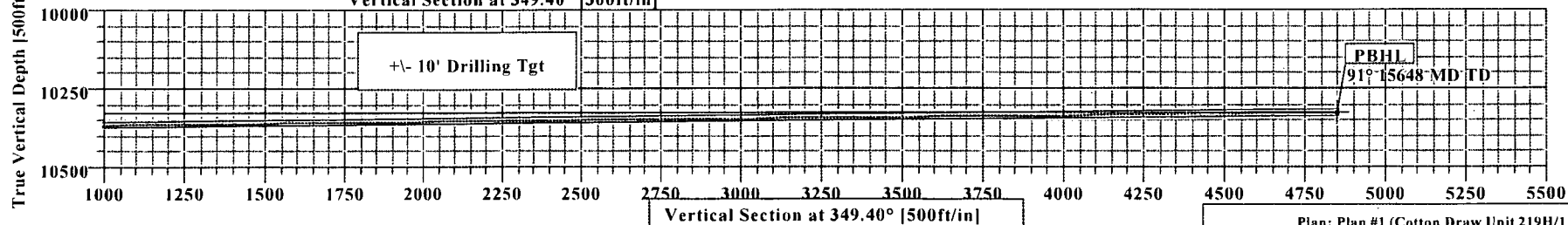
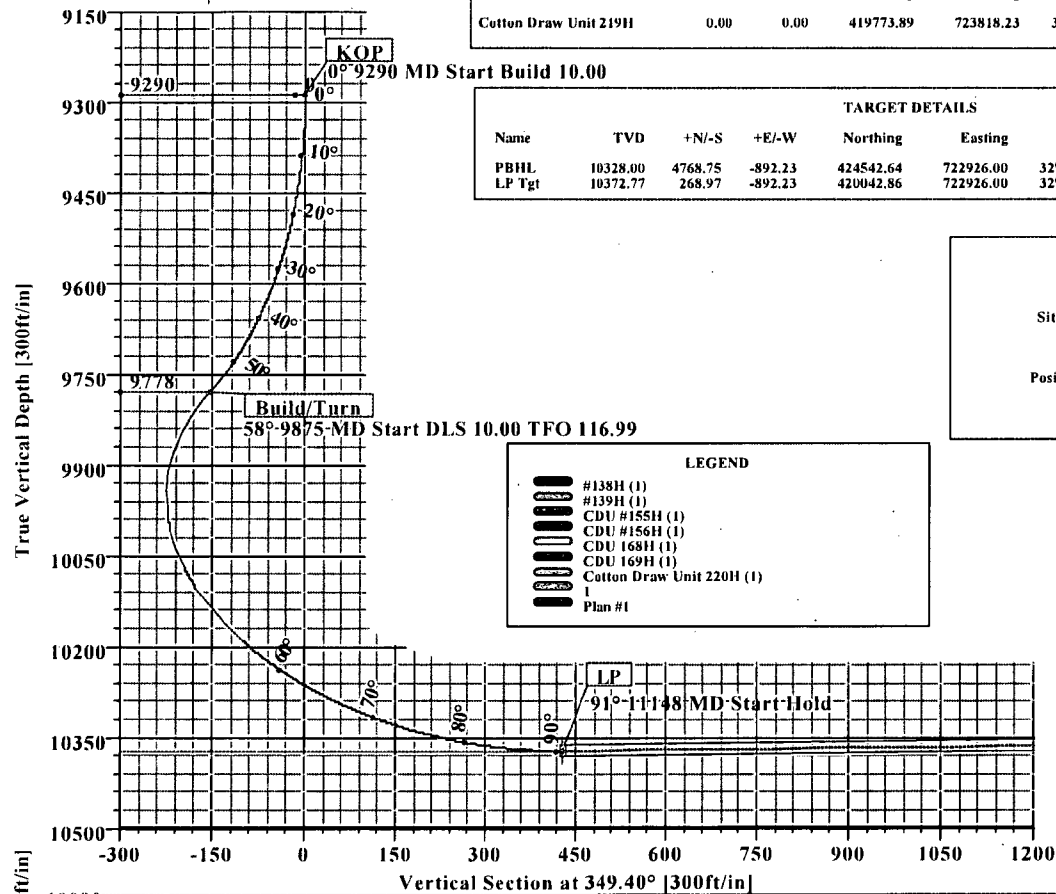
Cotton Draw Unit 219H
Eddy Co., New Mexico





Cotton Draw Unit 219H
Eddy Co., New Mexico

KB ELEV: 3478
GL ELEV: 3453



SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	9290.22	0.00	0.00	9290.22	0.00	0.00	0.00	0.00	0.00		
3	9874.52	58.43	225.13	9778.38	-192.60	-193.46	10.00	225.13	-153.73		
4	11147.74	90.57	360.00	10372.77	268.97	-892.23	10.00	116.99	428.51	LP Tgt	
5	15647.74	90.57	360.00	10328.00	4768.75	-892.23	0.00	0.00	4851.50	PBHL	

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Cotton Draw Unit 219H	0.00	0.00	419773.89	723818.23	32°09'09.579N	103°44'37.296W	N/A

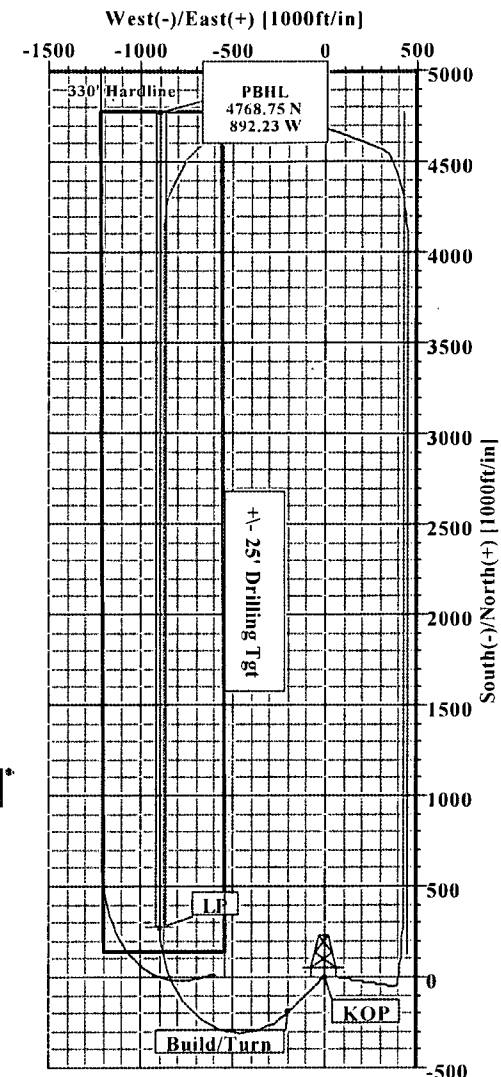
TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	10328.00	4768.75	-892.23	424542.64	722926.00	32°09'56.817N	103°44'47.372W	Point
LP Tgt	10372.77	268.97	-892.23	420042.86	722926.00	32°09'12.289N	103°44'47.657W	Point

SITE DETAILS	
Cotton Draw Unit 219H	
Site Centre Northing:	419773.89
Easting:	723818.23
Ground Level:	3453.00
Positional Uncertainty:	0.00
Convergence:	0.31

LEGEND	
	#138H (1)
	#139H (1)
	CDU #155H (1)
	CDU #156H (1)
	CDU #168H (1)
	CDU #169H (1)
	Cotton Draw Unit 220H (1)
	1
	Plan #1



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Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy Date: 5/9/2013 Time: 12:09:20 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Site: Cotton Draw Unit 219H Vertical (TVD) Reference: SITE 3478.0
Well: Cotton Draw Unit 219H Section (VS) Reference: Well (0.00N,0.00E,349.40Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 5/9/2013
Principal: Yes Version: 1
Tied-to: From Surface

Site: Cotton Draw Unit 219H

Site Position: Northing: 419773.89 ft Latitude: 32 9 9.579 N
From: Map Easting: 723818.23 ft Longitude: 103 44 37.296 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3453.00 ft Grid Convergence: 0.31 deg

Well: Cotton Draw Unit 219H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 419773.89 ft Latitude: 32 9 9.579 N
+E/-W 0.00 ft Easting: 723818.23 ft Longitude: 103 44 37.296 W
Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface
Current Datum: SITE Height 3478.00 ft Tie-on Depth: 0.00 ft
Magnetic Data: 10/15/2013 Above System Datum: Mean Sea Level
Field Strength: 48346 nT Declination: 7.37 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
ft ft ft deg
0.00 0.00 0.00 349.40

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9290.22	0.00	0.00	9290.22	0.00	0.00	0.00	0.00	0.00	0.00	
9874.52	58.43	225.13	9778.38	-192.60	-193.46	10.00	10.00	0.00	225.13	
11147.74	90.57	360.00	10372.77	268.97	-892.23	10.00	2.52	10.59	116.99	LP Tgt
15647.74	90.57	360.00	10328.00	4768.75	-892.23	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9200.00	0.00	0.00	9200.00	0.00	0.00	0.00	0.00	419773.89	723818.23	
9290.22	0.00	0.00	9290.22	0.00	0.00	0.00	0.00	419773.89	723818.23	KOP
9300.00	0.98	225.13	9300.00	-0.06	-0.06	-0.05	10.00	419773.83	723818.17	
9400.00	10.98	225.13	9399.33	-7.40	-7.43	-5.90	10.00	419766.49	723810.80	
9500.00	20.98	225.13	9495.34	-26.79	-26.91	-21.39	10.00	419747.10	723791.32	
9600.00	30.98	225.13	9585.13	-57.66	-57.92	-46.02	10.00	419716.23	723760.31	
9700.00	40.98	225.13	9665.95	-99.05	-99.50	-79.06	10.00	419674.84	723718.73	
9800.00	50.98	225.13	9735.35	-149.72	-150.39	-119.50	10.00	419624.17	723667.84	
9874.52	58.43	225.13	9778.38	-192.60	-193.46	-153.73	10.00	419581.29	723624.77	Build/Turn
9900.00	57.30	227.83	9791.94	-207.46	-209.10	-165.46	10.00	419566.43	723609.13	
10000.00	53.48	239.07	9848.84	-256.49	-274.92	-201.55	10.00	419517.40	723543.31	
10100.00	50.82	251.28	9910.34	-289.67	-346.28	-221.03	10.00	419484.22	723471.95	
10200.00	49.51	264.21	9974.56	-305.99	-421.01	-223.32	10.00	419467.90	723397.22	
10300.00	49.67	277.35	10039.55	-304.95	-496.84	-208.35	10.00	419468.94	723321.39	
10400.00	51.30	290.15	10103.33	-286.58	-571.46	-176.57	10.00	419487.31	723246.77	
10500.00	54.24	302.17	10163.98	-251.45	-642.61	-128.95	10.00	419522.44	723175.62	
10600.00	58.27	313.18	10219.63	-200.61	-708.13	-66.93	10.00	419573.28	723110.10	
10700.00	63.17	323.18	10268.61	-135.62	-766.03	7.60	10.00	419638.27	723052.20	
10800.00	68.72	332.31	10309.43	-58.45	-814.54	92.38	10.00	419715.44	723003.69	
10900.00	74.71	340.74	10340.84	28.55	-852.20	184.83	10.00	419802.44	722966.03	
11000.00	81.01	348.70	10361.89	122.75	-877.85	282.14	10.00	419896.64	722940.38	
11100.00	87.46	356.37	10371.95	221.28	-890.72	381.35	10.00	419995.17	722927.51	



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Wft Plan Report X Y's.

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
Wellpath: 1

Date: 5/9/2013 Time: 12:09:20 Page: 2
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0
Section (VS) Reference: Well (0.00N,0.00E,349.40Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
11147.74	90.57	360.00	10372.77	268.97	-892.23	428.51	10.00	420042.86	722926.00	LP Tgt
11200.00	90.57	360.00	10372.25	321.23	-892.23	479.88	0.00	420095.12	722926.00	
11300.00	90.57	360.00	10371.25	421.23	-892.23	578.17	0.00	420195.12	722926.00	
11400.00	90.57	360.00	10370.26	521.22	-892.23	676.45	0.00	420295.11	722926.00	
11500.00	90.57	360.00	10369.26	621.22	-892.23	774.74	0.00	420395.11	722926.00	
11600.00	90.57	360.00	10368.27	721.21	-892.23	873.03	0.00	420495.10	722926.00	
11700.00	90.57	360.00	10367.27	821.21	-892.23	971.32	0.00	420595.10	722926.00	
11800.00	90.57	360.00	10366.28	921.20	-892.23	1069.61	0.00	420695.09	722926.00	
11900.00	90.57	360.00	10365.28	1021.20	-892.23	1167.90	0.00	420795.09	722926.00	
12000.00	90.57	360.00	10364.29	1121.19	-892.23	1266.19	0.00	420895.08	722926.00	
12100.00	90.57	360.00	10363.29	1221.19	-892.23	1364.48	0.00	420995.08	722926.00	
12200.00	90.57	360.00	10362.30	1321.18	-892.23	1462.76	0.00	421095.07	722926.00	
12300.00	90.57	360.00	10361.30	1421.18	-892.23	1561.05	0.00	421195.07	722926.00	
12400.00	90.57	360.00	10360.31	1521.17	-892.23	1659.34	0.00	421295.06	722926.00	
12500.00	90.57	360.00	10359.31	1621.17	-892.23	1757.63	0.00	421395.06	722926.00	
12600.00	90.57	360.00	10358.32	1721.16	-892.23	1855.92	0.00	421495.05	722926.00	
12700.00	90.57	360.00	10357.32	1821.16	-892.23	1954.21	0.00	421595.05	722926.00	
12800.00	90.57	360.00	10356.33	1921.15	-892.23	2052.50	0.00	421695.04	722926.00	
12900.00	90.57	360.00	10355.33	2021.15	-892.23	2150.79	0.00	421795.04	722926.00	
13000.00	90.57	360.00	10354.34	2121.14	-892.23	2249.07	0.00	421895.03	722926.00	
13100.00	90.57	360.00	10353.34	2221.14	-892.23	2347.36	0.00	421995.03	722926.00	
13200.00	90.57	360.00	10352.35	2321.13	-892.23	2445.65	0.00	422095.02	722926.00	
13300.00	90.57	360.00	10351.35	2421.13	-892.23	2543.94	0.00	422195.02	722926.00	
13400.00	90.57	360.00	10350.36	2521.12	-892.23	2642.23	0.00	422295.01	722926.00	
13500.00	90.57	360.00	10349.36	2621.12	-892.23	2740.52	0.00	422395.01	722926.00	
13600.00	90.57	360.00	10348.37	2721.11	-892.23	2838.81	0.00	422495.00	722926.00	
13700.00	90.57	360.00	10347.37	2821.11	-892.23	2937.09	0.00	422595.00	722926.00	
13800.00	90.57	360.00	10346.38	2921.10	-892.23	3035.38	0.00	422694.99	722926.00	
13900.00	90.57	360.00	10345.38	3021.10	-892.23	3133.67	0.00	422794.99	722926.00	
14000.00	90.57	360.00	10344.39	3121.09	-892.23	3231.96	0.00	422894.98	722926.00	
14100.00	90.57	360.00	10343.39	3221.09	-892.23	3330.25	0.00	422994.98	722926.00	
14200.00	90.57	360.00	10342.39	3321.08	-892.23	3428.54	0.00	423094.97	722926.00	
14300.00	90.57	360.00	10341.40	3421.08	-892.23	3526.83	0.00	423194.97	722926.00	
14400.00	90.57	360.00	10340.40	3521.07	-892.23	3625.12	0.00	423294.96	722926.00	
14500.00	90.57	360.00	10339.41	3621.07	-892.23	3723.40	0.00	423394.96	722926.00	
14600.00	90.57	360.00	10338.41	3721.06	-892.23	3821.69	0.00	423494.95	722926.00	
14700.00	90.57	360.00	10337.42	3821.06	-892.23	3919.98	0.00	423594.95	722926.00	
14800.00	90.57	360.00	10336.42	3921.05	-892.23	4018.27	0.00	423694.94	722926.00	
14900.00	90.57	360.00	10335.43	4021.05	-892.23	4116.56	0.00	423794.94	722926.00	
15000.00	90.57	360.00	10334.43	4121.04	-892.23	4214.85	0.00	423894.93	722926.00	
15100.00	90.57	360.00	10333.44	4221.04	-892.23	4313.14	0.00	423994.93	722926.00	
15200.00	90.57	360.00	10332.44	4321.03	-892.23	4411.42	0.00	424094.92	722926.00	
15300.00	90.57	360.00	10331.45	4421.03	-892.23	4509.71	0.00	424194.92	722926.00	
15400.00	90.57	360.00	10330.45	4521.02	-892.23	4608.00	0.00	424294.91	722926.00	
15500.00	90.57	360.00	10329.46	4621.02	-892.23	4706.29	0.00	424394.91	722926.00	
15600.00	90.57	360.00	10328.46	4721.01	-892.23	4804.58	0.00	424494.90	722926.00	
15647.74	90.57	360.00	10328.00	4768.75	-892.23	4851.50	0.00	424542.64	722926.00	PBHL



Weatherford

Wft Plan Report X Y's.



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Cotton Draw Unit 219H
Well: Cotton Draw Unit 219H
Wellpath: 1

Date: 5/9/2013 Time: 12:09:20 Page: 3
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0
Section (VS) Reference: Well (0.00N,0.00E,349.40Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec	<--- Longitude ---> Deg Min Sec
PBHL			10328.00	4768.75	-892.23	424542.64	722926.00	32 9 56.817 N	103 44 47.372 W
LP Tgt			10372.77	268.97	-892.23	420042.86	722926.00	32 9 12.289 N	103 44 47.657 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
9290.22	9290.22	KOP
9874.52	9778.38	Build/Turn
11147.74	10372.77	LP
15647.73	10327.99	PBHL



Weatherford Anticollision Report



Company: Devon Energy Date: 5/9/2013 Time: 12:13:02 Page: 1
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Reference Well: Cotton Draw Unit 219H Vertical (TVD) Reference: SITE 3478.0
Reference Wellpath: Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria Reference: Plan: Plan #1
Interpolation Method MD + Stations Interval: 100.00 ft Error Model: ISCWSA Ellipse
Depth Range: 0.00 to 14906.06 ft Scan Method: Closest Approach 3D
Maximum Radius 40000.00 ft Error Surface: Ellipse

Plan: Plan #1 Date Composed: 5/9/2013
Principal: Yes Version: 1
Tied-to: From Surface

Summary

Site	Offset Wellpath Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
Cotton Draw Unit #13#138H		1 V0 Plan: Plan #2 V1	8100.00	8072.66	594.22	558.16	16.48	
Cotton Draw Unit #13#139H		1 V0 Plan: Plan #2 V1	8700.00	8663.26	549.91	511.21	14.21	
Cotton Draw Unit #14#140H		1 V0 Plan: Plan #2 V1	8800.00	8942.49	101.48	61.14	2.52	
Cotton Draw Unit 168CDU 168H		1 V0 Plan: Plan #1 V1	8200.00	12812.48	881.86	778.70	8.55	
Cotton Draw Unit 220Cotton Draw Unit 2201		V0 Plan: Plan #1 V1	5600.00	5598.00	49.94	25.05	2.01	

Site: Cotton Draw Unit #138H
Well: #138H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
0.00	0.00	10.00	-10.00	0.00	0.01	271.09	11.30	-593.58	593.69	593.68	70436.22	
100.00	100.00	90.00	90.00	0.08	0.08	271.09	11.30	-593.58	593.69	593.53	3707.17	
200.00	200.00	190.00	190.00	0.31	0.29	271.09	11.30	-593.58	593.69	593.09	996.74	
300.00	300.00	290.00	290.00	0.53	0.51	271.09	11.30	-593.58	593.69	592.64	568.03	
400.00	400.00	390.00	390.00	0.76	0.74	271.09	11.30	-593.58	593.69	592.19	397.20	
500.00	500.00	490.00	490.00	0.98	0.96	271.09	11.30	-593.58	593.69	591.74	305.36	
600.00	600.00	590.00	590.00	1.21	1.19	271.09	11.30	-593.58	593.69	591.29	248.01	
700.00	700.00	690.00	690.00	1.43	1.41	271.09	11.30	-593.58	593.69	590.84	208.80	
800.00	800.00	790.00	790.00	1.66	1.64	271.09	11.30	-593.58	593.69	590.39	180.30	
900.00	900.00	890.00	890.00	1.88	1.86	271.09	11.30	-593.58	593.69	589.95	158.64	
1000.00	1000.00	990.00	990.00	2.11	2.08	271.09	11.30	-593.58	593.69	589.50	141.63	
1100.00	1100.00	1090.00	1090.00	2.33	2.31	271.09	11.30	-593.58	593.69	589.05	127.91	
1200.00	1200.00	1190.00	1190.00	2.56	2.53	271.09	11.30	-593.58	593.69	588.60	116.62	
1300.00	1300.00	1290.00	1290.00	2.78	2.76	271.09	11.30	-593.58	593.69	588.15	107.15	
1400.00	1400.00	1390.00	1390.00	3.01	2.98	271.09	11.30	-593.58	593.69	587.70	99.11	
1500.00	1500.00	1490.00	1490.00	3.23	3.21	271.09	11.30	-593.58	593.69	587.25	92.19	
1600.00	1600.00	1590.00	1590.00	3.46	3.43	271.09	11.30	-593.58	593.69	586.80	86.18	
1700.00	1700.00	1690.00	1690.00	3.68	3.66	271.09	11.30	-593.58	593.69	586.35	80.90	
1800.00	1800.00	1790.00	1790.00	3.91	3.88	271.09	11.30	-593.58	593.69	585.90	76.23	
1900.00	1900.00	1890.00	1890.00	4.13	4.11	271.09	11.30	-593.58	593.69	585.45	72.07	
2000.00	2000.00	1990.00	1990.00	4.35	4.33	271.09	11.30	-593.58	593.69	585.00	68.34	
2100.00	2100.00	2090.00	2090.00	4.58	4.56	271.09	11.30	-593.58	593.69	584.55	64.98	
2200.00	2200.00	2190.00	2190.00	4.80	4.78	271.09	11.30	-593.58	593.69	584.10	61.93	
2300.00	2300.00	2290.00	2290.00	5.03	5.01	271.09	11.30	-593.58	593.69	583.65	59.16	
2400.00	2400.00	2390.00	2390.00	5.25	5.23	271.09	11.30	-593.58	593.69	583.20	56.62	
2500.00	2500.00	2490.00	2490.00	5.48	5.46	271.09	11.30	-593.58	593.69	582.75	54.29	
2600.00	2600.00	2590.00	2590.00	5.70	5.68	271.09	11.30	-593.58	593.69	582.30	52.15	
2700.00	2700.00	2690.00	2690.00	5.93	5.91	271.09	11.30	-593.58	593.69	581.85	50.17	
2800.00	2800.00	2790.00	2790.00	6.15	6.13	271.09	11.30	-593.58	593.69	581.40	48.33	
2900.00	2900.00	2890.00	2890.00	6.38	6.36	271.09	11.30	-593.58	593.69	580.95	46.63	
3000.00	3000.00	2990.00	2990.00	6.60	6.58	271.09	11.30	-593.58	593.69	580.51	45.04	
3100.00	3100.00	3090.00	3090.00	6.83	6.80	271.09	11.30	-593.58	593.69	580.06	43.55	
3200.00	3200.00	3190.00	3190.00	7.05	7.03	271.09	11.30	-593.58	593.69	579.61	42.16	
3300.00	3300.00	3290.00	3290.00	7.28	7.25	271.09	11.30	-593.58	593.69	579.16	40.86	
3400.00	3400.00	3390.00	3390.00	7.50	7.48	271.09	11.30	-593.58	593.69	578.71	39.63	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 2

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #138H
Well: #138H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3500.00	3500.00	3490.00	3490.00	7.73	7.70	271.09	11.30	-593.58	593.69	578.26	38.48	
3600.00	3600.00	3590.00	3590.00	7.95	7.93	271.09	11.30	-593.58	593.69	577.81	37.39	
3700.00	3700.00	3690.00	3690.00	8.18	8.15	271.09	11.30	-593.58	593.69	577.36	36.36	
3800.00	3800.00	3790.00	3790.00	8.40	8.38	271.09	11.30	-593.58	593.69	576.91	35.38	
3900.00	3900.00	3890.00	3890.00	8.63	8.60	271.09	11.30	-593.58	593.69	576.46	34.46	
4000.00	4000.00	3990.00	3990.00	8.85	8.83	271.09	11.30	-593.58	593.69	576.01	33.58	
4100.00	4100.00	4090.00	4090.00	9.07	9.05	271.09	11.30	-593.58	593.69	575.56	32.75	
4200.00	4200.00	4190.00	4190.00	9.30	9.28	271.09	11.30	-593.58	593.69	575.11	31.96	
4300.00	4300.00	4290.00	4290.00	9.52	9.50	271.09	11.30	-593.58	593.69	574.66	31.20	
4400.00	4400.00	4390.00	4390.00	9.75	9.73	271.09	11.30	-593.58	593.69	574.21	30.48	
4500.00	4500.00	4490.00	4490.00	9.97	9.95	271.09	11.30	-593.58	593.69	573.76	29.80	
4600.00	4600.00	4590.00	4590.00	10.20	10.18	271.09	11.30	-593.58	593.69	573.31	29.14	
4700.00	4700.00	4690.00	4690.00	10.42	10.40	271.09	11.30	-593.58	593.69	572.86	28.51	
4800.00	4800.00	4790.00	4790.00	10.65	10.63	271.09	11.30	-593.58	593.69	572.41	27.91	
4900.00	4900.00	4890.00	4890.00	10.87	10.85	271.09	11.30	-593.58	593.69	571.96	27.33	
5000.00	5000.00	4990.00	4990.00	11.10	11.08	271.09	11.30	-593.58	593.69	571.51	26.78	
5100.00	5100.00	5090.00	5090.00	11.32	11.30	271.09	11.30	-593.58	593.69	571.06	26.24	
5200.00	5200.00	5190.00	5190.00	11.55	11.52	271.09	11.30	-593.58	593.69	570.62	25.73	
5300.00	5300.00	5290.00	5290.00	11.77	11.75	271.09	11.30	-593.58	593.69	570.17	25.24	
5400.00	5400.00	5390.00	5390.00	12.00	11.97	271.09	11.30	-593.58	593.69	569.72	24.77	
5500.00	5500.00	5490.00	5490.00	12.22	12.20	271.09	11.30	-593.58	593.69	569.27	24.31	
5600.00	5600.00	5590.00	5590.00	12.45	12.42	271.09	11.30	-593.58	593.69	568.82	23.87	
5700.00	5700.00	5690.00	5690.00	12.67	12.65	271.09	11.30	-593.58	593.69	568.37	23.45	
5800.00	5800.00	5790.00	5790.00	12.90	12.87	271.09	11.30	-593.58	593.69	567.92	23.04	
5900.00	5900.00	5890.00	5890.00	13.12	13.10	271.09	11.30	-593.58	593.69	567.47	22.64	
6000.00	6000.00	5990.00	5990.00	13.35	13.32	271.09	11.30	-593.58	593.69	567.02	22.26	
6100.00	6100.00	6090.00	6090.00	13.57	13.55	271.09	11.30	-593.58	593.69	566.57	21.89	
6200.00	6200.00	6190.00	6190.00	13.80	13.77	271.09	11.30	-593.58	593.69	566.12	21.54	
6300.00	6300.00	6290.00	6290.00	14.02	14.00	271.09	11.30	-593.58	593.69	565.67	21.19	
6400.00	6400.00	6390.00	6390.00	14.24	14.22	271.09	11.30	-593.58	593.69	565.22	20.86	
6500.00	6500.00	6490.00	6490.00	14.47	14.45	271.09	11.30	-593.58	593.69	564.77	20.53	
6600.00	6600.00	6590.00	6590.00	14.69	14.67	271.09	11.30	-593.58	593.69	564.32	20.22	
6700.00	6700.00	6690.00	6690.00	14.92	14.90	271.09	11.30	-593.58	593.69	563.87	19.91	
6800.00	6800.00	6790.00	6790.00	15.14	15.12	271.09	11.30	-593.58	593.69	563.42	19.62	
6900.00	6900.00	6890.00	6890.00	15.37	15.35	271.09	11.30	-593.58	593.69	562.97	19.33	
7000.00	7000.00	6990.00	6990.00	15.59	15.57	271.09	11.30	-593.58	593.69	562.52	19.05	
7100.00	7100.00	7090.00	7090.00	15.82	15.80	271.09	11.30	-593.58	593.69	562.07	18.78	
7200.00	7200.00	7190.00	7190.00	16.04	16.02	271.09	11.30	-593.58	593.69	561.62	18.52	
7300.00	7300.00	7290.00	7290.00	16.27	16.24	271.09	11.30	-593.58	593.69	561.18	18.26	
7400.00	7400.00	7390.00	7390.00	16.49	16.47	271.09	11.30	-593.58	593.69	560.73	18.01	
7500.00	7500.00	7490.00	7490.00	16.72	16.69	271.09	11.30	-593.58	593.69	560.28	17.77	
7600.00	7600.00	7590.00	7590.00	16.94	16.92	271.09	11.30	-593.58	593.69	559.83	17.53	
7700.00	7700.00	7690.00	7690.00	17.17	17.14	271.09	11.30	-593.58	593.69	559.38	17.30	
7800.00	7800.00	7790.00	7790.00	17.39	17.37	271.09	11.30	-593.58	593.69	558.93	17.08	
7900.00	7900.00	7890.00	7890.00	17.62	17.59	271.09	11.30	-593.58	593.69	558.48	16.86	
8000.00	8000.00	7990.00	7990.00	17.84	17.82	271.09	11.30	-593.58	593.69	558.03	16.65	
8100.00	8100.00	8072.66	8072.66	18.07	18.00	271.08	11.25	-593.86	594.22	558.16	16.48	
8200.00	8200.00	8124.68	8124.53	18.29	18.11	271.01	10.54	-597.46	601.13	564.82	16.56	
8300.00	8300.00	8175.76	8175.01	18.52	18.21	270.86	9.07	-605.04	615.93	579.46	16.88	
8400.00	8400.00	8225.30	8223.23	18.74	18.31	270.64	6.90	-616.16	638.36	601.79	17.45	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 3
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #138H
Well: #138H
Wellpath: 1 VO Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
8500.00	8500.00	8272.81	8268.50	18.96	18.41	270.38	4.16	-630.24	668.04	631.43	18.25	
8600.00	8600.00	8317.90	8310.38	19.19	18.51	270.09	0.97	-646.64	704.51	667.91	19.25	
8700.00	8700.00	8360.35	8348.62	19.41	18.62	269.78	-2.55	-664.70	747.24	710.70	20.45	
8800.00	8800.00	8400.00	8383.17	19.64	18.72	269.47	-6.27	-683.79	795.69	759.22	21.82	
8900.00	8900.00	8436.94	8414.20	19.86	18.84	269.18	-10.10	-703.45	849.31	812.93	23.35	
9000.00	9000.00	8471.13	8441.84	20.09	18.95	268.90	-13.94	-723.19	907.56	871.28	25.01	
9100.00	9100.00	8502.70	8466.38	20.31	19.07	268.63	-17.74	-742.69	969.95	933.75	26.79	
9200.00	9200.00	8577.48	8523.40	20.54	19.38	268.34	-22.96	-790.71	1034.46	997.91	28.30	
9290.22	9290.22	8648.63	8577.72	20.74	19.69	268.65	-19.78	-836.50	1092.53	1055.62	29.60	
9300.00	9300.00	8656.31	8583.56	20.76	19.73	43.03	-18.96	-841.42	1098.77	1061.83	29.74	
9350.00	9349.89	8695.95	8613.56	20.85	19.90	40.99	-13.28	-866.71	1129.18	1092.11	30.46	
9400.00	9399.33	8735.35	8643.03	20.93	20.06	39.61	-5.23	-891.56	1157.00	1119.89	31.17	
9450.00	9447.94	8773.34	8671.05	21.02	20.22	38.70	4.78	-915.19	1182.22	1145.14	31.89	
9500.00	9495.34	8809.00	8696.87	21.11	20.37	38.15	16.14	-936.97	1204.88	1167.93	32.60	
9550.00	9541.19	8841.63	8720.05	21.21	20.50	37.83	28.19	-956.53	1225.10	1188.34	33.33	
9600.00	9585.13	8870.84	8740.37	21.31	20.61	37.67	40.28	-973.68	1242.99	1206.50	34.06	
9650.00	9626.82	8896.46	8757.82	21.43	20.71	37.60	51.87	-988.41	1258.71	1222.54	34.79	
9700.00	9665.95	8918.51	8772.55	21.56	20.80	37.57	62.58	-1000.85	1272.38	1236.56	35.52	
9750.00	9702.22	8937.16	8784.78	21.72	20.87	37.58	72.16	-1011.17	1284.12	1248.68	36.23	
9800.00	9735.35	8952.63	8794.75	21.91	20.93	37.59	80.45	-1019.59	1294.03	1258.96	36.90	
9850.00	9765.10	8965.18	8802.73	22.13	20.98	37.60	87.41	-1026.33	1302.19	1267.48	37.51	
9874.52	9778.38	8970.35	8805.99	22.25	21.00	37.61	90.34	-1029.08	1305.57	1271.02	37.78	
9900.00	9791.94	8975.62	8809.29	22.39	21.02	36.74	93.36	-1031.87	1309.00	1274.40	37.83	
9950.00	9819.70	8987.13	8816.43	22.69	21.07	34.89	100.08	-1037.90	1316.39	1281.68	37.93	
10000.00	9848.84	9000.00	8824.30	22.99	21.12	32.85	107.79	-1044.55	1324.51	1289.69	38.04	
10050.00	9879.13	9013.97	8832.71	23.29	21.18	30.60	116.39	-1051.66	1333.22	1298.29	38.17	
10100.00	9910.34	9028.96	8841.57	23.58	21.23	28.15	125.89	-1059.14	1342.34	1307.32	38.33	
10150.00	9942.23	9050.00	8853.71	23.84	21.32	25.70	139.67	-1069.40	1351.73	1316.64	38.52	
10200.00	9974.56	9061.38	8860.12	24.07	21.36	22.76	147.34	-1074.82	1361.16	1326.04	38.75	
10250.00	10007.08	9078.60	8869.63	24.27	21.43	19.90	159.24	-1082.86	1370.55	1335.44	39.03	
10300.00	10039.55	9100.00	8881.10	24.41	21.51	17.10	174.48	-1092.56	1379.74	1344.69	39.36	
10350.00	10071.71	9114.66	8888.73	24.51	21.57	14.14	185.21	-1099.01	1388.54	1353.60	39.74	
10400.00	10103.33	9133.36	8898.18	24.57	21.65	11.36	199.23	-1107.01	1396.86	1362.09	40.18	
10450.00	10134.17	9150.00	8906.32	24.58	21.71	8.65	212.00	-1113.89	1404.57	1370.02	40.66	
10500.00	10163.98	9171.84	8916.62	24.56	21.80	6.21	229.18	-1122.60	1411.54	1377.30	41.23	
10550.00	10192.54	9200.00	8929.21	24.51	21.91	4.03	251.99	-1133.27	1417.76	1383.90	41.88	
10600.00	10219.63	9211.45	8934.11	24.45	21.96	1.75	261.47	-1137.42	1422.94	1389.45	42.48	
10650.00	10245.06	9231.58	8942.40	24.37	22.04	-0.21	278.42	-1144.44	1427.20	1394.14	43.17	
10700.00	10268.61	9250.00	8949.63	24.28	22.11	357.98	294.21	-1150.56	1430.41	1397.79	43.85	
10750.00	10290.13	9272.33	8957.92	24.20	22.20	356.37	313.72	-1157.59	1432.51	1400.35	44.54	
10800.00	10309.43	9300.00	8967.45	24.13	22.31	354.94	338.41	-1165.68	1433.52	1401.82	45.22	
10850.00	10326.38	9313.54	8971.81	24.06	22.36	353.53	350.67	-1169.38	1433.27	1401.92	45.72	
10900.00	10340.84	9334.24	8978.09	24.00	22.44	352.29	369.66	-1174.71	1431.89	1400.86	46.14	
10950.00	10352.71	9350.00	8982.56	23.95	22.50	351.14	384.29	-1178.51	1429.34	1398.52	46.38	
11000.00	10361.89	9375.71	8989.24	23.91	22.60	350.09	408.46	-1184.19	1425.58	1394.89	46.44	
11050.00	10368.32	9400.00	8994.87	23.87	22.69	349.11	431.60	-1188.98	1420.71	1390.01	46.27	
11100.00	10371.95	9417.09	8998.42	23.83	22.76	348.22	448.03	-1192.01	1414.71	1383.83	45.82	
11147.74	10372.77	9436.74	9002.08	23.80	22.83	347.43	467.09	-1195.14	1408.00	1376.84	45.18	
11200.00	10372.25	9450.00	9004.30	24.05	22.88	347.33	480.02	-1197.04	1400.76	1369.36	44.61	
11300.00	10371.25	9500.00	9010.80	24.58	23.05	347.05	529.27	-1202.62	1389.87	1357.91	43.49	
11400.00	10370.26	9550.00	9014.32	25.23	23.22	346.88	579.04	-1205.69	1383.17	1350.54	42.40	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 4
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #138H
Well: #138H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
11500.00	10369.26	9591.53	9015.00	25.99	23.40	346.85	620.55	-1206.36	1380.48	1347.16	41.44	
11600.00	10368.27	9691.52	9015.00	26.85	24.32	346.83	720.54	-1206.58	1379.56	1345.32	40.30	
11700.00	10367.27	9791.52	9015.00	27.81	25.34	346.81	820.53	-1206.79	1378.64	1343.43	39.16	
11800.00	10366.28	9891.51	9015.00	28.85	26.44	346.79	920.53	-1207.01	1377.72	1341.48	38.02	
11900.00	10365.28	9991.51	9015.00	29.96	27.62	346.77	1020.52	-1207.23	1376.80	1339.49	36.91	
12000.00	10364.29	10091.50	9015.00	31.14	28.87	346.76	1120.52	-1207.45	1375.88	1337.45	35.81	
12100.00	10363.29	10191.50	9015.01	32.38	30.18	346.74	1220.51	-1207.67	1374.96	1335.38	34.74	
12200.00	10362.30	10291.49	9015.01	33.67	31.53	346.72	1320.51	-1207.88	1374.04	1333.27	33.70	
12300.00	10361.30	10391.48	9015.01	35.00	32.94	346.70	1420.50	-1208.10	1373.12	1331.12	32.70	
12400.00	10360.31	10491.48	9015.01	36.39	34.38	346.68	1520.50	-1208.32	1372.20	1328.95	31.73	
12500.00	10359.31	10591.47	9015.01	37.80	35.86	346.66	1620.49	-1208.54	1371.28	1326.75	30.79	
12600.00	10358.32	10691.47	9015.01	39.26	37.37	346.64	1720.49	-1208.76	1370.36	1324.52	29.89	
12700.00	10357.32	10791.46	9015.01	40.74	38.90	346.63	1820.48	-1208.97	1369.44	1322.27	29.03	
12800.00	10356.33	10891.46	9015.01	42.25	40.46	346.61	1920.47	-1209.19	1368.52	1320.00	28.20	
12900.00	10355.33	10991.45	9015.01	43.78	42.04	346.59	2020.47	-1209.41	1367.61	1317.70	27.41	
13000.00	10354.34	11091.45	9015.01	45.33	43.64	346.57	2120.46	-1209.63	1366.69	1315.39	26.64	
13100.00	10353.34	11191.44	9015.02	46.91	45.26	346.55	2220.46	-1209.85	1365.77	1313.07	25.91	
13200.00	10352.35	11291.44	9015.02	48.50	46.89	346.53	2320.45	-1210.07	1364.85	1310.72	25.21	
13300.00	10351.35	11391.43	9015.02	50.11	48.54	346.51	2420.45	-1210.28	1363.93	1308.37	24.55	
13400.00	10350.36	11491.43	9015.02	51.73	50.20	346.50	2520.44	-1210.50	1363.02	1306.00	23.90	
13500.00	10349.36	11591.42	9015.02	53.36	51.87	346.48	2620.44	-1210.72	1362.10	1303.61	23.29	
13600.00	10348.37	11691.42	9015.02	55.01	53.55	346.46	2720.43	-1210.94	1361.18	1301.22	22.70	
13700.00	10347.37	11791.41	9015.02	56.67	55.24	346.44	2820.43	-1211.16	1360.26	1298.81	22.14	
13800.00	10346.38	11891.41	9015.02	58.34	56.93	346.42	2920.42	-1211.37	1359.35	1296.40	21.59	
13900.00	10345.38	11991.40	9015.02	60.01	58.64	346.40	3020.41	-1211.59	1358.43	1293.97	21.07	
14000.00	10344.39	12091.40	9015.02	61.70	60.35	346.38	3120.41	-1211.81	1357.51	1291.54	20.58	
14100.00	10343.39	12191.39	9015.03	63.39	62.07	346.36	3220.40	-1212.03	1356.60	1289.09	20.10	
14200.00	10342.39	12291.39	9015.03	65.09	63.80	346.35	3320.40	-1212.25	1355.68	1286.64	19.64	
14300.00	10341.40	12391.38	9015.03	66.80	65.53	346.33	3420.39	-1212.46	1354.76	1284.19	19.20	
14400.00	10340.40	12491.38	9015.03	68.52	67.26	346.31	3520.39	-1212.68	1353.85	1281.72	18.77	
14500.00	10339.41	12591.37	9015.03	70.23	69.00	346.29	3620.38	-1212.90	1352.93	1279.25	18.36	
14600.00	10338.41	12691.37	9015.03	71.96	70.75	346.27	3720.38	-1213.12	1352.02	1276.77	17.97	
14700.00	10337.42	12791.36	9015.03	73.69	72.50	346.25	3820.37	-1213.34	1351.10	1274.29	17.59	
14800.00	10336.42	12891.35	9015.03	75.42	74.25	346.23	3920.37	-1213.56	1350.18	1271.80	17.23	
14900.00	10335.43	12991.35	9015.03	77.16	76.00	346.21	4020.36	-1213.77	1349.27	1269.30	16.87	

Site: Cotton Draw Unit #139H
Well: #139H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
0.00	0.00	10.00	-10.00	0.00	0.01	271.17	11.07	-543.56	543.67	543.66	64502.36	
100.00	100.00	90.00	90.00	0.08	0.08	271.17	11.07	-543.56	543.67	543.51	3394.86	
200.00	200.00	190.00	190.00	0.31	0.29	271.17	11.07	-543.56	543.67	543.08	912.77	
300.00	300.00	290.00	290.00	0.53	0.51	271.17	11.07	-543.56	543.67	542.63	520.18	
400.00	400.00	390.00	390.00	0.76	0.74	271.17	11.07	-543.56	543.67	542.18	363.74	
500.00	500.00	490.00	490.00	0.98	0.96	271.17	11.07	-543.56	543.67	541.73	279.63	
600.00	600.00	590.00	590.00	1.21	1.19	271.17	11.07	-543.56	543.67	541.28	227.12	
700.00	700.00	690.00	690.00	1.43	1.41	271.17	11.07	-543.56	543.67	540.83	191.21	
800.00	800.00	790.00	790.00	1.66	1.64	271.17	11.07	-543.56	543.67	540.38	165.11	
900.00	900.00	890.00	890.00	1.88	1.86	271.17	11.07	-543.56	543.67	539.93	145.28	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 5

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #139H
Well: #139H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
1000.00	1000.00	990.00	990.00	2.11	2.08	271.17	11.07	-543.56	543.67	539.48	129.70	
1100.00	1100.00	1090.00	1090.00	2.33	2.31	271.17	11.07	-543.56	543.67	539.03	117.14	
1200.00	1200.00	1190.00	1190.00	2.56	2.53	271.17	11.07	-543.56	543.67	538.58	106.79	
1300.00	1300.00	1290.00	1290.00	2.78	2.76	271.17	11.07	-543.56	543.67	538.13	98.13	
1400.00	1400.00	1390.00	1390.00	3.01	2.98	271.17	11.07	-543.56	543.67	537.68	90.76	
1500.00	1500.00	1490.00	1490.00	3.23	3.21	271.17	11.07	-543.56	543.67	537.23	84.43	
1600.00	1600.00	1590.00	1590.00	3.46	3.43	271.17	11.07	-543.56	543.67	536.78	78.92	
1700.00	1700.00	1690.00	1690.00	3.68	3.66	271.17	11.07	-543.56	543.67	536.33	74.08	
1800.00	1800.00	1790.00	1790.00	3.91	3.88	271.17	11.07	-543.56	543.67	535.88	69.81	
1900.00	1900.00	1890.00	1890.00	4.13	4.11	271.17	11.07	-543.56	543.67	535.44	66.00	
2000.00	2000.00	1990.00	1990.00	4.35	4.33	271.17	11.07	-543.56	543.67	534.99	62.58	
2100.00	2100.00	2090.00	2090.00	4.58	4.56	271.17	11.07	-543.56	543.67	534.54	59.50	
2200.00	2200.00	2190.00	2190.00	4.80	4.78	271.17	11.07	-543.56	543.67	534.09	56.71	
2300.00	2300.00	2290.00	2290.00	5.03	5.01	271.17	11.07	-543.56	543.67	533.64	54.17	
2400.00	2400.00	2390.00	2390.00	5.25	5.23	271.17	11.07	-543.56	543.67	533.19	51.85	
2500.00	2500.00	2490.00	2490.00	5.48	5.46	271.17	11.07	-543.56	543.67	532.74	49.72	
2600.00	2600.00	2590.00	2590.00	5.70	5.68	271.17	11.07	-543.56	543.67	532.29	47.76	
2700.00	2700.00	2690.00	2690.00	5.93	5.91	271.17	11.07	-543.56	543.67	531.84	45.94	
2800.00	2800.00	2790.00	2790.00	6.15	6.13	271.17	11.07	-543.56	543.67	531.39	44.26	
2900.00	2900.00	2890.00	2890.00	6.38	6.36	271.17	11.07	-543.56	543.67	530.94	42.70	
3000.00	3000.00	2990.00	2990.00	6.60	6.58	271.17	11.07	-543.56	543.67	530.49	41.24	
3100.00	3100.00	3090.00	3090.00	6.83	6.80	271.17	11.07	-543.56	543.67	530.04	39.88	
3200.00	3200.00	3190.00	3190.00	7.05	7.03	271.17	11.07	-543.56	543.67	529.59	38.61	
3300.00	3300.00	3290.00	3290.00	7.28	7.25	271.17	11.07	-543.56	543.67	529.14	37.41	
3400.00	3400.00	3390.00	3390.00	7.50	7.48	271.17	11.07	-543.56	543.67	528.69	36.29	
3500.00	3500.00	3490.00	3490.00	7.73	7.70	271.17	11.07	-543.56	543.67	528.24	35.23	
3600.00	3600.00	3590.00	3590.00	7.95	7.93	271.17	11.07	-543.56	543.67	527.79	34.24	
3700.00	3700.00	3690.00	3690.00	8.18	8.15	271.17	11.07	-543.56	543.67	527.34	33.29	
3800.00	3800.00	3790.00	3790.00	8.40	8.38	271.17	11.07	-543.56	543.67	526.89	32.40	
3900.00	3900.00	3890.00	3890.00	8.63	8.60	271.17	11.07	-543.56	543.67	526.44	31.56	
4000.00	4000.00	3990.00	3990.00	8.85	8.83	271.17	11.07	-543.56	543.67	525.99	30.75	
4100.00	4100.00	4090.00	4090.00	9.07	9.05	271.17	11.07	-543.56	543.67	525.55	29.99	
4200.00	4200.00	4190.00	4190.00	9.30	9.28	271.17	11.07	-543.56	543.67	525.10	29.27	
4300.00	4300.00	4290.00	4290.00	9.52	9.50	271.17	11.07	-543.56	543.67	524.65	28.57	
4400.00	4400.00	4390.00	4390.00	9.75	9.73	271.17	11.07	-543.56	543.67	524.20	27.92	
4500.00	4500.00	4490.00	4490.00	9.97	9.95	271.17	11.07	-543.56	543.67	523.75	27.29	
4600.00	4600.00	4590.00	4590.00	10.20	10.18	271.17	11.07	-543.56	543.67	523.30	26.68	
4700.00	4700.00	4690.00	4690.00	10.42	10.40	271.17	11.07	-543.56	543.67	522.85	26.11	
4800.00	4800.00	4790.00	4790.00	10.65	10.63	271.17	11.07	-543.56	543.67	522.40	25.56	
4900.00	4900.00	4890.00	4890.00	10.87	10.85	271.17	11.07	-543.56	543.67	521.95	25.03	
5000.00	5000.00	4990.00	4990.00	11.10	11.08	271.17	11.07	-543.56	543.67	521.50	24.52	
5100.00	5100.00	5090.00	5090.00	11.32	11.30	271.17	11.07	-543.56	543.67	521.05	24.03	
5200.00	5200.00	5190.00	5190.00	11.55	11.52	271.17	11.07	-543.56	543.67	520.60	23.56	
5300.00	5300.00	5290.00	5290.00	11.77	11.75	271.17	11.07	-543.56	543.67	520.15	23.11	
5400.00	5400.00	5390.00	5390.00	12.00	11.97	271.17	11.07	-543.56	543.67	519.70	22.68	
5500.00	5500.00	5490.00	5490.00	12.22	12.20	271.17	11.07	-543.56	543.67	519.25	22.26	
5600.00	5600.00	5590.00	5590.00	12.45	12.42	271.17	11.07	-543.56	543.67	518.80	21.86	
5700.00	5700.00	5690.00	5690.00	12.67	12.65	271.17	11.07	-543.56	543.67	518.35	21.47	
5800.00	5800.00	5790.00	5790.00	12.90	12.87	271.17	11.07	-543.56	543.67	517.90	21.10	
5900.00	5900.00	5890.00	5890.00	13.12	13.10	271.17	11.07	-543.56	543.67	517.45	20.74	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 6

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #139H
Well: #139H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
6000.00	6000.00	5990.00	5990.00	13.35	13.32	271.17	11.07	-543.56	543.67	517.00	20.39	
6100.00	6100.00	6090.00	6090.00	13.57	13.55	271.17	11.07	-543.56	543.67	516.55	20.05	
6200.00	6200.00	6190.00	6190.00	13.80	13.77	271.17	11.07	-543.56	543.67	516.11	19.72	
6300.00	6300.00	6290.00	6290.00	14.02	14.00	271.17	11.07	-543.56	543.67	515.66	19.41	
6400.00	6400.00	6390.00	6390.00	14.24	14.22	271.17	11.07	-543.56	543.67	515.21	19.10	
6500.00	6500.00	6490.00	6490.00	14.47	14.45	271.17	11.07	-543.56	543.67	514.76	18.80	
6600.00	6600.00	6590.00	6590.00	14.69	14.67	271.17	11.07	-543.56	543.67	514.31	18.51	
6700.00	6700.00	6690.00	6690.00	14.92	14.90	271.17	11.07	-543.56	543.67	513.86	18.23	
6800.00	6800.00	6790.00	6790.00	15.14	15.12	271.17	11.07	-543.56	543.67	513.41	17.96	
6900.00	6900.00	6890.00	6890.00	15.37	15.35	271.17	11.07	-543.56	543.67	512.96	17.70	
7000.00	7000.00	6990.00	6990.00	15.59	15.57	271.17	11.07	-543.56	543.67	512.51	17.45	
7100.00	7100.00	7090.00	7090.00	15.82	15.80	271.17	11.07	-543.56	543.67	512.06	17.20	
7200.00	7200.00	7190.00	7190.00	16.04	16.02	271.17	11.07	-543.56	543.67	511.61	16.96	
7300.00	7300.00	7290.00	7290.00	16.27	16.24	271.17	11.07	-543.56	543.67	511.16	16.72	
7400.00	7400.00	7390.00	7390.00	16.49	16.47	271.17	11.07	-543.56	543.67	510.71	16.49	
7500.00	7500.00	7490.00	7490.00	16.72	16.69	271.17	11.07	-543.56	543.67	510.26	16.27	
7600.00	7600.00	7590.00	7590.00	16.94	16.92	271.17	11.07	-543.56	543.67	509.81	16.06	
7700.00	7700.00	7690.00	7690.00	17.17	17.14	271.17	11.07	-543.56	543.67	509.36	15.85	
7800.00	7800.00	7790.00	7790.00	17.39	17.37	271.17	11.07	-543.56	543.67	508.91	15.64	
7900.00	7900.00	7890.00	7890.00	17.62	17.59	271.17	11.07	-543.56	543.67	508.46	15.44	
8000.00	8000.00	7990.00	7990.00	17.84	17.82	271.17	11.07	-543.56	543.67	508.01	15.25	
8100.00	8100.00	8090.00	8090.00	18.07	18.04	271.17	11.07	-543.56	543.67	507.56	15.06	
8200.00	8200.00	8190.00	8190.00	18.29	18.27	271.17	11.07	-543.56	543.67	507.11	14.87	
8300.00	8300.00	8290.00	8290.00	18.52	18.49	271.17	11.07	-543.56	543.67	506.66	14.69	
8400.00	8400.00	8389.77	8389.77	18.74	18.72	271.18	11.17	-543.56	543.68	506.22	14.51	
8500.00	8500.00	8486.77	8486.25	18.96	18.93	272.14	20.27	-543.59	543.98	506.08	14.36	
8600.00	8600.00	8578.97	8575.67	19.19	19.13	274.46	42.41	-543.65	545.49	507.18	14.24	
8700.00	8700.00	8663.26	8653.85	19.41	19.31	277.72	73.75	-543.74	549.91	511.21	14.21	
8800.00	8800.00	8738.09	8719.26	19.64	19.49	281.44	110.02	-543.85	559.35	520.33	14.33	
8900.00	8900.00	8803.25	8772.41	19.86	19.66	285.19	147.66	-543.95	575.78	536.53	14.67	
9000.00	9000.00	8859.38	8814.91	20.09	19.83	288.71	184.30	-544.06	600.52	561.19	15.27	
9100.00	9100.00	8907.53	8848.67	20.31	20.00	291.89	218.61	-544.16	634.14	594.86	16.14	
9200.00	9200.00	8950.00	8876.23	20.54	20.16	294.75	250.91	-544.25	676.48	637.36	17.29	
9290.22	9290.22	8981.15	8895.04	20.74	20.29	296.87	275.73	-544.32	721.58	682.67	18.54	
9300.00	9300.00	8984.37	8896.91	20.76	20.31	71.37	278.35	-544.33	726.82	687.93	18.69	
9350.00	9349.89	9000.00	8905.82	20.85	20.38	69.44	291.20	-544.37	753.94	715.25	19.48	
9400.00	9399.33	9011.66	8912.27	20.93	20.43	67.22	300.92	-544.40	781.65	743.17	20.31	
9450.00	9447.94	9021.64	8917.64	21.02	20.48	64.87	309.33	-544.42	809.85	771.64	21.19	
9500.00	9495.34	9029.37	8921.71	21.11	20.52	62.35	315.90	-544.44	838.43	800.53	22.12	
9550.00	9541.19	9035.03	8924.63	21.21	20.54	59.72	320.74	-544.45	867.24	829.69	23.10	
9600.00	9585.13	9038.78	8926.55	21.31	20.56	57.00	323.96	-544.46	896.11	858.97	24.13	
9650.00	9626.82	9050.00	8932.17	21.43	20.62	54.94	333.68	-544.49	924.99	888.33	25.23	
9700.00	9665.95	9050.00	8932.17	21.56	20.62	52.15	333.68	-544.49	953.49	917.30	26.35	
9750.00	9702.22	9050.00	8932.17	21.72	20.62	49.52	333.68	-544.49	981.55	945.88	27.52	
9800.00	9735.35	9037.70	8926.00	21.91	20.56	46.25	323.04	-544.46	1008.84	973.68	28.69	
9850.00	9765.10	9034.08	8924.14	22.13	20.54	43.80	319.93	-544.45	1035.44	1000.81	29.90	
9874.52	9778.38	9031.89	8923.01	22.25	20.53	42.64	318.05	-544.44	1048.15	1013.77	30.49	
9900.00	9791.94	9029.70	8921.87	22.39	20.52	42.55	316.18	-544.44	1061.30	1026.82	30.78	
9950.00	9819.70	9026.66	8920.29	22.69	20.50	42.24	313.59	-544.43	1087.54	1052.83	31.33	
10000.00	9848.84	9025.23	8919.53	22.99	20.50	41.73	312.37	-544.43	1114.17	1079.23	31.88	
10050.00	9879.13	9025.29	8919.57	23.29	20.50	41.00	312.43	-544.43	1140.98	1105.80	32.43	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 7

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #139H

Well: #139H

Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis		Offset Location		Ctr-Ctr Edge		Separation		Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
10100.00	9910.34	9026.78	8920.35	23.58	20.50	40.03	313.69	-544.43	1167.77	1132.37	32.98	
10150.00	9942.23	9029.59	8921.82	23.84	20.52	38.83	316.09	-544.44	1194.33	1158.72	33.55	
10200.00	9974.56	9033.65	8923.92	24.07	20.54	37.41	319.56	-544.45	1220.44	1184.68	34.12	
10250.00	10007.08	9050.00	8932.17	24.27	20.62	36.34	333.68	-544.49	1246.06	1210.25	34.80	
10300.00	10039.55	9050.00	8932.17	24.41	20.62	34.29	333.68	-544.49	1270.57	1234.68	35.40	
10350.00	10071.71	9050.00	8932.17	24.51	20.62	32.15	333.68	-544.49	1294.17	1258.24	36.02	
10400.00	10103.33	9050.00	8932.17	24.57	20.62	30.02	333.68	-544.49	1316.72	1280.83	36.68	
10450.00	10134.17	9070.03	8941.77	24.58	20.73	28.65	351.25	-544.54	1337.65	1301.99	37.52	
10500.00	10163.98	9080.05	8946.37	24.56	20.78	26.93	360.16	-544.57	1357.20	1321.79	38.33	
10550.00	10192.54	9100.00	8955.10	24.51	20.89	25.59	378.10	-544.62	1375.19	1340.17	39.27	
10600.00	10219.63	9100.00	8955.10	24.45	20.89	23.76	378.10	-544.62	1391.22	1356.51	40.08	
10650.00	10245.06	9114.51	8961.09	24.37	20.98	22.46	391.31	-544.66	1405.43	1371.18	41.03	
10700.00	10268.61	9127.27	8966.11	24.28	21.05	21.21	403.04	-544.69	1417.64	1383.88	42.00	
10750.00	10290.13	9150.00	8974.47	24.20	21.19	20.27	424.18	-544.75	1427.85	1394.70	43.07	
10800.00	10309.43	9150.00	8974.47	24.13	21.19	19.01	424.18	-544.75	1435.70	1403.01	43.92	
10850.00	10326.38	9168.57	8980.74	24.06	21.31	18.18	441.66	-544.80	1441.36	1409.24	44.88	
10900.00	10340.84	9183.15	8985.30	24.00	21.41	17.37	455.51	-544.84	1444.73	1413.14	45.74	
10950.00	10352.71	9200.00	8990.17	23.95	21.52	16.67	471.63	-544.89	1445.76	1414.68	46.51	
11000.00	10361.89	9200.00	8990.17	23.91	21.52	15.88	471.63	-544.89	1444.60	1413.84	46.97	
11050.00	10368.32	9228.47	8997.43	23.87	21.73	15.39	499.16	-544.97	1440.67	1410.28	47.40	
11100.00	10371.95	9250.00	9002.10	23.83	21.88	14.87	520.18	-545.03	1434.58	1404.41	47.54	
11147.74	10372.77	9250.00	9002.10	23.80	21.88	14.34	520.18	-545.03	1426.56	1396.36	47.24	
11200.00	10372.25	9274.86	9006.60	24.05	22.07	14.39	544.63	-545.10	1417.10	1386.79	46.75	
11300.00	10371.25	9300.00	9010.18	24.58	22.27	14.42	569.51	-545.17	1402.79	1372.19	45.83	
11400.00	10370.26	9350.00	9014.37	25.23	22.68	14.46	619.32	-545.31	1393.34	1362.37	44.99	
11500.00	10369.26	9370.20	9014.95	25.99	22.86	14.47	639.50	-545.37	1388.46	1357.04	44.19	
11600.00	10368.27	9452.91	9015.00	26.85	23.63	14.47	722.21	-545.61	1387.27	1355.16	43.20	
11700.00	10367.27	9552.90	9015.00	27.81	24.63	14.47	822.21	-545.90	1386.23	1353.30	42.10	
11800.00	10366.28	9652.89	9015.00	28.85	25.72	14.47	922.20	-546.19	1385.20	1351.38	40.96	
11900.00	10365.28	9752.89	9015.00	29.96	26.90	14.47	1022.19	-546.47	1384.16	1349.40	39.81	
12000.00	10364.29	9852.88	9015.00	31.14	28.14	14.46	1122.19	-546.76	1383.13	1347.36	38.67	
12100.00	10363.29	9952.88	9015.00	32.38	29.45	14.46	1222.18	-547.05	1382.09	1345.26	37.53	
12200.00	10362.30	10052.87	9015.00	33.67	30.81	14.46	1322.18	-547.34	1381.05	1343.12	36.41	
12300.00	10361.30	10152.87	9015.00	35.00	32.21	14.46	1422.17	-547.63	1380.02	1340.94	35.31	
12400.00	10360.31	10252.86	9015.00	36.39	33.65	14.46	1522.17	-547.92	1378.98	1338.72	34.25	
12500.00	10359.31	10352.86	9015.00	37.80	35.13	14.46	1622.16	-548.20	1377.95	1336.46	33.21	
12600.00	10358.32	10452.85	9015.00	39.26	36.65	14.46	1722.15	-548.49	1376.91	1334.17	32.21	
12700.00	10357.32	10552.85	9015.00	40.74	38.19	14.46	1822.15	-548.78	1375.88	1331.85	31.25	
12800.00	10356.33	10652.84	9015.00	42.25	39.75	14.45	1922.14	-549.07	1374.84	1329.50	30.32	
12900.00	10355.33	10752.84	9015.00	43.78	41.34	14.45	2022.14	-549.36	1373.81	1327.13	29.43	
13000.00	10354.34	10852.83	9015.00	45.33	42.94	14.45	2122.13	-549.65	1372.77	1324.73	28.58	
13100.00	10353.34	10952.82	9015.00	46.91	44.56	14.45	2222.13	-549.93	1371.74	1322.32	27.76	
13200.00	10352.35	11052.82	9015.00	48.50	46.20	14.45	2322.12	-550.22	1370.70	1319.88	26.97	
13300.00	10351.35	11152.81	9015.00	50.11	47.85	14.45	2422.11	-550.51	1369.66	1317.43	26.22	
13400.00	10350.36	11252.81	9015.00	51.73	49.51	14.45	2522.11	-550.80	1368.63	1314.96	25.50	
13500.00	10349.36	11352.80	9015.00	53.36	51.19	14.45	2622.10	-551.09	1367.59	1312.48	24.81	
13600.00	10348.37	11452.80	9015.00	55.01	52.87	14.44	2722.10	-551.38	1366.56	1309.99	24.16	
13700.00	10347.37	11552.79	9015.00	56.67	54.56	14.44	2822.09	-551.66	1365.52	1307.48	23.53	
13800.00	10346.38	11652.79	9015.00	58.34	56.26	14.44	2922.08	-551.95	1364.49	1304.96	22.92	
13900.00	10345.38	11752.78	9015.00	60.01	57.97	14.44	3022.08	-552.24	1363.45	1302.43	22.34	
14000.00	10344.39	11852.78	9015.00	61.70	59.69	14.44	3122.07	-552.53	1362.42	1299.89	21.79	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 8
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #139H
Well: #139H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Distance ft	Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft					
14100.00	10343.39	11952.77	9015.00	63.39	61.41	14.44	3222.07	-552.82	1361.38	1297.34	21.26		
14200.00	10342.39	12052.77	9015.00	65.09	63.14	14.44	3322.06	-553.11	1360.34	1294.78	20.75		
14300.00	10341.40	12152.76	9015.00	66.80	64.88	14.44	3422.06	-553.39	1359.31	1292.22	20.26		
14400.00	10340.40	12252.75	9015.00	68.52	66.61	14.43	3522.05	-553.68	1358.27	1289.65	19.79		
14500.00	10339.41	12352.75	9015.00	70.23	68.36	14.43	3622.04	-553.97	1357.24	1287.07	19.34		
14600.00	10338.41	12452.74	9015.00	71.96	70.10	14.43	3722.04	-554.26	1356.20	1284.48	18.91		
14700.00	10337.42	12552.74	9015.00	73.69	71.86	14.43	3822.03	-554.55	1355.17	1281.89	18.49		
14800.00	10336.42	12652.73	9015.00	75.42	73.61	14.43	3922.03	-554.83	1354.13	1279.29	18.09		
14900.00	10335.43	12752.73	9015.00	77.16	75.37	14.43	4022.02	-555.12	1353.10	1276.69	17.71		

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Distance ft	Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft					
0.00	0.00	10.00	-10.00	0.00	0.01	271.27	10.97	-493.61	493.73	493.72	58577.29		
100.00	100.00	90.00	90.00	0.08	0.08	271.27	10.97	-493.61	493.73	493.57	3083.02		
200.00	200.00	190.00	190.00	0.31	0.29	271.27	10.97	-493.61	493.73	493.14	828.92		
300.00	300.00	290.00	290.00	0.53	0.51	271.27	10.97	-493.61	493.73	492.69	472.40		
400.00	400.00	390.00	390.00	0.76	0.74	271.27	10.97	-493.61	493.73	492.24	330.32		
500.00	500.00	490.00	490.00	0.98	0.96	271.27	10.97	-493.61	493.73	491.79	253.95		
600.00	600.00	590.00	590.00	1.21	1.19	271.27	10.97	-493.61	493.73	491.34	206.26		
700.00	700.00	690.00	690.00	1.43	1.41	271.27	10.97	-493.61	493.73	490.89	173.65		
800.00	800.00	790.00	790.00	1.66	1.64	271.27	10.97	-493.61	493.73	490.44	149.94		
900.00	900.00	890.00	890.00	1.88	1.86	271.27	10.97	-493.61	493.73	489.99	131.93		
1000.00	1000.00	990.00	990.00	2.11	2.08	271.27	10.97	-493.61	493.73	489.54	117.78		
1100.00	1100.00	1090.00	1090.00	2.33	2.31	271.27	10.97	-493.61	493.73	489.09	106.38		
1200.00	1200.00	1190.00	1190.00	2.56	2.53	271.27	10.97	-493.61	493.73	488.64	96.98		
1300.00	1300.00	1290.00	1290.00	2.78	2.76	271.27	10.97	-493.61	493.73	488.19	89.11		
1400.00	1400.00	1390.00	1390.00	3.01	2.98	271.27	10.97	-493.61	493.73	487.74	82.43		
1500.00	1500.00	1490.00	1490.00	3.23	3.21	271.27	10.97	-493.61	493.73	487.29	76.67		
1600.00	1600.00	1590.00	1590.00	3.46	3.43	271.27	10.97	-493.61	493.73	486.84	71.67		
1700.00	1700.00	1690.00	1690.00	3.68	3.66	271.27	10.97	-493.61	493.73	486.39	67.28		
1800.00	1800.00	1790.00	1790.00	3.91	3.88	271.27	10.97	-493.61	493.73	485.94	63.40		
1900.00	1900.00	1890.00	1890.00	4.13	4.11	271.27	10.97	-493.61	493.73	485.49	59.94		
2000.00	2000.00	1990.00	1990.00	4.35	4.33	271.27	10.97	-493.61	493.73	485.04	56.83		
2100.00	2100.00	2090.00	2090.00	4.58	4.56	271.27	10.97	-493.61	493.73	484.60	54.04		
2200.00	2200.00	2190.00	2190.00	4.80	4.78	271.27	10.97	-493.61	493.73	484.15	51.50		
2300.00	2300.00	2290.00	2290.00	5.03	5.01	271.27	10.97	-493.61	493.73	483.70	49.20		
2400.00	2400.00	2390.00	2390.00	5.25	5.23	271.27	10.97	-493.61	493.73	483.25	47.09		
2500.00	2500.00	2490.00	2490.00	5.48	5.46	271.27	10.97	-493.61	493.73	482.80	45.15		
2600.00	2600.00	2590.00	2590.00	5.70	5.68	271.27	10.97	-493.61	493.73	482.35	43.37		
2700.00	2700.00	2690.00	2690.00	5.93	5.91	271.27	10.97	-493.61	493.73	481.90	41.72		
2800.00	2800.00	2790.00	2790.00	6.15	6.13	271.27	10.97	-493.61	493.73	481.45	40.19		
2900.00	2900.00	2890.00	2890.00	6.38	6.36	271.27	10.97	-493.61	493.73	481.00	38.78		
3000.00	3000.00	2990.00	2990.00	6.60	6.58	271.27	10.97	-493.61	493.73	480.55	37.45		
3100.00	3100.00	3090.00	3090.00	6.83	6.80	271.27	10.97	-493.61	493.73	480.10	36.22		
3200.00	3200.00	3190.00	3190.00	7.05	7.03	271.27	10.97	-493.61	493.73	479.65	35.06		
3300.00	3300.00	3290.00	3290.00	7.28	7.25	271.27	10.97	-493.61	493.73	479.20	33.98		
3400.00	3400.00	3390.00	3390.00	7.50	7.48	271.27	10.97	-493.61	493.73	478.75	32.96		



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 9

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning.
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
3500.00	3500.00	3490.00	3490.00	7.73	7.70	271.27	10.97	-493.61	493.73	478.30	32.00	
3600.00	3600.00	3590.00	3590.00	7.95	7.93	271.27	10.97	-493.61	493.73	477.85	31.09	
3700.00	3700.00	3690.00	3690.00	8.18	8.15	271.27	10.97	-493.61	493.73	477.40	30.24	
3800.00	3800.00	3790.00	3790.00	8.40	8.38	271.27	10.97	-493.61	493.73	476.95	29.43	
3900.00	3900.00	3890.00	3890.00	8.63	8.60	271.27	10.97	-493.61	493.73	476.50	28.66	
4000.00	4000.00	3990.00	3990.00	8.85	8.83	271.27	10.97	-493.61	493.73	476.05	27.93	
4100.00	4100.00	4090.00	4090.00	9.07	9.05	271.27	10.97	-493.61	493.73	475.60	27.24	
4200.00	4200.00	4190.00	4190.00	9.30	9.28	271.27	10.97	-493.61	493.73	475.15	26.58	
4300.00	4300.00	4290.00	4290.00	9.52	9.50	271.27	10.97	-493.61	493.73	474.71	25.95	
4400.00	4400.00	4390.00	4390.00	9.75	9.73	271.27	10.97	-493.61	493.73	474.26	25.35	
4500.00	4500.00	4490.00	4490.00	9.97	9.95	271.27	10.97	-493.61	493.73	473.81	24.78	
4600.00	4600.00	4590.00	4590.00	10.20	10.18	271.27	10.97	-493.61	493.73	473.36	24.23	
4700.00	4700.00	4690.00	4690.00	10.42	10.40	271.27	10.97	-493.61	493.73	472.91	23.71	
4800.00	4800.00	4790.00	4790.00	10.65	10.63	271.27	10.97	-493.61	493.73	472.46	23.21	
4900.00	4900.00	4890.00	4890.00	10.87	10.85	271.27	10.97	-493.61	493.73	472.01	22.73	
5000.00	5000.00	4990.00	4990.00	11.10	11.08	271.27	10.97	-493.61	493.73	471.56	22.27	
5100.00	5100.00	5090.00	5090.00	11.32	11.30	271.27	10.97	-493.61	493.73	471.11	21.82	
5200.00	5200.00	5190.00	5190.00	11.55	11.52	271.27	10.97	-493.61	493.73	470.66	21.40	
5300.00	5300.00	5290.00	5290.00	11.77	11.75	271.27	10.97	-493.61	493.73	470.21	20.99	
5400.00	5400.00	5390.00	5390.00	12.00	11.97	271.27	10.97	-493.61	493.73	469.76	20.60	
5500.00	5500.00	5490.00	5490.00	12.22	12.20	271.27	10.97	-493.61	493.73	469.31	20.22	
5600.00	5600.00	5590.00	5590.00	12.45	12.42	271.27	10.97	-493.61	493.73	468.86	19.85	
5700.00	5700.00	5690.00	5690.00	12.67	12.65	271.27	10.97	-493.61	493.73	468.41	19.50	
5800.00	5800.00	5790.00	5790.00	12.90	12.87	271.27	10.97	-493.61	493.73	467.96	19.16	
5900.00	5900.00	5890.00	5890.00	13.12	13.10	271.27	10.97	-493.61	493.73	467.51	18.83	
6000.00	6000.00	5990.00	5990.00	13.35	13.32	271.27	10.97	-493.61	493.73	467.06	18.51	
6100.00	6100.00	6090.00	6090.00	13.57	13.55	271.27	10.97	-493.61	493.73	466.61	18.21	
6200.00	6200.00	6190.00	6190.00	13.80	13.77	271.27	10.97	-493.61	493.73	466.16	17.91	
6300.00	6300.00	6290.00	6290.00	14.02	14.00	271.27	10.97	-493.61	493.73	465.71	17.62	
6400.00	6400.00	6390.00	6390.00	14.24	14.22	271.27	10.97	-493.61	493.73	465.27	17.34	
6500.00	6500.00	6490.00	6490.00	14.47	14.45	271.27	10.97	-493.61	493.73	464.82	17.07	
6600.00	6600.00	6590.00	6590.00	14.69	14.67	271.27	10.97	-493.61	493.73	464.37	16.81	
6700.00	6700.00	6690.00	6690.00	14.92	14.90	271.27	10.97	-493.61	493.73	463.92	16.56	
6800.00	6800.00	6790.00	6790.00	15.14	15.12	271.27	10.97	-493.61	493.73	463.47	16.31	
6900.00	6900.00	6890.00	6890.00	15.37	15.35	271.27	10.97	-493.61	493.73	463.02	16.07	
7000.00	7000.00	6990.00	6990.00	15.59	15.57	271.27	10.97	-493.61	493.73	462.57	15.84	
7100.00	7100.00	7090.00	7090.00	15.82	15.80	271.27	10.97	-493.61	493.73	462.12	15.62	
7200.00	7200.00	7190.00	7190.00	16.04	16.02	271.27	10.97	-493.61	493.73	461.67	15.40	
7300.00	7300.00	7290.00	7290.00	16.27	16.24	271.27	10.97	-493.61	493.73	461.22	15.19	
7400.00	7400.00	7390.00	7390.00	16.49	16.47	271.27	10.97	-493.61	493.73	460.77	14.98	
7500.00	7500.00	7490.00	7490.00	16.72	16.69	271.27	10.97	-493.61	493.73	460.32	14.78	
7600.00	7600.00	7590.00	7590.00	16.94	16.92	271.27	10.97	-493.61	493.73	459.87	14.58	
7700.00	7700.00	7690.00	7690.00	17.17	17.14	271.27	10.97	-493.61	493.73	459.42	14.39	
7800.00	7800.00	7790.00	7790.00	17.39	17.37	271.27	10.97	-493.61	493.73	458.97	14.20	
7900.00	7900.00	7890.00	7890.00	17.62	17.59	271.27	10.97	-493.61	493.73	458.52	14.02	
8000.00	8000.00	7990.00	7990.00	17.84	17.82	271.27	10.97	-493.61	493.73	458.07	13.85	
8100.00	8100.00	8237.25	8234.17	18.07	18.32	270.54	4.35	-464.48	486.36	450.58	13.59	
8200.00	8200.00	8503.11	8463.84	18.29	19.09	265.88	-24.30	-337.53	435.33	401.01	12.68	
8300.00	8300.00	8583.52	8525.82	18.52	19.42	264.27	-28.78	-286.58	372.24	337.57	10.74	
8400.00	8400.00	8663.82	8587.67	18.74	19.75	264.40	-23.13	-235.76	308.53	273.54	8.82	
8500.00	8500.00	8741.55	8646.56	18.96	20.06	267.52	-8.11	-187.40	244.33	208.97	6.91	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 10
Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation Distance ft	Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft			
8600.00	8600.00	8814.66	8700.31	19.19	20.32	275.74	14.40	-143.29	181.41	145.37	5.03		
8700.00	8700.00	8881.85	8747.66	19.41	20.55	291.89	41.98	-104.47	126.49	88.71	3.35		
8800.00	8800.00	8942.49	8788.26	19.64	20.75	315.44	72.29	-71.20	101.48	61.14	2.52		
8900.00	8900.00	8996.56	8822.44	19.86	20.92	337.33	103.42	-43.20	130.87	91.59	3.33		
9000.00	9000.00	9044.41	8850.91	20.09	21.07	351.55	134.01	-19.91	194.17	156.62	5.17		
9100.00	9100.00	9086.60	8874.47	20.31	21.20	-0.22	163.21	-0.63	270.35	233.72	7.38		
9200.00	9200.00	9123.77	8893.96	20.54	21.31	4.59	190.55	15.30	352.40	316.23	9.74		
9290.22	9290.22	9153.52	8908.65	20.74	21.41	7.29	213.47	27.30	429.39	393.46	11.95		
9300.00	9300.00	9156.50	8910.08	20.76	21.42	141.33	215.82	28.46	437.90	401.99	12.19		
9350.00	9349.89	9169.82	8916.34	20.85	21.46	135.98	226.40	33.58	482.63	446.85	13.49		
9400.00	9399.33	9180.03	8921.03	20.93	21.49	128.09	234.62	37.41	529.04	493.38	14.83		
9450.00	9447.94	9187.32	8924.32	21.02	21.51	116.33	240.55	40.09	576.66	541.03	16.18		
9500.00	9495.34	9191.89	8926.35	21.11	21.53	99.44	244.29	41.75	625.04	589.33	17.50		
9550.00	9541.19	9193.93	8927.25	21.21	21.53	78.48	245.97	42.48	673.78	638.07	18.87		
9600.00	9585.13	9193.63	8927.12	21.31	21.53	58.30	245.72	42.37	722.51	687.18	20.45		
9650.00	9626.82	9191.15	8926.02	21.43	21.52	42.88	243.69	41.48	770.88	736.26	22.26		
9700.00	9665.95	9186.66	8924.02	21.56	21.51	32.27	240.01	39.84	818.60	784.76	24.19		
9750.00	9702.22	9180.28	8921.15	21.72	21.49	25.06	234.82	37.50	865.37	832.30	26.17		
9800.00	9735.35	9172.16	8917.42	21.91	21.46	20.02	228.27	34.46	910.93	878.60	28.17		
9850.00	9765.10	9162.40	8912.87	22.13	21.43	16.39	220.48	30.75	955.05	923.39	30.17		
9874.52	9778.38	9150.00	8906.96	22.25	21.40	14.59	210.72	25.91	976.14	944.76	31.11		
9900.00	9791.94	9150.00	8906.96	22.39	21.40	17.23	210.72	25.91	997.85	966.11	31.44		
9950.00	9819.70	9150.00	8906.96	22.69	21.40	22.80	210.72	25.91	1041.14	1008.59	31.99		
10000.00	9848.84	9134.02	8899.12	22.99	21.35	27.14	198.35	19.51	1084.74	1051.31	32.44		
10050.00	9879.13	9127.68	8895.94	23.29	21.33	31.83	193.52	16.92	1128.56	1094.21	32.86		
10100.00	9910.34	9122.91	8893.52	23.58	21.31	35.92	189.91	14.94	1172.25	1137.03	33.29		
10150.00	9942.23	9119.67	8891.87	23.84	21.30	39.17	187.47	13.59	1215.54	1179.54	33.77		
10200.00	9974.56	9117.95	8890.99	24.07	21.30	41.50	186.18	12.87	1258.19	1221.55	34.34		
10250.00	10007.08	9117.74	8890.88	24.27	21.30	42.94	186.02	12.79	1299.96	1262.81	34.99		
10300.00	10039.55	9119.03	8891.55	24.41	21.30	43.60	186.99	13.33	1340.64	1303.12	35.73		
10350.00	10071.71	9121.82	8892.97	24.51	21.31	43.65	189.09	14.49	1380.02	1342.26	36.54		
10400.00	10103.33	9126.13	8895.15	24.57	21.32	43.25	192.34	16.27	1417.90	1380.00	37.42		
10450.00	10134.17	9131.95	8898.08	24.58	21.34	42.55	196.77	18.67	1454.09	1416.16	38.34		
10500.00	10163.98	9139.33	8901.75	24.56	21.36	41.68	202.44	21.66	1488.40	1450.53	39.30		
10550.00	10192.54	9150.00	8906.96	24.51	21.40	40.81	210.72	25.91	1520.68	1482.95	40.30		
10600.00	10219.63	9158.85	8911.19	24.45	21.42	39.79	217.67	29.37	1550.75	1513.22	41.32		
10650.00	10245.06	9171.04	8916.91	24.37	21.46	38.89	227.37	34.04	1578.45	1541.18	42.35		
10700.00	10268.61	9184.89	8923.23	24.28	21.50	38.07	238.57	39.20	1603.64	1566.67	43.37		
10750.00	10290.13	9200.00	8929.90	24.20	21.55	37.35	250.98	44.65	1626.17	1589.52	44.38		
10800.00	10309.43	9217.66	8937.42	24.13	21.61	36.76	265.74	50.77	1645.89	1609.58	45.33		
10850.00	10326.38	9236.57	8945.11	24.06	21.66	36.28	281.84	57.04	1662.68	1626.71	46.23		
10900.00	10340.84	9257.14	8953.05	24.00	21.73	35.92	299.68	63.51	1676.40	1640.75	47.02		
10950.00	10352.71	9279.32	8961.12	23.95	21.80	35.67	319.27	70.08	1686.96	1651.58	47.68		
11000.00	10361.89	9300.00	8968.15	23.91	21.86	35.49	337.85	75.80	1694.24	1659.09	48.19		
11050.00	10368.32	9328.09	8976.96	23.87	21.95	35.52	363.54	82.96	1698.14	1663.10	48.46		
11100.00	10371.95	9350.00	8983.22	23.83	22.02	35.54	383.91	88.03	1698.62	1663.63	48.55		
11147.74	10372.77	9380.43	8991.00	23.80	22.12	35.75	412.65	94.34	1695.79	1660.70	48.33		
11200.00	10372.25	9409.78	8997.50	24.05	22.21	36.03	440.78	99.59	1691.31	1655.82	47.66		
11300.00	10371.25	9468.02	9007.40	24.58	22.40	36.46	497.60	107.53	1684.72	1648.40	46.38		
11400.00	10370.26	9528.28	9013.37	25.23	22.60	36.72	557.36	112.25	1680.59	1643.35	45.13		
11500.00	10369.26	9595.48	9015.00	25.99	22.90	36.80	624.50	113.37	1678.77	1640.55	43.91		



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 11
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit #140H
Well: #140H
Wellpath: 1 V0 Plan: Plan #2 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
11600.00	10368.27	9695.47	9015.00	26.85	23.74	36.81	724.49	113.04	1677.78	1638.36	42.57	
11700.00	10367.27	9795.47	9015.00	27.81	24.68	36.82	824.49	112.72	1676.79	1636.07	41.18	
11800.00	10366.28	9895.46	9015.00	28.85	25.72	36.84	924.48	112.39	1675.80	1633.66	39.77	
11900.00	10365.28	9995.46	9015.00	29.96	26.84	36.85	1024.48	112.06	1674.81	1631.16	38.38	
12000.00	10364.29	10095.45	9015.00	31.14	28.03	36.86	1124.47	111.74	1673.81	1628.57	37.00	
12100.00	10363.29	10195.45	9015.00	32.38	29.30	36.87	1224.46	111.41	1672.82	1625.91	35.66	
12200.00	10362.30	10295.44	9015.00	33.67	30.61	36.88	1324.46	111.08	1671.83	1623.17	34.36	
12300.00	10361.30	10395.44	9015.00	35.00	31.98	36.89	1424.45	110.76	1670.84	1620.37	33.11	
12400.00	10360.31	10495.43	9015.00	36.39	33.39	36.90	1524.45	110.43	1669.85	1617.51	31.91	
12500.00	10359.31	10595.43	9015.00	37.80	34.84	36.92	1624.44	110.10	1668.85	1614.61	30.76	
12600.00	10358.32	10695.42	9015.00	39.26	36.33	36.93	1724.43	109.78	1667.86	1611.65	29.67	
12700.00	10357.32	10795.41	9015.00	40.74	37.84	36.94	1824.43	109.45	1666.87	1608.66	28.63	
12800.00	10356.33	10895.41	9015.00	42.25	39.38	36.95	1924.42	109.12	1665.88	1605.63	27.65	
12900.00	10355.33	10995.40	9015.00	43.78	40.94	36.96	2024.42	108.80	1664.89	1602.56	26.71	
13000.00	10354.34	11095.40	9015.00	45.33	42.53	36.97	2124.41	108.47	1663.90	1599.46	25.82	
13100.00	10353.34	11195.39	9015.00	46.91	44.13	36.99	2224.40	108.15	1662.91	1596.34	24.98	
13200.00	10352.35	11295.39	9015.00	48.50	45.75	37.00	2324.40	107.82	1661.91	1593.19	24.18	
13300.00	10351.35	11395.38	9015.00	50.11	47.39	37.01	2424.39	107.49	1660.92	1590.02	23.42	
13400.00	10350.36	11495.38	9015.00	51.73	49.03	37.02	2524.39	107.17	1659.93	1586.82	22.71	
13500.00	10349.36	11595.37	9015.00	53.36	50.70	37.03	2624.38	106.84	1658.94	1583.61	22.02	
13600.00	10348.37	11695.37	9015.00	55.01	52.37	37.04	2724.37	106.51	1657.95	1580.38	21.37	
13700.00	10347.37	11795.36	9015.00	56.67	54.05	37.06	2824.37	106.19	1656.96	1577.13	20.76	
13800.00	10346.38	11895.35	9015.00	58.34	55.74	37.07	2924.36	105.86	1655.97	1573.87	20.17	
13900.00	10345.38	11995.35	9015.00	60.01	57.44	37.08	3024.36	105.53	1654.98	1570.60	19.61	
14000.00	10344.39	12095.34	9015.00	61.70	59.15	37.09	3124.35	105.21	1653.99	1567.31	19.08	
14100.00	10343.39	12195.34	9015.00	63.39	60.86	37.10	3224.34	104.88	1653.00	1564.01	18.57	
14200.00	10342.39	12295.33	9015.00	65.09	62.58	37.11	3324.34	104.55	1652.01	1560.69	18.09	
14300.00	10341.40	12395.33	9015.00	66.80	64.31	37.13	3424.33	104.23	1651.02	1557.37	17.63	
14400.00	10340.40	12495.32	9015.00	68.52	66.04	37.14	3524.33	103.90	1650.03	1554.04	17.19	
14500.00	10339.41	12595.32	9015.00	70.23	67.77	37.15	3624.32	103.57	1649.04	1550.70	16.77	
14600.00	10338.41	12695.31	9015.00	71.96	69.52	37.16	3724.31	103.25	1648.05	1547.35	16.37	
14700.00	10337.42	12795.31	9015.00	73.69	71.26	37.17	3824.31	102.92	1647.06	1543.99	15.98	
14800.00	10336.42	12895.30	9015.00	75.42	73.01	37.19	3924.30	102.59	1646.07	1540.62	15.61	
14900.00	10335.43	12995.29	9015.00	77.16	74.76	37.20	4024.30	102.27	1645.08	1537.25	15.26	

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 168H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
0.00	0.00	24.00	24.00	0.00	0.02	356.91	4769.51	-257.33	4776.45			No Data
100.00	100.00	124.00	124.00	0.08	0.14	356.91	4769.51	-257.33	4776.45	4776.22	21465.41	
200.00	200.00	224.00	224.00	0.31	0.36	356.91	4769.51	-257.33	4776.45	4775.77	7107.27	
300.00	300.00	324.00	324.00	0.53	0.59	356.91	4769.51	-257.33	4776.45	4775.33	4258.67	
400.00	400.00	424.00	424.00	0.76	0.81	356.91	4769.51	-257.33	4776.45	4774.88	3040.16	
500.00	500.00	524.00	524.00	0.98	1.04	356.91	4769.51	-257.33	4776.45	4774.43	2363.82	
600.00	600.00	624.00	624.00	1.21	1.26	356.91	4769.51	-257.33	4776.45	4773.98	1933.64	
700.00	700.00	724.00	724.00	1.43	1.49	356.91	4769.51	-257.33	4776.45	4773.53	1635.93	
800.00	800.00	824.00	824.00	1.66	1.71	356.91	4769.51	-257.33	4776.45	4773.08	1417.66	
900.00	900.00	924.00	924.00	1.88	1.94	356.91	4769.51	-257.33	4776.45	4772.63	1250.78	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 12

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 168H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference		Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Edge		Separation	Warning
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor	
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
1000.00	1000.00	1024.00	1024.00	2.11	2.16	356.91	4769.51	-257.33	4776.45	4772.18	1119.05	
1100.00	1100.00	1124.00	1124.00	2.33	2.39	356.91	4769.51	-257.33	4776.45	4771.73	1012.42	
1200.00	1200.00	1224.00	1224.00	2.56	2.61	356.91	4769.51	-257.33	4776.45	4771.28	924.35	
1300.00	1300.00	1324.00	1324.00	2.78	2.84	356.91	4769.51	-257.33	4776.45	4770.83	850.37	
1400.00	1400.00	1424.00	1424.00	3.01	3.06	356.91	4769.51	-257.33	4776.45	4770.38	787.36	
1500.00	1500.00	1524.00	1524.00	3.23	3.28	356.91	4769.51	-257.33	4776.45	4769.93	733.04	
1600.00	1600.00	1624.00	1624.00	3.46	3.51	356.91	4769.51	-257.33	4776.45	4769.48	685.73	
1700.00	1700.00	1724.00	1724.00	3.68	3.73	356.91	4769.51	-257.33	4776.45	4769.03	644.16	
1800.00	1800.00	1824.00	1824.00	3.91	3.96	356.91	4769.51	-257.33	4776.45	4768.58	607.34	
1900.00	1900.00	1924.00	1924.00	4.13	4.18	356.91	4769.51	-257.33	4776.45	4768.13	574.50	
2000.00	2000.00	2024.00	2024.00	4.35	4.41	356.91	4769.51	-257.33	4776.45	4767.68	545.03	
2100.00	2100.00	2124.00	2124.00	4.58	4.63	356.91	4769.51	-257.33	4776.45	4767.23	518.44	
2200.00	2200.00	2224.00	2224.00	4.80	4.86	356.91	4769.51	-257.33	4776.45	4766.78	494.32	
2300.00	2300.00	2324.00	2324.00	5.03	5.08	356.91	4769.51	-257.33	4776.45	4766.33	472.34	
2400.00	2400.00	2424.00	2424.00	5.25	5.31	356.91	4769.51	-257.33	4776.45	4765.89	452.24	
2500.00	2500.00	2524.00	2524.00	5.48	5.53	356.91	4769.51	-257.33	4776.45	4765.44	433.78	
2600.00	2600.00	2624.00	2624.00	5.70	5.76	356.91	4769.51	-257.33	4776.45	4764.99	416.76	
2700.00	2700.00	2724.00	2724.00	5.93	5.98	356.91	4769.51	-257.33	4776.45	4764.54	401.03	
2800.00	2800.00	2824.00	2824.00	6.15	6.21	356.91	4769.51	-257.33	4776.45	4764.09	386.45	
2900.00	2900.00	2924.00	2924.00	6.38	6.43	356.91	4769.51	-257.33	4776.45	4763.64	372.89	
3000.00	3000.00	3024.00	3024.00	6.60	6.66	356.91	4769.51	-257.33	4776.45	4763.19	360.24	
3100.00	3100.00	3124.00	3124.00	6.83	6.88	356.91	4769.51	-257.33	4776.45	4762.74	348.43	
3200.00	3200.00	3224.00	3224.00	7.05	7.11	356.91	4769.51	-257.33	4776.45	4762.29	337.37	
3300.00	3300.00	3324.00	3324.00	7.28	7.33	356.91	4769.51	-257.33	4776.45	4761.84	326.98	
3400.00	3400.00	3424.00	3424.00	7.50	7.56	356.91	4769.51	-257.33	4776.45	4761.39	317.22	
3500.00	3500.00	12812.48	8200.00	7.73	84.88	278.68	133.11	-871.43	4758.37	4711.81	102.20	
3600.00	3600.00	12812.48	8200.00	7.95	84.88	278.68	133.11	-871.43	4660.14	4613.25	99.40	
3700.00	3700.00	12812.48	8200.00	8.18	84.88	278.68	133.11	-871.43	4561.98	4514.77	96.62	
3800.00	3800.00	12812.48	8200.00	8.40	84.88	278.68	133.11	-871.43	4463.91	4416.36	93.87	
3900.00	3900.00	12812.48	8200.00	8.63	84.88	278.68	133.11	-871.43	4365.92	4318.02	91.15	
4000.00	4000.00	12812.48	8200.00	8.85	84.88	278.68	133.11	-871.43	4268.03	4219.78	88.45	
4100.00	4100.00	12812.48	8200.00	9.07	84.88	278.68	133.11	-871.43	4170.24	4121.62	85.78	
4200.00	4200.00	12812.48	8200.00	9.30	84.88	278.68	133.11	-871.43	4072.55	4023.57	83.14	
4300.00	4300.00	12812.48	8200.00	9.52	84.88	278.68	133.11	-871.43	3974.98	3925.61	80.52	
4400.00	4400.00	12812.48	8200.00	9.75	84.88	278.68	133.11	-871.43	3877.54	3827.77	77.92	
4500.00	4500.00	12812.48	8200.00	9.97	84.88	278.68	133.11	-871.43	3780.22	3730.05	75.35	
4600.00	4600.00	12812.48	8200.00	10.20	84.88	278.68	133.11	-871.43	3683.05	3632.47	72.80	
4700.00	4700.00	12812.48	8200.00	10.42	84.88	278.68	133.11	-871.43	3586.04	3535.02	70.28	
4800.00	4800.00	12812.48	8200.00	10.65	84.88	278.68	133.11	-871.43	3489.20	3437.72	67.78	
4900.00	4900.00	12812.48	8200.00	10.87	84.88	278.68	133.11	-871.43	3392.53	3340.59	65.31	
5000.00	5000.00	12812.48	8200.00	11.10	84.88	278.68	133.11	-871.43	3296.07	3243.63	62.86	
5100.00	5100.00	12812.48	8200.00	11.32	84.88	278.68	133.11	-871.43	3199.83	3146.88	60.43	
5200.00	5200.00	12812.48	8200.00	11.55	84.88	278.68	133.11	-871.43	3103.82	3050.33	58.03	
5300.00	5300.00	12812.48	8200.00	11.77	84.88	278.68	133.11	-871.43	3008.07	2954.02	55.65	
5400.00	5400.00	12812.48	8200.00	12.00	84.88	278.68	133.11	-871.43	2912.61	2857.96	53.30	
5500.00	5500.00	12812.48	8200.00	12.22	84.88	278.68	133.11	-871.43	2817.46	2762.18	50.97	
5600.00	5600.00	12812.48	8200.00	12.45	84.88	278.68	133.11	-871.43	2722.66	2666.72	48.67	
5700.00	5700.00	12812.48	8200.00	12.67	84.88	278.68	133.11	-871.43	2628.25	2571.59	46.39	
5800.00	5800.00	12812.48	8200.00	12.90	84.88	278.68	133.11	-871.43	2534.26	2476.85	44.14	
5900.00	5900.00	12812.48	8200.00	13.12	84.88	278.68	133.11	-871.43	2440.75	2382.53	41.92	
6000.00	6000.00	12812.48	8200.00	13.35	84.88	278.68	133.11	-871.43	2347.78	2288.69	39.73	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath#:

Date: 5/9/2013

Time: 12:13:02

Page: 13

Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 168H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	Reference TVD	Offset MD	Offset TVD	Semi-Major Axis Ref	Offset	TFO-HS	Offset Location North	Offset Location East	Ctr-Ctr Edge Distance	Separation Distance	Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
6100.00	6100.00	12812.48	8200.00	13.57	84.88	278.68	133.11	-871.43	2255.41	2195.37	37.57	
6200.00	6200.00	12812.48	8200.00	13.80	84.88	278.68	133.11	-871.43	2163.72	2102.67	35.44	
6300.00	6300.00	12812.48	8200.00	14.02	84.88	278.68	133.11	-871.43	2072.80	2010.64	33.35	
6400.00	6400.00	12812.48	8200.00	14.24	84.88	278.68	133.11	-871.43	1982.75	1919.39	31.30	
6500.00	6500.00	12812.48	8200.00	14.47	84.88	278.68	133.11	-871.43	1893.70	1829.03	29.28	
6600.00	6600.00	12812.48	8200.00	14.69	84.88	278.68	133.11	-871.43	1805.79	1739.70	27.32	
6700.00	6700.00	12812.48	8200.00	14.92	84.88	278.68	133.11	-871.43	1719.21	1651.54	25.41	
6800.00	6800.00	12812.48	8200.00	15.14	84.88	278.68	133.11	-871.43	1634.16	1564.77	23.55	
6900.00	6900.00	12812.48	8200.00	15.37	84.88	278.68	133.11	-871.43	1550.90	1479.61	21.76	
7000.00	7000.00	12812.48	8200.00	15.59	84.88	278.68	133.11	-871.43	1469.72	1396.35	20.03	
7100.00	7100.00	12812.48	8200.00	15.82	84.88	278.68	133.11	-871.43	1391.00	1315.35	18.39	
7200.00	7200.00	12812.48	8200.00	16.04	84.88	278.68	133.11	-871.43	1315.17	1237.03	16.83	
7300.00	7300.00	12812.48	8200.00	16.27	84.88	278.68	133.11	-871.43	1242.77	1161.91	15.37	
7400.00	7400.00	12812.48	8200.00	16.49	84.88	278.68	133.11	-871.43	1174.43	1090.66	14.02	
7500.00	7500.00	12812.48	8200.00	16.72	84.88	278.68	133.11	-871.43	1110.89	1024.04	12.79	
7600.00	7600.00	12812.48	8200.00	16.94	84.88	278.68	133.11	-871.43	1053.04	963.00	11.70	
7700.00	7700.00	12812.48	8200.00	17.17	84.88	278.68	133.11	-871.43	1001.84	908.62	10.75	
7800.00	7800.00	12812.48	8200.00	17.39	84.88	278.68	133.11	-871.43	958.38	862.11	9.96	
7900.00	7900.00	12812.48	8200.00	17.62	84.88	278.68	133.11	-871.43	923.73	824.76	9.33	
8000.00	8000.00	12812.48	8200.00	17.84	84.88	278.68	133.11	-871.43	898.94	797.79	8.89	
8100.00	8100.00	12812.48	8200.00	18.07	84.88	278.68	133.11	-871.43	884.81	782.22	8.62	
8200.00	8200.00	12812.48	8200.00	18.29	84.88	278.68	133.11	-871.43	881.86	778.70	8.55	
8300.00	8300.00	12812.48	8200.00	18.52	84.88	278.68	133.11	-871.43	890.22	787.38	8.66	
8400.00	8400.00	12812.48	8200.00	18.74	84.88	278.68	133.11	-871.43	909.55	807.86	8.94	
8500.00	8500.00	12812.48	8200.00	18.96	84.88	278.68	133.11	-871.43	939.19	839.32	9.40	
8600.00	8600.00	12812.48	8200.00	19.19	84.88	278.68	133.11	-871.43	978.20	880.61	10.02	
8700.00	8700.00	12812.48	8200.00	19.41	84.88	278.68	133.11	-871.43	1025.52	930.46	10.79	
8800.00	8800.00	12812.48	8200.00	19.64	84.88	278.68	133.11	-871.43	1080.04	987.62	11.69	
8900.00	8900.00	12812.48	8200.00	19.86	84.88	278.68	133.11	-871.43	1140.74	1050.92	12.70	
9000.00	9000.00	12812.48	8200.00	20.09	84.88	278.68	133.11	-871.43	1206.68	1119.35	13.82	
9100.00	9100.00	12812.48	8200.00	20.31	84.88	278.68	133.11	-871.43	1277.06	1192.05	15.02	
9200.00	9200.00	12812.48	8200.00	20.54	84.88	278.68	133.11	-871.43	1351.18	1268.29	16.30	
9290.22	9290.22	12812.48	8200.00	20.74	84.88	278.68	133.11	-871.43	1420.77	1339.62	17.51	
9300.00	9300.00	12812.48	8200.00	20.76	84.88	52.58	133.11	-871.43	1428.42	1347.46	17.64	
9350.00	9349.89	12812.48	8200.00	20.85	84.88	47.94	133.11	-871.43	1466.93	1386.96	18.34	
9400.00	9399.33	12812.48	8200.00	20.93	84.88	43.91	133.11	-871.43	1504.25	1425.37	19.07	
9450.00	9447.94	12812.48	8200.00	21.02	84.88	40.43	133.11	-871.43	1540.21	1462.50	19.82	
9500.00	9495.34	12812.48	8200.00	21.11	84.88	37.45	133.11	-871.43	1574.63	1498.19	20.60	
9550.00	9541.19	12812.48	8200.00	21.21	84.88	34.90	133.11	-871.43	1607.35	1532.27	21.41	
9600.00	9585.13	12812.48	8200.00	21.31	84.88	32.71	133.11	-871.43	1638.24	1564.58	22.24	
9650.00	9626.82	12812.48	8200.00	21.43	84.88	30.84	133.11	-871.43	1667.17	1595.00	23.10	
9700.00	9665.95	12812.48	8200.00	21.56	84.88	29.25	133.11	-871.43	1694.03	1623.38	23.98	
9750.00	9702.22	12812.48	8200.00	21.72	84.88	27.89	133.11	-871.43	1718.71	1649.60	24.87	
9800.00	9735.35	12812.48	8200.00	21.91	84.88	26.74	133.11	-871.43	1741.11	1673.54	25.77	
9850.00	9765.10	12812.48	8200.00	22.13	84.88	25.77	133.11	-871.43	1761.17	1695.11	26.66	
9874.52	9778.38	12812.48	8200.00	22.25	84.88	25.36	133.11	-871.43	1770.13	1704.79	27.09	
9900.00	9791.94	12812.48	8200.00	22.39	84.88	24.90	133.11	-871.43	1779.30	1714.31	27.38	
9950.00	9819.70	12812.48	8200.00	22.69	84.88	23.90	133.11	-871.43	1798.23	1733.94	27.97	
10000.00	9848.84	12812.48	8200.00	22.99	84.88	22.73	133.11	-871.43	1818.25	1754.66	28.60	
10050.00	9879.13	12812.48	8200.00	23.29	84.88	21.39	133.11	-871.43	1839.15	1776.27	29.25	
10100.00	9910.34	12812.48	8200.00	23.58	84.88	19.89	133.11	-871.43	1860.77	1798.57	29.92	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

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Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 168H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
10150.00	9942.23	12812.48	8200.00	23.84	84.88	18.24	133.11	-871.43	1882.91	1821.38	30.60	
10200.00	9974.56	12812.48	8200.00	24.07	84.88	16.48	133.11	-871.43	1905.39	1844.49	31.29	
10250.00	10007.08	12812.48	8200.00	24.27	84.88	14.66	133.11	-871.43	1928.03	1867.74	31.98	
10300.00	10039.55	12812.48	8200.00	24.41	84.88	12.83	133.11	-871.43	1950.65	1890.94	32.67	
10350.00	10071.71	12812.48	8200.00	24.51	84.88	11.03	133.11	-871.43	1973.09	1913.93	33.35	
10400.00	10103.33	12812.48	8200.00	24.57	84.88	9.32	133.11	-871.43	1995.18	1936.55	34.03	
10450.00	10134.17	12812.48	8200.00	24.58	84.88	7.73	133.11	-871.43	2016.77	1958.66	34.70	
10500.00	10163.98	12812.48	8200.00	24.56	84.88	6.30	133.11	-871.43	2037.72	1980.11	35.37	
10550.00	10192.54	12812.48	8200.00	24.51	84.88	5.02	133.11	-871.43	2057.88	2000.76	36.03	
10600.00	10219.63	12812.48	8200.00	24.45	84.88	3.92	133.11	-871.43	2077.13	2020.50	36.68	
10650.00	10245.06	12812.48	8200.00	24.37	84.88	2.98	133.11	-871.43	2095.35	2039.21	37.32	
10700.00	10268.61	12812.48	8200.00	24.28	84.88	2.20	133.11	-871.43	2112.43	2056.76	37.95	
10750.00	10290.13	12812.48	8200.00	24.20	84.88	1.57	133.11	-871.43	2128.27	2073.06	38.55	
10800.00	10309.43	12812.48	8200.00	24.13	84.88	1.08	133.11	-871.43	2142.77	2088.01	39.13	
10850.00	10326.38	12812.48	8200.00	24.06	84.88	0.70	133.11	-871.43	2155.85	2101.50	39.67	
10900.00	10340.84	12812.48	8200.00	24.00	84.88	0.44	133.11	-871.43	2167.45	2113.46	40.14	
10950.00	10352.71	12812.48	8200.00	23.95	84.88	0.28	133.11	-871.43	2177.49	2123.79	40.55	
11000.00	10361.89	12812.48	8200.00	23.91	84.88	0.22	133.11	-871.43	2185.93	2132.43	40.86	
11050.00	10368.32	12773.93	8200.00	23.87	84.19	0.38	171.66	-871.43	2192.37	2139.25	41.27	
11100.00	10371.95	12724.31	8200.00	23.83	83.31	0.50	221.28	-871.43	2196.03	2143.25	41.60	
11147.74	10372.77	12676.62	8200.00	23.80	82.47	0.54	268.97	-871.42	2196.87	2144.27	41.77	
11200.00	10372.25	12624.36	8200.00	24.05	81.54	0.54	321.23	-871.42	2196.35	2143.94	41.91	
11300.00	10371.25	12524.37	8200.00	24.58	79.77	0.54	421.23	-871.42	2195.35	2143.27	42.15	
11400.00	10370.26	12424.37	8200.00	25.23	78.00	0.54	521.22	-871.41	2194.36	2142.58	42.38	
11500.00	10369.26	12324.38	8200.00	25.99	76.23	0.54	621.22	-871.41	2193.36	2141.87	42.60	
11600.00	10368.27	12224.38	8200.00	26.85	74.47	0.54	721.21	-871.40	2192.37	2141.14	42.80	
11700.00	10367.27	12124.39	8200.00	27.81	72.71	0.54	821.21	-871.40	2191.37	2140.39	42.98	
11800.00	10366.28	12024.39	8200.00	28.85	70.95	0.55	921.20	-871.39	2190.38	2139.62	43.15	
11900.00	10365.28	11924.40	8200.00	29.96	69.20	0.55	1021.20	-871.38	2189.38	2138.83	43.31	
12000.00	10364.29	11824.40	8200.00	31.14	67.45	0.55	1121.19	-871.38	2188.39	2138.03	43.46	
12100.00	10363.29	11724.41	8200.00	32.38	65.71	0.55	1221.19	-871.37	2187.39	2137.21	43.59	
12200.00	10362.30	11624.41	8200.00	33.67	63.96	0.55	1321.18	-871.37	2186.40	2136.38	43.71	
12300.00	10361.30	11524.42	8200.00	35.00	62.23	0.55	1421.18	-871.36	2185.40	2135.53	43.82	
12400.00	10360.31	11424.42	8200.00	36.39	60.50	0.55	1521.17	-871.36	2184.41	2134.67	43.92	
12500.00	10359.31	11324.43	8200.00	37.80	58.77	0.55	1621.17	-871.35	2183.41	2133.80	44.01	
12600.00	10358.32	11224.43	8200.00	39.26	57.05	0.55	1721.16	-871.35	2182.42	2132.91	44.09	
12700.00	10357.32	11124.44	8200.00	40.74	55.34	0.55	1821.16	-871.34	2181.42	2132.02	44.15	
12800.00	10356.33	11024.44	8200.00	42.25	53.64	0.55	1921.15	-871.34	2180.43	2131.11	44.21	
12900.00	10355.33	10924.45	8200.00	43.78	51.94	0.55	2021.15	-871.33	2179.43	2130.19	44.26	
13000.00	10354.34	10824.45	8200.00	45.33	50.25	0.55	2121.14	-871.33	2178.44	2129.26	44.30	
13100.00	10353.34	10724.46	8200.00	46.91	48.58	0.55	2221.14	-871.32	2177.44	2128.32	44.33	
13200.00	10352.35	10624.46	8200.00	48.50	46.91	0.55	2321.13	-871.32	2176.45	2127.37	44.35	
13300.00	10351.35	10524.47	8200.00	50.11	45.26	0.55	2421.13	-871.31	2175.45	2126.41	44.36	
13400.00	10350.36	10424.47	8200.00	51.73	43.62	0.55	2521.12	-871.31	2174.46	2125.43	44.36	
13500.00	10349.36	10324.48	8200.00	53.36	41.99	0.55	2621.12	-871.30	2173.46	2124.45	44.35	
13600.00	10348.37	10224.48	8200.00	55.01	40.39	0.55	2721.11	-871.30	2172.47	2123.46	44.33	
13700.00	10347.37	10124.49	8200.00	56.67	38.80	0.55	2821.11	-871.29	2171.47	2122.45	44.29	
13800.00	10346.38	10024.49	8200.00	58.34	37.23	0.55	2921.10	-871.29	2170.48	2121.43	44.25	
13900.00	10345.38	9924.50	8200.00	60.01	35.69	0.55	3021.10	-871.28	2169.48	2120.40	44.20	
14000.00	10344.39	9824.50	8200.00	61.70	34.17	0.55	3121.09	-871.28	2168.49	2119.35	44.13	
14100.00	10343.39	9724.51	8200.00	63.39	32.69	0.55	3221.09	-871.27	2167.49	2118.29	44.06	



Weatherford Anticollision Report

**Weatherford**

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 15
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit 168,169 Pad
Well: CDU 168H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Distance ft	Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft					
14200.00	10342.39	9624.51	8200.00	65.09	31.25	0.55	3321.08	-871.27	2166.50	2117.22	43.96		
14300.00	10341.40	9524.52	8200.00	66.80	29.84	0.55	3421.08	-871.26	2165.50	2116.12	43.86		
14400.00	10340.40	9424.52	8200.00	68.52	28.49	0.56	3521.07	-871.26	2164.51	2115.01	43.73		
14500.00	10339.41	9324.52	8200.00	70.23	27.18	0.56	3621.07	-871.25	2163.51	2113.88	43.59		
14600.00	10338.41	9224.53	8200.00	71.96	25.95	0.56	3721.06	-871.25	2162.52	2112.73	43.43		
14700.00	10337.42	9124.53	8200.00	73.69	24.78	0.56	3821.06	-871.24	2161.52	2111.55	43.26		
14800.00	10336.42	9024.54	8200.00	75.42	23.70	0.56	3921.05	-871.24	2160.53	2110.35	43.06		
14900.00	10335.43	8924.54	8200.00	77.16	22.71	0.56	4021.05	-871.23	2159.53	2109.11	42.83		

Site: Cotton Draw Unit 220H
Well: Cotton Draw Unit 220H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Distance ft	Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft					
0.00	0.00	2.00	-2.00	0.00	0.00	90.20	-0.17	49.94	49.94	49.94	29625.05		
100.00	100.00	98.00	98.00	0.08	0.08	90.20	-0.17	49.94	49.94	49.77	299.24		
200.00	200.00	198.00	198.00	0.31	0.30	90.20	-0.17	49.94	49.94	49.33	81.39		
300.00	300.00	298.00	298.00	0.53	0.53	90.20	-0.17	49.94	49.94	48.88	46.97		
400.00	400.00	398.00	398.00	0.76	0.75	90.20	-0.17	49.94	49.94	48.43	33.01		
500.00	500.00	498.00	498.00	0.98	0.98	90.20	-0.17	49.94	49.94	47.98	25.45		
600.00	600.00	598.00	598.00	1.21	1.20	90.20	-0.17	49.94	49.94	47.53	20.71		
700.00	700.00	698.00	698.00	1.43	1.43	90.20	-0.17	49.94	49.94	47.08	17.45		
800.00	800.00	798.00	798.00	1.66	1.65	90.20	-0.17	49.94	49.94	46.63	15.08		
900.00	900.00	898.00	898.00	1.88	1.88	90.20	-0.17	49.94	49.94	46.18	13.28		
1000.00	1000.00	998.00	998.00	2.11	2.10	90.20	-0.17	49.94	49.94	45.73	11.86		
1100.00	1100.00	1098.00	1098.00	2.33	2.33	90.20	-0.17	49.94	49.94	45.28	10.72		
1200.00	1200.00	1198.00	1198.00	2.56	2.55	90.20	-0.17	49.94	49.94	44.83	9.78		
1300.00	1300.00	1298.00	1298.00	2.78	2.78	90.20	-0.17	49.94	49.94	44.38	8.98		
1400.00	1400.00	1398.00	1398.00	3.01	3.00	90.20	-0.17	49.94	49.94	43.93	8.31		
1500.00	1500.00	1498.00	1498.00	3.23	3.23	90.20	-0.17	49.94	49.94	43.48	7.73		
1600.00	1600.00	1598.00	1598.00	3.46	3.45	90.20	-0.17	49.94	49.94	43.03	7.23		
1700.00	1700.00	1698.00	1698.00	3.68	3.68	90.20	-0.17	49.94	49.94	42.58	6.79		
1800.00	1800.00	1798.00	1798.00	3.91	3.90	90.20	-0.17	49.94	49.94	42.13	6.40		
1900.00	1900.00	1898.00	1898.00	4.13	4.13	90.20	-0.17	49.94	49.94	41.68	6.05		
2000.00	2000.00	1998.00	1998.00	4.35	4.35	90.20	-0.17	49.94	49.94	41.24	5.74		
2100.00	2100.00	2098.00	2098.00	4.58	4.58	90.20	-0.17	49.94	49.94	40.79	5.46		
2200.00	2200.00	2198.00	2198.00	4.80	4.80	90.20	-0.17	49.94	49.94	40.34	5.20		
2300.00	2300.00	2298.00	2298.00	5.03	5.02	90.20	-0.17	49.94	49.94	39.89	4.97		
2400.00	2400.00	2398.00	2398.00	5.25	5.25	90.20	-0.17	49.94	49.94	39.44	4.75		
2500.00	2500.00	2498.00	2498.00	5.48	5.47	90.20	-0.17	49.94	49.94	38.99	4.56		
2600.00	2600.00	2598.00	2598.00	5.70	5.70	90.20	-0.17	49.94	49.94	38.54	4.38		
2700.00	2700.00	2698.00	2698.00	5.93	5.92	90.20	-0.17	49.94	49.94	38.09	4.21		
2800.00	2800.00	2798.00	2798.00	6.15	6.15	90.20	-0.17	49.94	49.94	37.64	4.06		
2900.00	2900.00	2898.00	2898.00	6.38	6.37	90.20	-0.17	49.94	49.94	37.19	3.92		
3000.00	3000.00	2998.00	2998.00	6.60	6.60	90.20	-0.17	49.94	49.94	36.74	3.78		
3100.00	3100.00	3098.00	3098.00	6.83	6.82	90.20	-0.17	49.94	49.94	36.29	3.66		
3200.00	3200.00	3198.00	3198.00	7.05	7.05	90.20	-0.17	49.94	49.94	35.84	3.54		
3300.00	3300.00	3298.00	3298.00	7.28	7.27	90.20	-0.17	49.94	49.94	35.39	3.43		
3400.00	3400.00	3398.00	3398.00	7.50	7.50	90.20	-0.17	49.94	49.94	34.94	3.33		
3500.00	3500.00	3498.00	3498.00	7.73	7.72	90.20	-0.17	49.94	49.94	34.49	3.23		



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 16
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit 220H
Well: Cotton Draw Unit 220H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset		Semi-Major Axis			Offset Location		Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
		MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft				
3600.00	3600.00	3598.00	3598.00	7.95	7.95	90.20	-0.17	49.94	49.94	34.04	3.14	
3700.00	3700.00	3698.00	3698.00	8.18	8.17	90.20	-0.17	49.94	49.94	33.59	3.05	
3800.00	3800.00	3798.00	3798.00	8.40	8.40	90.20	-0.17	49.94	49.94	33.14	2.97	
3900.00	3900.00	3898.00	3898.00	8.63	8.62	90.20	-0.17	49.94	49.94	32.69	2.90	
4000.00	4000.00	3998.00	3998.00	8.85	8.85	90.20	-0.17	49.94	49.94	32.24	2.82	
4100.00	4100.00	4098.00	4098.00	9.07	9.07	90.20	-0.17	49.94	49.94	31.79	2.75	
4200.00	4200.00	4198.00	4198.00	9.30	9.30	90.20	-0.17	49.94	49.94	31.35	2.69	
4300.00	4300.00	4298.00	4298.00	9.52	9.52	90.20	-0.17	49.94	49.94	30.90	2.62	
4400.00	4400.00	4398.00	4398.00	9.75	9.74	90.20	-0.17	49.94	49.94	30.45	2.56	
4500.00	4500.00	4498.00	4498.00	9.97	9.97	90.20	-0.17	49.94	49.94	30.00	2.50	
4600.00	4600.00	4598.00	4598.00	10.20	10.19	90.20	-0.17	49.94	49.94	29.55	2.45	
4700.00	4700.00	4698.00	4698.00	10.42	10.42	90.20	-0.17	49.94	49.94	29.10	2.40	
4800.00	4800.00	4798.00	4798.00	10.65	10.64	90.20	-0.17	49.94	49.94	28.65	2.35	
4900.00	4900.00	4898.00	4898.00	10.87	10.87	90.20	-0.17	49.94	49.94	28.20	2.30	
5000.00	5000.00	4998.00	4998.00	11.10	11.09	90.20	-0.17	49.94	49.94	27.75	2.25	
5100.00	5100.00	5098.00	5098.00	11.32	11.32	90.20	-0.17	49.94	49.94	27.30	2.21	
5200.00	5200.00	5198.00	5198.00	11.55	11.54	90.20	-0.17	49.94	49.94	26.85	2.16	
5300.00	5300.00	5298.00	5298.00	11.77	11.77	90.20	-0.17	49.94	49.94	26.40	2.12	
5400.00	5400.00	5398.00	5398.00	12.00	11.99	90.20	-0.17	49.94	49.94	25.95	2.08	
5500.00	5500.00	5498.00	5498.00	12.22	12.22	90.20	-0.17	49.94	49.94	25.50	2.04	
5600.00	5600.00	5598.00	5598.00	12.45	12.44	90.20	-0.17	49.94	49.94	25.05	2.01	
5700.00	5700.00	5695.45	5695.41	12.67	12.65	90.61	-0.56	52.29	52.36	27.06	2.07	
5800.00	5800.00	5793.51	5793.21	12.90	12.84	91.64	-1.70	59.23	59.45	33.75	2.31	
5900.00	5900.00	5893.18	5892.55	13.12	13.04	92.57	-3.01	67.22	67.51	41.39	2.58	
6000.00	6000.00	5992.85	5991.89	13.35	13.24	93.29	-4.33	75.22	75.59	49.05	2.85	
6100.00	6100.00	6092.52	6091.23	13.57	13.45	93.88	-5.64	83.21	83.67	56.72	3.10	
6200.00	6200.00	6192.19	6190.57	13.80	13.66	94.36	-6.96	91.20	91.77	64.39	3.35	
6300.00	6300.00	6291.86	6289.91	14.02	13.86	94.77	-8.27	99.19	99.87	72.06	3.59	
6400.00	6400.00	6391.52	6389.25	14.24	14.08	95.11	-9.59	107.19	107.97	79.74	3.83	
6500.00	6500.00	6491.19	6488.59	14.47	14.29	95.41	-10.90	115.18	116.08	87.42	4.05	
6600.00	6600.00	6590.86	6587.93	14.69	14.50	95.66	-12.22	123.17	124.18	95.11	4.27	
6700.00	6700.00	6690.53	6687.27	14.92	14.72	95.89	-13.53	131.16	132.30	102.79	4.48	
6800.00	6800.00	6790.20	6786.61	15.14	14.94	96.09	-14.85	139.16	140.41	110.48	4.69	
6900.00	6900.00	6889.87	6885.95	15.37	15.16	96.27	-16.16	147.15	148.52	118.16	4.89	
7000.00	7000.00	6989.54	6985.29	15.59	15.38	96.43	-17.47	155.14	156.64	125.85	5.09	
7100.00	7100.00	7089.21	7084.63	15.82	15.60	96.57	-18.79	163.13	164.76	133.54	5.28	
7200.00	7200.00	7188.88	7183.97	16.04	15.82	96.70	-20.10	171.13	172.87	141.22	5.46	
7300.00	7300.00	7288.55	7283.31	16.27	16.05	96.82	-21.42	179.12	180.99	148.91	5.64	
7400.00	7400.00	7388.22	7382.64	16.49	16.28	96.93	-22.73	187.11	189.11	156.60	5.82	
7500.00	7500.00	7487.89	7481.98	16.72	16.50	97.03	-24.05	195.10	197.23	164.28	5.99	
7600.00	7600.00	7587.56	7581.32	16.94	16.73	97.12	-25.36	203.10	205.35	171.97	6.15	
7700.00	7700.00	7687.22	7680.66	17.17	16.96	97.20	-26.68	211.09	213.47	179.66	6.31	
7800.00	7800.00	7786.89	7780.00	17.39	17.19	97.28	-27.99	219.08	221.59	187.34	6.47	
7900.00	7900.00	7886.56	7879.34	17.62	17.43	97.35	-29.31	227.07	229.72	195.03	6.62	
8000.00	8000.00	7986.23	7978.68	17.84	17.66	97.42	-30.62	235.07	237.84	202.72	6.77	
8100.00	8100.00	8085.90	8078.02	18.07	17.89	97.49	-31.94	243.06	245.96	210.40	6.92	
8200.00	8200.00	8185.57	8177.36	18.29	18.13	97.54	-33.25	251.05	254.08	218.09	7.06	
8300.00	8300.00	8285.24	8276.70	18.52	18.37	97.60	-34.57	259.04	262.21	225.78	7.20	
8400.00	8400.00	8384.91	8376.04	18.74	18.60	97.65	-35.88	267.04	270.33	233.46	7.33	
8500.00	8500.00	8484.58	8475.38	18.96	18.84	97.70	-37.20	275.03	278.45	241.15	7.46	
8600.00	8600.00	8584.25	8574.72	19.19	19.08	97.75	-38.51	283.02	286.58	248.83	7.59	



Weatherford Anticollision Report



Weatherford

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013

Time: 12:13:02

Page: 17

Co-ordinate(N/E) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0

Db: Sybase

Site: Cotton Draw Unit 220H
Well: Cotton Draw Unit 220H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	Reference TVD	Offset MD	Offset TVD	Semi-Major Axis Ref	Semi-Major Axis Offset	Semi-Major Axis TFO-HS	Offset Location North	Offset Location East	Ctr-Ctr Edge Distance	Ctr-Ctr Edge Distance	Separation Factor	Warning
ft	ft	ft	ft	ft	ft	deg	ft	ft	ft	ft		
8700.00	8700.00	8683.92	8674.06	19.41	19.32	97.79	-39.82	291.01	294.70	256.52	7.72	
8800.00	8800.00	8783.59	8773.40	19.64	19.56	97.83	-41.14	299.01	302.82	264.20	7.84	
8900.00	8900.00	8883.26	8872.74	19.86	19.80	97.87	-42.45	307.00	310.95	271.88	7.96	
9000.00	9000.00	8982.92	8972.08	20.09	20.04	97.91	-43.77	314.99	319.07	279.57	8.08	
9100.00	9100.00	9082.59	9071.42	20.31	20.28	97.95	-45.08	322.98	327.20	287.25	8.19	
9200.00	9200.00	9182.26	9170.76	20.54	20.52	97.98	-46.40	330.98	335.32	294.94	8.30	
9290.22	9290.22	9272.18	9260.38	20.74	20.74	98.01	-47.58	338.19	342.65	301.87	8.40	
9300.00	9300.00	9281.93	9270.09	20.76	20.77	232.94	-47.71	338.97	343.50	302.67	8.41	
9350.00	9349.89	9331.51	9319.51	20.85	20.89	233.03	-48.37	342.94	349.38	308.39	8.52	
9400.00	9399.33	9380.44	9368.27	20.93	21.01	232.80	-49.01	346.87	357.92	316.79	8.70	
9450.00	9447.94	9428.33	9416.01	21.02	21.13	232.32	-49.64	350.71	369.19	327.97	8.96	
9500.00	9495.34	9474.83	9462.35	21.11	21.24	231.68	-50.26	354.44	383.33	342.06	9.29	
9550.00	9541.19	9519.57	9506.95	21.21	21.35	231.00	-50.85	358.03	400.48	359.20	9.70	
9600.00	9585.13	9562.23	9549.47	21.31	21.45	230.38	-51.41	361.45	420.76	379.50	10.20	
9650.00	9626.82	9602.48	9589.58	21.43	21.55	229.95	-51.94	364.67	444.24	403.02	10.78	
9700.00	9665.95	9640.00	9626.98	21.56	21.65	229.81	-52.44	367.68	470.95	429.77	11.44	
9750.00	9702.22	9674.51	9661.38	21.72	21.73	230.08	-52.89	370.45	500.82	459.65	12.16	
9800.00	9735.35	9705.76	9692.52	21.91	21.81	230.89	-53.30	372.96	533.72	492.49	12.95	
9850.00	9765.10	9733.50	9720.17	22.13	21.88	232.39	-53.67	375.18	569.45	528.06	13.76	
9874.52	9778.38	9745.76	9732.39	22.25	21.91	233.44	-53.83	376.16	587.93	546.41	14.16	
9900.00	9791.94	9758.21	9744.80	22.39	21.94	227.96	-54.00	377.16	607.70	566.50	14.75	
9950.00	9819.70	9783.66	9770.17	22.69	22.00	216.57	-54.33	379.20	647.60	607.12	16.00	
10000.00	9848.84	9808.45	9794.87	22.99	22.06	204.82	-54.63	381.19	688.43	648.62	17.29	
10050.00	9879.13	9828.25	9814.61	23.29	22.09	193.10	-54.37	382.78	729.83	690.49	18.55	
10100.00	9910.34	9847.87	9834.14	23.58	22.12	181.43	-53.44	384.35	771.45	732.17	19.64	
10150.00	9942.23	9867.43	9853.57	23.84	22.11	170.15	-51.84	385.92	812.94	773.41	20.56	
10200.00	9974.56	9887.03	9872.97	24.07	22.11	159.47	-49.57	387.48	854.00	813.87	21.28	
10250.00	10007.08	9906.78	9892.43	24.27	22.08	149.55	-46.61	389.05	894.37	853.47	21.87	
10300.00	10039.55	9926.78	9912.03	24.41	22.03	140.45	-42.93	390.63	933.81	892.09	22.38	
10350.00	10071.71	9947.13	9931.83	24.51	21.98	132.18	-38.49	392.22	972.12	929.60	22.86	
10400.00	10103.33	9967.95	9951.90	24.57	21.90	124.73	-33.21	393.84	1009.13	965.88	23.33	
10450.00	10134.17	9989.35	9972.32	24.58	21.81	118.07	-27.03	395.49	1044.66	1000.76	23.80	
10500.00	10163.98	10011.43	9993.13	24.56	21.76	112.16	-19.86	397.17	1078.56	1034.17	24.30	
10550.00	10192.54	10034.33	10014.41	24.51	21.75	106.97	-11.57	398.89	1110.70	1065.87	24.78	
10600.00	10219.63	10058.18	10036.20	24.45	21.77	102.44	-2.05	400.65	1140.94	1095.69	25.21	
10650.00	10245.06	10083.12	10058.55	24.37	21.82	98.55	8.88	402.46	1169.17	1123.64	25.68	
10700.00	10268.61	10109.32	10081.48	24.28	21.88	95.24	21.40	404.31	1195.25	1149.52	26.14	
10750.00	10290.13	10136.93	10105.01	24.20	21.94	92.48	35.72	406.22	1219.09	1173.22	26.57	
10800.00	10309.43	10166.14	10129.13	24.13	22.00	90.23	52.08	408.17	1240.58	1194.61	26.99	
10850.00	10326.38	10197.16	10153.78	24.06	22.08	88.47	70.78	410.17	1259.60	1213.57	27.36	
10900.00	10340.84	10230.17	10178.88	24.00	22.16	87.16	92.13	412.21	1276.07	1229.99	27.69	
10950.00	10352.71	10265.39	10204.25	23.95	22.25	86.30	116.46	414.27	1289.86	1243.75	27.97	
11000.00	10361.89	10303.03	10229.67	23.91	22.36	85.86	144.14	416.34	1300.90	1254.75	28.19	
11050.00	10368.32	10343.28	10254.78	23.87	22.49	85.83	175.52	418.38	1309.06	1262.85	28.33	
11100.00	10371.95	10386.31	10279.13	23.83	22.64	86.21	210.93	420.37	1314.27	1267.97	28.38	
11147.74	10372.77	10430.09	10301.11	23.80	22.81	86.96	248.73	422.17	1316.40	1269.96	28.35	
11200.00	10372.25	10481.77	10323.26	24.05	23.03	87.94	295.37	423.99	1317.31	1270.37	28.06	
11300.00	10371.25	10592.35	10356.11	24.58	23.59	89.42	400.74	426.72	1319.17	1271.10	27.44	
11400.00	10370.26	10713.04	10368.25	25.23	24.34	90.00	520.59	427.79	1320.02	1270.55	26.68	
11500.00	10369.26	10813.67	10367.26	25.99	25.11	90.00	621.22	427.79	1320.02	1269.04	25.89	
11600.00	10368.27	10913.67	10366.27	26.85	25.96	90.00	721.21	427.79	1320.02	1267.32	25.05	



Weatherford Anticollision Report



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Reference Site: Cotton Draw Unit 219H
Reference Well: Cotton Draw Unit 219H
Reference Wellpath:

Date: 5/9/2013 Time: 12:13:02 Page: 18
Co-ordinate(NE) Reference: Well: Cotton Draw Unit 219H, Grid North
Vertical (TVD) Reference: SITE 3478.0
Db: Sybase

Site: Cotton Draw Unit 220H
Well: Cotton Draw Unit 220H
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	TVD ft	Offset MD ft	TVD ft	Semi-Major Axis Ref ft	Offset ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Warning
11700.00	10367.27	11013.67	10365.27	27.81	26.91	90.00	821.21	427.79	1320.02 1265.42	24.17	
11800.00	10366.28	11113.67	10364.28	28.85	27.95	90.00	921.20	427.79	1320.02 1263.34	23.29	
11900.00	10365.28	11213.67	10363.28	29.96	29.07	90.00	1021.20	427.79	1320.02 1261.11	22.41	
12000.00	10364.29	11313.67	10362.29	31.14	30.25	90.00	1121.19	427.79	1320.02 1258.74	21.54	
12100.00	10363.29	11413.67	10361.29	32.38	31.50	90.00	1221.19	427.79	1320.02 1256.26	20.70	
12200.00	10362.30	11513.67	10360.30	33.67	32.80	90.00	1321.18	427.79	1320.02 1253.66	19.89	
12300.00	10361.30	11613.67	10359.30	35.00	34.15	90.00	1421.18	427.79	1320.02 1250.97	19.12	
12400.00	10360.31	11713.67	10358.31	36.39	35.54	90.00	1521.17	427.79	1320.02 1248.20	18.38	
12500.00	10359.31	11813.67	10357.31	37.80	36.97	90.00	1621.17	427.79	1320.02 1245.34	17.68	
12600.00	10358.32	11913.67	10356.32	39.26	38.43	90.00	1721.16	427.79	1320.02 1242.43	17.01	
12700.00	10357.32	12013.67	10355.33	40.74	39.92	90.00	1821.16	427.79	1320.02 1239.45	16.38	
12800.00	10356.33	12113.67	10354.33	42.25	41.44	90.00	1921.15	427.79	1320.02 1236.42	15.79	
12900.00	10355.33	12213.67	10353.34	43.78	42.99	90.00	2021.15	427.79	1320.02 1233.34	15.23	
13000.00	10354.34	12313.67	10352.34	45.33	44.55	90.00	2121.14	427.79	1320.02 1230.22	14.70	
13100.00	10353.34	12413.67	10351.35	46.91	46.13	90.00	2221.14	427.79	1320.02 1227.06	14.20	
13200.00	10352.35	12513.67	10350.35	48.50	47.73	90.00	2321.13	427.79	1320.02 1223.86	13.73	
13300.00	10351.35	12613.67	10349.36	50.11	49.35	90.00	2421.13	427.79	1320.02 1220.63	13.28	
13400.00	10350.36	12713.67	10348.36	51.73	50.98	90.00	2521.12	427.79	1320.02 1217.38	12.86	
13500.00	10349.36	12813.67	10347.37	53.36	52.62	90.00	2621.12	427.79	1320.02 1214.10	12.46	
13600.00	10348.37	12913.67	10346.37	55.01	54.28	90.00	2721.11	427.79	1320.02 1210.79	12.09	
13700.00	10347.37	13013.67	10345.38	56.67	55.94	90.00	2821.11	427.79	1320.02 1207.47	11.73	
13800.00	10346.38	13113.67	10344.38	58.34	57.62	90.00	2921.10	427.79	1320.02 1204.12	11.39	
13900.00	10345.38	13213.67	10343.39	60.01	59.30	90.00	3021.10	427.79	1320.02 1200.76	11.07	
14000.00	10344.39	13313.67	10342.39	61.70	61.00	90.00	3121.09	427.79	1320.02 1197.38	10.76	
14100.00	10343.39	13413.67	10341.40	63.39	62.69	90.00	3221.09	427.79	1320.02 1193.98	10.47	
14200.00	10342.39	13513.67	10340.40	65.09	64.40	90.00	3321.08	427.79	1320.02 1190.58	10.20	
14300.00	10341.40	13613.67	10339.41	66.80	66.11	90.00	3421.08	427.79	1320.02 1187.15	9.93	
14400.00	10340.40	13713.67	10338.41	68.52	67.83	90.00	3521.07	427.79	1320.02 1183.72	9.68	
14500.00	10339.41	13813.67	10337.42	70.23	69.56	90.00	3621.07	427.79	1320.02 1180.28	9.45	
14600.00	10338.41	13913.67	10336.42	71.96	71.29	90.00	3721.06	427.79	1320.02 1176.82	9.22	
14700.00	10337.42	14013.67	10335.43	73.69	73.02	90.00	3821.06	427.79	1320.02 1173.36	9.00	
14800.00	10336.42	14113.67	10334.43	75.42	74.76	90.00	3921.05	427.79	1320.02 1169.88	8.79	
14900.00	10335.43	14213.67	10333.44	77.16	76.50	90.00	4021.05	427.79	1320.02 1166.40	8.59	

**Weatherford****Weatherford Drilling Services**

GeoDec v5.03

Report Date: May 09, 2013
Job Number: _____
Customer: Devon
Well Name: Cotton Draw Unit 219H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 419773.890 USFT	Latitude 32.1526631 DEG
East/West 723818.230 USFT	Longitude -103.7436886 DEG
Grid Convergence: .31°	
Total Correction: +7.17°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.15266° N	32° 9 min 9.587 sec
Longitude =	103.74369° W	103° 44 min 37.279 sec

Magnetic Declination =	7.48°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6490
Local Field Strength =	48331 nT	Magnetic Vector X = 23946 nT
Magnetic Dip =	60.02°	Magnetic Vector Y = 3146 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41864 nT
Spud Date =	Oct 15, 2013	Magnetic Vector H = 24152 nT

Signed: _____ Date: _____