



30-015-39964

Cimarex Energy

Eddy County, NM (NAD83 NME)

Gadwall "18" Federal Com #3H

Gadwall "18" Federal Com #3H

OH - Job #32D0412384

Design: OH

SDI Standard Survey Report

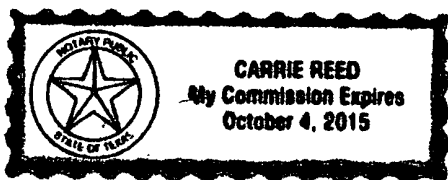
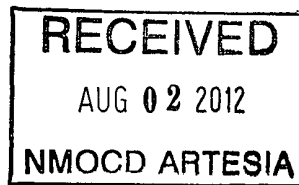
This survey is correct to the best of my knowledge and is supported by actual field data.

Wharton

Notarized this date 8th of May, 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas





Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	Cimarex Energy	Local Co-ordinate Reference:	Site Gadwall "18" Federal Com #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	RF @ 3218.00usft (Key #880)
Site:	Gadwall "18" Federal Com #3H	MD Reference:	RF @ 3218.00usft (Key #880)
Well:	Gadwall "18" Federal Com #3H	North Reference:	Grid
Wellbore:	OH - Job #32D0412384	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-Regulatory

Project	Eddy County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Gadwall "18" Federal Com #3H		
Site Position:		Northing:	413,335 60 usft
From:	Lat/Long	Easting:	571,669 10 usft
Position Uncertainty:	0 00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 8' 10 681 N
		Longitude:	104° 14' 7 226 W
		Grid Convergence:	0 05 °

Well	Gadwall "18" Federal Com #3H		
Well Position	+N/-S	0 00 usft	Northing:
	+E/-W	0 00 usft	Easting:
Position Uncertainty	0 00 usft	Wellhead Elevation:	usft
		Latitude:	32° 8' 10 681 N
		Longitude:	104° 14' 7 226 W
		Ground Level:	3,201 00 usft

Wellbore	OH - Job #32D0412384		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	04/05/12	7 78
			Dip Angle
			(°)
			59 97
			Field Strength
			(nT)
			48,410

Design	OH		
Audit Notes:			
Version:	1 0	Phase:	ACTUAL
		Tie On Depth:	0 00
Vertical Section.	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 00	0 00	0 00
			Direction
			(°)
			213 69

Survey Program	Date 05/03/12		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
115 39	7,357 86	Gyro (OH - Job #32D0412384)	Keeper
7,392 00	10,616 00	MWD (OH - Job #32D0412384)	MWD
10,680 00	12,190 00	MWD ST (OH - Job #32D0412384)	MWD
			Description
			Standard Wireline Keeper ver 1 0 2
			MWD - Standard
			MWD - Standard

Survey							
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance
(usft)	(°)	(°)	Depth	(usft)	(usft)	(°)	(usft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
115 39	0 31	143 05	115 39	-0 25	0 19	143.05	0 31
175 39	0 32	169 83	175 39	-0 54	0 31	149 95	0 63
235 39	0 42	189 11	235 39	-0 93	0 31	161 52	0 98
358 73	0 61	230 23	358 72	-1 79	-0 27	188 46	1 81
422.07	0 56	236 71	422 06	-2 18	-0 78	199 81	2 32
485 41	0 53	244 43	485 40	-2 47	-1 31	207 85	2 80
548 75	0 48	249 96	548 73	-2 69	-1.82	214.08	3 25
612 09	0.57	256 58	612 07	-2.86	-2 38	219 77	3 72
675 43	0 78	250 68	675 41	-3 07	-3 09	225 17	4 36



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Site:	Gadwall "18" Federal Com #3H	MD Reference:	RF @ 3218 00usft (Key #880)
Well:	Gadwall "18" Federal Com #3H	North Reference:	Grid
Wellbore:	OH - Job #32D0412384	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-Regulatory

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
738 77	0 90	246 89	738 74	-3 41	-3 95	229 23	5 22
802 11	0 97	237 56	802 07	-3 89	-4 86	231 33	6 23
865 45	0 93	232 39	865 40	-4 49	-5 72	231 87	7 28
928 79	0 96	230 31	928 73	-5 15	-6 54	231 80	8 32
992 13	1 12	224 04	992.06	-5 93	-7 38	231 21	9 47
1,055 47	0 70	215 64	1,055 40	-6 69	-8 03	230 22	10 45
1,118 81	0 29	138 14	1,118 73	-7 12	-8 15	228 85	10 83
1,182 15	0 87	68 39	1,182 07	-7 07	-7 60	227 08	10 38
1,245 49	1 18	65 29	1,245 40	-6 62	-6 56	224 75	9 32
1,308 83	0 98	70 84	1,308 73	-6 17	-5 45	221 50	8 23
1,372 17	1 40	69 39	1,372 06	-5 72	-4 22	216 43	7 10
1,435 51	2 17	67 40	1,435 36	-4 98	-2 39	205 61	5 52
1,498 85	2 85	64 88	1,498 64	-3 85	0 15	177 84	3 86
1,562 19	3 47	67 01	1,561 89	-2 44	3 34	126 14	4 13
1,625 53	4 08	67 93	1,625 09	-0 84	7 19	96 67	7 24
1,688 87	3 96	69 53	1,688 27	0 77	11 33	86 10	11 35
1,752 21	2 93	73 10	1,751.50	2 01	14 92	82 34	15 06
1,815 55	1 88	66 77	1,814 78	2 89	17 43	80 59	17 67
1,878 89	1 50	59 03	1,878 09	3 72	19 09	78 96	19 45
1,942 23	1 24	52 94	1,941 42	4 56	20 35	77 36	20 86
2,005 57	1 27	51 72	2,004 74	5 41	21 45	75 84	22 12
2,068 91	1 19	51 41	2,068 07	6 26	22 51	74 47	23 37
2,132 25	1 14	51 20	2,131 39	7 06	23 52	73 29	24 56
2,195 59	1 08	41 95	2,194 72	7 90	24 41	72 07	25 66
2,258 93	1 01	33 56	2,258 05	8 81	25 12	70 67	26 62
2,322 27	0 97	25 34	2,321 38	9 76	25 65	69 17	27 45
2,385 61	0 97	15 37	2,384 71	10 76	26 03	67 54	28 16
2,448 95	0 88	3 46	2,448 04	11 76	26 20	65 82	28 72
2,512 29	0 90	348 40	2,511 38	12 74	26 13	64 01	29 07
2,575 63	0 72	336 33	2,574 71	13 59	25 87	62 29	29 22
2,638 97	0 75	324 84	2,638 04	14 29	25 47	60 70	29 20
2,702 31	0 76	323 46	2,701.38	14 97	24 98	59 07	29 12
2,765 65	0 69	319 61	2,764 71	15 60	24 48	57 50	29 03
2,828 99	0 67	315 21	2,828 05	16 15	23 97	56 04	28 91
2,892 33	0 70	319 50	2,891 39	16 71	23 46	54 55	28 80
2,955 67	0 64	316 75	2,954 72	17 26	22 97	53 08	28 73
3,019 01	0 69	311 83	3,018 06	17 77	22 44	51 63	28 63
3,082 35	0 64	307 18	3,081 39	18 24	21 88	50 18	28 48
3,145 69	0 60	302 74	3,144 73	18 63	21 32	48 85	28 31
3,209 03	0 61	283 02	3,208 07	18 89	20 71	47 63	28 03
3,272 37	0 56	276 43	3,271.40	19 00	20 07	46 58	27 64
3,335 71	0 51	271 99	3,334 74	19 04	19 48	45 66	27 24
3,399 05	0 43	256 49	3,398 08	19 00	18 97	44 96	26 85
3,462 39	0 42	249 59	3,461 42	18 86	18 52	44 48	26 43
3,525 73	0 46	246 32	3,524 75	18 68	18 07	44 06	25 99



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Well:	Gadwall "18" Federal Com #3H	North Reference:	Grid
Wellbore:	OH - Job #32D0412384	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
3,589 07	0 43	248 59	3,588 09	18 49	17 62	43 62	25 54
3,652 41	0 40	249 59	3,651 43	18 32	17 19	43 17	25 12
3,715 75	0 42	225 51	3,714 77	18 08	16 82	42 92	24 69
3,779 09	0 40	202 90	3,778 11	17 72	16 56	43 07	24 25
3,842 43	0 44	218 33	3,841 44	17 32	16 33	43 31	23 80
3,905 77	0 65	234 50	3,904 78	16 92	15 88	43 18	23 21
3,969 11	0 90	251 28	3,968 12	16 55	15 12	42 41	22 42
4,032 45	1 05	256 09	4,031 45	16 26	14 09	40 91	21 51
4,095 79	1 02	245 98	4,094 78	15 89	13 01	39 31	20 53
4,159 13	0 96	224 23	4,158 11	15 28	12 12	38 43	19 50
4,222 47	1 05	223 21	4,221 44	14 47	11 35	38 11	18 40
4,285 81	1 05	226 03	4,284 77	13 65	10 54	37 68	17 24
4,349 15	1 19	228 01	4,348 10	12 80	9 63	36 95	16 02
4,412 49	1 16	225 98	4,411 42	11 92	8 68	36 07	14 75
4,475 83	1 03	222 36	4,474 75	11 05	7 84	35 34	13 55
4,539 17	1 11	217 23	4,538 08	10 14	7 08	34 93	12 37
4,602 51	1 03	211 57	4,601 41	9 17	6 41	34 97	11 19
4,665 85	1 10	210 40	4,664 74	8 16	5 81	35 44	10 02
4,729 19	1 05	217 75	4,728 07	7 18	5 15	35 64	8 83
4,792 53	1 20	227 08	4,791 39	6 27	4 30	34 48	7 60
4,855 87	1 39	228 73	4,854 72	5 31	3 24	31 41	6 22
4,919 21	1 45	231 91	4,918 04	4 31	2 03	25 27	4 76
4,982 55	1 61	231 10	4,981 36	3 25	0 71	12 31	3 33
5,045 89	1 62	230 46	5,044 67	2 13	-0 67	342 44	2 23
5,109 23	1 66	231 42	5,107 98	0 98	-2 08	295 31	2 30
5,172 57	1 64	234 15	5,171 30	-0 12	-3 53	268 07	3 53
5,235 91	1 67	240 83	5,234 61	-1 10	-5 07	257 77	5 19
5,299 25	1 75	239 45	5,297 92	-2 04	-6 71	253 08	7 02
5,362 59	1 67	240 21	5,361 24	-2 99	-8 35	250 28	8 87
5,425 93	1 42	234 79	5,424 55	-3 90	-9 79	248 26	10 54
5,489 27	1 38	239 74	5,487 87	-4 74	-11 09	246 86	12 06
5,552 61	1 54	241 24	5,551 19	-5 53	-12 49	246 11	13 66
5,615 95	1 70	245 13	5,614 51	-6 34	-14 09	245 78	15 45
5,679 29	1 46	245 21	5,677 82	-7 07	-15 68	245 72	17 20
5,742 63	1 37	246 70	5,741 14	-7 71	-17 10	245 74	18 76
5,805 97	1 31	259 53	5,804 47	-8 14	-18 51	246 26	20 22
5,869 31	1 11	249 80	5,867 79	-8 48	-19 80	246 81	21 54
5,932 65	0 76	188 66	5,931 13	-9 11	-20 44	245 97	22 38
5,995 99	0 25	177 47	5,994 46	-9 66	-20 50	244 75	22 66
6,059 33	0 34	231 69	6,057 80	-9 92	-20 64	244 33	22 90
6,122 67	0 61	237 90	6,121 14	-10 21	-21 07	244 14	23 42
6,186 01	0 83	236 54	6,184 48	-10 65	-21 74	243 91	24 21
6,249 35	0 91	240 96	6,247 81	-11 14	-22 56	243 71	25 16
6,312 69	1 16	245 54	6,311 14	-11 65	-23 58	243 71	26 31



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Well:	Gadwall "18" Federal Com #3H	North Reference:	Grid
Wellbore:	OH - Job #32D0412384	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
6,376 03	1 72	244 26	6,374 46	-12 33	-25 02	243 77	27 90
6,439 37	1 77	241 69	6,437 77	-13 21	-26 74	243 71	29 83
6,502 71	1 49	235 99	6,501 08	-14 13	-28 29	243 45	31 62
6,566 05	1 55	218 24	6,564 40	-15 27	-29 50	242 64	33 21
6,629 39	2 70	232 94	6,627 70	-16 84	-31 22	241 66	35 47
6,692 75	3 33	234 55	6,690 97	-18 80	-33 91	240 99	38 77
6,755 95	3 64	222 79	6,754 05	-21 34	-36 77	239 87	42 51
6,819 52	4 09	207 32	6,817 48	-24 84	-39 18	237 63	46 39
6,882 94	3 88	193 47	6,880 75	-28 93	-40 72	234 60	49 95
6,946 25	3 62	193 73	6,943 92	-32 96	-41 69	231 67	53 14
7,009 53	3 15	177 83	7,007 09	-36 64	-42 10	228 97	55 81
7,072 73	3 23	167 09	7,070 19	-40 11	-41 63	226 07	57 81
7,136 27	3 51	164 43	7,133 63	-43 73	-40 71	222 96	59 74
7,199 52	3 49	165 38	7,196 76	-47 45	-39 71	219 92	61 87
7,262 97	3 49	164 80	7,260 09	-51 19	-38 71	217 10	64 18
7,326 24	2 64	156 46	7,323 27	-54 38	-37 63	214 68	66 13
7,357 86	2 07	146 61	7,354 86	-55 52	-37 02	213 69	66 73
7,357 90	2 07	146 61	7,354 90	-55 53	-37 02	213 69	66 73
Gyro Tie-In							
7,392 00	1 67	161 06	7,388 98	-56 51	-36 52	212 87	67 28
7,424 00	5 23	153 13	7,420 92	-58 25	-35 71	211 51	68 33
7,456 00	11 18	148 75	7,452 58	-62 21	-33 44	208 26	70 63
7,488 00	15 54	145 02	7,483 71	-68 38	-29 37	203 25	74 42
7,519 00	18 47	154 79	7,513 35	-76 22	-24 90	198 09	80 19
7,551 00	23 48	155 21	7,543 22	-86 61	-20 06	193 04	88 90
7,583 00	26 91	154 07	7,572 18	-98 91	-14 22	188 18	99 93
7,614 00	32 27	163 47	7,599 14	-113 17	-8 79	184 44	113 51
7,646 00	38 95	168 57	7,625 14	-131 24	-4 36	181 90	131 31
7,678 00	45 11	173 84	7,648 91	-152 40	-1 15	180 43	152 40
7,709 00	50 21	178 85	7,669 79	-175 25	0 27	179 91	175 25
7,741 00	56 63	180 26	7,688 85	-200 93	0 46	179 87	200 93
7,773 00	61 64	177 97	7,705 26	-228 38	0 90	179 78	228 38
7,804 00	68 06	180 08	7,718 43	-256 42	1 36	179 70	256 43
7,861 00	78 17	183 51	7,734 97	-310 86	-0 39	180 07	310 86
7,893 00	79 32	182 81	7,741 22	-342 19	-2 12	180 35	342 20
7,925 00	81 87	182 28	7,746 45	-373 73	-3 52	180 54	373 74
7,957 00	83 45	182 28	7,750 53	-405 44	-4 78	180 68	405 47
7,988 00	85 65	182 28	7,753 48	-436 27	-6 01	180 79	436 31
8,020 00	87 93	182 19	7,755 27	-468 20	-7 26	180 89	468 25
8,083 00	89 25	181 67	7,756 82	-531 14	-9 38	181 01	531 22
8,147 00	89 43	181 75	7,757.56	-595 11	-11 29	181 09	595 21
8,210 00	89 69	180 44	7,758 04	-658 09	-12 49	181 09	658 21
8,273 00	90 04	179 73	7,758 19	-721 09	-12 58	181 00	721 20
8,337.00	90 04	179 73	7,758 14	-785 09	-12 28	180 90	785 19



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Site:	Gadwall "18" Federal Com #3H	MD Reference:	RF @ 3218 00usft (Key #880)
Well:	Gadwall "18" Federal Com #3H	North Reference:	Grid
Wellbore:	OH - Job #32D0412384	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
8,400 00	90 66	179 29	7,757 76	-848 09	-11 74	180 79	848 17
8,463 00	90 84	179 20	7,756 94	-911 08	-10 91	180 69	911 14
8,527 00	91 80	179 20	7,755 46	-975 05	-10 02	180 59	975 10
8,590 00	91 89	177 89	7,753 43	-1,038 00	-8 42	180 46	1,038 03
8,653 00	91 98	177 53	7,751 31	-1,100 91	-5 91	180 31	1,100 93
8,717 00	91 36	178 06	7,749 44	-1,164 84	-3 44	180 17	1,164 84
8,780 00	88 99	178 15	7,749 25	-1,227 80	-1 36	180 06	1,227 80
8,843 00	88 55	178 06	7,750 60	-1,290 75	0 72	179 97	1,290 75
8,907 00	88 64	177 62	7,752 17	-1,354 68	3 13	179 87	1,354 69
8,970 00	87 23	176 92	7,754.44	-1,417 57	6 13	179 75	1,417 58
9,033 00	87 05	176 22	7,757.58	-1,480 38	9 90	179 62	1,480 41
9,097 00	87 49	175 60	7,760 63	-1,544 14	14 46	179 46	1,544 21
9,160 00	87 85	175 69	7,763 19	-1,606 91	19 24	179 31	1,607 02
9,224 00	88 55	175 34	7,765 20	-1,670.68	24 24	179 17	1,670 86
9,287 00	89 25	175 60	7,766 41	-1,733 47	29 21	179 03	1,733 72
9,350 00	89 87	175 51	7,766 90	-1,796 28	34 09	178 91	1,796 60
9,413 00	90 04	175 51	7,766 95	-1,859 09	39 03	178 80	1,859 50
9,477 00	89 96	175 25	7,766 95	-1,922 88	44 18	178 68	1,923 39
9,540 00	90 48	176 04	7,766 70	-1,985 69	48 97	178 59	1,986 30
9,603 00	89 87	176 66	7,766 51	-2,048 57	52 98	178 52	2,049 25
9,667 00	88 29	178 24	7,767 54	-2,112 49	55 82	178 49	2,113 23
9,730 00	87 76	178 59	7,769 71	-2,175 43	57 56	178 48	2,176 19
9,793 00	87 49	178 50	7,772 32	-2,238 35	59 16	178 49	2,239 14
9,857 00	87 58	178 24	7,775 07	-2,302 27	60 98	178 48	2,303 08
9,920 00	87 76	178 24	7,777 63	-2,365 19	62 92	178 48	2,366 02
9,983 00	89 78	177 10	7,778 99	-2,428 12	65 48	178 46	2,429 00
10,046 00	89 96	176 74	7,779 13	-2,491 02	68 86	178 42	2,491 98
10,109 00	89 16	178 33	7,779 61	-2,553 96	71 57	178 39	2,554 96
10,173 00	90 40	179 20	7,779 86	-2,617 94	72 95	178 40	2,618 96
10,236 00	90 75	179 64	7,779 23	-2,680 94	73 59	178 43	2,681 95
10,299 00	90 84	179 29	7,778 35	-2,743 93	74 18	178 45	2,744 93
10,362 00	91 10	179 03	7,777 29	-2,806 91	75 10	178 47	2,807 92
10,426 00	90 47	178 90	7,776 41	-2,870 90	76 25	178 48	2,871 91
10,489 00	89 60	178 68	7,776 37	-2,933 88	77 59	178 49	2,934 91
10,553 00	89 96	178 85	7,776 62	-2,997 87	78 96	178 49	2,998 91
10,616 00	89 68	178 85	7,776 81	-3,060 85	80 23	178 50	3,061 90
MWD Tie-In							
10,680 00	87 14	181 67	7,778 59	-3,124 82	79 94	178 53	3,125 84
10,743 00	86 35	182 63	7,782 17	-3,187 67	77 58	178 61	3,188 61
10,807 00	86 61	184 13	7,786 10	-3,251.44	73 81	178 70	3,252 27
10,870 00	88 11	185 44	7,789 00	-3,314 15	68 56	178 81	3,314 86
10,934 00	90 31	186 24	7,789 88	-3,377 80	62 05	178 95	3,378 37
10,997 00	91 36	185 01	7,788 96	-3,440 49	55 88	179 07	3,440 95
11,060 00	92 42	183 95	7,786 89	-3,503 26	50 96	179 17	3,503 63



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Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	RF @ 3218 00usft (Key #880)
Site:	Gadwall "18" Federal Com #3H	MD Reference:	RF @ 3218 00usft (Key #880)
Well:	Gadwall "18" Federal Com #3H	North Reference:	Grid
Wellbore:	OH - Job #32D0412384	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
11,124 00	90 92	180.79	7,785 02	-3,567 17	48 32	179 22	3,567 50	
11,187 00	90 13	178.33	7,784 44	-3,630 16	48 80	179 23	3,630 49	
11,251 00	90 40	177.89	7,784 15	-3,694 13	50 91	179 21	3,694 48	
11,314 00	94 62	177.27	7,781 39	-3,756 99	53 57	179 18	3,757 38	
11,378 00	95 58	176 92	7,775 70	-3,820 66	56 80	179 15	3,821 08	
11,441 00	95 58	177 01	7,769 57	-3,883 27	60 12	179 11	3,883 74	
11,504 00	95 41	176 66	7,763 54	-3,945 89	63 58	179 08	3,946 40	
11,568 00	94 26	176 22	7,758 15	-4,009 53	67 54	179 03	4,010.10	
11,631 00	93.03	174 99	7,754 14	-4,072 22	72 36	178 98	4,072 86	
11,694 00	91 01	175 25	7,751 92	-4,134 95	77 71	178 92	4,135 68	
11,757 00	90 66	175.25	7,751 00	-4,197 73	82 93	178 87	4,198 55	
11,821.00	90 04	174 72	7,750 61	-4,261 48	88 52	178 81	4,262 40	
11,884 00	90 04	174.55	7,750 57	-4,324 20	94 42	178 75	4,325 23	
11,947 00	90 04	174 63	7,750 52	-4,386 92	100 35	178 69	4,388 07	
12,011 00	89 52	173 76	7,750 77	-4,450 59	106 83	178 62	4,451 87	
12,074 00	89 43	173.84	7,751 35	-4,513 22	113 63	178 56	4,514 65	
12,139 00	88 72	174.20	7,752 40	-4,577 86	120 40	178 49	4,579 44	
12,190.00	88 72	174 20	7,753.54	-4,628 59	125 56	178 45	4,630 29	
Last MWD Survey - PBHL-Gadwall 18 #3H								

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
7,357 90	7,354 90	-55 53	-37 02	Gyro Tie-In	
10,616 00	7,776 81	-3,060.85	80 23	MWD Tie-In	
12,190 00	7,753 54	-4,628 59	125 56	Last MWD Survey	



Azimuths to Grid North
True North -0 05°
Magnetic North 7 73°

Magnetic Field
Strength 48409 8snT
Dip Angle 59 97°
Date 04/05/2012
Model IGRF2010

Gadwall "18" Federal Com #3H
Eddy County, NM (NAD83 NME)
Northing: (Y) 413335.60
Easting: (X) 571669.10
Plan #4ST - 7-7/8" Hole

WELL DETAILS: Gadwall "18" Federal Com #3H

+N-S	+E-W	Northing	Ground Level	3201 00	Latitude	Longitude
0 00	0 00	413335 60	571669 10	32° 8' 10 681 N	104° 14' 7 226 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	V Sect	Target
1	10616 00	89 68	178 85	7776 81	-3060 85	80 23	0 00	0 00	3061 90	
2	10828 46	88 00	185 00	7781 12	-3273 04	73 10	3 00	105 33	3273 81	
3	11116 10	90 80	176 84	7784 13	-3560 35	68 50	3 00	-71 13	3560 89	
4	12196 90	90 80	176 84	7769 00	-4639 40	128 12	0 00	0 00	4641 17	PBHL-Gadwall 18 #3H

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
PBHL-Gadwall 18 #3H	7769 00	-4639 40	128 12	408696 20	571797 22	32° 7' 24 768 N	104° 14' 5 785 W

- plan hits target center

SITE DETAILS Gadwall "18" Federal Com #3H

Site Centre Northing 413335 60
Easting 571669 10

Positional Uncertainty 0 00
Convergence 0 05
Local North Grid

PROJECT DETAILS: Eddy County, NM (NAD83 NME)

Geodetic System US State Plane 1983
Datum North American Datum 1983
Ellipsoid GRS 1980
Zone New Mexico Eastern Zone

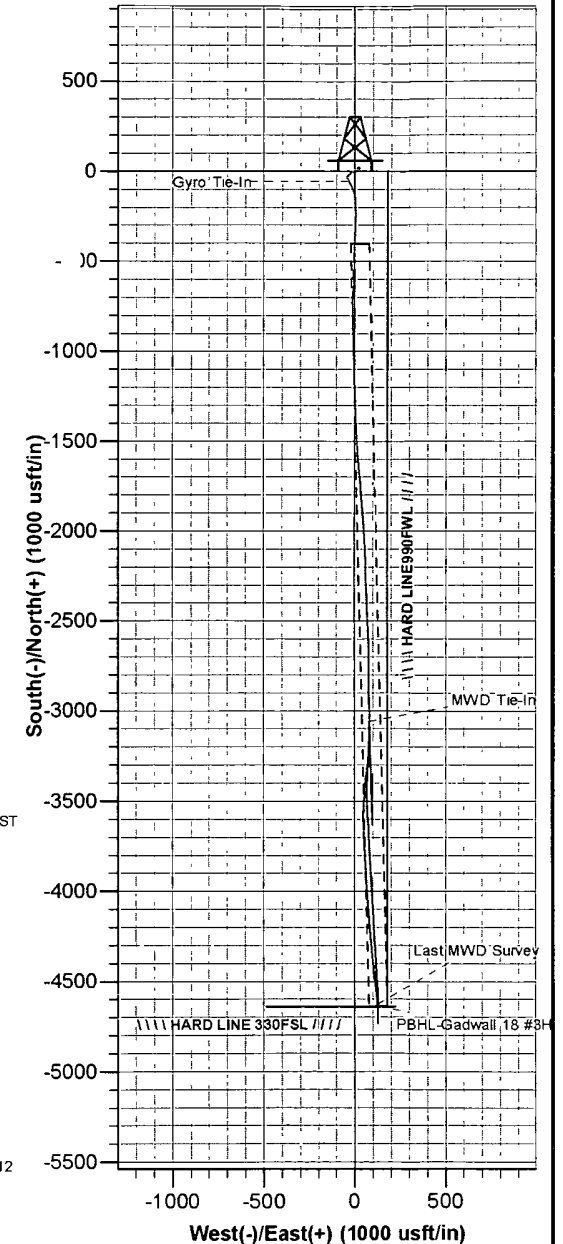
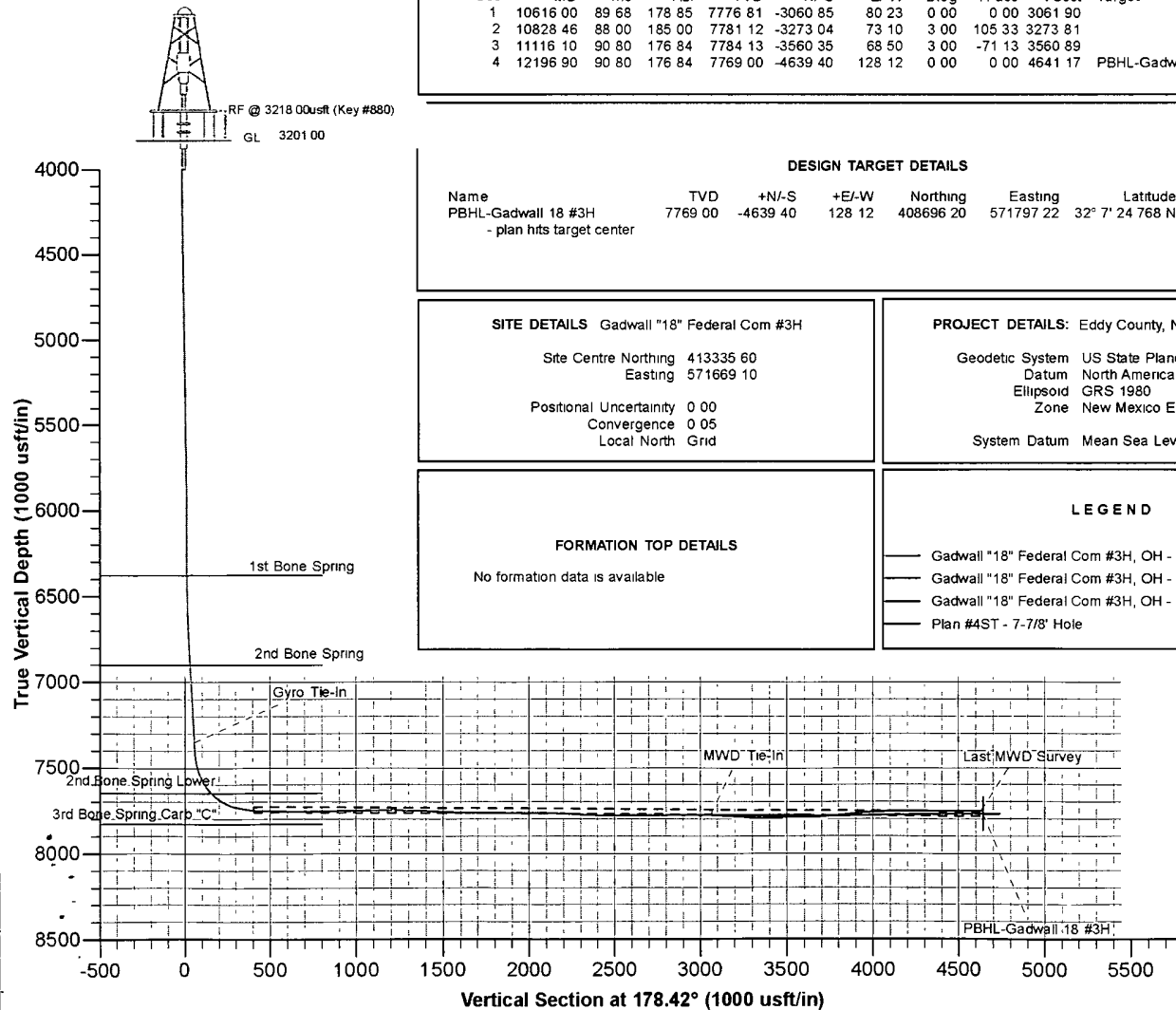
System Datum Mean Sea Level

FORMATION TOP DETAILS

No formation data is available

LEGEND

— Gadwall "18" Federal Com #3H, OH - Job #32D0412384, Gyro
— Gadwall "18" Federal Com #3H, OH - Job #32D0412384, MWD
— Gadwall "18" Federal Com #3H, OH - Job #32D0412384, MWD ST
— Plan #4ST - 7-7/8" Hole



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7 15, May 03 2012
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