

15-38520

OCCIDENTAL PERMIAN LTD.

San Dunes Delaware, West
Eddy County, NM
Pure Gold B Federal #15
DH - Job #32D0112001

Survey: MWD

SDI Standard Survey Report

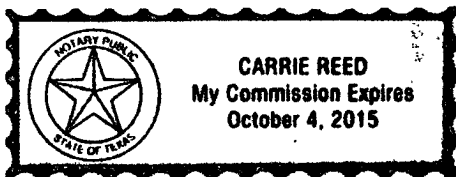
This survey is correct to the best of my knowledge and is supported by actual field data.

Richards

Notarized this date 17th of February 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Pure Gold B Federal #15
Project:	San Dunes Delaware, West	TVD Reference:	WELL @ 0 0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0 0usft (Original Well Elev)
Well:	Pure Gold B Federal #15	North Reference:	Grid
Wellbore:	VH - Job #32K0112004	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0112004	Database:	EDM-Regulatory

Project	San Dunes Delaware, West		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Eddy County, NM		
Site Position:		Northing:	461,972 78 usft
From:	Lat/Long	Easting:	664,293 31 usft
Position Uncertainty:	0 0 usft	Slot Radius:	0"
		Latitude:	32° 16' 8 261 N
		Longitude:	103° 48' 6 450 W
		Grid Convergence:	0 28 °

Well	Pure Gold B Federal #15, Directional		
Well Position	+N/-S	0 0 usft	Northing: 468,577 27 usft
	+E/-W	0 0 usft	Easting: 664,737 86 usft
Position Uncertainty	0 0 usft	Wellhead Elevation:	usft
		Latitude:	32° 17' 13 597 N
		Longitude:	103° 48' 0 890 W
		Ground Level:	0 0 usft

Wellbore	VH - Job #32K0112004				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/1/2012	7 63	60 19	48,600

Design	VH - Job #32K0112004			
Audit Notes:				
Version:	1 0	Phase:	ACTUAL	Tie On Depth: 0 0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0 0	0 0	0 0	283 16

Survey Program	Date	2/16/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100 2	480 0	Gyro (VH - Job #32K0112004)	Keeper	Keeper Surface Readout

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0 0	0 00	0 00	0 0	0 0	0 0	0 00	0 0	
100 2	0 33	314 64	100 2	0 2	-0 2	314 64	0 3	
130 3	0 32	317 51	130 3	0 3	-0 3	315 17	0 5	
225 1	0 30	315 62	225 1	0 7	-0 7	315 92	1 0	
312 9	0 28	312 58	312 9	1 0	-1 0	315 37	1 4	
404 5	0 23	304 54	404 5	1 3	-1 3	313 94	1 8	
480 0	0 22	292 72	480 0	1 4	-1 6	311 84	2 1	

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Well:	Pure Gold B Federal #15	North Reference:	Grid
Wellbore:	DH - Job #32D0112001	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #32D0112001	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,608 0	0 50	232 30	1,608 0	0 6	-6 4	275 40	6 4
1,698 0	0 50	236 60	1,698 0	0 1	-7 0	271 21	7 0
1,788 0	0 50	236 60	1,788 0	-0 3	-7 7	267 89	7 7
1,878 0	0 50	246 40	1,878 0	-0 7	-8 4	265 52	8 4
1,968 0	0 50	230 00	1,968 0	-1 1	-9 0	263 27	9 1
2,058 0	0 60	220 00	2,058 0	-1 7	-9 7	260 12	9 8
2,148 0	0 60	221 70	2,148 0	-2 4	-10 3	256 88	10 5
2,239 0	0 60	249 70	2,239 0	-2 9	-11 0	255 20	11 4
2,329 0	0 50	251 20	2,328 9	-3 2	-11 8	254 86	12 3
2,419 0	0 70	275 00	2,418 9	-3 3	-12 8	255 58	13 2
2,509 0	0 70	268 70	2,508 9	-3 2	-13 9	256 81	14 2
2,599 0	0 70	283 00	2,598 9	-3 1	-14 9	258 15	15 3
2,689 0	0 70	303 40	2,688 9	-2 7	-15 9	260 35	16 2
2,779 0	0 60	310 30	2,778 9	-2 1	-16 8	262 85	16 9
2,869 0	0 60	308 80	2,868 9	-1 5	-17 5	265 09	17 6
2,959 0	0 60	286 00	2,958 9	-1 1	-18 3	266 63	18 3
3,049 0	0 50	298 10	3,048 9	-0 8	-19 1	267 72	19 1
3,139 0	0 40	275 70	3,138 9	-0 5	-19 8	268 42	19 8
3,229 0	0 07	171 22	3,228 9	-0 6	-20 1	268 38	20 1
3,318 0	0 40	122 50	3,317 9	-0 8	-19 8	267 72	19 8
3,407 0	1 13	134 40	3,406 9	-1 6	-18 9	265 25	19 0
3,497 0	1 34	130 30	3,496 9	-2 9	-17 5	260 66	17 7
3,587 0	1 78	134 40	3,586 8	-4 5	-15 7	253 87	16 3
3,677 0	2 00	140 20	3,676 8	-6 7	-13 7	243 83	15 2
3,767 0	2 25	145 50	3,766 7	-9 4	-11 7	231 19	15 0
3,857 0	2 40	144 00	3,856 7	-12 4	-9 6	217 70	15 6
3,947 0	2 20	137 40	3,946 6	-15 2	-7 3	205 65	16 8
4,038 0	1 90	135 90	4,037 5	-17 5	-5 0	196 06	18 2
4,128 0	1 90	134 90	4,127 5	-19 6	-2 9	188 54	19 9
4,274 0	1 60	138 50	4,273 4	-22 9	0 1	179 71	22 9
4,364 0	0 80	51 00	4,363 4	-23 4	1 4	176 49	23 5
4,454 0	4 22	350 55	4,453 3	-19 8	1 4	176 00	19 8
4,543 0	6 60	350 55	4,541 9	-11 5	0 0	179 98	11 5
4,633 0	7 59	338 70	4,631 2	-0 8	-3 0	254 23	3 1
4,724 0	9 48	325 00	4,721 2	10 9	-9 5	318 94	14 4
4,814 0	9 47	319 10	4,810 0	22 6	-18 6	320 51	29 2
4,904 0	11 01	299 34	4,898 6	32 4	-30 9	316 30	44 8
4,994 0	12 20	289 20	4,986 7	39 7	-47 4	309 95	61 8
5,084 0	12 20	272 90	5,074 7	43 3	-65 9	303 32	78 9
5,174 0	13 90	267 30	5,162 4	43 3	-86 2	296 67	96 4
5,264 0	14 20	277 50	5,249 7	44 2	-107 9	292 28	116 6
5,354 0	16 30	284 40	5,336 6	48 8	-131 1	290 42	139 9
5,444 0	18 50	284 40	5,422 4	55 5	-157 2	289 45	166 7
5,534 0	19 97	282 80	5,507 4	62 5	-186 0	288 56	196 2

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Well:	Pure Gold B Federal #15	North Reference:	Grid
Wellbore:	DH - Job #32D0112001	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #32D0112001	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,624 0	21 60	286 10	5,591 6	70 5	-216 9	287 99	228 1
5,714 0	23 50	287 90	5,674 7	80 6	-249 9	287 87	262 6
5,804 0	23 73	286 90	5,757 1	91 3	-284 3	287 81	298 6
5,894 0	25 30	284 50	5,839 0	101 4	-320 3	287 57	335 9
5,984 0	25 40	285 30	5,920 4	111 3	-357 5	287 30	374 4
6,074 0	25 07	284 60	6,001 8	121 2	-394 6	287 08	412 8
6,164 0	29 22	283 41	6,081 8	131 1	-434 4	286 80	453 8
6,254 0	30 14	283 80	6,160 0	141 6	-477 7	286 51	498 3
6,345 0	30 60	284 00	6,238 5	152 7	-522 4	286 29	544 2
6,435 0	30 60	284 10	6,316 0	163 8	-566 8	286 12	590 0
6,525 0	28 80	284 70	6,394 2	174 9	-610 0	286 00	634 6
6,615 0	28 30	281 20	6,473 2	184 5	-651 9	285 80	677 5
6,705 0	29 70	281 30	6,552 0	193 0	-694 7	285 53	721 0
6,794 0	28 40	281 30	6,629 8	201 5	-737 1	285 29	764 1
6,884 0	28 30	281 40	6,709 0	209 9	-779 0	285 08	806 8
6,974 0	26 60	282 10	6,788 8	218 4	-819 6	284 92	848 2
7,064 0	27 00	282 00	6,869 2	226 8	-859 3	284 79	888 7
7,154 0	27 30	277 80	6,949 3	233 9	-899 7	284 57	929 6
7,244 0	30 90	279 40	7,027 9	240 5	-943 0	284 31	973 1
7,334 0	30 80	279 60	7,105 1	248 1	-988 5	284 09	1,019 1
7,424 0	33 16	280 10	7,181 5	256 2	-1,035 5	283 90	1,066 7
7,514 0	32 50	280 10	7,257 1	264 8	-1,083 5	283 73	1,115 4
7,604 0	34 01	280 30	7,332 4	273 5	-1,132 1	283 58	1,164 6
7,694 0	32 90	280 80	7,407 5	282 6	-1,180 8	283 46	1,214 2
7,784 0	32 80	281 40	7,483 1	292 0	-1,228 7	283 37	1,263 0
7,874 0	33 00	281 70	7,558 6	301 8	-1,276 6	283 30	1,311 8
7,964 0	33 30	282 90	7,634 0	312 3	-1,324 7	283 26	1,361 0
8,054 0	31 40	283 20	7,710 0	323 2	-1,371 6	283 26	1,409 2
8,144 0	32 50	283 70	7,786 4	334 2	-1,418 0	283 26	1,456 8
8,234 0	30 10	284 30	7,863 3	345 5	-1,463 3	283 29	1,503 6
8,324 0	26 80	285 00	7,942 4	356 4	-1,504 8	283 32	1,546 4
8,414 0	24 60	286 40	8,023 5	366 9	-1,542 4	283 38	1,585 4
8,463 0	24 90	289 30	8,068 0	373 2	-1,561 9	283 44	1,605 9
8,527 0	24 90	289 30	8,126 0	382 1	-1,587 3	283 53	1,632 7



Project: Pure Gold
Site: Pure Gold B Federal #15
Well: PGBF#15
Wellbore: Original Wellbore
Design: Final Design



DESIGN TARGET DETAILS

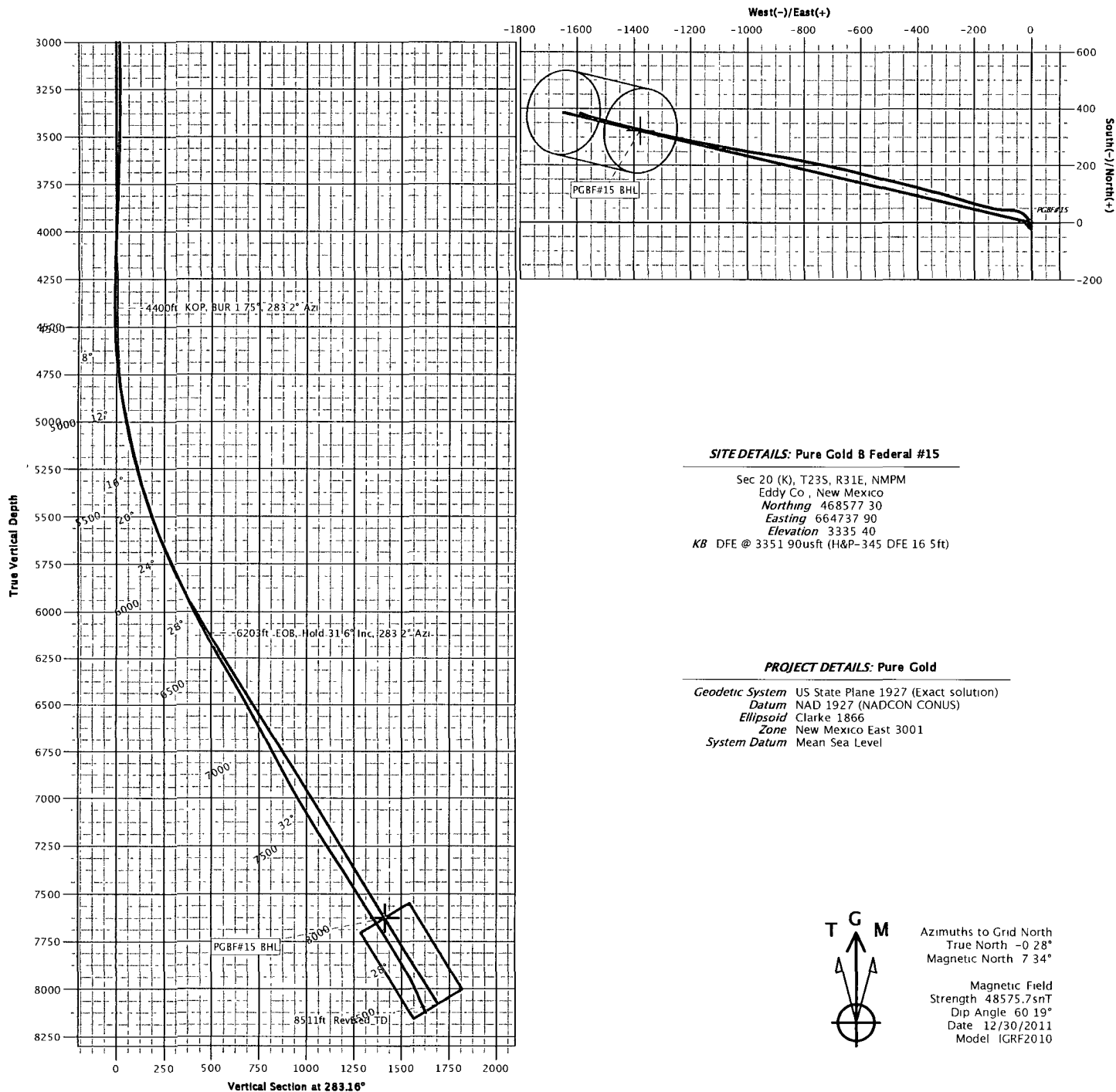
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PGBF#15 BHL	7626 00	321 80	-1375 80	468899 10	663362 10	Circle (Radius 150 00)
- plan hits target center						

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Target
0 00	0 00	0 00	0 00	0 00	0 00	0.00	0.00	Target
4400 00	0 00	0 00	4400 00	0 00	0 00	0.00	0.00	
6202 96	31 55	283 16	6113 21	110 23	-471 29	1 75	484 01	
7978 19	31 55	283 16	7626 00	321 80	-1375 80	0 00	1412.93	BHL
8323 19	31 55	283 16	7920 00	362 92	-1551 58	0 00	1593 46	
8510 95	31 55	283 16	8080 00	385 29	-1647 25	0.00	1691 71	

CASING DETAILS

TVD	MD	Size
480 00	480 00	11-3/4
4200 00	4200 00	8-5/8
8080 00	8510 95	5-1/2



SITE DETAILS: Pure Gold B Federal #15

Sec 20 (K), T23S, R31E, NMPM
Eddy Co, New Mexico
Northing 468577 30
Easting 664737 90
Elevation 3335 40
KB DFE @ 3351 90usft (H&P-345 DFE 16 5ft)

PROJECT DETAILS: Pure Gold

Geodetic System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone New Mexico East 3001
System Datum Mean Sea Level



Azimuths to Grid North
True North -0 28°
Magnetic North 7 34°

Magnetic Field
Strength 48575.7snT
Dip Angle 60 19°
Date 12/30/2011
Model IGRF2010