



30-015-39370

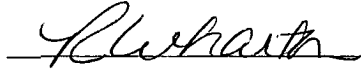
OCCIDENTAL PERMIAN LTD.

Empire
Eddy County, NM
Roo 22 State #1
VH - Job #32K0812965

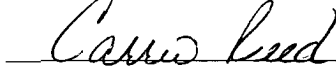
Survey: Gyro

SDI Standard Survey Report

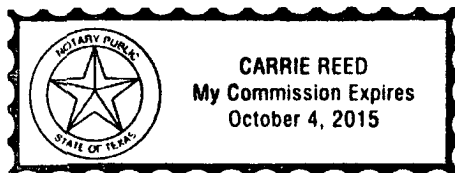
This survey is correct to the best of my knowledge and is supported by actual field data.



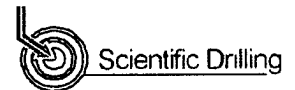
Notarized this date 21st of August, 2012.



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 Roo 22 State #1
Project	Empire	TVD Reference.	WELL @ 0 00usft (Original Well Elev)
Site	Eddy County, NM	MD Reference	WELL @ 0 00usft (Original Well Elev)
Well	Roo 22 State #1	North Reference	Grid
Wellbore	VH - Job #32K0812965	Survey Calculation Method.	Minimum Curvature
Design	VH - Job #32K0812965	Database.	EDM-Regulatory

Project	Empire		
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:	661,012 36 usft	Latitude	32° 49' 1 589 N
From.	Lat/Long	Easting.	549,289 58 usft	Longitude.	104° 10' 22 415 W
Position Uncertainty	0 00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0 09 °

Well		Roo 22 State #1, Vertical				
Well Position	+N/-S	0 00 usft	Northing	660,767 99 usft	Latitude	32° 48' 59 148 N
	+E/-W	0 00 usft	Easting	550,771 66 usft	Longitude	104° 10' 5 052 W
Position Uncertainty		0 00 usft	Wellhead Elevation:	usft	Ground Level:	0 00 usft

Wellbore						VH - Job #32K0812965					
Magnetics		Model Name		Sample Date		Declination		Dip Angle		Field Strength	
						(°)		(°)		(nT)	
		IGRF2010		08/03/12		7 77		60 60		48,819	

Design		VH - Job #32K0812965			
Audit Notes:					
Version	1 0	Phase:	ACTUAL	Tie On Depth	0 00
Vertical Section.	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0 00	0 00	0 00	30 67	

Survey Program		Date	08/28/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
115 00	398 00	Gyro (VH - Job #32K0812965)	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 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
115 00	0 42	315 19	115 00	0 30	-0 30	315 19	0 42
209 00	0 89	40 40	208 99	1 10	-0 07	356 53	1 10
304 00	0 84	43 27	303 98	2 17	0 89	22 29	2 34
398 00	0 66	51 36	397 98	3 01	1 78	30 67	3 50

Checked By		Approved By		Date	
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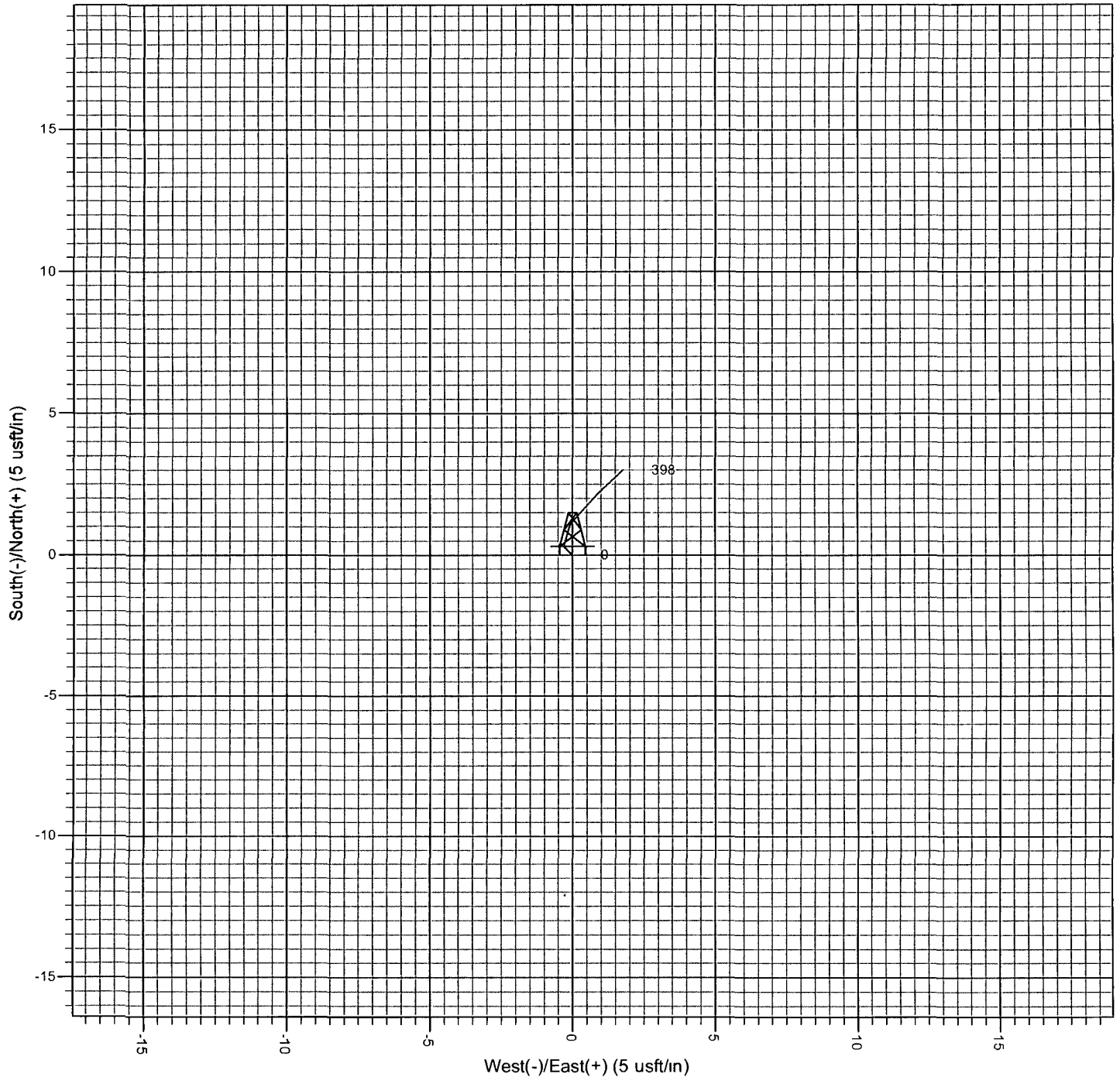


Scientific Drilling

Project Empire
Eddy County, NM
Well Roo 22 State #1
Wellbore VH - Job #32K0812965
Design VH - Job #32K0812965

WELL DETAILS Roo 22 State #1
WELL @ 0 00usft (Original Well Elev)
Ground Level 0 00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	660767 99	550771 66	32° 48' 59 148 N	104° 10' 5 052 W	



PROJECT DETAILS Empire		SITE DETAILS Eddy County, NM	
Geodetic System	US State Plane 1927 (Exact solution)	Site Centre Latitude	32° 49' 1 589 N
Datum	NAD 1927 (NADCON CONUS)	Longitude	104° 10' 22 415 W
Ellipsoid	Clarke 1866	Positional Uncertainty	0 00
Zone	New Mexico East 3001	Convergence	0 09
System Datum	Mean Sea Level	Local North	Grid

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

September 14, 2012

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046

Attention: Luis Tarazona

Re:

CLIENT: OXY Permian
WELL: ROO 22 State #1
FIELD: Permian Basin
RIG: Savanna 415
COUNTY: Eddy
API NO: 30-015-39370
JOB NO: NM-OXY-0008

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Dillon Ash FST-1	ROO 22 State #1 Original Hole	447.00 Ft to 4930.00 Ft	August 4, 2012 to August 11, 2012	SlimPulse

A plat of the bottom hole location is oriented both to the surface location and to the lease lines (or until line in case of pooling), is attached to the survey report.

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Scott Haymond
Field Service Manager

CC: OXY Permian
Enclosures: [2]
County of Eddy
State of New Mexico

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

I, Dillon Ash certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of August 04, 2012 through August 11, 2012, conduct or supervise the taking of the SlimPulse surveys from a depth of 447.00 feet to a depth of 4930.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY Permain for the ROO 22 State #1 Well (Original Hole) API No. 30-015-39370 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

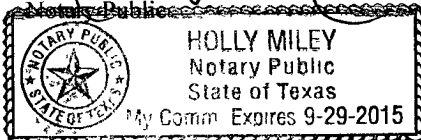


Dillon Ash

FST-1

Before me, Dillon Ash, on this day personally appeared Dillon Ash, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 17 day of Sept., (year). 2012



NM-OXY-0008 Roo 22 State #1 MWD 0' to 4930' Survey Report

(Def Survey)

Report Date August 12, 2012 - 12 46 AM
 Client OXY
 Field Eddy (NAD27) 2011
 Structure / Slot Oxy (Roo 22 State #1) Savanna 415 / Roo 22 State #1
 Well Roo 22 State #1
 Borehole Original Hole
 UWI / API# Unknown / 30-015-39370
 Survey Name Roo 22 State #1 MWD 0' to 4930'
 Survey Date August 12, 2012
 Tort / AHD / DDI / ERD Ratio 57 032 ° / 622 255 ft / 4 555 / 0 128
 Coordinate Reference System NAD27 Universal Transverse Mercator Zone 13 North, US Feet
 Location Lat / Long. N 32° 48' 58 32000", W 104° 10' 4 44000"
 Location Grd N/E Y/X N 11912795 091 fUS, E 1895976 922 fUS
 CRS Grid Convergence Angle 0 45097586 °
 Grd Scale Factor 0 99967482

Survey / DLS Computation
 Vertical Section Azimuth 235 000 ° (Grd North)
 Vertical Section Origin 0 000 ft, 0 000 ft
 TVD Reference Datum RKB
 TVD Reference Elevation 3606 000 ft above Unknown
 Seabed / Ground Elevation 3592 000 ft above Unknown
 Magnetic Declination 7 950 °
 Total Field Strength 48779 628 nT
 Magnetic Dip Angle 80 559 °
 Declination Date August 12, 2012
 Magnetic Declination Model BGGM 2011
 North Reference Grd North
 Grid Convergence Used 0 090 °
 Total Corr Mag North->Grd North 7 860 °
 Local Coord Referenced To Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grd (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0 00	0 00	0 00	0 00	0 00	0 00	0 00	N/A	11912795 09	1895976 92	N 32 48 58 32	W 104 10 4 44
Assumed Vertical	415 00	0 00	0 00	415 00	0 00	0 00	0 00	0 00	11912795 09	1895976 92	N 32 48 58 32	W 104 10 4 44
Begin MWD Surveys	447 00	0 48	40 73	447 00	-0 13	0 10	0 09	1 50	11912795 19	1895977 01	N 32 48 58 32	W 104 10 4 44
	477 00	0 48	51 06	477 00	-0 38	0 28	0 27	0 29	11912795 37	1895977 19	N 32 48 58 32	W 104 10 4 44
	508 00	0 62	135 74	508 00	-0 53	0 24	0 49	2 41	11912795 33	1895977 41	N 32 48 58 32	W 104 10 4 43
	538 00	1 80	170 15	537 99	-0 36	-0 34	0 68	4 45	11912794 75	1895977 60	N 32 48 58 32	W 104 10 4 43
	598 00	4 48	182 28	597 90	1 46	-3 61	0 75	4 58	11912791 48	1895977 67	N 32 48 58 28	W 104 10 4 43
	659 00	5 32	182 67	658 67	4 63	-8 82	0 52	1 38	11912786 27	1895977 44	N 32 48 58 23	W 104 10 4 43
	720 00	6 99	178 94	719 32	8 43	-15 36	0 46	2 81	11912779 74	1895977 38	N 32 48 57 42	W 104 10 4 44
	781 00	9 10	176 96	779 71	13 06	-23 88	0 78	3 49	11912771 21	1895977 70	N 32 48 58 08	W 104 10 4 43
	842 00	10 59	186 54	839 82	19 33	-34 27	0 40	3 62	11912760 83	1895977 32	N 32 48 57 98	W 104 10 4 44
	947 00	13 80	206 05	942 48	36 70	-55 12	-6 20	4 93	11912739 99	1895970 72	N 32 48 57 78	W 104 10 4 52
	1033 00	12 30	216 78	1026 27	54 38	-71 68	-16 19	3 31	11912723 44	1895960 73	N 32 48 57 61	W 104 10 4 64
	1163 00	12 08	233 74	1153 38	81 14	-90 82	-35 46	2 75	11912704 30	1895941 47	N 32 48 57 42	W 104 10 4 86
	1293 00	12 00	234 57	1280 52	108 25	-106 70	-57 44	0 15	11912688 43	1895919 50	N 32 48 57 27	W 104 10 5 12
	1423 00	11 60	234 05	1407 77	134 84	-122 21	-79 03	0 32	11912672 92	1895897 91	N 32 48 57 12	W 104 10 5 38
	1552 00	11 69	235 45	1534 12	160 87	-137 23	-100 30	0 23	11912657 90	1895876 66	N 32 48 57 08	W 104 10 5 63
	1682 00	10 20	240 07	1661 75	185 51	-150 45	-121 12	1 33	11912644 69	1895855 84	N 32 48 56 84	W 104 10 5 87
	1812 00	10 11	241 08	1789 71	208 32	-161 71	-141 08	0 15	11912633 44	1895835 88	N 32 48 56 73	W 104 10 6 11
	1941 00	9 80	234 44	1916 78	230 56	-173 57	-159 93	0 92	11912621 58	1895817 05	N 32 48 56 62	W 104 10 6 33
	2071 00	10 11	225 98	2044 83	252 89	-187 93	-177 13	1 15	11912607 22	1895799 85	N 32 48 56 47	W 104 10 6 53
	2201 00	10 50	223 85	2172 73	275 78	-204 41	-193 54	0 42	11912590 75	1895783 45	N 32 48 56 31	W 104 10 6 73
	2330 00	10 68	223 06	2289 53	299 01	-221 62	-209 84	0 18	11912573 54	1895767 15	N 32 48 56 14	W 104 10 6 92
	2460 00	11 60	220 16	2427 08	323 43	-240 41	-226 50	0 83	11912554 76	1895750 50	N 32 48 55 96	W 104 10 7 12
	2590 00	11 82	220 16	2554 38	348 93	-260 57	-243 51	0 17	11912534 60	1895733 49	N 32 48 55 76	W 104 10 7 32
	2719 00	12 92	221 74	2680 38	375 74	-281 43	-261 63	0 89	11912513 75	1895715 37	N 32 48 55 56	W 104 10 7 53
	2849 00	12 22	224 25	2807 26	403 40	-302 13	-280 91	0 68	11912493 06	1895696 10	N 32 48 55 35	W 104 10 7 76
	2979 00	11 60	228 16	2934 47	429 90	-320 71	-300 25	0 78	11912474 49	1895678 77	N 32 48 55 17	W 104 10 7 99
	3108 00	10 59	233 17	3061 08	454 63	-336 48	-319 40	1 08	11912458 74	1895657 63	N 32 48 55 02	W 104 10 8 21
	3238 00	8 92	240 37	3189 18	476 60	-348 61	-337 72	1 59	11912446 60	1895639 31	N 32 48 54 90	W 104 10 8 43
	3367 00	8 61	252 46	3316 68	495 77	-356 46	-355 63	1 45	11912438 74	1895621 41	N 32 48 54 82	W 104 10 8 64
	3497 00	10 20	265 95	3444 95	514 93	-360 21	-376 39	2 08	11912435 00	1895600 65	N 32 48 54 79	W 104 10 8 88
	3626 00	8 00	256 68	3572 32	533 07	-383 09	-396 52	2 04	11912432 12	1895580 53	N 32 48 54 76	W 104 10 9 12
	3756 00	5 32	250 66	3701 43	547 28	-367 17	-411 02	2 13	11912428 04	1895566 04	N 32 48 54 72	W 104 10 9 29
	3885 00	3 69	241 17	3830 03	557 17	-371 15	-420 30	1 39	11912424 06	1895556 76	N 32 48 54 68	W 104 10 9 40
	4015 00	1 80	242 04	3959 88	563 35	-374 12	-425 76	1 45	11912421 09	1895551 30	N 32 48 54 65	W 104 10 9 46
	4145 00	3 52	241 34	4089 73	569 35	-377 00	-431 07	1 32	11912418 22	1895545 99	N 32 48 54 62	W 104 10 9 53
	4275 00	1 32	236 07	4219 61	574 81	-379 75	-435 81	1 70	11912415 47	1895541 25	N 32 48 54 60	W 104 10 9 58
	4404 00	1 10	204 08	4348 58	577 36	-381 71	-437 55	0 54	11912413 51	1895539 51	N 32 48 54 58	W 104 10 9 60
	4534 00	1 10	206 05	4478 56	579 52	-383 97	-438 61	0 03	11912411 25	1895538 46	N 32 48 54 56	W 104 10 9 61
	4683 00	1 19	213 66	4607 53	581 85	-386 19	-439 90	0 14	11912409 02	1895537 17	N 32 48 54 53	W 104 10 9 63
	4793 00	1 41	209 35	4737 50	584 55	-388 71	-441 43	0 19	11912406 51	1895535 64	N 32 48 54 51	W 104 10 9 65
	4873 00	1 58	207 37	4817 47	586 42	-390 55	-442 42	0 22	11912404 67	1895534 65	N 32 48 54 49	W 104 10 9 66
End MWD Surveys	4930 00	1 70	205 96	4874 45	587 85	-392 01	-443 15	0 22	11912403 21	1895533 92	N 32 48 54 48	W 104 10 9 67

Survey Type Def Survey

Survey Error Model. ICSWSA Rev 0 *** 3-D 95 000% Confidence 2 7955 sigma
 Survey Program

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0 000	14 000	1/14 000	SLB_BLIND+TREND-Depth Only	Original Hole / Roo 22 State #1 MWD 0' to 4930'
	14 000	415 000	1/98 425	SLB_BLIND+TREND	Original Hole / Roo 22 State #1 MWD 0' to 4930'
	415 000	415 000	Act Stns	SLB_BLIND+TREND	Original Hole / Roo 22 State #1 MWD 0' to 4930'
	415 000	4930 000	1/4515 000	SLB_MWD-STD	Original Hole / Roo 22 State #1 MWD 0' to 4930'