
*
*
*

-----SCHLUMBERGER-----
-----SCHLUMBERGER-----

RECEIVED-PTLD

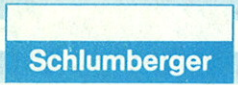
NOV 24 1980

DEPT OF GEOLOGY
& MINERAL INDUS

SCHLUMBERGER DIRECTIONAL SURVEY

FENIX & SCISSON
OLD MAID #7A
OLD MAID FLAT FIELD
CLACKAMAS COUNTY, OREGON
RUN NO. 1 112 - 1188
AUGUST 16, 1980

START OF SURVEY IS CASING AT 96 FT.
TANGENTIAL METHOD
REFERENCE JOB 4764.



* DEPTH	* DEVIATION	* AZIMUTH	* TRUE	* VERTICAL	* CO-ORDINATES			* COURSE	*	
* FEET	* DEGREES	* DEGREES	* DEPTH	* FEET	* + NORTH	* + EAST	* LENGTH	*		

* 96.0	* 0.0	* 0.0	* 96.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 100.0	* 0.0	* 0.0	* 100.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 110.0	* 0.0	* 0.0	* 110.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 120.0	* 0.0	* 0.0	* 120.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 130.0	* 0.0	* 0.0	* 130.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 140.0	* 0.0	* 0.0	* 140.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 150.0	* 0.0	* 0.0	* 150.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 160.0	* 0.0	* 0.0	* 160.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 170.0	* 0.0	* 0.0	* 170.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 180.0	* 0.0	* 0.0	* 180.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 190.0	* 0.0	* 0.0	* 190.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 200.0	* 0.0	* 0.0	* 200.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 210.0	* 0.0	* 0.0	* 210.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 220.0	* 0.0	* 0.0	* 220.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 230.0	* 0.2	* 63.0	* 230.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 240.0	* 0.0	* 0.0	* 240.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 250.0	* 0.0	* 0.0	* 250.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 260.0	* 0.0	* 0.0	* 260.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 270.0	* 0.0	* 0.0	* 270.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 280.0	* 0.0	* 0.0	* 280.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 290.0	* 0.0	* 0.0	* 290.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 300.0	* 0.0	* 0.0	* 300.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 310.0	* 0.0	* 0.0	* 310.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 320.0	* 0.0	* 0.0	* 320.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 330.0	* 0.0	* 0.0	* 330.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 340.0	* 0.0	* 0.0	* 340.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 350.0	* 0.0	* 0.0	* 350.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 360.0	* 0.0	* 0.0	* 360.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 370.0	* 0.0	* 0.0	* 370.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 380.0	* 0.2	* 98.0	* 380.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
* 390.0	* 0.2	* 97.0	* 390.0	* 0.0	* 0.0	* 0.0	* 0.1	* 0.1	* 0.1	* 0.1
* 400.0	* 0.2	* 97.0	* 400.0	* 0.0	* 0.0	* 0.0	* 0.1	* 0.1	* 0.1	* 0.1
* 410.0	* 0.2	* 99.0	* 410.0	* 0.0	* 0.0	* 0.0	* 0.2	* 0.2	* 0.2	* 0.2
* 420.0	* 0.2	* 102.0	* 420.0	* 0.0	* 0.0	* 0.0	* 0.2	* 0.2	* 0.2	* 0.2
* 430.0	* 0.2	* 102.0	* 430.0	* 0.0	* 0.0	* 0.0	* 0.2	* 0.2	* 0.2	* 0.2
* 440.0	* 0.2	* 101.0	* 440.0	* 0.0	* 0.0	* 0.0	* 0.3	* 0.3	* 0.3	* 0.3
* 450.0	* 0.4	* 100.0	* 450.0	* 0.0	* 0.0	* 0.0	* 0.3	* 0.3	* 0.3	* 0.3
* 460.0	* 0.2	* 97.0	* 460.0	* -0.1	* 0.3	* 0.3	* 0.3	* 0.3	* 0.3	* 0.3
* 470.0	* 0.2	* 97.0	* 470.0	* -0.1	* 0.4	* 0.4	* 0.4	* 0.4	* 0.4	* 0.4
* 480.0	* 0.2	* 97.0	* 480.0	* -0.1	* 0.4	* 0.4	* 0.4	* 0.4	* 0.4	* 0.4
* 490.0	* 0.2	* 98.0	* 490.0	* -0.1	* 0.4	* 0.4	* 0.4	* 0.4	* 0.5	* 0.5
* 500.0	* 0.3	* 101.0	* 500.0	* -0.1	* 0.5	* 0.5	* 0.5	* 0.5	* 0.5	* 0.5
* 510.0	* 0.3	* 102.0	* 510.0	* -0.1	* 0.5	* 0.5	* 0.5	* 0.5	* 0.5	* 0.5
* 520.0	* 0.3	* 104.0	* 520.0	* -0.1	* 0.6	* 0.6	* 0.6	* 0.6	* 0.6	* 0.6
* 530.0	* 0.4	* 108.0	* 530.0	* -0.1	* 0.7	* 0.7	* 0.7	* 0.7	* 0.7	* 0.7
* 540.0	* 0.4	* 112.0	* 540.0	* -0.1	* 0.7	* 0.7	* 0.7	* 0.7	* 0.7	* 0.7

* * * * * TRUE * * * * * CO-ORDINATES * * * * *									
DEPTH	DEVIATION	AZIMUTH	VERTICAL	*****		COURSE	*****		
FEET	DEGREES	DEGREES	DEPTH	+ NORTH	+ EAST	LENGTH	*****		
* * * * *									
* * * * * FEET * * * * * SOUTH * * * * * WEST * * * * * FEET * * * * *									

* 550.0 *	* 0.4 *	* 112.0 *	* 550.0 *	* -0.2 *	* 0.8 *	* 0.8 *	*****		
* 560.0 *	* 0.4 *	* 117.0 *	* 560.0 *	* -0.2 *	* 0.9 *	* 0.9 *	*****		
* 570.0 *	* 0.4 *	* 118.0 *	* 570.0 *	* -0.2 *	* 0.9 *	* 0.9 *	*****		
* 580.0 *	* 0.6 *	* 115.0 *	* 580.0 *	* -0.3 *	* 1.0 *	* 1.0 *	*****		
* 590.0 *	* 0.6 *	* 111.0 *	* 590.0 *	* -0.3 *	* 1.1 *	* 1.1 *	*****		
* 600.0 *	* 0.6 *	* 119.0 *	* 600.0 *	* -0.4 *	* 1.2 *	* 1.2 *	*****		
* 610.0 *	* 0.6 *	* 117.0 *	* 610.0 *	* -0.4 *	* 1.3 *	* 1.3 *	*****		
* 620.0 *	* 0.6 *	* 115.0 *	* 620.0 *	* -0.4 *	* 1.4 *	* 1.4 *	*****		
* 630.0 *	* 0.6 *	* 112.0 *	* 630.0 *	* -0.5 *	* 1.5 *	* 1.5 *	*****		
* 640.0 *	* 0.6 *	* 108.0 *	* 640.0 *	* -0.5 *	* 1.6 *	* 1.6 *	*****		
* 650.0 *	* 0.6 *	* 110.0 *	* 650.0 *	* -0.6 *	* 1.7 *	* 1.7 *	*****		
* 660.0 *	* 0.6 *	* 110.0 *	* 660.0 *	* -0.6 *	* 1.8 *	* 1.9 *	*****		
* 670.0 *	* 0.6 *	* 108.0 *	* 670.0 *	* -0.6 *	* 1.9 *	* 2.0 *	*****		
* 680.0 *	* 0.6 *	* 109.0 *	* 680.0 *	* -0.7 *	* 2.0 *	* 2.1 *	*****		
* 690.0 *	* 0.6 *	* 110.0 *	* 690.0 *	* -0.7 *	* 2.1 *	* 2.2 *	*****		
* 700.0 *	* 0.6 *	* 108.0 *	* 700.0 *	* -0.7 *	* 2.2 *	* 2.3 *	*****		
* 710.0 *	* 0.6 *	* 111.0 *	* 710.0 *	* -0.8 *	* 2.3 *	* 2.4 *	*****		
* 720.0 *	* 0.6 *	* 111.0 *	* 720.0 *	* -0.8 *	* 2.4 *	* 2.5 *	*****		
* 730.0 *	* 0.6 *	* 112.0 *	* 730.0 *	* -0.8 *	* 2.5 *	* 2.6 *	*****		
* 740.0 *	* 0.6 *	* 112.0 *	* 740.0 *	* -0.9 *	* 2.6 *	* 2.7 *	*****		
* 750.0 *	* 0.6 *	* 112.0 *	* 750.0 *	* -0.9 *	* 2.7 *	* 2.8 *	*****		
* 760.0 *	* 0.6 *	* 111.0 *	* 760.0 *	* -1.0 *	* 2.7 *	* 2.9 *	*****		
* 770.0 *	* 0.6 *	* 111.0 *	* 770.0 *	* -1.0 *	* 2.8 *	* 3.0 *	*****		
* 780.0 *	* 0.6 *	* 109.0 *	* 780.0 *	* -1.0 *	* 2.9 *	* 3.1 *	*****		
* 790.0 *	* 0.6 *	* 111.0 *	* 790.0 *	* -1.1 *	* 3.0 *	* 3.2 *	*****		
* 800.0 *	* 0.6 *	* 109.0 *	* 800.0 *	* -1.1 *	* 3.1 *	* 3.3 *	*****		
* 810.0 *	* 0.6 *	* 113.0 *	* 810.0 *	* -1.1 *	* 3.2 *	* 3.4 *	*****		
* 820.0 *	* 0.6 *	* 112.0 *	* 820.0 *	* -1.2 *	* 3.3 *	* 3.5 *	*****		
* 830.0 *	* 0.6 *	* 107.0 *	* 830.0 *	* -1.2 *	* 3.4 *	* 3.6 *	*****		
* 840.0 *	* 0.6 *	* 105.0 *	* 840.0 *	* -1.2 *	* 3.5 *	* 3.7 *	*****		
* 850.0 *	* 0.6 *	* 105.0 *	* 850.0 *	* -1.3 *	* 3.6 *	* 3.9 *	*****		
* 860.0 *	* 0.6 *	* 104.0 *	* 860.0 *	* -1.3 *	* 3.7 *	* 4.0 *	*****		
* 870.0 *	* 0.6 *	* 104.0 *	* 870.0 *	* -1.3 *	* 3.8 *	* 4.1 *	*****		
* 880.0 *	* 0.6 *	* 106.0 *	* 880.0 *	* -1.4 *	* 3.9 *	* 4.2 *	*****		
* 890.0 *	* 0.6 *	* 105.0 *	* 890.0 *	* -1.4 *	* 4.0 *	* 4.3 *	*****		
* 900.0 *	* 0.6 *	* 105.0 *	* 900.0 *	* -1.4 *	* 4.1 *	* 4.4 *	*****		
* 910.0 *	* 0.5 *	* 104.0 *	* 910.0 *	* -1.4 *	* 4.2 *	* 4.5 *	*****		
* 920.0 *	* 0.6 *	* 104.0 *	* 920.0 *	* -1.5 *	* 4.3 *	* 4.6 *	*****		
* 930.0 *	* 0.6 *	* 103.0 *	* 930.0 *	* -1.5 *	* 4.4 *	* 4.7 *	*****		
* 940.0 *	* 0.6 *	* 100.0 *	* 940.0 *	* -1.5 *	* 4.5 *	* 4.8 *	*****		
* 950.0 *	* 0.6 *	* 100.0 *	* 950.0 *	* -1.5 *	* 4.6 *	* 4.9 *	*****		
* 960.0 *	* 0.8 *	* 100.0 *	* 960.0 *	* -1.5 *	* 4.8 *	* 5.0 *	*****		
* 970.0 *	* 0.8 *	* 99.0 *	* 970.0 *	* -1.6 *	* 4.9 *	* 5.1 *	*****		
* 980.0 *	* 0.8 *	* 98.0 *	* 980.0 *	* -1.6 *	* 5.0 *	* 5.3 *	*****		
* 990.0 *	* 0.8 *	* 99.0 *	* 990.0 *	* -1.6 *	* 5.2 *	* 5.4 *	*****		
* 1000.0 *	* 0.8 *	* 98.0 *	* 1000.0 *	* -1.6 *	* 5.3 *	* 5.6 *	*****		

```

*****
*           *           *           *           *           *           *           *
*   DEPTH   * DEVIATION * AZIMUTH * VERTICAL * CO-ORDINATES * COURSE *
*   FEET    * DEGREES  * DEGREES * DEPTH   * + NORTH * + EAST * LENGTH *
*           *           *           * FEET    * - SOUTH * - WEST * FEET   *
*****
* 1010.0 * 0.8 * 99.0 * 1010.0 * -1.6 * 5.4 * 5.7 *
* 1020.0 * 0.8 * 98.0 * 1020.0 * -1.7 * 5.6 * 5.8 *
* 1030.0 * 0.8 * 97.0 * 1030.0 * -1.7 * 5.7 * 6.0 *
* 1040.0 * 0.8 * 99.0 * 1040.0 * -1.7 * 5.9 * 6.1 *
* 1050.0 * 0.9 * 100.0 * 1050.0 * -1.7 * 6.0 * 6.2 *
* 1060.0 * 0.8 * 101.0 * 1060.0 * -1.8 * 6.2 * 6.4 *
* 1070.0 * 0.8 * 100.0 * 1070.0 * -1.8 * 6.3 * 6.5 *
* 1080.0 * 0.9 * 101.0 * 1080.0 * -1.8 * 6.4 * 6.7 *
* 1090.0 * 0.9 * 103.0 * 1090.0 * -1.8 * 6.6 * 6.8 *
* 1100.0 * 1.0 * 103.0 * 1100.0 * -1.9 * 6.7 * 7.0 *
* 1110.0 * 1.0 * 103.0 * 1110.0 * -1.9 * 6.9 * 7.2 *
* 1120.0 * 1.0 * 102.0 * 1120.0 * -2.0 * 7.1 * 7.3 *
* 1130.0 * 1.1 * 101.0 * 1130.0 * -2.0 * 7.3 * 7.5 *
* 1140.0 * 1.2 * 101.0 * 1140.0 * -2.0 * 7.5 * 7.7 *
* 1150.0 * 1.1 * 100.0 * 1150.0 * -2.1 * 7.7 * 7.9 *
* 1160.0 * 1.1 * 98.0 * 1159.9 * -2.1 * 7.8 * 8.1 *
* 1170.0 * 1.2 * 98.0 * 1169.9 * -2.1 * 8.0 * 8.3 *
* 1180.0 * 1.0 * 99.0 * 1179.9 * -2.2 * 8.2 * 8.5 *
* 1188.0 * 1.1 * 99.0 * 1187.9 * -2.2 * 8.4 * 8.7 *
*****

```

* BOTTOM HOLE LOCATION *
* COURSE LENGTH: 8.7 FEET *
* COURSE AZIMUTH: 104.6 DEGREES *
* MEASURED DEPTH: 1188.0 FEET *
* TRUE VERTICAL DEPTH: 1187.9 FEET *
* DISTANCE SOUTH: 2.2 FEET *
* DISTANCE EAST: 8.4 FEET *
* TANGENTIAL METHOD *
