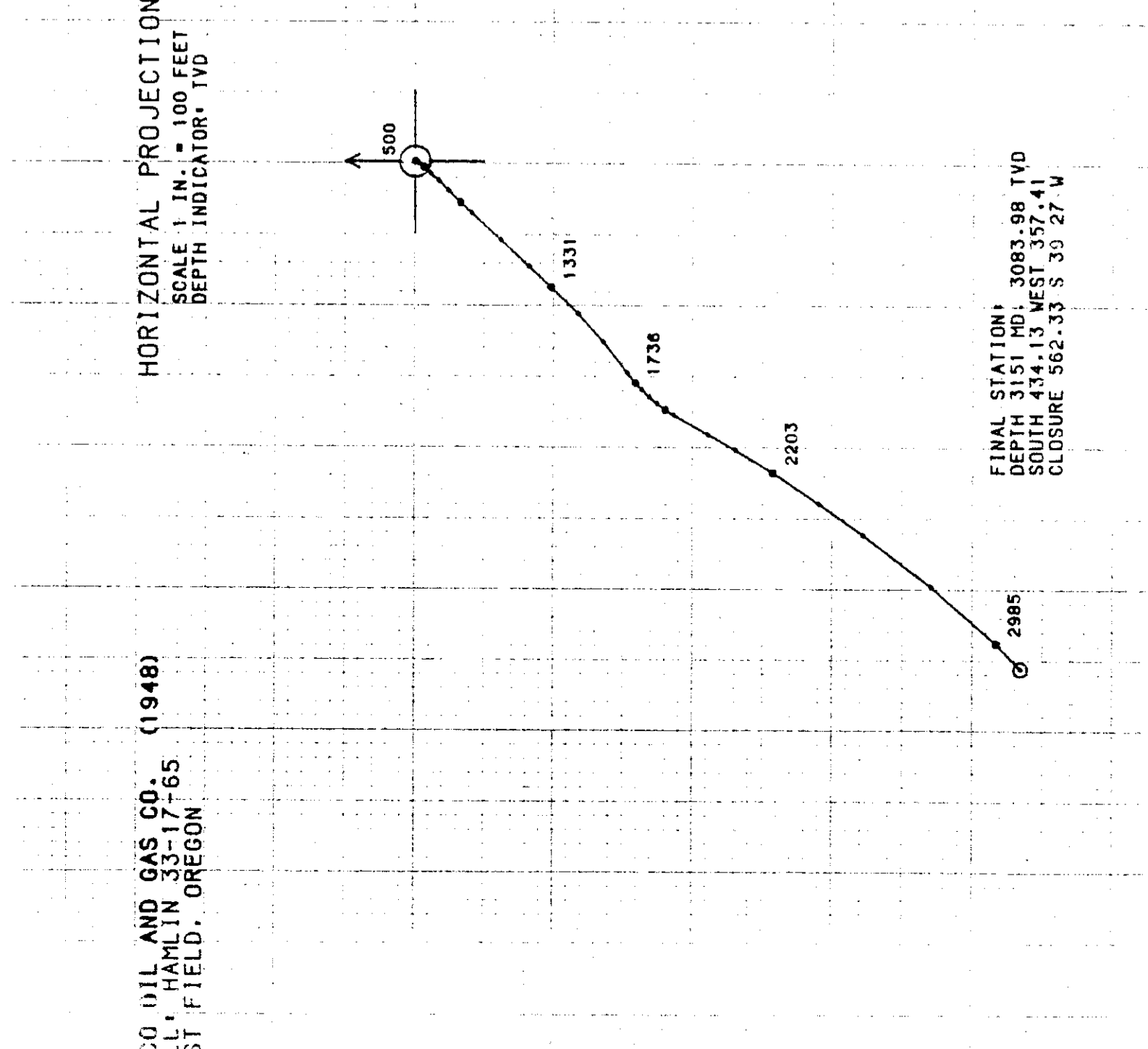


CO OIL AND GAS CO. (1948)
 1111 HAMLIN 33-17-65
 1ST FIELD, OREGON

HORIZONTAL PROJECTION
 SCALE 1 IN. = 100 FEET
 DEPTH INDICATOR, TVD



FINAL STATION:
 DEPTH 3151 MD; 3083.98 TVD
 SOUTH 434.13 WEST 357.41
 CLOSURE 562.33 S 30 27 W

CO OIL AND GAS CO. (1948)
 1111 HAMLIN 33-17-65
 1ST FIELD, OREGON

COMPUTATION
 TIME DATE
 08:42:05 17-OCT-89

PAGE NO. 2

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O R D I N A T E S FEET	DOG LEG SEVERITY DG/100FT
500.	0 0	0 0	0.	500.00	0.00	0.00	0.00
516.	0 45	S 2 0 E	56.	556.00	0.27	0.37 S	0.01 E
615.	2 15	S 39 0 W	59.	614.98	1.67	1.80 S	0.47 U
735.	3 30	S 39 0 W	30.	644.94	3.18	2.97 S	1.41 U
766.	5 0	S 43 0 W	61.	705.77	7.10	6.38 S	4.38 U
826.	7 0	S 41 0 W	60.	765.44	13.97	11.04 S	8.57 U
886.	8 30	S 43 0 W	60.	824.89	22.05	17.05 S	13.99 U
948.	10 0	S 45 0 W	59.	883.12	31.52	23.87 S	20.58 U
999.	12 0	S 43 0 W	63.	944.96	43.51	32.52 S	28.93 U
	13 0	S 41 0 W	51.	994.75	54.55	40.72 S	36.31 U
1125.	13 0	S 43 0 W	126.	1117.52	82.88	61.79 S	55.28 U
1248.	13 0	S 42 0 W	123.	1237.37	110.53	82.19 S	73.97 U
1344.	12 45	S 43 0 W	96.	1330.95	131.90	97.96 S	88.42 U
1469.	12 15	S 46 0 W	125.	1452.99	158.88	117.25 S	107.38 U
1593.	12 45	S 49 0 W	124.	1574.05	185.51	135.38 S	127.17 U
1718.	13 0	S 54 0 W	125.	1695.91	212.83	152.71 S	148.96 U
1759.	12 45	S 48 0 W	41.	1735.88	221.81	158.46 S	156.05 U
1789.	13 0	S 44 0 W	30.	1765.12	228.46	163.10 S	160.86 U
1821.	13 45	S 41 0 W	32.	1796.25	235.85	168.56 S	165.86 U
1852.	13 45	S 39 0 W	31.	1826.37	243.22	174.20 S	170.60 U
1882.	13 45	S 34 0 W	30.	1855.51	250.33	179.93 S	174.84 U
1913.	13 45	S 29 0 W	31.	1885.62	257.61	186.22 S	178.69 U
1927.	14 30	S 29 0 W	114.	1996.17	284.89	210.55 S	192.17 U
199.	14 30	S 30 0 W	92.	2085.24	307.51	230.60 S	203.52 U
2241.	14 45	S 32 0 W	122.	2203.29	337.90	257.00 S	219.38 U
2398.	14 30	S 34 0 W	157.	2355.20	377.21	290.24 S	240.97 U
2554.	14 15	S 36 0 W	156.	2506.32	415.76	321.96 S	263.18 U
2800.	14 15	S 38 0 W	246.	2744.75	476.21	370.32 S	299.62 U
3048.	14 15	S 44 0 W	248.	2985.12	537.23	416.37 S	339.65 U
3150.	14 15	S 46 0 W	102.	3083.98	562.25	434.12 S	357.41 U

STATION AT 3150' M.D. IS PROJECTED
 FINAL CLOSURE - DIRECTION: S 39 DEGS 28 MINS W
 DISTANCE: 562.32 FEET

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL
 DIRECTION: S 40 DEG. 22 MIN. W

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

PAGE NO. 1

COMPUTATION
 TIME DATE
 08:42:05 17-OCT-89

CO OIL AND GAS CO. (1948)
 1111 HAMLIN 33-17-65
 1ST FIELD, OREGON

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500.	0 0	0 0	0.	500.00	0.00	0.00	0.00
516.	0 45	S 2 0 E	56.	556.00	0.27	0.37 S	0.01 E
615.	2 15	S 39 0 W	59.	614.98	1.67	1.80 S	0.47 U
735.	3 30	S 39 0 W	30.	644.94	3.18	2.97 S	1.41 U
766.	5 0	S 43 0 W	61.	705.77	7.10	6.38 S	4.38 U
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948.	10 0	S 45 0 W	59.	883.12	31.52	23.87 S	20.58 U
999.	12 0	S 43 0 W	63.	944.96	43.51	32.52 S	28.93 U
	13 0	S 41 0 W	51.	994.75	54.55	40.72 S	36.31 U
1125.	13 0	S 43 0 W	126.	1117.52	82.88	61.79 S	55.28 U
1248.	13 0	S 42 0 W	123.	1237.37	110.53	82.19 S	73.97 U
1344.	12 45	S 43 0 W	96.	1330.95	131.90	97.96 S	88.42 U
1469.	12 15	S 46 0 W	125.	1452.99	158.88	117.25 S	107.38 U
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