



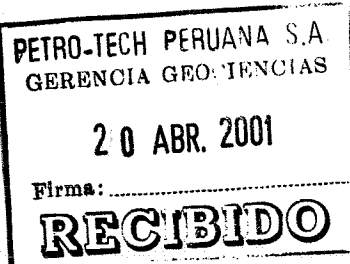
Gyrodatta Incorporated
1682 W. Sam Houston Pkwy. N.
Houston, Texas 77043

713/461-3146
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SURVEY REPORT
PETRO-TECH PERUANA
LO-6-08
PEPESA-48
CAMPO LOBITOS, PERU
HT0301GME257

CENTRAL FILE
GEOSCIENCES

MARCH 15, 2001



A Gyrodata Directional Survey

for

PETRO-TECH PERUANA S.A.

Well: LO-6-08, PRODUCTION PIPE 2 3/8"

Location: PEPESA-48/LO-06, CAMPO LOBITOS

Job Number: HT0301GME257

Run Date: 3/15/01

Surveyor: Angel Cordozo

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 4.450000 deg. S

Azimuth Correction:

Gyro: Bearings are Relative to True North

Proposed Well Direction: 209.800 deg

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.0	0.00	0.00	0.0	0.00	0.0	0.0 0.0	0.00 N 0.00 E

PROFUNDIDADES REFERIDAS A CABEZA DE POZO LO-6-08
GYRO MULTISHOT CORRIDO EN PRODUCTION PIPE DESDE 2500' HASTA SUPERFICIE

100.0	12.50	215.56	10.8	12.50	99.2	10.9 215.6	8.84 S 6.32 W
200.0	12.67	226.84	32.1	2.46	196.8	32.5 219.3	25.15 S 20.61 W
300.0	12.32	213.55	53.2	2.89	294.5	54.0 219.7	41.54 S 34.51 W
400.0	12.42	218.47	74.5	1.06	392.2	75.4 218.7	58.86 S 47.10 W
500.0	12.99	217.53	96.3	0.60	489.7	97.4 218.5	76.19 S 60.64 W
600.0	14.05	216.62	119.4	1.09	586.9	120.7 218.2	94.84 S 74.73 W
700.0	17.32	203.03	146.3	4.90	683.2	147.3 216.6	118.30 S 87.80 W
800.0	20.42	190.37	177.5	5.12	777.9	177.8 213.0	149.18 S 96.77 W
900.0	23.23	192.06	212.8	2.88	870.7	212.8 209.3	185.63 S 104.03 W
1000.0	25.73	192.69	252.3	2.51	961.7	252.7 206.5	226.10 S 112.92 W
1100.0	28.91	193.26	296.2	3.19	1050.5	297.5 204.5	270.81 S 123.23 W
1200.0	32.72	193.96	345.4	3.83	1136.4	348.0 202.9	320.59 S 135.30 W
1300.0	36.77	194.46	400.3	4.06	1218.6	404.4 201.7	375.82 S 149.30 W
1400.0	41.36	194.49	461.1	4.59	1296.2	467.0 200.7	436.82 S 165.05 W
1500.0	43.95	194.81	526.5	2.60	1369.7	534.4 199.9	502.37 S 182.19 W
1600.0	44.12	194.97	593.6	0.20	1441.6	603.7 199.4	569.54 S 200.05 W
1700.0	44.81	195.54	661.4	0.80	1513.0	673.5 198.9	637.12 S 218.48 W
1800.0	45.54	197.16	730.4	1.36	1583.5	744.4 198.7	705.17 S 238.46 W
1900.0	45.89	197.90	800.4	0.63	1653.3	816.0 198.6	773.43 S 260.02 W
2000.0	45.91	198.94	870.8	0.74	1722.9	887.8 198.6	841.57 S 282.71 W

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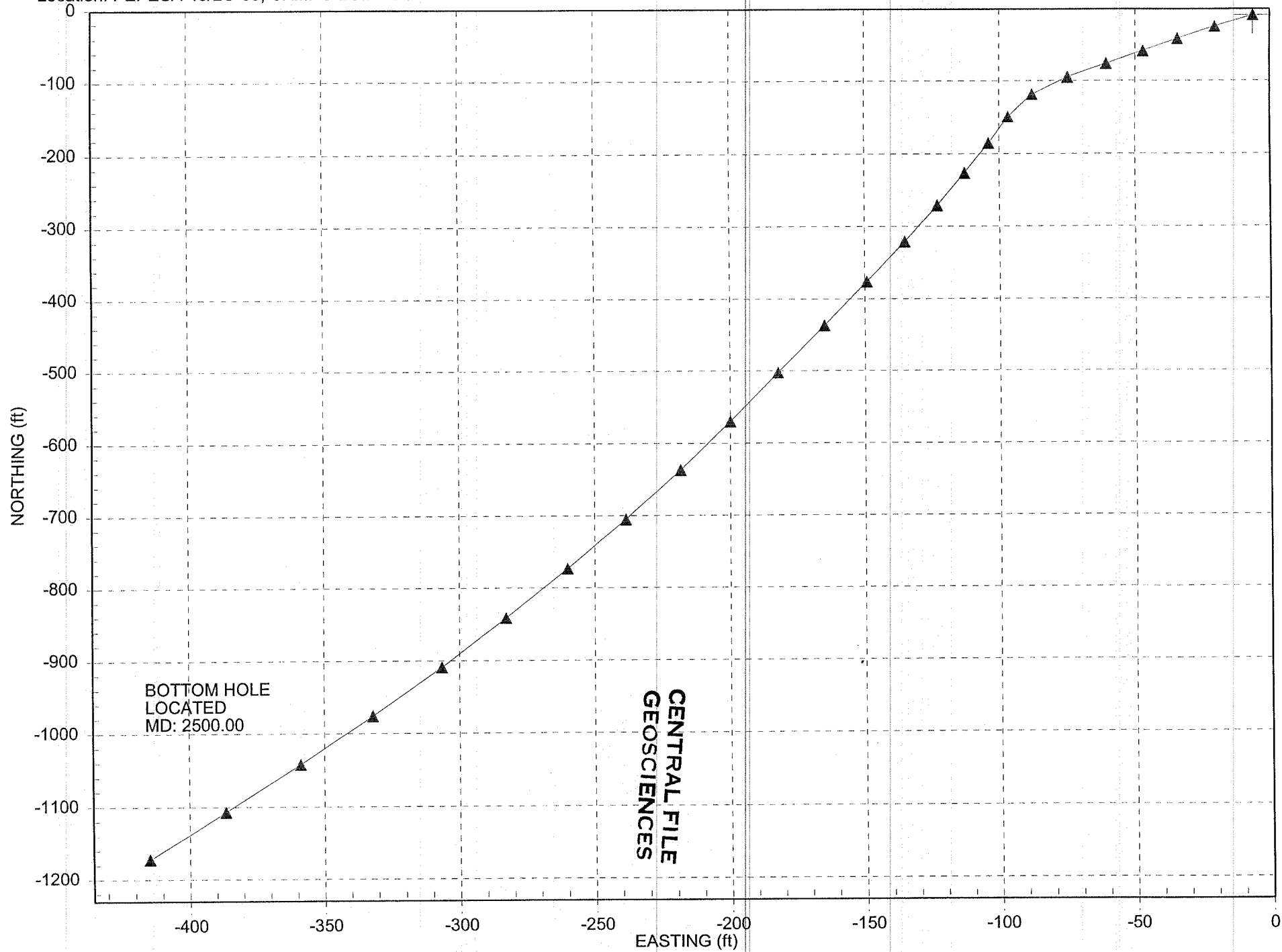
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2100.0	45.72	199.99	941.3	0.78	1792.6	959.5 198.6	909.18 S 306.60 W
2200.0	45.38	201.58	1011.8	1.19	1862.6	1030.8 198.8	975.91 S 331.93 W
2300.0	45.42	202.59	1082.4	0.72	1932.8	1101.9 199.0	1041.89 S 358.70 W
2400.0	44.81	203.56	1152.7	0.92	2003.4	1172.6 199.2	1107.07 S 386.47 W
2500.0	45.04	203.61	1222.9	0.22	2074.2	1243.0 199.5	1171.79 S 414.73 W

Final Station Closure: Distance: 1243.02 ft Az: 199.49 deg.

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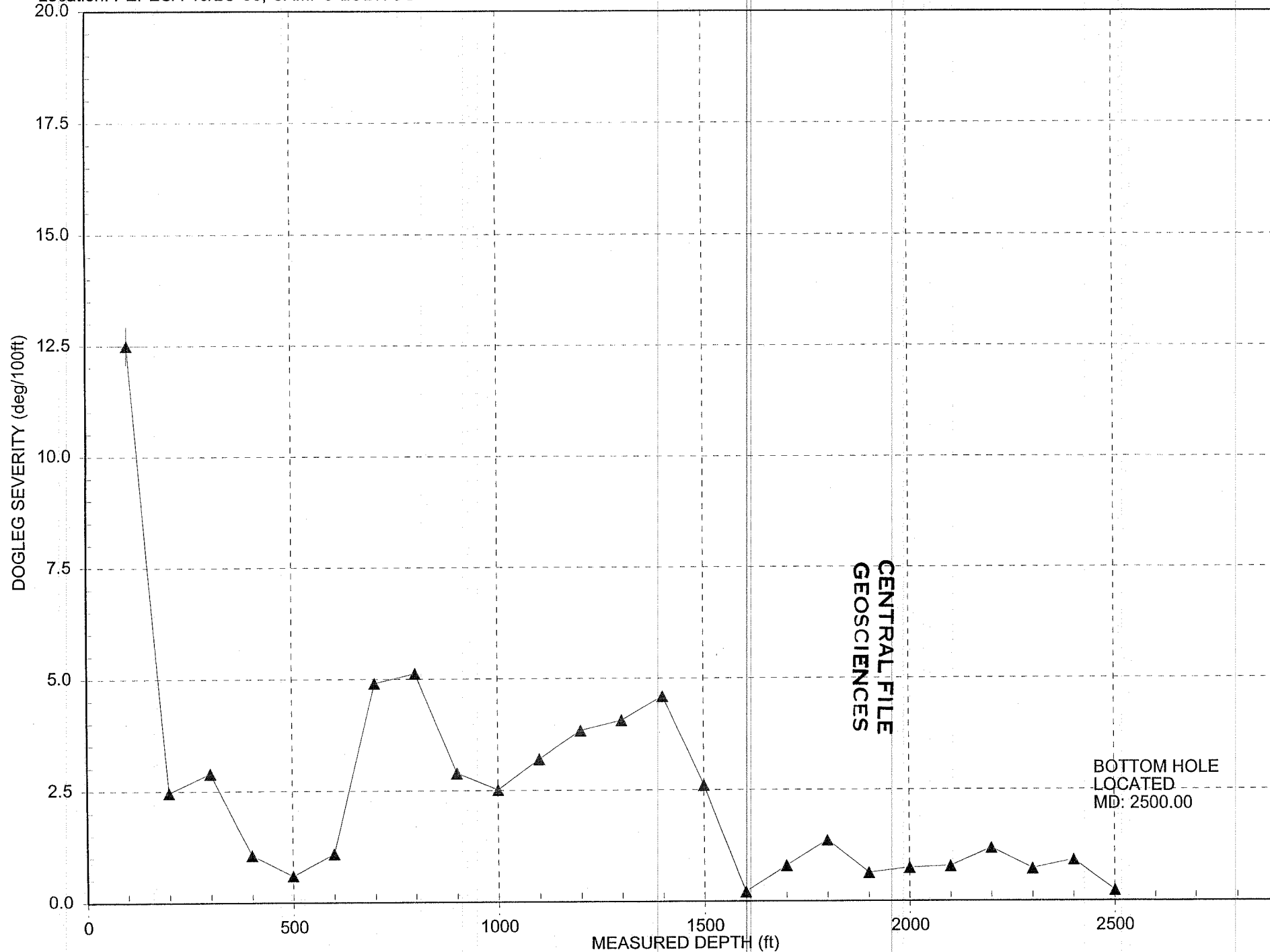
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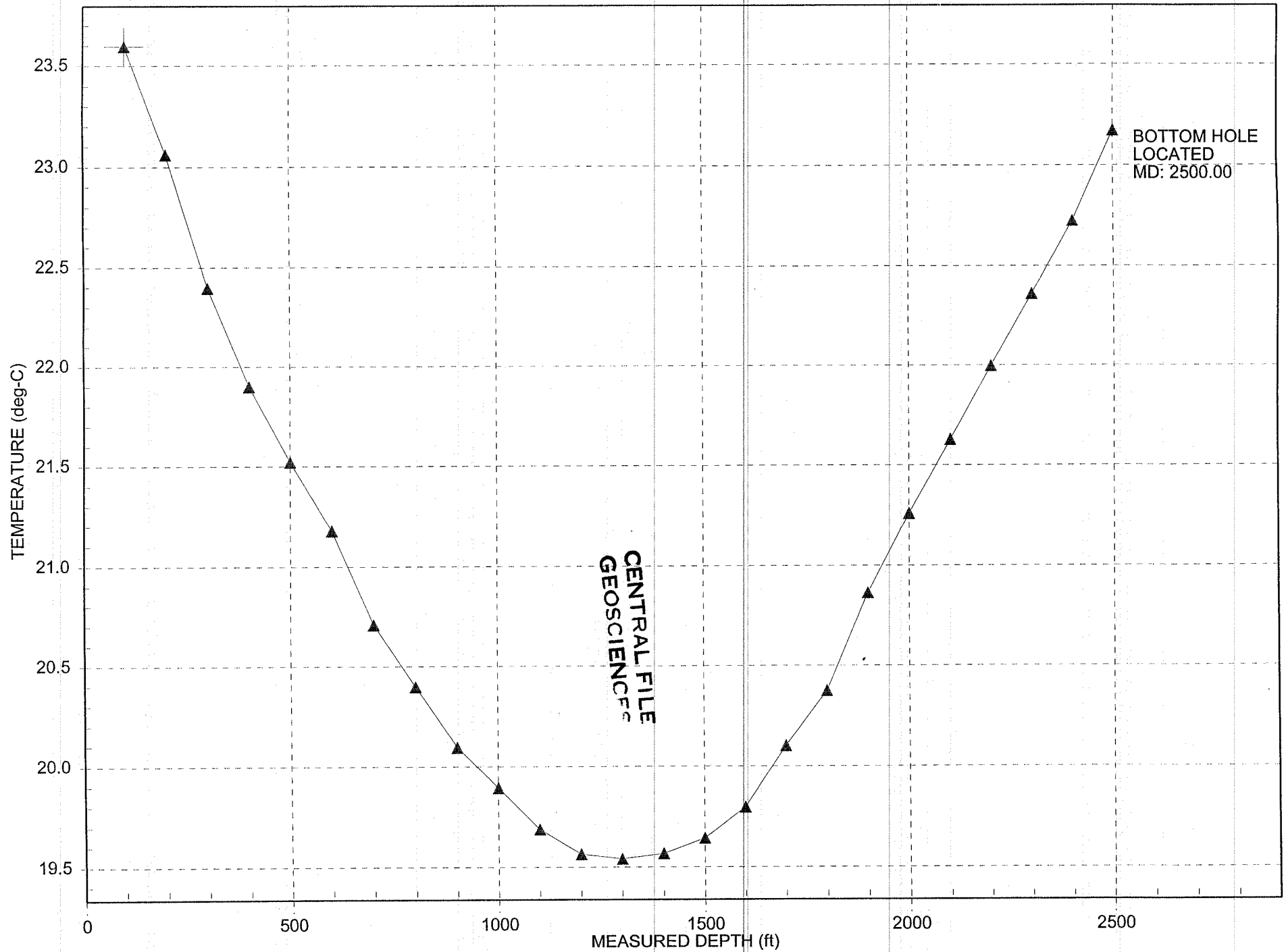
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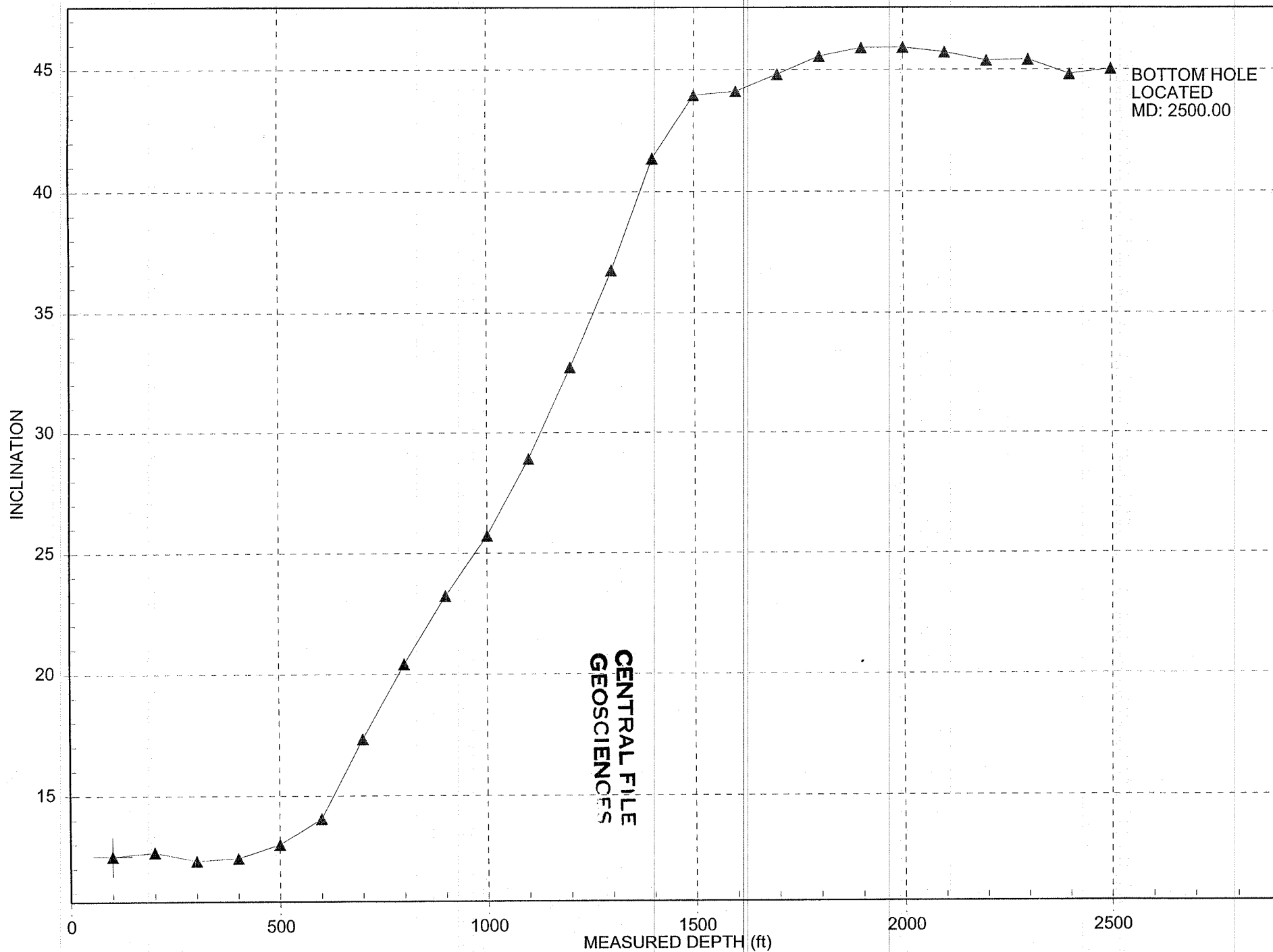
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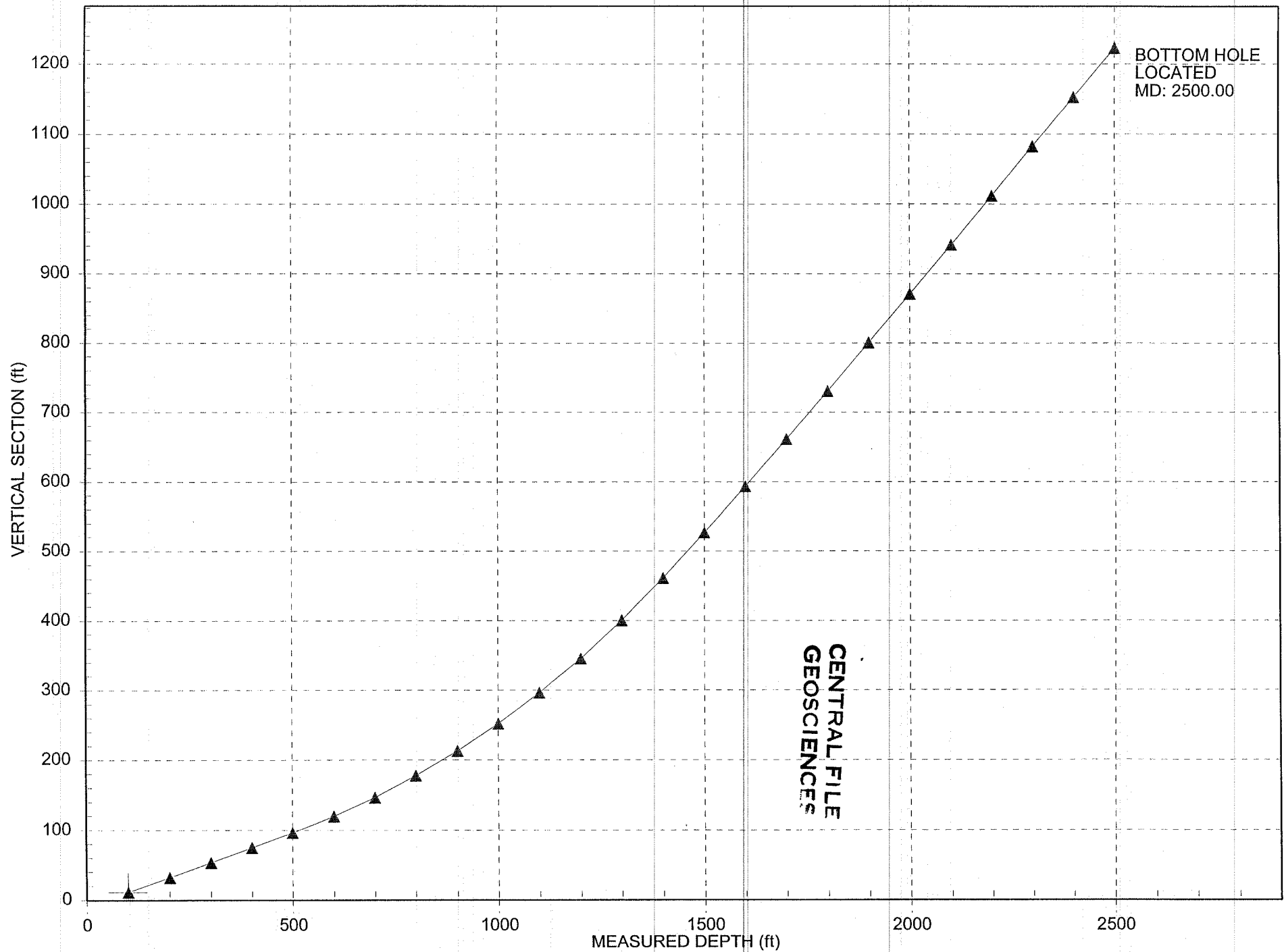
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