

# PACIFIC SURVEYS

## DEVIATION SURVEY

Job No. 22784  
 Company ROMALDO COMMUNITY WATER COMPANY  
 Well WELL NO.2  
 File No. Field SANTA BARBARA  
 County SANTA BARBARA State CA

Location: 5599 W. CAMINO CIELO  
 GPS: 34.5023 -119.8182  
 Other Services: ELOG/GR  
 Sec. Twp. Rge.

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	05/22/2017
Run Number	ONE
Depth Driller	710'
Depth Logger	697.4'
Bottom Logged Interval	697.4'
Top Log Interval	220'
Casing Driller	10.875" ID @ 60'
Casing Logger	N/A
Bit Size	9.875"
Type Fluid in Hole	WATER / SOAP
Density / Viscosity	-- / --
pH / Fluid Loss	8.3 / --
Source of Sample	BOTTLE
Rm @ Meas. Temp	5.6 @ 79.5 F
Rmf @ Meas. Temp	5.35 @ 79.5 F
Rmc @ Meas. Temp	N/A
Source of Rmf / Rmc	MEASURED
Rm @ BHT	N/A
Time Circulation Stopped	N/A
Time Logger on Bottom	11:30
Max. Recorded Temperature	N/A
Equipment Number	PS-3
Location	VENTURA
Recorded By	C.VILLALOBOS
Witnessed By	W.ANIKOUCHINE

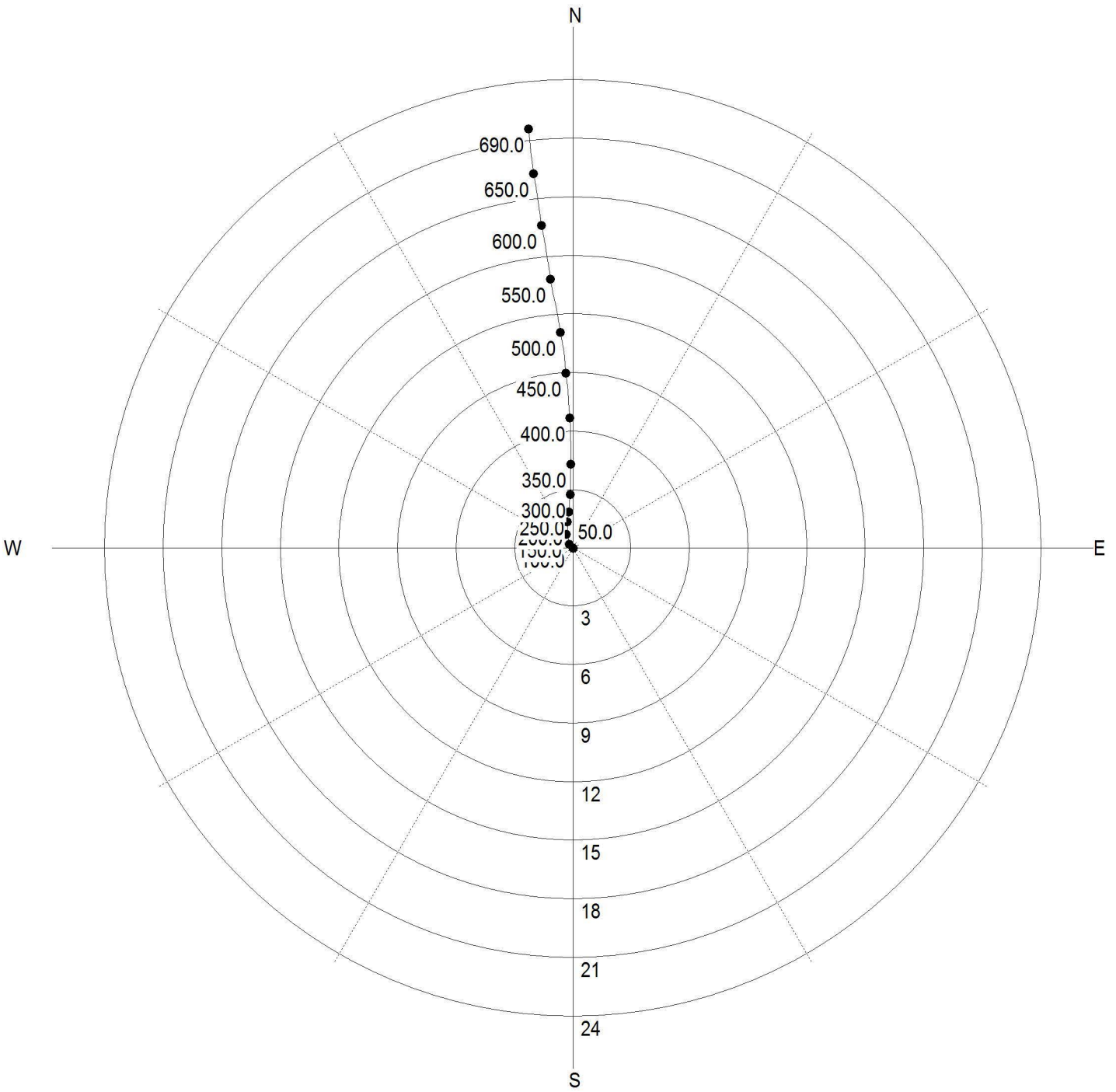
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

### Comments

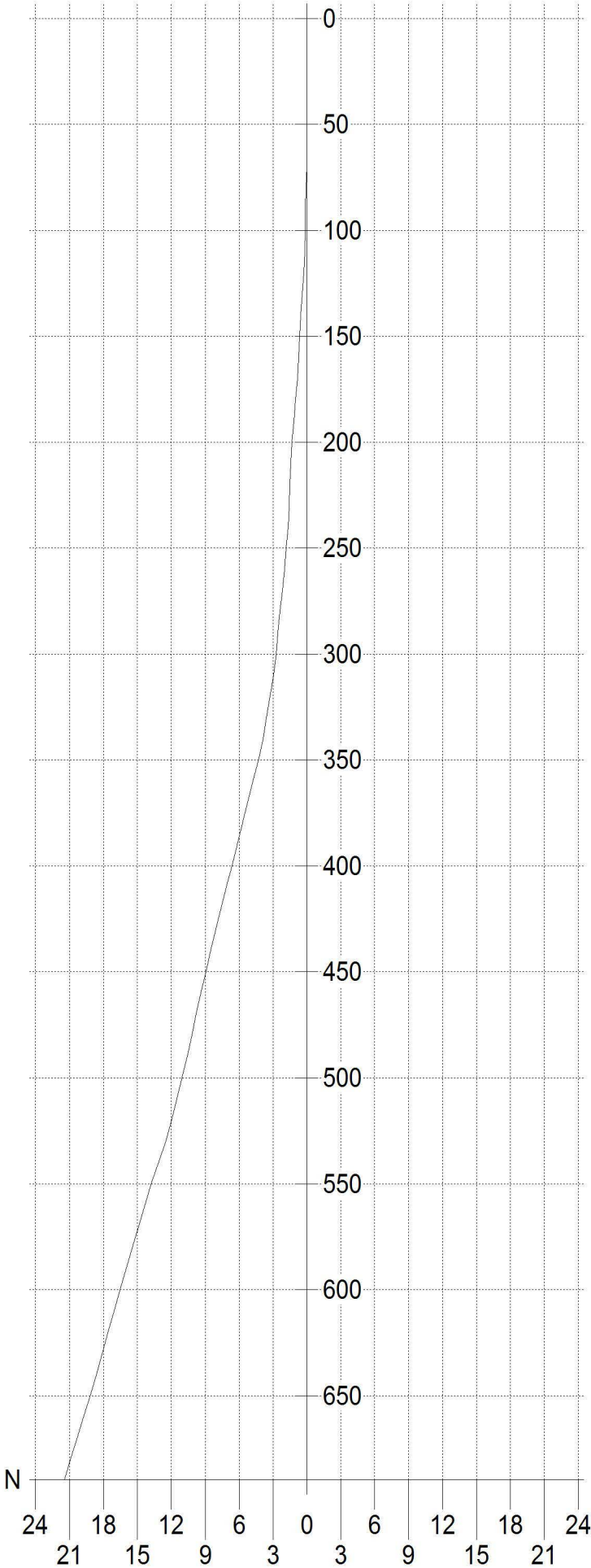
UNABLE TO OBTAIN A SAMPLE FOR RM/RMF SO DRILLER/CONSULTANT MADE A SAMPLE WITH WATER AND SOAP.

CROSS SECTION  
(Displacement (ft))

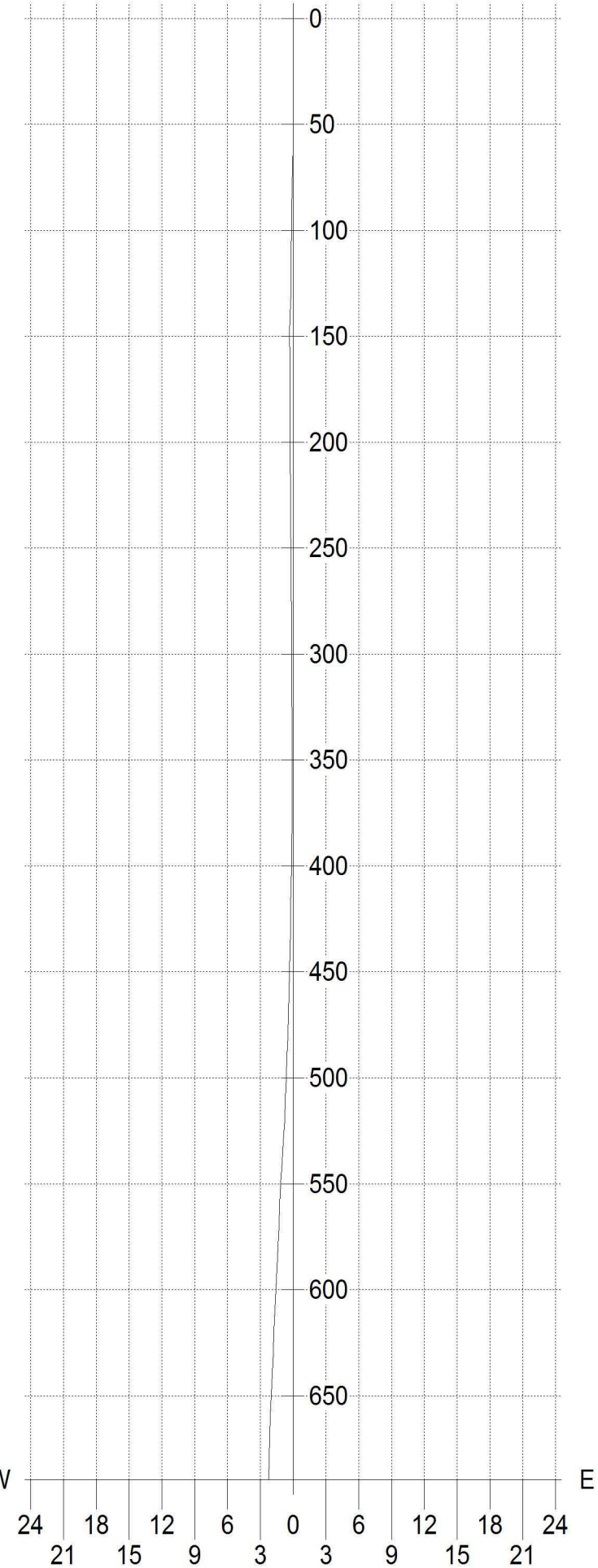


CLOSURE SECTIONS  
( True Depth vs Displacement (ft) )

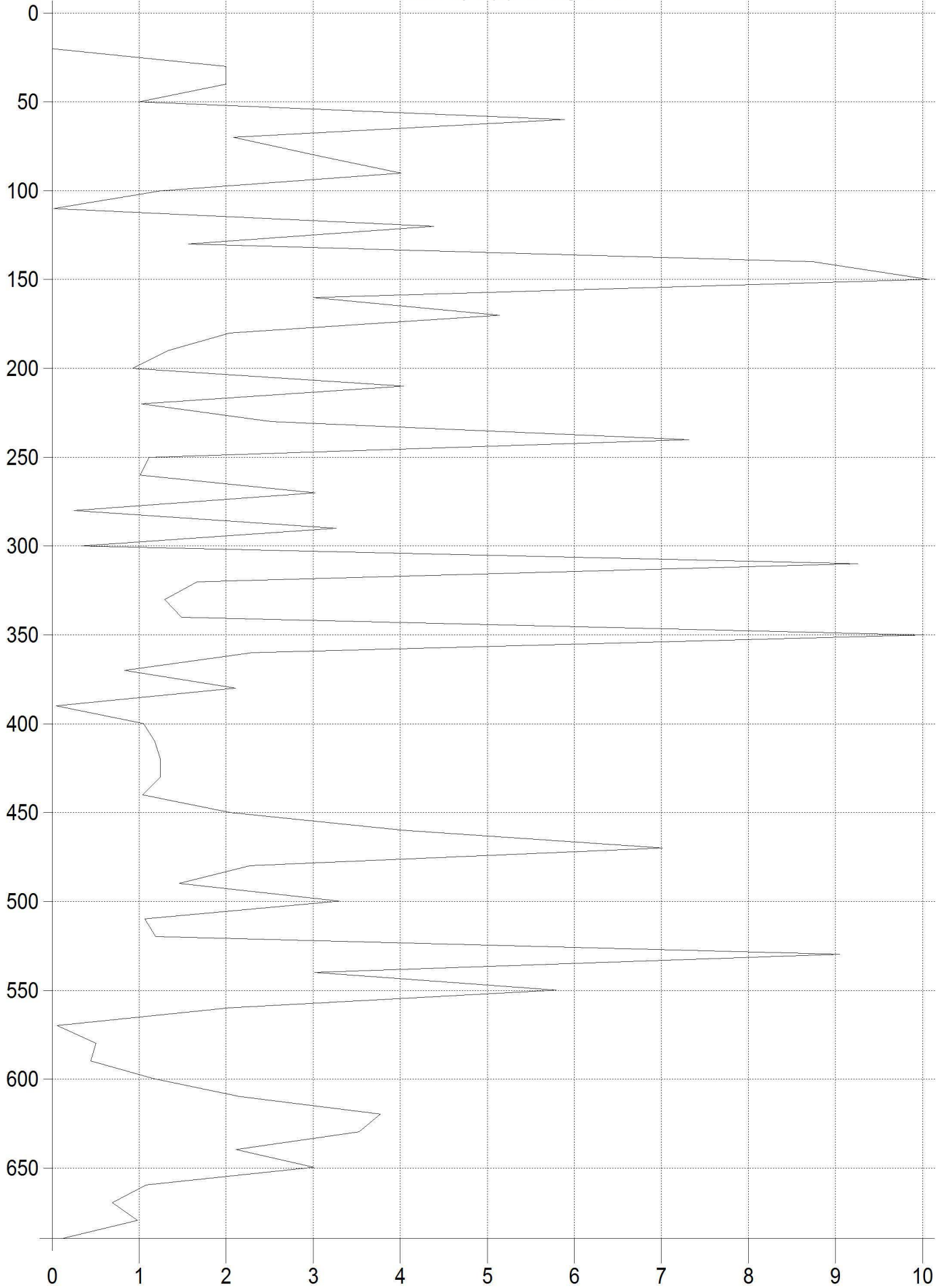
N - S Section



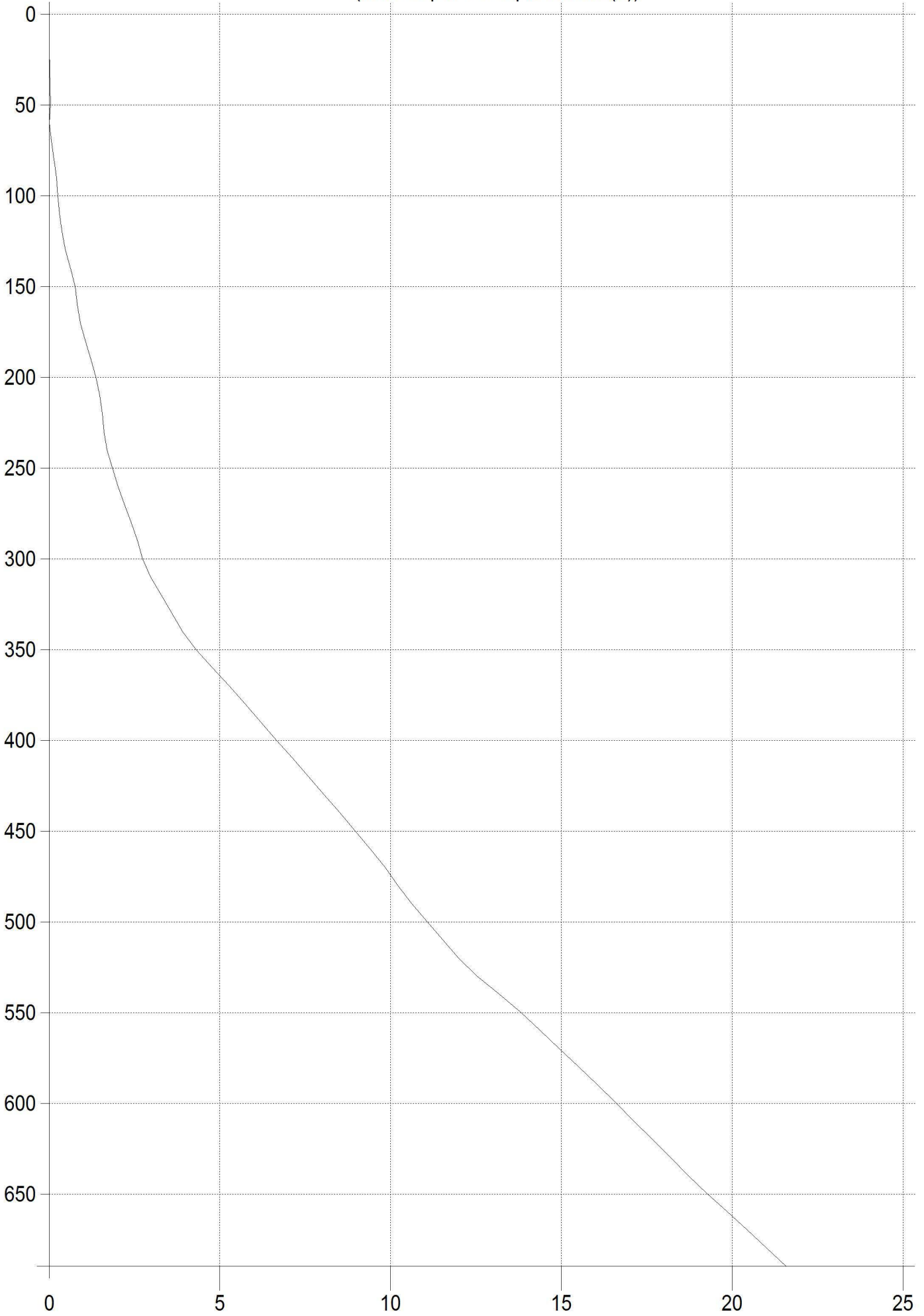
W - E Section



DOG LEG  
True Depth(ft) vs deg/100ft



IN THE PLANE OF CLOSURE  
(True Depth vs Displacement (ft))



TVD Report (Minimum Curvature Method)

Database File 22784.db  
 Dataset Pathname ./../\_tvd\_/1  
 Dataset Creation Mon May 22 14:45:53 2017

Meas. Depth	Incline	Azimuth	TVD	North	East	Dog Leg	Closure Dis	Closure Dir	Vert. Sec.
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(deg/100ft)	(ft)	(deg)	(ft)
Vertical Section Direction 0.00									
0.0	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.0	0.00	144.50	10.00	0.00	0.00	0.00	0.00	0.00	0.00
20.0	0.00	146.10	20.00	0.00	0.00	0.00	0.00	0.00	0.00
30.0	0.20	146.40	30.00	-0.01	0.01	2.00	0.02	-33.60	-0.01
40.0	0.00	142.30	40.00	-0.03	0.02	2.00	0.03	-33.60	-0.03
50.0	0.10	94.00	50.00	-0.03	0.03	1.00	0.04	-43.35	-0.03
60.0	0.50	304.20	60.00	-0.01	0.00	5.89	0.01	-6.33	-0.01
70.0	0.30	312.90	70.00	0.04	-0.05	2.08	0.07	-56.19	0.04
80.0	0.60	319.10	80.00	0.09	-0.11	3.03	0.14	-48.99	0.09
90.0	0.20	314.40	90.00	0.15	-0.15	4.01	0.21	-46.73	0.15
100.0	0.30	331.90	100.00	0.18	-0.18	1.25	0.26	-44.77	0.18
110.0	0.30	331.60	110.00	0.23	-0.20	0.02	0.31	-41.98	0.23
120.0	0.70	354.30	120.00	0.31	-0.22	4.39	0.38	-35.63	0.31
130.0	0.60	5.00	130.00	0.42	-0.22	1.57	0.48	-27.90	0.42
140.0	1.20	321.00	140.00	0.56	-0.29	8.74	0.63	-27.14	0.56
150.0	0.60	17.90	150.00	0.69	-0.34	10.07	0.77	-25.98	0.69
160.0	0.30	16.30	160.00	0.76	-0.31	3.00	0.82	-22.23	0.76
170.0	0.80	2.20	169.99	0.86	-0.30	5.14	0.91	-19.39	0.86
180.0	1.00	359.60	179.99	1.02	-0.30	2.04	1.06	-16.46	1.02
190.0	0.90	4.90	189.99	1.18	-0.29	1.33	1.22	-13.98	1.18
200.0	0.90	359.00	199.99	1.34	-0.29	0.93	1.37	-12.17	1.34
210.0	0.50	3.70	209.99	1.46	-0.29	4.04	1.49	-11.13	1.46
220.0	0.40	6.60	219.99	1.54	-0.28	1.03	1.56	-10.33	1.54
230.0	0.20	37.80	229.99	1.59	-0.27	2.51	1.61	-9.50	1.59
240.0	0.90	8.80	239.99	1.68	-0.24	7.32	1.70	-8.24	1.68
250.0	1.00	5.80	249.99	1.84	-0.22	1.12	1.86	-6.87	1.84
260.0	0.90	5.00	259.99	2.01	-0.21	1.01	2.02	-5.87	2.01
270.0	1.20	3.10	269.98	2.19	-0.19	3.02	2.20	-5.06	2.19
280.0	1.20	1.90	279.98	2.40	-0.18	0.25	2.41	-4.40	2.40
290.0	0.90	9.00	289.98	2.58	-0.17	3.26	2.59	-3.75	2.58
300.0	0.90	6.90	299.98	2.74	-0.15	0.33	2.74	-3.08	2.74
310.0	1.80	357.10	309.98	2.97	-0.15	9.26	2.98	-2.81	2.97
320.0	1.80	2.40	319.97	3.29	-0.15	1.66	3.29	-2.56	3.29
330.0	1.70	359.70	329.97	3.59	-0.14	1.30	3.59	-2.25	3.59
340.0	1.80	3.30	339.96	3.90	-0.13	1.49	3.90	-1.96	3.90
350.0	2.80	2.40	349.95	4.30	-0.11	10.01	4.30	-1.52	4.30
360.0	2.80	357.70	359.94	4.79	-0.11	2.30	4.79	-1.36	4.79
370.0	2.80	359.40	369.93	5.27	-0.13	0.83	5.27	-1.37	5.27
380.0	2.60	358.00	379.92	5.74	-0.14	2.11	5.75	-1.36	5.74
390.0	2.60	357.90	389.91	6.20	-0.15	0.05	6.20	-1.41	6.20
400.0	2.70	357.20	399.90	6.66	-0.17	1.05	6.66	-1.48	6.66
410.0	2.70	354.70	409.89	7.13	-0.21	1.18	7.13	-1.65	7.13
420.0	2.60	356.30	419.88	7.59	-0.24	1.24	7.59	-1.83	7.59
430.0	2.70	354.70	429.87	8.05	-0.28	1.24	8.06	-1.98	8.05
440.0	2.60	355.30	439.86	8.51	-0.32	1.04	8.52	-2.14	8.51
450.0	2.40	354.30	449.85	8.95	-0.36	2.05	8.95	-2.29	8.95
460.0	2.80	353.10	459.84	9.40	-0.41	4.04	9.41	-2.49	9.40
470.0	2.10	354.10	469.83	9.82	-0.46	7.01	9.83	-2.66	9.82
480.0	2.30	351.30	479.82	10.20	-0.51	2.27	10.21	-2.84	10.20
490.0	2.40	348.70	489.81	10.61	-0.58	1.46	10.62	-3.11	10.61

Meas. Depth	Incline	Azimuth	TVD	North	East	Dog Leg	Closure Dis	Closure Dir	Vert. Sec.
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(deg/100ft)	(ft)	(deg)	(ft)
Vertical Section Direction 0.00									
500.0	2.70	351.80	499.80	11.04	-0.65	3.30	11.06	-3.38	11.04
510.0	2.60	351.00	509.79	11.50	-0.72	1.07	11.52	-3.59	11.50
520.0	2.70	349.60	519.78	11.96	-0.80	1.19	11.98	-3.82	11.96
530.0	2.60	347.90	529.76	12.50	-0.81	0.95	12.52	-4.15	12.50

530.0	3.60	347.90	529.76	12.50	-0.91	9.05	12.53	-4.15	12.50
540.0	3.90	347.40	539.74	13.13	-1.05	3.02	13.18	-4.56	13.13
550.0	3.40	352.00	549.72	13.76	-1.16	5.79	13.81	-4.83	13.76
560.0	3.20	351.30	559.71	14.33	-1.25	2.04	14.38	-4.97	14.33
570.0	3.20	351.40	569.69	14.88	-1.33	0.06	14.94	-5.11	14.88
580.0	3.20	350.50	579.67	15.43	-1.42	0.50	15.50	-5.25	15.43
590.0	3.20	349.70	589.66	15.98	-1.51	0.45	16.05	-5.41	15.98
600.0	3.10	350.80	599.64	16.52	-1.61	1.17	16.60	-5.55	16.52
610.0	2.90	349.30	609.63	17.04	-1.70	2.15	17.12	-5.69	17.04
620.0	3.20	353.60	619.62	17.57	-1.78	3.77	17.66	-5.77	17.57
630.0	2.90	350.10	629.60	18.09	-1.85	3.53	18.19	-5.84	18.09
640.0	3.10	351.40	639.59	18.61	-1.93	2.11	18.71	-5.93	18.61
650.0	3.40	351.70	649.57	19.17	-2.02	3.00	19.28	-6.01	19.17
660.0	3.30	352.40	659.55	19.75	-2.10	1.08	19.86	-6.06	19.75
670.0	3.30	353.60	669.54	20.32	-2.17	0.69	20.43	-6.09	20.32
680.0	3.30	355.30	679.52	20.89	-2.22	0.98	21.01	-6.07	20.89
690.0	3.30	355.50	689.50	21.47	-2.27	0.12	21.59	-6.04	21.47