

SUBSURFACE PRESSURE SURVEY

DATE : 2-25-86 TICKET : 16590
 CUSTOMER : PETROLEUM ENERGY INC. LEASE : PHELAN
 WELL : 1 TEST: 1 GEOLOGIST : WREATH
 ELEVATION : 1822 FORMATION : ARBUCKLE
 SECTION : 2 TOWNSHIP : 17S
 RANGE : 10W COUNTY : ELLSWORTH STATE : KANSAS
 GAUGE SN# : 1049 RANGE : 4225 CLOCK : 12

INTERVAL FROM : 3248 TO : 3282 TOTAL DEPTH : 3282
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 3243 SIZE : 6 5/8
 PACKER DEPTH : 3248 SIZE : 6 5/8
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : WHITE & ELLIS DRLG
 MUD TYPE : STARCH VISCOSITY : 44
 WEIGHT : 9.7 WATER LOSS (CC) : 10.4
 CHLORIDES (PPM) : 48000
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 335 FT I.D. inch : 2.25
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
 DRILL PIPE LENGTH : 2892 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 21 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 34 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5 XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD VERY WEAK BLOW. DIED IN 22
 BLOW COMMENT #2 : MINUTES. FINAL FLOW PERIOD NO BLOW. FLUSHED
 BLOW COMMENT #3 : TOOL; STILL NO BLOW.
 BLOW COMMENT #4 :

RECOVERED : 20 FT OF: DRILLING MUD. 0.10 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 Total Barrels = 0.1 Total Production = 1.9 Bpd

REMARK 1 :
 REMARK 2 :
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) : 9:43 AM TIME STARTED OFF BOTTOM : 12:15 PM
 WELL TEMPERATURE : 109
 INITIAL HYDROSTATIC PRESSURE (A) 1706
 INITIAL FLOW PERIOD MIN: 45 (B) 48 PSI TO (C) : 48
 INITIAL CLOSED IN PERIOD MIN: 45 (D) 164
 FINAL FLOW PERIOD MIN: 30 (E) 74 PSI TO (F) : 61
 FINAL CLOSED IN PERIOD MIN: 30 (G) 112
 FINAL HYDROSTATIC PRESSURE (H) 1680

Pressure Transient Report

DATA FILE.....

COMPANY.....PETROLEUM ENERGY INC.

DATE OF TEST.....2-25-86

FIELD- NAME.....PHELAN

WELL NAME.....1

LOCATION.....ELLSWORTH-KANSAS

JOB NUMBER.....16590

GAUGE NUMBER.....1049

GAUGE DEPTH.....3282

COMMENTS

START UP TIME	(mo/da/yr)	(hr:min:sec)
	2./25/86.	9.: 43.: 0.

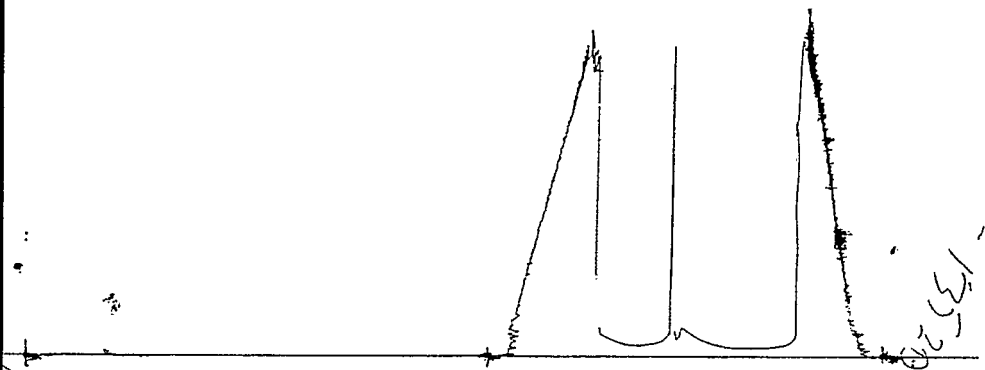
COMPANY : PETROLEUM ENERGY INC.
WELL : 1 JOB # : 16590
GAUGE # : 1049 DEPTH : 3282
MON/DAY : 2/25

FIELD : PHELAN

PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	9:43: 0	0 0.000	48.00	109.0	0.00	199.80
2	9:48: 0	5 0.083	48.00	109.0	0.00	0.00
3	9:53: 0	10 0.167	48.00	109.0	0.00	0.00
4	9:58: 0	15 0.250	48.00	109.0	0.00	0.00
5	10: 3: 0	20 0.333	48.00	109.0	0.00	0.00
6	10: 8: 0	25 0.417	48.00	109.0	0.00	0.00
7	10:13: 0	30 0.500	48.00	109.0	0.00	0.00
8	10:18: 0	35 0.583	48.00	109.0	0.00	0.00
9	10:23: 0	40 0.667	48.00	109.0	0.00	0.00
10	10:28: 0	45 0.750	48.00	109.0	0.00	0.00
11	10:31: 0	48 0.800	48.00	109.0	0.00	0.00
12	10:34: 0	51 0.850	48.00	109.0	0.00	0.00
13	10:37: 0	54 0.900	48.00	109.0	0.00	0.00
14	10:40: 0	57 0.950	49.00	109.0	1.00	20.03
15	10:43: 0	60 1.000	53.00	109.0	5.00	79.92
16	10:46: 0	63 1.050	57.00	109.0	9.00	79.92
17	10:49: 0	66 1.100	63.00	109.0	15.00	120.18
18	10:52: 0	69 1.150	70.00	109.0	22.00	139.86
19	10:55: 0	72 1.200	79.00	109.0	31.00	180.26
20	10:58: 0	75 1.250	90.00	109.0	42.00	219.79
21	11: 1: 0	78 1.300	101.00	109.0	53.00	219.79
22	11: 4: 0	81 1.350	111.00	109.0	63.00	200.29
23	11: 7: 0	84 1.400	127.00	109.0	79.00	319.69
24	11:10: 0	87 1.450	143.00	109.0	95.00	320.47
25	11:13: 0	90 1.500	164.00	109.0	116.00	419.59
26	11:14: 0	91 1.517	74.00	109.0	26.00	-5421.18
27	11:18: 0	95 1.583	74.00	109.0	26.00	0.00
28	11:23: 0	100 1.667	74.00	109.0	26.00	0.00
29	11:28: 0	105 1.750	63.00	109.0	15.00	-131.94
30	11:33: 0	110 1.833	61.00	109.0	13.00	-23.99
31	11:38: 0	115 1.917	61.00	109.0	13.00	0.00
32	11:43: 0	120 2.000	61.00	109.0	13.00	0.00
33	11:46: 0	123 2.050	61.00	109.0	13.00	0.00
34	11:49: 0	126 2.100	61.00	109.0	13.00	0.00
35	11:52: 0	129 2.150	68.00	109.0	20.00	139.86
36	11:55: 0	132 2.200	72.00	109.0	24.00	80.12
37	11:58: 0	135 2.250	76.00	109.0	28.00	79.92
38	12: 1: 0	138 2.300	82.00	109.0	34.00	119.88
39	12: 4: 0	141 2.350	87.00	109.0	39.00	100.15
40	12: 7: 0	144 2.400	93.00	109.0	45.00	119.88
41	12:10: 0	147 2.450	102.00	109.0	54.00	180.26
42	12:13: 0	150 2.500	112.00	109.0	64.00	199.80

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SUBSURFACE PRESSURE SURVEY

DATE : 2-26-86 TICKET : 16591
 CUSTOMER : PETROLEUM ENERGY INC. LEASE : PHELAN
 WELL : 1 TEST: 2 GEOLOGIST : WREATH
 ELEVATION : 1822 FORMATION : ARBUCKLE
 SECTION : 2 TOWNSHIP : 17S
 RANGE : 10W COUNTY : ELLSWORTH STATE : KANSAS
 GAUGE SN# : 1049 RANGE : 4225 CLOCK : 12

INTERVAL FROM : 3248 TO : 3297 TOTAL DEPTH : 3297
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 3243 SIZE : 6 5/8
 PACKER DEPTH : 3248 SIZE : 6 5/8
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : WHITE & ELLIS DRLG
 MUD TYPE : STARCH VISCOSITY : 44
 WEIGHT : 9.7 WATER LOSS (CC) : 10.4
 CHLORIDES (PPM) : 48000
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 335 FT I.D. inch : 2.25
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
 DRILL PIPE LENGTH : 2892 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 21 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 49 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5 XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD VERY WEAK BLOW DECREASED TO
 BLOW COMMENT #2 : A FEW BUBBLES. FINAL FLOW PERIOD FEW BUBBLES;
 BLOW COMMENT #3 : FLUSHED TOOL. VERY WEAK BLOW AND DIED IN 20
 BLOW COMMENT #4 : MINUTES.

RECOVERED : 70 FT OF: MUD (FEW OIL SPOTS). 0.34 Barrels
 RECOVERED : 0 FT OF: (2% OIL). 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 Total Barrels = 0.3 Total Production = 8.3 Bpd

REMARK 1 :
 REMARK 2 :
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) : 12:38 AM TIME STARTED OFF BOTTOM : 2:40 AM
 WELL TEMPERATURE : 110
 INITIAL HYDROSTATIC PRESSURE (A) 1727
 INITIAL FLOW PERIOD MIN: 30 (B) 57 PSI TO (C) : 57
 INITIAL CLOSED IN PERIOD MIN: 33 (D) 502
 FINAL FLOW PERIOD MIN: 30 (E) 93 PSI TO (F) : 80
 FINAL CLOSED IN PERIOD MIN: 30 (G) 510
 FINAL HYDROSTATIC PRESSURE (H) 1678

Pressure Transient Report

DATA FILE.....

COMPANY.....PETROLEUM ENERGY INC.

DATE OF TEST.....2-26-86

FIELD NAME.....PHELAN

WELL NAME.....1

LOCATION.....ELLSWORTH-KANSAS

JOB NUMBER.....16591

GAUGE NUMBER.....1049

GAUGE DEPTH.....3297

COMMENTS

START UP TIME	(mo/da/yr)	(hr:min:sec)
	2./26/86.	12.: 38.: 0.

COMPANY : PETROLEUM ENERGY INC. FIELD : PHELAN
WELL : 1 JOB # : 16591
GAUGE # : 1049 DEPTH : 3297
MON/DAY : 2/26

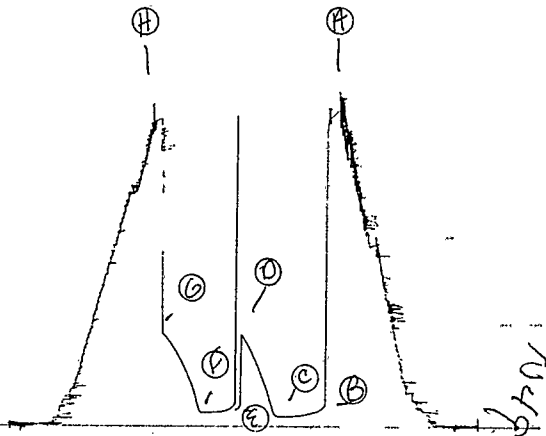
PAGE 1

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	12:38: 0	0 0.000	57.00	110.0	0.00	0.00
2	12:43: 0	5 0.083	57.00	110.0	0.00	0.00
3	12:48: 0	10 0.167	57.00	110.0	0.00	0.00
4	12:53: 0	15 0.250	57.00	110.0	0.00	0.00
5	12:58: 0	20 0.333	57.00	110.0	0.00	0.00
6	13: 3: 0	25 0.417	57.00	110.0	0.00	0.00
7	13: 8: 0	30 0.500	57.00	110.0	0.00	0.00
8	13:11: 0	33 0.550	57.00	110.0	0.00	0.00
9	13:14: 0	36 0.600	57.00	110.0	0.00	0.00
10	13:17: 0	39 0.650	70.00	110.0	13.00	259.75
11	13:20: 0	42 0.700	140.00	110.0	83.00	1398.63
12	13:23: 0	45 0.750	206.00	110.0	149.00	1321.94
13	13:26: 0	48 0.800	265.00	110.0	208.00	1178.85
14	13:29: 0	51 0.850	325.00	110.0	268.00	1201.76
15	13:32: 0	54 0.900	374.00	110.0	317.00	979.04
16	13:35: 0	57 0.950	421.00	110.0	364.00	939.08
17	13:38: 0	60 1.000	461.00	110.0	404.00	801.17
18	13:41: 0	63 1.050	502.00	110.0	445.00	819.20
19	13:42: 0	64 1.067	93.00	110.0	36.00	-24636.23
20	13:46: 0	68 1.133	119.00	110.0	62.00	389.38
21	13:51: 0	73 1.217	93.00	110.0	36.00	-312.30
22	13:56: 0	78 1.300	82.00	110.0	25.00	-131.94
23	14: 1: 0	83 1.383	80.00	110.0	23.00	-23.99
24	14: 6: 0	88 1.467	80.00	110.0	23.00	0.00
25	14:11: 0	93 1.550	80.00	110.0	23.00	0.00
26	14:14: 0	96 1.600	138.00	110.0	81.00	1161.70
27	14:17: 0	99 1.650	208.00	110.0	151.00	1398.63
28	14:20: 0	102 1.700	261.00	110.0	204.00	1058.97
29	14:23: 0	105 1.750	314.00	110.0	257.00	1061.56
30	14:26: 0	108 1.800	359.00	110.0	302.00	899.12
31	14:29: 0	111 1.850	402.00	110.0	345.00	861.26
32	14:32: 0	114 1.900	436.00	110.0	379.00	679.34
33	14:35: 0	117 1.950	470.00	110.0	413.00	679.34
34	14:38: 0	120 2.000	500.00	110.0	443.00	600.88
35	14:41: 0	123 2.050	510.00	110.0	453.00	199.80

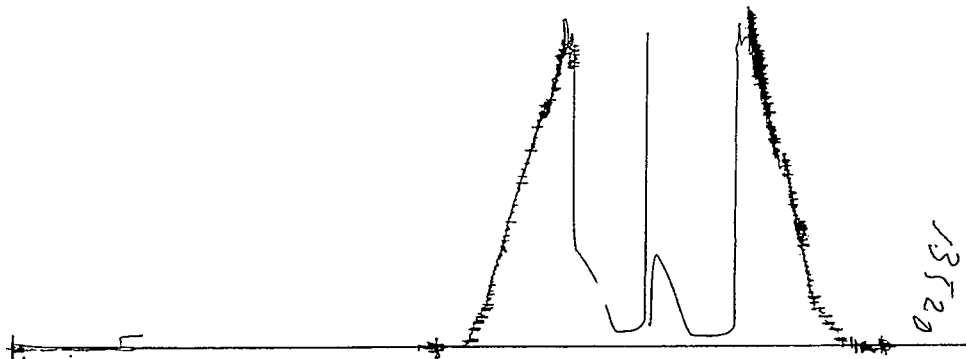
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SUBSURFACE PRESSURE SURVEY

DATE : 3-12-86 TICKET : 11167
 CUSTOMER : PETROLEUM ENERGY INC. LEASE : BOWBEER
 WELL : 1 TEST: 2 GEOLOGIST : WREATH
 ELEVATION : 1773 FORMATION : ARBUCKLE
 SECTION : 18 TOWNSHIP : 19S
 RANGE : 10W COUNTY : RICE STATE : KANSAS
 GAUGE SN# : 10270 RANGE : 4150 CLOCK : 12

INTERVAL FROM : 3284 TO : 3364 TOTAL DEPTH : 3364
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 3279 SIZE : 6 5/8
 PACKER DEPTH : 3284 SIZE : 6 5/8
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : WHITE & ELLIS DRLG
 MUD TYPE : STARCH VISCOSITY : 41
 WEIGHT : 9.7 WATER LOSS (CC) : 12.0
 CHLORIDES (PPM) : 52000
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? : YES

DRILL COLLAR LENGTH : 330 FT I.D. inch : 2.25
 WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
 DRILL PIPE LENGTH : 2934 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 80 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5 XH

BLOW COMMENT #1 : STRONG BLOW THROUGHOUT TEST.
 BLOW COMMENT #2 :
 BLOW COMMENT #3 :
 BLOW COMMENT #4 :

RECOVERED : 1920 FT OF: WATER. 23.92 Barrels
 RECOVERED : 0 FT OF: CHLORIDES 12000 PPM. 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 RECOVERED : 0 FT OF: 0.00 Barrels
 Total Barrels = 23.9 Total Production = 574.2 Bpd

REMARK 1 :
 REMARK 2 :
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) : 11:45 AM TIME STARTED OFF BOTTOM : 1:45 PM
 WELL TEMPERATURE : 110
 INITIAL HYDROSTATIC PRESSURE (A) 1692
 INITIAL FLOW PERIOD MIN: 30 (B) 156 PSI TO (C) : 590
 INITIAL CLOSED IN PERIOD MIN: 30 (D) 1135
 FINAL FLOW PERIOD MIN: 30 (E) 645 PSI TO (F) : 843
 FINAL CLOSED IN PERIOD MIN: 30 (G) 1135
 FINAL HYDROSTATIC PRESSURE (H) 1692

Pressure Transient Report

DATA FILE.....
COMPANY.....PETROLEUM ENERGY INC.
DATE OF TEST.....3-12-86
FIELD NAME.....BOWBEER
WELL NAME.....1
LOCATION.....RICE-KANSAS
JOB NUMBER.....11167
GAUGE NUMBER.....10270
GAUGE DEPTH.....3364

COMMENTS

START UP TIME	(mo/da/yr)	(hr:min:sec)
	3./12/86.	11.: 45.: 0.

COMPANY : PETROLEUM ENERGY INC.
WELL : 1 JOB # : 11167
GAUGE # : 10270 DEPTH : 3364
MON/DAY : 3/12

FIELD : BOWBEER

PAGE 1

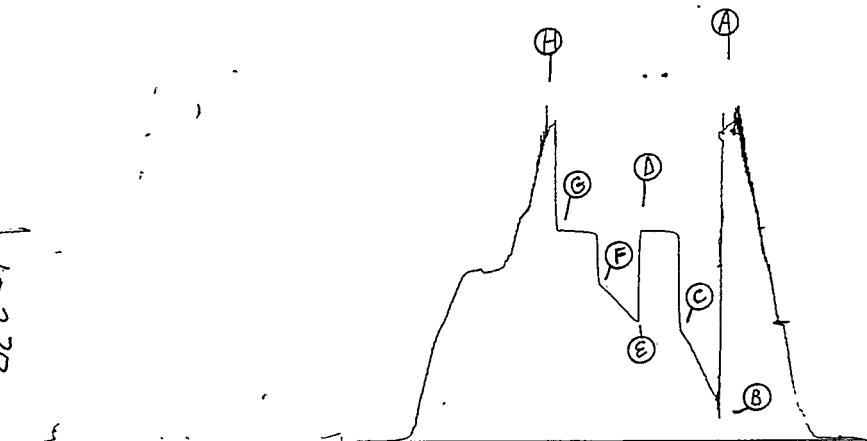
REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P (Po-Pi)	DP/DT Psi/hr
1	11:45: 0	0 0.000	156.00	110.0	0.00	20.03
2	11:50: 0	5 0.083	264.00	110.0	108.00	1295.37
3	11:55: 0	10 0.167	350.00	110.0	194.00	1033.01
4	12: 0: 0	15 0.250	419.00	110.0	263.00	827.60
5	12: 5: 0	20 0.333	489.00	110.0	333.00	839.59
6	12:10: 0	25 0.417	552.00	110.0	396.00	756.74
7	12:15: 0	30 0.500	590.00	110.0	434.00	455.78
8	12:18: 0	33 0.550	1114.00	110.0	958.00	10469.78
9	12:21: 0	36 0.600	1124.00	110.0	968.00	200.29
10	12:24: 0	39 0.650	1128.00	110.0	972.00	79.92
11	12:27: 0	42 0.700	1130.00	110.0	974.00	40.06
12	12:30: 0	45 0.750	1132.00	110.0	976.00	39.96
13	12:33: 0	48 0.800	1133.00	110.0	977.00	19.98
14	12:36: 0	51 0.850	1134.00	110.0	978.00	20.03
15	12:39: 0	54 0.900	1134.00	110.0	978.00	0.00
16	12:42: 0	57 0.950	1135.00	110.0	979.00	20.03
17	12:45: 0	60 1.000	1135.00	110.0	979.00	0.00
18	12:46: 0	61 1.017	645.00	110.0	489.00	-29299.85
19	12:50: 0	65 1.083	667.00	110.0	511.00	330.08
20	12:55: 0	70 1.167	712.00	110.0	556.00	540.53
21	13: 0: 0	75 1.250	748.00	110.0	592.00	431.79
22	13: 5: 0	80 1.333	786.00	110.0	630.00	455.78
23	13:10: 0	85 1.417	820.00	110.0	664.00	408.40
24	13:15: 0	90 1.500	843.00	110.0	687.00	275.87
25	13:18: 0	93 1.550	1118.00	110.0	962.00	5494.63
26	13:21: 0	96 1.600	1124.00	110.0	968.00	120.18
27	13:24: 0	99 1.650	1128.00	110.0	972.00	79.92
28	13:27: 0	102 1.700	1129.00	110.0	973.00	20.03
29	13:30: 0	105 1.750	1130.00	110.0	974.00	19.98
30	13:33: 0	108 1.800	1131.00	110.0	975.00	19.98
31	13:36: 0	111 1.850	1132.00	110.0	976.00	20.03
32	13:39: 0	114 1.900	1133.00	110.0	977.00	19.98
33	13:42: 0	117 1.950	1134.00	110.0	978.00	20.03
34	13:45: 0	120 2.000	1135.00	110.0	979.00	19.98

TKT # 11167

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10270



TKT # 11167

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13268

