CALIBER MIDSTREAM

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Phone: 303-628-1410 • Fax: 303-628-1420
www.calibermidstream.com

July 20, 2017

Craig Reamann
North Dakota Public Service Commission
600 East Boulevard Dept. 408
Bismarck, ND 58505-0480

RE: Case No. GS-17-171

Dear Mr. Reamann,

This letter is in response to the Notice of Probable Violation (NOPV) Case No. GS-17-171 dated April 27, 2017 and specifically seeks to contest the audit findings in Probable Violation No. 2 that concerns the Ponderosa Class 3 Regulated Gas Gathering Segment. In addition, the requested compliance actions for Probable Violation No. 1 and No. 2 can be found in Submission B included with the response.

The former Ponderosa Class 3 Regulated Gas Gathering Segment has been reclassified as of 6/1/2017 to Class 1 Onshore (Non-Regulated) Gathering due to the removal of the Ponderosa Temporary Workers Camp and the associated living units that triggered the class designation under 49 CFR 192.5. Photo documentation confirming the removal of the Ponderosa Man Camp are in Submission A.

As this segment of gas gathering pipeline is no longer subject to 49 CFR 192.455 (a) (2), Caliber Midstream requests that the Commission revoke Probable Violation No. 2 of Case No. GS-17-171.

Caliber Midstream's internal policy regarding **all** metallic pipelines, regardless of regulatory classification, is to install sufficient cathodic protection to effectively protect the pipeline from corrosion. For this reason, the cathodic protection system installed on this segment will remain in place, monitored, and maintained to the same standards that apply to our regulated pipelines.

Sincerely,

Skip Vest

Skip Vest
Director, Quality, Health, Safety, Environment, and Regulatory

cc:


5/4/2017 - Pipeline in green
Outbuilding
Outbuilding
Vacated Man Camp


5/29/17 - Pipeline in orange
20

WBI ENERGY
CORROSION SERVICES
An MDU Resources Group company

Caliber

2017 Caliber Residue Gas Line (Line 4) On-Off CIS
2017 Caliber Class 3 Line (Line 13) On-Off CIS

July 2017

WBI Energy Corrosion Services Job Number: CIS-53669

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552 Roxy Lane
Billings, MT 59105
(406) 248-6985
www.wbienergy.com

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Executive Summary:

WBI Energy Corrosion Services performed interrupted close interval surveys on Caliber's DOT regulated Line 4 on May 22, 2017, and Line 13 on May 20, 2017. Soil conditions were damp to slightly dry during the surveys. All pertinent data was tabulated, analyzed, and this covering report prepared.

Appendix A contains test station wave prints for both pipelines. Appendix B contains a test station data table for both pipelines. Appendix C contains criteria exception summaries for both pipelines. Appendix D contains potential profile graphs for the Residue Gas Line (Line 4). Appendix E contains potential profile graphs for the Class 3 Line (Line 13).

The enclosed CD contains the close interval survey and GPS data in PDF and Excel formats. Test station waveprints and test station data tables are also provided.

Survey Procedures:

The close interval survey was accomplished in accordance with standards and procedures recognized by the cathodic protection industry and the National Association of Corrosion Engineers (NACE).

GPS synchronized current-interrupters were installed at Alexander Station and Hat Butte Station rectifiers influencing the test area, as well as a mag groundbed on the residue line. The interrupted close interval CP survey was performed to obtain continuous "on" and "instant off" pipe-to-soil potentials every 2.5-feet. An Allegro field computer was used to measure and record pipeline potentials. On and instant-off potentials were obtained in two channels of data resulting in individual data lines for each set of data.

The close interval survey used an interruption cycle of 3.0 seconds on / 1.0 second off. The Allegro datalogger for the CIS survey used an internal GPS receiver/antenna to collect Lat, Long GPS.

Copper/copper sulfate reference electrodes used during the survey were re-charged and balanced at the beginning of each survey day.

Pipe-to-soil potentials were measured at all accessible test points and pipeline risers and were measured with current from the rectifiers and other CP current sources interrupted to obtain both "current on" and "instant off" or "polarized" potentials.

Survey Notes:

Note 1 - Residue Gas Line (Line 4)

No damage was noted on the residue gas line during the May 22 close interval survey.

Note 2 - Class 3 Line (Line 13)

Minimal damage was noted along the class 3 line during the May 20 close interval survey and is noted below:

Chainage	Damage
2+33	Line marker needs repair
184+80	Line marker needs repair

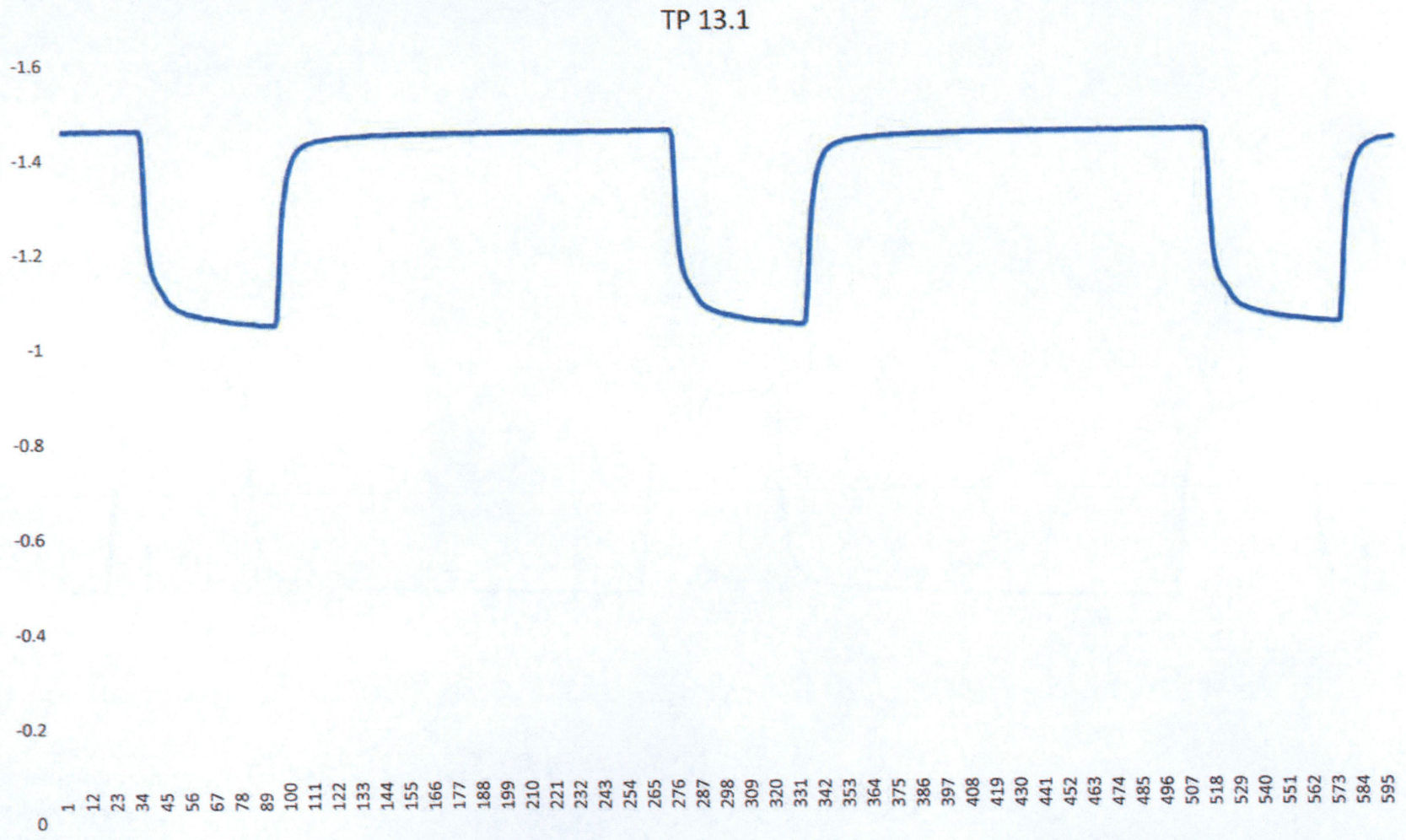
Note 3

No segments of the pipeline were skipped during the close interval surveys.

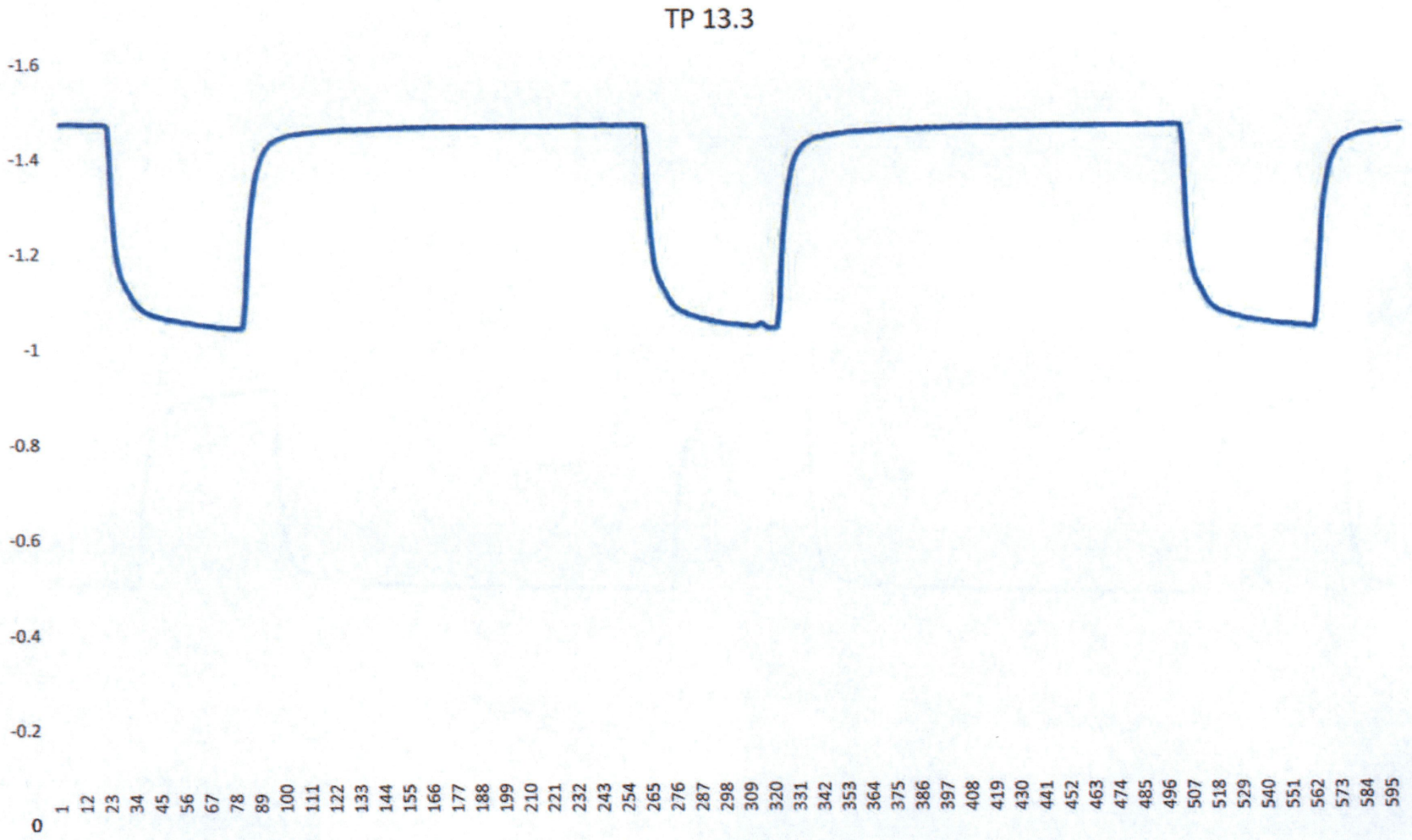
APPENDIX A

Test Station Wave Prints

Time: 2017/05/20 5:05
Range: 250VDC
Sample rate: 60
Remark: wp at tp 13.1



Time: 2017/05/20 7:13
Range: 250VDC
Sample rate: 60
Remark: wp at tp 13.3



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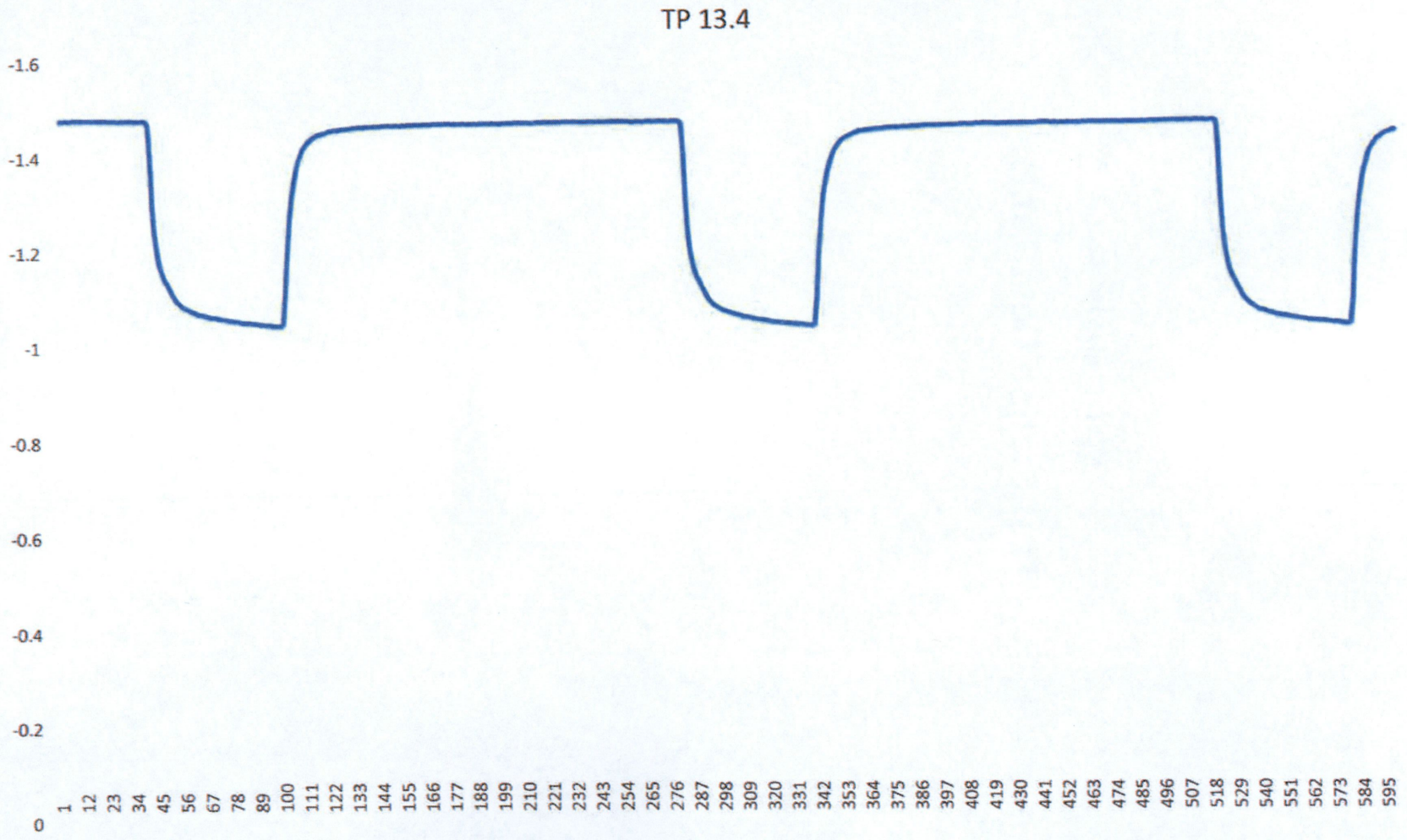

APPENDIX B

Test Station Data Tables

Test Station Data Table

2017 Caliber Residue Gas Line (Line 4) On-Off CIS						
05-22-2017	0+00	-1.405	-1.243	Test station 4.1, Pipe enters ground	47.76495361	-103.55067444
05-22-2017	39+03	-1.455	-1.320	Test station ~~4~~ 4.3	47.76856232 ✓	-103.54031372 ✓
05-22-2017	90+93	-1.401	-1.268	Test station ~~8~~ 4.4	47.76855850 ✓	-103.51927948 ✓
05-22-2017	135+53	-1.425	-1.294	Test station 4.2	47.76852036	-103.50168610
2017 Caliber Class 3 Line (Line 13) On-Off CIS						
05-20-2017	0+00	-1.450	-1.062	Test station 13.1, 0.09vac	47.85544586	-103.63140869
05-20-2017	111+18	-1.466	-1.064	Test station 13.3, 0.14vac	47.84891891	-103.59424591
05-20-2017	179+08	-1.464	-1.061	Test station 25' west 13.4, 0.28vac	47.84811401	-103.57320404

APPENDIX C

Exception Tables

Exceptions Summary

2017 Caliber Residue Gas Line (Line 4) On-Off CIS				
Exception Criteria	**Chainage - Exceptions**	**Chainage - No Exceptions**	**Chainage - Exceptions %**	**Chainage - No Exceptions %**
Ons Less Negative than -0.85	0+00	135+70	0	100
Offs Less Negative than -0.85	0+00	135+70	0	100
Offs More Negative than -1.2	135+70	0+00	100	0

2017 Caliber Class 3 Line (Line 13) On-Off CIS				
Exception Criteria	**Chainage - Exceptions**	**Chainage - No Exceptions**	**Chainage - Exceptions %**	**Chainage - No Exceptions %**
Ons Less Negative than -0.85	0+00	187+18	0	100
Offs Less Negative than -0.85	0+00	187+18	0	100
Offs More Negative than -1.2	0+00	187+18	0	100

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7/12/17

Brian Videtich
Facilities/Operations Engineer, EI
Caliber Midstream
1200 17th Street Suite 2100
Denver, Colorado 80202

RE: Rizzo Test

Mr. Videtich,

On June 19th, 2017 WBI Energy Corrosion Services' technician Jeremy Younglund-Davis completed a Rizzo test on the Residue Line as there were sacrificial anodes that could not be interrupted during the close interval survey.

The soil resistivity at the location of the Rizzo test was 478 Ohm-cm at a depth of 5'. Potentials were taken test point 4.2 on the line as per the attached procedure. All the potentials were within 25 mV.

As per the Rizzo Test, under these conditions, the IR drop has been demonstrated to be negligible.

Thank you,

Rob Lunder, PE
CP Specialist #15496
WBI Energy Corrosion Services
406.248.6985

Determining if IR Drop is Negligible in a Galvanic Anode Cathodic Protection System
Rizzo Method
1-31-13

One method of demonstrating that IR drop is negligible in a galvanic system was developed by Dr. Frank Rizzo, a subject matter expert who teaches corrosion and cathodic protection to pipeline inspectors for PHMSA's Inspector Training and Qualifications Group. The South Dakota pipeline safety office accepts this method as valid for determining IR drop in galvanic systems. The procedure below is adapted from Dr. Rizzo's publications on the subject and from clarifying discussions with him.

1. At least fifteen feet away from a known anode that cannot be disconnected, take a pipe/soil measurement at a specific location on the pipeline.
2. Then take additional readings at a distance of 5 feet in all directions. If the readings stay within 25 mV of each other, the IR drop is considered negligible. (If the readings are not within 25 mV of each other, the readings could be over an unknown anode or in soil with a high resistivity (over 50,000 ohm-cm)
3. Further readings 15 feet down the pipeline could be used to determine if the previous measurement differential over 25 mV was over an unknown anode. If the new set of readings is within 25 mV, then the previous readings may have been over an unknown anode. If the new set of readings is > 25mV of each other, testing for a high resistivity soil type may be needed.
4. If P/S readings taken as outlined above are within 25 mV of each other and the resistivity of the soil type is under 50,000 ohm-cm, then the IR drop has been demonstrated to be negligible.
5. Documentation requires that the locations are noted where IR drop is considered negligible.
6. IR drop cannot be assumed to be constant over time. It is dependent on many varying conditions. Reevaluating IR drop at periodic intervals no greater than 5 years is recommended.
7. Measurements are recommended in all different soil types encountered in the operator's pipeline system.

Notes:

- If P/S readings can be taken with anodes disconnected, this method is not necessary.
- If the readings taken in all directions stay within 25 mV, the conclusion is that the measurement is not over an anode.
- In a galvanic anode cathodic protection system, the current flow is low. A low current flow in the electrolyte results in a small IR drop, normally less than 25 mV. The IR drop from a galvanic anode will be higher than 25 mV in high resistivity soils (>50,000 ohm-cm) near the anode. Current flows are higher near an anode.
- It is not necessary to measure IR drop at every location. Once an IR drop correction has been made at a location, it can be used at other locations where the conditions are essentially similar.
- It is also important to note that the resistivity of the soil changes from time to time depending on moisture, temperature, and other factors. Soil resistivity readings should be made during establishing the location of test points. In subsequent years, only a few representative readings would be required to demonstrate that major changes in soil resistivities had not occurred.

WBI Energy Corrosion Services
Soil Resistivity Worksheet

Customer: Caliber Midstream

Location: Northern Border Interconnect

Technician: Jeremy Younglund-Davis

Test Date: 6/19/2017

GPS Coordinates: N 47.768513 W 103.501770

Resistivity Meter Manufacturer: Nillson

Resistivity Meter Serial Number: 0-3583

Resitivity Meter Model: 400

DEPTH (FT)	RESISTANCE (OHMS)	RESISTIVITY (OHMS-CM)	DEPTH (FT)	RESISTANCE (OHMS)	LAYER RESISTIVITY (OHMS-CM)
5.00	0.8	478.75	5	0.8	478.75

Technician: Jeremy Younglund-Davis
Date of Survey: 6/19/17

WBI Energy Corrosion Services
Annual Survey Data Sheet

Company: Caliber Midstream
Line Segment: Residue Line

Test Point	Description	ON (-mV)	OFF (-mV)	Native (-mV)	Shift (-mV)	Foreign ON (-mV)	eign OFF	nd Curr	GPS Coordinates Lat	GPS Coordinates Long	Comments	Tech	Date
4.2	**TS with mag anodes at Northern Border Interconnect**								N47.768513	W103.501770		JYD	6/19/2017
North	5' North of PL	1698										JYD	6/19/2017
East	Over PL	1699										JYD	6/19/2017
South	5' South of PL	1700										JYD	6/19/2017
West	Over PL	1697										JYD	6/19/2017
At TS	At TS	1706										JYD	6/19/2017

APPENDIX D

POTENTIAL PROFILE CHARTS

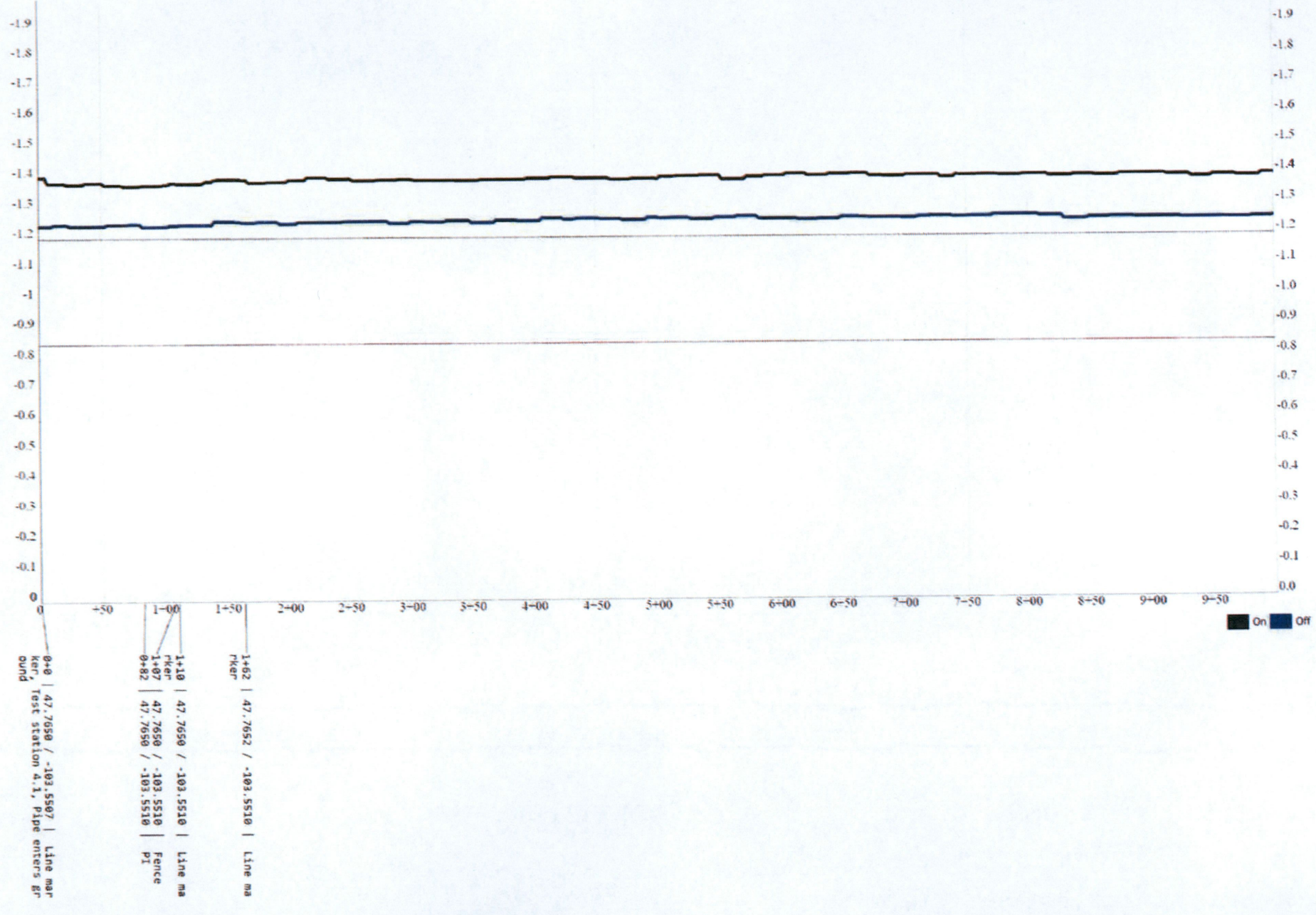
Residue Gas Line (Line 4)

Scale: 1000 feet per page

On Potentials (mV)

Instant-Off Potentials (mV)

-0.850 mV Criteria Line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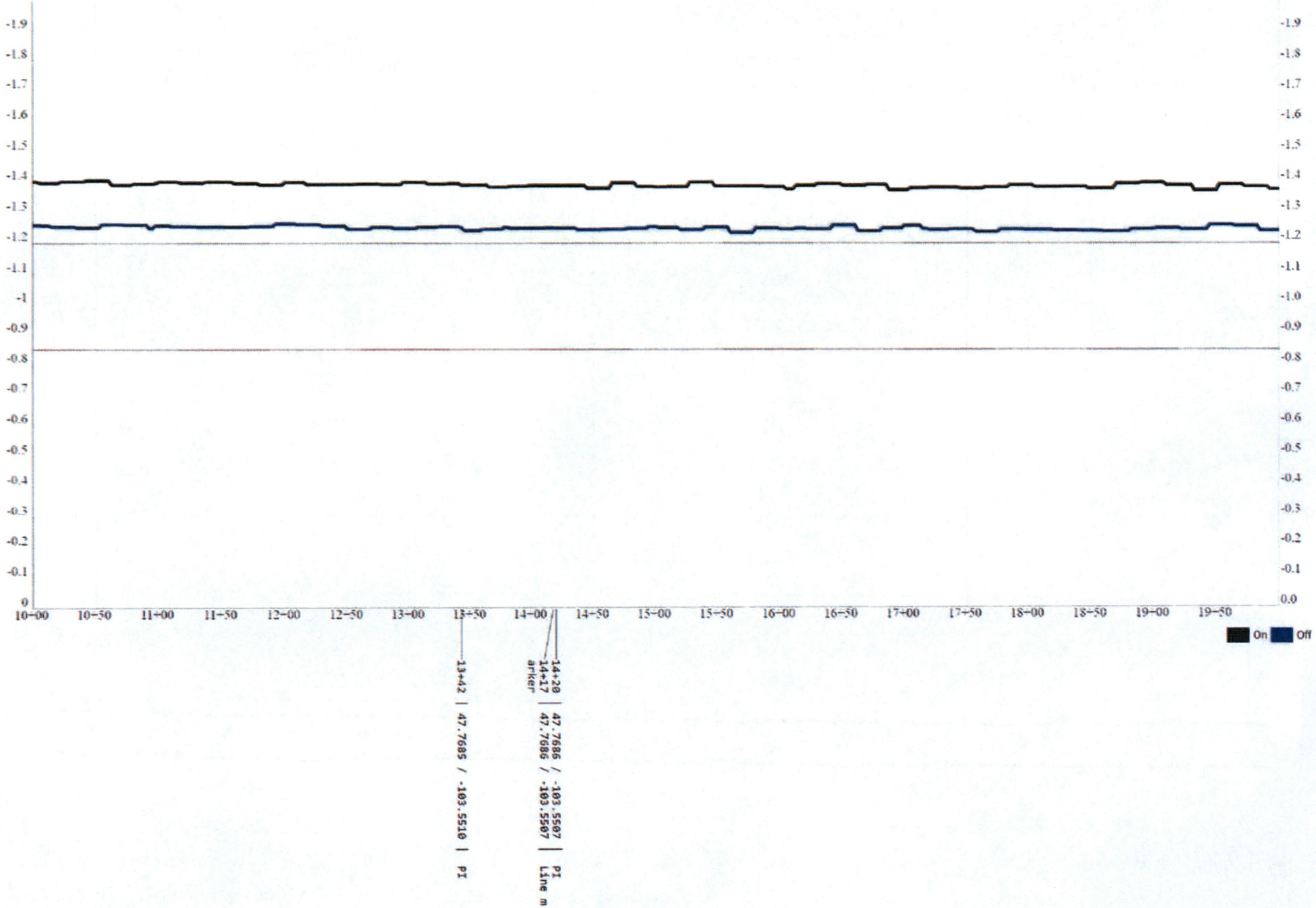
0+82 | 47.7650 / -103.5510 | Fence
PI
1+07 | 47.7650 / -103.5510 |
rker
1+10 | 47.7650 / -103.5510 | Line ma
1+62 | 47.7652 / -103.5510 | Line ma
rker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14+17 | 47.7686 / -103.5507 | PI
arker
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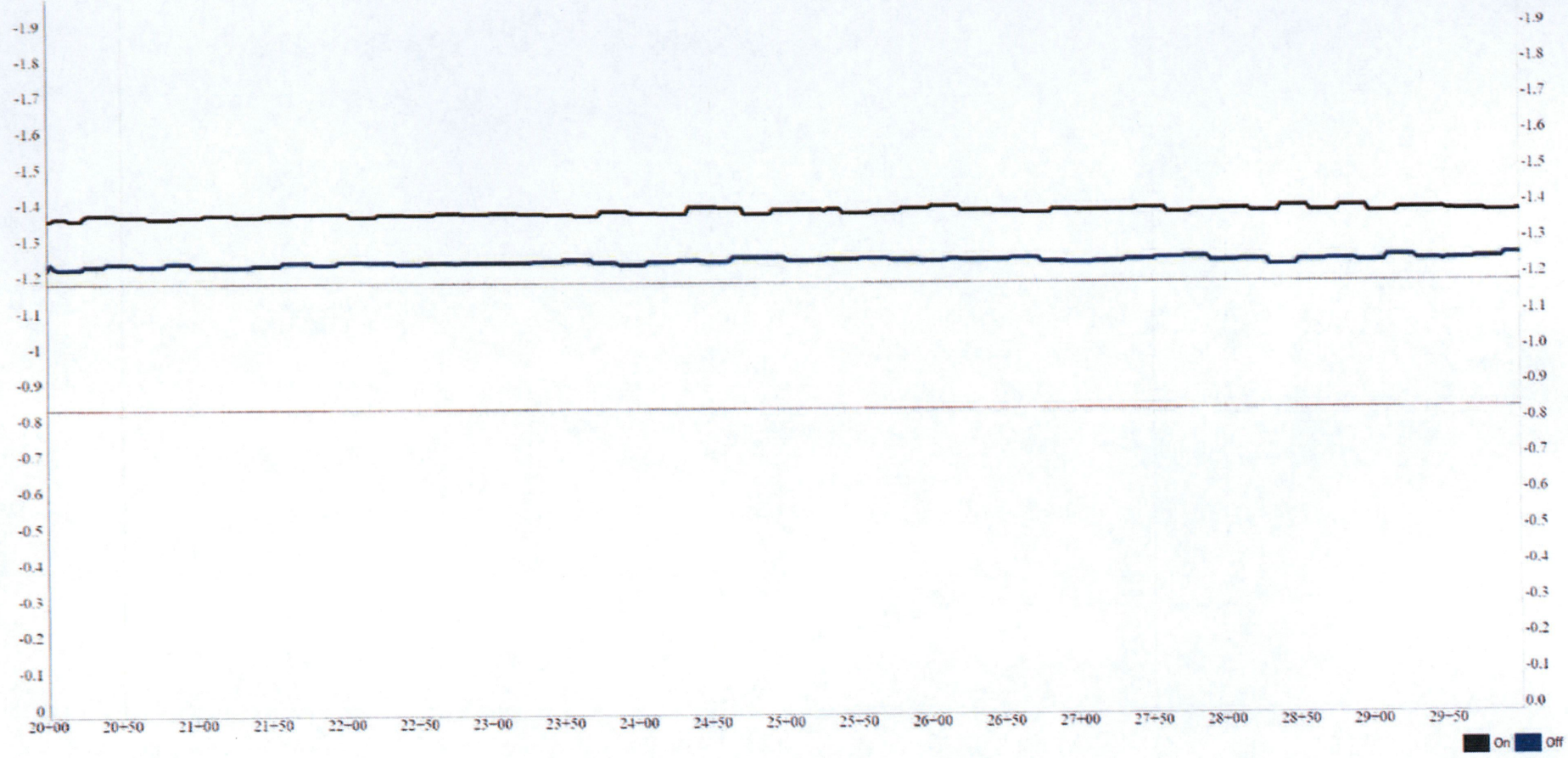
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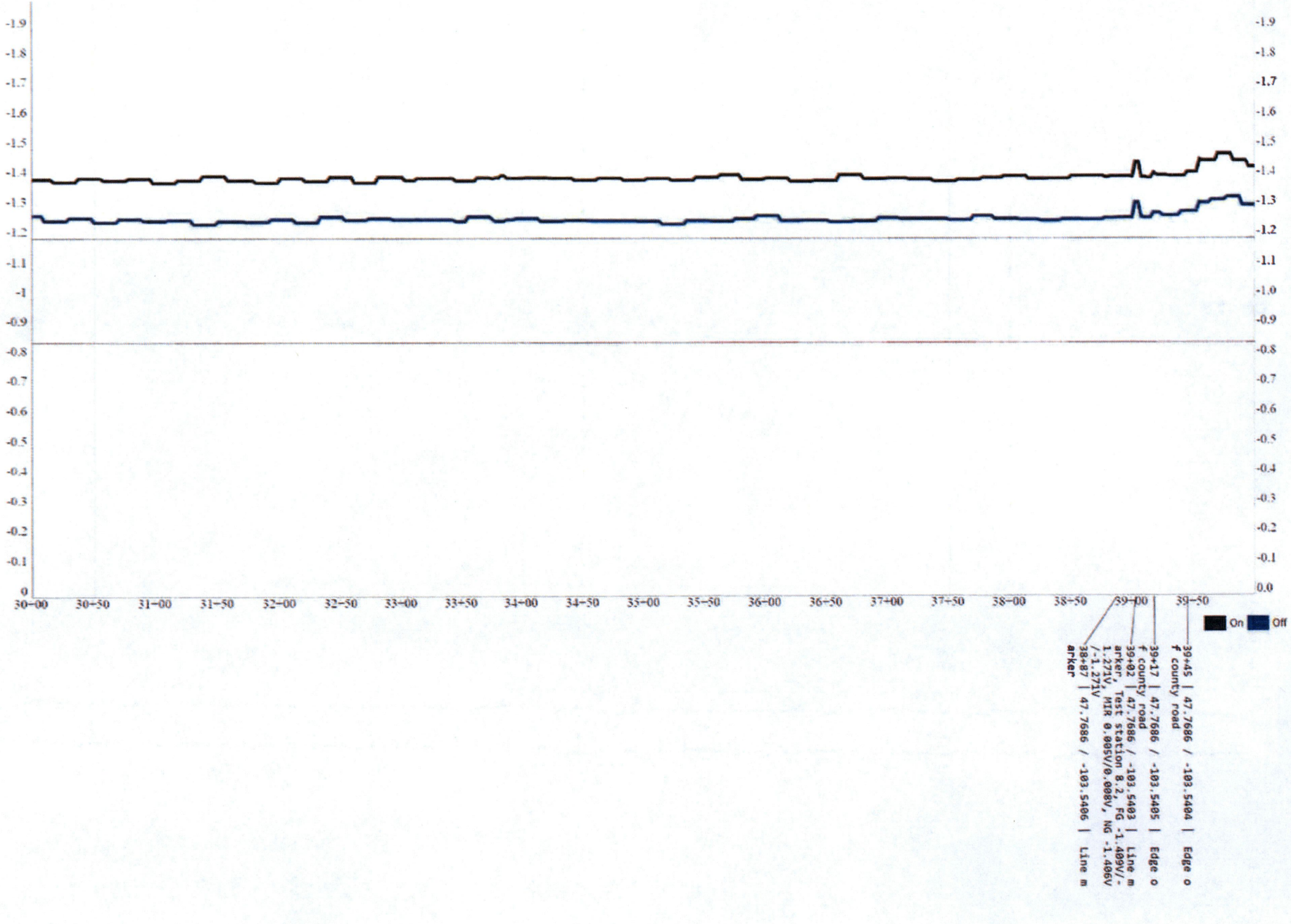
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39+45 | 47.7686 / -103.5404 | Edge o
f county road
39+17 | 47.7686 / -103.5405 | Edge o
f county road
39+02 | 47.7686 / -103.5403 | Line m
arker, Test station 8.2, FG -1.409V/-
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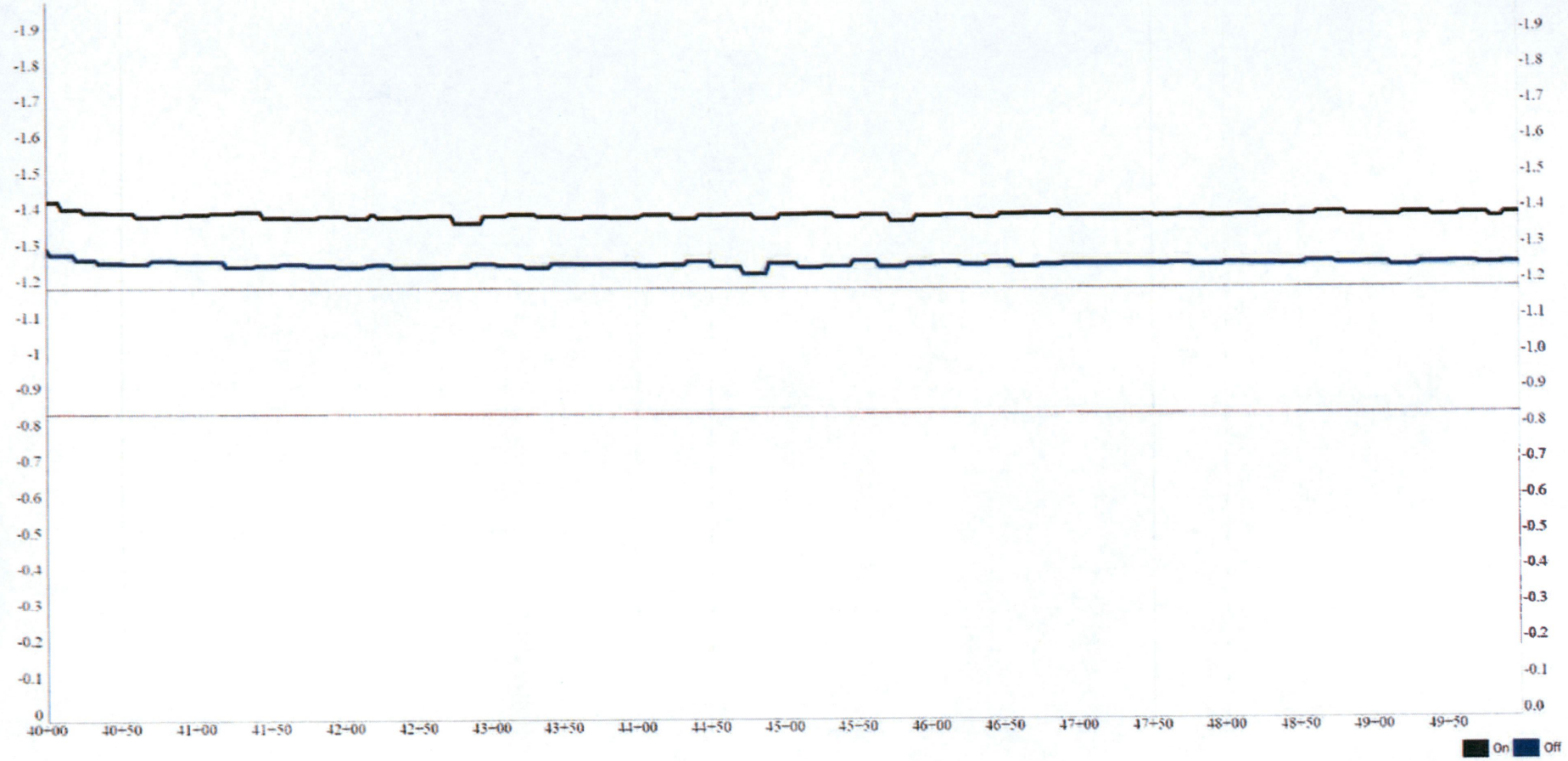
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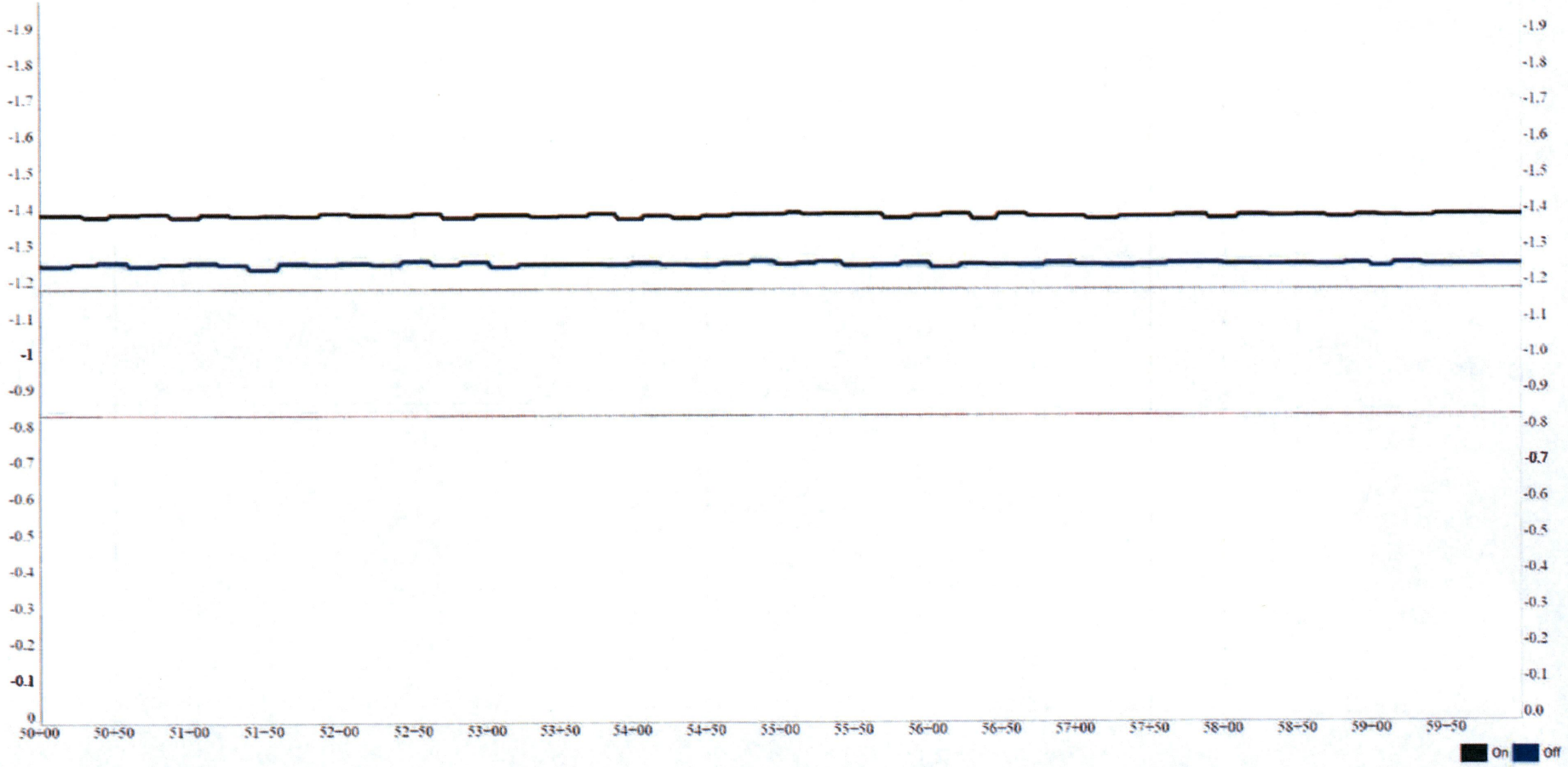
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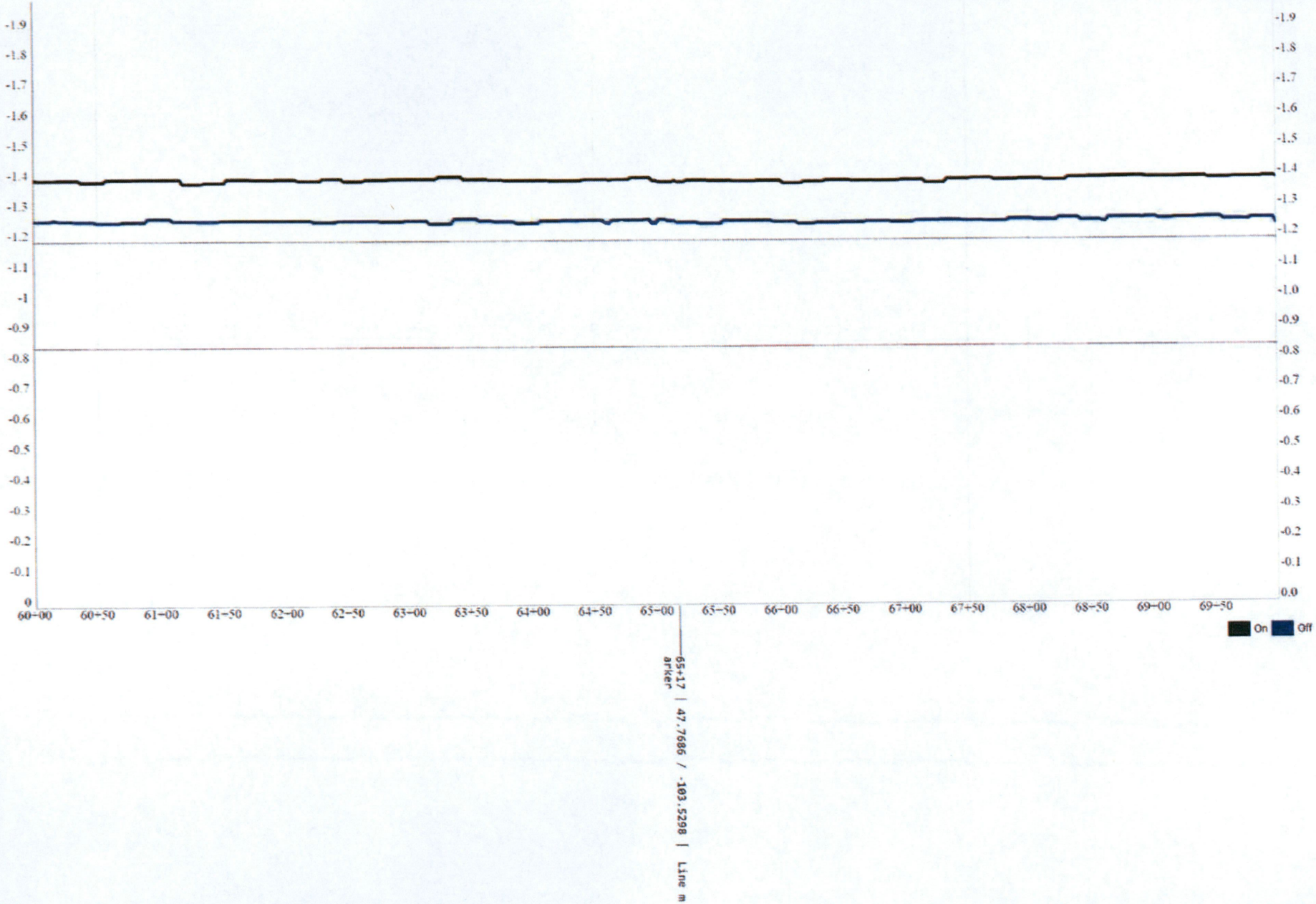
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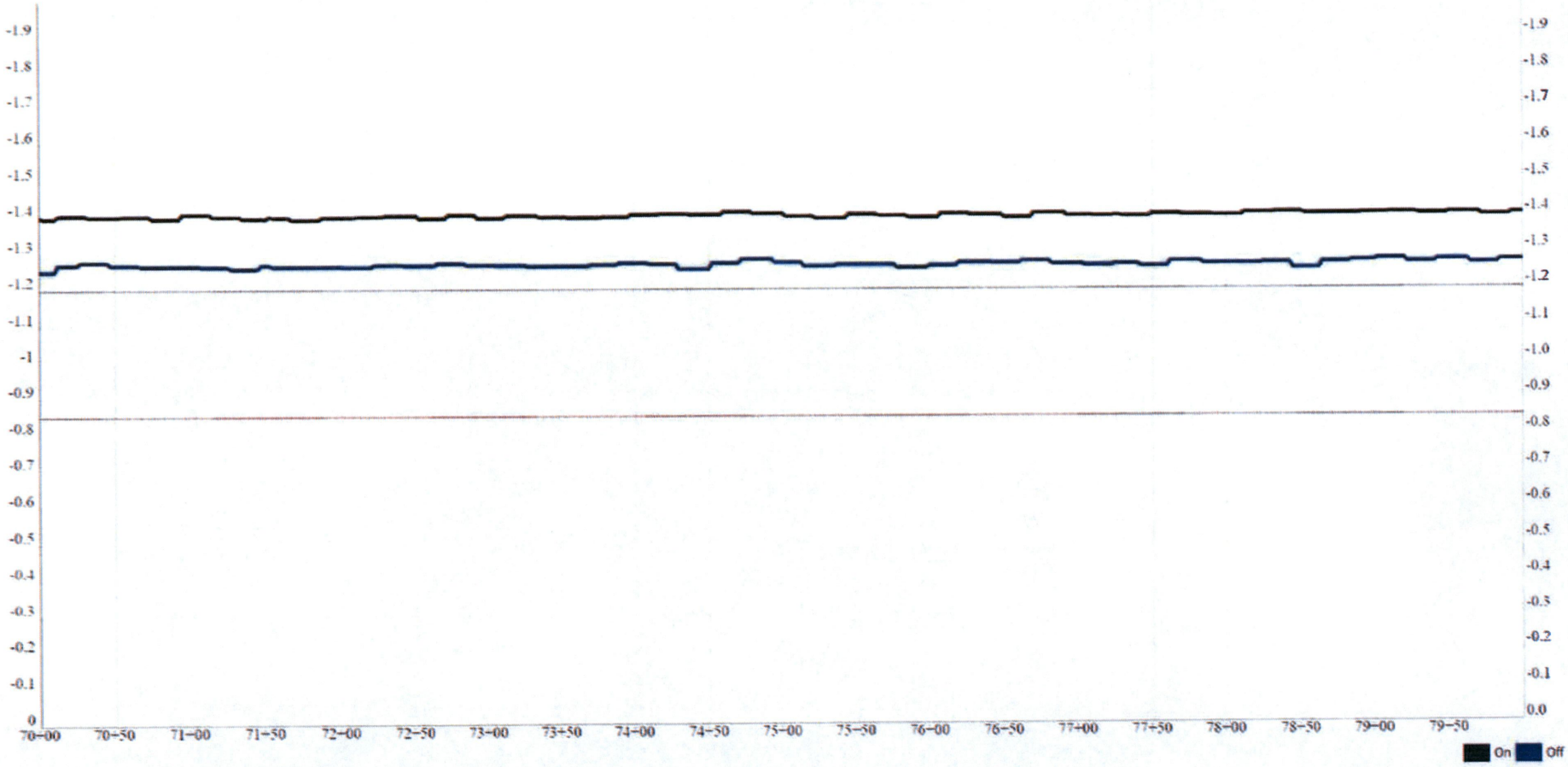
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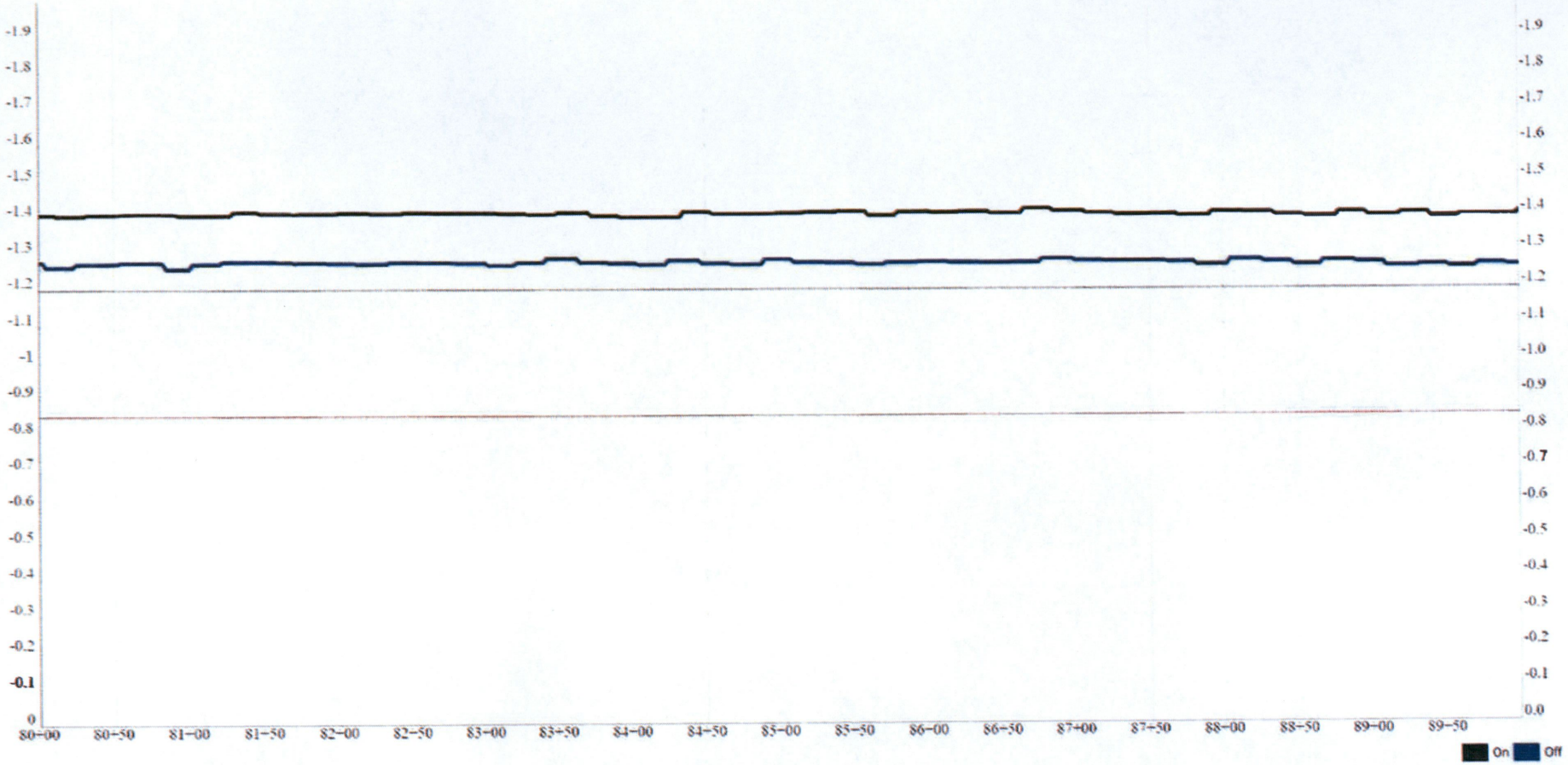
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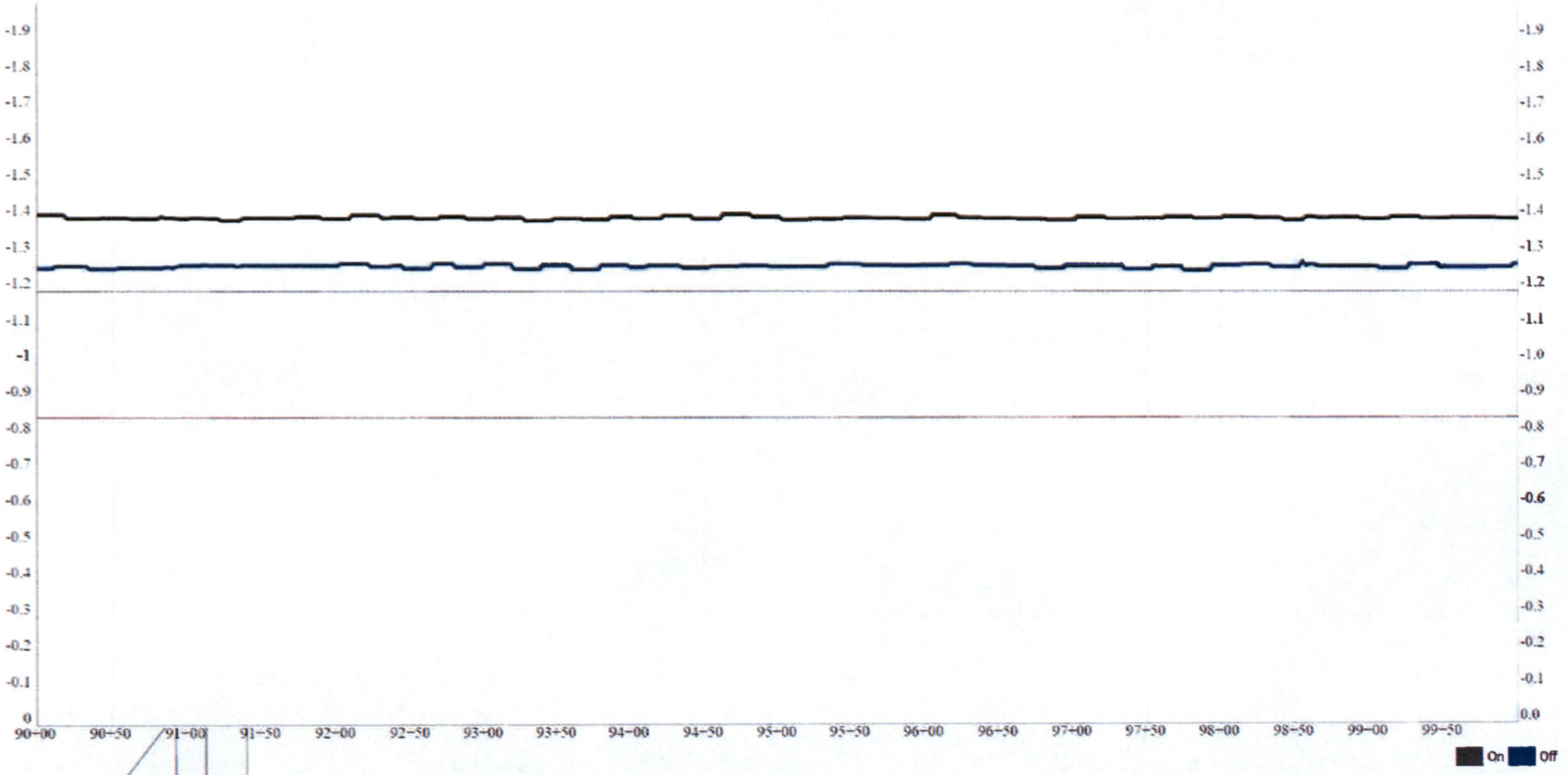
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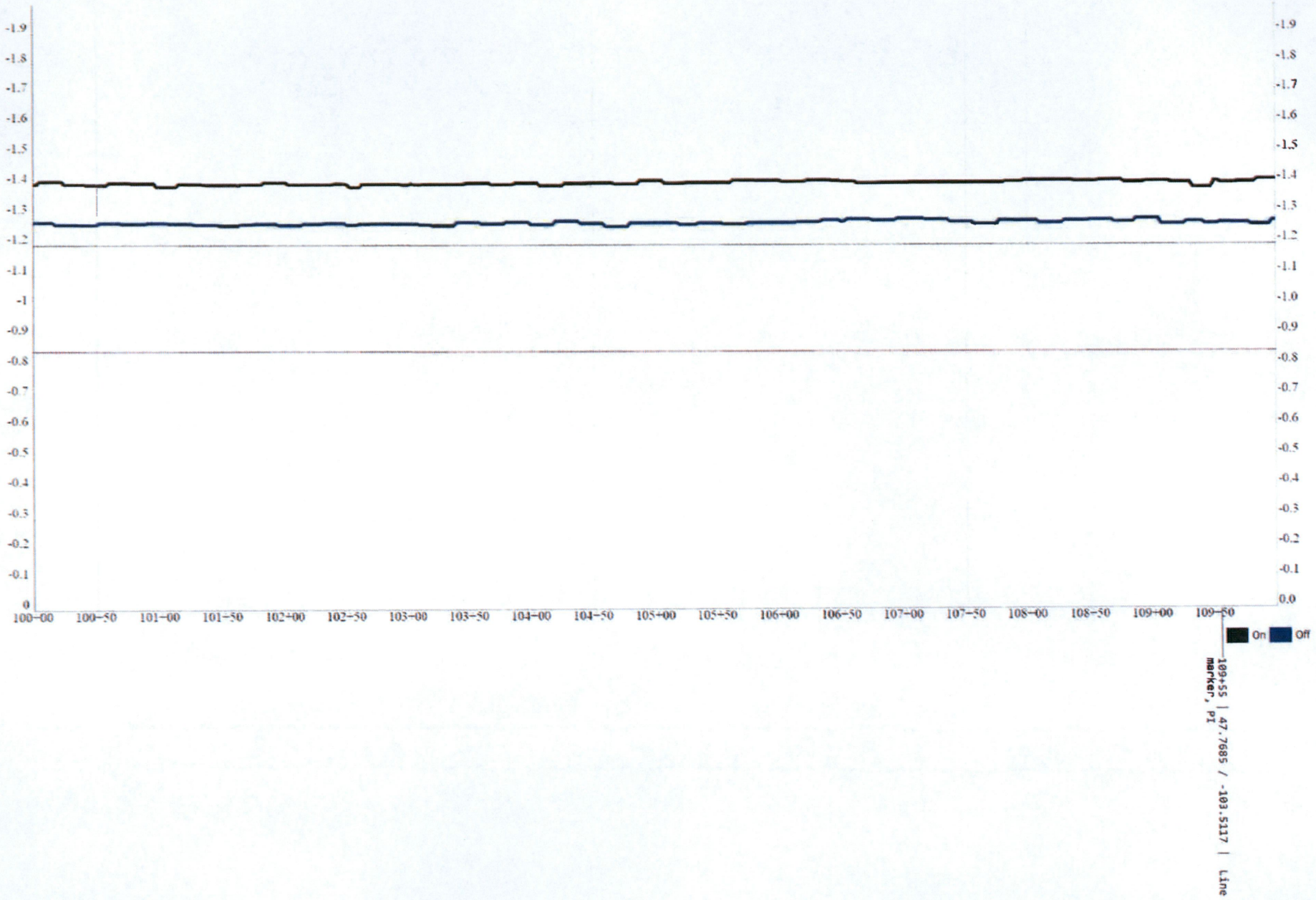
97+00
97+50
98+00
98+50
99+00
99+50
On
Off
91+40 | 47.7686 / -103.5190 | Edge of county road
91+12 | 47.7686 / -103.5192 | Edge of county road
90+92 | 47.7686 / -103.5193 | Line marker, Test station 8.3, FG -1.403V/-1.269V, NIR 0.003V/0.005V, NG -1.401V
90+85 | 47.7685 / -103.5193 | Line marker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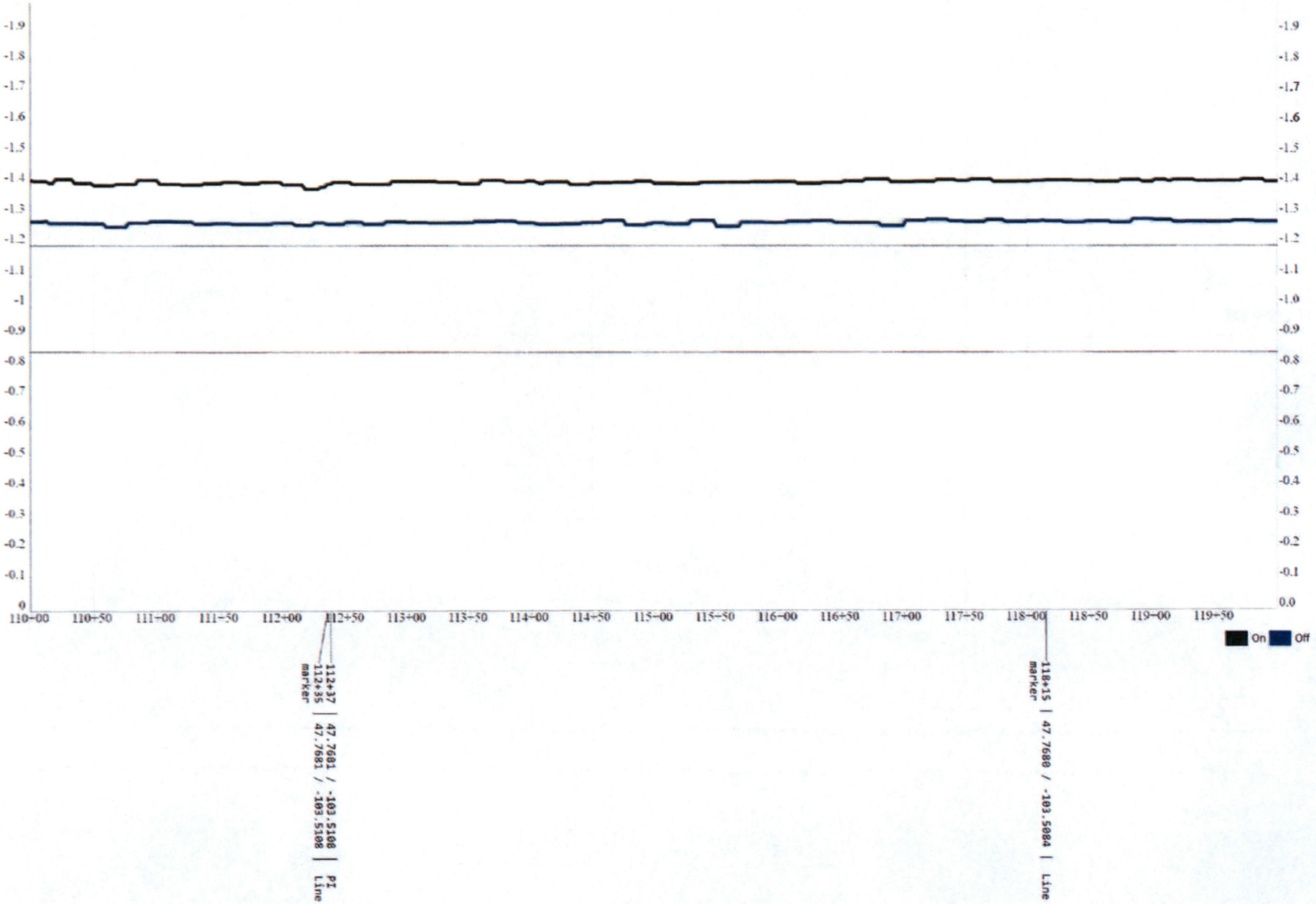
106+50
107+00
107+50
108+00
108+50
109+00
109+50
On
Off
109+55 | 47.7685 / -103.5117 | Line marker, PI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-1.5
-1.4
-1.3
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-1.1
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-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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0.0
110+00
110+50
111+00
111+50
112+00
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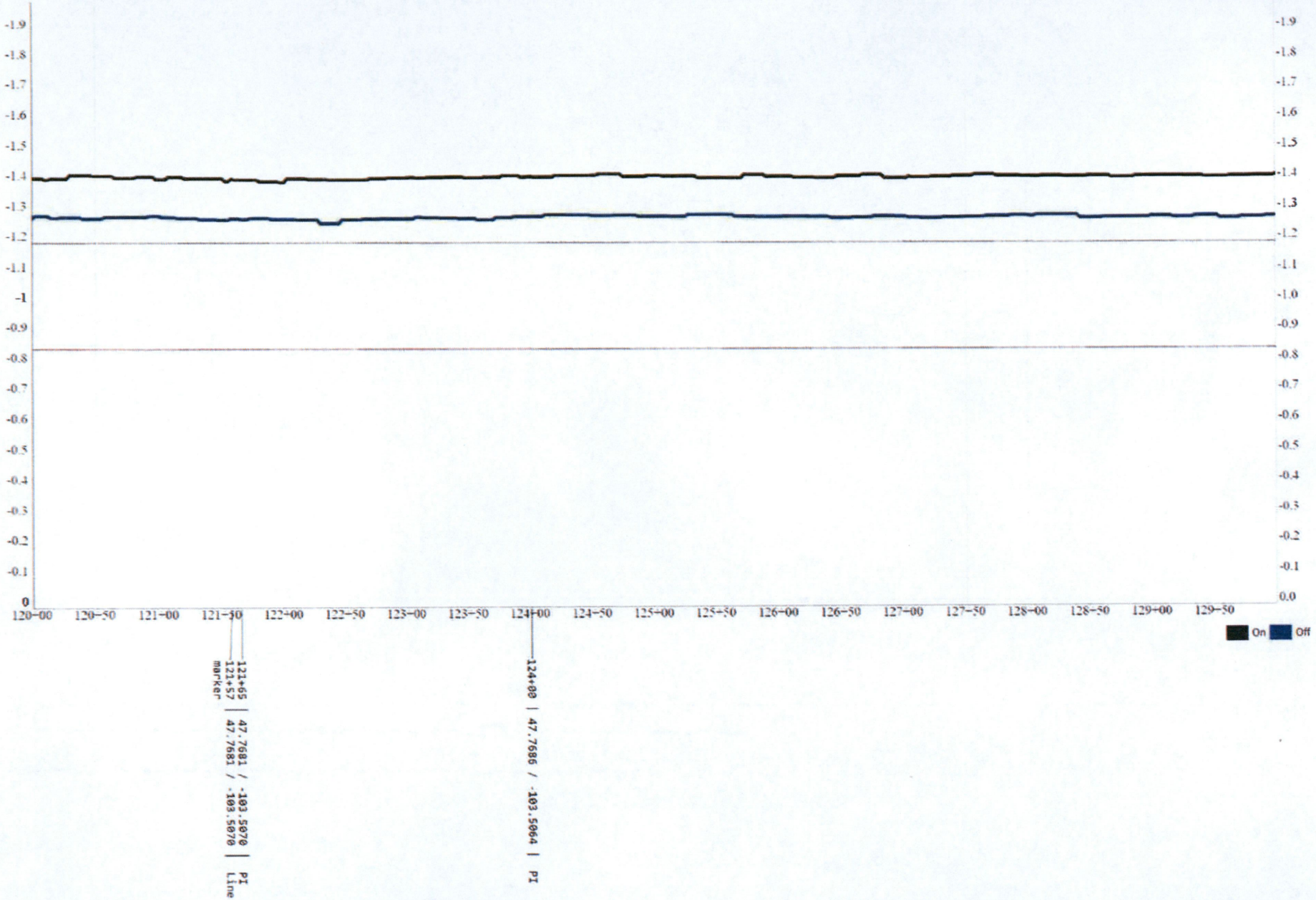
113+00
113+50
114+00
114+50
115+00
115+50
116+00
116+50
117+00
117+50
118+00
118+50
119+00
119+50
On
Off
112+35 marker | 47.7681 / -103.5108 | PI
112+37 | 47.7681 / -103.5108 | Line
118+15 marker | 47.7680 / -103.5084 | Line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-1.1
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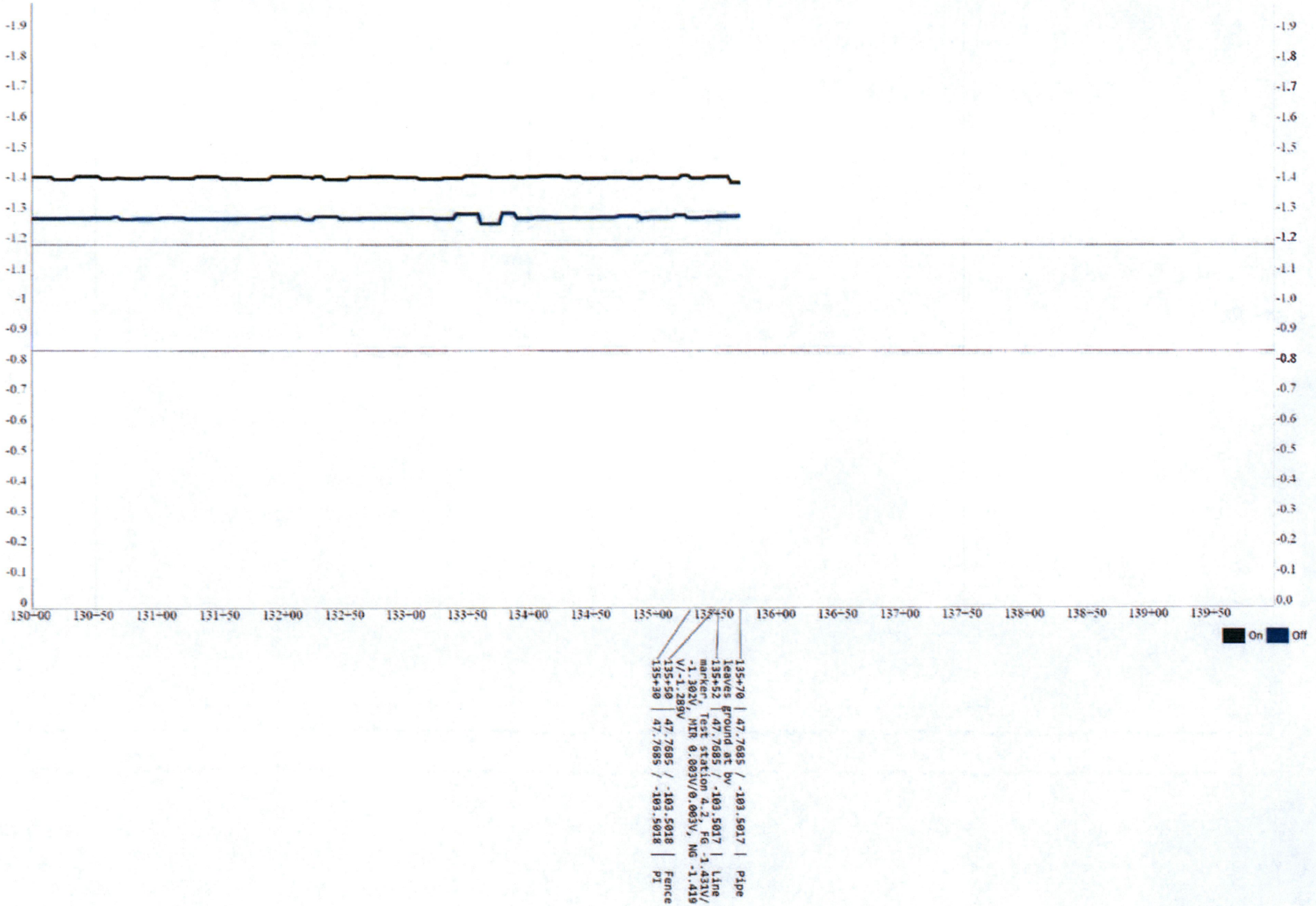
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
120+00
120+50
121+00
121+50
122+00
122+50
123+00
123+50
124+00
124+50
125+00
125+50
126+00
126+50
127+00
127+50
128+00
128+50
129+00
129+50
On
Off
121+57 marker
121+65 | 47.7681 / -103.5070 | PI Line
124+00 | 47.7686 / -103.5064 | PI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-1.3
-1.2
-1.1
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-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
130+00
130+50
131+00
131+50
132+00
132+50
133+00
133+50
134+00
134+50
135+00
135+50
136+00
136+50
137+00
137+50
138+00
138+50
139+00
139+50
On
Off
135+30 | 47.7685 / -103.5018 | Fence
135+50 | 47.7685 / -103.5018 | PI
V/-1.289V
-1.302V,
marker,
135+52 | 47.7685 / -103.5017 | Line
Test station 4.2, FG -1.431V/
NIR 0.003V/0.003V, NG -1.419
135+70 | 47.7685 / -103.5017 | Pipe
leaves
ground at bv

APPENDIX E

POTENTIAL PROFILE CHARTS

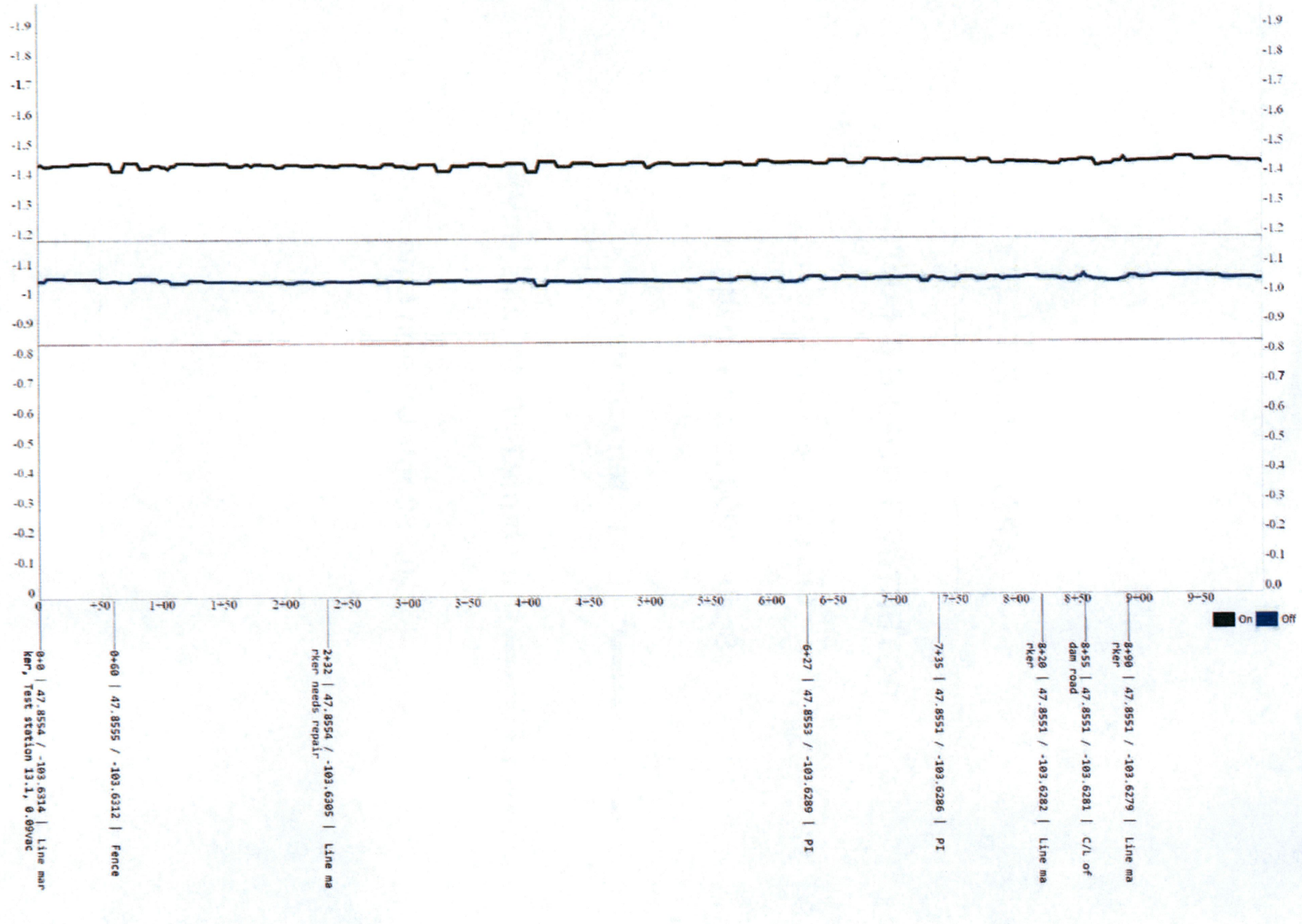
Class 3 Line (Line 13)

Scale: 1000 feet per page

On Potentials (mV)

Instant-Off Potentials (mV)

-0.850 mV Criteria Line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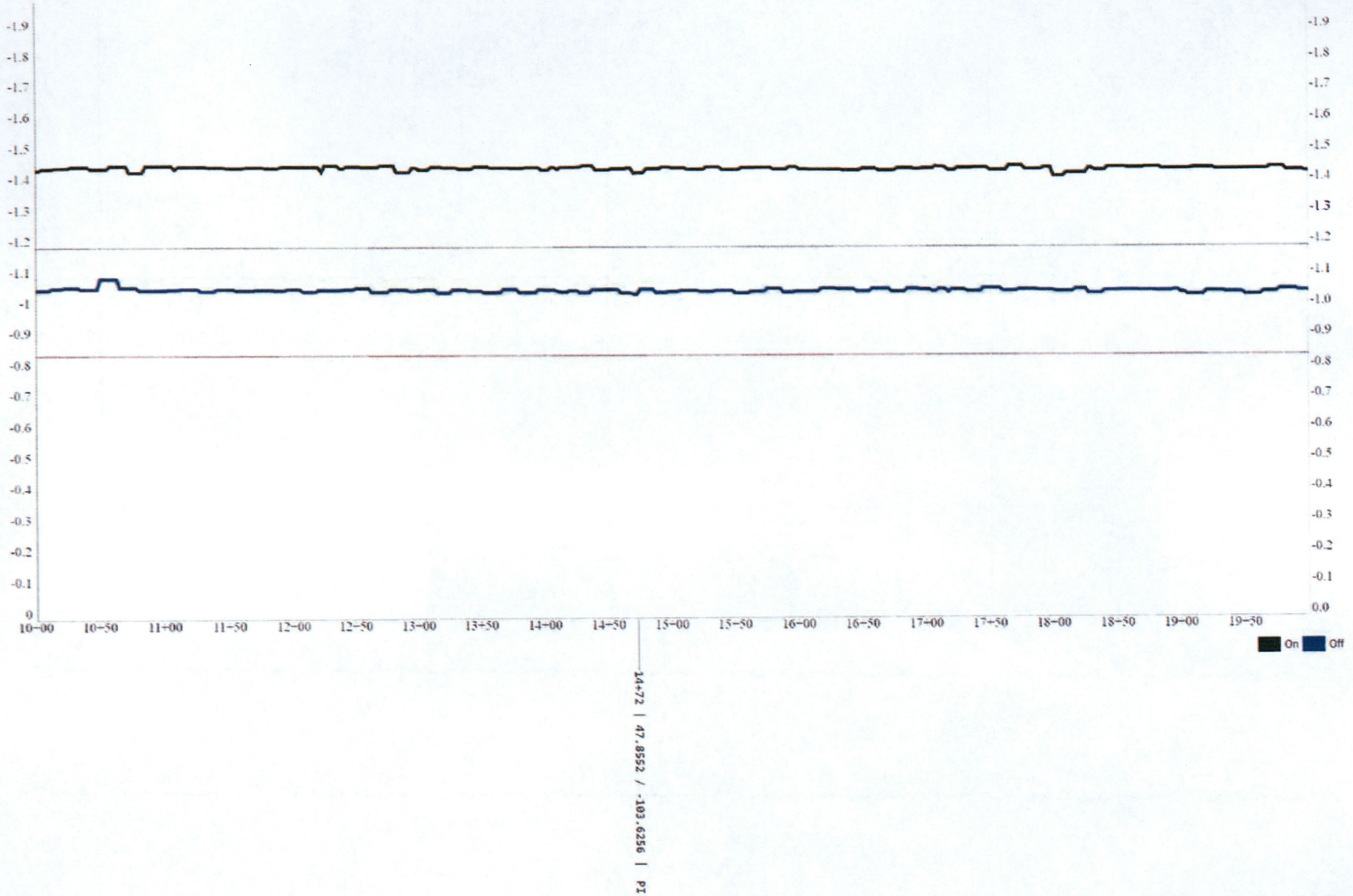
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
0
+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
5+50
6+00
6+50
7+00
7+50
8+00
8+50
9+00
9+50
On
Off
0+0 | 47.8554 / -103.6314 | Line mar
ker, Test station 13.1, 0.09vac
0+60 | 47.8555 / -103.6312 | Fence
2+32 | 47.8554 / -103.6305 | Line ma
rker needs repair
6+27 | 47.8553 / -103.6289 | PI
7+35 | 47.8551 / -103.6286 | PI
8+20 | 47.8551 / -103.6282 | Line ma
rker
8+55 | 47.8551 / -103.6281 | C/L of
dam road
8+90 | 47.8551 / -103.6279 | Line ma
rker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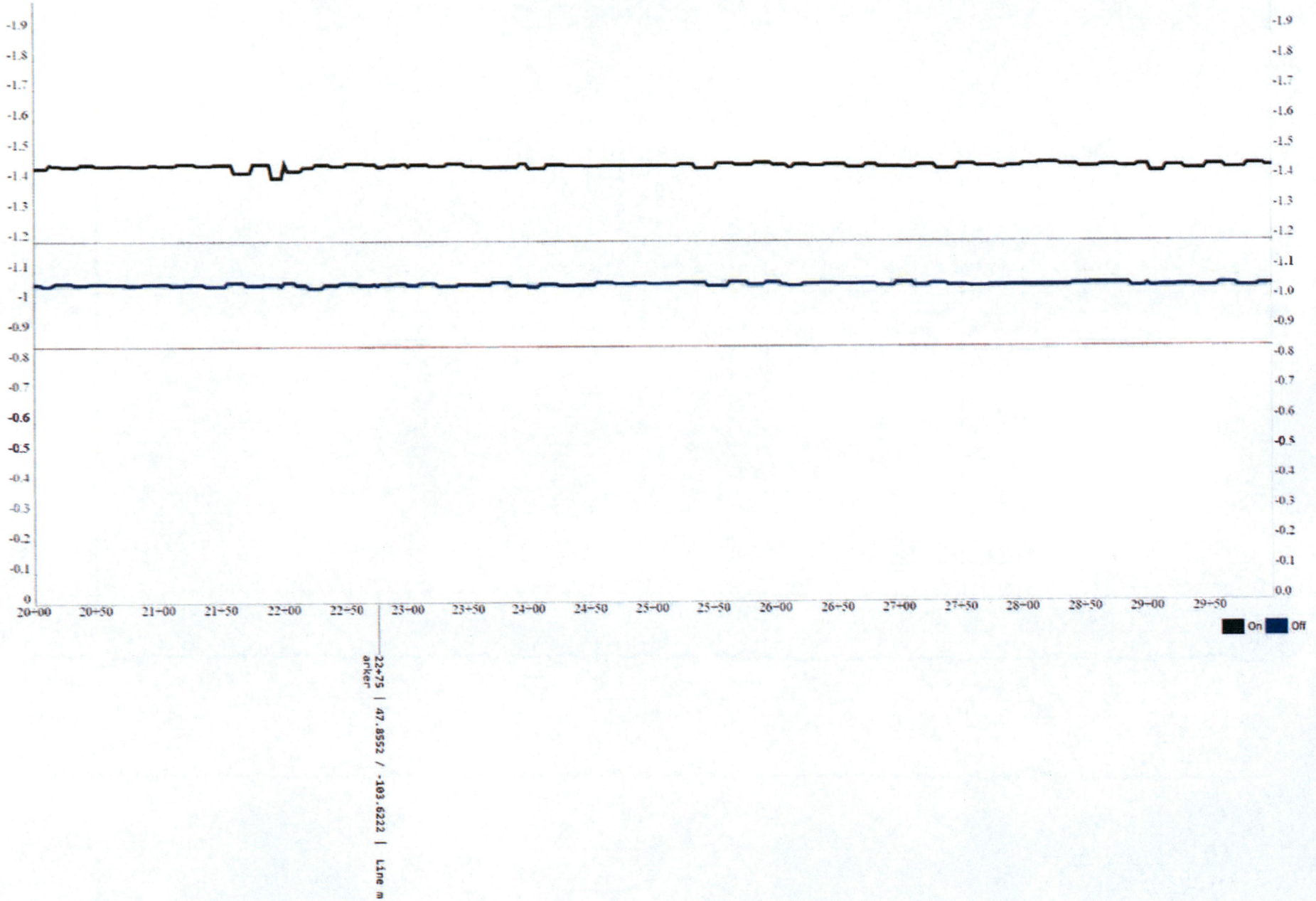
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
10-00
10-50
11-00
11-50
12-00
12-50
13-00
13-50
14-00
14-50
15-00
15-50
16-00
16-50
17-00
17-50
18-00
18-50
19-00
19-50
On
Off
14+72 | 47.8552 / -103.6256 | PI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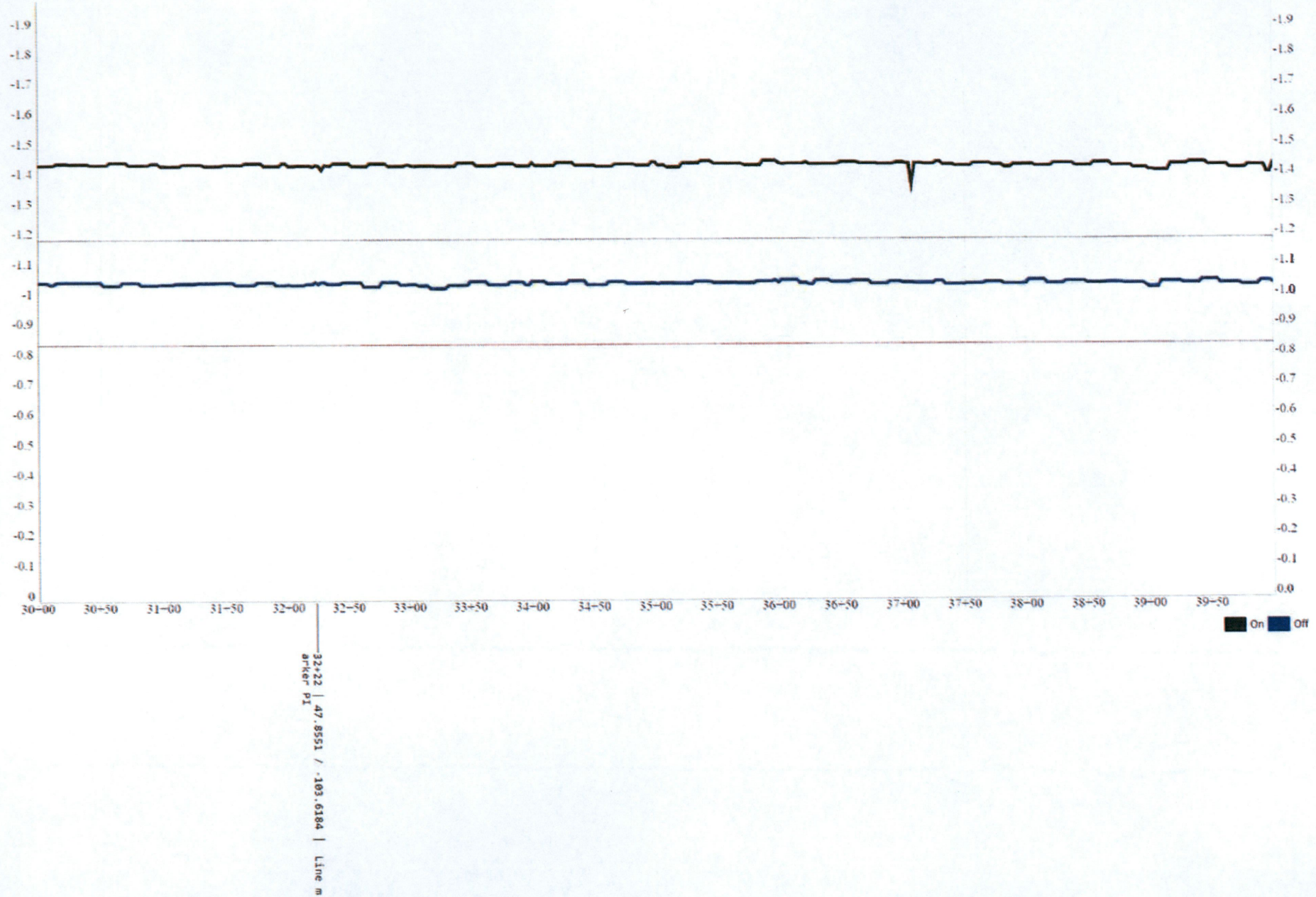
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
20+00
20+50
21+00
21+50
22+00
22+50
23+00
23+50
24+00
24+50
25+00
25+50
26+00
26+50
27+00
27+50
28+00
28+50
29+00
29+50
On
Off
22+75 | 47.8552 / -103.6222 | Line m
arker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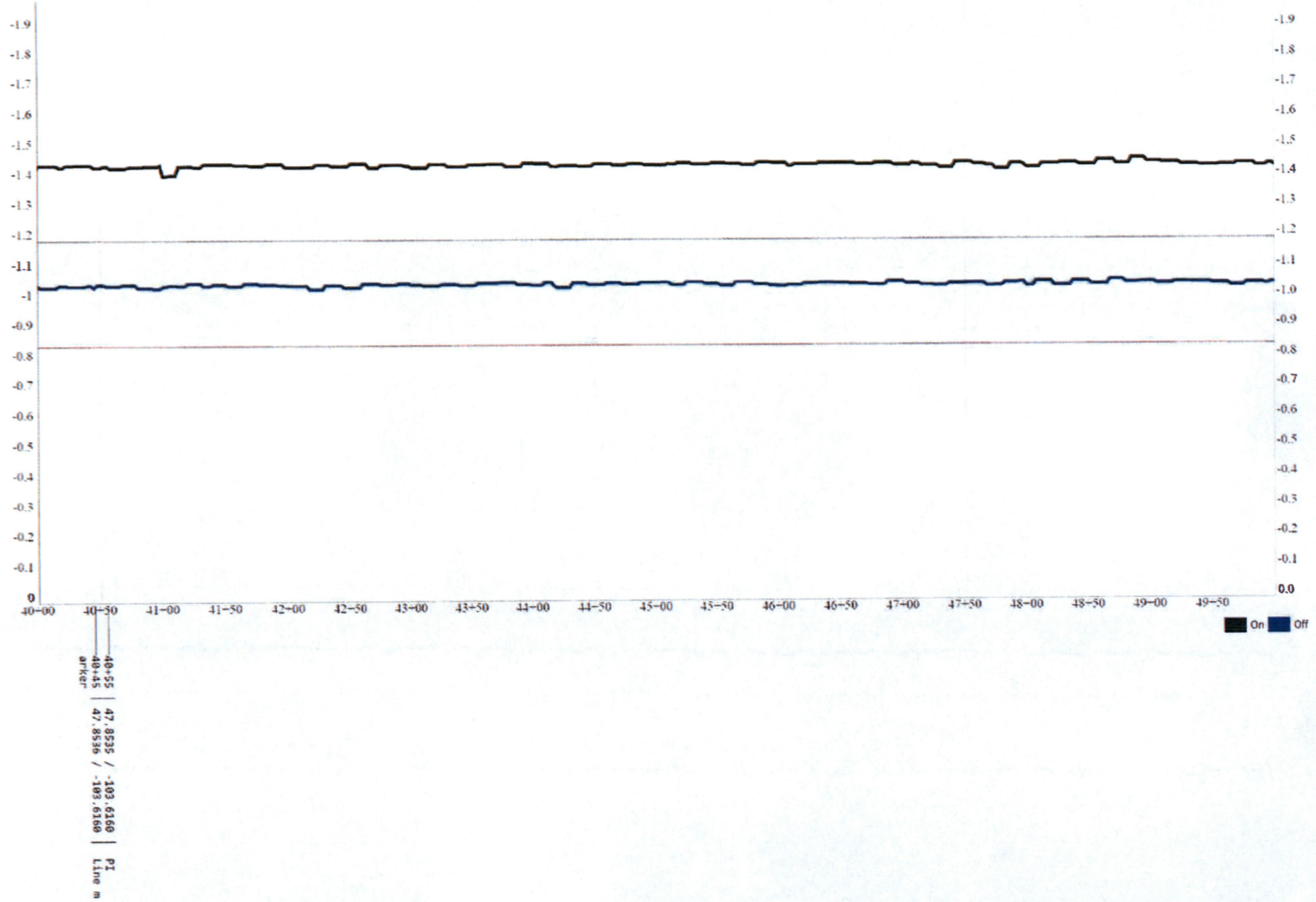
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
30+00
30+50
31+00
31+50
32+00
32+50
33+00
33+50
34+00
34+50
35+00
35+50
36+00
36+50
37+00
37+50
38+00
38+50
39+00
39+50
On
Off
32+22 | 47.8551 / -103.6184 | Line m
arker P1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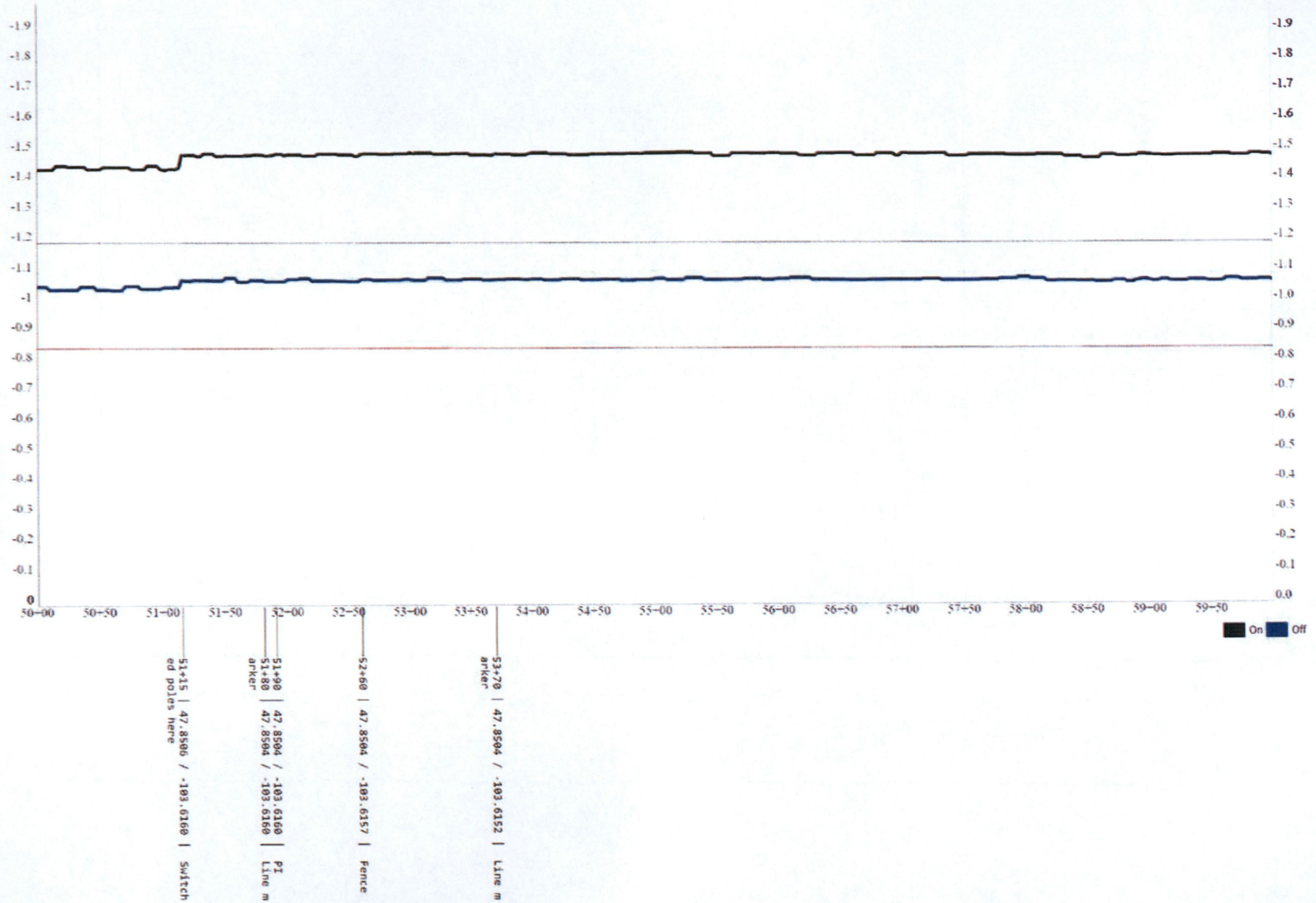
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
40+00
40+50
41+00
41+50
42+00
42+50
43+00
43+50
44+00
44+50
45+00
45+50
46+00
46+50
47+00
47+50
48+00
48+50
49+00
49+50
On
Off
40+55 | 47.8535 / -103.6160 | PI
40+45 | 47.8536 / -103.6160 | Line m
arker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-1.5
-1.4
-1.3
-1.2
-1.1
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-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
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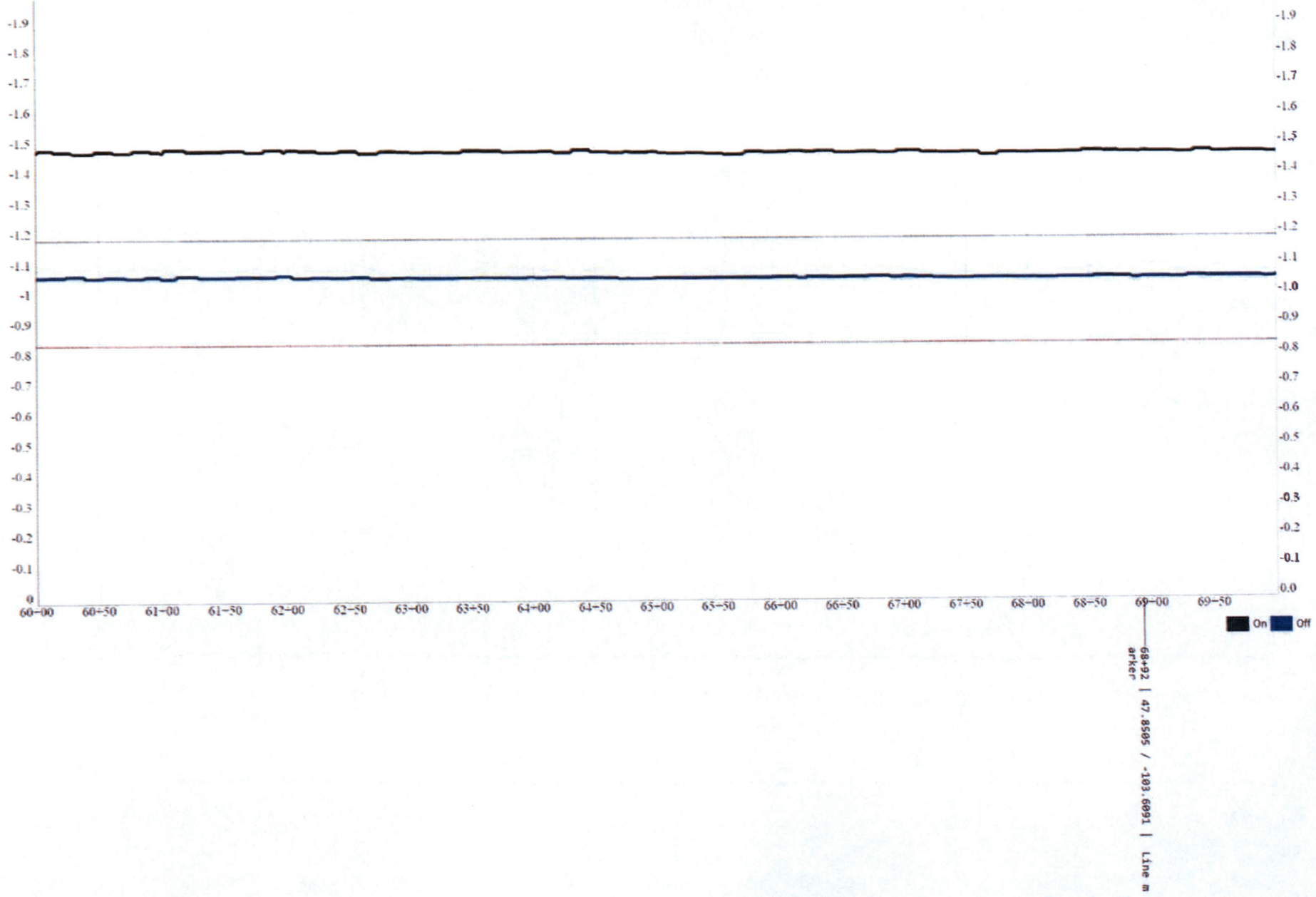
52+50
53+00
53+50
54+00
54+50
55+00
55+50
56+00
56+50
57+00
57+50
58+00
58+50
59+00
59+50
On
Off
51+15 | 47.8580 / -103.6160 | Switch
ed poles here
51+80 | 47.8504 / -103.6160 | PI
51+90 | 47.8504 / -103.6160 | Line m
arker
52+60 | 47.8504 / -103.6157 | Fence
53+70 | 47.8504 / -103.6152 | Line m
arker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-1.1
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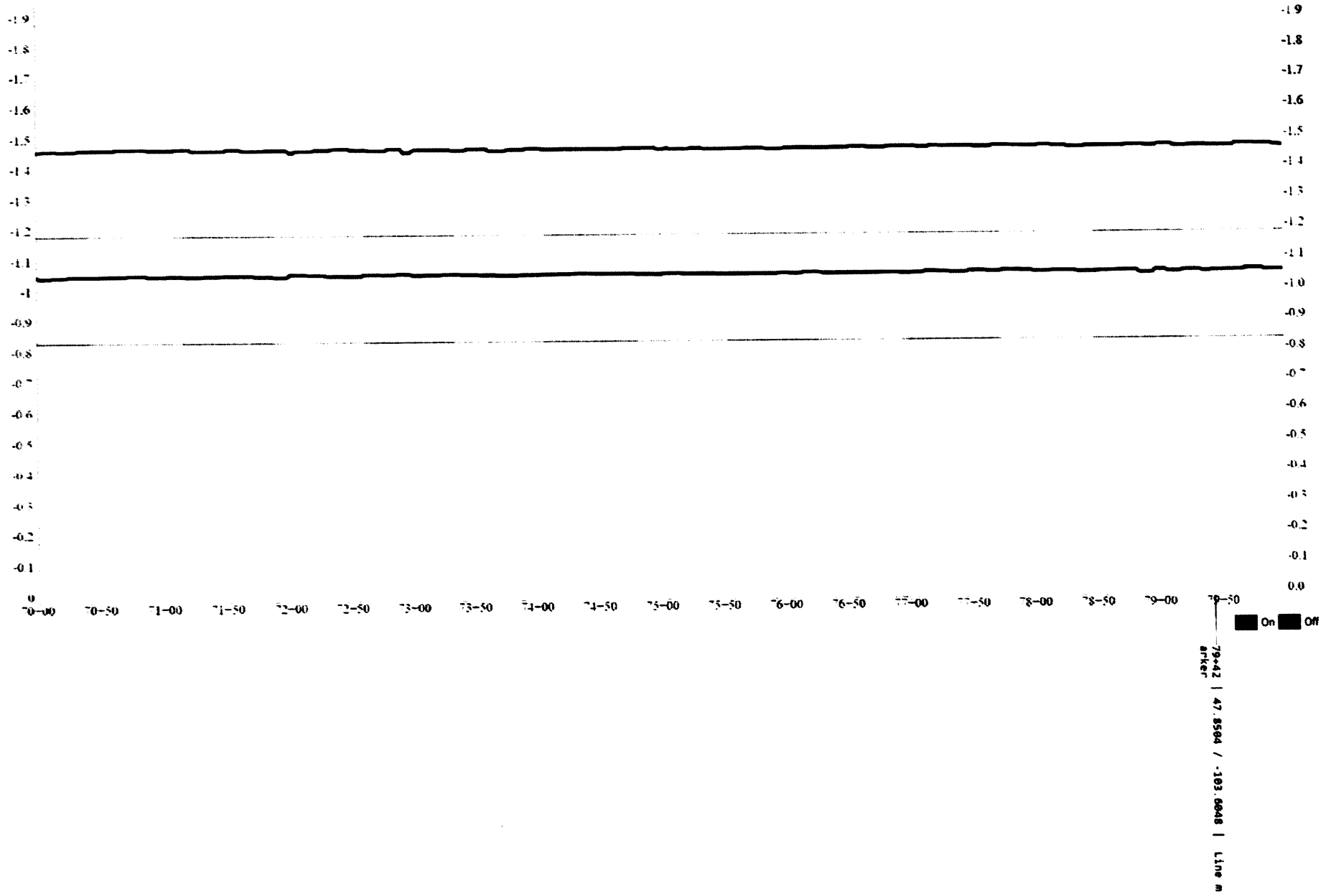
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
60+00
60+50
61+00
61+50
62+00
62+50
63+00
63+50
64+00
64+50
65+00
65+50
66+00
66+50
67+00
67+50
68+00
68+50
69+00
69+50
On
Off
68+92 | 47.8505 / -103.6091 | Line m
arker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-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
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-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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70+50
71+00
71+50
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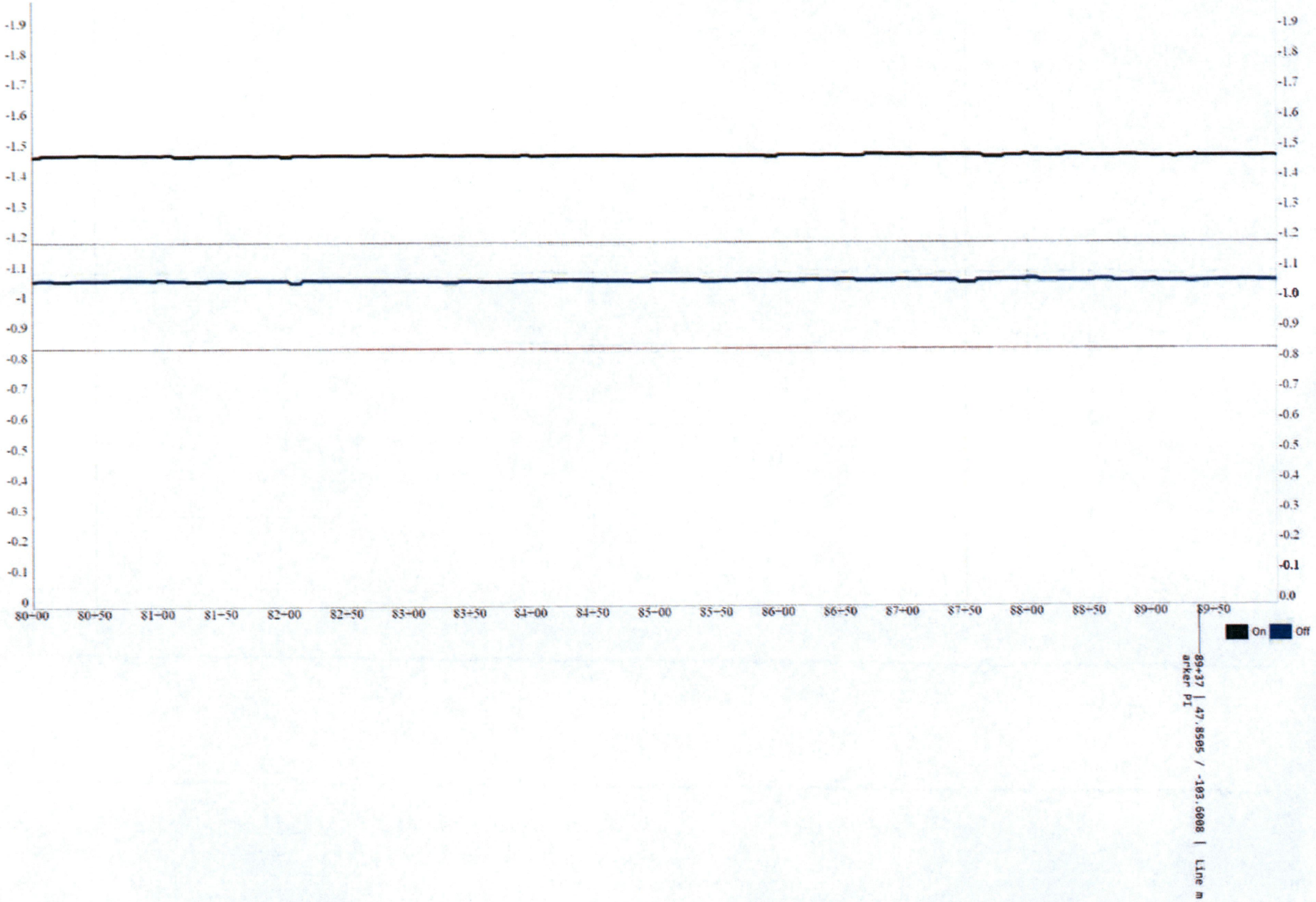
72+50
73+00
73+50
74+00
74+50
75+00
75+50
76+00
76+50
77+00
77+50
78+00
78+50
79+00
79+50
On
Off
79+42 | 47.8584 / -103.6048 | Line m
arker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-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
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-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
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-0.2
-0.1
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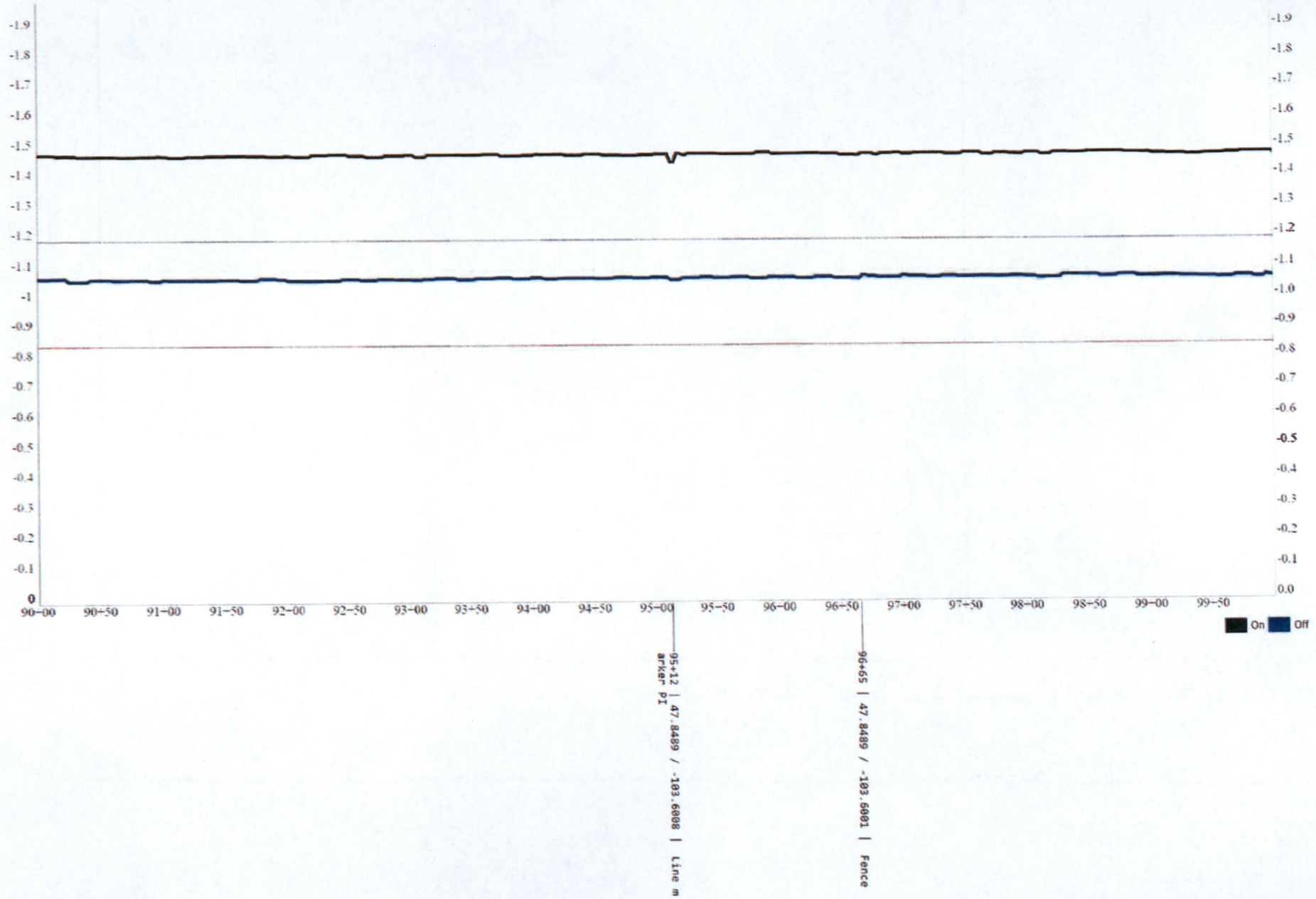
81+50
82+00
82+50
83+00
83+50
84+00
84+50
85+00
85+50
86+00
86+50
87+00
87+50
88+00
88+50
89+00
89+50
On
Off
89+37 | 47.8505 / -103.6008 | Line m
arker pt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-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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90+50
91+00
91+50
92+00
92+50
93+00
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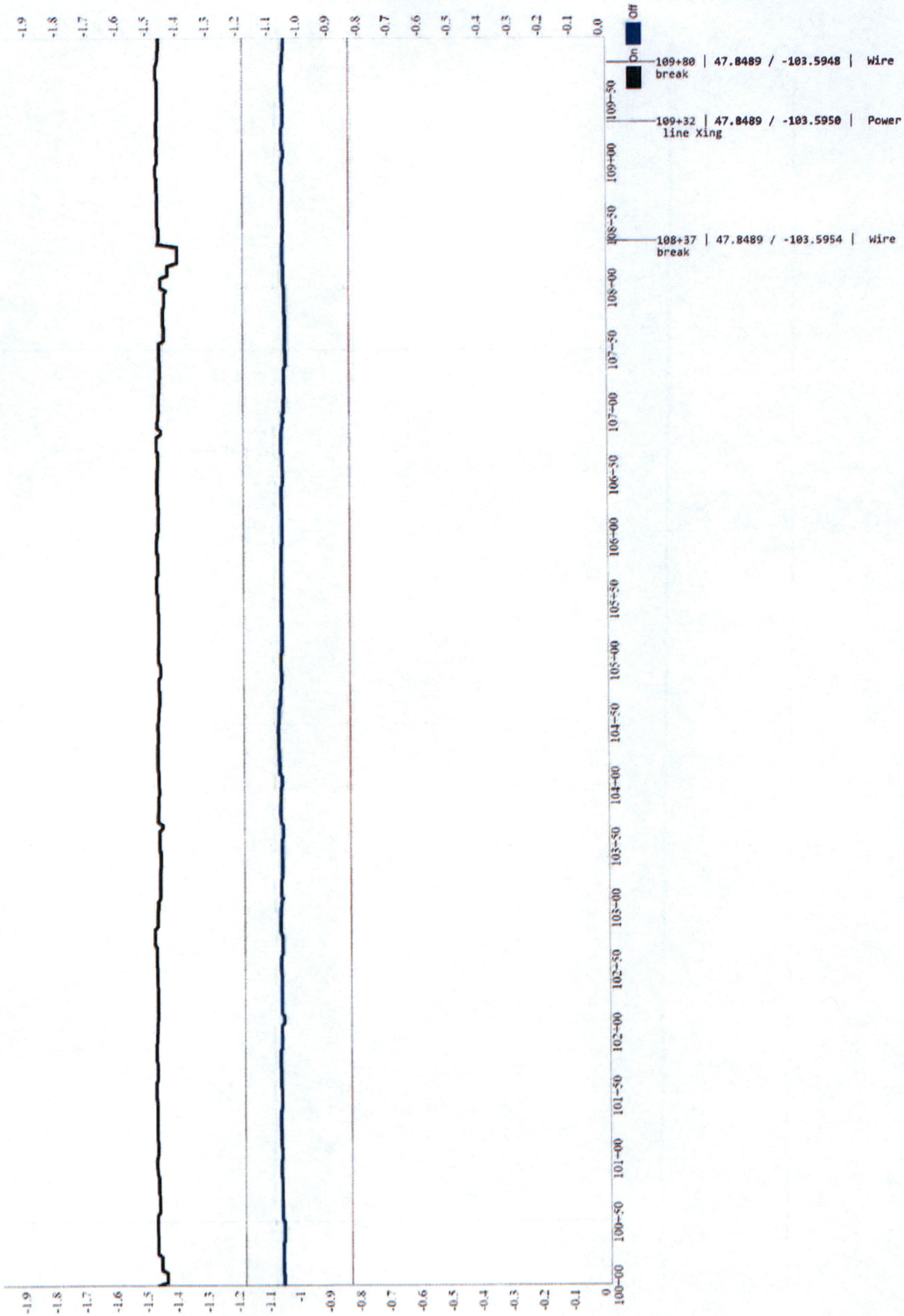
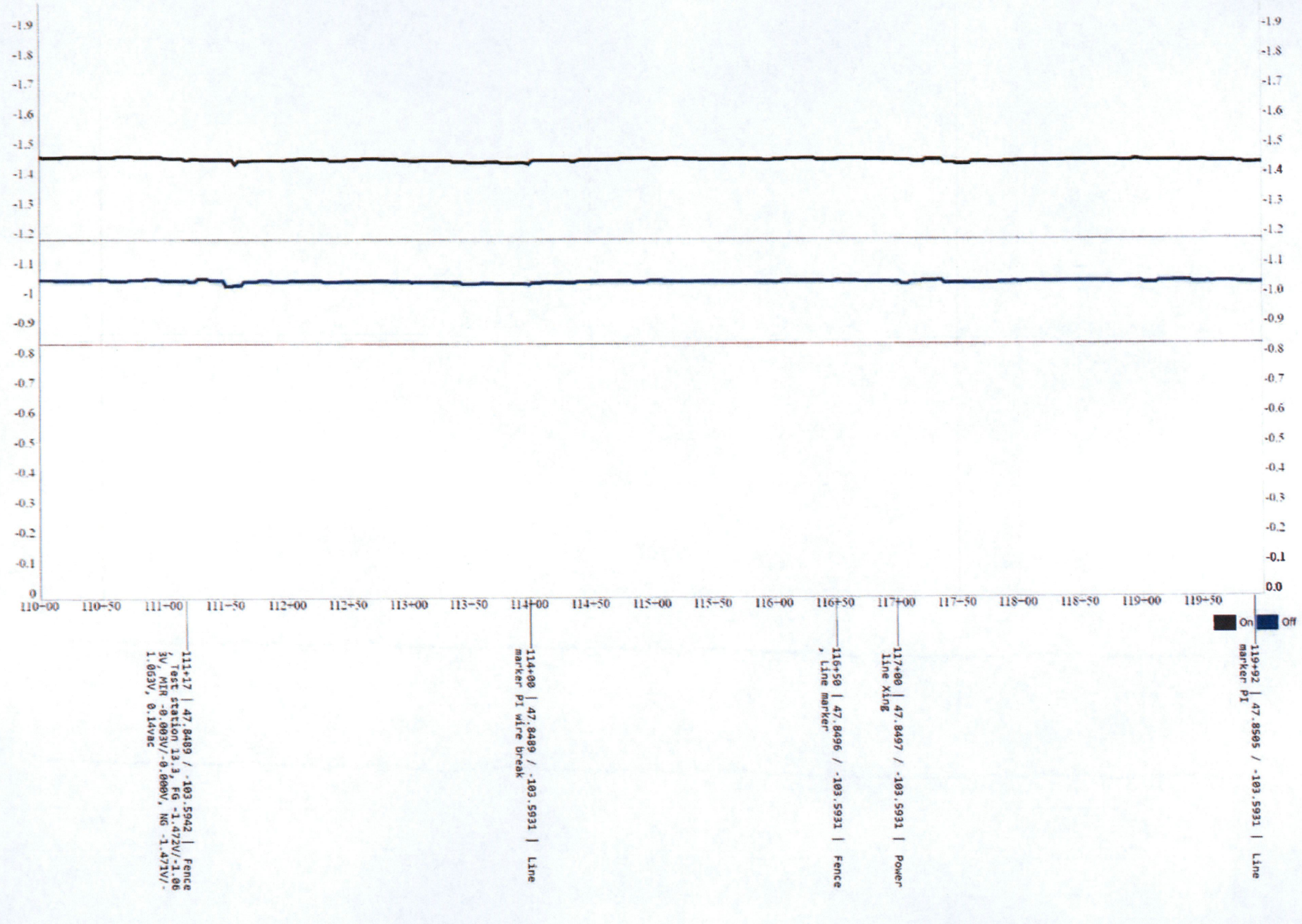
94+00
94+50
95+00
95+50
96+00
96+50
97+00
97+50
98+00
98+50
99+00
99+50
95+12 | 47.8489 / -103.6008 | Line m
arker pI
96+65 | 47.8489 / -103.6001 | Fence
On
Off


Off
On
109+80 | 47.8489 / -103.5948 | Wire break
109+32 | 47.8489 / -103.5950 | Power line Xing
108+37 | 47.8489 / -103.5954 | Wire break


-1.9
-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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110+00
110+50
111+00
111+50
112+00
112+50
113+00
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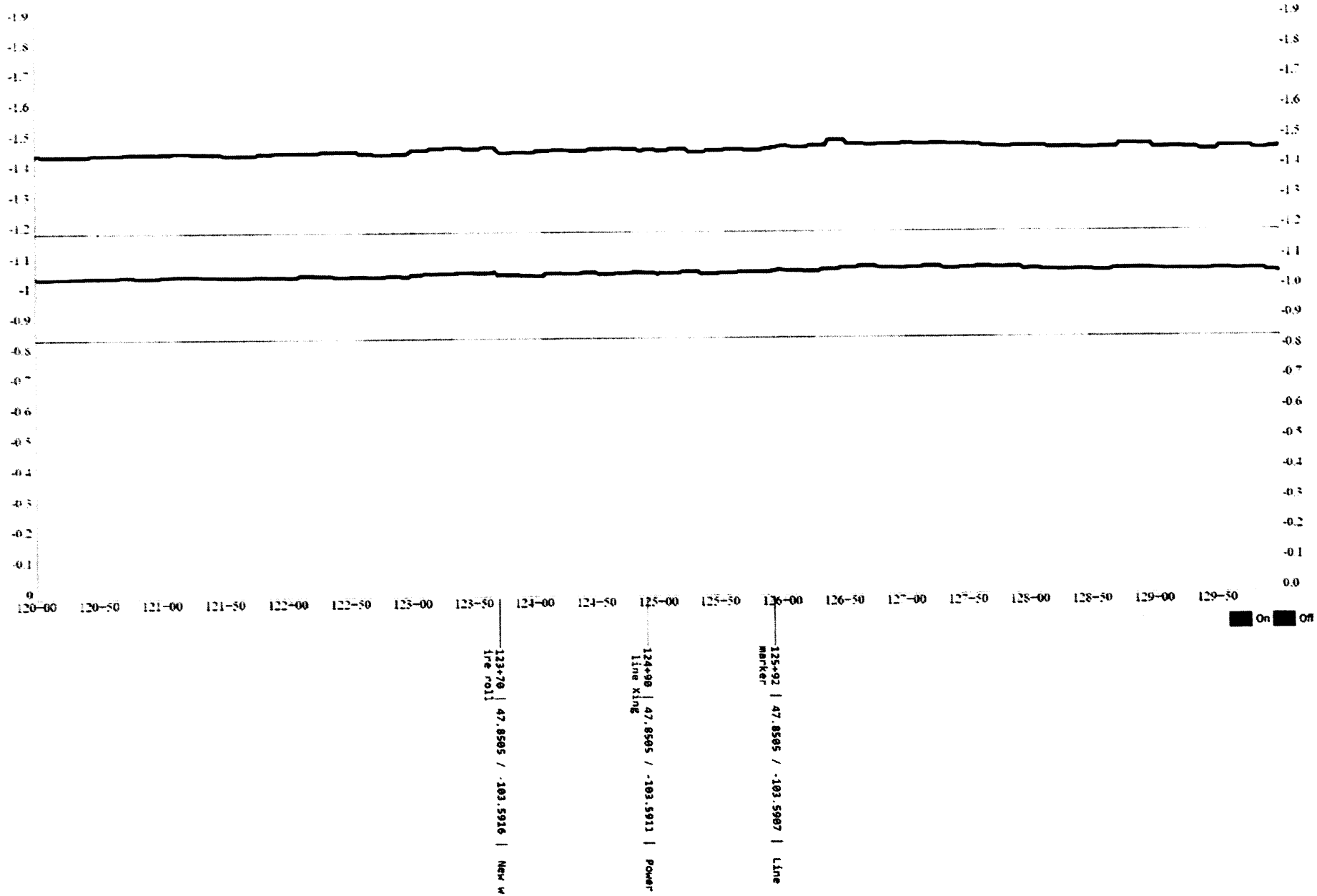
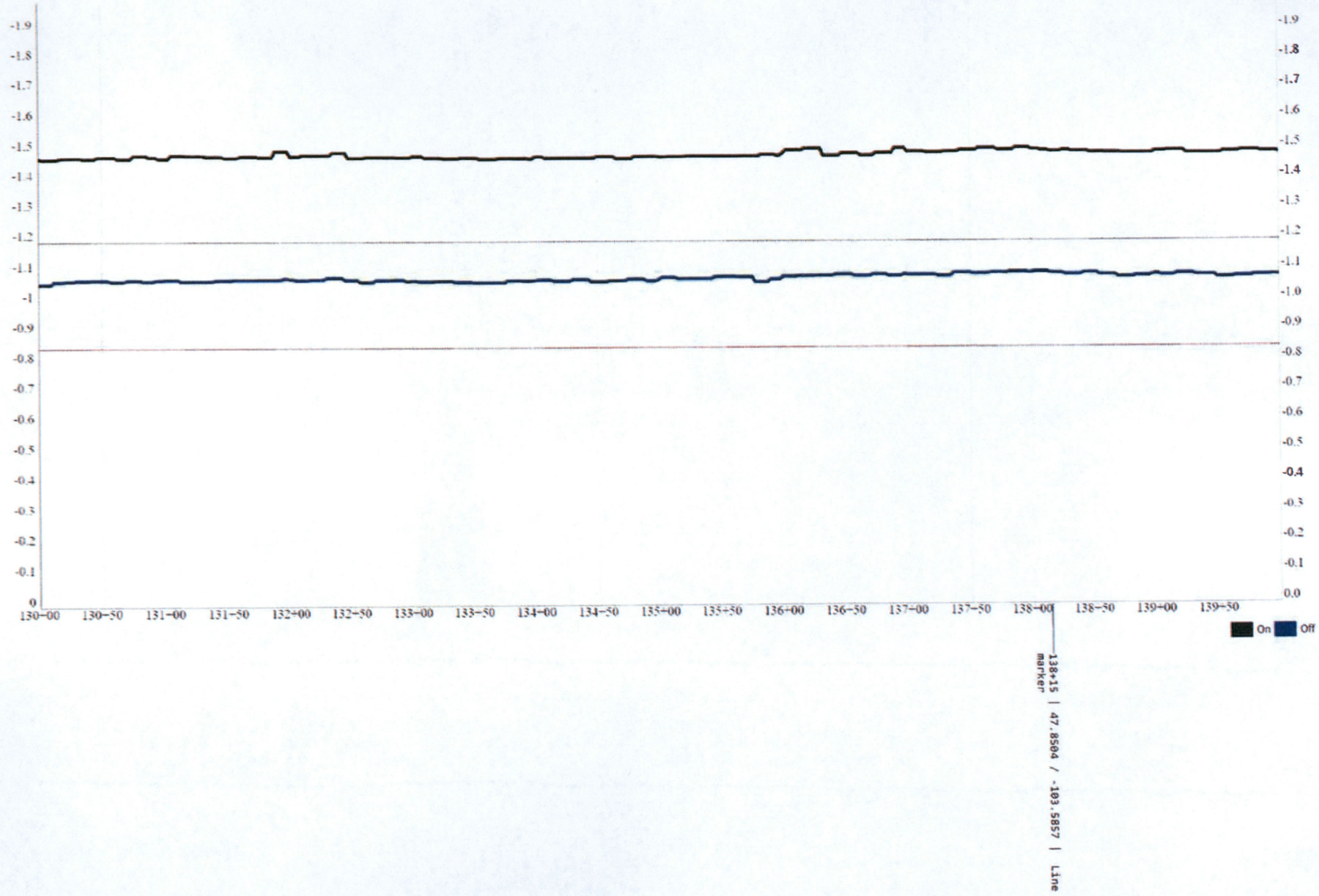
114+00
114+50
115+00
115+50
116+00
116+50
117+00
117+50
118+00
118+50
119+00
119+50
On
Off
111+17 | 47.8489 / -103.5942 | Fence
, Test station 13.3, FG -1.472V/-1.06
3V, MIR -0.003V/-0.000V, NG -1.471V/-
1.063V, 0.14VAC
114+00 | 47.8489 / -103.5931 | Line
marker PI wire break
116+50 | 47.8496 / -103.5931 | Fence
, Line marker
117+00 | 47.8497 / -103.5931 | Power
line xing
119+92 | 47.8505 / -103.5931 | Line
marker PI


-1.9
-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
120-00
120-50
121-00
121-50
122-00
122-50
123-00
123-50
124-00
124-50
125-00
125-50
126-00
126-50
127-00
127-50
128-00
128-50
129-00
129-50
On
Off
123+70 | 47.8505 / -103.5916 | New w
ire roll
124+90 | 47.8505 / -103.5911 | Power
line xing
125+92 | 47.8505 / -103.5907 | Line
marker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-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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0.0
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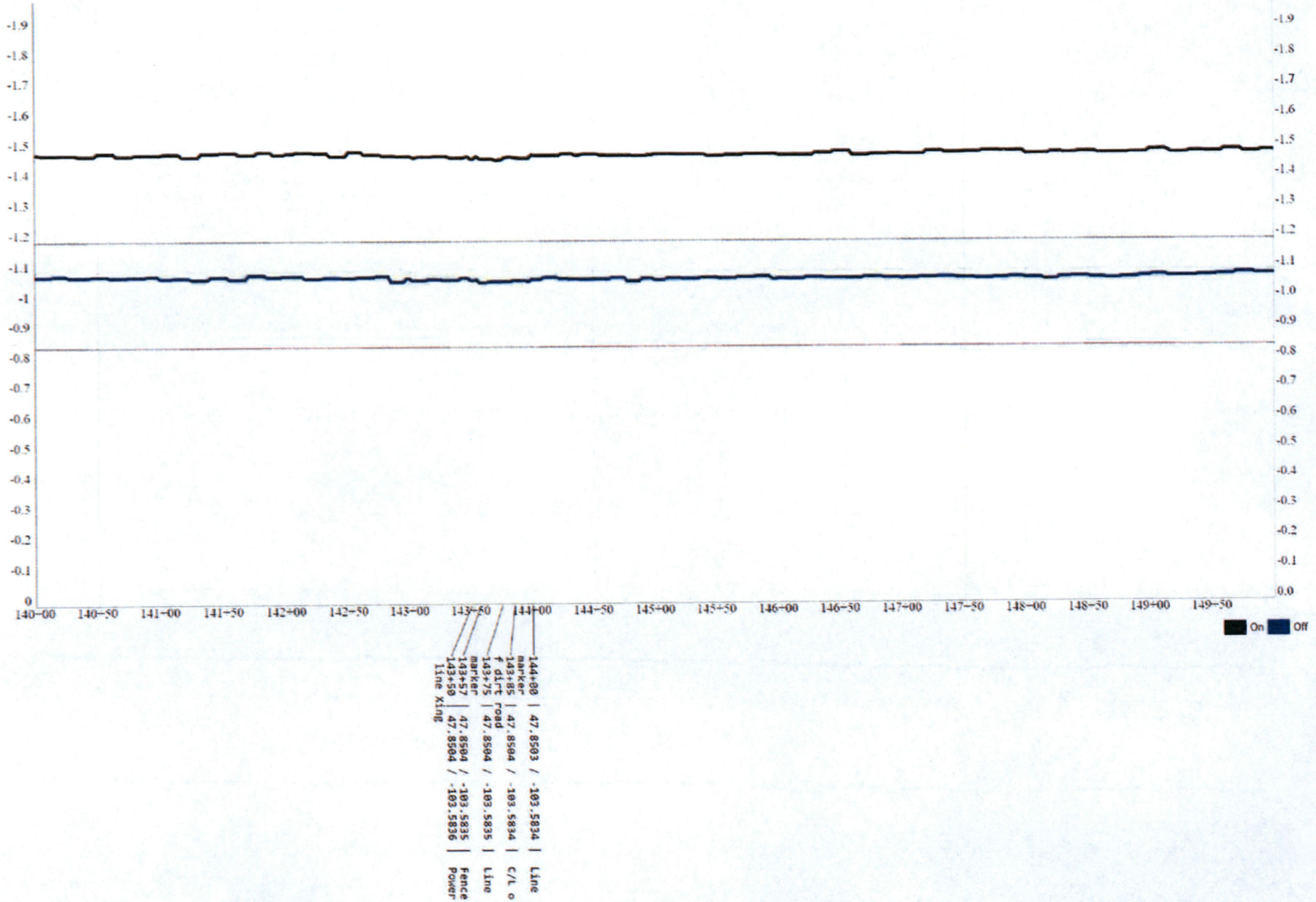
133+50
134+00
134+50
135+00
135+50
136+00
136+50
137+00
137+50
138+00
138+50
139+00
139+50
On
Off
138+15 | 47.8504 / -103.5857 | Line marker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-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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0.0
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141+50
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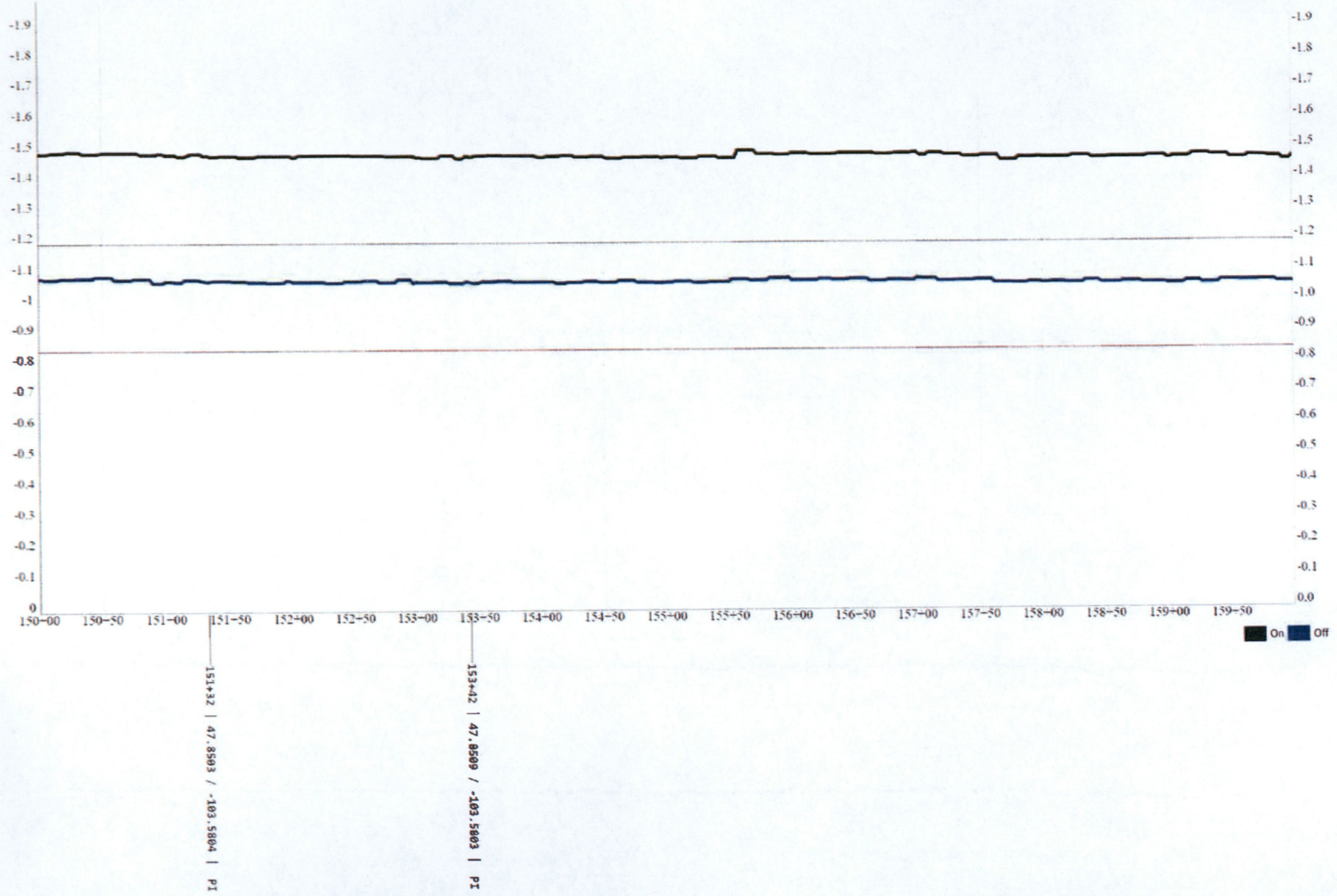
143+00
143+50
144+00
144+50
145+00
145+50
146+00
146+50
147+00
147+50
148+00
148+50
149+00
149+50
On
Off
143+50 | 47.8504 / -103.5836 | Fence Line Xing
143+57 | 47.8504 / -103.5835 | Power marker
143+75 | 47.8504 / -103.5835 | Line f dirt road
143+85 | 47.8504 / -103.5834 | C/L o marker
144+00 | 47.8503 / -103.5834 | Line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-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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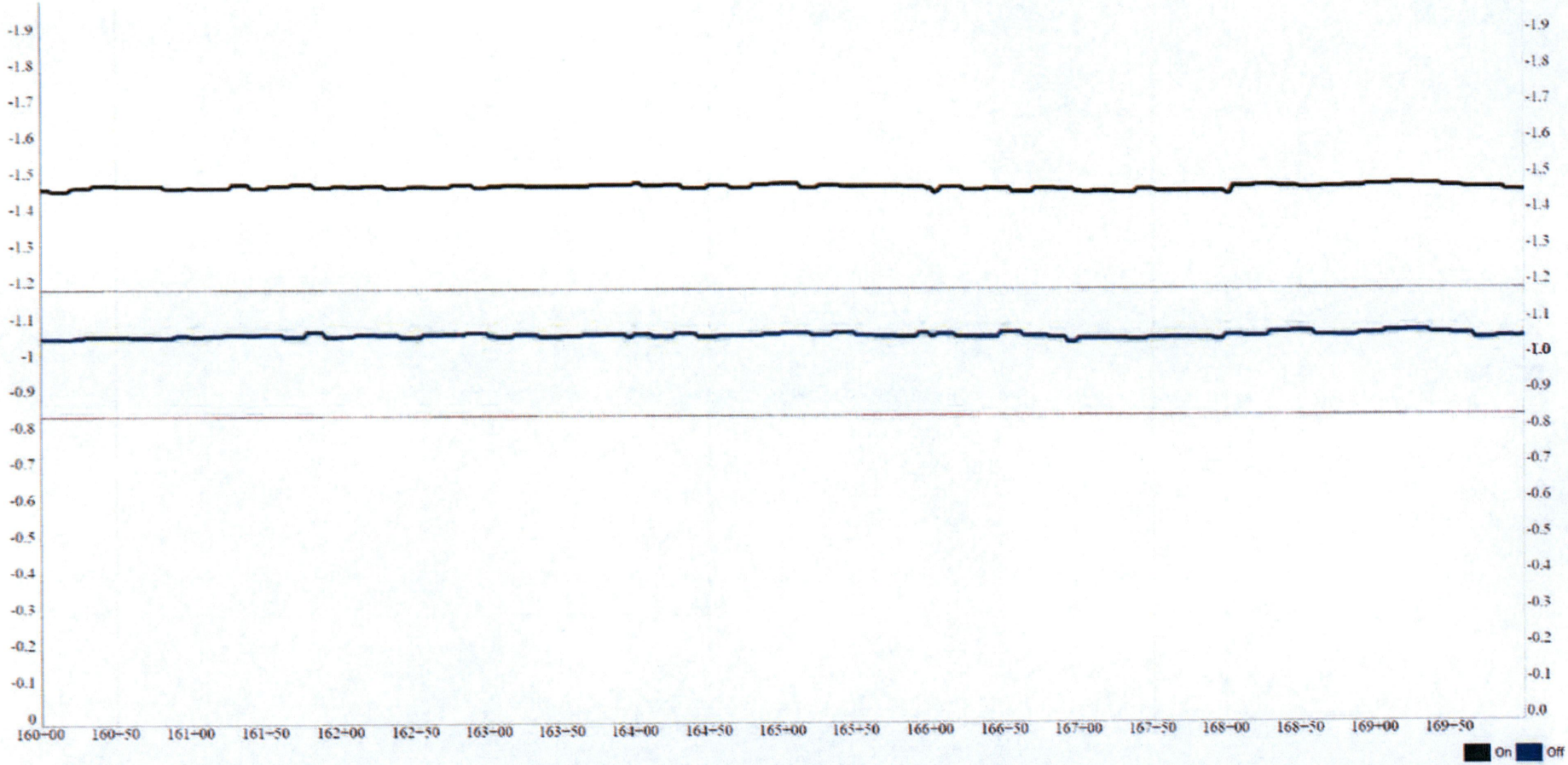
0.0
150+00
150+50
151+00
151+50
152+00
152+50
153+00
153+50
154+00
154+50
155+00
155+50
156+00
156+50
157+00
157+50
158+00
158+50
159+00
159+50
On
Off
151+32 | 47.8593 / -103.5804 | PI
153+42 | 47.8509 / -103.5603 | PI


-1.9
-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
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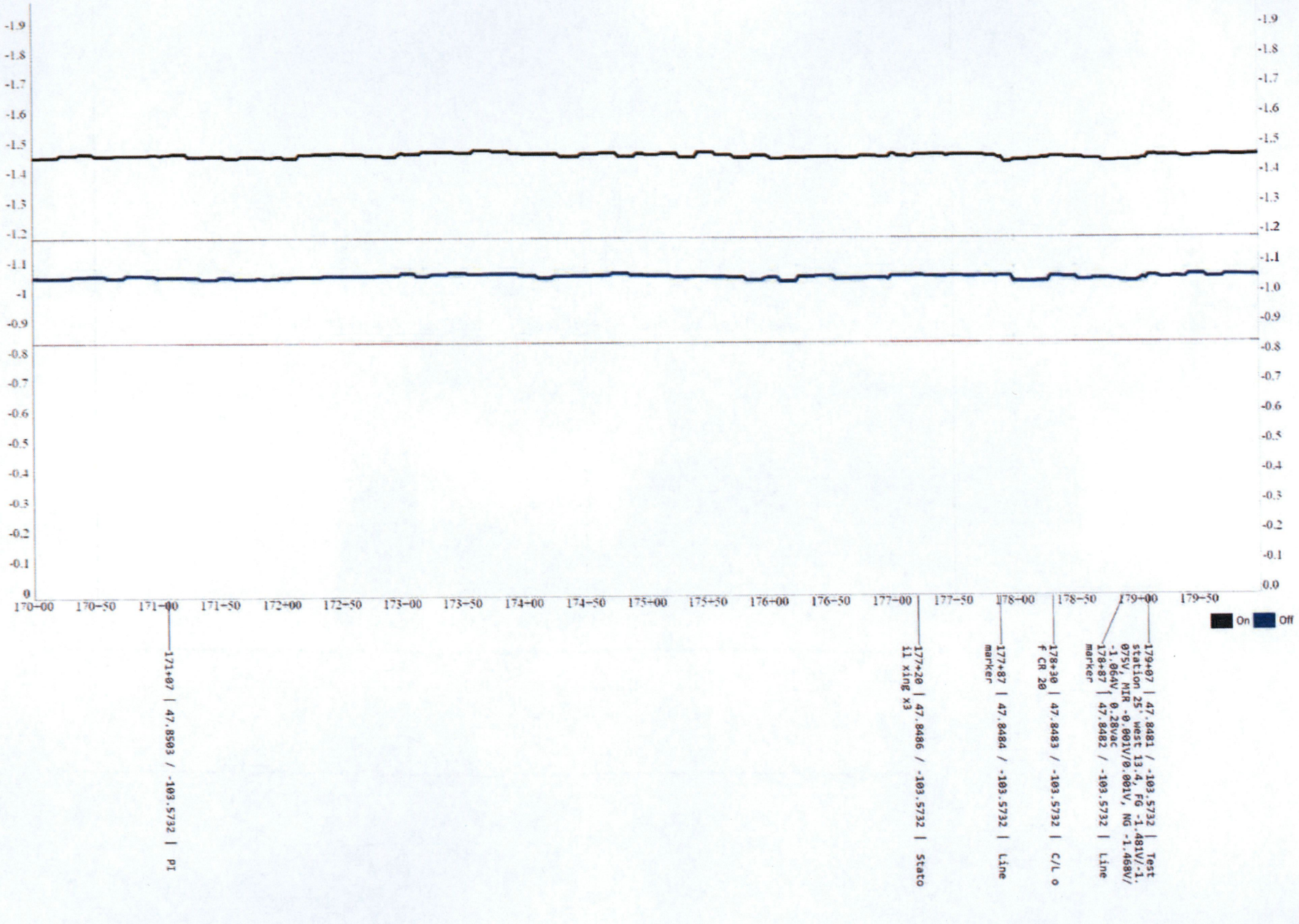
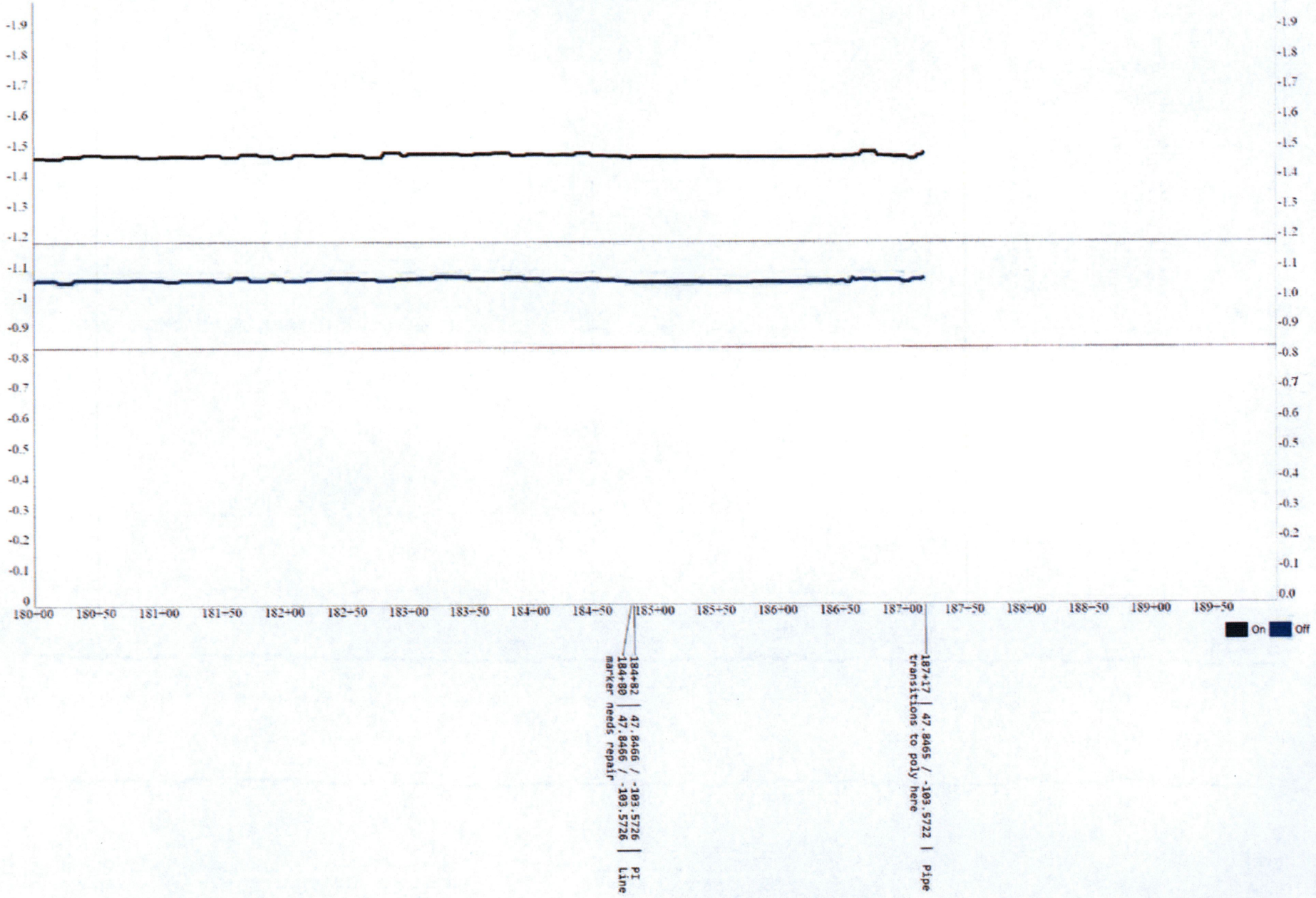
165+50
166+00
166+50
167+00
167+50
168+00
168+50
169+00
169+50
On
Off


-1.9
-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
170+00
170+50
171+00
171+50
172+00
172+50
173+00
173+50
174+00
174+50
175+00
175+50
176+00
176+50
177+00
177+50
178+00
178+50
179+00
179+50
On
Off
171+07 | 47.8503 / -103.5732 | PI
177+20 | 47.8486 / -103.5732 | Stato
il xing x3
177+87 | 47.8484 / -103.5732 | Line
marker
178+30 | 47.8483 / -103.5732 | C/L o
f CR 20
178+87 | 47.8482 / -103.5732 | Line
marker
179+07 | 47.8481 / -103.5732 | Test
station 25' west 13.4, FG -1.481V/-1.
075V, MIR -0.001V/0.001V, NG -1.468V/
-1.064V, 0.28vac


-1.9
-1.8
-1.7
-1.6
-1.5
-1.4
-1.3
-1.2
-1.1
-1
-0.9
-0.8
-0.7
-0.6
-0.5
-0.4
-0.3
-0.2
-0.1
0
0.0
180+00
180+50
181+00
181+50
182+00
182+50
183+00
183+50
184+00
184+50
185+00
185+50
186+00
186+50
187+00
187+50
188+00
188+50
189+00
189+50
On
Off
184+82
184+80 | 47.8466 / -103.5726
marker needs repair | 47.8466 / -103.5726 | PI Line
187+17 | 47.8465 / -103.5722 | Pipe
transitions to poly here