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KDCO

1550 kHz 0.99kW/0.35kW DA-2

GOLDEN , CO

NIGHTTIME PATTERN REFERENCE MEASUREMENTS

Amended June 9, 2014

Appendix A

Reference Field Strength Measurements

Reference field strength measurements were made on May 15, 2014 using a Potomac Instruments FIM-41 field intensity meter of known calibration at three or more locations along radials at the three azimuths with radiation values specified on the construction permit. The measured field strengths and descriptions and NAD-27 GPS coordinates for the reference measurement points are shown in the following tables.

Radial 63°

Point No.	Dist. Km	Latitude	Longitude	Time	Field mV/m
1	5.22	39-54-46	105-11-02	1156	5.4
2	7.14	39-55-18	105-09-51	1207	8.2
3	7.67	39-55-26	105-09-31	1214	5.8
4	8.06	39-55-43	105-08-46	1220	6.8

Radial 141°

Point No.	Dist. Km	Latitude	Longitude	Time	Field mV/m
1	4.21	39-52-47	105-12-25	1313	2.9
2	6.48	39-50-46	105-11-30	1254	2.3
3	7.60	39-50-23	105-10-54	1248	1.05
4	9.94	39-49-22	105-09-53	1237	1.1

Radial 282°

Point No.	Dist. Km	Latitude	Longitude	Time	Field mV/m
1	2.63	39-53-50	105-16-08	1325	15.0
2	9.30	39-54-34	105-20-44	1344	0.17*
3	10.1	39-54-36	105-21-17	1349	0.23*
4	10.4	39-54-39	105-21-30	1356	0.28*

Radial 05° meas 6/5/2014

Point No.	Dist. Km	Latitude	Longitude	Time	Field mV/m
1	3.41	39-55-22	105-14-06	1050	19.0
2	4.28	39-55-50	105-14-05	1057	18.0
3	6.90	39-57-14	105-13-55	1111	20.0
4	11.9	39-59-56	105-13-33	1128	6.0

Radial 199° meas 6/5/2014

Point No.	Dist. Km	Latitude	Longitude	Time	Field mV/m
1	0.53	39-53-15	105-14-27	1153	270
2	2.96	39-52-01	105-14-58	1038	45
3	12.7	39-47-02	105-17-11	1011	0.5*
4	17.1	39-44-49	105-18-19	1211	0.28*

* these measurement points are in rugged mountains with extremely low conductivity

REFERENCE POINT DESCRIPTIONS

Radial 63 Degrees

5.22 km on South shoulder of 128 near pine tree

7.14 km on East shoulder of McCaslin

7.67 km on Indiana by End of School Zone sign

8.06 km Walgreens Parking Lot by intersection of Rock Creek and Coalton

Radial 141 Degrees

4.21 km on Hwy 72 South shoulder by Riht Lane Must Turn sign

6.48 km On Leyden Road 100m west of subdivision entrance road

7.60 km On Quaker Street by warning 20mph curvy road sign

9.94 km On 100m North of intersection of 69th and Indiana on West sidewalk

Radial 282 Degrees

2.63 km On Plainview Road East shoulder 100m from warning curvy road 20mph sign

9.3 km East shoulder of Crescent Road

10.1 km Intersection of Hwy 72 and Ranch Elsie Road

10.4 km On Lilis Lane at dead end turnaround

Radial 05 Degrees

3.41 km Hwy 93 East shoulder

4.28 km Hwy 93 East shoulder by fence brace post

6.90 km Iscn Hwy 93 and 170 P-lot of Eldorado Corner Market

11.9 km Iscn of Aztec Dr. & Crie Circle

Radial 199 Degrees

0.53 km Hwy 93 on West shoulder by traffic signal warning sign

2.96 km Hwy 72 South shoulder at turnout on curve

12.7 km Crawford Gulch Rd at pulloff in narrow canyon

17.1 km US 6 on South shoulder turnout in Clear Creek Canyon

Field Meter Calibration data

Measurements made on May 15 were done with FIM-41 SN 204 Calibration date 28 December 1973 and several of the points were compared and found to be identical with FIM-21 SN 208. Calibration date 18 November 1985 These meters are my personal meters and are regularly compared with other local field meters when I am at clients sites with AM directional antenna arrays.

Measurements made on June 5 were done with FIM-41 SN 1898 Calibration date 13 February 2012.That meter has been sent to Potomac for a full calibration with requested incoming calibration accuracy report. Potomac Instruments FIM-21 and FIM-41 meters are most often fully within manufacturer tolerance calibration standards on their return for calibration certification.

All three of the above meters were compared on June 5 2014 and found to agree within the factory standard calibration accuracy of +/- 2% on frequencies of four local AM stations from 630kHz to 1550 kHz .