

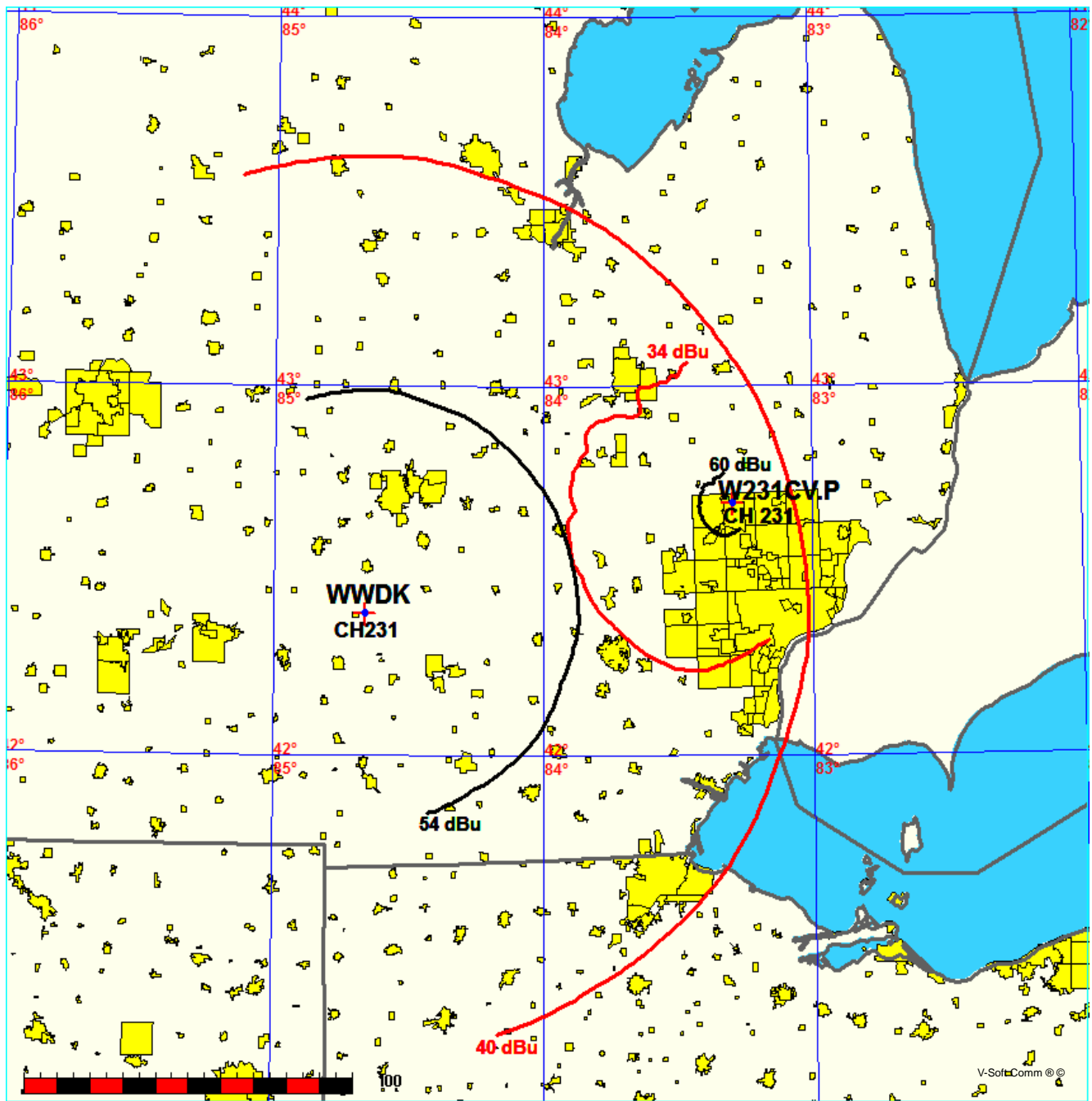
# Exhibit 13.4a - Modified W231CV protection toward WWDK

Scale 1:3,000,000

FMCommander Single Allocation Study - 04-11-2017 - USGS 03 SEC  
W231CV.P's Overlaps (In= -28.58 km, Out= 0.39 km)

W231CV.P CH 231 D DA  
Lat= 42 41 25.9, Lng= 83 17 53.2  
0.21 kW 71.9 m HAAT, 364 m COR  
Prot.= 60 dBu, Intef.= 34 dBu

WWDK CH 231 B BMLH20150427AAT  
Lat= 42 23 31.0, Lng= 84 40 00.0  
40.0 kW 168 m HAAT, 457 m COR  
Prot.= 54 dBu, Intef.= 40 dBu



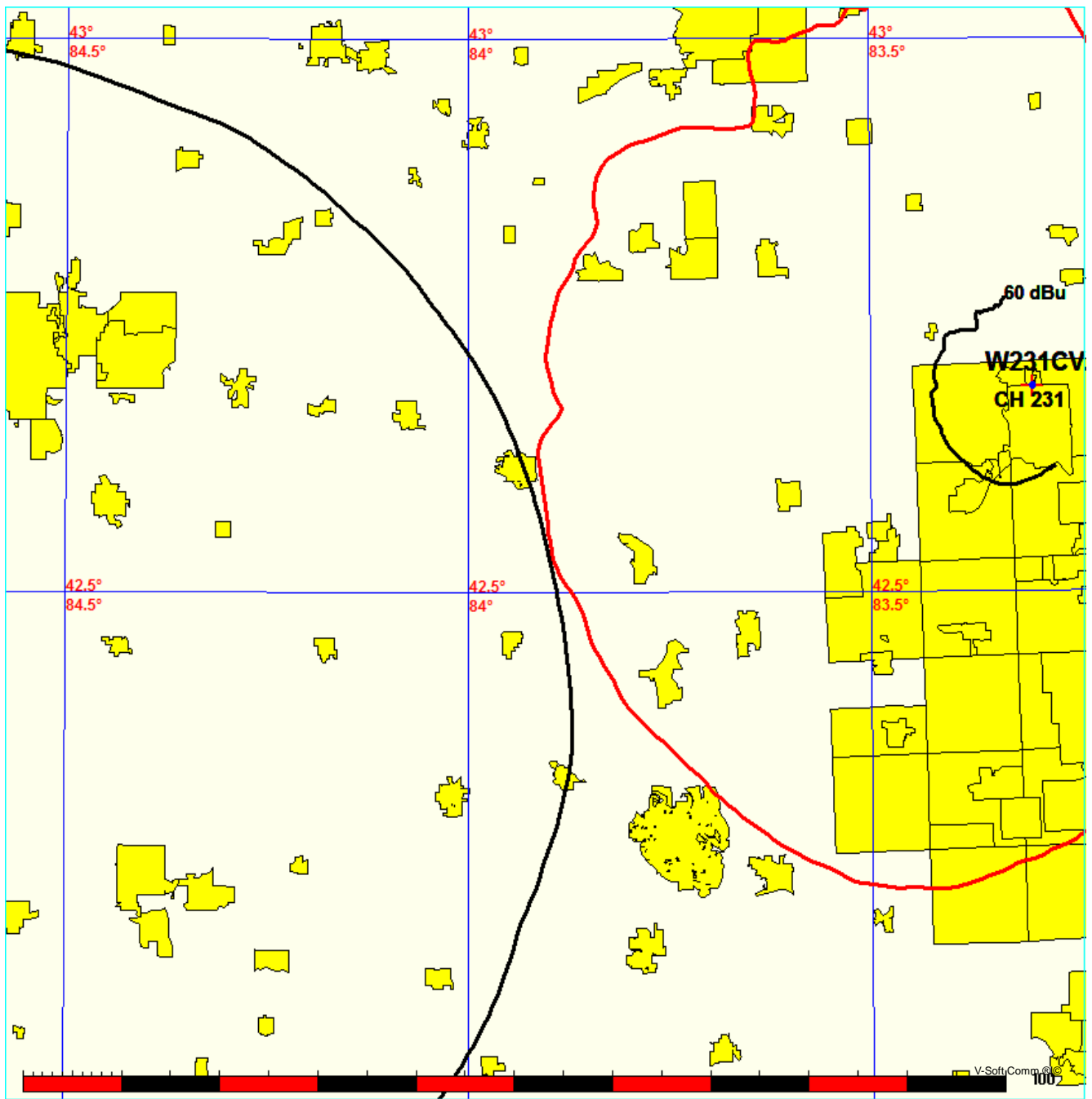
# Exhibit 13.4b - Modified W231CV protection toward WWDK

Scale 1:1,000,000

FMCommander Single Allocation Study - 04-11-2017 - USGS 03 SEC  
W231CV.P's Overlaps (In= -28.58 km, Out= 0.39 km)

W231CV.P CH 231 D DA  
Lat= 42 41 25.9, Lng= 83 17 53.2  
0.21 kW 71.9 m HAAT, 364 m COR  
Prot.= 60 dBu, Intef.= 34 dBu

WWDK CH 231 B BMLH20150427AAT  
Lat= 42 23 31.0, Lng= 84 40 00.0  
40.0 kW 168 m HAAT, 457 m COR  
Prot.= 54 dBu, Intef.= 40 dBu



04-11-2017

Terrain Data: USGS 03 SEC

FMOver Analysis

W231CV.P

WWDK BMLH20150427AAT

Channel = 231D

Max ERP = 0.21 kW

RCAMSL = 364 m

N. Lat. 42 41 25.9

W. Lng. 83 17 53.2

Protected

60 dBu

Channel = 231B

Max ERP = 40 kW

RCAMSL = 457 m

N. Lat. 42 23 31.0

W. Lng. 84 40 00.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
194.0	000.1943	0078.1	010.8	077.8	040.0000	0166.1	111.9	44.49*	23.02
195.0	000.1972	0078.4	010.8	077.8	040.0000	0166.0	111.7	44.53*	23.21
196.0	000.1996	0078.4	010.9	077.8	040.0000	0166.0	111.5	44.57*	23.39
197.0	000.2021	0078.5	010.9	077.8	040.0000	0166.0	111.3	44.61*	23.58
198.0	000.2046	0078.5	010.9	077.7	040.0000	0166.0	111.2	44.64*	23.76
199.0	000.2075	0078.5	011.0	077.7	040.0000	0166.0	111.0	44.68*	23.95
200.0	000.2100	0078.4	011.0	077.6	040.0000	0166.0	110.8	44.72*	24.12
201.0	000.2100	0078.1	011.0	077.6	040.0000	0166.0	110.7	44.75*	24.27
202.0	000.2100	0077.4	010.9	077.5	040.0000	0166.0	110.5	44.78*	24.41
203.0	000.2100	0077.1	010.9	077.4	040.0000	0166.0	110.4	44.81*	24.56
204.0	000.2100	0077.1	010.9	077.4	040.0000	0166.0	110.2	44.84*	24.71
205.0	000.2100	0077.3	010.9	077.3	040.0000	0166.0	110.1	44.88*	24.87
206.0	000.2100	0077.3	010.9	077.3	040.0000	0166.0	109.9	44.91*	25.03
207.0	000.2100	0077.3	010.9	077.2	040.0000	0166.0	109.8	44.94*	25.17
208.0	000.2100	0077.1	010.9	077.1	040.0000	0166.0	109.6	44.97*	25.31
209.0	000.2100	0077.2	010.9	077.1	040.0000	0166.0	109.5	45.00*	25.46
210.0	000.2100	0077.0	010.9	077.0	040.0000	0166.0	109.3	45.03*	25.59
211.0	000.2100	0076.2	010.9	076.9	040.0000	0166.0	109.2	45.05*	25.69
212.0	000.2100	0076.1	010.8	076.9	040.0000	0165.9	109.1	45.08*	25.82
213.0	000.2100	0076.0	010.8	076.8	040.0000	0165.9	109.0	45.11*	25.95
214.0	000.2100	0075.7	010.8	076.7	040.0000	0165.9	108.8	45.13*	26.06
215.0	000.2100	0075.4	010.8	076.6	040.0000	0165.8	108.7	45.16*	26.17
216.0	000.2100	0075.1	010.8	076.5	040.0000	0165.8	108.6	45.18*	26.28
217.0	000.2100	0074.8	010.8	076.5	040.0000	0165.8	108.5	45.20*	26.39
218.0	000.2100	0074.6	010.8	076.4	040.0000	0165.8	108.4	45.23*	26.49
219.0	000.2100	0074.2	010.7	076.3	040.0000	0165.7	108.3	45.25*	26.59
220.0	000.2100	0073.4	010.7	076.2	040.0000	0165.7	108.2	45.26*	26.66
221.0	000.2100	0073.3	010.7	076.1	040.0000	0165.7	108.1	45.29*	26.76
222.0	000.2100	0073.4	010.7	076.0	040.0000	0165.7	108.0	45.31*	26.87
223.0	000.2100	0073.5	010.7	076.0	040.0000	0165.6	107.9	45.34*	26.98
224.0	000.2100	0073.4	010.7	075.9	040.0000	0165.6	107.8	45.36*	27.07
225.0	000.2100	0073.2	010.7	075.8	040.0000	0165.6	107.7	45.37*	27.15
226.0	000.2100	0073.3	010.7	075.7	040.0000	0165.5	107.6	45.40*	27.25
227.0	000.2100	0073.5	010.7	075.6	040.0000	0165.5	107.5	45.42*	27.35
228.0	000.2100	0073.8	010.7	075.5	040.0000	0165.5	107.4	45.44*	27.45
229.0	000.2100	0074.1	010.7	075.5	040.0000	0165.5	107.3	45.47*	27.56

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	
230.0	000.2100	0074.4	010.7	075.4	040.0000	0165.5	107.2	45.49*	27.66
231.0	000.2100	0074.6	010.7	075.3	040.0000	0165.5	107.1	45.51*	27.76
232.0	000.2100	0074.6	010.8	075.2	040.0000	0165.5	107.0	45.53*	27.84
233.0	000.2100	0074.3	010.7	075.1	040.0000	0165.5	107.0	45.54*	27.90
234.0	000.2100	0073.8	010.7	075.0	040.0000	0165.6	106.9	45.55*	27.94
235.0	000.2100	0073.3	010.7	074.9	040.0000	0165.6	106.9	45.56*	27.98
236.0	000.2100	0073.2	010.7	074.8	040.0000	0165.6	106.8	45.58*	28.04
237.0	000.2100	0072.9	010.6	074.7	040.0000	0165.6	106.8	45.59*	28.09
238.0	000.2100	0072.6	010.6	074.6	040.0000	0165.7	106.7	45.60*	28.13
239.0	000.2100	0072.6	010.6	074.5	040.0000	0165.7	106.7	45.61*	28.18
240.0	000.2100	0072.3	010.6	074.4	040.0000	0165.7	106.7	45.62*	28.22
241.0	000.2100	0071.5	010.5	074.3	040.0000	0165.8	106.7	45.62*	28.22
242.0	000.2100	0070.6	010.5	074.2	040.0000	0165.8	106.7	45.62*	28.21
243.0	000.2100	0070.0	010.4	074.1	040.0000	0165.8	106.7	45.62*	28.22
244.0	000.2100	0069.8	010.4	074.0	040.0000	0165.9	106.7	45.62*	28.25
245.0	000.2100	0070.1	010.4	073.9	040.0000	0165.9	106.6	45.64*	28.30
246.0	000.2100	0070.6	010.5	073.8	040.0000	0166.0	106.5	45.65*	28.38
247.0	000.2100	0071.4	010.5	073.7	040.0000	0166.0	106.5	45.67*	28.46
248.0	000.2100	0071.8	010.6	073.6	040.0000	0166.1	106.4	45.69*	28.52
249.0	000.2100	0072.2	010.6	073.5	040.0000	0166.1	106.4	45.70*	28.57
250.0	000.2100	0072.0	010.6	073.4	040.0000	0166.2	106.4	45.70*	28.58
251.0	000.2100	0071.6	010.5	073.3	040.0000	0166.2	106.4	45.70*	28.57
252.0	000.2100	0071.1	010.5	073.2	040.0000	0166.3	106.4	45.70*	28.55
253.0	000.2100	0070.6	010.5	073.1	040.0000	0166.3	106.4	45.69*	28.53
254.0	000.2100	0069.8	010.4	073.0	040.0000	0166.4	106.5	45.68*	28.48
255.0	000.2100	0069.2	010.4	072.9	040.0000	0166.4	106.5	45.67*	28.45
256.0	000.2100	0069.0	010.4	072.8	040.0000	0166.5	106.5	45.67*	28.44
257.0	000.2100	0068.7	010.4	072.7	040.0000	0166.5	106.6	45.66*	28.41
258.0	000.2100	0068.4	010.3	072.7	040.0000	0166.6	106.6	45.66*	28.38
259.0	000.2100	0068.0	010.3	072.6	040.0000	0166.6	106.7	45.65*	28.35
260.0	000.2100	0068.0	010.3	072.5	040.0000	0166.7	106.7	45.65*	28.34
261.0	000.2100	0068.1	010.3	072.4	040.0000	0166.7	106.7	45.65*	28.33
262.0	000.2100	0067.8	010.3	072.3	040.0000	0166.8	106.7	45.64*	28.29
263.0	000.2100	0067.0	010.2	072.2	040.0000	0166.8	106.8	45.62*	28.21
264.0	000.2100	0065.2	010.1	072.1	040.0000	0166.8	107.0	45.58*	28.06
265.0	000.2100	0062.6	009.9	072.0	040.0000	0166.9	107.2	45.53*	27.84
266.0	000.2100	0060.1	009.7	072.0	040.0000	0166.9	107.4	45.49*	27.63
267.0	000.2100	0058.8	009.7	071.9	040.0000	0166.9	107.5	45.46*	27.50
268.0	000.2100	0059.9	009.7	071.8	040.0000	0166.9	107.5	45.47*	27.54
269.0	000.2100	0061.0	009.8	071.7	040.0000	0167.0	107.5	45.48*	27.58
270.0	000.2100	0061.4	009.8	071.6	040.0000	0167.0	107.5	45.47*	27.56
271.0	000.2100	0062.2	009.9	071.5	040.0000	0167.0	107.5	45.47*	27.57
272.0	000.2100	0063.1	010.0	071.4	040.0000	0167.1	107.5	45.47*	27.57
273.0	000.2100	0063.6	010.0	071.3	040.0000	0167.1	107.5	45.47*	27.55
274.0	000.2100	0063.3	010.0	071.2	040.0000	0167.1	107.6	45.45*	27.47
275.0	000.2100	0063.0	010.0	071.1	040.0000	0167.1	107.7	45.43*	27.38
276.0	000.2100	0062.8	009.9	071.1	040.0000	0167.1	107.8	45.41*	27.30
277.0	000.2100	0062.8	009.9	071.0	040.0000	0167.1	107.8	45.40*	27.23
278.0	000.2100	0062.4	009.9	070.9	040.0000	0167.1	107.9	45.37*	27.13
279.0	000.2100	0062.2	009.9	070.8	040.0000	0167.2	108.0	45.36*	27.05
280.0	000.2100	0062.1	009.9	070.7	040.0000	0167.2	108.1	45.34*	26.96

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	
281.0	000.2100	0061.5	009.9	070.7	040.0000	0167.2	108.2	45.31*	26.84
282.0	000.2100	0060.4	009.8	070.6	040.0000	0167.2	108.4	45.28*	26.69
283.0	000.2100	0059.4	009.7	070.6	040.0000	0167.2	108.5	45.24*	26.54
284.0	000.2100	0059.1	009.7	070.5	040.0000	0167.3	108.7	45.22*	26.44
285.0	000.2100	0059.1	009.7	070.4	040.0000	0167.3	108.7	45.20*	26.35
286.0	000.2100	0058.2	009.6	070.4	040.0000	0167.3	108.9	45.17*	26.20
287.0	000.2100	0057.4	009.5	070.3	040.0000	0167.4	109.0	45.14*	26.05
288.0	000.2100	0056.4	009.5	070.3	040.0000	0167.4	109.2	45.10*	25.89
289.0	000.2100	0055.9	009.4	070.2	040.0000	0167.4	109.3	45.07*	25.76
290.0	000.2100	0056.2	009.4	070.1	040.0000	0167.4	109.4	45.06*	25.68
291.0	000.2100	0057.2	009.5	070.0	040.0000	0167.5	109.5	45.05*	25.65
292.0	000.2100	0058.6	009.6	069.9	040.0000	0167.6	109.5	45.05*	25.64
293.0	000.2100	0059.7	009.7	069.8	040.0000	0167.6	109.5	45.04*	25.60
294.0	000.2100	0060.6	009.8	069.8	040.0000	0167.7	109.6	45.03*	25.54
295.0	000.2100	0061.3	009.8	069.7	040.0000	0167.8	109.7	45.01*	25.47
296.0	000.2100	0061.2	009.8	069.6	040.0000	0167.8	109.8	44.98*	25.35
297.0	000.2100	0060.9	009.8	069.6	040.0000	0167.8	109.9	44.96*	25.21
298.0	000.2100	0059.9	009.7	069.5	040.0000	0167.9	110.1	44.92*	25.04
299.0	000.2100	0058.5	009.6	069.5	040.0000	0167.9	110.3	44.88*	24.84
300.0	000.2100	0057.3	009.5	069.5	040.0000	0167.9	110.5	44.84*	24.65
301.0	000.2100	0055.7	009.4	069.5	040.0000	0167.9	110.7	44.79*	24.44
302.0	000.2100	0053.6	009.2	069.5	040.0000	0167.9	111.0	44.74*	24.19
303.0	000.2100	0052.2	009.1	069.5	040.0000	0167.9	111.2	44.70*	23.98
304.0	000.2100	0051.0	009.0	069.5	040.0000	0167.9	111.4	44.66*	23.79
305.0	000.2100	0049.9	008.8	069.5	040.0000	0167.9	111.6	44.62*	23.60
306.0	000.2100	0048.6	008.7	069.5	040.0000	0167.9	111.8	44.57*	23.39
307.0	000.2100	0046.5	008.5	069.6	040.0000	0167.8	112.0	44.52*	23.14
308.0	000.2100	0044.5	008.3	069.6	040.0000	0167.8	112.3	44.47*	22.90
309.0	000.2100	0042.4	008.0	069.7	040.0000	0167.8	112.5	44.42*	22.65
310.0	000.2100	0040.6	007.9	069.7	040.0000	0167.7	112.7	44.38*	22.43
311.0	000.2100	0039.5	007.7	069.7	040.0000	0167.7	112.9	44.34*	22.25
312.0	000.2100	0038.5	007.6	069.8	040.0000	0167.7	113.1	44.31*	22.08
313.0	000.2100	0038.5	007.6	069.7	040.0000	0167.7	113.2	44.29*	21.96

04-11-2017

Terrain Data: USGS 03 SEC

FMOver Analysis

WWDK BMLH20150427AAT

W231CV.P

Channel = 231B

Max ERP = 40 kW

RCAMSL = 457 m

N. Lat. 42 23 31.0

W. Lng. 84 40 00.0

Protected

54 dBu

Channel = 231D

Max ERP = 0.21 kW

RCAMSL = 364 m

N. Lat. 42 41 25.9

W. Lng. 83 17 53.2

Interfering

34 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
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Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
013.0	040.0000	0177.4	066.1	288.3	000.2100	0056.1	101.6	19.99
014.0	040.0000	0176.2	066.0	288.3	000.2100	0056.2	100.4	20.22
015.0	040.0000	0175.1	065.9	288.2	000.2100	0056.2	099.3	20.45
016.0	040.0000	0173.9	065.7	288.2	000.2100	0056.2	098.1	20.69
017.0	040.0000	0173.3	065.7	288.1	000.2100	0056.3	097.0	20.94
018.0	040.0000	0173.0	065.7	288.1	000.2100	0056.3	095.8	21.18
019.0	040.0000	0172.7	065.6	288.1	000.2100	0056.3	094.7	21.44
020.0	040.0000	0172.4	065.6	288.0	000.2100	0056.4	093.5	21.70
021.0	040.0000	0172.3	065.6	288.0	000.2100	0056.4	092.4	21.96
022.0	040.0000	0172.4	065.6	287.9	000.2100	0056.5	091.3	22.23
023.0	040.0000	0173.2	065.7	287.9	000.2100	0056.5	090.1	22.51
024.0	040.0000	0174.2	065.8	287.9	000.2100	0056.5	089.0	22.79
025.0	040.0000	0175.0	065.9	287.9	000.2100	0056.6	087.8	23.07
026.0	040.0000	0175.6	065.9	287.8	000.2100	0056.7	086.7	23.36
027.0	040.0000	0175.9	066.0	287.7	000.2100	0056.8	085.5	23.64
028.0	040.0000	0176.0	066.0	287.6	000.2100	0056.9	084.4	23.93
029.0	040.0000	0176.0	066.0	287.4	000.2100	0057.1	083.3	24.22
030.0	040.0000	0175.9	066.0	287.2	000.2100	0057.3	082.1	24.50
031.0	040.0000	0175.5	065.9	287.0	000.2100	0057.4	081.0	24.78
032.0	040.0000	0175.1	065.9	286.7	000.2100	0057.6	079.9	25.06
033.0	040.0000	0174.7	065.8	286.4	000.2100	0057.8	078.9	25.34
034.0	040.0000	0174.1	065.8	286.1	000.2100	0058.0	077.8	25.62
035.0	040.0000	0173.8	065.7	285.8	000.2100	0058.3	076.7	25.90
036.0	040.0000	0173.7	065.7	285.5	000.2100	0058.6	075.6	26.18
037.0	040.0000	0173.4	065.7	285.2	000.2100	0059.0	074.6	26.47
038.0	040.0000	0172.9	065.6	284.8	000.2100	0059.2	073.6	26.74
039.0	040.0000	0172.2	065.6	284.4	000.2100	0059.2	072.6	26.99
040.0	040.0000	0171.8	065.5	283.9	000.2100	0059.1	071.6	27.24
041.0	040.0000	0171.6	065.5	283.5	000.2100	0059.1	070.6	27.50
042.0	040.0000	0171.6	065.5	283.0	000.2100	0059.4	069.6	27.77
043.0	040.0000	0171.8	065.5	282.6	000.2100	0059.8	068.6	28.05
044.0	040.0000	0172.1	065.5	282.1	000.2100	0060.3	067.6	28.34
045.0	040.0000	0172.1	065.6	281.5	000.2100	0060.9	066.6	28.64
046.0	040.0000	0172.0	065.5	280.9	000.2100	0061.5	065.7	28.92
047.0	040.0000	0172.0	065.5	280.3	000.2100	0062.0	064.8	29.19
048.0	040.0000	0171.7	065.5	279.7	000.2100	0062.2	063.9	29.44
049.0	040.0000	0171.2	065.5	279.0	000.2100	0062.2	063.1	29.67
050.0	040.0000	0170.1	065.3	278.2	000.2100	0062.3	062.3	29.89
051.0	040.0000	0169.8	065.3	277.5	000.2100	0062.5	061.5	30.14
052.0	040.0000	0169.8	065.3	276.7	000.2100	0062.8	060.7	30.39
053.0	040.0000	0170.0	065.3	275.9	000.2100	0062.8	059.9	30.63
054.0	040.0000	0170.3	065.4	275.1	000.2100	0063.0	059.1	30.87
055.0	040.0000	0170.6	065.4	274.3	000.2100	0063.2	058.4	31.12
056.0	040.0000	0171.1	065.4	273.4	000.2100	0063.5	057.6	31.38
057.0	040.0000	0171.3	065.5	272.5	000.2100	0063.4	057.0	31.58
058.0	040.0000	0171.2	065.4	271.5	000.2100	0062.7	056.3	31.72
059.0	040.0000	0170.9	065.4	270.5	000.2100	0061.7	055.8	31.81
060.0	040.0000	0171.0	065.4	269.5	000.2100	0061.2	055.2	31.95
061.0	040.0000	0171.3	065.5	268.4	000.2100	0060.5	054.6	32.06
062.0	040.0000	0170.9	065.4	267.3	000.2100	0058.9	054.2	32.05

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
063.0	040.0000	0170.2	065.3	266.2	000.2100	0059.7	053.8	32.25
064.0	040.0000	0169.8	065.3	265.0	000.2100	0062.4	053.4	32.62
065.0	040.0000	0169.5	065.3	263.9	000.2100	0065.4	053.1	33.01
066.0	040.0000	0169.2	065.2	262.7	000.2100	0067.4	052.8	33.28
067.0	040.0000	0168.9	065.2	261.5	000.2100	0068.0	052.5	33.43
068.0	040.0000	0168.5	065.1	260.3	000.2100	0068.1	052.3	33.50
069.0	040.0000	0168.1	065.1	259.0	000.2100	0068.0	052.2	33.55
070.0	040.0000	0167.5	065.0	257.8	000.2100	0068.5	052.1	33.62
071.0	040.0000	0167.1	065.0	256.5	000.2100	0068.9	052.0	33.68
072.0	040.0000	0166.9	065.0	255.3	000.2100	0069.1	052.0	33.72
073.0	040.0000	0166.4	064.9	254.0	000.2100	0069.8	052.0	33.77
074.0	040.0000	0165.9	064.8	252.8	000.2100	0070.8	052.1	33.83
075.0	040.0000	0165.6	064.8	251.5	000.2100	0071.3	052.2	33.85
076.0	040.0000	0165.7	064.8	250.3	000.2100	0071.9	052.3	33.87
077.0	040.0000	0166.0	064.9	249.1	000.2100	0072.2	052.4	33.85
078.0	040.0000	0166.0	064.9	247.9	000.2100	0071.7	052.6	33.75
079.0	040.0000	0165.9	064.9	246.7	000.2100	0071.2	052.8	33.62
080.0	040.0000	0165.9	064.9	245.5	000.2100	0070.3	053.1	33.44
081.0	040.0000	0166.6	064.9	244.3	000.2100	0069.8	053.4	33.32
082.0	040.0000	0167.0	065.0	243.1	000.2100	0070.0	053.7	33.22
083.0	040.0000	0167.1	065.0	242.0	000.2100	0070.6	054.1	33.14
084.0	040.0000	0167.3	065.0	240.9	000.2100	0071.6	054.5	33.09
085.0	040.0000	0167.8	065.1	239.8	000.2100	0072.4	054.9	33.01
086.0	040.0000	0168.2	065.1	238.7	000.2100	0072.6	055.4	32.86
087.0	040.0000	0168.7	065.2	237.6	000.2100	0072.7	055.9	32.70
088.0	040.0000	0169.0	065.2	236.6	000.2100	0073.1	056.5	32.54
089.0	040.0000	0169.4	065.2	235.7	000.2100	0073.2	057.1	32.36
090.0	040.0000	0169.7	065.3	234.7	000.2100	0073.4	057.7	32.16
091.0	040.0000	0170.5	065.4	233.8	000.2100	0074.0	058.3	32.00
092.0	040.0000	0171.0	065.4	232.9	000.2100	0074.3	059.0	31.81
093.0	040.0000	0171.0	065.4	232.0	000.2100	0074.6	059.7	31.59
094.0	040.0000	0170.6	065.4	231.2	000.2100	0074.6	060.6	31.34
095.0	040.0000	0170.1	065.3	230.5	000.2100	0074.5	061.4	31.06
096.0	040.0000	0169.2	065.2	229.9	000.2100	0074.4	062.3	30.78
097.0	040.0000	0168.0	065.1	229.3	000.2100	0074.2	063.2	30.50
098.0	040.0000	0167.0	065.0	228.7	000.2100	0074.0	064.2	30.22
099.0	040.0000	0166.2	064.9	228.1	000.2100	0073.8	065.1	29.94
100.0	040.0000	0165.6	064.8	227.6	000.2100	0073.6	066.0	29.67
101.0	040.0000	0164.8	064.7	227.0	000.2100	0073.5	067.0	29.39
102.0	040.0000	0163.8	064.6	226.6	000.2100	0073.4	068.0	29.11
103.0	040.0000	0162.5	064.5	226.2	000.2100	0073.3	069.0	28.83
104.0	040.0000	0161.4	064.3	225.8	000.2100	0073.3	070.1	28.54
105.0	040.0000	0161.0	064.3	225.4	000.2100	0073.2	071.1	28.27
106.0	040.0000	0160.5	064.2	225.0	000.2100	0073.2	072.1	28.00
107.0	040.0000	0159.3	064.1	224.7	000.2100	0073.3	073.1	27.72
108.0	040.0000	0158.5	064.0	224.4	000.2100	0073.3	074.2	27.44
109.0	040.0000	0157.8	063.9	224.1	000.2100	0073.4	075.2	27.17
110.0	040.0000	0157.7	063.9	223.7	000.2100	0073.4	076.3	26.90
111.0	040.0000	0158.5	064.0	223.4	000.2100	0073.5	077.3	26.64
112.0	040.0000	0159.6	064.1	223.0	000.2100	0073.5	078.3	26.38
113.0	040.0000	0160.1	064.2	222.7	000.2100	0073.5	079.3	26.11

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
114.0	040.0000	0160.7	064.2	222.4	000.2100	0073.5	080.3	25.84
115.0	040.0000	0161.5	064.3	222.1	000.2100	0073.5	081.4	25.56
116.0	040.0000	0162.4	064.4	221.8	000.2100	0073.4	082.4	25.29
117.0	040.0000	0163.1	064.5	221.5	000.2100	0073.4	083.5	25.00
118.0	040.0000	0163.6	064.6	221.3	000.2100	0073.4	084.6	24.72
119.0	040.0000	0164.1	064.6	221.1	000.2100	0073.4	085.7	24.43
120.0	040.0000	0164.6	064.7	220.9	000.2100	0073.3	086.8	24.14
121.0	040.0000	0165.1	064.8	220.8	000.2100	0073.3	087.9	23.86
122.0	040.0000	0165.7	064.8	220.6	000.2100	0073.3	089.0	23.57
123.0	040.0000	0166.2	064.9	220.5	000.2100	0073.3	090.1	23.29
124.0	040.0000	0166.7	064.9	220.4	000.2100	0073.3	091.2	23.01
125.0	040.0000	0167.1	065.0	220.3	000.2100	0073.4	092.3	22.73
126.0	040.0000	0166.8	064.9	220.3	000.2100	0073.4	093.5	22.46
127.0	040.0000	0166.1	064.9	220.3	000.2100	0073.4	094.6	22.19
128.0	040.0000	0165.8	064.8	220.3	000.2100	0073.4	095.7	21.93
129.0	040.0000	0165.9	064.8	220.3	000.2100	0073.4	096.9	21.67
130.0	040.0000	0165.7	064.8	220.3	000.2100	0073.4	098.0	21.42
131.0	040.0000	0165.6	064.8	220.3	000.2100	0073.4	099.1	21.17
132.0	040.0000	0164.8	064.7	220.4	000.2100	0073.3	100.3	20.94