

# Exhibit 15.4f

## WMKT - 105.0° (day)

MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements									
Call: WMKT Frequency(kHz): 1270 Bearing: 105.0° Power(kW): 5.000									
Point ###	mV/m	Meas Time	Con Date	mV/m	Time	Date	Distance km	Ratio	MP *

1	68.000	0942	10-04-01				4.64		
2	35.000	0926	10-04-01				6.65		
3	22.000	0922	10-04-01				9.14		
4	6.400	0916	10-04-01				11.80		
5	6.800	0859	10-04-01				15.60		
6	4.400	0855	10-04-01				17.10		
7	2.300	0848	10-04-01				19.70		
8	0.850	0841	10-04-01				23.00		
9	0.700	0817	10-04-01				26.50		
10	0.580	0827	10-04-01				29.30		
11	0.340	1657	10-03-01				39.10		
12	0.220	1637	10-03-01				48.60		
13	0.135	1618	10-03-01				59.90		
14	0.130	1557	10-03-01				68.40		
15	0.072	1526	10-03-01				80.90		
16	0.068	1515	10-03-01				88.20		
17	0.044	1451	10-03-01				99.70		
18	0.024	1419	10-03-01				122.00		
19	0.016	1338	10-03-01				146.00		

Average Arithmetic Ratio = 0.0000  
Average Logarithmic Ratio = 0.0000



# Exhibit 15.4f WMKT - 105.0° (day)

Meas. Con.

GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE

STATION : WMKT  
FREQUENCY: 1270 kHz  
POWER : 5.000 kW  
DIRECTION: 105.0 Deg.  
EXHIBIT :

1250-1330 kHz

Curves computed for 1290 kHz

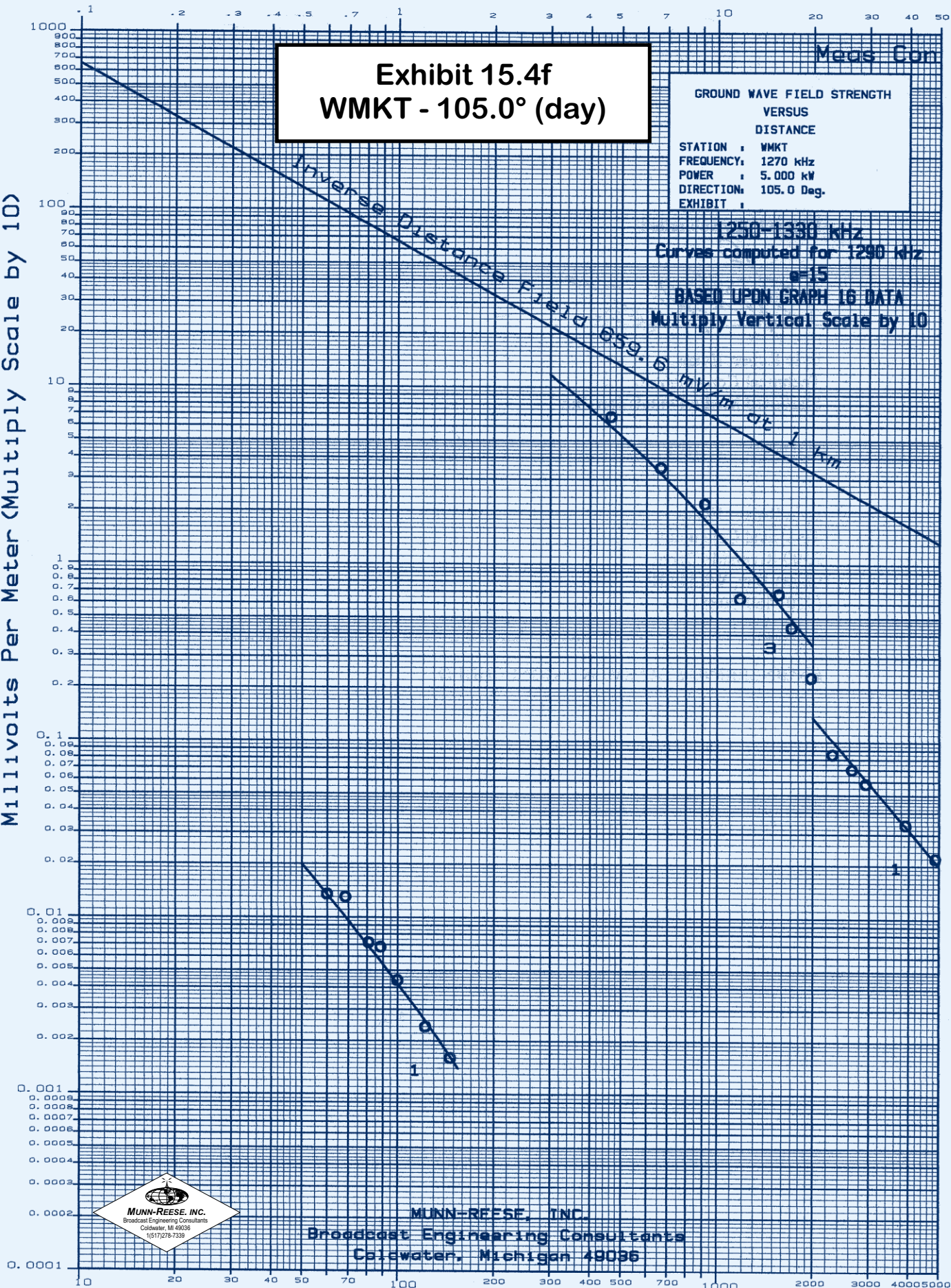
$\epsilon = 15$

BASED UPON GRAPH 16 DATA

Multiply Vertical Scale by 10

Inverse Distance Field 659.6 mV/km at 1 km

Millivolts Per Meter (Multiply Scale by 10)



MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Kilometers From Antenna

# Exhibit 15.4g

## WMKT - 125.0° (day)

Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements						
Call: WMKT Frequency(kHz): 1270 Bearing: 125.0° Power(kW): 5.000						
Point ###	mV/m	Meas Time	Con Date	mV/m	Time	Date
					Distance km	Ratio
						MP *

1	1565.000	1445	10-02-01		0.32	
2	1150.000	1440	10-02-01		0.41	
3	1080.000	1430	10-02-01		0.53	
4	780.000	1450	10-02-01		0.71	
5	570.000	1454	10-02-01		0.91	
6	250.000	1506	10-02-01		1.83	
7	235.000	1505	10-02-01		1.91	
8	218.000	1502	10-02-01		1.97	
9	195.000	1510	10-02-01		2.06	
10	135.000	1525	10-02-01		2.90	
11	149.000	1515	10-02-01		3.03	
12	118.000	1531	10-02-01		3.37	
13	80.000	1538	10-02-01		4.59	
14	72.000	1537	10-02-01		4.84	
15	32.000	1544	10-02-01		6.75	
16	25.200	1547	10-02-01		7.43	
17	12.500	1551	10-02-01		8.18	
18	18.500	1614	10-02-01		9.79	
19	12.100	1656	10-02-01		11.40	
20	11.500	1700	10-02-01		13.10	
21	4.600	1706	10-02-01		14.90	
22	3.200	1711	10-02-01		17.30	
23	2.400	1717	10-02-01		20.30	
24	1.350	0836	10-03-01		26.00	
25	0.410	0905	10-03-01		41.70	
26	0.310	0910	10-03-01		45.40	
27	0.155	0917	10-03-01		50.00	
28	0.141	0935	10-03-01		57.50	
29	0.112	0957	10-03-01		67.10	
30	0.090	1009	10-03-01		77.90	
31	0.058	1028	10-03-01		89.40	
32	0.056	1040	10-03-01		98.00	
33	0.037	1100	10-03-01		112.00	
34	0.028	1112	10-03-01		122.00	
35	0.023	1139	10-03-01		142.00	

Average Arithmetic Ratio = 0.0000

Average Logarithmic Ratio = 0.0000



Meas Con

# Exhibit 15.4g WMKT - 125.0° (day)

GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE  
STATION : WMKT  
FREQUENCY: 1270 kHz  
POWER : 5.000 kW  
DIRECTION: 125.0 Deg.  
EXHIBIT :

1250-1330 kHz  
Curves computed for 1290 kHz  
-15  
BASED UPON GRAPH 16 DATA  
Multiply Vertical Scale by 10

Millivolts Per Meter (Multiply Scale by 10)

Inverse Distance Field 659.5 mV/km at 1 km

2  
1.5

1.5



MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Calderwater, Michigan 49036

Kilometers From Antenna

# Exhibit 15.4h

## WMKT - 145.0° (day)

Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements								
Call: WMKT Frequency(kHz): 1270 Bearing: 145.0° Power(kW): 5.000								
Point ###	mV/m	Meas Time	Con Date	mV/m	Time	Date	Distance km	Ratio MP *
1	29.500	0950	10-04-01				6.89	
2	33.000	0952	10-04-01				7.22	
3	13.800	0956	10-04-01				9.56	
4	10.300	1001	10-04-01				11.70	
5	8.900	1011	10-04-01				16.40	
6	6.200	1016	10-04-01				18.00	
7	5.100	1022	10-04-01				19.90	
8	1.850	1030	10-04-01				24.60	
9	0.940	1041	10-04-01				29.10	
10	0.950	1047	10-04-01				31.10	
11	0.360	1113	10-04-01				34.80	
12	0.330	1138	10-04-01				40.90	
13	0.170	1211	10-04-01				46.60	
14	0.180	1153	10-04-01				50.70	
15	0.120	1241	10-04-01				62.60	
16	0.140	1250	10-04-01				68.20	
17	0.070	1306	10-04-01				80.70	
18	0.035	1445	10-04-01				110.00	
19	0.022	1515	10-04-01				129.00	
Average Arithmetic Ratio =							0.0000	
Average Logarithmic Ratio =							0.0000	

# Exhibit 15.4h WMKT - 145.0° (day)

GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE

STATION : WMKT  
FREQUENCY: 1270 kHz  
POWER : 5.000 kW  
DIRECTION: 145.0 Deg.  
EXHIBIT :

1250-1330 kHz

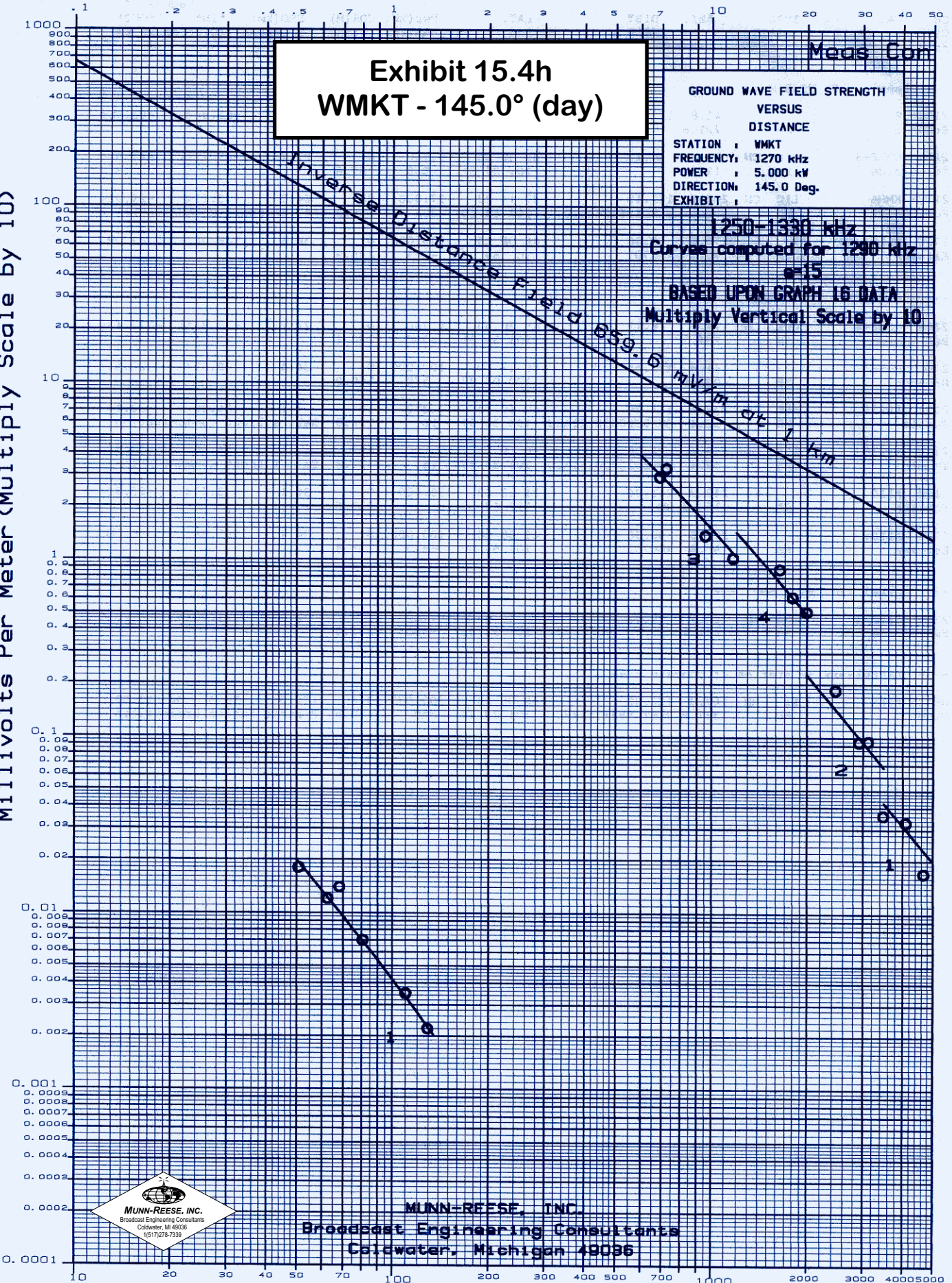
Curves computed for 1270 kHz  
or 15

BASED UPON GRAPH 16 DATA

Multiply Vertical Scale by 10

Inverse Distance Field 659.0 mV/km at 1 km

Millivolts Per Meter (Multiply Scale by 10)



MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Kilometers From Antenna

# Exhibit 15.4i

## WMKT - 165.0° (day)

Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements									
Call: WMKT Frequency(kHz): 1270 Bearing: 165.0° Power(kW): 5.0 NDA									
Point ###	mV/m	Meas Time	Con Date	mV/m	Time	Date	Distance km	Ratio	MP *
1	95.000	1109	08/24/04				3.54		
2	28.000	1102	08/24/04				6.05		
3	24.500	1058	08/24/04				6.85		
4	12.500	1052	08/24/04				8.90		
5	9.250	1047	08/24/04				9.51		
6	8.500	1041	08/24/04				11.20		
7	5.000	1035	08/24/04				12.80		
8	1.000	1019	08/24/04				19.70		
9	0.950	1004	08/24/04				25.10		
10	0.750	0952	08/24/04				30.20		
11	0.460	0934	08/24/04				34.80		
12	0.380	0927	08/24/04				39.50		
13	0.195	0909	08/24/04				44.30		
14	0.130	0901	08/24/04				48.90		
15	0.175	0842	08/24/04				54.50		
16	0.170	0833	08/24/04				57.60		
17	0.160	0822	08/24/04				62.60		
18	0.175	1856	08/23/04				69.30		
19	0.160	1838	08/23/04				74.90		
20	0.150	1833	08/23/04				76.60		
21	0.135	1818	08/23/04				78.80		
22	0.070	1515	08/23/04				84.30		
23	0.060	1506	08/23/04				91.90		
24	0.055	1457	08/23/04				97.80		
25	0.075	1437	08/23/04				108.00		
26	0.035	1337	08/23/04				129.00		
27	0.022	1316	08/23/04				141.00		
28	0.015	1310	08/23/04				143.00		
29	0.020	1238	08/23/04				161.00		

Average Arithmetic Ratio = 0.0000  
Average Logarithmic Ratio = 0.0000



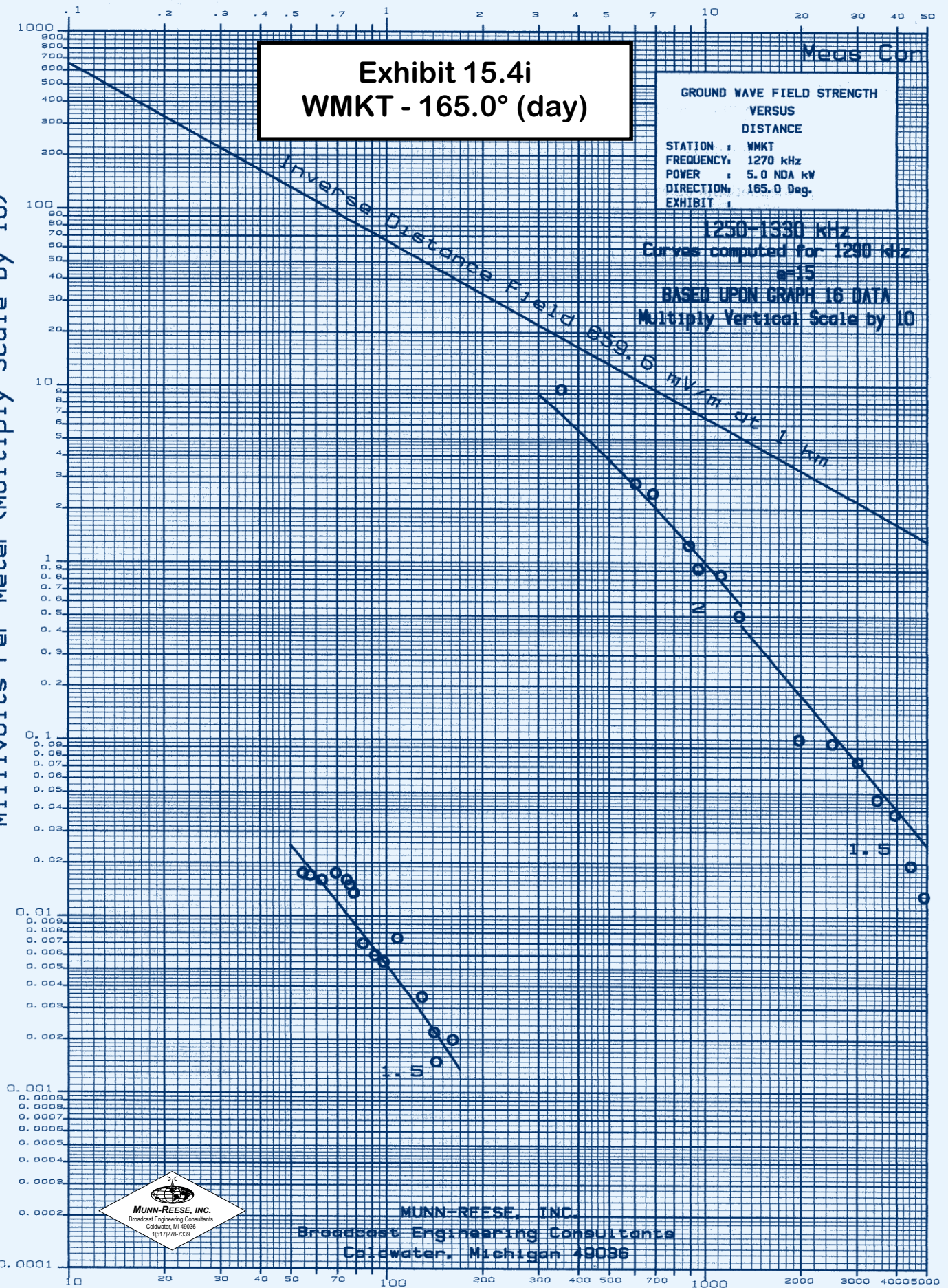
# Exhibit 15.4i WMKT - 165.0° (day)

GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE  
STATION : WMKT  
FREQUENCY: 1270 kHz  
POWER : 5.0 NDA kW  
DIRECTION: 165.0 Deg.  
EXHIBIT :

1250-1330 kHz  
Curves computed for 1290 kHz  
 $n=15$   
BASED UPON GRAPH 16 DATA  
Multiply Vertical Scale by 10

Millivolts Per Meter (Multiply Scale by 10)

Inverse Distance Field 059.0 mV/km at 1 km



MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Kilometers From Antenna

# Exhibit 15.4j

## WMKT - 174.0° (night)

### TABULATION OF FIELD INTENSITY MEASUREMENTS

174° T. RADIAL - WVOY

POINT	NON-DIRECTIONAL		DIRECTIONAL		RATIO	MILES
	mV/m	TIME (EST)	mV/m	TIME (EST)		
1	3700	11:42 a	--	--	--	.125
2	1540	11:47	--	--	--	.23
3	880	11:52	92	6:59 p	.1045	.35
4	620	11:56	75	6:57	.1210	.46
5	600	12:02	53	6:55	.0883	.56
6	620	12:08	38.5	6:53	.0621	.68
7	360	12:14	25	6:49	.0694	.78
8	370	12:18	24.75	6:46	.0669	.89
9	288	12:22	19.90	6:43	.0691	.99
10	57	4:12 p	3.5	5:55	.0614	2.12
11	40	4:04	2.8	5:51	.0700	3.10
12 - MP	24.75	3:56	1.55	5:47	.0626	3.63
13	10.8	3:42	.60	5:38	.0556	5.18
14	6.6	3:31	.40	5:31	.0606	7.03
15	7.1	3:20	.42	5:28	.0592	7.36
16	5.6	3:16	.36	5:25	.0643	7.64
17	4.0	3:08	.19	5:21	.0475	8.93
18	5.6	3:03	.26	5:18	.0464	9.71
19	3.05	2:55	.155	5:12	.0508	10.72
20	1.73	2:36	.064	4:59	.0370	12.96
21	1.50	2:30	.062	4:50	.0413	13.92
22	1.80	2:24	.070	4:48	.0389	14.82
23	0.58	2:06	.021	4:37	.0362	16.88
24	0.97	12:55	.035	4:12	.0361	17.60
25	0.94	1:03	.033	4:16	.0351	18.33
26	0.56	1:10	.025	4:20	.0446	20.00

Avg. = .0595

