Jim Keck
Energy Services Engineer
jvkeck@blackhillspower.com

P (605) 721-2612
F (605) 721-2577

December 21, 2004

Dear Commissioners:

Subject: Rapid City AC/DC Tie Substation – Noise Study

Enclosed are the following three reports dealing with the Rapid City AC/DC Tie Substation noise issue:

- **Operational Noise Compliance Study** including graphs of the noise levels at each of the measurement points around the substation fence line.
- **30 Hour Noise Study** with attached graphs showing the continuous noise levels during the August and November tests plus an appendix with all the readings taken during the 30 hour test.
- **Residential Measurements Memo** which includes a graph showing the reduction in the frequency levels associated with the high pitched ringing noise.

The noise reduction measures made to the electrical equipment in the substation were completed on November 9, 2004. Noise tests were conducted by Burns and McDonnell, an independent third party consultant, on November 15 and 16 to verify that the equipment modifications reduced the noise to appropriate levels. The reports demonstrate that significant improvements have been made, including:

- The noise levels at the perimeter fence line are in compliance with the SD PUC permitted level of 61 decibels (dBA). Ninety percent (90%) of all the substation perimeter fence readings fall below 60 dBA. **A letter from the SD PUC, confirming our compliance, is attached.**
- Noise levels were reduced by as much as 50% (10 dBA reduction) at certain points along the substation perimeter fence line.
- The high pitched ringing noise has been eliminated.
- The noise levels on the east substation fence line (closest to the residences) all registered below 49 dBA.

When evaluating sound levels, it's helpful to compare noise decibel levels to other sounds we are familiar with. I've attached a chart that shows common noise sources for different dBA levels. For instance, 60 dBA is equivalent to the noise in a general office setting or the noise from a residential air conditioner condenser 15 feet away; 50 decibels is equivalent to the noise level in a quiet office and 40 decibels is equivalent to soft stereo music in a residence. The decibel readings along Old Folsom Road, with the DC Tie operating at 200 MW, were very low,

registering between 33 – 37 dBA. Noise levels with no load flowing at the DC Tie ranged from 33-34 dBA. The **Environmental Protection Agency** noise guidelines recommend **55 dBA for residential areas**, which is well above the levels we have measured on Old Folsom Road.

We at Black Hills Power and Basin Electric appreciate the Commission's patience and understanding while we have worked diligently to reduce the noise levels at the DC Tie. The facts are clear - our sound reduction efforts have been successful. The DC Tie is now in compliance with the SD PUC's permitted noise level. In addition, the Pennington County Commission has re-approved their Conditional Use Permit for the DC Tie. We are ready to move forward in serving the needs of our customers in the Black Hills and surrounding areas.

I respectfully ask the Rapid City Planning Commission to approve the 11-6-19 review for the 69 kV circuit breaker located on Lamb Road at the Planning Commission meeting on January 6, 2004. I will be able to answer any questions you may have at the meeting.

Sincerely,

Jim Keck

Jim Keck

Enclosures

xc: Mayor Jim Shaw
Marcia Elkins – Director, Growth Management
Vicki Fisher – Planner III
Jason Green – City Attorney
Jim Miller – Basin Electric Power Cooperative
Steve Wegman – SD Public Utilities Commission

Bob Sahr, Chair
Gary Hanson, Vice-Chair
Jim Burg, Commissioner

SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

500 East Capitol Avenue
Pierre, South Dakota 57501-5070
www.state.sd.us/puc

Capitol Office
(605) 773-3201
(605) 773-3809 fax

Transportation/Warehouse
(605) 773-5280
(605) 773-3225 fax

Consumer Hotline
1-800-332-1782

December 10, 2004

Jim Keck
Black Hills Power
PO Box 1400
Rapid City, South Dakota

Dear Mr. Keck,

This letter is in reference to the AC/DC Tie Substation—Noise Study.

I have reviewed the November 2004 Operational Noise Compliance Assessment Study and also personally observed the night-time testing.

Staff believes that Black Hills Power and Light and Basin Electric Cooperative are in compliance with audible noise level associated with the operation of the AC/DC Tie Substation near Rapid City, South Dakota.

The South Dakota Public Utilities Commission will from time to time do a random reviews of the site.

Sincerely yours,

Steven M. Wegman
Analyst

Typical Sound Pressure Levels Associated with Common Noise Sources

Sound Pressure Level (dBA)	Subjective Evaluation	Environment	
		Outdoor	Indoor
140	Deafening	Jet aircraft at 75 ft	
130	Threshold of pain	Jet aircraft during takeoff at a distance of 300 ft	
120	Threshold of feeling	Elevated train	Hard rock band
110		Jet flyover at 1000 ft	Inside propeller plane
100	Very loud	Power mower, motorcycle at 25 ft, auto horn at 10 ft, crowd noise at football game	
90		Propeller plane flyover at 1000 ft, noisy urban street	Full symphony or band, food blender, noisy factory
80	Moderately loud	Diesel truck (40 mph) at 50 ft	Inside auto at high speed, garbage disposal, dishwasher
70	Loud	B-757 cabin during flight	Close conversation, vacuum cleaner, electric typewriter
60	Moderate	Air-conditioner condenser at 15 ft, near highway traffic	General office
50	Quiet		Private office
40		Farm field with light breeze, birdcalls	Soft stereo music in residence
30	Very quiet	Quiet residential neighborhood	Bedroom, average residence (without t.v. and stereo)
20		Rustling leaves	Quiet theater, whisper
10	Just audible		Human breathing
0	Threshold of hearing		

Source: Adapted from Architectural Acoustics, M. David Egan, 1988 and Architectural Graphic Standards, Ramsey and Sleeper, 1994.

Operational Noise Compliance Assessment Study

Basin Electric Power Cooperative
Rapid City DC Tie Station
Rapid City, South Dakota

BASIN ELECTRIC POWER COOPERATIVE

Burns & McDonnell
SINCE 1898

November 2004

Operational Noise Compliance Assessment Study
Basin Electric Power Cooperative
Rapid City DC Tie
Rapid City, South Dakota

Prepared for:

Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, North Dakota 58503-0564

November 2004

BURNS & McDONNELL ENGINEERING COMPANY, INC.
ENGINEERS-ARCHITECTS-CONSULTANTS
Kansas City, Missouri

Project No. 36246

EXECUTIVE SUMMARY

Burns & McDonnell Engineering Company Inc. (Burns & McDonnell) was contracted by Basin Electric Power Cooperative (BEPC) as a third party independent contractor to conduct a fenceline operational noise assessment study for the existing DC Tie station located in Rapid City, South Dakota. The DC Tie station was operating at full load (200 MW) throughout the testing periods. An ambient background measurement was also recorded, during a planned station outage where the DC Tie was de-energized and no flow conditions existed.

The purpose of the noise assessment study was to document operational noise levels at the DC Tie station after noise attenuating measures were completed at the site. Burns & McDonnell personnel took noise measurements at 56 facility fenceline locations surrounding the facility. Measurement readings were taken during daytime and nighttime at full load (200 MW).

Of the 112 measurements taken, all but two were at or below 61.0 dBA and all measurements were below 62 dBA. Given the tolerance of the measurements (±1dB), the facility is within the limit of 61 dBA set forth by the South Dakota Public Utilities Commission.

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1. Introduction

Burns & McDonnell Engineering Company Inc. (Burns & McDonnell) was contracted by Basin Electric Power Cooperative (Basin Electric) as a third party independent contractor to conduct a fenceline noise study for the existing DC Tie station located in Rapid City, South Dakota. Existing noise sources in the vicinity of the proposed plant include light highway traffic, sporadic freight train traffic, and several existing industrial facilities. The existing industrial facilities are located over one mile from the DC Tie station.

As this is an existing facility, an initial noise study was completed by ABB during commissioning of the facility to ensure that the contractual maximum noise level 62 dBA would be met at the facility fenceline. The converter station was guaranteed by ABB to meet this requirement while operating at full load (200 MW), and did meet the requirement at most of the measurement locations. ABB indicated that one location with an averaged measurement that exceeded the maximum noise level was within a commonly accepted tolerance of 1 dBA.

In August 2004, another noise study was completed by Burns & McDonnell and ABB. This noise study was completed after sand was added to the structure members encompassing the transformers to reduce transformer noise. Some of the measurements taken during this study did not meet the 62 dBA noise level requirement. As such, an investigation was completed by ABB and Basin Electric in order to determine the source of the noise exceedances and options for further reducing the noise from these sources. Due to this noise examination, two further noise reduction options were selected and completed on site. These additional noise reduction efforts include:

1. Addition of fiberglass weight bars to the 18 HP 11/13 L2 Coils (identified in Figure 4-1) to move the structural resonance frequency away from the excitation frequency.
2. The transformer and cooling tower fans were adjusted and programmed to minimize operation.

Up until this noise study (November 2004) the noise at the facility was compared to a limit of 62 dBA. The noise level specified in the contractual agreement with ABB, 62 dBA, was also thought to be the noise level approved by the South Dakota Public Utilities Commission (PUC). The objective of this November 2004 noise study is to verify that the noise mitigating items completed have reduced noise levels on-site to meet the PUC noise threshold for the facility of 61 dBA. The fenceline points were chosen because they represent the entire fenceline encompassing the facility and include points with the possibility for higher measured noise levels. The number of measurement points has been almost doubled

from ABB's initial analysis to further show that the entire fenceline meets the 61 dBA threshold. One point was chosen to represent the ambient background noise level for the entire facility. The background sound level measurement was taken in the middle of the facility when it was at no load and de-energized. This location was selected because it was representative of existing noise surrounding the facility.

2. Methodology

The human response to sound is complex and is influenced by a variety of acoustic and non-acoustic factors. Acoustic factors generally include the sound's amplitude, duration, frequency content, and fluctuations. Non-acoustic factors typically include the listener's ability to become accustomed to the sound, the listener's attitude towards the sound and the sound source, the listener's view of the necessity of the sound, and the periodicity of the sound. As such, the human response to sound is highly individualized.

Amplitude and frequency physically characterize sound energy. Sound amplitude is measured in decibels (dB) as the logarithmic ratio of a sound pressure to a reference sound pressure 20 micro Pascal, (micro Pascal is the unit for sound pressure waves). This reference sound pressure corresponds to the typical threshold of human hearing. A 1 dB difference is not perceivable by a human ear (the difference between 61 dBA and 62 dBA). A 3 dB change in a continuous broadband noise is generally considered "just barely perceptible" to the average listener. Similarly, a 6 dB change is generally considered "clearly noticeable" and a 10 dB change is generally perceived as doubling (or halving) of the apparent loudness. Frequency is measured in hertz (Hz), which is the number of cycles per second. Typically, the human ear is most sensitive to sounds in the middle frequencies (1,000 to 8,000 Hz) and is less sensitive to sounds in the low and high frequencies. As such, the "A-weighting" scale was developed to simulate the frequency response of the human ear to sounds at typical environmental levels. The A-weighting scale emphasizes sounds in the middle frequencies and de-emphasizes sounds in the low and high frequencies. Any sound level to which the A-weighting scale has been applied is expressed in A-weighted decibels (dBA).

Noise in the environment is constantly fluctuating, such as when a car drives by, a dog barks, or a plane passes overhead. Therefore, noise metrics have been developed to quantify fluctuating environmental noise levels. L_{eq} is the level of a constant sound over a specific time period that has the same sound energy as the actual sound over the same period. Noise measurements in this study are identified in L_{eq} (dBA).

During the noise measurements, Burns & McDonnell used a Larson Davis Model 824 Type I sound level meter that meets all American National Standards Institute (ANSI) instrument requirements for measuring sound pressure levels outdoors. The sound level meter was calibrated before each set of measurements. None of the calibration level changes exceeded ± 0.5 dB. A windscreen was used at all times on the meter to avoid wind interferences. The meter measured A-weighted L_{eq} sound levels along with A-weighted octave band frequency sound levels for the operational noise levels. Table 2-1 displays a listing of general noise meters certifications for the equipment used in this study.

Table 2-1
General Noise Meter Certifications

Instrument Name	Serial Number	Calibration Date	Recalibration Date	Procedures For Calibration
Larson Davis Monitor Model 824	1331	07/07/2004	07/06/2006	D0001.8046, ANSI S1.4-1983, IEC 651-1979 Type 1, IEC 804-1985 Type 1, IEC 1260-1995 Class 1, and ANSI S1.11-1986 Type 1D
Larson Davis Instrument Model 902	1853	07/07/2004	07/06/2006	D0001.8167
Larson Davis Microphone Model 2560	2560	07/07/2004	07/06/2006	D0001.8167
Larson Davis Calibrator Model CAL200	3009	07/07/2004	07/06/2006	D0001.8190

3. Existing Noise Environment

On November 16, 2004, at approximately 11:30 AM, Burns & McDonnell made a background sound level measurement to capture the ambient sound level in the vicinity of the Rapid City DC Tie. The meter was mounted on a tripod 5 feet above ground. A one-minute measurement sample was recorded. The measurement was taken during a planned outage, and all equipment was therefore de-energized. The measured background L_{eq} noise level was recorded at each octave band. Atmospheric conditions were measured using an anemometer and recorded at the measurement point. According to ANSI S12.18-1994, measurements should not be made when average wind velocity exceeds 11.86 mph (5 m/s). Cloudy or overcast, or nighttime conditions are preferred. During the background noise measurement, the wind speed was measured at around six miles per hour (mph) with an ambient temperature of 64 degrees Fahrenheit (°F) and a relative humidity of 10 percent. Atmospheric conditions at the time of testing would be considered favorable per ANSI guidance.

The background sound level measurement was taken in the middle of the facility when the facility was de-energized and no load was flowing through the facility. This location was selected because it was representative of the area surrounding the facility. While the sample was being taken, several existing industrial sources in the area were in operation. As these existing sources operate most of the year, they should be included in the background measurements. Other sporadic background noise contributions included traffic from a nearby highway. All of these sporadic noise events commonly occur in the area, and were thus included.

The measured and computed dBA-weighted L_{eq} levels are given in Table 3-1. The overall background sound level measured was low.

Table 3-1
Existing Ambient Noise Level (L_{eq}, dBA)
11:30 AM November 16, 2004

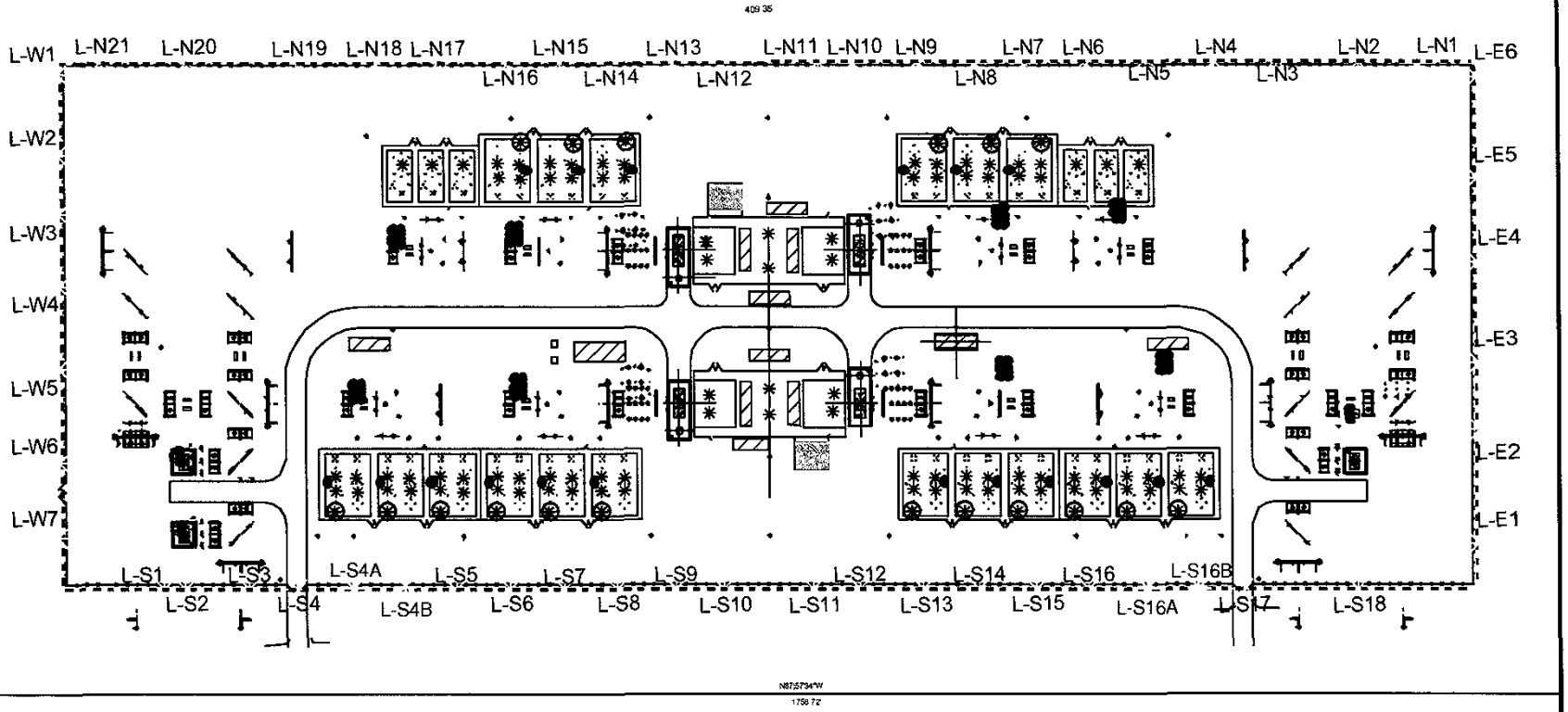
Point Number	Location	Reading Duration	Sound Pressure Levels, dB at Octave Band Frequency (Hz)									L_{eq} (dBA)
			32	63	125	250	500	1k	2k	4k	8k	
Site	Middle of facility	1 Min	27	33	37	43	36	35	33	30	27	**45**

4. Operational Noise Levels

On November 16, 2004, between the hours of 4 AM and 6 AM (morning measurements) and between the hours of noon and 2 PM (afternoon measurements), Burns & McDonnell personnel conducted operational noise level surveys while the DC Tie station was operating at 200 MW. Fenceline sound levels were measured at 56 locations around the facility. See Figure 4-1 for measurement point locations. Thirty (30) second measurement samples were recorded at each point.

Noise emanating from the station is very similar to the standing wave pattern of discrete tones in a reverberation room, as the DC tie station contains many reflecting obstacles adjacent to the noise sources which act like mirror sources and waves form an interference pattern. Therefore, the noise level is variable depending on the location of the microphone. Because of this phenomenon, noise measurements were done by sweeping the microphone at a level of four to six feet to avoid the interference pattern of standing waves and reflective surfaces in order to equalize the measured sound levels at each of the measurement points. At five locations, multiple measurements were taken and an average value was used to ensure that the noise level reported for those locations are representative of the actual noise levels.

Figure 4-1



Length scale 1:1700

0 10 20 40 60 80 m

Rapid City Tie Final Sound Measurement 2004-11-16

Legend

- Measurement point
- Industrial sources point
- Industrial sources area
- Industrial building
- Screening edge
- Main building
- Cross section
- Modified Filter Coil (Approx.)

Atmospheric conditions were measured using an anemometer and recorded at several measurement points. During the early morning readings, the skies were partly cloudy, relative humidity was between 45 and 60 percent, and the prevailing wind speed was from the southwest varying between 0 and 4 mph with an ambient temperature of approximately 33°F. Meteorology during measurements was favorable per ANSI guidance. The measured and computed dBA-weighted L_{eq} levels are given in Table 4-1.

Table 4-1
Measured Fenceline Noise Levels
November 16, 2004 from 4 AM to 6 AM at 200 MW Operation

Location	Measured Sound Level* L_{eq} (dBA)	Location	Measured Sound Level* L_{eq} (dBA)	Location	Measured Sound Level* L_{eq} (dBA)	Location	Measured Sound Level* L_{eq} (dBA)
LS1	53.9	LS13	55.0	LN1	47.8	LN15	**61.2**
LS2	52.9	LS14	56.5	LN2	48.3	LN16	**60.9**
LS3	54.9	LS15	58.0	LN3	49.3	LN17	60.4
LS4	58.6	LS16	57.4	LN4	57.5	LN18	56.4
LS4A	59.1	LS16A	57.7	LN5	57.5	LN19	53.7
LS4B	61.0	LS16B	56.8	LN6	57.4	LN20	53.0
LS5	**60.8**	LS17	56.9	LN7	58.4	LN21	52.2
LS6	56.9	LS18	53.0	LN8	59.0	LW1	49.1
LS7	54.4	LE1	47.6	LN9	60.3	LW2	49.6
LS8	56.1	LE2	48.8	LN10	58.4	LW3	52.0
LS9	55.8	LE3	46.2	LN11	58.9	LW4	48.1
LS10	59.4	LE4	47.1	LN12	**60.4**	LW5	49.5
LS11	54.6	LE5	46.9	LN13	59.5	LW6	49.5
LS12	55.7	LE6	46.4	LN14	**61.7**	LW7	53.9

***Boldface** measurements indicate an average was reported.

The noise levels for the 200 MW operation include all the noise-emitting sources expected to be on-site. The on-site sources that are the primary noise contributors are the converter transformers, converter transformer cooling fans, fans for the valve cooling, AC filter components consisting of reactors and capacitors, DC smoothing reactors, shunt reactors, air conditioning equipment, and possibly corona effect from the transmission lines. Road traffic within the facility that is associated with the normal operation of the facility was halted during the noise test.

The second scheduled 200 MW power flow was on November 16, 2004, between the hours of 12:00 PM and 2:00 PM. During these readings, the skies were partly cloudy, relative humidity was around 10 percent and prevailing wind speed was from the north varying between 2 and 8 mph with sporadic gusts

up to 12 mph. The ambient temperature was around 65° F, again favorable per ANSI guidance. The measured and computed dBA-weighted L_{eq} levels are given in Table 4-2 for the afternoon measurements.

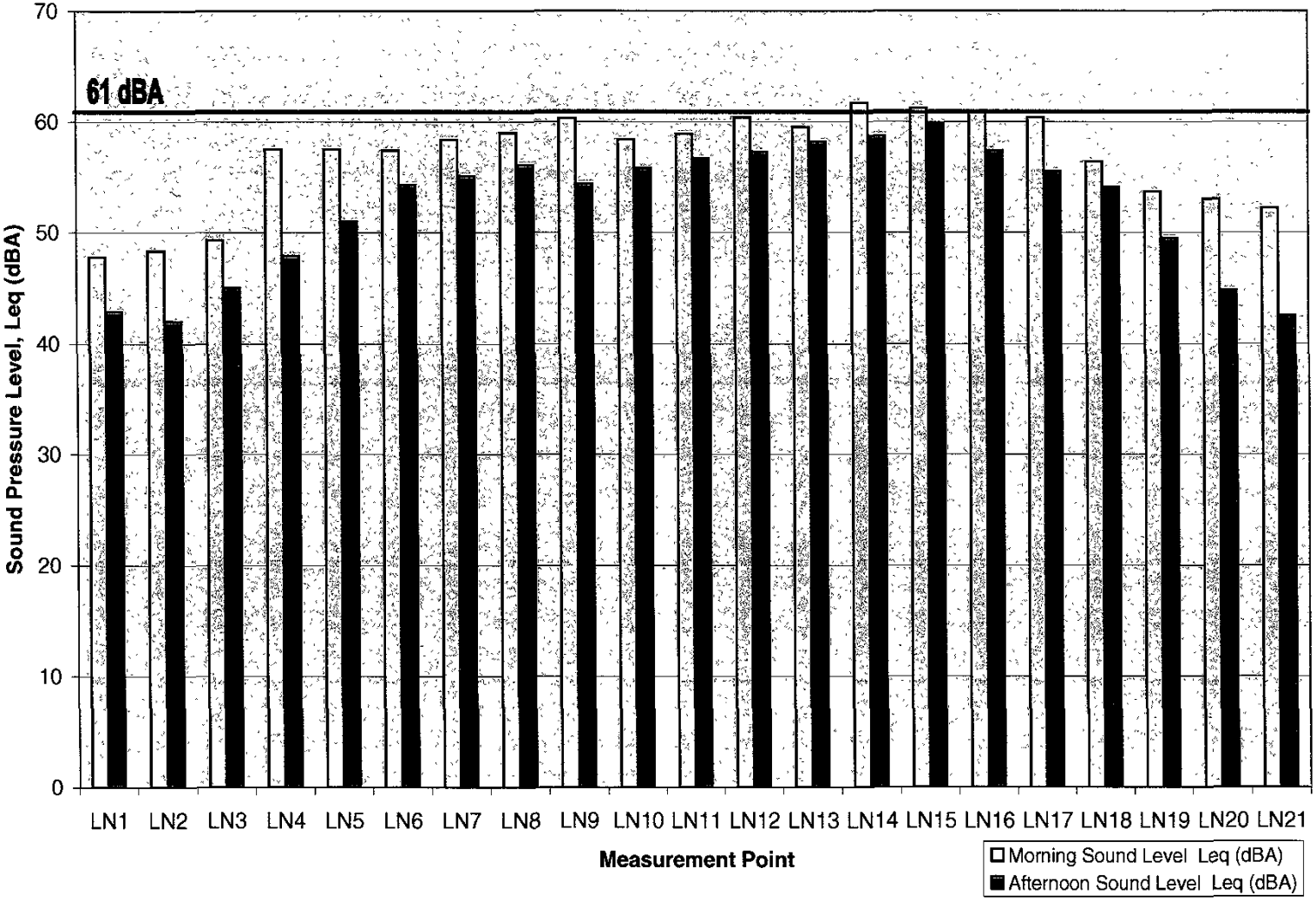
Table 4-2
Measured Fenceline Noise Levels
November 16, 2004, 12 PM to 2 PM at 200 MW Operation

Location	Measured Sound Level L_{eq} (dBA)	Location	Measured Sound Level L_{eq} (dBA)	Location	Measured Sound Level L_{eq} (dBA)	Location	Measured Sound Level L_{eq} (dBA)
LS1	50.5	LS13	54.5	LN1	42.9	LN15	59.9
LS2	56.4	LS14	55.7	LN2	42.0	LN16	57.4
LS3	55.7	LS15	58.4	LN3	45.0	LN17	55.5
LS4	57.9	LS16	56.6	LN4	47.9	LN18	54.1
LS4A	58.0	LS16A	56.2	LN5	51.0	LN19	49.5
LS4B	58.2	LS16B	57.7	LN6	54.3	LN20	44.8
LS5	58.3	LS17	57.1	LN7	55.1	LN21	42.5
LS6	57.5	LS18	46.4	LN8	56.1	LW1	41.2
LS7	55.7	LE1	42.5	LN9	54.4	LW2	47.6
LS8	53.4	LE2	42.7	LN10	55.8	LW3	49.4
LS9	55.4	LE3	45.3	LN11	56.7	LW4	47.5
LS10	56.2	LE4	48.9	LN12	57.3	LW5	49.2
LS11	55.1	LE5	46.9	LN13	58.2	LW6	51.2
LS12	58.5	LE6	42.5	LN14	58.7	LW7	50.5

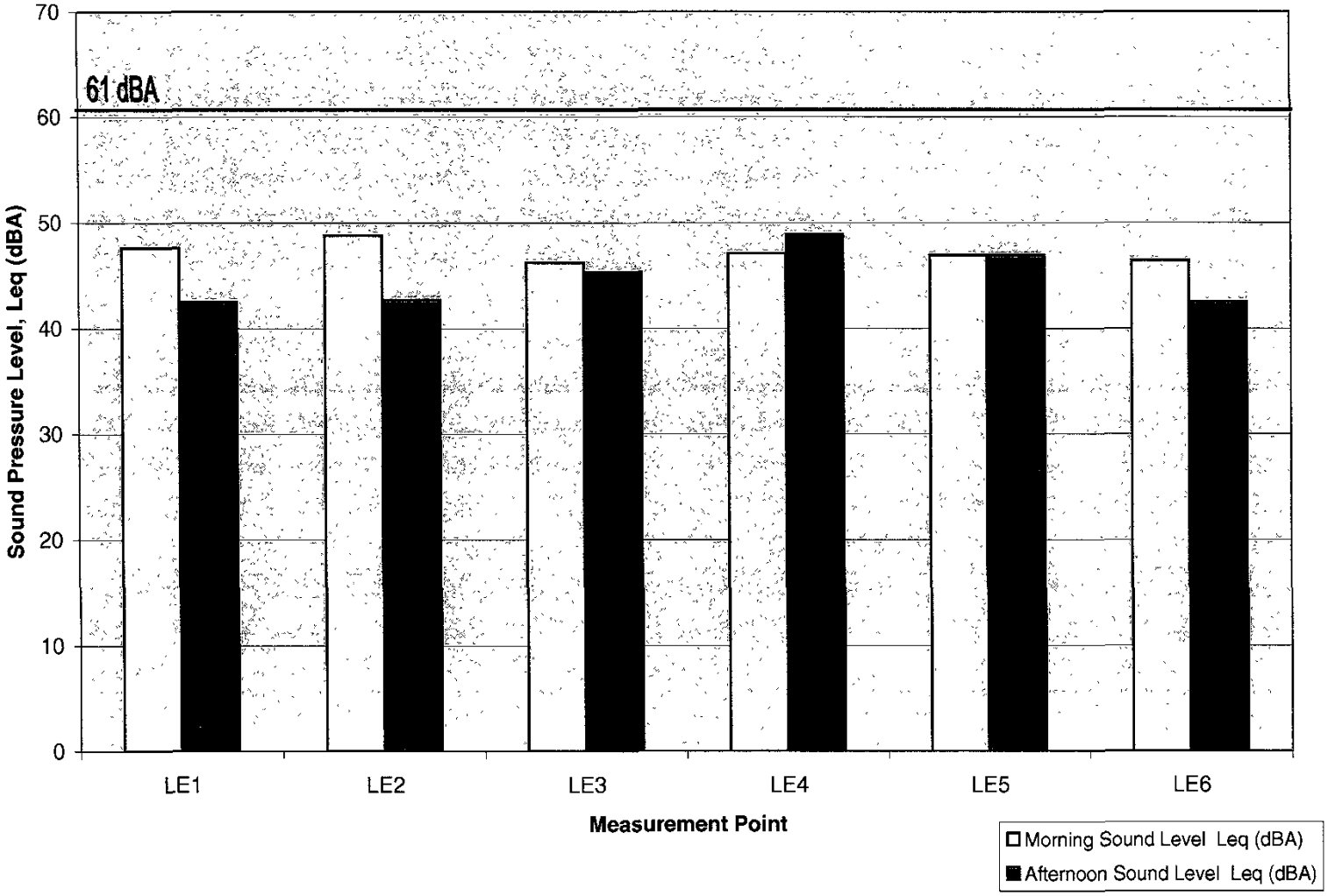
5. Conclusion

All noise levels measured during the early morning and afternoon at the DC Tie in Rapid City were below 62 dBA. Only two measurements of the 112 measurements taken exceeded 61 dBA and over 90 percent were below 60 dBA. Testing protocol methods appropriate for this study were used, which include an acceptable tolerance of the noise measurement (±1 dB). Adhering to the testing protocol methods, the results show that the Rapid City DC Tie Station is in compliance with the PUC limit of 61 dBA.

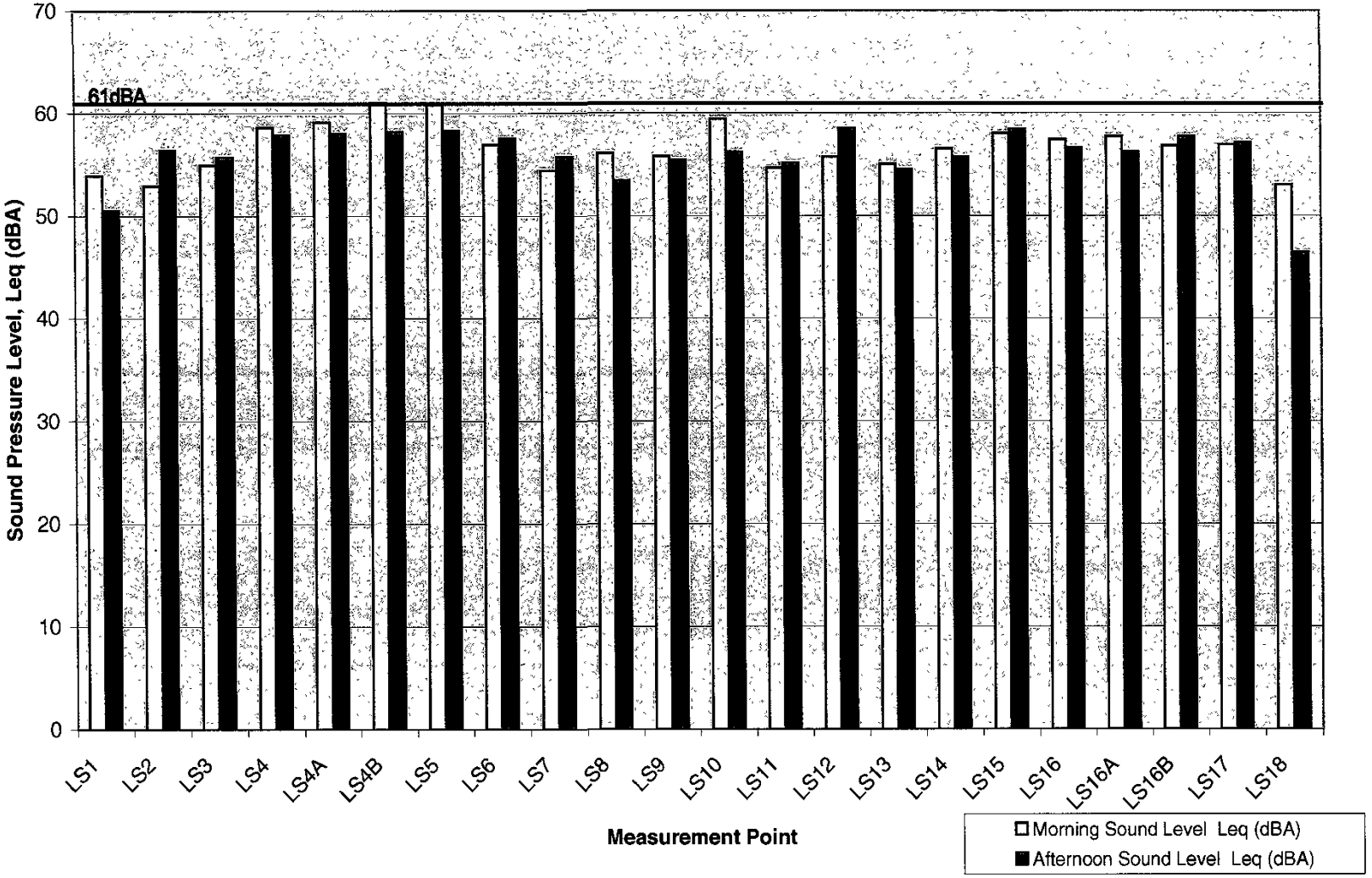
North Fenceline Noise Measurements - November 2004
Rapid City DC Tie Station

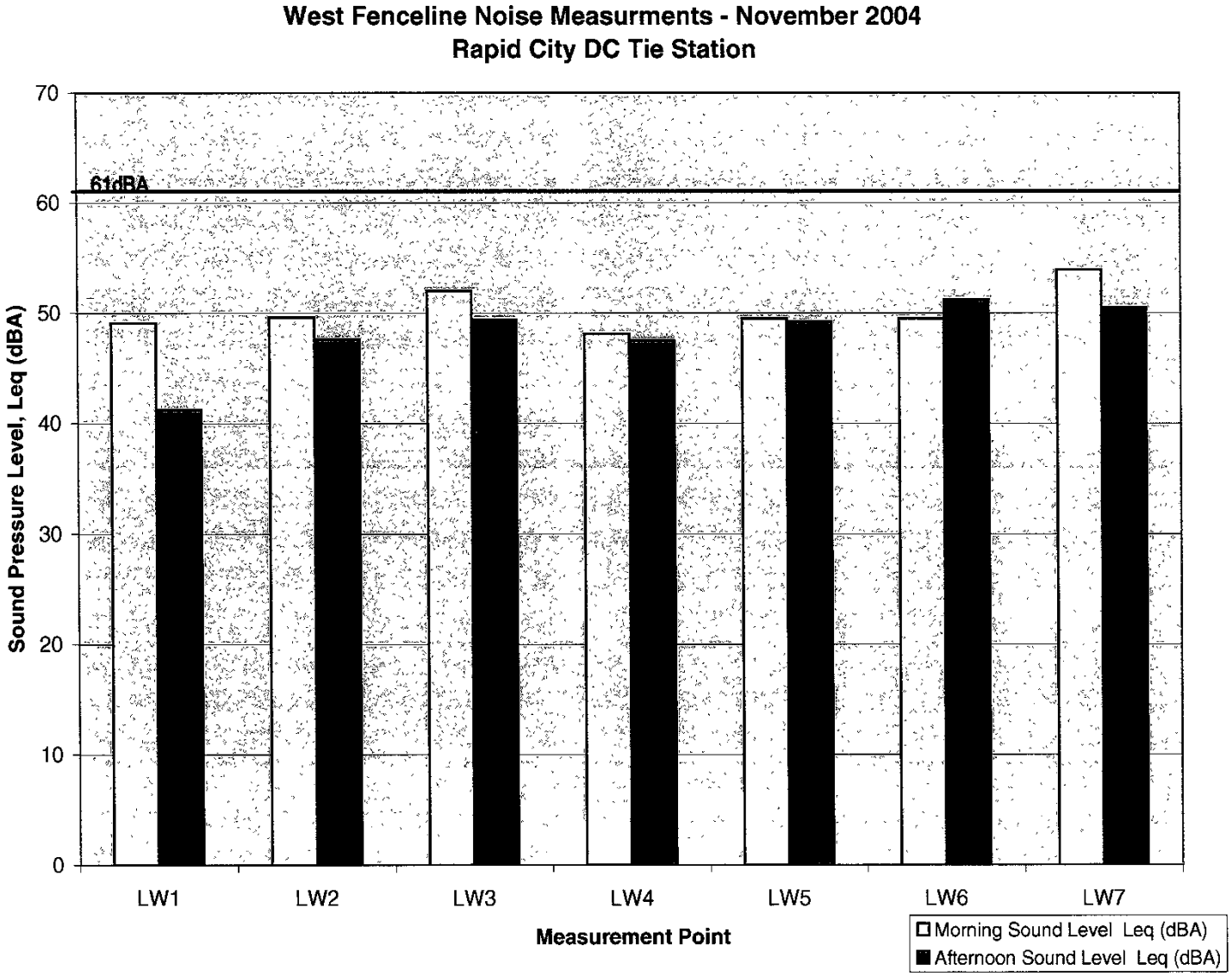


East Fenceline Noise Measurements - November 2004
Rapid City DC Tie Station



South Fenceline Noise Measurements - November 2004
Rapid City DC Tie Station




West Fenceline Noise Measurments - November 2004
Rapid City DC Tie Station
70
60
50
40
30
20
10
0
61dBA
Sound Pressure Level, Leq (dBA)
LW1
LW2
LW3
LW4
LW5
LW6
LW7
Measurement Point
Morning Sound Level Leq (dBA)
Afternoon Sound Level Leq (dBA)

Burns & McDonnell
SINCE 1898

Date: November 29, 2004

To: Jim Miller, Basin Electric Power Cooperative

From: Mary Hauner, Burns & McDonnell
Chris Howell, Burns & McDonnell

Re: 30-Hour Noise Study at Rapid City DC Tie in November 2004

Burns & McDonnell Engineering Company Inc. (Burns & McDonnell) was contracted by Basin Electric Power Cooperative (BEPC) to conduct a second 30-hour noise study for the existing DC Tie station located in Rapid City, South Dakota. A previous 30-hour noise study was conducted in August 2004, and since then, several noise attenuating projects were completed on-site. This second study was requested by the Pennington County Commission.

The study was conducted to quantify the sound pressure level at one point on the facility fenceline for a continuous 30-hour period. This study involved a stationary meter mounted on a tripod in a selected location on the fenceline. It should be noted that standing waves and reflected waves from on-site structures may falsely increase noise readings taken by a stationary noise meter. The testing protocol methods appropriate for determining compliance involve the use of a sweeping microphone during the actual measurements.

During the 30-hour testing period, operation at the facility varied from no power transfer and fully de-energized to 200 MW of power transfer. Meteorological conditions were favorable for most of the testing period, with only a few periods of higher wind speeds.

Burns & McDonnell personnel began taking the continuous noise measurements on November 15, 2004, at approximately 6 PM. The noise test was completed on November 16, 2004 at midnight. The measurement point chosen for this study was located on the north facility fenceline, just east of the easternmost transformer. Figure 1 is a plot of the facility with the measurement point location shown. This is the same measurement point location as that in the 30-hour noise study completed in August of 2004. The noise meter was setup to record one-minute L_{eq} average measurement samples that were then logged for the next 30 hours (1,806 total measurements). The noise meter microphone was mounted on a tripod, five feet above the

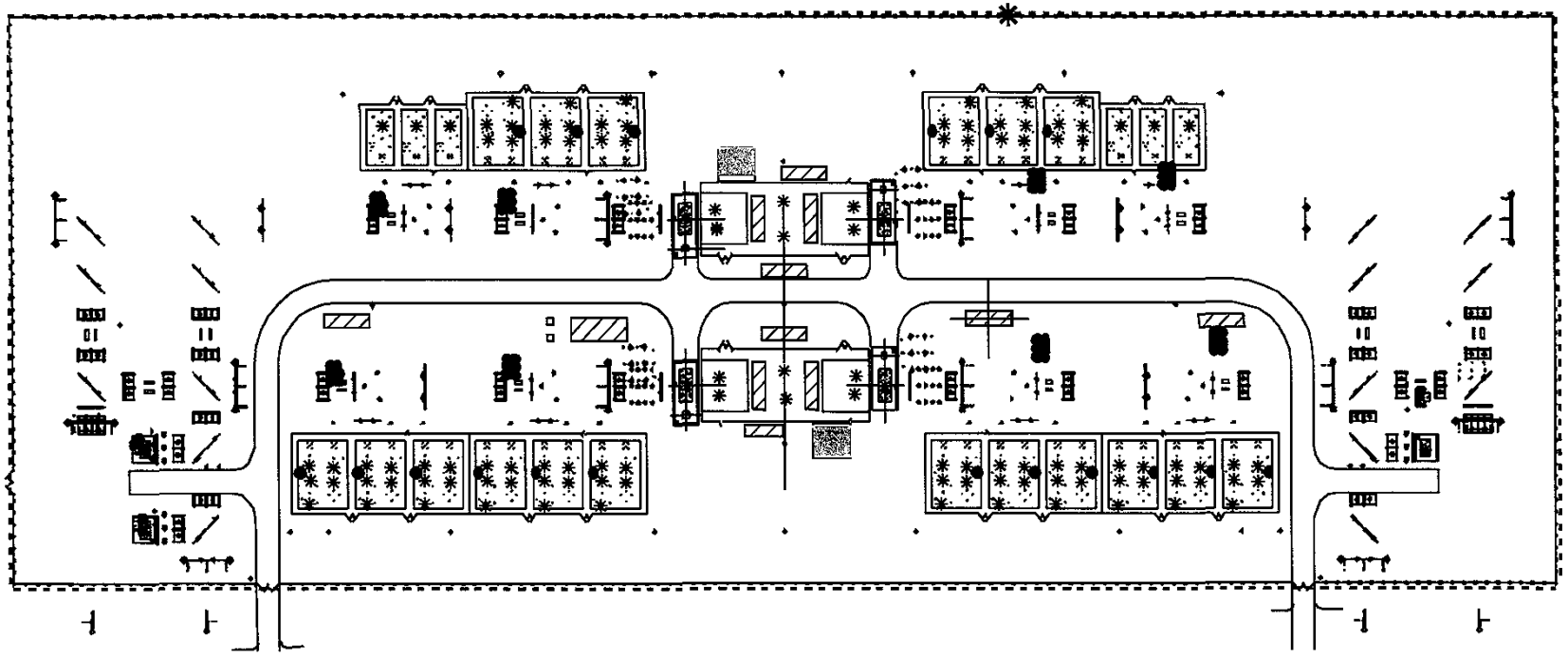
9400 Ward Parkway
Kansas City, Missouri 64114-3319
Tel: 816 333-9400
Fax: 816 333-3690
www.burnsmcd.com

ground and stabilized. At least one Burns & McDonnell representative was stationed by the meter throughout the entire 30-hour period. The representative took notes of any extraneous noises in the area that could be captured by the meter. The loudest extraneous noises were associated with aircraft flying over the site and from animals barking and howling near the facility. A complete list of all noise levels monitored can be found in Appendix A. The appendix includes notes for any extraneous noises present during the measurement period, and also includes sporadic noises from on-site equipment. The noise occurrences are listed next to the general associated time period in which they were experienced. The representative also monitored meteorological conditions frequently, and noted any changes in wind speed, wind direction, humidity, and air temperature.

Analysis of the data acquired demonstrates that sound pressure level changes occurred simultaneously to changes in load carried by the facility. Figure 2 is a plot showing the varying sound pressure levels (L_{eq}, dBA) versus time for this study. It is noted on the plot where operational changes occurred. Figure 3 is a plot of the noise levels measured during the August 2004 30-hour noise study completed prior to the filter modifications and reprogramming of the transformer and cooling tower fans on site.

The figures show that the noise emanating from the DC Tie Station is highly variable. Each one-minute noise measurement differs from the previous or next minute average. During the 200 MW load, the early morning readings varied from a low of 56.1 dBA to a high of 64.3 dBA with an average of 60.0 dBA. The afternoon 200 MW readings varied as well, with a low one-minute reading of 50.3 dBA and a high of 61.2 dBA. The average noise level during the afternoon 200 MW readings was 56.4 dBA.

The noise measurements compiled during the 30-hour noise study are significantly lower in the November 2004 study than in the August 2004 study showing that noise attenuating features have decreased noise levels at the measurement point.



N

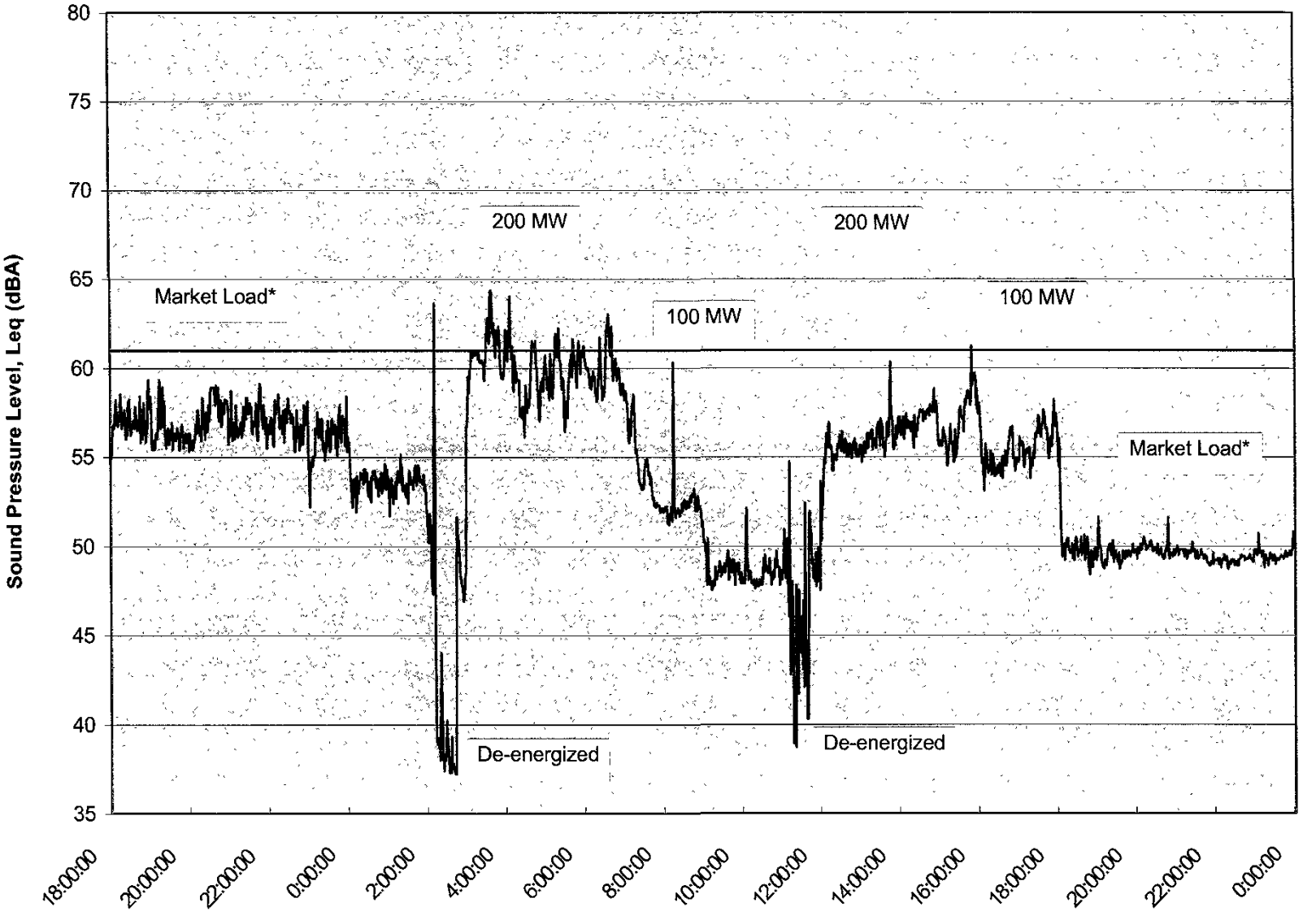
Length scale 1:1600

0 10 20 40 60 80 m

Legend

- Industrial sources point
- Industrial sources area
- Industrial building
- Screening edge
- Main building

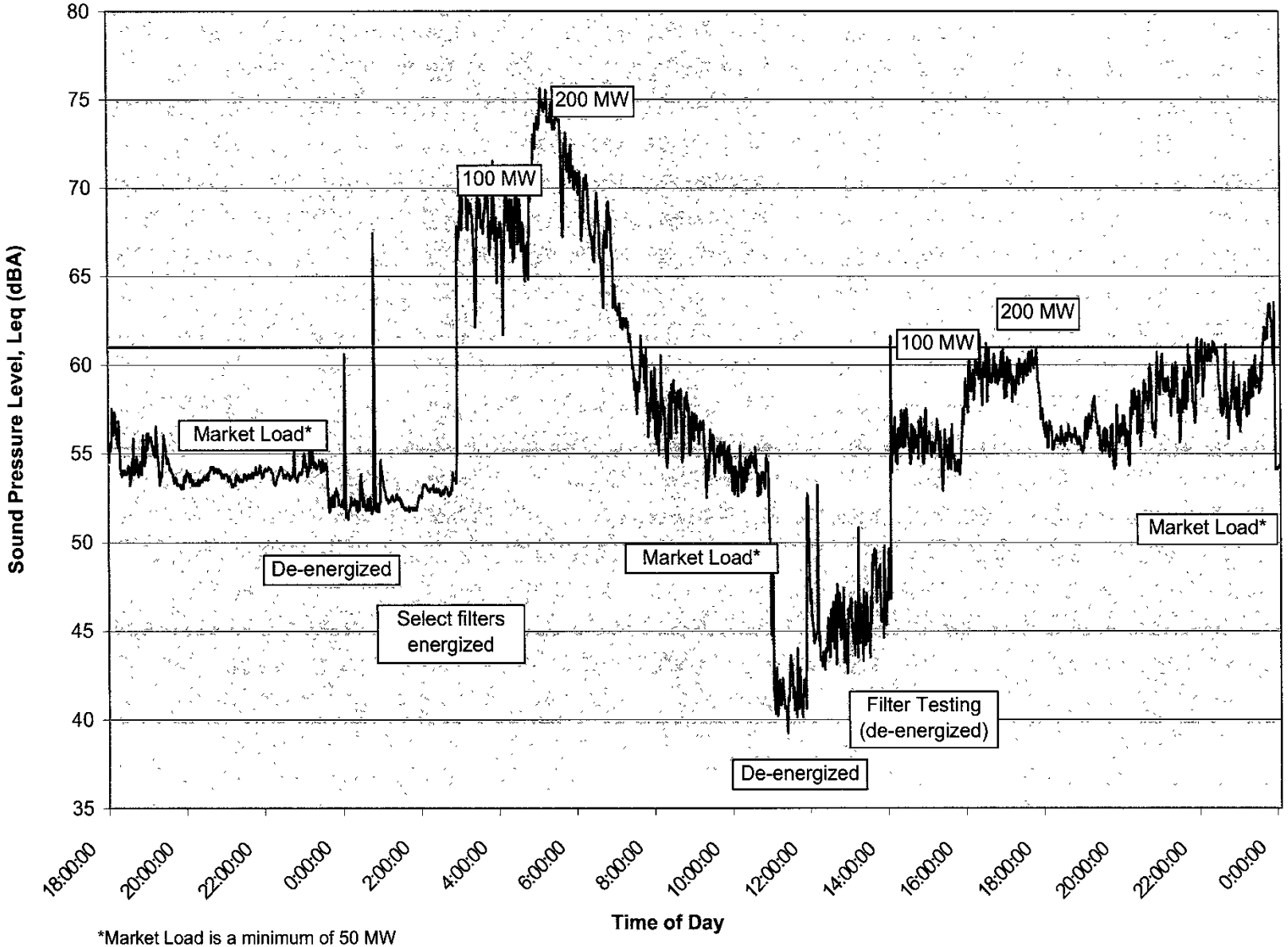
Figure 2: November 2004 30-Hour Noise Study



* Market Load is a minimum of 50 MW

11/29/2004 11:28 AM

Figure 3: August 2004 30-Hour Noise Study



*Market Load is a minimum of 50 MW

11/29/2004 11:42 AM

Burns & McDonnell
SINCE 1898

Appendix A

Basin Electric Power Cooperative

Rapid City DC Tie
Rapid City, South Dakota

Rec #	Date	Time	Temp (°F)	Duration	Leq	Extraneous Noises
1	15-Nov-04	18:00:00	42.0	0:01:00	55.4	Hwy Noise, construction to North
2	15-Nov-04	18:01:00		0:01:00	54.9	
3	15-Nov-04	18:02:00		0:01:00	56	
4	15-Nov-04	18:03:00		0:01:00	56.7	
5	15-Nov-04	18:04:00		0:01:00	56.8	Cars on-site
6	15-Nov-04	18:05:00		0:01:00	56.6	
7	15-Nov-04	18:06:00		0:01:00	57.3	
8	15-Nov-04	18:07:00		0:01:00	57.4	
9	15-Nov-04	18:08:00		0:01:00	58.2	
10	15-Nov-04	18:09:00		0:01:00	56.8	
11	15-Nov-04	18:10:00		0:01:00	57.5	
12	15-Nov-04	18:11:00		0:01:00	56.7	
13	15-Nov-04	18:12:00		0:01.00	57	
14	15-Nov-04	18:13:00		0:01.00	57	
15	15-Nov-04	18:14:00		0:01:00	57.1	
16	15-Nov-04	18:15:00		0:01:00	58.5	
17	15-Nov-04	18:16:00		0:01:00	57.5	
18	15-Nov-04	18:17:00		0:01:00	56.6	
19	15-Nov-04	18:18:00		0:01:00	57.1	
20	15-Nov-04	18:19:00		0:01:00	56.8	
21	15-Nov-04	18:20:00		0:01:00	57.3	
22	15-Nov-04	18:21:00		0:01:00	57.6	
23	15-Nov-04	18:22:00		0:01:00	56.7	
24	15-Nov-04	18:23:00		0:01:00	56	
25	15-Nov-04	18:24:00		0:01:00	56.2	
26	15-Nov-04	18:25:00		0:01:00	56.2	
27	15-Nov-04	18:26:00		0:01:00	57.7	
28	15-Nov-04	18:27:00		0:01:00	58.1	
29	15-Nov-04	18:28:00		0:01:00	58.2	
30	15-Nov-04	18:29:00		0:01:00	57.4	
31	15-Nov-04	18:30:00		0:01:00	56.2	
32	15-Nov-04	18:31:00		0:01:00	56.3	
33	15-Nov-04	18:32:00		0:01:00	56 7	
34	15-Nov-04	18:33:00		0:01:00	56.7	
35	15-Nov-04	18:34:00		0:01:00	57	
36	15-Nov-04	18:35:00		0:01:00	56.9	
37	15-Nov-04	18:36:00		0:01:00	56.6	
38	15-Nov-04	18:37:00		0:01:00	57.8	
39	15-Nov-04	18:38:00		0:01:00	57.1	
40	15-Nov-04	18:39:00		0:01:00	57 1	
41	15-Nov-04	18:40:00		0:01:00	56.5	
42	15-Nov-04	18:41:00		0:01:00	56.5	
43	15-Nov-04	18:42:00		0:01:00	56.8	
44	15-Nov-04	18:43:00		0:01:00	57.1	
45	15-Nov-04	18:44:00		0:01:00	58.4	
46	15-Nov-04	18:45:00		0:01:00	55.8	
47	15-Nov-04	18:46:00		0:01:00	56.5	
48	15-Nov-04	18:47:00		0:01:00	57.1	
49	15-Nov-04	18:48:00		0:01:00	56	
50	15-Nov-04	18:49:00		0:01:00	57.6	

51	15-Nov-04	18:50:00		0:01:00	58	
52	15-Nov-04	18:51:00		0:01:00	56.7	
53	15-Nov-04	18:52:00		0:01:00	57	
54	15-Nov-04	18:53:00		0:01:00	55.8	
55	15-Nov-04	18:54:00		0:01:00	56.3	
56	15-Nov-04	18:55:00		0:01:00	56.3	
57	15-Nov-04	18:56:00		0:01:00	58.6	
58	15-Nov-04	18:57:00		0:01:00	59.3	
59	15-Nov-04	18:58:00		0:01:00	57.9	
60	15-Nov-04	18:59:00		0:01:00	57.7	
61	15-Nov-04	19:00:00	44.0	0:01:00	58.4	
62	15-Nov-04	19:01:00		0:01:00	57.9	
63	15-Nov-04	19:02:00		0:01:00	55.8	
64	15-Nov-04	19:03:00		0:01:00	55.4	
65	15-Nov-04	19:04:00		0:01:00	55.4	
66	15-Nov-04	19:05:00		0:01:00	55.9	
67	15-Nov-04	19:06:00		0:01:00	55.8	
68	15-Nov-04	19:07:00		0:01:00	55.4	
69	15-Nov-04	19:08:00		0:01:00	56.1	
70	15-Nov-04	19:09:00		0:01:00	56.3	Plane in distance
71	15-Nov-04	19:10:00		0:01:00	56	
72	15-Nov-04	19:11:00		0:01:00	56.4	
73	15-Nov-04	19:12:00		0:01:00	56.7	Plane directly overhead
74	15-Nov-04	19:13:00		0:01:00	58.3	
75	15-Nov-04	19:14:00		0:01:00	59.3	Coyotes howling/barking nearby
76	15-Nov-04	19:15:00		0:01:00	58.7	
77	15-Nov-04	19:16:00		0:01:00	56.6	
78	15-Nov-04	19:17:00		0:01:00	57.2	
79	15-Nov-04	19:18:00		0:01:00	58.4	
80	15-Nov-04	19:19:00		0:01:00	58.9	
81	15-Nov-04	19:20:00		0:01:00	56.7	
82	15-Nov-04	19:21:00		0:01:00	58.1	High-pitched whine from hwy
83	15-Nov-04	19:22:00		0:01:00	56.6	
84	15-Nov-04	19:23:00		0:01:00	56	
85	15-Nov-04	19:24:00		0:01:00	55.5	
86	15-Nov-04	19:25:00		0:01:00	56.3	
87	15-Nov-04	19:26:00		0:01:00	56.2	
88	15-Nov-04	19:27:00		0:01:00	56.6	
89	15-Nov-04	19:28:00		0:01:00	56.5	
90	15-Nov-04	19:29:00		0:01:00	55.7	
91	15-Nov-04	19:30:00		0:01:00	56.1	
92	15-Nov-04	19:31:00		0:01:00	56.2	
93	15-Nov-04	19:32:00		0:01:00	56.1	
94	15-Nov-04	19:33:00		0:01:00	56.9	
95	15-Nov-04	19:34:00		0:01:00	55.4	
96	15-Nov-04	19:35:00		0:01:00	55.9	
97	15-Nov-04	19:36:00		0:01:00	56.3	
98	15-Nov-04	19:37:00		0:01:00	56.3	
99	15-Nov-04	19:38:00		0:01:00	56.1	
100	15-Nov-04	19:39:00		0:01:00	55.9	
101	15-Nov-04	19:40:00		0:01:00	56.3	
102	15-Nov-04	19:41:00		0:01:00	56.6	Helicopter off to West
103	15-Nov-04	19:42:00		0:01:00	56.3	
104	15-Nov-04	19:43:00		0:01:00	56.2	
105	15-Nov-04	19:44:00		0:01:00	55.4	

106	15-Nov-04	19:45:00		0:01:00	55.4	
107	15-Nov-04	19:46:00		0:01:00	56.1	
108	15-Nov-04	19:47:00		0:01:00	56.5	
109	15-Nov-04	19:48:00		0:01:00	56.8	Plane overhead (very high)
110	15-Nov-04	19:49:00		0:01:00	56.3	
111	15-Nov-04	19:50:00		0:01:00	56	
112	15-Nov-04	19:51:00		0:01:00	55.5	
113	15-Nov-04	19:52:00		0:01:00	56	
114	15-Nov-04	19:53:00		0:01:00	56	
115	15-Nov-04	19:54:00		0:01:00	56.3	
116	15-Nov-04	19:55:00		0:01:00	55.8	
117	15-Nov-04	19:56:00		0:01:00	55.8	
118	15-Nov-04	19:57:00		0:01:00	55.8	
119	15-Nov-04	19:58:00		0:01:00	56.3	
120	15-Nov-04	19:59:00		0:01:00	55.3	
121	15-Nov-04	20:00:00	45.0	0:01:00	56.3	
122	15-Nov-04	20:01:00		0:01:00	55.4	
123	15-Nov-04	20:02:00		0:01:00	55.5	
124	15-Nov-04	20:03:00		0:01:00	55.7	
125	15-Nov-04	20:04:00		0:01:00	55.9	
126	15-Nov-04	20:05:00		0:01:00	55.4	
127	15-Nov-04	20:06:00		0:01:00	55.6	
128	15-Nov-04	20:07:00		0:01:00	56	
129	15-Nov-04	20:08:00		0:01:00	56	
130	15-Nov-04	20:09:00		0:01:00	56.8	
131	15-Nov-04	20:10:00		0:01:00	56.3	
132	15-Nov-04	20:11:00		0:01:00	56.9	
133	15-Nov-04	20:12:00		0:01:00	57.6	Car drives up
134	15-Nov-04	20:13:00		0:01:00	57.2	
135	15-Nov-04	20:14:00		0:01:00	56.5	
136	15-Nov-04	20:15:00		0:01:00	56.2	
137	15-Nov-04	20:16:00		0:01:00	56.5	
138	15-Nov-04	20:17:00		0:01:00	55.9	
139	15-Nov-04	20:18:00		0:01:00	56.5	
140	15-Nov-04	20:19:00		0:01:00	58.3	Car leaves
141	15-Nov-04	20:20:00		0:01:00	57.7	
142	15-Nov-04	20:21:00		0:01:00	57.3	
143	15-Nov-04	20:22:00		0:01:00	56.7	
144	15-Nov-04	20:23:00		0:01:00	56	
145	15-Nov-04	20:24:00		0:01:00	57.3	
146	15-Nov-04	20:25:00		0:01:00	57.5	
147	15-Nov-04	20:26:00		0:01:00	56.7	
148	15-Nov-04	20:27:00		0:01:00	56.4	
149	15-Nov-04	20:28:00		0:01:00	57.9	
150	15-Nov-04	20:29:00		0:01:00	57	
151	15-Nov-04	20:30:00		0:01:00	57.1	
152	15-Nov-04	20:31:00		0:01:00	58.6	
153	15-Nov-04	20:32:00		0:01:00	58.8	
154	15-Nov-04	20:33:00		0:01:00	58.9	
155	15-Nov-04	20:34:00		0:01:00	58.9	
156	15-Nov-04	20:35:00		0:01:00	58.9	
157	15-Nov-04	20:36:00		0:01:00	58.9	
158	15-Nov-04	20:37:00		0:01:00	58.7	
159	15-Nov-04	20:38:00		0:01:00	58.4	
160	15-Nov-04	20:39:00		0:01:00	57.9	
161	15-Nov-04	20:40:00		0.01:00	59	

162	15-Nov-04	20:41:00		0:01:00	58.5	
163	15-Nov-04	20:42:00		0:01:00	58.3	
164	15-Nov-04	20:43:00		0:01:00	58.9	
165	15-Nov-04	20:44:00		0:01:00	57.2	
166	15-Nov-04	20:45:00		0:01:00	57	
167	15-Nov-04	20:46:00		0:01:00	57.4	
168	15-Nov-04	20:47:00		0:01:00	58.2	
169	15-Nov-04	20:48:00		0:01:00	56.7	
170	15-Nov-04	20:49:00		0:01:00	56.9	
171	15-Nov-04	20:50:00		0:01:00	57.5	
172	15-Nov-04	20:51:00		0:01:00	58	
173	15-Nov-04	20:52:00		0:01:00	57.4	
174	15-Nov-04	20:53:00		0:01:00	58.2	
175	15-Nov-04	20:54:00		0:01:00	58.2	
176	15-Nov-04	20:55:00		0:01:00	58	
177	15-Nov-04	20:56:00		0:01:00	58.2	
178	15-Nov-04	20:57:00		0:01:00	58	
179	15-Nov-04	20:58:00		0:01:00	57.8	
180	15-Nov-04	20:59:00		0:01:00	55.7	
181	15-Nov-04	21:00:00	42.0	0:01:00	56.4	
182	15-Nov-04	21:01:00		0:01:00	56.6	
183	15-Nov-04	21:02:00		0:01:00	56.4	
184	15-Nov-04	21:03:00		0:01:00	58.7	
185	15-Nov-04	21:04:00		0:01:00	56.5	
186	15-Nov-04	21:05:00		0:01:00	55.9	
187	15-Nov-04	21:06:00		0:01:00	56.5	
188	15-Nov-04	21:07:00		0:01:00	56.9	
189	15-Nov-04	21:08:00		0:01:00	56	
190	15-Nov-04	21:09:00		0:01:00	56.3	
191	15-Nov-04	21:10:00		0:01:00	57.9	
192	15-Nov-04	21:11:00		0:01:00	56.7	
193	15-Nov-04	21:12:00		0:01:00	56.7	
194	15-Nov-04	21:13:00		0:01:00	56.1	
195	15-Nov-04	21:14:00		0:01:00	56.3	
196	15-Nov-04	21:15:00		0:01:00	56.5	
197	15-Nov-04	21:16:00		0:01:00	56.3	
198	15-Nov-04	21:17:00		0:01:00	56.9	
199	15-Nov-04	21:18:00		0:01:00	56.6	
200	15-Nov-04	21:19:00		0:01:00	56.1	
201	15-Nov-04	21:20:00		0:01:00	56.4	
202	15-Nov-04	21:21:00		0:01:00	57.8	
203	15-Nov-04	21:22:00		0:01:00	56.5	
204	15-Nov-04	21:23:00		0:01:00	57.8	
205	15-Nov-04	21:24:00		0:01:00	57.5	
206	15-Nov-04	21:25:00		0:01:00	57.1	
207	15-Nov-04	21:26:00		0:01:00	58.3	
208	15-Nov-04	21:27:00		0:01:00	58.3	
209	15-Nov-04	21:28:00		0:01:00	57.9	
210	15-Nov-04	21:29:00		0:01:00	57.4	
211	15-Nov-04	21:30:00		0:01:00	57.5	
212	15-Nov-04	21:31:00		0:01:00	58	
213	15-Nov-04	21:32:00		0:01:00	57.5	
214	15-Nov-04	21:33:00		0:01:00	57.8	
215	15-Nov-04	21:34:00		0:01:00	56.5	
216	15-Nov-04	21:35:00		0:01:00	56.3	
217	15-Nov-04	21:36:00		0:01:00	57	

218	15-Nov-04	21:37:00		0:01:00	56.7	
219	15-Nov-04	21:38:00		0:01:00	57	
220	15-Nov-04	21:39:00		0:01:00	56.9	
221	15-Nov-04	21:40:00		0:01:00	58	Vibrating noise to North
222	15-Nov-04	21:41:00		0:01:00	56.3	
223	15-Nov-04	21:42:00		0:01:00	56.2	
224	15-Nov-04	21:43:00		0:01:00	55.9	
225	15-Nov-04	21:44:00		0:01:00	57.7	
226	15-Nov-04	21:45:00		0:01:00	58.6	
227	15-Nov-04	21:46:00		0:01:00	59.1	
228	15-Nov-04	21:47:00		0:01:00	59	
229	15-Nov-04	21:48:00		0:01:00	57.8	
230	15-Nov-04	21:49:00		0:01:00	57.1	
231	15-Nov-04	21:50:00		0:01:00	57.4	
232	15-Nov-04	21:51:00		0:01:00	56.6	
233	15-Nov-04	21:52:00		0:01:00	57.9	
234	15-Nov-04	21:53:00		0:01:00	57.3	
235	15-Nov-04	21:54:00		0:01.00	56.6	
236	15-Nov-04	21:55:00		0:01:00	56.3	
237	15-Nov-04	21:56:00		0:01:00	57.2	
238	15-Nov-04	21:57:00		0:01:00	55.5	
239	15-Nov-04	21:58:00		0:01:00	56.4	
240	15-Nov-04	21:59:00		0:01:00	56.8	
241	15-Nov-04	22:00:00	37.0	0:01:00	56.6	
242	15-Nov-04	22:01:00		0:01:00	56.3	
243	15-Nov-04	22:02:00		0:01:00	56.9	
244	15-Nov-04	22:03:00		0:01:00	57.2	
245	15-Nov-04	22:04:00		0:01:00	57	
246	15-Nov-04	22:05:00		0:01:00	56.3	
247	15-Nov-04	22:06:00		0:01:00	55.8	
248	15-Nov-04	22:07:00		0:01:00	55.6	
249	15-Nov-04	22:08:00		0:01:00	57.9	
250	15-Nov-04	22:09:00		0:01:00	58.2	
251	15-Nov-04	22:10:00		0:01:00	57.4	
252	15-Nov-04	22:11:00		0:01:00	57.9	
253	15-Nov-04	22:12:00		0:01:00	57.7	
254	15-Nov-04	22:13:00		0:01:00	57.8	
255	15-Nov-04	22:14:00		0:01:00	58.5	
256	15-Nov-04	22:15:00		0:01:00	57.5	
257	15-Nov-04	22:16:00		0:01:00	56.6	
258	15-Nov-04	22:17:00		0:01:00	57.1	
259	15-Nov-04	22:18:00		0:01:00	57.3	
260	15-Nov-04	22:19:00		0:01:00	57	
261	15-Nov-04	22:20:00		0:01:00	56.3	
262	15-Nov-04	22:21:00		0:01:00	57.5	
263	15-Nov-04	22:22:00		0:01:00	57.6	
264	15-Nov-04	22:23:00		0:01:00	55.8	
265	15-Nov-04	22:24:00		0:01:00	57.1	
266	15-Nov-04	22:25:00		0:01:00	57.7	
267	15-Nov-04	22:26:00		0:01:00	57.5	
268	15-Nov-04	22:27:00		0:01:00	56.9	
269	15-Nov-04	22:28:00		0:01:00	57.8	
270	15-Nov-04	22:29:00		0:01:00	58.3	
271	15-Nov-04	22:30:00		0:01:00	57.5	
272	15-Nov-04	22:31:00		0:01:00	57.6	
273	15-Nov-04	22:32:00		0:01:00	57.4	

274	15-Nov-04	22:33:00		0:01:00	56.9	
275	15-Nov-04	22:34:00		0:01:00	57.4	
276	15-Nov-04	22:35:00		0:01:00	56.9	
277	15-Nov-04	22:36:00		0:01:00	57.2	
278	15-Nov-04	22:37:00		0:01:00	56.7	
279	15-Nov-04	22:38:00		0:01:00	55.4	
280	15-Nov-04	22:39:00		0:01:00	55.3	
281	15-Nov-04	22:40:00		0:01:00	55.8	
282	15-Nov-04	22:41:00		0:01:00	56.1	
283	15-Nov-04	22:42:00		0:01:00	57.6	
284	15-Nov-04	22:43:00		0:01:00	56.2	
285	15-Nov-04	22:44:00		0:01:00	56.7	
286	15-Nov-04	22:45:00		0:01:00	56.1	
287	15-Nov-04	22:46:00		0:01:00	55.4	
288	15-Nov-04	22:47:00		0:01:00	55.7	
289	15-Nov-04	22:48:00		0:01:00	56.8	
290	15-Nov-04	22:49:00		0:01:00	56.1	
291	15-Nov-04	22:50:00		0:01:00	56.2	
292	15-Nov-04	22:51:00		0:01:00	55.7	
293	15-Nov-04	22:52:00		0:01:00	56.5	
294	15-Nov-04	22:53:00		0:01:00	57.9	
295	15-Nov-04	22:54:00		0:01:00	57	
296	15-Nov-04	22:55:00		0:01:00	56.8	
297	15-Nov-04	22:56:00		0:01:00	57.1	
298	15-Nov-04	22:57:00		0:01:00	57	
299	15-Nov-04	22:58:00		0:01:00	58.1	
300	15-Nov-04	22:59:00		0:01:00	55	
301	15-Nov-04	23:00:00	34.0	0:01:00	53.8	
302	15-Nov-04	23:01:00		0:01:00	52.2	
303	15-Nov-04	23:02:00		0:01:00	53.8	
304	15-Nov-04	23:03:00		0:01:00	54.7	
305	15-Nov-04	23:04:00		0:01:00	54.5	
306	15-Nov-04	23:05:00		0:01:00	55	
307	15-Nov-04	23:06:00		0:01:00	54.5	
308	15-Nov-04	23:07:00		0:01:00	55	
309	15-Nov-04	23:08:00		0:01:00	55	
310	15-Nov-04	23:09:00		0:01:00	55	
311	15-Nov-04	23:10:00		0:01:00	56.6	
312	15-Nov-04	23:11:00		0:01:00	56.4	
313	15-Nov-04	23:12:00		0:01:00	56.3	
314	15-Nov-04	23:13:00		0:01:00	57.5	
315	15-Nov-04	23:14:00		0:01:00	56.9	
316	15-Nov-04	23:15:00		0:01:00	56.1	
317	15-Nov-04	23:16:00		0:01:00	57.1	
318	15-Nov-04	23:17:00		0:01:00	56.1	
319	15-Nov-04	23:18:00		0:01:00	56.7	
320	15-Nov-04	23:19:00		0:01:00	56	
321	15-Nov-04	23:20:00		0:01:00	57.1	
322	15-Nov-04	23:21:00		0:01:00	55.8	
323	15-Nov-04	23:22:00		0:01:00	55.4	
324	15-Nov-04	23:23:00		0:01:00	55.8	
325	15-Nov-04	23:24:00		0:01:00	54.8	
326	15-Nov-04	23:25:00		0:01:00	55.2	
327	15-Nov-04	23:26:00		0:01:00	55.4	
328	15-Nov-04	23:27:00		0:01:00	56.5	
329	15-Nov-04	23:28:00		0:01:00	55.6	

330	15-Nov-04	23:29:00		0:01:00	57	
331	15-Nov-04	23:30:00		0:01:00	56.3	
332	15-Nov-04	23:31:00		0:01:00	56.5	
333	15-Nov-04	23:32:00		0:01:00	55.3	
334	15-Nov-04	23:33:00		0:01:00	55.5	
335	15-Nov-04	23:34:00		0:01:00	56.7	
336	15-Nov-04	23:35:00		0:01:00	57.1	
337	15-Nov-04	23:36:00		0:01:00	57	
338	15-Nov-04	23:37:00		0:01:00	56.3	
339	15-Nov-04	23:38:00		0:01:00	56.3	
340	15-Nov-04	23:39:00		0:01:00	56.6	
341	15-Nov-04	23:40:00		0:01:00	56.8	Facility to North has been audible & discernable all night
342	15-Nov-04	23:41:00		0:01:00	55.5	
343	15-Nov-04	23:42:00		0:01:00	56.2	
344	15-Nov-04	23:43:00		0:01:00	55	
345	15-Nov-04	23:44:00		0:01:00	56.1	
346	15-Nov-04	23:45:00		0:01:00	57.3	
347	15-Nov-04	23:46:00		0:01:00	57.5	
348	15-Nov-04	23:47:00		0:01:00	57.9	
349	15-Nov-04	23:48:00		0:01:00	56 2	
350	15-Nov-04	23:49:00		0:01:00	55.8	
351	15-Nov-04	23:50:00		0:01:00	56.8	
352	15-Nov-04	23:51:00		0:01:00	57.3	
353	15-Nov-04	23:52:00		0:01:00	57	
354	15-Nov-04	23:53:00		0:01:00	57	
355	15-Nov-04	23:54:00		0:01:00	57	
356	15-Nov-04	23:55:00		0:01:00	55.6	
357	15-Nov-04	23:56:00		0:01:00	55.9	
358	15-Nov-04	23:57:00		0:01:00	58.4	
359	15-Nov-04	23:58:00		0:01:00	55.3	
360	15-Nov-04	23:59:00		0:01:00	56.1	
361	16-Nov-04	0:00:00	32.0	0:01:00	55.3	
362	16-Nov-04	0:01:00		0:01:00	55.8	
363	16-Nov-04	0:02:00		0:01:00	55	
364	16-Nov-04	0:03:00		0:01:00	53.8	
365	16-Nov-04	0:04:00		0:01:00	53.4	
366	16-Nov-04	0:05:00		0:01:00	52.7	
367	16-Nov-04	0:06:00		0:01:00	52.2	
368	16-Nov-04	0:07:00		0:01:00	53.7	
369	16-Nov-04	0:08:00		0:01:00	53.6	
370	16-Nov-04	0:09:00		0:01:00	53.7	
371	16-Nov-04	0:10:00		0:01:00	53.8	
372	16-Nov-04	0:11:00		0:01:00	51.9	
373	16-Nov-04	0:12:00		0:01:00	52.4	
374	16-Nov-04	0:13:00		0:01:00	53.9	
375	16-Nov-04	0:14:00		0:01:00	53.3	
376	16-Nov-04	0:15:00		0:01:00	53	
377	16-Nov-04	0:16:00		0:01:00	53.6	
378	16-Nov-04	0:17:00		0:01:00	53.7	
379	16-Nov-04	0:18:00		0:01:00	54.1	
380	16-Nov-04	0:19:00		0:01:00	53.8	
381	16-Nov-04	0:20:00		0:01:00	54	
382	16-Nov-04	0:21:00		0:01:00	53.9	
383	16-Nov-04	0:22:00		0:01:00	53.5	
384	16-Nov-04	0:23:00		0:01:00	54.3	

385	16-Nov-04	0:24:00		0:01:00	53.6	
386	16-Nov-04	0:25:00		0:01:00	54.3	
387	16-Nov-04	0:26:00		0:01:00	53.9	
388	16-Nov-04	0:27:00		0:01:00	54.1	
389	16-Nov-04	0:28:00		0:01:00	54.1	
390	16-Nov-04	0:29:00		0:01:00	53.1	
391	16-Nov-04	0:30:00		0:01:00	52.8	
392	16-Nov-04	0:31:00		0:01:00	52.9	
393	16-Nov-04	0:32:00		0:01:00	53.6	
394	16-Nov-04	0:33:00		0:01:00	52.7	
395	16-Nov-04	0:34:00		0:01:00	52.5	
396	16-Nov-04	0:35:00		0:01:00	53.9	
397	16-Nov-04	0:36:00		0:01:00	53.7	
398	16-Nov-04	0:37:00		0:01:00	54.2	
399	16-Nov-04	0:38:00		0:01:00	54.1	
400	16-Nov-04	0:39:00		0:01:00	54.1	
401	16-Nov-04	0:40:00		0:01:00	54.2	
402	16-Nov-04	0:41:00		0:01:00	53.6	
403	16-Nov-04	0:42:00		0:01:00	53.3	
404	16-Nov-04	0:43:00		0:01:00	53.8	
405	16-Nov-04	0:44:00		0:01:00	53.6	
406	16-Nov-04	0:45:00		0:01:00	52.8	
407	16-Nov-04	0:46:00		0:01:00	53.2	
408	16-Nov-04	0:47:00		0:01:00	53.8	
409	16-Nov-04	0:48:00		0:01:00	53.2	
410	16-Nov-04	0:49:00		0:01:00	54.1	
411	16-Nov-04	0:50:00		0:01:00	53	
412	16-Nov-04	0:51:00		0:01:00	53.1	
413	16-Nov-04	0:52:00		0:01:00	53.7	
414	16-Nov-04	0:53:00		0:01:00	54.1	
415	16-Nov-04	0:54:00		0:01:00	53.3	
416	16-Nov-04	0:55:00		0:01:00	54.6	
417	16-Nov-04	0:56:00		0:01:00	54.5	
418	16-Nov-04	0:57:00		0:01:00	53.2	
419	16-Nov-04	0:58:00		0:01:00	54.3	
420	16-Nov-04	0:59:00		0:01:00	53.8	
421	16-Nov-04	1:00:00	30.0	0:01:00	53.9	Facility to North is less audible
422	16-Nov-04	1:01:00		0:01:00	53.6	
423	16-Nov-04	1:02:00		0:01:00	51.7	
424	16-Nov-04	1:03:00		0:01:00	52.9	
425	16-Nov-04	1:04:00		0:01:00	53.5	
426	16-Nov-04	1:05:00		0:01:00	53.8	
427	16-Nov-04	1:06:00		0:01:00	53.2	
428	16-Nov-04	1:07:00		0:01:00	52.7	
429	16-Nov-04	1:08:00		0:01:00	52.4	
430	16-Nov-04	1:09:00		0:01:00	53	
431	16-Nov-04	1:10:00		0:01:00	53.4	
432	16-Nov-04	1:11:00		0:01:00	53.6	
433	16-Nov-04	1:12:00		0:01:00	52.7	
434	16-Nov-04	1:13:00		0:01:00	53.6	
435	16-Nov-04	1:14:00		0:01:00	54.1	
436	16-Nov-04	1:15:00		0:01:00	54.2	
437	16-Nov-04	1:16:00		0:01:00	53.9	
438	16-Nov-04	1:17:00		0:01:00	53.6	
439	16-Nov-04	1:18:00		0:01:00	53.8	
440	16-Nov-04	1:19:00		0:01:00	55.1	

441	16-Nov-04	1:20:00		0:01:00	53.5	
442	16-Nov-04	1:21:00		0:01:00	54.4	
443	16-Nov-04	1:22:00		0:01:00	53.1	
444	16-Nov-04	1:23:00		0:01:00	53.4	
445	16-Nov-04	1:24:00		0:01:00	53.1	
446	16-Nov-04	1:25:00		0:01:00	53.4	
447	16-Nov-04	1:26:00		0:01:00	53	
448	16-Nov-04	1:27:00		0:01:00	52.8	
449	16-Nov-04	1:28:00		0:01:00	53.5	
450	16-Nov-04	1:29:00		0:01:00	53	
451	16-Nov-04	1:30:00		0:01:00	52.4	
452	16-Nov-04	1:31:00		0:01:00	53.5	
453	16-Nov-04	1:32:00		0:01:00	54.2	
454	16-Nov-04	1:33:00		0:01:00	54.1	
455	16-Nov-04	1:34:00		0:01:00	53.5	
456	16-Nov-04	1:35:00		0:01:00	53.7	
457	16-Nov-04	1:36:00		0:01:00	53.7	
458	16-Nov-04	1:37:00		0:01:00	53.7	
459	16-Nov-04	1:38:00		0:01:00	53.2	
460	16-Nov-04	1:39:00		0:01:00	53.6	
461	16-Nov-04	1:40:00		0:01:00	54.3	
462	16-Nov-04	1:41:00		0:01:00	54.5	
463	16-Nov-04	1:42:00		0:01:00	54.2	
464	16-Nov-04	1:43:00		0:01:00	53.4	
465	16-Nov-04	1:44:00		0:01:00	54 2	
466	16-Nov-04	1:45:00		0:01:00	54.5	
467	16-Nov-04	1:46:00		0:01:00	54.5	
468	16-Nov-04	1:47:00		0:01:00	54.3	
469	16-Nov-04	1:48:00		0:01:00	53.6	
470	16-Nov-04	1:49:00		0:01:00	53.8	
471	16-Nov-04	1:50:00		0:01:00	53.7	
472	16-Nov-04	1:51:00		0:01:00	53.7	
473	16-Nov-04	1:52:00		0:01:00	53.5	
474	16-Nov-04	1:53:00		0:01:00	53.6	
475	16-Nov-04	1:54:00		0:01:00	54	
476	16-Nov-04	1:55:00		0:01:00	53.1	
477	16-Nov-04	1:56:00		0:01:00	53.4	
478	16-Nov-04	1:57:00		0:01:00	53	Breakers operating (loud popping)
479	16-Nov-04	1:58:00		0:01:00	52.2	
480	16-Nov-04	1:59:00		0:01:00	51.8	
481	16-Nov-04	2:00:00	26.6	0:01:00	51	
482	16-Nov-04	2:01:00		0:01.00	50.2	
483	16-Nov-04	2:02:00		0:01:00	50.3	
484	16-Nov-04	2:03:00		0:01:00	51.8	Car arrives, car leaves
485	16-Nov-04	2:04:00		0:01:00	51.2	
486	16-Nov-04	2:05:00		0:01:00	49.9	
487	16-Nov-04	2:06:00		0:01:00	48	
488	16-Nov-04	2:07:00		0:01:00	47.4	
489	16-Nov-04	2:08:00	25.8	0:01:00	47.3	
490	16-Nov-04	2:09:00		0:01:00	55.7	
491	16-Nov-04	2:10:00		0:01:00	60	
492	16-Nov-04	2:11:00		0:01:00	63.6	Coyotes howling periodically
493	16-Nov-04	2:12:00		0:01:00	40.4	
494	16-Nov-04	2:13:00		0:01:00	38.9	
495	16-Nov-04	2:14:00		0:01:00	39.2	

496	16-Nov-04	2:15:00		0:01:00	39.2	
497	16-Nov-04	2:16:00		0:01:00	38.7	
498	16-Nov-04	2:17:00		0:01:00	38.6	
499	16-Nov-04	2:18:00		0:01:00	38	
500	16-Nov-04	2:19:00		0:01:00	40.7	
501	16-Nov-04	2:20:00		0:01:00	44	
502	16-Nov-04	2:21:00		0:01:00	41.4	
503	16-Nov-04	2:22:00		0:01:00	38	
504	16-Nov-04	2:23:00		0:01:00	38.1	
505	16-Nov-04	2:24:00		0:01:00	37.4	
506	16-Nov-04	2:25:00		0:01:00	38.3	
507	16-Nov-04	2:26:00		0:01:00	38	
508	16-Nov-04	2:27:00		0:01:00	38.5	
509	16-Nov-04	2:28:00		0:01:00	40.2	Facility to North is audible again
510	16-Nov-04	2:29:00		0:01:00	39.1	
511	16-Nov-04	2:30:00		0:01:00	38.5	
512	16-Nov-04	2:31:00		0:01:00	38	
513	16-Nov-04	2:32:00		0:01:00	37.3	
514	16-Nov-04	2:33:00		0:01:00	37.8	
515	16-Nov-04	2:34:00		0:01:00	37.3	
516	16-Nov-04	2:35:00		0:01:00	39.3	
517	16-Nov-04	2:36:00		0:01:00	37.7	
518	16-Nov-04	2:37:00		0:01:00	37.8	
519	16-Nov-04	2:38:00		0:01:00	37.8	
520	16-Nov-04	2:39:00		0:01:00	37.4	
521	16-Nov-04	2:40:00		0:01:00	37.4	
522	16-Nov-04	2:41:00		0:01:00	37.2	
523	16-Nov-04	2:42:00	42.0	0:01:00	37.2	
524	16-Nov-04	2:43:00		0:01:00	43.1	
525	16-Nov-04	2:44:00		0:01:00	51.6	Breakers operating (loud popping)
526	16-Nov-04	2:45:00		0:01:00	51.4	
527	16-Nov-04	2:46:00		0:01:00	50.4	
528	16-Nov-04	2:47:00		0:01:00	50.3	
529	16-Nov-04	2:48:00		0:01:00	49.5	
530	16-Nov-04	2:49:00		0:01:00	48.5	
531	16-Nov-04	2:50:00		0:01:00	48.2	
532	16-Nov-04	2:51:00		0:01:00	48.1	
533	16-Nov-04	2:52:00		0:01:00	47.7	
534	16-Nov-04	2:53:00		0:01:00	47.7	
535	16-Nov-04	2:54:00		0:01:00	46.9	
536	16-Nov-04	2:55:00		0:01:00	47	
537	16-Nov-04	2:56:00		0:01:00	47.7	
538	16-Nov-04	2:57:00		0:01:00	48.4	
539	16-Nov-04	2:58:00	40.3	0:01:00	48.5	
540	16-Nov-04	2:59:00		0:01:00	56.7	Few Breakers operating
541	16-Nov-04	3:00:00		0:01:00	56.7	
542	16-Nov-04	3:01:00		0:01:00	57.5	
543	16-Nov-04	3:02:00		0:01:00	59.5	
544	16-Nov-04	3:03:00		0:01:00	58.6	
545	16-Nov-04	3:04:00		0:01:00	59.2	
546	16-Nov-04	3:05:00		0:01:00	59.9	
547	16-Nov-04	3:06:00		0:01:00	60	
548	16-Nov-04	3:07:00		0:01:00	61	
549	16-Nov-04	3:08:00		0:01:00	60.9	

550	16-Nov-04	3:09:00		0:01:00	60.8	
551	16-Nov-04	3:10:00		0:01:00	60.6	
552	16-Nov-04	3:11:00		0:01:00	61	
553	16-Nov-04	3:12:00		0:01:00	60.8	
554	16-Nov-04	3:13:00		0:01:00	60.7	
555	16-Nov-04	3:14:00		0:01:00	60.8	
556	16-Nov-04	3:15:00	42.0	0:01:00	61	
557	16-Nov-04	3:16:00		0:01:00	61	
558	16-Nov-04	3:17:00		0:01:00	60.8	
559	16-Nov-04	3:18:00		0:01:00	60.5	
560	16-Nov-04	3:19:00		0:01:00	60.9	
561	16-Nov-04	3:20:00		0:01:00	60.4	
562	16-Nov-04	3:21:00		0:01:00	60.3	
563	16-Nov-04	3:22:00		0:01:00	60.4	
564	16-Nov-04	3:23:00		0:01:00	60.4	
565	16-Nov-04	3:24:00		0:01:00	60.4	Coyote chatter
566	16-Nov-04	3:25:00		0:01:00	60.2	
567	16-Nov-04	3:26:00		0:01:00	60.3	
568	16-Nov-04	3:27:00		0:01:00	59.3	
569	16-Nov-04	3:28:00		0:01:00	60.2	
570	16-Nov-04	3:29:00		0:01:00	60.5	
571	16-Nov-04	3:30:00	38.6	0:01:00	61.3	
572	16-Nov-04	3:31:00		0:01:00	62.1	
573	16-Nov-04	3:32:00		0:01:00	62.7	
574	16-Nov-04	3:33:00		0:01:00	62.8	
575	16-Nov-04	3:34:00		0:01:00	61.4	
576	16-Nov-04	3:35:00		0:01:00	61.8	
577	16-Nov-04	3:36:00		0:01:00	63.9	
578	16-Nov-04	3:37:00		0:01:00	64.3	Faint, noticeable aircraft overhead
579	16-Nov-04	3:38:00		0:01:00	64.2	
580	16-Nov-04	3:39:00		0:01:00	62.5	
581	16-Nov-04	3:40:00		0:01:00	61.9	
582	16-Nov-04	3:41:00		0:01:00	62.5	
583	16-Nov-04	3:42:00		0:01:00	61.7	
584	16-Nov-04	3:43:00		0:01:00	61	
585	16-Nov-04	3:44:00		0:01:00	60.6	
586	16-Nov-04	3:45:00	40.8	0:01:00	62.1	
587	16-Nov-04	3:46:00		0:01:00	61.7	
588	16-Nov-04	3:47:00		0:01:00	61.5	
589	16-Nov-04	3:48:00		0:01:00	61.3	
590	16-Nov-04	3:49:00		0:01:00	62.3	Faint vehicle traffic
591	16-Nov-04	3:50:00		0:01:00	61.8	
592	16-Nov-04	3:51:00		0:01:00	60.3	
593	16-Nov-04	3:52:00		0:01:00	59.8	
594	16-Nov-04	3:53:00		0:01:00	59.5	
595	16-Nov-04	3:54:00		0:01:00	59.4	
596	16-Nov-04	3:55:00		0:01:00	59.5	
597	16-Nov-04	3:56:00		0:01:00	59.4	
598	16-Nov-04	3:57:00		0:01:00	59.9	
599	16-Nov-04	3:58:00		0:01:00	60.5	
600	16-Nov-04	3:59:00		0:01:00	62.1	
601	16-Nov-04	4:00:00	39.8	0:01:00	62.1	
602	16-Nov-04	4:01:00		0:01:00	60.6	
603	16-Nov-04	4:02:00		0:01:00	60.4	
604	16-Nov-04	4:03:00		0:01:00	61	

605	16-Nov-04	4:04:00		0:01:00	61.7	
606	16-Nov-04	4:05:00		0:01:00	62.2	
607	16-Nov-04	4:06:00		0.01:00	64	
608	16-Nov-04	4:07:00		0:01:00	61.3	
609	16-Nov-04	4:08:00		0:01:00	61	
610	16-Nov-04	4:09:00		0:01:00	60.5	
611	16-Nov-04	4:10:00		0:01:00	61.2	
612	16-Nov-04	4:11:00		0:01:00	58.8	
613	16-Nov-04	4:12:00		0:01:00	58.7	
614	16-Nov-04	4:13:00		0:01:00	60.7	Vehicle traffic on Old Folsom Rd.
615	16-Nov-04	4:14:00		0:01:00	60.3	
616	16-Nov-04	4:15:00	34.6	0:01:00	59.2	
617	16-Nov-04	4:16:00		0:01:00	59.8	
618	16-Nov-04	4:17:00		0:01:00	59.3	
619	16-Nov-04	4:18:00		0:01:00	59.3	
620	16-Nov-04	4:19:00		0:01:00	59.3	
621	16-Nov-04	4:20:00		0:01:00	59.3	
622	16-Nov-04	4:21:00		0:01:00	57.3	
623	16-Nov-04	4:22:00		0:01:00	57.3	
624	16-Nov-04	4:23:00		0:01:00	57.5	
625	16-Nov-04	4:24:00		0:01:00	57.2	
626	16-Nov-04	4:25:00		0:01:00	57.8	
627	16-Nov-04	4:26:00		0:01:00	57.2	
628	16-Nov-04	4:27:00		0:01:00	57	
629	16-Nov-04	4:28:00		0:01:00	56.1	
630	16-Nov-04	4:29:00		0:01:00	57.4	
631	16-Nov-04	4:30:00	33.0	0:01:00	59	
632	16-Nov-04	4:31:00		0:01:00	58.5	
633	16-Nov-04	4:32:00		0:01:00	57.5	
634	16-Nov-04	4:33:00		0:01:00	58.1	
635	16-Nov-04	4:34:00		0:01:00	58.2	
636	16-Nov-04	4:35:00		0:01:00	57.8	
637	16-Nov-04	4:36:00		0:01:00	58.1	
638	16-Nov-04	4:37:00		0:01:00	59	
639	16-Nov-04	4:38:00		0:01:00	60.1	
640	16-Nov-04	4:39:00		0:01:00	60.6	
641	16-Nov-04	4:40:00		0:01:00	61.5	
642	16-Nov-04	4:41:00		0:01:00	61	
643	16-Nov-04	4:42:00		0:01:00	61.3	
644	16-Nov-04	4:43:00		0:01:00	61.1	
645	16-Nov-04	4:44:00		0:01:00	60.9	
646	16-Nov-04	4:45:00	33.2	0:01:00	61.5	
647	16-Nov-04	4:46:00		0:01:00	60	
648	16-Nov-04	4:47:00		0:01:00	60	
649	16-Nov-04	4:48:00		0:01:00	58.8	
650	16-Nov-04	4:49:00		0:01:00	58.7	
651	16-Nov-04	4:50:00		0:01:00	57.5	
652	16-Nov-04	4:51:00		0:01:00	57	
653	16-Nov-04	4:52:00		0:01:00	57.3	
654	16-Nov-04	4:53:00		0:01:00	59.2	
655	16-Nov-04	4:54:00		0:01:00	59.2	
656	16-Nov-04	4:55:00		0:01:00	58.7	
657	16-Nov-04	4:56:00		0:01:00	59.4	
658	16-Nov-04	4:57:00		0:01:00	58.7	
659	16-Nov-04	4:58.00		0:01:00	59.5	

660	16-Nov-04	4:59:00		0:01:00	60.2	
661	16-Nov-04	5:00:00	32.0	0:01:00	60.7	
662	16-Nov-04	5:01:00		0:01:00	59.7	
663	16-Nov-04	5:02:00		0:01:00	60	
664	16-Nov-04	5:03:00		0:01:00	58.8	
665	16-Nov-04	5:04:00		0:01:00	59.2	
666	16-Nov-04	5:05:00		0:01:00	59.5	
667	16-Nov-04	5:06:00		0:01:00	58.2	
668	16-Nov-04	5:07:00		0:01:00	59.7	
669	16-Nov-04	5:08:00		0:01:00	60.8	
670	16-Nov-04	5:09:00		0:01:00	59.2	
671	16-Nov-04	5:10:00		0:01:00	58.5	
672	16-Nov-04	5:11:00		0:01:00	58.3	
673	16-Nov-04	5:12:00		0:01:00	59	
674	16-Nov-04	5:13:00		0:01:00	60.4	
675	16-Nov-04	5:14:00		0:01:00	60.5	
676	16-Nov-04	5:15:00	31.8	0:01:00	61.4	
677	16-Nov-04	5:16:00		0:01:00	61.9	
678	16-Nov-04	5:17:00		0:01:00	61.4	
679	16-Nov-04	5:18:00		0:01:00	60.6	
680	16-Nov-04	5:19:00		0:01:00	60.6	
681	16-Nov-04	5:20:00		0:01:00	62.2	
682	16-Nov-04	5:21:00		0:01:00	61.8	
683	16-Nov-04	5:22:00		0:01:00	60.4	
684	16-Nov-04	5:23:00		0:01:00	60.4	
685	16-Nov-04	5:24:00		0:01:00	59.7	
686	16-Nov-04	5:25:00		0:01:00	58.8	
687	16-Nov-04	5:26:00		0:01:00	58.8	
688	16-Nov-04	5:27:00		0:01:00	59.4	
689	16-Nov-04	5:28:00		0:01:00	59.2	
690	16-Nov-04	5:29:00		0:01:00	56.6	
691	16-Nov-04	5:30:00	31.7	0:01:00	56.4	
692	16-Nov-04	5:31:00		0:01:00	57.7	
693	16-Nov-04	5:32:00		0:01:00	58.1	
694	16-Nov-04	5:33:00		0:01:00	57.7	
695	16-Nov-04	5:34:00		0:01:00	57.2	
696	16-Nov-04	5:35:00		0:01:00	58.7	
697	16-Nov-04	5:36:00		0:01:00	59.4	
698	16-Nov-04	5:37:00		0:01:00	59.5	
699	16-Nov-04	5:38:00		0:01:00	60.4	
700	16-Nov-04	5:39:00		0:01:00	60.5	
701	16-Nov-04	5:40:00		0:01:00	60.8	
702	16-Nov-04	5:41:00		0:01:00	59.5	
703	16-Nov-04	5:42:00		0:01:00	61.6	
704	16-Nov-04	5:43:00		0:01:00	61	
705	16-Nov-04	5:44:00		0:01:00	60.5	
706	16-Nov-04	5:45:00	32.9	0:01:00	60.1	
707	16-Nov-04	5:46:00		0:01:00	60.2	
708	16-Nov-04	5:47:00		0:01:00	59.3	
709	16-Nov-04	5:48:00		0:01:00	58.9	
710	16-Nov-04	5:49:00		0:01:00	60.7	
711	16-Nov-04	5:50:00		0:01:00	61.1	Hwy noise picking up
712	16-Nov-04	5:51:00		0:01:00	61.5	
713	16-Nov-04	5:52:00		0:01:00	60.9	
714	16-Nov-04	5:53:00		0:01:00	59.7	
715	16-Nov-04	5:54:00		0:01:00	59.7	

716	16-Nov-04	5:55:00		0:01:00	61	
717	16-Nov-04	5:56:00		0:01:00	60.7	
718	16-Nov-04	5:57:00		0:01:00	60.6	
719	16-Nov-04	5:58:00		0:01:00	61.2	
720	16-Nov-04	5:59:00		0:01:00	61.2	
721	16-Nov-04	6:00:00	35.5	0:01:00	60.6	
722	16-Nov-04	6:01:00		0:01:00	60.4	
723	16-Nov-04	6:02:00		0:01:00	60	
724	16-Nov-04	6:03:00		0:01:00	60	
725	16-Nov-04	6:04:00		0:01:00	59.9	
726	16-Nov-04	6:05:00		0:01:00	60	
727	16-Nov-04	6:06:00		0:01:00	59.7	
728	16-Nov-04	6:07:00		0:01:00	59.6	
729	16-Nov-04	6:08:00		0:01:00	58.9	
730	16-Nov-04	6:09:00		0:01:00	59	
731	16-Nov-04	6:10:00		0:01:00	58.8	
732	16-Nov-04	6:11:00		0:01:00	59.5	
733	16-Nov-04	6:12:00		0:01:00	59.5	
734	16-Nov-04	6:13:00		0:01:00	59.8	
735	16-Nov-04	6:14:00		0:01:00	59.3	
736	16-Nov-04	6:15:00	40.8	0:01:00	59.5	
737	16-Nov-04	6:16:00		0:01:00	58.6	
738	16-Nov-04	6:17:00		0:01:00	58.5	
739	16-Nov-04	6:18:00		0:01:00	58.1	
740	16-Nov-04	6:19:00		0:01:00	58.3	
741	16-Nov-04	6:20:00		0:01:00	58.9	
742	16-Nov-04	6:21:00		0:01:00	59.6	
743	16-Nov-04	6:22:00		0:01:00	60.2	
744	16-Nov-04	6:23:00		0:01:00	61.7	
745	16-Nov-04	6:24:00		0:01:00	60.7	
746	16-Nov-04	6:25:00		0:01:00	59.1	
747	16-Nov-04	6:26:00		0:01:00	58.8	
748	16-Nov-04	6:27:00		0:01:00	58.2	
749	16-Nov-04	6:28:00		0:01:00	58.7	
750	16-Nov-04	6:29:00		0:01:00	58.4	
751	16-Nov-04	6:30:00	42.0	0:01:00	58.7	
752	16-Nov-04	6:31:00		0:01:00	59.7	
753	16-Nov-04	6:32:00		0:01:00	60.8	
754	16-Nov-04	6:33:00		0:01:00	62	
755	16-Nov-04	6:34:00		0:01:00	62.3	
756	16-Nov-04	6:35:00		0:01:00	62.5	
757	16-Nov-04	6:36:00		0:01:00	63	
758	16-Nov-04	6:37:00		0:01:00	62	
759	16-Nov-04	6:38:00		0:01:00	61.2	
760	16-Nov-04	6:39:00		0:01:00	60.7	
761	16-Nov-04	6:40:00		0:01:00	61.4	
762	16-Nov-04	6:41:00		0:01:00	62.3	
763	16-Nov-04	6:42:00		0:01:00	60	
764	16-Nov-04	6:43:00		0:01:00	59.3	
765	16-Nov-04	6:44:00		0:01:00	60.3	
766	16-Nov-04	6:45:00		0:01:00	59.6	
767	16-Nov-04	6:46:00		0:01:00	60.4	
768	16-Nov-04	6:47:00		0:01:00	60.5	
769	16-Nov-04	6:48:00		0:01:00	59.8	
770	16-Nov-04	6:49:00		0:01:00	59.3	
771	16-Nov-04	6:50:00		0:01:00	59.8	

772	16-Nov-04	6:51:00		0:01:00	60	
773	16-Nov-04	6:52:00		0:01:00	59.9	
774	16-Nov-04	6:53:00		0:01:00	59.6	
775	16-Nov-04	6:54:00		0:01:00	58.8	
776	16-Nov-04	6:55:00		0:01:00	58.5	
777	16-Nov-04	6:56:00		0:01:00	58.8	
778	16-Nov-04	6:57:00		0:01:00	59.1	Breakers operating (loud popping)
779	16-Nov-04	6:58:00		0:01:00	59.1	
780	16-Nov-04	6:59:00		0:01:00	58.8	
781	16-Nov-04	7:00:00	42.9	0:01:00	58.2	
782	16-Nov-04	7:01:00		0:01:00	58.4	
783	16-Nov-04	7:02:00		0:01:00	58.7	
784	16-Nov-04	7:03:00		0:01:00	58.1	
785	16-Nov-04	7:04:00		0:01:00	58	
786	16-Nov-04	7:05:00		0:01:00	56.9	
787	16-Nov-04	7:06:00		0:01:00	56	
788	16-Nov-04	7:07:00		0:01:00	55.8	
789	16-Nov-04	7:08:00		0:01:00	56.5	
790	16-Nov-04	7:09:00		0:01:00	57.1	
791	16-Nov-04	7:10:00		0:01:00	56.2	
792	16-Nov-04	7:11:00		0:01:00	57.8	
793	16-Nov-04	7:12:00		0:01:00	58	
794	16-Nov-04	7:13:00		0:01:00	58	
795	16-Nov-04	7:14:00		0:01:00	58.5	
796	16-Nov-04	7:15:00		0:01:00	57.7	
797	16-Nov-04	7:16:00		0:01:00	56.1	
798	16-Nov-04	7:17:00		0:01:00	55.2	
799	16-Nov-04	7:18:00		0:01:00	55.4	
800	16-Nov-04	7:19:00		0:01:00	55.1	
801	16-Nov-04	7:20:00		0:01:00	54.7	
802	16-Nov-04	7:21:00		0:01:00	54.5	
803	16-Nov-04	7:22:00		0:01:00	53.7	
804	16-Nov-04	7:23:00		0:01:00	53.5	
805	16-Nov-04	7:24:00		0:01:00	53.5	
806	16-Nov-04	7:25:00		0:01:00	53.3	
807	16-Nov-04	7:26:00		0:01:00	53.2	
808	16-Nov-04	7:27:00		0:01:00	53.4	
809	16-Nov-04	7:28:00		0:01:00	53.2	
810	16-Nov-04	7:29:00		0:01:00	53.3	
811	16-Nov-04	7:30:00		0:01:00	54.3	
812	16-Nov-04	7:31:00		0:01:00	54.5	
813	16-Nov-04	7:32:00		0:01:00	54.8	
814	16-Nov-04	7:33:00		0:01:00	54.5	
815	16-Nov-04	7:34:00		0:01:00	54.9	
816	16-Nov-04	7:35:00		0:01:00	54.7	
817	16-Nov-04	7:36:00		0:01:00	54	
818	16-Nov-04	7:37:00		0:01:00	54.1	
819	16-Nov-04	7:38:00		0:01:00	54.1	
820	16-Nov-04	7:39:00		0:01:00	53.5	
821	16-Nov-04	7:40:00		0:01:00	53.9	
822	16-Nov-04	7:41:00		0:01:00	53.5	
823	16-Nov-04	7:42:00		0:01:00	52.9	
824	16-Nov-04	7:43:00		0:01:00	52.6	
825	16-Nov-04	7:44:00		0:01:00	52.7	
826	16-Nov-04	7:45:00		0:01:00	52.3	

827	16-Nov-04	7:46:00		0:01:00	52.4	
828	16-Nov-04	7:47:00		0:01:00	52.2	
829	16-Nov-04	7:48:00		0.01:00	52.2	
830	16-Nov-04	7:49:00		0:01:00	52.4	
831	16-Nov-04	7:50:00		0:01:00	52.3	
832	16-Nov-04	7:51:00		0:01:00	52.3	
833	16-Nov-04	7:52:00		0:01:00	52.3	
834	16-Nov-04	7:53:00		0:01:00	52.2	
835	16-Nov-04	7:54:00		0:01:00	51.9	
836	16-Nov-04	7:55:00		0:01:00	52.1	
837	16-Nov-04	7:56:00		0:01:00	52	
838	16-Nov-04	7:57:00		0:01:00	52.1	
839	16-Nov-04	7:58:00		0:01:00	52	
840	16-Nov-04	7:59:00		0:01:00	51.9	
841	16-Nov-04	8:00:00	52.2	0:01:00	52	Hwy traffic
842	16-Nov-04	8:01:00		0:01:00	52.2	
843	16-Nov-04	8:02:00		0:01:00	52	
844	16-Nov-04	8:03:00		0:01:00	52.2	
845	16-Nov-04	8:04:00		0:01:00	51.9	
846	16-Nov-04	8:05:00		0:01:00	51.3	
847	16-Nov-04	8:06:00		0:01:00	51.6	
848	16-Nov-04	8:07:00		0:01:00	51.2	
849	16-Nov-04	8:08:00		0:01:00	51.8	
850	16-Nov-04	8:09:00		0:01:00	51.6	
851	16-Nov-04	8:10:00		0:01:00	52.2	
852	16-Nov-04	8:11:00		0:01:00	51.8	
853	16-Nov-04	8:12:00		0:01:00	51.4	
854	16-Nov-04	8:13:00		0:01:00	52.2	
855	16-Nov-04	8:14:00		0:01:00	60.3	
856	16-Nov-04	8:15:00		0:01:00	52.4	
857	16-Nov-04	8:16:00		0:01:00	52	
858	16-Nov-04	8:17:00		0:01:00	51.6	
859	16-Nov-04	8:18:00		0:01:00	51.8	
860	16-Nov-04	8:19:00		0:01.00	52	
861	16-Nov-04	8:20:00		0:01:00	51.9	
862	16-Nov-04	8:21:00		0:01:00	52.1	
863	16-Nov-04	8:22:00		0:01:00	52	
864	16-Nov-04	8:23:00		0:01:00	51.7	
865	16-Nov-04	8:24:00		0:01:00	51.7	
866	16-Nov-04	8:25:00		0:01:00	52	
867	16-Nov-04	8:26:00		0:01:00	51.9	
868	16-Nov-04	8:27:00		0:01:00	52.4	
869	16-Nov-04	8:28:00		0:01:00	52	
870	16-Nov-04	8:29:00		0:01:00	52.5	
871	16-Nov-04	8:30:00		0:01:00	52.2	
872	16-Nov-04	8:31:00		0:01:00	52.6	
873	16-Nov-04	8:32:00		0:01:00	52.2	
874	16-Nov-04	8:33:00		0:01:00	52.1	
875	16-Nov-04	8:34:00		0:01:00	52.2	
876	16-Nov-04	8:35:00		0:01:00	52.5	
877	16-Nov-04	8:36:00		0:01:00	52.2	
878	16-Nov-04	8:37:00		0:01:00	52.2	
879	16-Nov-04	8:38:00		0:01:00	52.2	
880	16-Nov-04	8:39:00		0:01:00	52.6	
881	16-Nov-04	8:40:00		0:01:00	52.8	
882	16-Nov-04	8:41:00		0:01:00	52.5	

883	16-Nov-04	8:42:00		0:01:00	52.9	
884	16-Nov-04	8:43:00		0:01:00	52.8	
885	16-Nov-04	8:44:00		0:01:00	52.8	
886	16-Nov-04	8:45:00		0:01:00	53.2	
887	16-Nov-04	8:46:00		0:01:00	53	
888	16-Nov-04	8:47:00		0:01:00	52	
889	16-Nov-04	8:48:00		0:01:00	52.7	
890	16-Nov-04	8:49:00		0:01:00	52.4	
891	16-Nov-04	8:50:00		0:01:00	52	
892	16-Nov-04	8:51:00		0:01:00	52.8	
893	16-Nov-04	8:52:00		0:01:00	52.4	
894	16-Nov-04	8:53:00		0:01:00	52.1	
895	16-Nov-04	8:54:00		0:01:00	52.2	
896	16-Nov-04	8:55:00		0:01:00	52	
897	16-Nov-04	8:56:00		0:01:00	51.5	
898	16-Nov-04	8:57:00		0:01:00	51.1	
899	16-Nov-04	8:58:00		0:01:00	51.4	Breakers operating and Cooling fans shut off
900	16-Nov-04	8:59:00		0:01:00	50.6	
901	16-Nov-04	9:00:00	60.0	0:01:00	50.2	
902	16-Nov-04	9:01:00		0:01:00	50.3	
903	16-Nov-04	9:02:00		0:01:00	49.7	
904	16-Nov-04	9:03:00		0:01:00	50.1	
905	16-Nov-04	9:04:00		0:01:00	48.3	
906	16-Nov-04	9:05:00		0:01:00	47.8	
907	16-Nov-04	9:06:00		0:01:00	50.4	
908	16-Nov-04	9:07:00		0:01:00	48.3	
909	16-Nov-04	9:08:00		0:01:00	48.3	
910	16-Nov-04	9:09:00		0:01:00	47.8	
911	16-Nov-04	9:10:00		0:01:00	48	
912	16-Nov-04	9:11:00		0:01:00	48	
913	16-Nov-04	9:12:00		0:01:00	47.5	
914	16-Nov-04	9:13:00		0:01:00	48	
915	16-Nov-04	9:14:00		0:01:00	47.7	
916	16-Nov-04	9:15:00		0:01:00	47.9	
917	16-Nov-04	9:16:00		0:01:00	47.8	
918	16-Nov-04	9:17:00		0:01:00	48.8	
919	16-Nov-04	9:18:00		0:01:00	48.6	
920	16-Nov-04	9:19:00		0:01:00	48.1	
921	16-Nov-04	9:20:00		0:01:00	48.4	
922	16-Nov-04	9:21:00		0:01:00	48.5	
923	16-Nov-04	9:22:00		0:01:00	48.5	
924	16-Nov-04	9:23:00		0:01:00	48.9	
925	16-Nov-04	9:24:00		0:01:00	49.1	People noise
926	16-Nov-04	9:25:00	62 0	0:01:00	48.8	
927	16-Nov-04	9:26:00		0:01:00	48.3	
928	16-Nov-04	9:27:00		0:01:00	48.4	
929	16-Nov-04	9:28:00		0:01:00	48.7	
930	16-Nov-04	9:29:00		0:01:00	48.8	
931	16-Nov-04	9:30:00		0:01:00	48.8	
932	16-Nov-04	9:31:00		0:01:00	49	
933	16-Nov-04	9:32:00		0:01:00	48.5	
934	16-Nov-04	9:33:00		0:01:00	48.8	
935	16-Nov-04	9:34:00		0:01:00	49.1	
936	16-Nov-04	9:35:00		0:01:00	49.3	
937	16-Nov-04	9:36:00		0:01:00	49.7	

938	16-Nov-04	9:37:00		0:01:00	49.7	
939	16-Nov-04	9:38:00		0:01:00	48.1	
940	16-Nov-04	9:39:00		0:01:00	49.3	
941	16-Nov-04	9:40:00		0:01:00	48.9	
942	16-Nov-04	9:41:00		0:01:00	49.1	
943	16-Nov-04	9:42:00		0:01:00	48.5	
944	16-Nov-04	9:43:00		0:01:00	49	
945	16-Nov-04	9:44:00		0:01:00	49.2	
946	16-Nov-04	9:45:00		0:01:00	49.2	
947	16-Nov-04	9:46:00		0:01:00	48.4	
948	16-Nov-04	9:47:00		0:01:00	47.8	
949	16-Nov-04	9:48:00		0:01:00	49	
950	16-Nov-04	9:49:00		0:01:00	48.7	
951	16-Nov-04	9:50:00		0:01:00	48.6	
952	16-Nov-04	9:51:00		0:01:00	49	
953	16-Nov-04	9:52:00		0:01:00	48.4	
954	16-Nov-04	9:53:00		0:01:00	49	
955	16-Nov-04	9:54:00		0:01:00	48.1	
956	16-Nov-04	9:55:00		0:01:00	48.4	
957	16-Nov-04	9:56:00		0:01:00	47.9	
958	16-Nov-04	9:57:00		0:01:00	48.5	
959	16-Nov-04	9:58:00		0:01:00	48.3	
960	16-Nov-04	9:59:00		0:01:00	47.9	
961	16-Nov-04	10:00:00	64.5	0:01:00	48	
962	16-Nov-04	10:01:00		0:01:00	48	
963	16-Nov-04	10:02:00		0:01:00	47.9	
964	16-Nov-04	10:03:00		0:01:00	48.6	
965	16-Nov-04	10:04:00		0:01:00	51.1	
966	16-Nov-04	10:05:00		0:01:00	52.1	Possible construction to North & Plane flew overhead
967	16-Nov-04	10:06:00		0:01:00	49.3	
968	16-Nov-04	10:07:00		0:01:00	48.6	
969	16-Nov-04	10:08:00		0:01:00	48.1	
970	16-Nov-04	10:09:00		0:01:00	48.2	
971	16-Nov-04	10:10:00		0:01:00	48.6	
972	16-Nov-04	10:11:00		0:01:00	48.5	
973	16-Nov-04	10:12:00		0:01:00	48.1	
974	16-Nov-04	10:13:00		0:01:00	47.9	
975	16-Nov-04	10:14:00		0:01:00	47.9	
976	16-Nov-04	10:15:00		0:01:00	47.8	
977	16-Nov-04	10:16:00		0:01:00	48.1	
978	16-Nov-04	10:17:00		0:01:00	47.8	
979	16-Nov-04	10:18:00		0:01:00	47.6	
980	16-Nov-04	10:19:00		0:01:00	47.7	
981	16-Nov-04	10:20:00		0:01:00	48.1	
982	16-Nov-04	10:21:00		0:01:00	47.9	
983	16-Nov-04	10:22:00		0:01:00	47.9	
984	16-Nov-04	10:23:00		0:01:00	47.7	
985	16-Nov-04	10:24:00		0:01:00	47.8	
986	16-Nov-04	10:25:00		0:01:00	48.1	
987	16-Nov-04	10:26:00		0:01:00	48	
988	16-Nov-04	10:27:00		0:01:00	47.8	
989	16-Nov-04	10:28:00		0:01:00	48.2	
990	16-Nov-04	10:29:00		0:01.00	47.8	
991	16-Nov-04	10:30:00		0:01:00	48.1	
992	16-Nov-04	10:31:00		0:01:00	49.3	

993	16-Nov-04	10:32:00		0:01:00	48.5	
994	16-Nov-04	10:33:00		0:01:00	49.5	
995	16-Nov-04	10:34:00		0:01:00	48.8	
996	16-Nov-04	10:35:00		0:01:00	48.9	
997	16-Nov-04	10:36:00		0:01:00	48.8	
998	16-Nov-04	10:37:00		0:01:00	48.5	
999	16-Nov-04	10:38:00		0:01:00	48.5	
1000	16-Nov-04	10:39:00		0:01:00	48.8	
1001	16-Nov-04	10:40:00		0:01:00	49.3	
1002	16-Nov-04	10:41:00		0:01:00	48.4	
1003	16-Nov-04	10:42:00		0:01:00	48.3	
1004	16-Nov-04	10:43:00		0:01:00	47.8	
1005	16-Nov-04	10:44:00		0:01:00	48.5	
1006	16-Nov-04	10:45:00		0:01:00	48.1	
1007	16-Nov-04	10:46:00		0:01:00	48.6	
1008	16-Nov-04	10:47:00		0:01:00	48.2	
1009	16-Nov-04	10:48:00		0:01:00	49	
1010	16-Nov-04	10:49:00		0:01:00	49.3	
1011	16-Nov-04	10:50:00		0:01:00	48.8	
1012	16-Nov-04	10:51:00		0:01:00	49.7	
1013	16-Nov-04	10:52:00		0:01:00	48.8	
1014	16-Nov-04	10:53:00		0:01:00	48.8	
1015	16-Nov-04	10:54:00		0:01:00	48.8	
1016	16-Nov-04	10:55:00		0:01:00	48.8	
1017	16-Nov-04	10:56:00		0:01:00	47.8	
1018	16-Nov-04	10:57:00		0:01:00	48.5	
1019	16-Nov-04	10:58:00		0:01:00	48.6	
1020	16-Nov-04	10:59:00		0:01:00	48.1	
1021	16-Nov-04	11:00:00	65.0	0:01:00	48.4	
1022	16-Nov-04	11:01:00		0:01:00	48.5	
1023	16-Nov-04	11:02:00		0:01:00	49.5	
1024	16-Nov-04	11:03:00		0:01:00	50.9	Breakers operating & bird chirpping
1025	16-Nov-04	11:04:00		0:01:00	49.4	
1026	16-Nov-04	11:05:00		0:01:00	48.2	
1027	16-Nov-04	11:06:00		0:01:00	48.8	
1028	16-Nov-04	11:07:00		0:01:00	50.4	
1029	16-Nov-04	11:08:00		0:01:00	48	
1030	16-Nov-04	11:09:00		0:01:00	47.7	
1031	16-Nov-04	11:10:00		0:01:00	46	
1032	16-Nov-04	11:11:00		0:01:00	54.7	More Breakers operating
1033	16-Nov-04	11:12:00		0:01:00	42.8	
1034	16-Nov-04	11:13:00		0:01:00	45.7	
1035	16-Nov-04	11:14:00		0:01:00	46.9	
1036	16-Nov-04	11:15:00		0:01:00	48	
1037	16-Nov-04	11:16:00		0:01:00	46	
1038	16-Nov-04	11:17:00		0:01:00	38.9	
1039	16-Nov-04	11:18:00		0:01:00	42.5	
1040	16-Nov-04	11:19:00		0:01:00	39.1	
1041	16-Nov-04	11:20:00		0:01:00	38.7	
1042	16-Nov-04	11:21:00		0:01:00	47.8	
1043	16-Nov-04	11:22:00		0:01:00	43.8	
1044	16-Nov-04	11:23:00		0:01:00	42.3	
1045	16-Nov-04	11:24:00		0:01:00	41.7	
1046	16-Nov-04	11:25:00		0:01:00	47.5	
1047	16-Nov-04	11:26:00		0:01:00	44.3	

1048	16-Nov-04	11:27:00		0:01:00	45.6	
1049	16-Nov-04	11:28:00		0:01:00	44	
1050	16-Nov-04	11:29:00		0:01:00	46	Car arrives, car leaves
1051	16-Nov-04	11:30:00	64.0	0:01:00	44.6	
1052	16-Nov-04	11:31:00		0:01:00	43.1	
1053	16-Nov-04	11:32:00		0:01:00	46.9	
1054	16-Nov-04	11:33:00		0:01:00	42.1	
1055	16-Nov-04	11:34:00		0:01:00	43	
1056	16-Nov-04	11:35:00		0:01:00	52.4	Aircraft ovrehead
1057	16-Nov-04	11:36:00		0:01:00	43.5	
1058	16-Nov-04	11:37:00		0:01:00	44.7	
1059	16-Nov-04	11:38:00		0:01:00	40.3	
1060	16-Nov-04	11:39:00		0:01:00	40.3	
1061	16-Nov-04	11:40:00		0:01:00	44.8	
1062	16-Nov-04	11:41:00		0:01:00	50.9	
1063	16-Nov-04	11:42:00		0:01:00	51.9	Breakers operating
1064	16-Nov-04	11:43:00		0:01:00	51.1	
1065	16-Nov-04	11:44:00		0:01:00	50.7	
1066	16-Nov-04	11:45:00		0:01:00	49	
1067	16-Nov-04	11:46:00		0:01:00	49.3	
1068	16-Nov-04	11:47:00		0:01:00	48.2	
1069	16-Nov-04	11:48:00		0:01:00	48.3	
1070	16-Nov-04	11:49:00		0:01:00	49	
1071	16-Nov-04	11:50:00		0:01:00	48	
1072	16-Nov-04	11:51:00		0:01:00	49.6	
1073	16-Nov-04	11:52:00		0:01:00	47.7	
1074	16-Nov-04	11:53:00		0:01:00	48.7	
1075	16-Nov-04	11:54:00		0:01:00	48	
1076	16-Nov-04	11:55:00		0:01:00	49.9	
1077	16-Nov-04	11:56:00		0:01:00	48.1	
1078	16-Nov-04	11:57:00		0:01:00	49	
1079	16-Nov-04	11:58:00		0:01:00	47.5	
1080	16-Nov-04	11:59:00		0:01:00	53.6	More popping followed by clicking noise
1081	16-Nov-04	12:00:00		0:01:00	50.3	
1082	16-Nov-04	12:01:00		0:01:00	51.6	
1083	16-Nov-04	12:02:00		0:01:00	52.3	
1084	16-Nov-04	12:03:00		0:01:00	53.3	
1085	16-Nov-04	12:04:00		0:01:00	54.3	
1086	16-Nov-04	12:05:00		0:01:00	54.9	
1087	16-Nov-04	12:06:00		0:01:00	54.6	
1088	16-Nov-04	12:07:00		0:01:00	55.1	
1089	16-Nov-04	12:08:00		0:01:00	56.3	
1090	16-Nov-04	12:09:00		0:01:00	55.5	
1091	16-Nov-04	12:10:00		0:01:00	55.6	
1092	16-Nov-04	12:11:00		0:01:00	56.8	
1093	16-Nov-04	12:12:00		0:01:00	56.9	
1094	16-Nov-04	12:13:00		0:01:00	55.5	
1095	16-Nov-04	12:14:00		0:01:00	55.5	
1096	16-Nov-04	12:15:00		0:01:00	55.6	
1097	16-Nov-04	12:16:00		0:01:00	55.4	
1098	16-Nov-04	12:17:00		0:01:00	54.2	
1099	16-Nov-04	12:18:00		0:01:00	54.2	
1100	16-Nov-04	12:19:00		0:01:00	55.1	
1101	16-Nov-04	12:20:00		0:01:00	54.8	
1102	16-Nov-04	12:21:00		0:01:00	54.9	

1103	16-Nov-04	12:22:00		0:01:00	55.1	
1104	16-Nov-04	12:23:00		0.01:00	54.8	
1105	16-Nov-04	12:24:00		0:01:00	55.1	
1106	16-Nov-04	12:25:00		0:01:00	55.7	
1107	16-Nov-04	12:26:00		0:01:00	55.5	
1108	16-Nov-04	12:27:00		0:01:00	55.5	
1109	16-Nov-04	12:28:00		0:01:00	56 2	
1110	16-Nov-04	12:29:00		0:01:00	56.1	
1111	16-Nov-04	12:30:00		0:01:00	56	
1112	16-Nov-04	12:31:00	65.0	0:01:00	55.3	
1113	16-Nov-04	12:32:00		0:01:00	56.4	
1114	16-Nov-04	12:33:00		0:01:00	55.9	
1115	16-Nov-04	12:34:00		0:01:00	55.8	
1116	16-Nov-04	12:35:00		0:01:00	55.2	
1117	16-Nov-04	12:36.00		0:01:00	55.9	
1118	16-Nov-04	12:37:00		0:01:00	56	
1119	16-Nov-04	12:38:00		0:01:00	55.8	
1120	16-Nov-04	12:39:00		0:01:00	55	
1121	16-Nov-04	12:40:00		0:01:00	55	
1122	16-Nov-04	12:41:00		0:01:00	55.5	
1123	16-Nov-04	12:42:00		0:01:00	55	
1124	16-Nov-04	12:43:00		0:01:00	55.7	
1125	16-Nov-04	12:44:00		0:01:00	55.7	
1126	16-Nov-04	12:45:00		0:01:00	55.2	
1127	16-Nov-04	12:46:00		0:01:00	55.2	
1128	16-Nov-04	12:47:00		0:01:00	54.9	
1129	16-Nov-04	12:48:00		0:01:00	55.4	
1130	16-Nov-04	12:49:00		0:01:00	55.8	
1131	16-Nov-04	12:50:00		0:01:00	55.8	
1132	16-Nov-04	12:51:00		0:01:00	56	
1133	16-Nov-04	12:52:00		0:01:00	55.4	
1134	16-Nov-04	12:53:00		0:01:00	55.1	
1135	16-Nov-04	12:54:00		0:01:00	55.7	
1136	16-Nov-04	12:55:00	66.0	0:01:00	55	
1137	16-Nov-04	12:56:00		0:01:00	55.3	
1138	16-Nov-04	12:57:00		0:01:00	55	
1139	16-Nov-04	12:58:00		0:01:00	55.1	
1140	16-Nov-04	12:59:00		0:01:00	55.6	
1141	16-Nov-04	13:00:00		0:01:00	55.3	
1142	16-Nov-04	13:01:00		0:01:00	55.6	
1143	16-Nov-04	13:02:00		0:01:00	54.7	
1144	16-Nov-04	13:03:00		0:01:00	55.2	
1145	16-Nov-04	13:04:00		0:01:00	55	
1146	16-Nov-04	13:05:00		0:01:00	55.6	
1147	16-Nov-04	13:06:00		0:01:00	55.8	
1148	16-Nov-04	13:07:00		0:01:00	55.3	
1149	16-Nov-04	13:08:00		0:01:00	55.2	
1150	16-Nov-04	13:09:00		0:01:00	55.6	
1151	16-Nov-04	13:10:00		0:01:00	56.3	
1152	16-Nov-04	13:11:00		0:01:00	56.3	
1153	16-Nov-04	13:12:00		0:01:00	55.5	
1154	16-Nov-04	13:13:00		0:01:00	56.2	
1155	16-Nov-04	13:14:00		0:01:00	56.3	
1156	16-Nov-04	13:15:00		0:01:00	56	
1157	16-Nov-04	13:16:00		0:01:00	56	
1158	16-Nov-04	13:17:00		0:01:00	56.5	

1159	16-Nov-04	13:18:00		0:01:00	56.5	
1160	16-Nov-04	13:19:00		0:01:00	55.4	
1161	16-Nov-04	13:20:00		0:01:00	55.8	
1162	16-Nov-04	13:21:00	65.0	0:01:00	56	
1163	16-Nov-04	13:22:00		0:01:00	55.7	
1164	16-Nov-04	13:23:00		0:01:00	55.8	
1165	16-Nov-04	13:24:00		0:01:00	55.5	
1166	16-Nov-04	13:25:00		0:01:00	56.6	
1167	16-Nov-04	13:26:00		0:01:00	56.7	
1168	16-Nov-04	13:27:00		0:01:00	56.9	
1169	16-Nov-04	13:28:00		0:01:00	56.6	
1170	16-Nov-04	13:29:00		0:01:00	56.3	
1171	16-Nov-04	13:30:00		0:01:00	55.6	
1172	16-Nov-04	13:31:00		0:01:00	57.1	People noise
1173	16-Nov-04	13:32:00		0:01:00	56.5	
1174	16-Nov-04	13:33:00		0:01:00	56.8	
1175	16-Nov-04	13:34:00		0:01:00	56.5	
1176	16-Nov-04	13:35:00		0:01:00	55.5	
1177	16-Nov-04	13:36:00		0:01:00	55.8	
1178	16-Nov-04	13:37:00		0:01:00	55	
1179	16-Nov-04	13:38:00		0:01:00	55.5	
1180	16-Nov-04	13:39:00		0:01:00	55.8	
1181	16-Nov-04	13:40:00	68.0	0:01:00	56.1	
1182	16-Nov-04	13:41:00		0:01:00	56.9	
1183	16-Nov-04	13:42:00		0:01:00	56.1	
1184	16-Nov-04	13:43:00		0:01:00	56.2	
1185	16-Nov-04	13:44:00		0:01:00	57.1	
1186	16-Nov-04	13:45:00		0:01:00	58.5	
1187	16-Nov-04	13:46:00		0:01:00	60 3	Aircraft overhead
1188	16-Nov-04	13:47:00		0:01:00	57.5	
1189	16-Nov-04	13:48:00		0:01:00	57.2	
1190	16-Nov-04	13:49:00		0:01:00	56.8	
1191	16-Nov-04	13:50:00		0:01:00	55.5	
1192	16-Nov-04	13:51:00		0:01:00	55.4	
1193	16-Nov-04	13:52:00		0:01:00	55.7	
1194	16-Nov-04	13:53:00		0:01:00	55.6	
1195	16-Nov-04	13:54:00	67.0	0:01:00	56.7	
1196	16-Nov-04	13:55:00		0:01:00	56	
1197	16-Nov-04	13:56:00		0:01:00	56.2	
1198	16-Nov-04	13:57:00		0:01:00	56.3	
1199	16-Nov-04	13:58:00		0:01:00	57.2	
1200	16-Nov-04	13:59:00		0:01:00	57.2	
1201	16-Nov-04	14:00:00		0:01:00	57.2	
1202	16-Nov-04	14:01:00		0:01:00	56.4	
1203	16-Nov-04	14:02:00		0:01:00	56.2	
1204	16-Nov-04	14:03:00		0:01:00	56.5	
1205	16-Nov-04	14:04:00		0:01:00	56.5	
1206	16-Nov-04	14:05:00		0:01:00	57.2	
1207	16-Nov-04	14:06:00		0:01:00	57.2	
1208	16-Nov-04	14:07:00		0:01:00	56	
1209	16-Nov-04	14:08:00		0:01:00	56.6	
1210	16-Nov-04	14:09:00		0:01:00	57.3	
1211	16-Nov-04	14:10:00		0:01:00	57.4	Faint Aircraft overhead
1212	16-Nov-04	14:11:00		0:01:00	56.6	
1213	16-Nov-04	14:12:00		0:01:00	56.7	
1214	16-Nov-04	14:13:00		0:01:00	57	

1215	16-Nov-04	14:14:00		0:01:00	56.6	
1216	16-Nov-04	14:15:00		0:01:00	56.9	
1217	16-Nov-04	14:16:00		0:01:00	56.6	
1218	16-Nov-04	14:17:00		0:01:00	56.4	
1219	16-Nov-04	14:18:00		0:01:00	56.9	
1220	16-Nov-04	14:19:00		0:01:00	56.6	
1221	16-Nov-04	14:20:00		0:01:00	56.2	
1222	16-Nov-04	14:21:00		0:01:00	55.5	
1223	16-Nov-04	14:22:00		0:01:00	57.3	
1224	16-Nov-04	14:23:00		0:01:00	56.3	
1225	16-Nov-04	14:24:00		0:01:00	56.6	
1226	16-Nov-04	14:25:00		0:01:00	56.1	
1227	16-Nov-04	14:26:00	67.0	0:01:00	56.8	
1228	16-Nov-04	14:27:00		0:01:00	56.5	
1229	16-Nov-04	14:28:00		0:01:00	57.2	
1230	16-Nov-04	14:29:00		0:01:00	57.2	
1231	16-Nov-04	14:30:00		0:01:00	57.5	
1232	16-Nov-04	14:31:00		0:01:00	57.6	
1233	16-Nov-04	14:32:00		0:01:00	57.6	
1234	16-Nov-04	14:33:00		0:01:00	57.5	
1235	16-Nov-04	14:34:00		0:01:00	57.5	
1236	16-Nov-04	14:35:00		0:01:00	57.6	Car left
1237	16-Nov-04	14:36:00		0:01:00	57	
1238	16-Nov-04	14:37:00		0:01:00	57.4	
1239	16-Nov-04	14:38:00		0:01:00	57.5	
1240	16-Nov-04	14:39:00		0:01:00	57.1	
1241	16-Nov-04	14:40:00		0:01:00	57.3	
1242	16-Nov-04	14:41:00		0:01:00	57.5	
1243	16-Nov-04	14:42:00		0:01:00	57.6	
1244	16-Nov-04	14:43:00		0:01:00	57.6	
1245	16-Nov-04	14:44:00		0:01:00	57.7	
1246	16-Nov-04	14:45:00		0:01:00	57.3	
1247	16-Nov-04	14:46:00		0:01:00	57.9	
1248	16-Nov-04	14:47:00		0:01:00	57.8	
1249	16-Nov-04	14:48:00		0:01:00	57.7	
1250	16-Nov-04	14:49:00		0:01:00	57.5	
1251	16-Nov-04	14:50:00		0:01:00	57.9	
1252	16-Nov-04	14:51:00		0:01:00	58.1	
1253	16-Nov-04	14:52:00		0:01:00	58.8	
1254	16-Nov-04	14:53:00		0:01:00	57.5	
1255	16-Nov-04	14:54:00		0:01:00	57.8	
1256	16-Nov-04	14:55:00		0:01:00	58.1	
1257	16-Nov-04	14:56:00		0:01:00	57.8	
1258	16-Nov-04	14:57:00		0:01:00	57.3	
1259	16-Nov-04	14:58:00		0:01:00	56	
1260	16-Nov-04	14:59:00		0:01:00	55.7	
1261	16-Nov-04	15:00:00	61.7	0:01:00	55.6	
1262	16-Nov-04	15:01:00		0:01:00	55.6	
1263	16-Nov-04	15:02:00		0:01:00	55.9	
1264	16-Nov-04	15:03:00		0:01:00	55.7	
1265	16-Nov-04	15:04:00		0:01:00	55.6	
1266	16-Nov-04	15:05:00		0:01:00	55.8	
1267	16-Nov-04	15:06:00		0:01:00	56.6	
1268	16-Nov-04	15:07:00		0:01:00	56.2	
1269	16-Nov-04	15:08:00		0:01:00	56.2	
1270	16-Nov-04	15:09:00		0:01:00	56	

1271	16-Nov-04	15:10:00		0:01:00	55.7	
1272	16-Nov-04	15:11:00		0:01:00	55.4	
1273	16-Nov-04	15:12:00		0:01:00	54.5	
1274	16-Nov-04	15:13:00		0:01:00	54.6	
1275	16-Nov-04	15:14:00		0:01:00	55.4	
1276	16-Nov-04	15:15:00		0:01:00	55.7	
1277	16-Nov-04	15:16:00		0:01:00	56	
1278	16-Nov-04	15:17:00		0:01:00	56.8	
1279	16-Nov-04	15:18:00		0:01:00	55.8	
1280	16-Nov-04	15:19:00		0:01:00	55.7	
1281	16-Nov-04	15:20:00		0:01:00	55.8	
1282	16-Nov-04	15:21:00		0:01:00	55.2	
1283	16-Nov-04	15:22:00		0:01:00	54.7	
1284	16-Nov-04	15:23:00		0:01:00	54.9	
1285	16-Nov-04	15:24:00		0:01:00	56.5	Small aircraft overhead
1286	16-Nov-04	15:25:00		0:01:00	55	
1287	16-Nov-04	15:26:00		0:01:00	55.2	
1288	16-Nov-04	15:27:00		0:01:00	55.8	
1289	16-Nov-04	15:28:00		0:01:00	56.1	
1290	16-Nov-04	15:29:00		0:01:00	56.5	
1291	16-Nov-04	15:30:00		0:01:00	57	
1292	16-Nov-04	15:31:00		0:01:00	57.7	
1293	16-Nov-04	15:32:00		0:01:00	57.8	Distant Gunshots
1294	16-Nov-04	15:33:00		0:01:00	57.3	
1295	16-Nov-04	15:34:00		0:01:00	57.2	
1296	16-Nov-04	15:35:00		0:01:00	57.1	
1297	16-Nov-04	15:36:00		0:01:00	57.2	Car arrives, people noise, car leaves
1298	16-Nov-04	15:37:00		0:01:00	56.4	
1299	16-Nov-04	15:38:00		0:01:00	57.5	
1300	16-Nov-04	15:39:00		0:01:00	58.2	
1301	16-Nov-04	15:40:00		0:01:00	57.9	
1302	16-Nov-04	15:41:00		0:01:00	58.2	
1303	16-Nov-04	15:42:00		0:01:00	58.5	
1304	16-Nov-04	15:43:00		0:01:00	58.7	
1305	16-Nov-04	15:44:00		0:01:00	58.7	
1306	16-Nov-04	15:45:00		0:01:00	58.3	
1307	16-Nov-04	15:46:00		0:01:00	58.5	
1308	16-Nov-04	15:47:00		0:01:00	57.9	
1309	16-Nov-04	15:48:00		0:01:00	58.3	
1310	16-Nov-04	15:49:00		0:01:00	61.2	Helicopter overhead
1311	16-Nov-04	15:50:00		0:01:00	59	
1312	16-Nov-04	15:51:00		0:01:00	59.2	
1313	16-Nov-04	15:52:00		0:01:00	59.4	
1314	16-Nov-04	15:53:00		0:01:00	59.5	
1315	16-Nov-04	15:54:00		0:01:00	59.7	Car arrives
1316	16-Nov-04	15:55:00		0:01:00	59.3	
1317	16-Nov-04	15:56:00		0:01:00	57.9	
1318	16-Nov-04	15:57:00		0:01:00	58.8	
1319	16-Nov-04	15:58:00		0:01:00	57.5	
1320	16-Nov-04	15:59:00		0:01:00	57.4	
1321	16-Nov-04	16:00:00	52.3	0:01:00	58	Breakers operating, shooting range, plane overhead
1322	16-Nov-04	16:01:00		0:01:00	57.5	
1323	16-Nov-04	16:02:00		0:01:00	56.6	
1324	16-Nov-04	16:03:00		0.01:00	56.3	

1325	16-Nov-04	16:04:00		0:01:00	54.8	
1326	16-Nov-04	16:05:00		0:01:00	54.6	
1327	16-Nov-04	16:06:00		0:01:00	54.9	
1328	16-Nov-04	16:07:00		0:01:00	53.9	
1329	16-Nov-04	16:08:00		0:01:00	53.1	
1330	16-Nov-04	16:09:00		0:01:00	54.4	
1331	16-Nov-04	16:10:00		0:01:00	55.7	
1332	16-Nov-04	16:11:00		0:01:00	55	
1333	16-Nov-04	16:12:00		0:01:00	55.3	
1334	16-Nov-04	16:13:00		0:01:00	54.4	
1335	16-Nov-04	16:14:00		0:01:00	54.1	
1336	16-Nov-04	16:15:00		0:01:00	54.2	
1337	16-Nov-04	16:16:00		0:01:00	54.2	
1338	16-Nov-04	16:17:00		0:01:00	54.6	
1339	16-Nov-04	16:18:00		0:01:00	55.3	
1340	16-Nov-04	16:19:00		0:01:00	54	
1341	16-Nov-04	16:20:00		0:01:00	54.4	
1342	16-Nov-04	16:21:00		0:01:00	55.1	
1343	16-Nov-04	16:22:00		0:01:00	54.7	
1344	16-Nov-04	16:23:00		0:01:00	54.6	
1345	16-Nov-04	16:24:00		0:01:00	53.9	
1346	16-Nov-04	16:25:00		0:01:00	54.1	
1347	16-Nov-04	16:26:00		0:01:00	54	
1348	16-Nov-04	16:27:00		0:01:00	54.3	
1349	16-Nov-04	16:28:00		0:01:00	54.5	
1350	16-Nov-04	16:29:00		0:01:00	54.1	
1351	16-Nov-04	16:30:00		0:01:00	54.1	
1352	16-Nov-04	16:31:00		0:01:00	54.6	
1353	16-Nov-04	16:32:00		0:01:00	54.6	
1354	16-Nov-04	16:33:00		0:01:00	53.9	
1355	16-Nov-04	16:34:00		0:01:00	54.3	
1356	16-Nov-04	16:35:00		0:01:00	55	
1357	16-Nov-04	16:36:00		0:01:00	53.8	
1358	16-Nov-04	16:37:00		0:01:00	55	
1359	16-Nov-04	16:38:00		0:01:00	54.5	
1360	16-Nov-04	16:39:00		0:01:00	54.8	
1361	16-Nov-04	16:40:00		0:01:00	55.3	
1362	16-Nov-04	16:41:00		0:01:00	54.8	
1363	16-Nov-04	16:42:00		0:01:00	54.5	
1364	16-Nov-04	16:43:00		0:01:00	54.9	
1365	16-Nov-04	16:44:00		0:01.00	55.2	
1366	16-Nov-04	16:45:00		0:01:00	55.8	
1367	16-Nov-04	16:46:00		0:01:00	55.9	
1368	16-Nov-04	16:47:00		0:01:00	56.4	
1369	16-Nov-04	16:48:00		0:01.00	56.6	
1370	16-Nov-04	16:49:00		0:01:00	56.3	
1371	16-Nov-04	16:50:00		0:01:00	56.2	
1372	16-Nov-04	16:51:00		0:01:00	56.7	
1373	16-Nov-04	16:52:00		0:01:00	54.9	
1374	16-Nov-04	16:53:00		0:01:00	54.9	
1375	16-Nov-04	16:54:00		0:01:00	54.9	
1376	16-Nov-04	16:55:00		0:01:00	54.2	
1377	16-Nov-04	16:56:00		0:01:00	54.4	
1378	16-Nov-04	16:57:00		0:01:00	54.9	
1379	16-Nov-04	16:58:00		0:01:00	54.9	
1380	16-Nov-04	16:59:00		0:01:00	54.7	

1381	16-Nov-04	17:00:00	47.0	0:01:00	54.7	
1382	16-Nov-04	17:01:00		0:01:00	55	
1383	16-Nov-04	17:02:00		0:01:00	56.1	
1384	16-Nov-04	17:03:00		0:01:00	55.8	
1385	16-Nov-04	17:04:00		0:01:00	55.8	
1386	16-Nov-04	17:05:00		0:01:00	55.6	
1387	16-Nov-04	17:06:00		0:01:00	55.8	
1388	16-Nov-04	17:07:00		0:01:00	55.6	
1389	16-Nov-04	17:08:00		0:01:00	54.6	
1390	16-Nov-04	17:09:00		0:01:00	54.4	
1391	16-Nov-04	17:10:00		0:01:00	55	
1392	16-Nov-04	17:11:00		0:01:00	55.1	
1393	16-Nov-04	17:12:00		0:01:00	55.4	
1394	16-Nov-04	17:13:00		0:01:00	55.4	
1395	16-Nov-04	17:14:00		0:01:00	55.2	
1396	16-Nov-04	17:15:00		0:01:00	55.2	
1397	16-Nov-04	17:16:00		0:01:00	55.5	
1398	16-Nov-04	17:17:00		0:01:00	55.5	
1399	16-Nov-04	17:18:00		0:01:00	53.8	
1400	16-Nov-04	17:19:00		0:01:00	54.5	
1401	16-Nov-04	17:20:00		0:01:00	54.7	
1402	16-Nov-04	17:21:00		0:01:00	54.5	
1403	16-Nov-04	17:22:00		0:01:00	55.1	
1404	16-Nov-04	17:23:00		0:01:00	55.3	
1405	16-Nov-04	17:24:00		0:01:00	54.9	
1406	16-Nov-04	17:25:00		0:01:00	55.8	
1407	16-Nov-04	17:26:00		0:01:00	56.3	
1408	16-Nov-04	17:27:00		0:01.00	56.1	
1409	16-Nov-04	17:28:00		0:01:00	56.4	
1410	16-Nov-04	17:29:00		0:01:00	56.3	
1411	16-Nov-04	17:30:00		0:01:00	57.3	
1412	16-Nov-04	17:31:00		0:01:00	57.2	
1413	16-Nov-04	17:32:00		0:01:00	56.7	
1414	16-Nov-04	17:33:00		0:01:00	56.3	
1415	16-Nov-04	17:34:00		0:01:00	56.1	
1416	16-Nov-04	17:35:00		0:01:00	56.4	
1417	16-Nov-04	17:36:00		0:01:00	56.8	
1418	16-Nov-04	17:37:00		0:01:00	57	
1419	16-Nov-04	17:38:00		0:01:00	57.6	Gunshots
1420	16-Nov-04	17:39:00		0:01:00	57.5	
1421	16-Nov-04	17:40:00		0:01:00	57	
1422	16-Nov-04	17:41:00		0:01:00	56.6	
1423	16-Nov-04	17:42:00		0:01:00	56.6	
1424	16-Nov-04	17:43:00		0:01:00	56.6	
1425	16-Nov-04	17:44:00		0:01:00	56.2	
1426	16-Nov-04	17:45:00		0:01:00	55.3	
1427	16-Nov-04	17:46:00		0:01:00	54.9	
1428	16-Nov-04	17:47:00		0:01:00	55.3	
1429	16-Nov-04	17:48:00		0:01:00	56	
1430	16-Nov-04	17:49:00	47.0	0:01:00	56.1	Dogs barking in distance
1431	16-Nov-04	17:50:00		0:01:00	55.6	
1432	16-Nov-04	17:51:00		0:01:00	55.6	
1433	16-Nov-04	17:52:00		0:01:00	57	
1434	16-Nov-04	17:53:00		0:01:00	57.6	
1435	16-Nov-04	17:54:00		0:01:00	58.2	Coyotes howling/barking close to site

1436	16-Nov-04	17:55:00		0:01:00	56.8	
1437	16-Nov-04	17:56:00		0:01:00	56.7	
1438	16-Nov-04	17:57:00		0:01:00	57.4	Popping
1439	16-Nov-04	17:58:00		0:01:00	56.8	
1440	16-Nov-04	17:59:00		0:01:00	56.3	
1441	16-Nov-04	18:00:00		0:01:00	55.1	
1442	16-Nov-04	18:01:00		0:01:00	54.5	
1443	16-Nov-04	18:02:00		0:01:00	56	
1444	16-Nov-04	18:03:00		0:01:00	54	
1445	16-Nov-04	18:04:00		0:01:00	51.3	
1446	16-Nov-04	18:05:00		0:01:00	50.3	
1447	16-Nov-04	18:06:00		0:01:00	49.4	
1448	16-Nov-04	18:07:00		0:01:00	49.6	
1449	16-Nov-04	18:08:00		0:01:00	49.8	
1450	16-Nov-04	18:09:00		0:01:00	50.1	
1451	16-Nov-04	18:10:00		0:01:00	49.2	
1452	16-Nov-04	18:11:00		0:01:00	50.1	
1453	16-Nov-04	18:12:00		0:01:00	49.9	
1454	16-Nov-04	18:13:00	46.0	0:01:00	50.4	Coyotes howling/barking close to site
1455	16-Nov-04	18:14:00		0:01:00	50.2	
1456	16-Nov-04	18:15:00		0:01:00	50.4	
1457	16-Nov-04	18:16:00		0:01:00	49.8	
1458	16-Nov-04	18:17:00		0:01:00	49.7	
1459	16-Nov-04	18:18:00		0:01:00	49.6	
1460	16-Nov-04	18:19:00		0:01:00	49.7	
1461	16-Nov-04	18:20:00		0:01:00	49.6	
1462	16-Nov-04	18:21:00		0:01:00	50.1	Coyotes howling/barking close to site
1463	16-Nov-04	18:22:00		0:01:00	49.3	
1464	16-Nov-04	18:23:00		0:01:00	49.4	
1465	16-Nov-04	18:24:00		0:01:00	49.2	
1466	16-Nov-04	18:25:00		0:01:00	49.9	
1467	16-Nov-04	18:26:00		0:01:00	50.4	
1468	16-Nov-04	18:27:00		0:01:00	50.5	
1469	16-Nov-04	18:28:00		0:01:00	50.4	
1470	16-Nov-04	18:29:00		0:01:00	49.8	
1471	16-Nov-04	18:30:00		0:01:00	49.4	
1472	16-Nov-04	18:31:00		0:01:00	49.6	
1473	16-Nov-04	18:32:00		0:01:00	49.6	
1474	16-Nov-04	18:33:00		0:01:00	49.7	
1475	16-Nov-04	18:34:00		0:01:00	49.9	
1476	16-Nov-04	18:35:00		0:01:00	50.5	
1477	16-Nov-04	18:36:00		0:01:00	49.5	
1478	16-Nov-04	18:37:00		0:01:00	50	
1479	16-Nov-04	18:38:00		0:01:00	50.1	
1480	16-Nov-04	18:39:00		0:01:00	49.6	
1481	16-Nov-04	18:40:00		0:01:00	50.6	
1482	16-Nov-04	18:41:00		0:01:00	49.2	
1483	16-Nov-04	18:42:00		0:01:00	49.6	
1484	16-Nov-04	18:43:00		0:01:00	49.8	
1485	16-Nov-04	18:44:00		0:01:00	50.5	
1486	16-Nov-04	18:45:00		0:01:00	50.1	
1487	16-Nov-04	18:46:00		0:01:00	48.8	
1488	16-Nov-04	18:47:00		0:01:00	49.1	
1489	16-Nov-04	18:48:00		0:01:00	48.4	

1490	16-Nov-04	18:49:00		0:01:00	49.5	
1491	16-Nov-04	18:50:00		0:01:00	49.7	
1492	16-Nov-04	18:51:00		0:01:00	49.4	
1493	16-Nov-04	18:52:00		0:01:00	48.8	
1494	16-Nov-04	18:53:00		0:01:00	49.6	
1495	16-Nov-04	18:54:00		0:01:00	49.2	
1496	16-Nov-04	18:55:00		0:01:00	49.8	
1497	16-Nov-04	18:56:00		0:01:00	49.9	
1498	16-Nov-04	18:57:00		0:01:00	49.4	
1499	16-Nov-04	18:58:00		0:01:00	49.2	
1500	16-Nov-04	18:59:00		0:01:00	49.5	
1501	16-Nov-04	19:00:00		0:01:00	49.4	
1502	16-Nov-04	19:01:00		0:01:00	51.6	Coyotes howling/barking close to site
1503	16-Nov-04	19:02:00		0:01:00	50.8	
1504	16-Nov-04	19:03:00		0:01:00	50.1	
1505	16-Nov-04	19:04:00		0:01:00	49.9	
1506	16-Nov-04	19:05:00		0:01:00	49.8	
1507	16-Nov-04	19:06:00		0:01:00	49.2	
1508	16-Nov-04	19:07:00		0:01:00	49	
1509	16-Nov-04	19:08:00		0:01:00	48.8	
1510	16-Nov-04	19:09:00		0:01:00	48.8	
1511	16-Nov-04	19:10:00		0:01:00	48.7	
1512	16-Nov-04	19:11:00		0:01:00	49.2	
1513	16-Nov-04	19:12:00		0:01:00	49.1	
1514	16-Nov-04	19:13:00		0:01:00	49.2	
1515	16-Nov-04	19:14:00		0:01:00	48.9	
1516	16-Nov-04	19:15:00		0:01:00	49.4	
1517	16-Nov-04	19:16:00		0:01:00	49.9	
1518	16-Nov-04	19:17:00		0:01:00	49.9	
1519	16-Nov-04	19:18:00		0:01:00	50.1	
1520	16-Nov-04	19:19:00		0:01:00	49.8	
1521	16-Nov-04	19:20:00		0:01:00	50	
1522	16-Nov-04	19:21:00		0:01:00	49.5	
1523	16-Nov-04	19:22:00		0:01:00	49.7	
1524	16-Nov-04	19:23:00		0:01:00	50.3	
1525	16-Nov-04	19:24:00		0:01:00	50.3	
1526	16-Nov-04	19:25:00		0:01:00	49.1	
1527	16-Nov-04	19:26:00		0:01:00	49.5	
1528	16-Nov-04	19:27:00		0:01:00	49.4	
1529	16-Nov-04	19:28:00		0:01:00	49.7	
1530	16-Nov-04	19:29:00		0:01:00	49.4	
1531	16-Nov-04	19:30:00		0:01:00	49.3	
1532	16-Nov-04	19:31:00		0:01:00	49.1	
1533	16-Nov-04	19:32:00		0:01:00	49.4	
1534	16-Nov-04	19:33:00		0:01:00	49.6	
1535	16-Nov-04	19:34:00		0:01:00	48.7	
1536	16-Nov-04	19:35:00		0:01:00	48.9	
1537	16-Nov-04	19:36:00		0:01:00	49	
1538	16-Nov-04	19:37:00		0:01:00	49.1	
1539	16-Nov-04	19:38:00		0:01:00	49.3	
1540	16-Nov-04	19:39:00		0:01:00	49.7	
1541	16-Nov-04	19:40:00	46.0	0:01:00	49.7	
1542	16-Nov-04	19:41:00		0:01:00	49.5	
1543	16-Nov-04	19:42:00		0:01:00	49.3	
1544	16-Nov-04	19:43:00		0:01:00	49.5	

1545	16-Nov-04	19:44:00		0:01:00	49.7	
1546	16-Nov-04	19:45:00		0:01:00	49.5	
1547	16-Nov-04	19:46:00		0:01:00	49.4	
1548	16-Nov-04	19:47:00		0:01:00	49.6	
1549	16-Nov-04	19:48:00		0:01:00	49.7	
1550	16-Nov-04	19:49:00		0:01:00	49.5	
1551	16-Nov-04	19:50:00		0:01:00	49.4	
1552	16-Nov-04	19:51:00		0:01:00	49.5	
1553	16-Nov-04	19:52:00		0:01:00	49.7	
1554	16-Nov-04	19:53:00		0:01:00	49.7	
1555	16-Nov-04	19:54:00		0:01:00	50.1	
1556	16-Nov-04	19:55:00		0:01:00	49.7	
1557	16-Nov-04	19:56:00		0:01:00	49.6	
1558	16-Nov-04	19:57:00		0:01:00	49.7	
1559	16-Nov-04	19:58:00		0:01:00	49.7	
1560	16-Nov-04	19:59:00		0:01:00	49.8	
1561	16-Nov-04	20:00:00		0:01:00	49.8	
1562	16-Nov-04	20:01:00		0:01:00	49.3	
1563	16-Nov-04	20:02:00		0:01:00	49.9	
1564	16-Nov-04	20:03:00		0:01:00	49.7	
1565	16-Nov-04	20:04:00		0:01:00	49.6	
1566	16-Nov-04	20:05:00		0:01:00	49.9	
1567	16-Nov-04	20:06:00		0:01:00	50.1	
1568	16-Nov-04	20:07:00		0:01:00	50	
1569	16-Nov-04	20:08:00		0:01:00	49.8	
1570	16-Nov-04	20:09:00		0:01:00	50.1	
1571	16-Nov-04	20:10:00		0:01:00	50.2	
1572	16-Nov-04	20:11:00		0:01:00	50.5	
1573	16-Nov-04	20:12:00		0:01:00	50.4	
1574	16-Nov-04	20:13:00		0:01:00	50.1	
1575	16-Nov-04	20:14:00		0:01:00	50.1	
1576	16-Nov-04	20:15:00		0:01:00	49.8	
1577	16-Nov-04	20:16:00		0:01:00	49.9	
1578	16-Nov-04	20:17:00		0:01:00	50	
1579	16-Nov-04	20:18:00		0:01:00	49.9	
1580	16-Nov-04	20:19:00		0:01:00	50	
1581	16-Nov-04	20:20:00	44.8	0:01:00	50.2	Coyotes howling/barking close to site
1582	16-Nov-04	20:21:00		0:01:00	50	
1583	16-Nov-04	20:22:00		0:01:00	50.3	
1584	16-Nov-04	20:23:00		0:01:00	50.1	
1585	16-Nov-04	20:24:00		0:01:00	49.9	
1586	16-Nov-04	20:25:00		0:01:00	49.7	
1587	16-Nov-04	20:26:00		0:01:00	49.7	
1588	16-Nov-04	20:27:00		0:01:00	49.9	
1589	16-Nov-04	20:28:00		0:01:00	49.8	
1590	16-Nov-04	20:29:00		0:01:00	49.9	
1591	16-Nov-04	20:30:00		0:01:00	49.7	
1592	16-Nov-04	20:31:00		0:01:00	49.6	
1593	16-Nov-04	20:32:00		0:01:00	50.1	
1594	16-Nov-04	20:33:00		0:01:00	49.7	
1595	16-Nov-04	20:34:00		0:01:00	49.5	
1596	16-Nov-04	20:35:00		0:01:00	49.8	
1597	16-Nov-04	20:36:00		0:01:00	49.7	
1598	16-Nov-04	20:37:00		0:01:00	49.9	
1599	16-Nov-04	20:38:00		0:01:00	49.6	

1600	16-Nov-04	20:39:00		0:01:00	49.4	
1601	16-Nov-04	20:40:00		0:01:00	49.5	
1602	16-Nov-04	20:41:00		0:01:00	49.3	
1603	16-Nov-04	20:42:00		0:01:00	49.3	
1604	16-Nov-04	20:43:00		0:01:00	49.6	
1605	16-Nov-04	20:44:00		0.01:00	49.8	
1606	16-Nov-04	20:45:00		0:01:00	49.7	
1607	16-Nov-04	20:46:00		0:01:00	50	
1608	16-Nov-04	20:47:00		0:01:00	50	
1609	16-Nov-04	20:48:00		0:01:00	51.6	
1610	16-Nov-04	20:49:00		0:01:00	49.5	
1611	16-Nov-04	20:50:00		0:01:00	49.3	
1612	16-Nov-04	20:51:00		0:01:00	49.6	
1613	16-Nov-04	20:52:00		0:01:00	49.5	
1614	16-Nov-04	20:53:00		0:01:00	49.5	
1615	16-Nov-04	20:54:00		0:01:00	49.6	
1616	16-Nov-04	20:55:00		0:01:00	49 4	
1617	16-Nov-04	20:56:00		0:01:00	49.8	
1618	16-Nov-04	20:57:00		0:01:00	49.7	
1619	16-Nov-04	20:58:00		0:01:00	49.5	
1620	16-Nov-04	20:59:00		0:01:00	49.6	
1621	16-Nov-04	21:00:00		0:01:00	49.8	
1622	16-Nov-04	21:01:00		0:01:00	49.8	
1623	16-Nov-04	21:02:00	43.0	0:01:00	50	Road noise to North (distant)
1624	16-Nov-04	21:03:00		0:01:00	49.7	
1625	16-Nov-04	21:04:00		0:01:00	49.5	
1626	16-Nov-04	21:05:00		0:01:00	49.8	
1627	16-Nov-04	21:06:00		0:01:00	49.8	
1628	16-Nov-04	21:07:00		0:01:00	49.8	
1629	16-Nov-04	21:08:00		0:01:00	49.8	
1630	16-Nov-04	21:09:00		0:01:00	49.8	
1631	16-Nov-04	21:10:00		0:01:00	49.8	
1632	16-Nov-04	21:11:00		0:01:00	49.7	
1633	16-Nov-04	21:12:00		0:01:00	49.6	
1634	16-Nov-04	21:13:00		0:01:00	49.4	
1635	16-Nov-04	21:14:00		0:01:00	49.8	
1636	16-Nov-04	21:15:00		0:01:00	49.6	
1637	16-Nov-04	21:16:00		0:01:00	49.7	
1638	16-Nov-04	21:17:00		0:01:00	49.3	
1639	16-Nov-04	21:18:00		0:01:00	49.5	
1640	16-Nov-04	21:19:00		0:01:00	49.6	
1641	16-Nov-04	21:20:00		0:01:00	49.7	
1642	16-Nov-04	21:21:00		0:01:00	49.7	
1643	16-Nov-04	21:22:00		0:01:00	49.6	
1644	16-Nov-04	21:23:00		0:01:00	49.8	
1645	16-Nov-04	21:24:00		0:01:00	49.9	
1646	16-Nov-04	21:25:00		0:01:00	50.2	
1647	16-Nov-04	21:26:00		0:01:00	49.7	
1648	16-Nov-04	21:27:00		0:01:00	49.8	
1649	16-Nov-04	21:28:00		0:01:00	49.8	
1650	16-Nov-04	21:29:00		0:01:00	49.3	
1651	16-Nov-04	21:30:00		0:01:00	49.5	
1652	16-Nov-04	21:31:00		0:01:00	49.5	
1653	16-Nov-04	21:32:00		0:01:00	49.7	
1654	16-Nov-04	21:33:00		0:01:00	49.3	
1655	16-Nov-04	21:34:00		0:01:00	49.3	

1656	16-Nov-04	21:35:00		0.01:00	49.4	
1657	16-Nov-04	21:36:00		0:01:00	49.5	
1658	16-Nov-04	21:37:00		0.01:00	49.5	
1659	16-Nov-04	21:38:00		0:01:00	49.8	
1660	16-Nov-04	21:39:00		0:01:00	49.6	
1661	16-Nov-04	21:40:00		0:01:00	49.5	
1662	16-Nov-04	21:41:00		0:01:00	49.5	
1663	16-Nov-04	21:42:00		0:01:00	49.3	
1664	16-Nov-04	21:43:00		0:01:00	49.5	
1665	16-Nov-04	21:44:00		0:01:00	49.5	
1666	16-Nov-04	21:45:00		0:01:00	49.4	
1667	16-Nov-04	21:46:00		0:01:00	49.4	
1668	16-Nov-04	21:47:00		0:01:00	49.1	
1669	16-Nov-04	21:48:00		0:01:00	49.1	
1670	16-Nov-04	21:49:00		0:01:00	49	
1671	16-Nov-04	21:50:00		0:01:00	49	
1672	16-Nov-04	21:51:00		0:01:00	48.9	
1673	16-Nov-04	21:52:00		0:01:00	48.9	
1674	16-Nov-04	21:53:00		0:01:00	49.1	
1675	16-Nov-04	21:54:00		0:01:00	49	
1676	16-Nov-04	21:55:00		0:01:00	49.1	
1677	16-Nov-04	21:56:00		0:01:00	49.6	
1678	16-Nov-04	21:57:00		0:01:00	49	
1679	16-Nov-04	21:58:00		0:01:00	49.2	
1680	16-Nov-04	21:59:00		0:01.00	49.2	
1681	16-Nov-04	22:00:00	43.0	0:01:00	49.2	
1682	16-Nov-04	22:01:00		0:01:00	49.2	
1683	16-Nov-04	22:02:00		0:01:00	49.2	
1684	16-Nov-04	22:03:00		0:01:00	49.3	
1685	16-Nov-04	22:04:00		0:01:00	49.2	
1686	16-Nov-04	22:05:00		0:01:00	49	
1687	16-Nov-04	22:06:00		0:01:00	49.3	
1688	16-Nov-04	22:07:00		0:01:00	49.1	
1689	16-Nov-04	22:08:00		0:01:00	48.8	
1690	16-Nov-04	22:09:00		0:01:00	49.1	
1691	16-Nov-04	22:10:00		0:01:00	49.2	
1692	16-Nov-04	22:11:00		0:01:00	49.3	
1693	16-Nov-04	22:12:00		0:01:00	49.2	
1694	16-Nov-04	22:13:00		0:01:00	49.5	
1695	16-Nov-04	22:14:00		0:01:00	49.4	
1696	16-Nov-04	22:15:00		0:01:00	49.2	
1697	16-Nov-04	22:16:00		0:01:00	49.2	
1698	16-Nov-04	22:17:00		0:01:00	49.4	Coyotes howling/barking close to site
1699	16-Nov-04	22:18:00		0:01:00	48.9	
1700	16-Nov-04	22:19:00		0:01:00	48.7	
1701	16-Nov-04	22:20:00		0:01:00	48.8	
1702	16-Nov-04	22:21:00		0:01:00	49.1	
1703	16-Nov-04	22:22:00		0:01:00	49.1	
1704	16-Nov-04	22:23:00		0:01:00	49	
1705	16-Nov-04	22:24:00		0:01:00	49.2	
1706	16-Nov-04	22:25:00		0:01:00	49.1	
1707	16-Nov-04	22:26:00		0:01:00	49.2	
1708	16-Nov-04	22:27:00		0:01:00	49.1	
1709	16-Nov-04	22:28:00		0:01:00	49.2	
1710	16-Nov-04	22:29:00		0:01:00	48.9	

1711	16-Nov-04	22:30:00		0:01:00	49	
1712	16-Nov-04	22:31:00		0:01:00	49	
1713	16-Nov-04	22:32:00		0:01:00	49.1	
1714	16-Nov-04	22:33:00		0:01:00	48.9	
1715	16-Nov-04	22:34:00		0:01:00	49.2	
1716	16-Nov-04	22:35:00		0:01:00	48.9	
1717	16-Nov-04	22:36:00		0:01:00	49.2	
1718	16-Nov-04	22:37:00		0:01:00	49.3	
1719	16-Nov-04	22:38:00		0:01:00	49.3	
1720	16-Nov-04	22:39:00		0:01:00	49.5	
1721	16-Nov-04	22:40:00		0:01:00	49.4	
1722	16-Nov-04	22:41:00		0:01:00	49.4	
1723	16-Nov-04	22:42:00		0:01:00	49.4	
1724	16-Nov-04	22:43:00		0:01:00	49.4	
1725	16-Nov-04	22:44:00		0:01:00	49.4	
1726	16-Nov-04	22:45:00		0:01:00	49.2	
1727	16-Nov-04	22:46:00		0:01:00	49.3	
1728	16-Nov-04	22:47:00		0:01:00	49.3	
1729	16-Nov-04	22:48:00		0:01:00	49.3	
1730	16-Nov-04	22:49:00		0:01:00	49.3	
1731	16-Nov-04	22:50:00		0:01:00	49.3	
1732	16-Nov-04	22:51:00		0:01:00	49.4	
1733	16-Nov-04	22:52:00		0:01:00	49.5	
1734	16-Nov-04	22:53:00		0:01:00	49.3	
1735	16-Nov-04	22:54:00		0:01:00	49.3	
1736	16-Nov-04	22:55:00		0:01:00	49.2	
1737	16-Nov-04	22:56:00		0:01:00	49.2	
1738	16-Nov-04	22:57:00		0:01:00	49.1	
1739	16-Nov-04	22:58:00		0:01:00	49.5	
1740	16-Nov-04	22:59:00	41.0	0:01:00	49.8	Breakers operating
1741	16-Nov-04	23:00:00		0:01:00	49.8	
1742	16-Nov-04	23:01:00		0:01:00	49.6	
1743	16-Nov-04	23:02:00		0:01:00	49.5	
1744	16-Nov-04	23:03:00		0:01:00	49.5	
1745	16-Nov-04	23:04:00		0:01:00	49.7	
1746	16-Nov-04	23:05:00		0:01:00	50.7	
1747	16-Nov-04	23:06:00		0:01:00	49.6	
1748	16-Nov-04	23:07:00		0:01:00	49.6	
1749	16-Nov-04	23:08:00		0:01:00	49.6	
1750	16-Nov-04	23:09:00		0:01:00	49.7	
1751	16-Nov-04	23:10:00		0:01:00	49.4	
1752	16-Nov-04	23:11:00		0:01:00	49.6	
1753	16-Nov-04	23:12:00		0:01:00	49.7	
1754	16-Nov-04	23:13:00		0:01:00	49.1	
1755	16-Nov-04	23:14:00		0:01:00	48.8	
1756	16-Nov-04	23:15:00		0:01:00	49.3	
1757	16-Nov-04	23:16:00		0:01:00	49.5	
1758	16-Nov-04	23:17:00		0:01:00	49.2	
1759	16-Nov-04	23:18:00		0:01:00	49.3	
1760	16-Nov-04	23:19:00		0:01:00	49.2	
1761	16-Nov-04	23:20:00		0:01:00	48.9	
1762	16-Nov-04	23:21:00		0:01:00	49.3	
1763	16-Nov-04	23:22:00		0:01:00	49.3	
1764	16-Nov-04	23:23:00		0:01:00	49.6	
1765	16-Nov-04	23:24:00		0:01:00	49.4	
1766	16-Nov-04	23:25:00		0:01:00	49.5	

1767	16-Nov-04	23:26:00		0:01:00	49.2	
1768	16-Nov-04	23:27:00		0:01:00	49.3	
1769	16-Nov-04	23:28:00		0:01:00	49.2	
1770	16-Nov-04	23:29:00		0:01:00	49.5	
1771	16-Nov-04	23:30:00		0:01:00	49.4	
1772	16-Nov-04	23:31:00		0:01:00	49	
1773	16-Nov-04	23:32:00		0:01:00	49.3	
1774	16-Nov-04	23:33:00		0:01:00	49.2	
1775	16-Nov-04	23:34:00		0:01:00	49.3	
1776	16-Nov-04	23:35:00		0:01:00	49.3	
1777	16-Nov-04	23:36:00		0:01:00	49.2	
1778	16-Nov-04	23:37:00		0:01:00	49.3	
1779	16-Nov-04	23:38:00		0:01:00	49.4	
1780	16-Nov-04	23:39:00		0:01:00	49.4	
1781	16-Nov-04	23:40:00		0:01:00	49.5	
1782	16-Nov-04	23:41:00		0:01:00	49.4	
1783	16-Nov-04	23:42:00		0:01:00	49.4	
1784	16-Nov-04	23:43:00		0:01:00	49.4	
1785	16-Nov-04	23:44:00		0:01:00	49.3	
1786	16-Nov-04	23:45:00		0:01:00	49.5	
1787	16-Nov-04	23:46:00		0:01:00	49.6	
1788	16-Nov-04	23:47:00		0:01:00	49.7	
1789	16-Nov-04	23:48:00		0:01:00	49.4	
1790	16-Nov-04	23:49:00		0:01:00	49.6	
1791	16-Nov-04	23:50:00		0:01:00	49.4	
1792	16-Nov-04	23:51:00		0:01:00	49.5	
1793	16-Nov-04	23:52:00		0:01:00	49.5	
1794	16-Nov-04	23:53:00		0:01:00	49.7	
1795	16-Nov-04	23:54:00		0:01:00	49.5	
1796	16-Nov-04	23:55:00		0:01:00	49.5	
1797	16-Nov-04	23:56:00		0:01:00	49.8	
1798	16-Nov-04	23:57:00		0:01:00	49.8	
1799	16-Nov-04	23:58:00		0:01:00	50.8	
1800	16-Nov-04	23:59:00	43.0	0:01:00	49.9	

Burns & McDonnell
SINCE 1898

Date: December 1, 2004

To: Jim Miller, Basin Electric Power Cooperative
Jim Keck, Black Hills Power

From: Mary Hauner, Burns & McDonnell

Re: Residential (Old Folsom Rd.) Measurements, November 16, 2004, 2:00 – 3:30 AM.

Burns & McDonnell Engineering Company Inc. (Burns & McDonnell) was contracted by Basin Electric Power Cooperative (BEPC) to conduct a noise assessment study for the existing DC Tie station located in Rapid City, South Dakota. The study was conducted to quantify the sound pressure level at the closest residences to the site. During the test, operation at the facility varied from no power transfer and fully de-energized to 200 MW of power transfer. Meteorological conditions were favorable for conducting the noise test.

A similar noise study measured noise levels at the same points in August 2004. Prior to the August readings, sand was added to the structure members encompassing the transformers to reduce transformer noise. Since that time, the facility has completed two other on-site noise attenuation projects. These projects include:

1. Addition of fiberglass weight bars to the 18 HP 11/13 L2 Coils to move the structural resonance frequency away from the excitation frequency, and
2. The transformer and cooling tower fans were adjusted and programmed to minimize operation.

On November 16, 2004, between 2:00 and 3:30 AM, Burns & McDonnell personnel measured noise levels at different locations along Old Folsom Road. Several initial background readings were taken while the DC Tie Station was at no load and was de-energized. Two additional readings were taken when the facility was at no load and was fully energized. Table 1 below lists all measurements taken and their corresponding locations. The noise meter measured and recorded L_{eq} dBA average measurement samples at each location.

9400 Ward Parkway
Kansas City, Missouri 64114-3319
Tel: 816 333-9400
Fax: 816 333-3690
www.burnsmcd.com

Table 1
Measured Residential Noise Levels, November 2004 (2:00-3:30 AM)

Location	Station Load	Measured Sound Level L_{eq} (dBA)	Notes on Extraneous Noises
Old Folsom Rd. & Lamb Rd.	No Load/De-energized	34.3	Industrial noise from the north
	No Load/Energized	33.1	None
	200 MW	33.4	None
Mark Thomas Residence	No Load/De-energized	40.7	Transmission structure vibration noise
	200 MW	33.2	None
Faulk's Residence	No Load/De-energized	34.0	Industrial noise from the north
	200 MW	37.1	Distant Dog Barking
Miller's Residence	No Load/De-energized	33.9	Industrial noise from north
	No Load/Energized	34.4	None
	200 MW	37.1	None

The maximum increase from no load/de-energized to 200 MW operation at any of the locations is 3.2 dB. As a 3 dB change in noise level is considered "barely perceivable", the changes in noise level at the residences would not be perceivable or just barely perceivable for a typical person. The unavoidable extraneous noises that were audible and recorded during the measurements may have impacted the readings more than the facility, since the measured noise levels were low.

In order to examine if the noise attenuating projects completed on the site attributed to any reduced noise levels in the residential area, the August 2004 noise measurements are included in this memo. Table 2, below, displays the readings obtained during the August 2004 noise study.

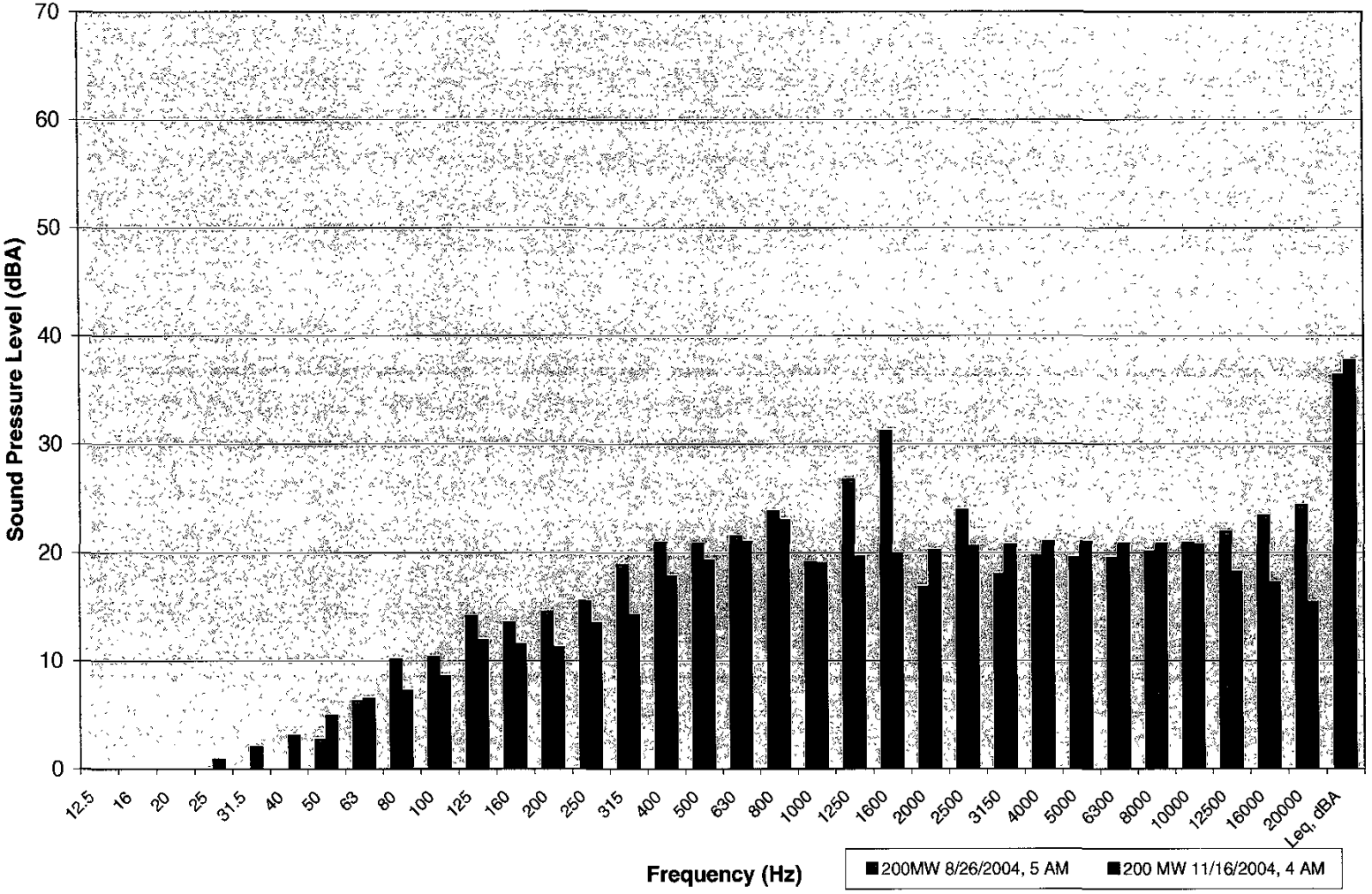
Table 2
Measured Residential Noise Levels, August 2004 (5:00 AM)

Location	Station Load	Burns & McDonnell Measured Sound Level L_{eq} (dBA)
Old Folsom Rd. & Lamb Rd.	No Load	33.6
Old Folsom Rd. & Lamb Rd.	200 MW	36.4
Mark Thomas Residence	200 MW	34.5
Faulk's Residence	200 MW	35.8
Miller's Residence	200 MW	34.5
Northwest of the Miller's Residence*	200 MW	36.4

*** DC Tie noise was barley audible, more industrial noise from the northwest was observed.**

The impact from the facility in this area is minimal. Although noise readings on the fenceline have decreased overall at the facility, the measured noise levels in this residential area have not perceivably changed from August to November. The noise level at these points due to the facility is almost impossible to compare for the August 2004 and November 2004 measurements, given the low level of the readings. Differences in noise levels may be attributable to many different ambient sources, such as other nearby industry, animals, and traffic. These noise levels are consistent with typical quiet neighborhood readings.

Lamb Rd. and Old Folsom Rd. Intersection Noise Measurements
200 MW Operation
August 2004 vs. November 2004



Old Folsom Road Measurments - November 2004
Rapid City DC Tie Station