



January 20, 2009

Mr. Shawn Thurber
Lafarge Canada Inc.
10511, 15th St. S.E.
Calgary, Alberta
T2H 2H5

Re: **Noise Monitoring for Lafarge – Stoney Trail #1**

Dear Mr. Thurber;

Attached are results of the monitoring for the period December 1 - 31, 2008 for noise and TSP and PM2.5 particulate. A B&K model 2236 meter was used for noise, and the Aerometrics Minivol model for particulate. Winds were measured with a R.M. Young Model 5103 anemometer. Precipitation was recorded with a Texas Instruments model TE25M rain gauge.

Data collection was 100% for all parameters during the monitoring period.

There were no exceedances of the city of Calgary noise bylaw.

There were no exceedances of the Alberta Air Quality Objectives for TSP or PM2.5 particulate.

Please call if there are any questions regarding the results.

Yours truly,

PROMET ENVIRONMENTAL GROUP LTD.

A handwritten signature in black ink, appearing to read "Bill Murray". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dr. William (Bill) Murray
President

WM/kt
Enc.

PROMET

MONTHLY REPORT SUMMARY

Stoney Trail #1

Lafarge Canada Inc.

Name/Location

Company

December 2008

Monitoring Period

| Continuous Ambient Monitoring | | | | |
|-------------------------------|--------------------|---------|---------|---|
| Parameter | % Time Operational | Average | Maximum | Number of Hours above Bylaw Limit for Industrial Area |
| Sound | 100% | 41 | 51 dB A | 0 |
| PM2.5 | 80% | 5 | 7 | 0 |
| TSP | 100% | 17 | 31 | 0 |
| Wind | 100% | 14 km/h | 41 km/h | - |
| Precipitation | 100% | - | 4 | - |
| Trailer Temperature | 100% | -7 | 15 | - |

Sound level is analyzed only for wind speed less than 11 km/h and precipitation less than 3 mm/hour

COMMENTS:

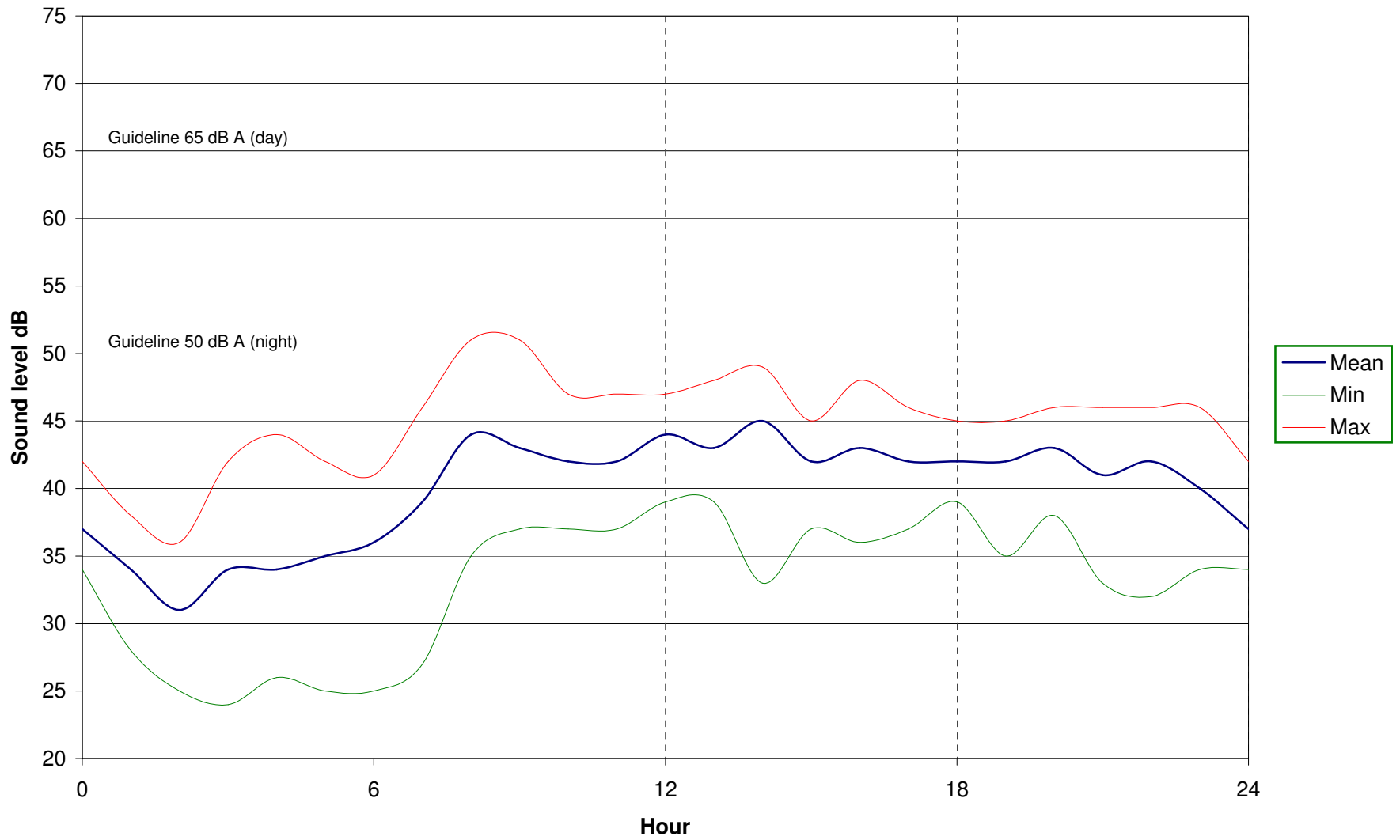
The regulation for residential areas is 65 dB A for day time or 50 dB A for night-time. Sound Level must exceed 5 dB A Leq over the Ambient Sound Level before it becomes an offence.

The PM2.5 Standard is 30 $\mu\text{g}/\text{m}^3$ for the day.

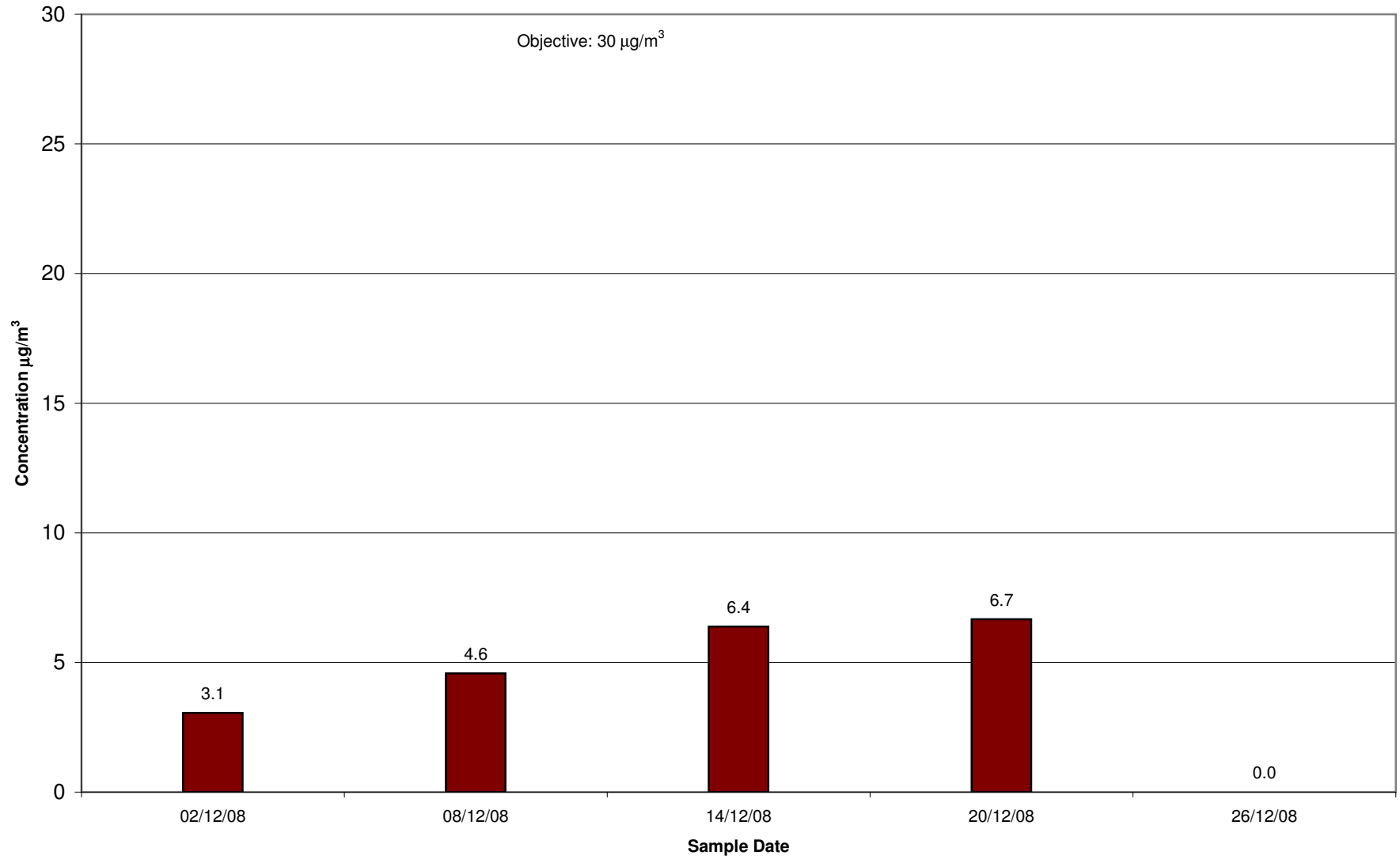
The TSP Objective is 100 $\mu\text{g}/\text{m}^3$ for the day.

One 24 hour sample of PM2.5 and TSP is taken every 6th day following the federal NAPS schedule.

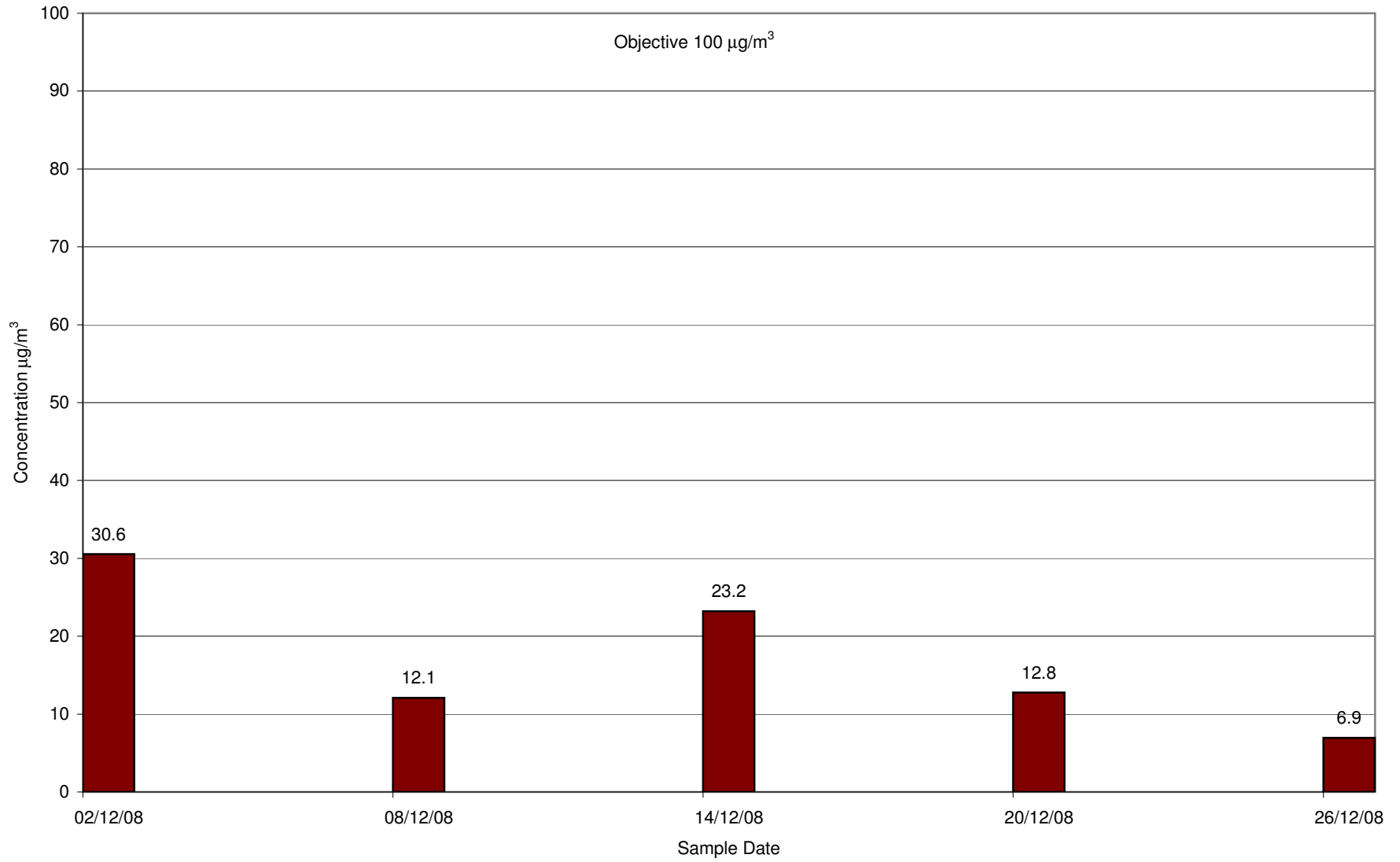
Sound Level by Hour of the Day



PM2.5 at Lafarge Stoney Trail #1 December 2008



TSP at Lafarge Stoney Trail #1, December 2008



ABSTRACT OF THE WIND
Lafarge Canada Inc.
Stoney Trail
STATION 620
DEC 2008

| HOUR DAY | ALL TIMES ARE L.S.T. | | | | | | | | | | | | | | | | | | | | | | | | SPEED [km/h] | | | | ANEMOMETER HEIGHT 10 m | | | | MEAN SPD | MAX VEL | PREV DIR | MISS OBS |
|-------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|-----|-----|---|------------------------|--|--|--|-------------|------------|-------------|-------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | |
| 1 | WSW | WSW | SW | SW | WSW | WSW | WSW | SW | SW | WSW | W | WSW | WSW | W | WNW | NNW | N | N | N | NNW | NNW | NNW | NNW | NNW | 22 | 33 | WSW | 0 | | | | | | | | |
| 2 | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | 15 | 21 | NNW | 0 | | | | | | | | |
| 3 | NNW | NNW | NNW | NNW | NNW | NNW | NW | NW | NW | NW | NW | NW | NNW | NNW | NNW | NNW | N | NNW | NNW | NNW | NNW | NNW | NNW | 12 | 18 | NNW | 0 | | | | | | | | | |
| 4 | W | WNW | WSW | WSW | SW | SW | SW | WSW | WSW | WSW | SW | WSW | WSW | WSW | W | W | W | W | W | W | W | W | W | 12 | 18 | W | 0 | | | | | | | | | |
| 5 | W | W | W | W | W | W | WNW | WNW | NW | NW | NW | NW | NNW | N | NNE | ENE | ENE | ENE | E | SE | SSE | SSE | SSE | 15 | 34 | W | 0 | | | | | | | | | |
| 6 | SSE | SSE | S | S | S | S | SSW | SSW | SSW | S | SSW | SW | SW | SW | WSW | W | NNW | NW | NW | WNW | W | W | W | 12 | 17 | SVL | 0 | | | | | | | | | |
| 7 | W | W | W | W | WNW | NNE | NNE | ENE | ENE | ENE | NNE | NNE | N | NNW | N | N | NNE | NNE | NNE | NE | NE | W | SW | 10 | 15 | NNE | 0 | | | | | | | | | |
| 8 | NE | NE | NE | N | N | NNW | CLM | SE | S | S | S | S | SSW | SSW | SSW | WSW | WSW | WSW | W | NW | NNW | NNW | N | N | 10 | 15 | SVL | 0 | | | | | | | | |
| 9 | NNE | E | S | SSW | SSE | SSE | S | S | S | SSW | SSW | SSW | SSW | SSW | SSW | WSW | WSW | WSW | WSW | WSW | W | W | W | 16 | 41 | WSW | 0 | | | | | | | | | |
| 10 | NW | WNW | WSW | WSW | WSW | WSW | WSW | WSW | WSW | W | W | WNW | NNW | NNW | NNW | W | W | W | WNW | N | N | N | NNW | 12 | 23 | WSW | 0 | | | | | | | | | |
| 11 | NNW | NW | W | WSW | WSW | SW | SW | SSE | SSW | SSW | SSW | SSW | S | S | S | SSW | SW | WSW | WSW | WSW | WSW | W | WSW | WSW | 14 | 25 | WSW | 0 | | | | | | | | |
| 12 | WSW | WSW | WSW | WSW | W | W | WNW | ENE | E | ENE | ENE | E | NE | NE | NE | NE | NE | NE | NNE | NNE | NNE | NNE | NNE | 20 | 34 | SVL | 0 | | | | | | | | | |
| 13 | NNE | NNE | N | NNE | NNE | NNE | NNE | NNE | NNE | N | N | NNE | N | N | N | N | N | NNW | NNW | N | N | N | NNW | 17 | 34 | N | 0 | | | | | | | | | |
| 14 | NNW | NNW | NNW | NNW | NW | NW | NNW | NNW | NW | NNW | NNW | NNW | NNW | NNW | NW | W | W | WNW | NNW | NNW | NNW | NW | NW | 10 | 18 | NNW | 0 | | | | | | | | | |
| 15 | NNW | NW | NNW | NW | NW | WNW | WNW | WNW | NW | WNW | W | W | WSW | WSW | SW | WSW | SW | WSW | W | W | W | W | W | 14 | 18 | W | 0 | | | | | | | | | |
| 16 | W | W | W | WNW | NW | NW | NNW | NNW | WNW | W | WNW | W | WSW | SW | SSW | SSW | SSW | SSW | SW | WSW | W | W | W | 14 | 23 | W | 0 | | | | | | | | | |
| 17 | NNW | NNW | NNW | NNW | N | N | NNW | N | NNW | NNW | NNW | NNW | NNW | NNW | N | N | N | N | NNW | NNW | NNW | NNW | NNW | 14 | 23 | NNW | 0 | | | | | | | | | |
| 18 | NNW | NNW | NNW | NNW | N | N | NNW | NNW | NNW | NNW | N | N | N | N | N | N | N | N | N | N | NNW | NNW | NNW | 7 | 12 | SVL | 0 | | | | | | | | | |
| 19 | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NW | NW | WNW | NW | NW | NW | 12 | 19 | NNW | 0 | | | | | | | | | |
| 20 | NW | NW | WNW | WNW | WNW | WNW | WNW | WNW | W | W | W | WNW | W | WNW | W | WSW | WSW | WSW | WSW | WSW | SW | SW | SW | 10 | 13 | WNW | 0 | | | | | | | | | |
| 21 | SW | SW | SSW | SSW | SSW | SSW | S | S | S | S | S | S | S | S | SSE | SSE | SSE | SSE | SSE | SSE | SE | SE | E | 10 | 13 | S | 0 | | | | | | | | | |
| 22 | NNE | N | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | N | NNW | NNW | NNW | N | N | NNW | NW | WNW | 13 | 19 | NNW | 0 | | | | | | | | | |
| 23 | SW | SSW | SSW | S | S | SSW | SW | SSW | SW | SW | WSW | W | W | W | W | W | WNW | W | WNW | W | WNW | W | WNW | 14 | 20 | W | 0 | | | | | | | | | |
| 24 | WNW | W | W | W | W | W | W | W | W | W | WSW | WSW | W | W | W | SW | SSW | SW | NW | WNW | W | W | W | 17 | 30 | W | 0 | | | | | | | | | |
| 25 | WNW | WNW | W | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | NNW | N | N | NNW | NNW | NNW | NNW | NNW | NW | NW | 15 | 19 | NNW | 0 | | | | | | | | | |
| 26 | WNW | WNW | WNW | W | WSW | SW | SW | SW | SW | SSW | SSW | SSW | SSW | SW | SW | SW | SW | SW | WSW | WSW | WSW | WSW | W | W | 15 | 35 | SW | 0 | | | | | | | | |
| 27 | WSW | W | W | W | W | W | W | W | W | W | W | W | W | W | W | W | W | WNW | WNW | W | W | NW | NNW | 14 | 20 | W | 0 | | | | | | | | | |
| 28 | N | N | NNW | N | N | N | N | N | N | N | NNE | NNE | NNE | NNE | NE | E | SSE | SSE | SSE | SE | SSE | SSE | S | SSW | 10 | 18 | N | 0 | | | | | | | | |
| 29 | SSW | SSW | SW | SW | SW | SSW | SW | SSW | SW | SSW | S | S | SSW | SSW | SW | ESE | SE | S | SSW | SE | N | N | NNW | 10 | 16 | SVL | 0 | | | | | | | | | |
| 30 | NNW | NNW | NNW | NNW | NNW | NNW | NNW | N | N | NNE | ESE | SSW | S | SSW | SSW | SSW | SSW | SW | SW | SW | SSW | S | S | 10 | 16 | NNW | 0 | | | | | | | | | |
| 31 | SSW | SSW | S | S | SSE | SSE | SSE | SW | W | WNW | W | W | WNW | W | NW | NW | WSW | W | NW | NNW | WSW | WSW | W | 16 | 26 | W | 0 | | | | | | | | | |

MEAN
SPEED 15 14 14 14 14 13 13 13 13 14 15 15 15 15 14 13 14 13 13 14 15 16 15 14 41 NNW 0
NOTE: Missing data represented by M; no clear prevailing direction represented by SVL; calm winds represented by CALM
Date of Last Calibration 060221 Make and Model of Instrument: RM Young5103 WS UPTIME 100 % WD UPTIME 100 %

FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

Lafarge Canada Inc.

Stoney Trail

STATION 620

DEC 2008

| SPEED [km/h] | WIND DIRECTION | | | | | | | | | | | | | | | | TOTAL | PCT |
|--------------|----------------|-----|----|-----|---|-----|----|-----|----|-----|----|-----|-----|-----|----|-----|-------|-----|
| | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | | |
| < .5 | | | | | | | | | | | | | | | | | 1 | 0 |
| 1- 5 | 5 | 1 | 4 | 0 | 1 | 1 | 2 | 0 | 1 | 2 | 3 | 0 | 1 | 2 | 2 | 10 | 35 | 5 |
| 6- 11 | 33 | 8 | 3 | 3 | 3 | 1 | 4 | 12 | 9 | 19 | 34 | 20 | 18 | 28 | 25 | 56 | 276 | 37 |
| 12- 19 | 21 | 12 | 4 | 4 | 2 | 0 | 1 | 7 | 21 | 29 | 16 | 30 | 59 | 11 | 16 | 89 | 322 | 43 |
| 20- 28 | 6 | 8 | 2 | 0 | 0 | 0 | 0 | 5 | 6 | 0 | 0 | 13 | 28 | 4 | 0 | 11 | 83 | 11 |
| 29- 38 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 12 | 0 | 0 | 3 | 26 | 3 |
| 39- 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| TOTAL | 68 | 31 | 14 | 7 | 6 | 2 | 7 | 24 | 37 | 50 | 53 | 68 | 119 | 45 | 43 | 169 | 744 | 100 |
| PERCENT | 9 | 4 | 2 | 1 | 1 | 0 | 1 | 3 | 5 | 7 | 7 | 9 | 16 | 6 | 6 | 23 | | |
| AVERAGE | 13 | 17 | 13 | 12 | 8 | 4 | 8 | 14 | 15 | 12 | 11 | 17 | 19 | 12 | 11 | 13 | 14 | |

20 JAN 2009 1554

Wind rose for DEC 2008
Stoney Trail

Bar length is proportional to frequency of winds from its direction

