

Appendix 7

Continuous Air Monitoring Lab Analysis Data and Calibration Records, 2012 to 2014

EKATI DIAMOND MINE
2014 Air Quality Monitoring Program

BHP Billiton Diamonds Inc.
EKATI Diamond Mine
Ambient Air Monitoring Data Report

For
January to March 2012

Prepared By:



July 6, 2012

BHP Billiton Diamonds Inc.

EKATI Diamond Mine

Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Jamie Steele
BHP Billiton Diamonds Inc.
#1102 4920 52nd Street
Yellowknife, NT, X1A 3T1

Monitoring Location: EKATI

Data Period: January to March 2012

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

Calibration Procedure

The calibrations conducted at the BHP Billiton Diamonds Inc. - EKATI Air Monitoring Station conform to the following Maxxam Standard Operation Procedures:

- CAL SOP-00211
- CAL SOP-00213
- CAL SOP-00215

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6.*

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – January 2012

BHP Billiton Diamonds Inc.- EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.98	11	25	6	2.9	24	100.0
NO ₂ (PPB)	8.58	60	5	19	32.5	5	100.0
NO (PPB)	22.80	454	25	6	104.3	23	100.0
NOx (PPB)	31.20	481	25	6	132.6	5	100.0
PM _{2.5} (UG/M ³)	NA	NA	NA	NA	NA	NA	0.0
TSP (UG/M ³)	NA	NA	NA	NA	NA	NA	0.0

NA: Not Applicable

Exceedences Summary Report

January 2012

Plant Operator: BHP Billiton Diamonds Inc.

Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	NA
TSP (UG/M ³)	-	120	-	NA

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	NA
TSP (UG/M ³)	-	120	-	NA

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. The daily span results went above +10% of the limited range because the expected value was setup too low after the permeation tube replacement on December 13th. An as found points check was performed on March 23rd to verify the analyzer's functionality, and the result was good.

General Monthly Summary

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Particulate Matter 2.5 (ug/m³)

- System make / model – Met One BAM 1020

The PM2.5 channel was put into “OFFSCAN” mode for a new analog input module on December 14th. The new module was sent to BHP and installed by the BHP personnel in January. During the site visit on March 25th, it was found that the configuration setup was not correct for the particular monitoring (TSP and PM2.5), and the PM2.5 channel was still in “OFFSACN” mode. Data between December 14th and March 25th are considered not valid and are excluded from this report.

Total suspended Particulate (ug/m³)

- System make / model – Met One BAM 1020

The TSP channel was put into “OFFSCAN” mode for a new analog input module on December 14th. The new module was sent to BHP and installed by the BHP personnel in January. During the site visit on March 25th, it was found that the configuration setup was not correct for the particular monitoring (TSP and PM2.5), and the TSP channel was still in “OFFSACN” mode. Data between December 14th and March 25th are considered not valid and are excluded from this report.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – February 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.28	6	19	17	1.0	VAR	100.0
NO ₂ (PPB)	4.97	54	21	10	24.4	21	100.0
NO (PPB)	8.18	322	19	17	57.0	19	100.0
NOx (PPB)	13.55	365	19	17	82.0	21	100.0
PM _{2.5} (UG/M ³)	NA	NA	NA	NA	NA	NA	0.0
TSP (UG/M ³)	NA	NA	NA	NA	NA	NA	0.0

NA: Not Applicable

Exceedences Summary Report

February 2012

Plant Operator: BHP Billiton Diamonds Inc. Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	NA
TSP (UG/M ³)	-	120	-	NA

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	NA
TSP (UG/M ³)	-	120	-	NA

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. The daily span results went above +10% of the limited range because the expected value was setup too low after the permeation tube replacement on December 13th. An as found points check was performed on March 23rd to verify the analyzer's functionality, and the result was good.

General Monthly Summary

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The PM2.5 channel was put into “OFFSCAN” mode for a new analog input module on December 14th. The new module was sent to BHP and installed by the BHP personnel in January. During the site visit on March 25th, it was found that the configuration setup was not correct for the particular monitoring (TSP and PM2.5), and the PM2.5 channel was still in “OFFSACN” mode. Data between December 14th and March 25th are considered not valid and are excluded from this report.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The TSP channel was put into “OFFSCAN” mode for a new analog input module on December 14th. The new module was sent to BHP and installed by the BHP personnel in January. During the site visit on March 25th, it was found that the configuration setup was not correct for the particular monitoring (TSP and PM2.5), and the TSP channel was still in “OFFSACN” mode. Data between December 14th and March 25th are considered not valid and are excluded from this report.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – March 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.81	8	3	23	3.0	3	100.0
NO ₂ (PPB)	9.38	62	25	20	35.3	26	100.0
NO (PPB)	23.58	380	3	23	127.2	26	100.0
NOx (PPB)	33.31	416	3	23	161.3	26	100.0
PM _{2.5} (UG/M ³)	3.79	6	26	0, 1	1.4	26	21.2
TSP (UG/M ³)	7.26	36	25	21	10.2	25	21.2

Exceedences Summary Report

March 2012

Plant Operator: BHP Billiton Diamonds Inc.

Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

An as found points check was performed on March 23rd, and the result was good. The zero air charcoal and the zero air supply silica gel were replaced before the quarterly calibration was performed on March 24th. The expected value was adjusted following the calibration on March 24th.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. The permeation tube was replaced on December 13th. The expect value was not adjusted after the replacement as the perm tube would need time to stabilize. As a result, the daily span results showed that they were above +10% of the limited range. An as found points check was performed on March 23rd to verify the analyzer's functionality, and the result was good. On March 24th, the reaction cell and UV filter were cleaned, and the sinter filters for ozone and sample were also changed. The zero air charcoal and the zero air supply silica gel were replaced before the quarterly calibration was performed on March 24th. The expected value was adjusted following the calibration on March 24th.

General Monthly Summary

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Particulate Matter 2.5 (ug/m³)

- System make / model – Met One BAM 1020

The PM2.5 channel was put into “OFFSCAN” mode for a new analog input module on December 14th. The new module was sent to BHP and installed by the BHP personnel in January. During the site visit on March 25th, it was found that the configuration setup was not correct for the particular monitoring (TSP and PM2.5), and the PM2.5 channel was still in “OFFSACN” mode. Data between December 14th and March 25th are considered not valid and are excluded from this report. The configuration setup was checked and corrected on March 25th.

During the site visit on March 24th, it was found that snows were built up inside the sample inlet. Cleaned the inlet and nozzle area. A BAM audit was then performed. No flow check was performed during this trip, as the BIOS-DC2 flow meter was not working properly during the cold weather.

Total suspended Particulate (ug/m³)

- System make / model – Met One BAM 1020

The TSP channel was put into “OFFSCAN” mode for a new analog input module on December 14th. The new module was sent to BHP and installed by the BHP personnel in January. During the site visit on March 25th, it was found that the configuration setup was not correct for the particular monitoring (TSP and PM2.5), and the TSP channel was still in “OFFSACN” mode. Data between December 14th and March 25th are considered not valid and are excluded from this report. The configuration setup was checked and corrected on March 25th.

The inlet and nozzle area were cleaned on March 24th, and then a BAM audit was performed. No flow check was performed during this trip, as the BIOS-DC2 flow meter was not working properly during the cold weather.

Continuous Monitoring

Monthly Summaries & Graphs

Sulphur Dioxide

BHP Billiton Diamonds Inc. - EKATI
JANUARY 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

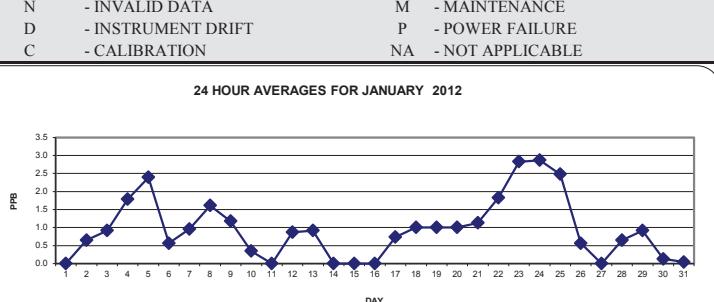
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HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
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2	0	0	0	0	0	Izs	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	0.7	24	
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6	2	1	1	1	1	Izs	1	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0.6	24	
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11	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
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15	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
16	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
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28	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0	5	3	0	5	0.7	24	
29	2	2	0	3	3	Izs	0	3	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0	1	3	0.9	24	
30	0	0	0	1	2	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24		
31	0	0	0	0	0	Izs	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
HOURLY MAX	4	7	5	3	7	NA	11	8	7	7	4	5	4	6	5	2	2	7	6	6	5	10	8	2				
HOURLY AVG	0.8	0.9	0.7	1.0	1.2	NA	1.0	1.2	1.1	1.4	1.0	1.0	0.9	0.8	0.8	0.7	0.7	1.0	1.0	1.0	0.9	1.2	1.0	0.6				

STATUS FLAG CODES

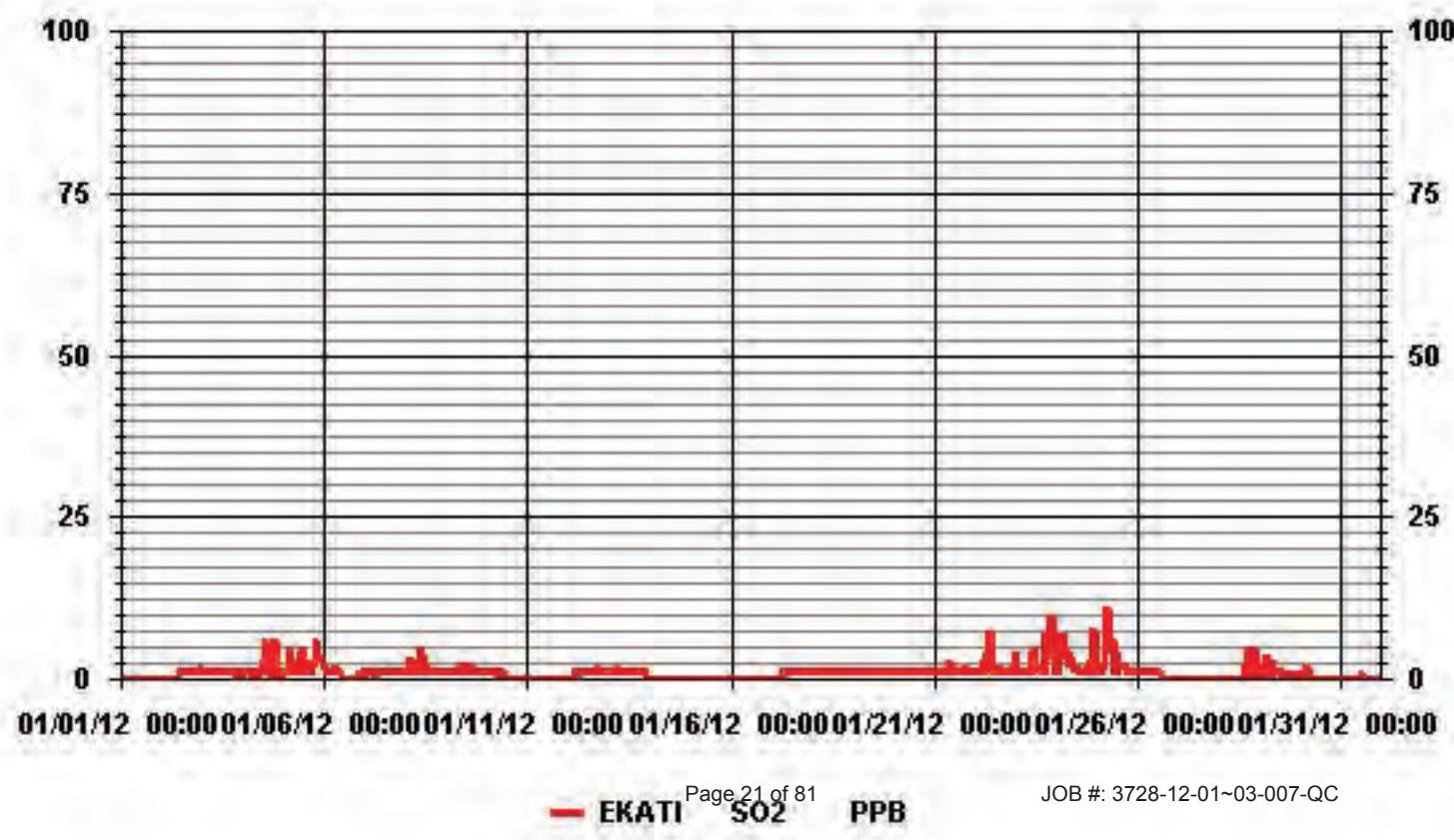
S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	438
MAXIMUM 1-HR AVERAGE:	11 PPB
MAXIMUM 24-HR AVERAGE:	2.9 PPB
Izs CALIBRATION TIME:	30 HRS
MONTHLY CALIBRATION TIME:	0 HRS
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	1.33
MONTHLY AVERAGE:	0.98 PPB



01 Hour Averages

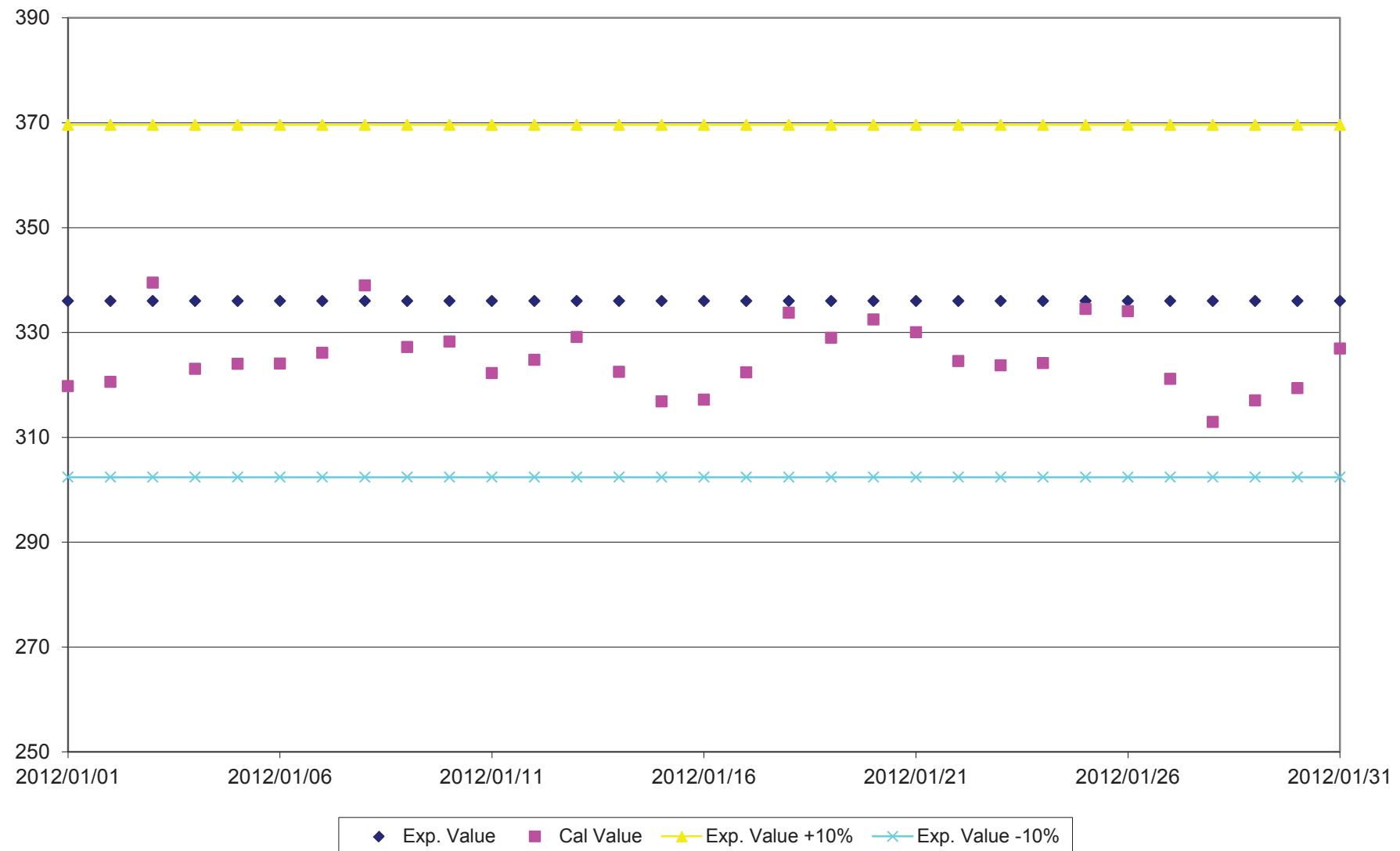


— EKATI SO2 PPB

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JOB #: 3728-12-01~03-007-QC

Calibration Graph for Site: EKATI Parameter: SO2 Phase: SPAN



BHP Billiton Diamonds Inc. - EKATI
FEBRUARY 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

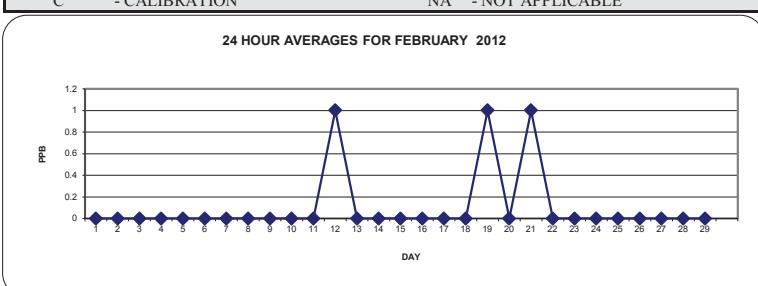
MST DAY																									DAILY MAX.	24-HOUR AVG.	RDGS.	
	HOUR START 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			
HOUR END 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
1	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
2	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	24
3	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
4	0	0	0	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	24
5	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
6	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
7	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
8	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
9	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
10	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
11	0	0	0	0	0	0	IZS	0	0	1	0	0	1	1	1	1	1	0	0	0	1	1	1	1	1	0	24	
12	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
13	1	1	0	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	24
14	0	0	0	0	0	0	IZS	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	24
15	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
16	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
17	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	24	
18	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
19	0	0	3	4	3	IZS	1	1	0	0	2	0	0	0	0	1	2	6	2	2	0	0	0	1	6	1	24	
20	3	2	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	24	
21	0	0	2	1	1	IZS	4	2	5	5	6	1	1	1	2	1	1	1	1	1	1	1	1	1	6	1	24	
22	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	24	
23	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
24	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
25	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
26	0	0	0	0	0	0	IZS	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	24	
27	0	0	0	0	0	0	IZS	0	0	0	0	1	4	4	2	1	0	0	0	0	0	0	0	0	4	0	24	
28	1	0	0	1	2	IZS	1	0	1	1	2	2	3	3	1	3	1	0	0	0	1	0	0	3	0	24		
29	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	

STATUS FLAG CODES

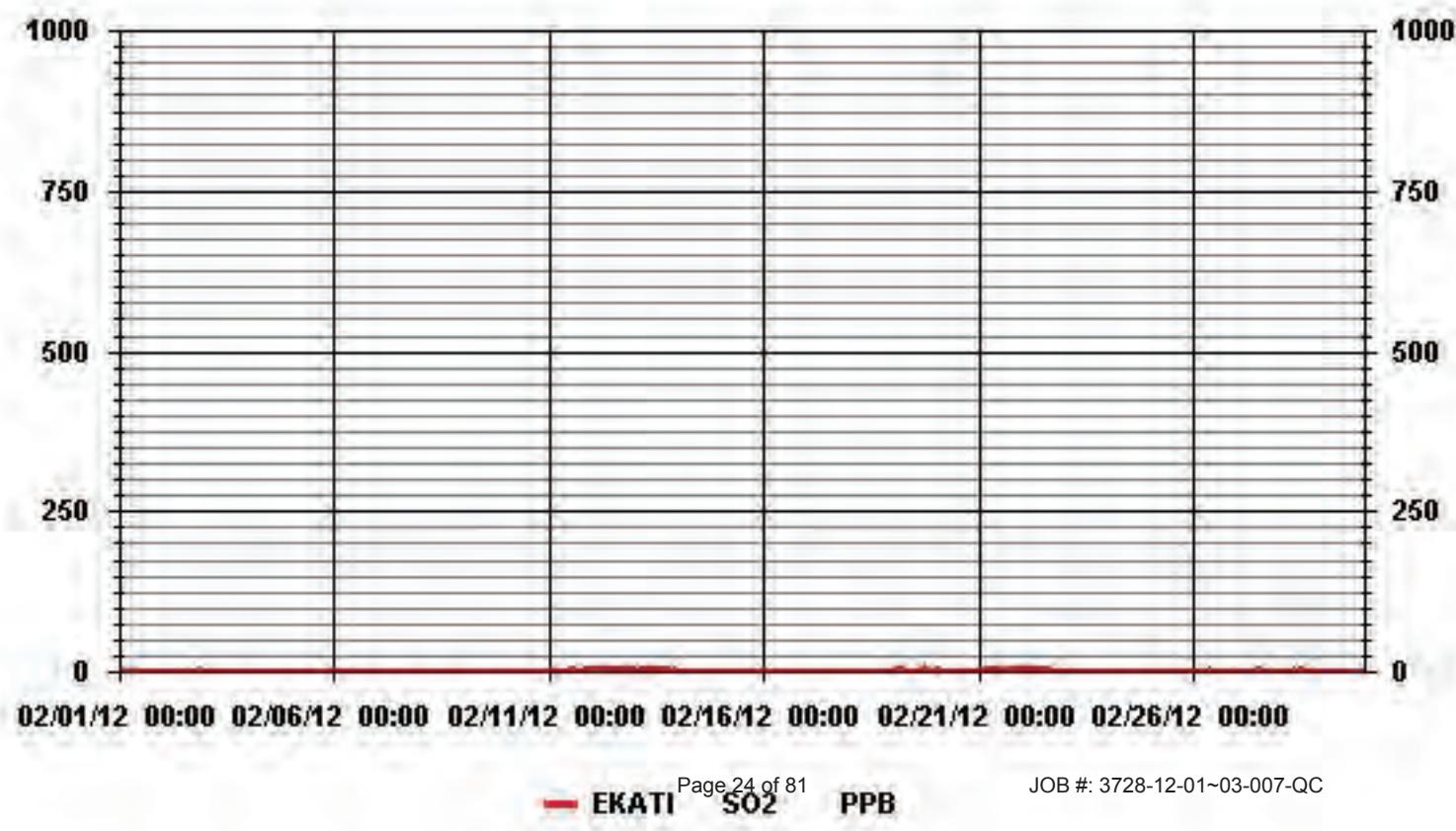
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	133
MAXIMUM 1-HR AVERAGE:	6 PPB
MAXIMUM 24-HR AVERAGE:	1.0 PPB
IZS CALIBRATION TIME:	29 HRS
MONTHLY CALIBRATION TIME:	0 HRS
STANDARD DEVIATION:	0.72
OPERATIONAL TIME:	696 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	0.28 PPB
VAR:	VARIOUS



01 Hour Averages

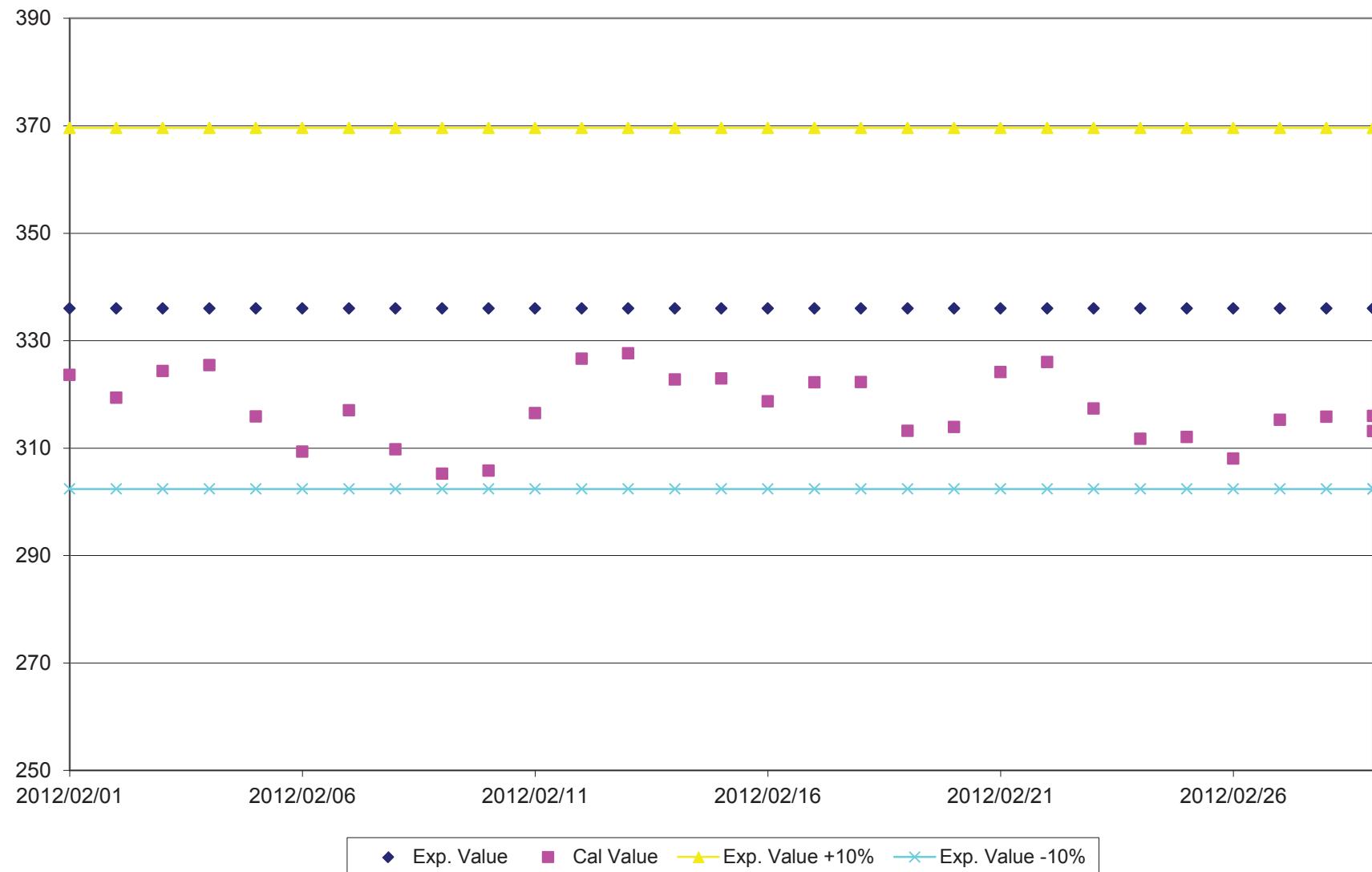


— EKATI SO2 PPB

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JOB #: 3728-12-01~03-007-QC

Calibration Graph for Site: EKATI Parameter: SO2 Phase: SPAN



BHP Billiton Diamonds Inc. - EKATI
MARCH 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

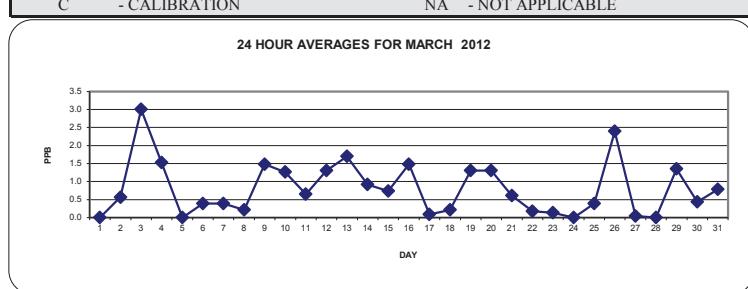
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR MAX.	DAILY 24-HOUR AVG.	DAILY 24-HOUR RDGS.		
	HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																													
1	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
2	0	0	0	2	1	Izs	0	0	0	1	0	0	0	0	1	0	0	0	0	1	3	2	1	1	3	0.6	24		
3	3	4	2	5	3	Izs	4	3	3	5	3	1	5	3	5	2	1	1	1	1	2	3	8	8	3.0	24			
4	4	3	2	1	1	Izs	2	4	6	4	1	2	1	1	1	1	0	1	0	0	0	0	0	0	6	1.5	24		
5	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24			
6	0	0	0	0	0	Izs	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.4	24	
7	0	0	0	0	0	Izs	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.4	24	
8	0	0	0	0	0	Izs	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.2	24	
9	0	0	0	0	0	Izs	1	1	2	2	3	2	2	2	5	4	3	1	1	1	1	1	1	1	1	5	1.5	24	
10	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	2	2	1	1	6	4	0	0	0	0	0	6	1.3	24	
11	0	0	0	0	0	Izs	3	1	0	0	1	1	1	1	1	0	0	0	2	1	1	1	1	1	3	0.7	24		
12	1	2	1	1	1	Izs	1	1	2	2	1	1	2	2	1	1	1	1	1	1	1	1	2	2	2	1.3	24		
13	2	2	2	2	2	Izs	4	5	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1.7	24		
14	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24		
15	1	0	1	0	0	Izs	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0.7	24		
16	0	2	4	3	4	Izs	1	1	1	1	2	3	1	2	1	1	1	1	1	1	1	1	1	1	0	4	1.5	24	
17	1	1	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
18	0	0	0	0	0	Izs	0	0	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0.2	24	
19	0	0	0	0	0	Izs	0	0	1	2	1	2	3	2	3	2	1	2	3	3	2	2	1	0	3	1.3	24		
20	1	1	1	3	4	Izs	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1.3	24		
21	1	1	1	1	1	Izs	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0.6	24		
22	0	0	0	0	0	Izs	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
23	0	1	2	0	0	Izs	0	0	0	0	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	2	0.1	24	
24	0	0	0	0	0	Izs	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
25	0	0	0	0	0	Izs	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	1	1	3	3	0.4	24		
26	4	2	2	2	4	Izs	4	3	1	2	1	0	3	3	5	7	5	4	1	2	0	0	0	0	7	2.4	24		
27	0	0	0	0	0	Izs	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24			
28	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
29	0	0	0	0	0	Izs	0	0	1	2	1	5	4	2	1	1	1	0	0	2	3	4	4	5	1.3	24			
30	0	0	0	0	0	Izs	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0.4	24			
31	0	0	0	0	0	Izs	0	0	0	0	1	2	1	1	2	3	2	3	3	0	0	0	0	0	3	0.8	24		
HOURLY MAX	4	4	4	5	4	NA	4	5	6	5	3	5	5	3	5	7	5	4	6	4	3	3	4	8					
HOURLY AVG	0.6	0.7	0.6	0.7	0.7	NA	0.8	0.8	1.0	1.2	0.9	1.0	1.1	1.0	1.3	1.0	0.8	0.7	0.7	0.6	0.6	0.5	0.6	0.8					

STATUS FLAG CODES

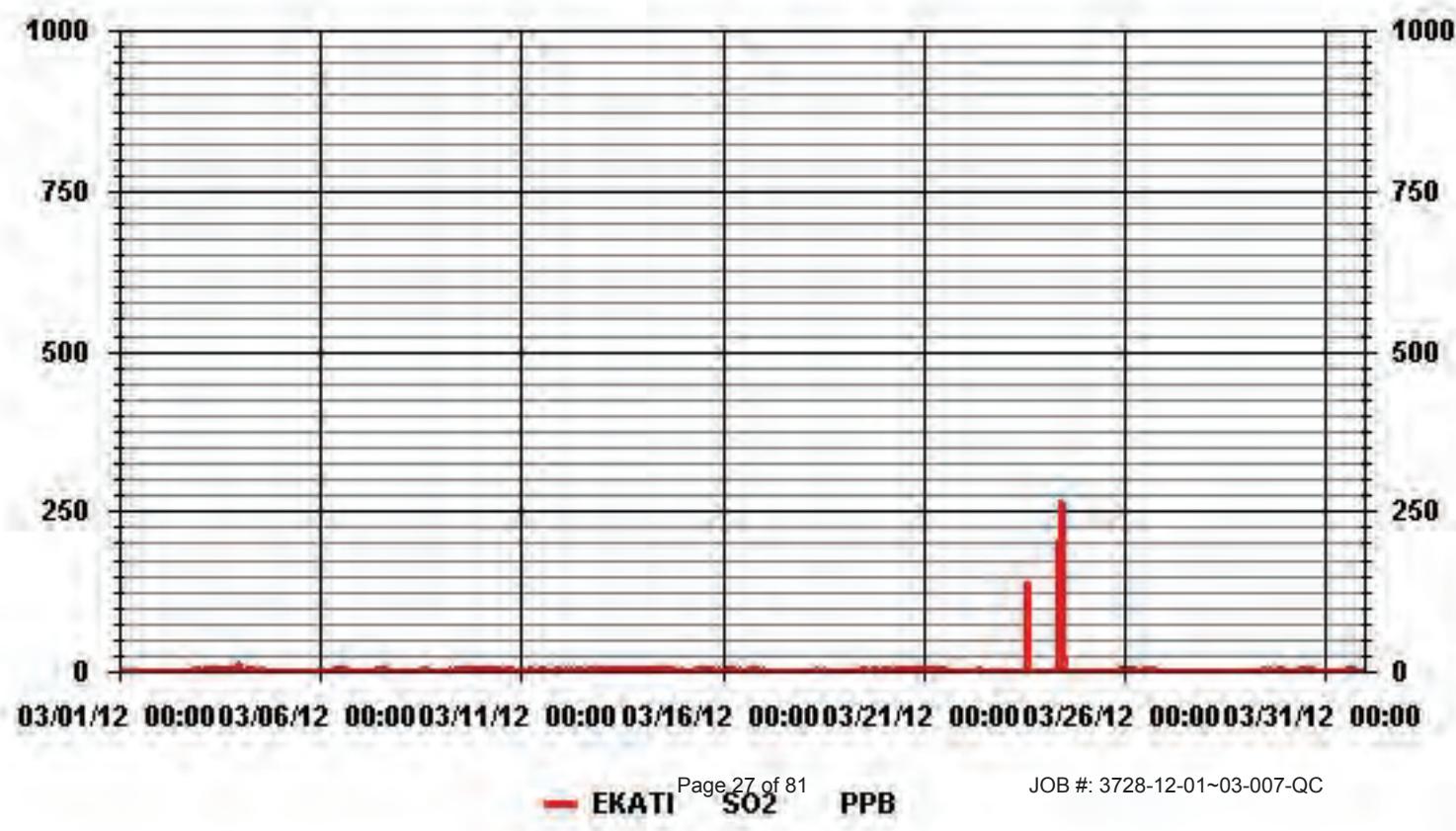
S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

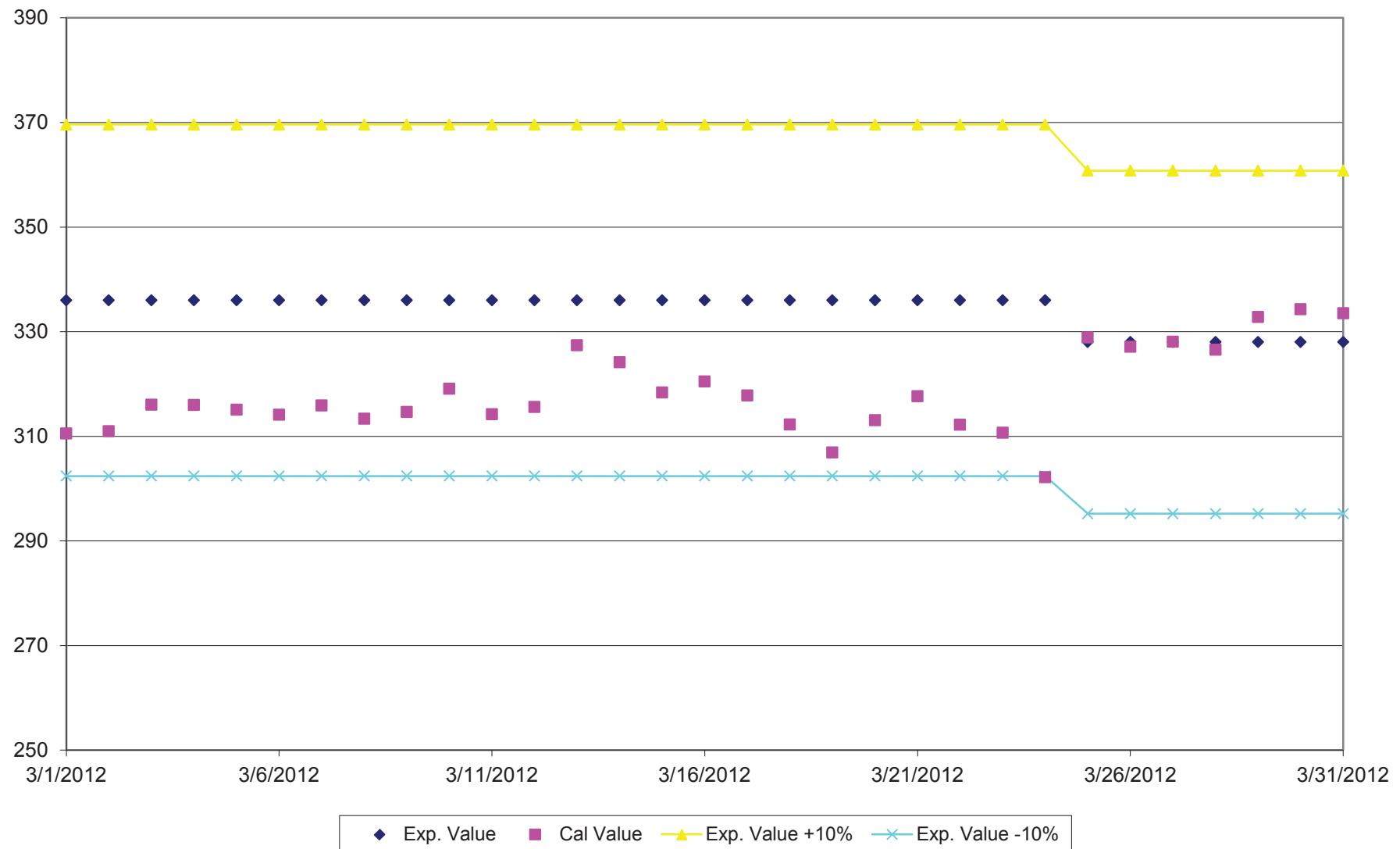
NUMBER OF NON-ZERO READINGS:	346
MAXIMUM 1-HR AVERAGE:	8 PPB
MAXIMUM 24-HR AVERAGE:	3.0 PPB
Izs CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	8 HRS
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	1.16
MONTHLY AVERAGE:	0.81 PPB



01 Hour Averages



Calibration Graph for Site: EKATI Parameter: SO2 Phase: SPAN



Nitrogen Dioxide

BHP Billiton Diamonds Inc. - EKATI
JANUARY 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

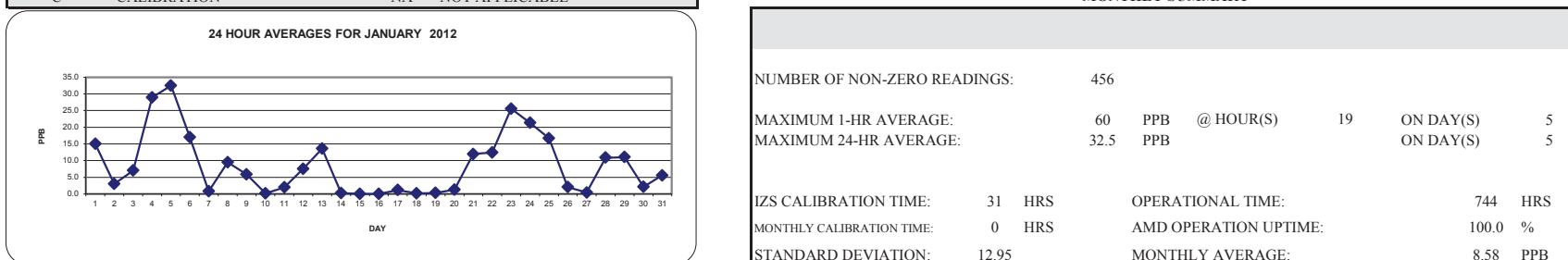
MST

DAY	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
	HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
1	26	27	30	29	31	IZS	13	12	11	19	22	27	12	6	16	13	14	17	7	3	5	3	2	1	31	15.0	24	
2	1	1	6	1	0	IZS	0	0	0	0	0	0	0	1	5	5	2	0	0	1	6	9	31	31	3.0	24		
3	32	28	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	7	21	24	12	10	5	4	18	32	7.0	24	
4	29	20	24	32	38	IZS	36	32	22	16	25	21	40	52	49	29	20	9	33	58	43	9	11	17	58	28.9	24	
5	23	17	17	38	49	IZS	24	23	16	30	45	50	16	10	13	31	20	37	38	60	52	47	46	45	60	32.5	24	
6	47	31	45	41	34	IZS	45	53	34	14	11	5	7	4	6	7	1	2	0	2	0	0	0	2	53	17.0	24	
7	1	1	0	0	0	IZS	1	0	1	2	1	1	1	1	2	2	0	1	1	0	0	0	0	0	2	0.8	24	
8	3	7	15	25	21	IZS	1	0	12	43	38	22	7	10	2	1	0	1	4	3	0	2	0	0	1	43	9.5	24
9	0	0	0	0	0	IZS	1	10	25	18	2	14	11	26	21	1	1	2	0	0	0	1	1	1	1	26	5.9	24
10	0	0	2	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	24	
11	0	0	1	1	2	IZS	2	6	3	5	6	3	2	2	2	3	1	2	0	0	0	1	1	1	1	6	2.0	24
12	2	3	1	0	0	IZS	0	0	0	3	7	1	4	8	3	1	15	12	28	5	20	32	19	9	32	7.5	24	
13	4	11	12	23	24	IZS	27	27	36	20	15	22	17	18	14	14	7	8	7	4	2	1	0	0	36	13.6	24	
14	0	0	0	0	0	IZS	1	0	2	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0.3	24	
15	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
16	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
17	0	0	0	0	0	IZS	0	1	4	4	3	5	1	1	2	4	1	1	0	0	0	0	0	0	5	1.2	24	
18	0	0	0	0	1	IZS	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
19	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	1	1	0	0	0	1	1	1	0	1	0.3	24		
20	1	1	1	0	2	IZS	2	3	2	1	1	6	4	1	2	1	1	1	0	0	0	0	0	0	6	1.3	24	
21	0	3	11	25	26	IZS	8	31	23	34	15	4	3	5	5	5	8	9	21	7	7	14	5	6	34	12.0	24	
22	5	4	6	6	9	IZS	19	35	51	46	30	11	3	11	12	12	1	3	3	0	0	0	1	18	51	12.4	24	
23	37	19	12	16	9	IZS	9	10	7	13	40	39	20	12	28	15	22	52	47	22	37	60	39	22	60	25.5	24	
24	16	44	40	30	40	IZS	36	34	20	26	20	19	25	3	0	1	0	1	3	13	31	38	45	6	45	21.3	24	
25	7	8	6	32	25	IZS	57	49	23	30	2	1	31	17	16	18	21	19	12	2	6	0	0	1	57	16.7	24	
26	1	8	1	1	0	IZS	12	7	4	3	2	0	0	0	1	1	1	1	0	1	1	1	1	1	12	2.1	24	
27	0	0	0	0	1	IZS	0	8	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	0.4	24	
28	0	0	0	0	0	IZS	0	1	3	2	0	6	13	14	12	17	34	41	10	4	15	43	22	13	43	10.9	24	
29	25	21	7	27	30	IZS	9	28	16	11	15	9	12	9	19	0	0	1	7	0	0	0	0	0	8	30	11.0	24
30	3	2	0	11	23	IZS	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	1	1	1	23	2.1	24	
31	2	3	10	11	2	IZS	6	5	3	1	0	2	6	2	0	9	15	24	12	4	0	5	2	4	24	5.6	24	

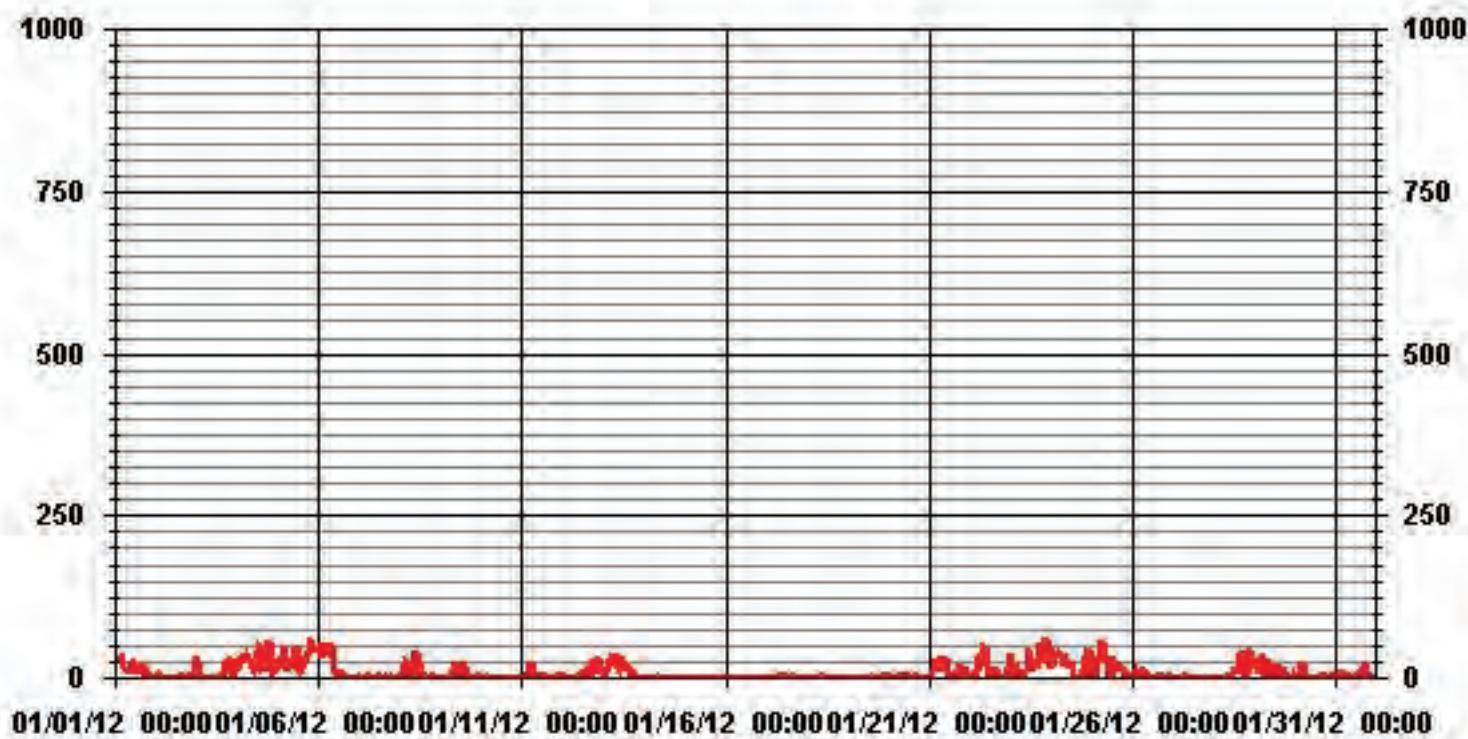
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY



01 Hour Averages

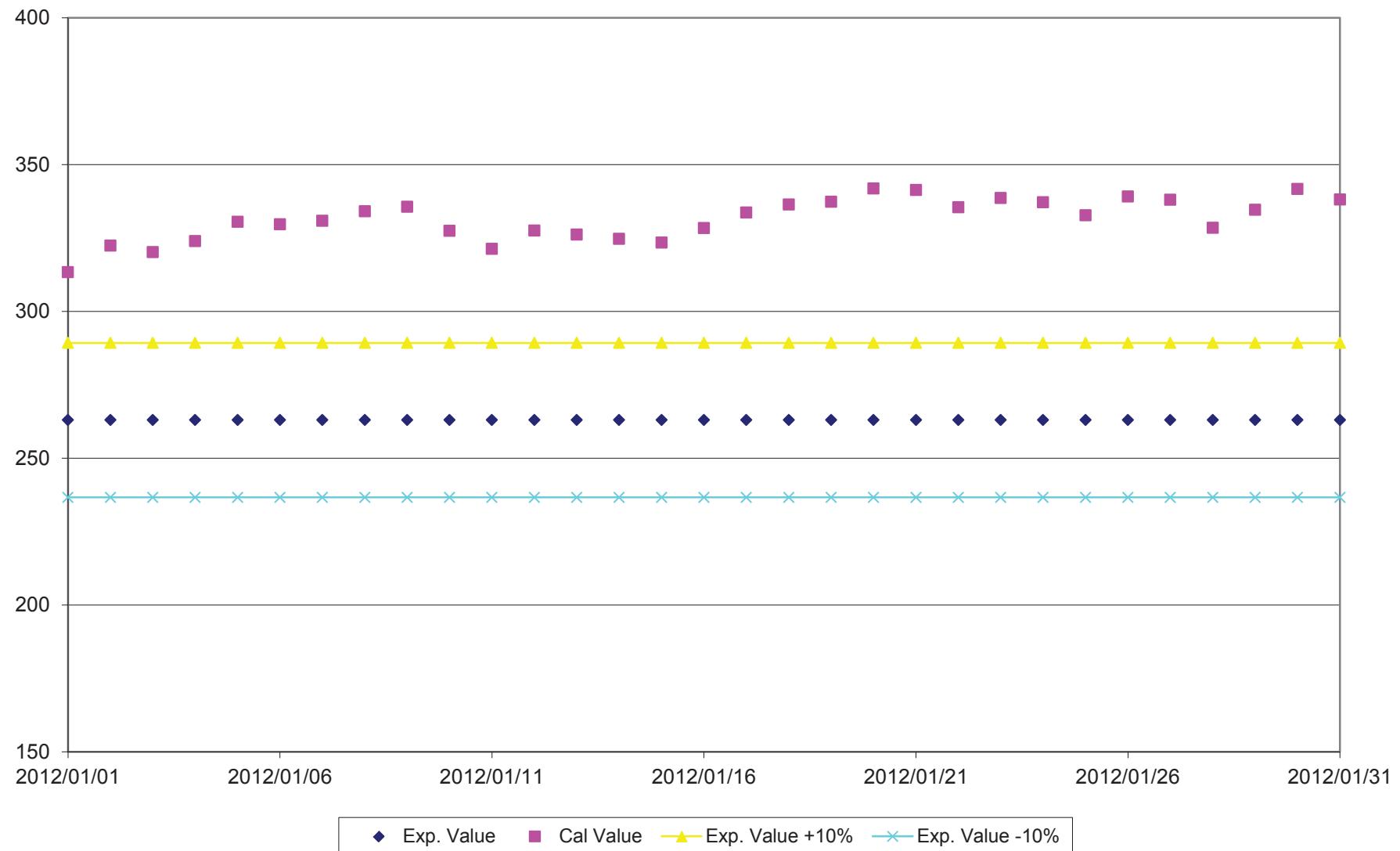


— EKATI NO2 PPB

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JOB #: 3728-12-01~03-007-QC

Calibration Graph for Site: EKATI Parameter: NO2 Phase: SPAN

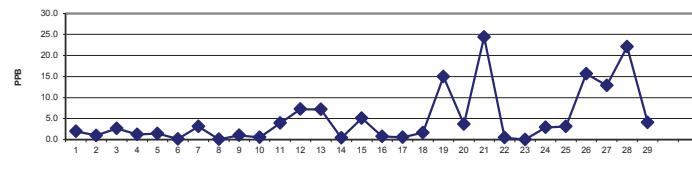


BHP Billiton Diamonds Inc. - EKATI
FEBRUARY 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST

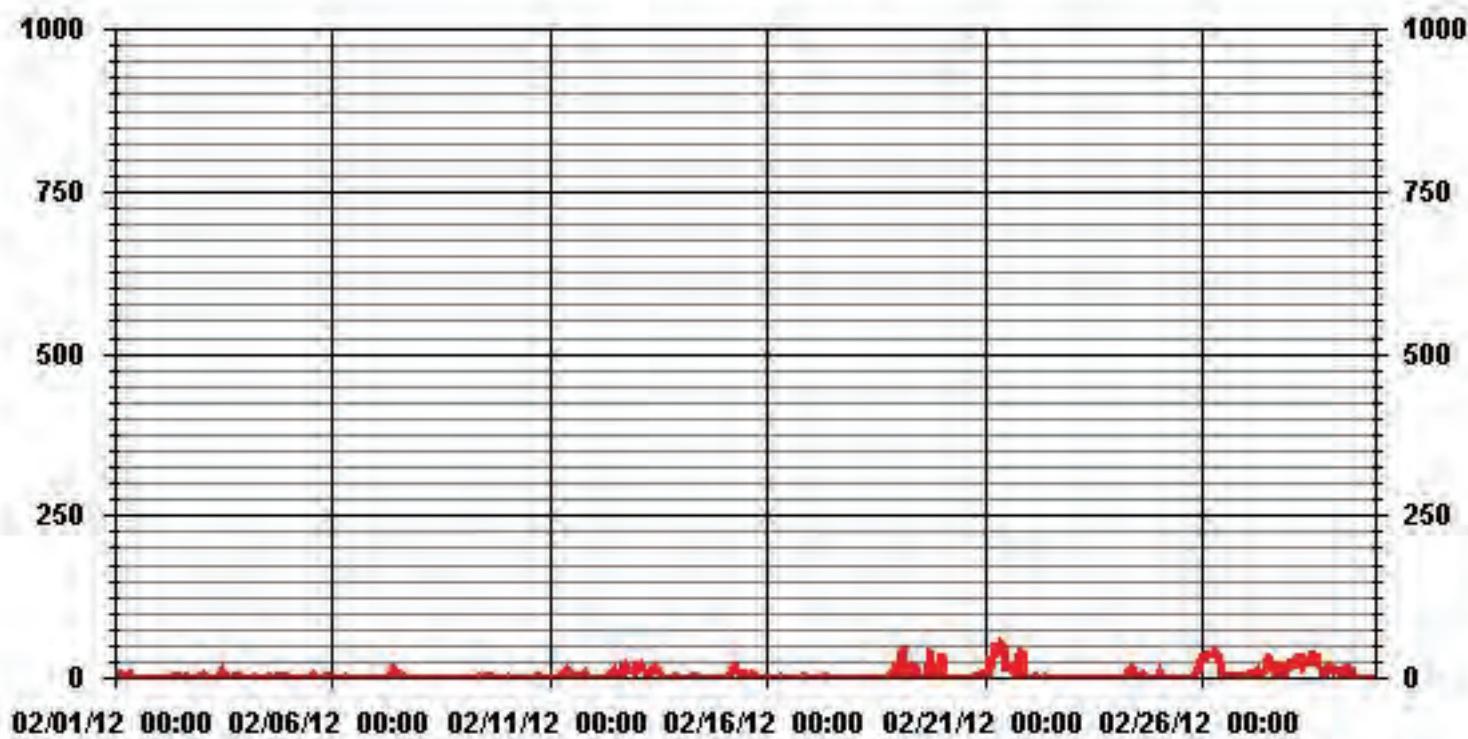
DAY	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
	HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	5	2	1	8	8	IZS	4	5	7	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	8	2.0	24	
1	2	0	1	2	1	IZS	0	1	3	2	1	1	1	0	1	1	0	0	0	0	0	1	0	1	1	3	1.0	24	
2	1	6	3	1	0	IZS	0	0	0	3	4	11	2	5	4	3	1	3	3	2	2	3	3	3	1	11	2.7	24	
3	0	0	1	2	1	IZS	1	3	0	0	0	0	0	2	2	0	0	2	2	0	3	6	3	0	6	1.2	24		
4	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1.4	24		
5	0	1	0	0	0	IZS	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24		
6	0	0	0	0	0	IZS	1	0	8	18	6	5	3	7	9	6	5	1	0	0	0	0	0	0	0	18	3.1	24	
7	0	0	0	0	0	IZS	1	0	8	18	6	5	3	7	9	6	5	1	0	0	0	0	0	0	0	0	0.0	24	
8	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
9	0	0	0	0	0	IZS	0	0	0	4	0	0	1	3	6	4	1	1	0	1	2	0	0	0	0	6	1.0	24	
10	0	1	1	0	0	IZS	0	2	0	0	2	0	0	0	0	0	2	3	2	0	0	0	0	0	0	3	0.6	24	
11	0	0	0	0	0	IZS	5	9	13	3	8	12	8	1	4	5	1	1	4	9	3	1	2	1	13	3.9	24		
12	1	2	1	1	2	IZS	3	1	1	6	11	0	1	5	4	9	16	12	19	14	12	14	9	23	23	7.3	24		
13	12	16	9	19	15	IZS	5	1	14	19	14	17	11	3	1	3	1	0	0	0	0	4	0	1	19	7.2	24		
14	0	0	0	0	0	IZS	0	0	5	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	0.4	24		
15	0	0	2	5	13	IZS	24	15	11	5	7	7	0	3	7	4	11	0	3	0	0	0	0	0	24	5.1	24		
16	0	0	0	0	1	IZS	0	3	3	0	0	0	0	0	0	0	1	0	1	4	4	0	0	1	4	0.8	24		
17	0	0	0	0	0	IZS	1	0	4	1	3	1	0	0	2	0	0	0	0	1	0	0	0	0	4	0.6	24		
18	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	9	16	9	16	1.7	24		
19	5	20	38	41	23	IZS	17	20	13	9	19	0	1	3	0	2	21	44	23	18	2	6	11	9	44	15.0	24		
20	38	17	1	0	0	IZS	2	1	0	0	0	0	0	0	0	0	0	0	2	2	3	5	8	5	38	3.7	24		
21	0	3	34	13	29	IZS	49	34	53	49	54	18	20	17	26	10	6	6	36	43	26	30	3	2	54	24.4	24		
22	1	0	0	0	3	IZS	1	0	0	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0.5	24		
23	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
24	0	1	0	0	0	IZS	3	11	15	6	10	1	0	5	3	0	7	3	0	0	0	0	0	2	15	2.9	24		
25	10	3	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	5	13	14	26	26	3.1	24			
26	36	28	36	37	35	IZS	42	37	37	27	4	1	3	1	2	4	4	3	5	5	4	3	3	3	42	15.7	24		
27	2	5	9	10	8	IZS	14	7	6	7	12	28	36	27	14	4	12	11	22	20	6	5	11	20	36	12.9	24		
28	29	20	13	27	35	IZS	28	17	20	21	28	30	40	39	19	35	17	8	7	6	15	20	17	17	40	22.1	24		
29	9	10	9	12	6	IZS	0	9	19	8	11	1	0	0	0	0	0	0	0	0	0	0	0	0	19	4.1	24		

24 HOUR AVERAGES FOR FEBRUARY 2012



NUMBER OF NON-ZERO READINGS:	349
MAXIMUM 1-HR AVERAGE:	54 PPB
MAXIMUM 24-HR AVERAGE:	24.4 PPB
Izs Calibration Time:	29 HRS
Monthly Calibration Time:	0 HRS
Operational Time:	696 HRS
AmD Operation Uptime:	100.0 %
Standard Deviation:	9.21
Monthly Average:	4.97 PPB

01 Hour Averages

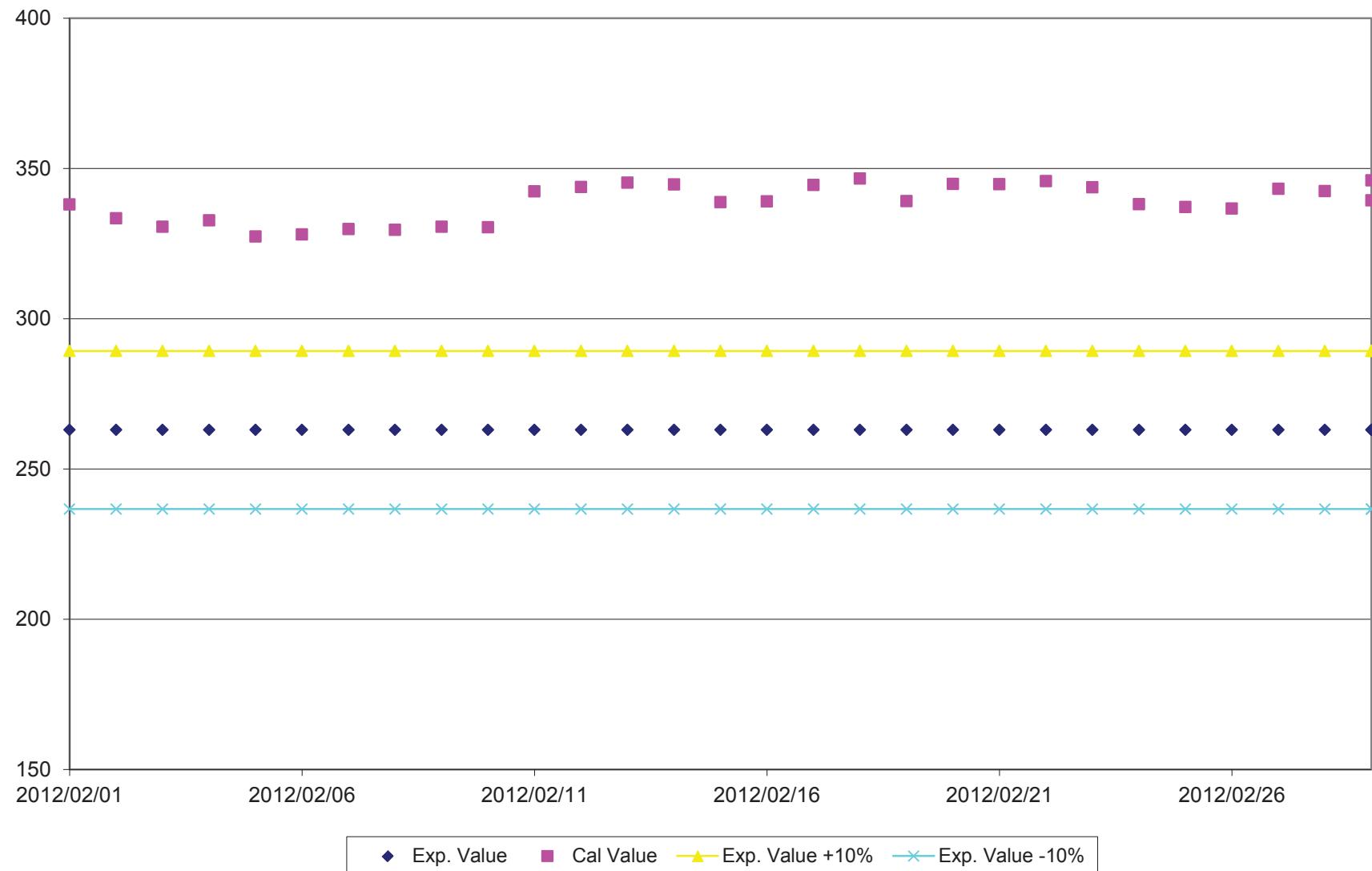


— EKATI NO2 PPB

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JOB #: 3728-12-01~03-007-QC

Calibration Graph for Site: EKATI Parameter: NO2 Phase: SPAN



BHP Billiton Diamonds Inc. - EKATI
MARCH 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST

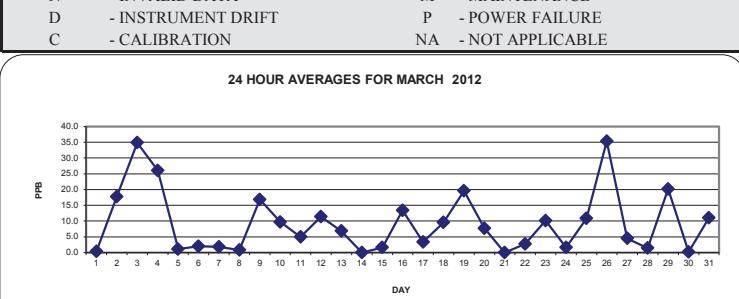
HOUR START HOUR END	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR MAX.	DAILY 24-HOUR AVG.	DAILY 24-HOUR RDGS.		
	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	1:00	2:00			
DAY																													
1	0	0	0	0	0	Izs	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0.3	24
2	1	16	21	52	43	Izs	13	6	10	7	6	4	4	3	3	3	5	17	11	34	48	40	29	32	52	17.7	24		
3	37	50	40	53	49	Izs	42	41	44	47	25	8	45	35	49	30	15	14	14	12	9	40	41	61	61	34.8	24		
4	46	41	32	27	28	Izs	41	56	61	45	21	28	15	9	9	13	14	27	22	13	18	17	9	7	61	26.0	24		
5	9	4	3	3	2	Izs	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1.1	24	
6	0	0	0	0	0	Izs	0	1	2	3	6	1	1	2	5	2	4	5	2	0	1	3	4	4	6	2.0	24		
7	2	3	6	4	2	Izs	4	1	2	3	1	2	0	1	1	0	1	5	1	2	0	0	0	0	0	6	1.8	24	
8	0	0	0	0	0	Izs	3	2	0	2	1	2	0	0	2	0	0	0	0	0	6	0	0	0	0	6	0.8	24	
9	0	4	10	20	3	Izs	9	19	38	31	36	22	10	14	41	38	35	17	9	4	6	5	6	10	41	16.8	24		
10	9	8	2	0	0	Izs	0	0	0	2	5	5	5	9	18	21	7	14	61	42	9	2	2	2	61	9.7	24		
11	0	1	1	1	5	Izs	40	7	1	0	0	0	0	0	0	0	0	0	0	22	6	13	14	4	40	5.0	24		
12	14	24	18	25	8	Izs	18	15	28	23	16	16	24	18	8	6	0	0	0	0	0	0	0	0	28	11.3	24		
13	0	0	0	6	19	Izs	36	38	29	6	2	1	1	0	0	0	0	0	2	0	4	11	2	0	38	6.8	24		
14	0	0	0	0	0	Izs	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
15	0	0	0	0	0	Izs	1	1	4	2	1	1	1	4	3	0	1	2	0	3	3	2	2	7	7	1.7	24		
16	7	23	41	38	36	Izs	16	8	7	3	16	32	10	17	13	6	7	6	3	5	5	4	3	1	41	13.3	24		
17	4	5	1	0	0	Izs	1	1	0	0	0	0	0	1	0	0	2	4	4	6	8	14	14	12	14	3.3	24		
18	15	13	12	14	11	Izs	15	8	9	8	10	6	15	9	14	6	5	10	7	7	5	5	6	10	15	9.6	24		
19	7	7	10	9	5	Izs	3	6	18	26	16	30	31	27	37	26	21	30	37	40	27	26	9	3	40	19.6	24		
20	8	6	19	27	35	Izs	37	9	5	3	3	2	1	2	3	4	4	3	3	3	0	0	0	0	37	7.7	24		
21	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
22	0	0	0	0	0	Izs	0	0	9	8	7	4	0	0	0	1	0	0	7	2	2	3	5	8	6	9	2.7	24	
23	35	43	60	20	9	Izs	19	5	3	2	2	1	4	4	C	1	2	3	0	1	3	2	1	3	60	10.1	24		
24	2	1	4	1	4	Izs	2	C	C	C	C	C	C	C	C	C	0	2	0	0	1	0	4	4	1.6	24			
25	2	1	0	0	1	Izs	0	2	4	4	1	0	0	0	0	0	2	6	19	62	49	44	52	62	10.8	24			
26	56	45	44	33	54	Izs	51	47	28	37	21	7	38	37	50	58	52	40	24	39	22	15	7	7	58	35.3	24		
27	4	5	3	1	3	Izs	3	1	4	9	7	5	5	5	5	1	2	1	9	9	13	2	2	4	13	4.5	24		
28	5	4	2	2	1	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	4	6	2	6	1.4	24		
29	5	4	10	7	6	Izs	3	5	7	23	23	53	48	36	21	7	11	14	7	11	28	39	46	50	53	20.2	24		
30	4	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.2	24			
31	0	0	0	0	0	Izs	10	0	0	0	19	21	13	9	29	36	29	40	42	5	0	0	0	0	42	11.0	24		
HOURLY MAX	56	50	60	53	54	NA	51	56	61	47	36	53	48	37	50	58	52	40	61	42	62	49	46	61					
HOURLY AVG	8.8	9.9	10.9	11.1	10.5	NA	12.0	9.4	10.4	9.8	8.2	8.4	9.1	8.1	10.8	8.6	7.2	8.4	8.6	9.1	9.4	9.6	8.2	9.2					

STATUS FLAG CODES

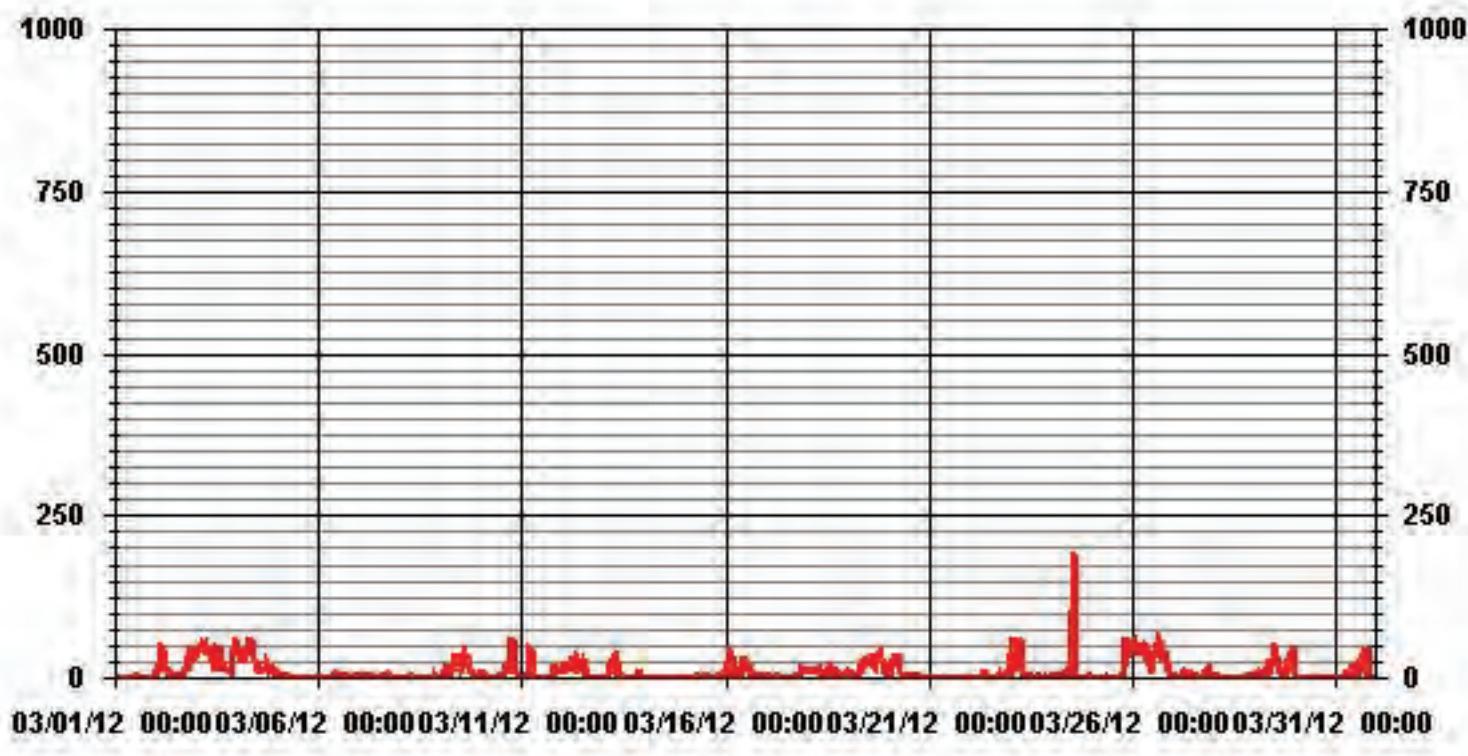
S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	464
MAXIMUM 1-HR AVERAGE:	62 PPB
MAXIMUM 24-HR AVERAGE:	35.3 PPB
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	11 HRS
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	14.12
MONTHLY AVERAGE:	9.38 PPB



01 Hour Averages

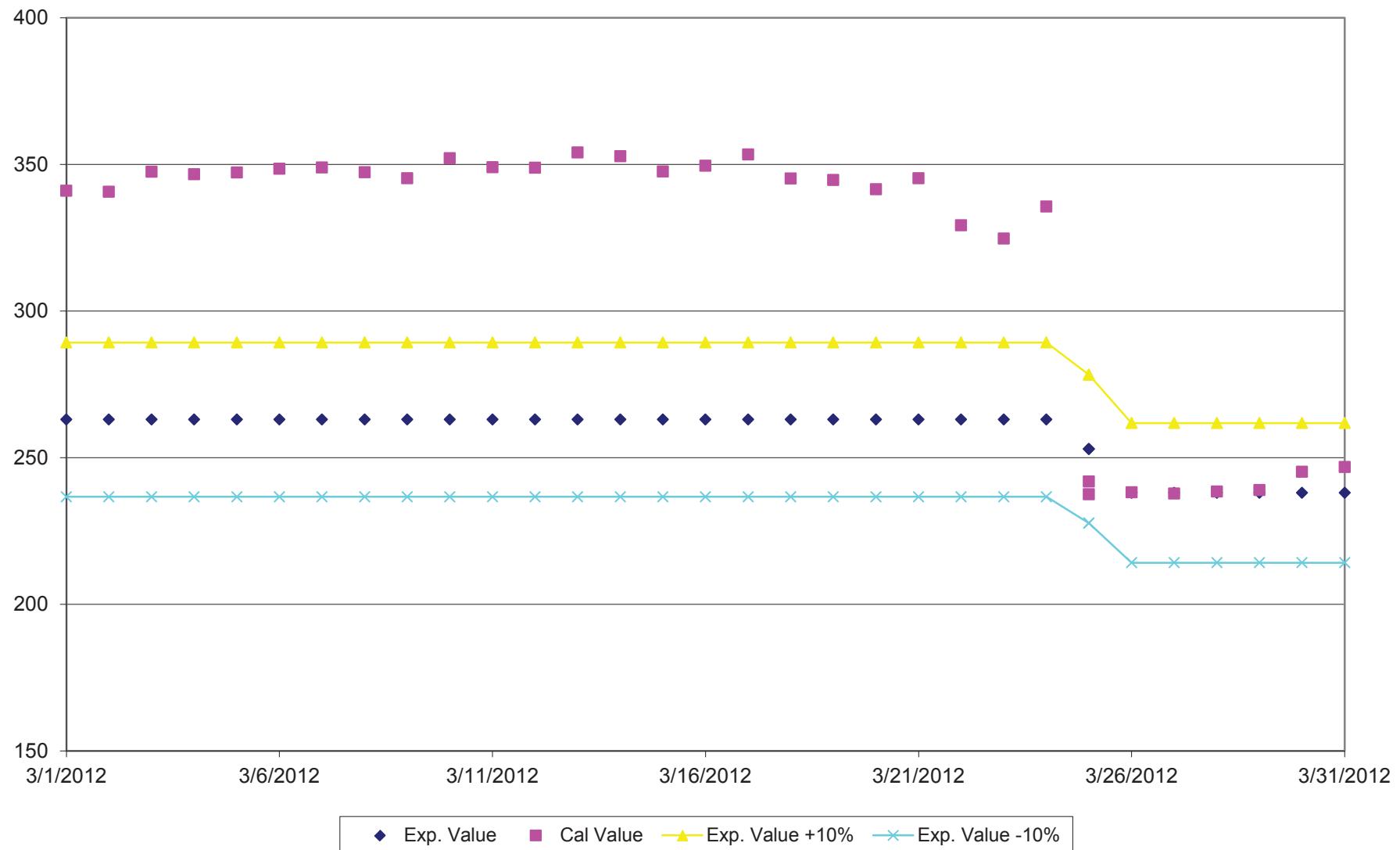


— EKATI NO2 PPB

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JOB #: 3728-12-01~03-007-QC

Calibration Graph for Site: EKATI Parameter: NO2 Phase: SPAN



Nitric Oxide

BHP Billiton Diamonds Inc. - EKATI

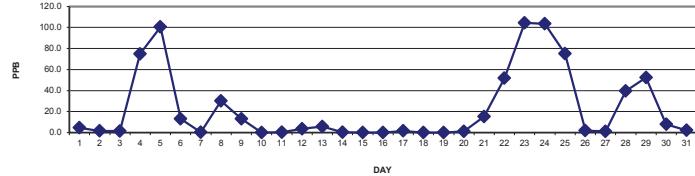
JANUARY 2012

NITRIC OXIDES (NO) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	5	5	6	11	13	IZS	1	1	0	1	11	24	8	1	6	3	2	7	0	0	0	0	1	0	24	4.6	24	
2	0	0	4	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	31	31	1.7	24	
3	15	8	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	4	5	1	0	0	0	1	15	1.5	24		
4	10	6	11	24	32	IZS	55	17	15	4	25	19	164	290	240	74	35	4	184	322	137	5	6	42	322	74.8	24	
5	50	43	25	152	249	IZS	69	58	51	110	207	256	20	5	5	31	7	116	74	303	157	117	115	90	303	100.4	24	
6	74	18	39	19	15	IZS	36	71	22	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	74	13.0	24	
7	0	0	0	0	0	IZS	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	24	
8	0	1	42	69	37	IZS	1	0	50	198	167	76	7	19	2	0	0	0	4	17	1	1	0	0	1	198	30.1	24
9	0	0	0	0	0	IZS	0	11	68	56	3	27	23	59	50	0	0	1	0	0	0	0	0	0	68	13.0	24	
10	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
11	0	0	0	0	0	IZS	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0.3	24	
12	0	0	0	0	0	IZS	0	0	0	0	1	0	1	2	1	0	3	2	41	0	6	25	2	0	41	3.7	24	
13	0	2	1	3	13	IZS	27	12	27	4	3	9	8	9	5	2	2	3	1	1	0	0	0	0	27	5.7	24	
14	0	0	0	0	0	IZS	1	0	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0.2	24	
15	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
16	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
17	0	0	0	0	0	IZS	0	1	7	4	4	8	2	1	2	4	2	1	0	0	0	0	0	0	8	1.6	24	
18	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
19	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.1	24		
20	1	0	1	0	1	IZS	1	2	1	1	1	10	4	1	2	1	1	0	0	0	0	0	0	0	10	1.2	24	
21	0	0	1	26	10	IZS	1	34	22	133	28	2	1	2	1	2	4	4	47	1	1	25	1	1	133	15.1	24	
22	0	1	1	0	6	IZS	37	154	333	316	136	25	4	20	29	50	1	4	7	0	0	0	0	69	333	51.9	24	
23	165	44	9	19	6	IZS	7	6	4	13	170	216	56	10	67	14	36	351	263	91	233	405	176	37	405	104.3	24	
24	26	304	215	144	285	IZS	199	177	92	90	44	29	65	6	0	0	0	1	45	121	232	295	8	304	103.4	24		
25	1	1	1	71	48	IZS	454	319	146	226	1	1	125	54	25	56	95	43	42	3	16	0	0	0	454	75.1	24	
26	0	16	0	0	0	IZS	20	0	0	0	0	0	0	0	1	1	0	1	1	0	0	1	0	20	1.8	24		
27	0	0	0	0	1	IZS	0	24	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	24	1.2	24		
28	0	0	0	0	0	IZS	0	0	2	1	0	5	13	12	15	10	131	239	4	0	31	273	139	36	273	39.6	24	
29	135	95	24	176	157	IZS	19	152	51	45	63	52	57	25	74	0	0	1	29	0	0	0	0	46	176	52.2	24	
30	1	1	0	51	128	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	7.9	24		
31	0	0	0	0	0	IZS	2	4	2	0	0	2	11	1	0	9	2	11	6	0	0	0	0	0	11	2.2	24	
HOURLY MAX	165	304	215	176	285	NA	454	319	333	316	207	256	164	290	240	74	131	351	263	322	233	405	295	90				
HOURLY AVG	15.6	17.6	12.3	24.7	32.3	NA	30.0	33.6	28.9	38.9	28.0	24.6	18.4	16.7	17.0	8.3	10.4	25.5	22.9	25.3	22.8	35.0	23.8	11.7				

24 HOUR AVERAGES FOR JANUARY 2012



NUMBER OF NON-ZERO READINGS:

336

MAXIMUM 1-HR AVERAGE:

454

PPB

@ HOUR(S)

6

ON DAY(S)

25

MAXIMUM 24-HR AVERAGE:

104.3

PPB

IZS CALIBRATION TIME:

31

HRS

OPERATIONAL TIME:

744

HRS

MONTHLY CALIBRATION TIME:

100.0

%

STANDARD DEVIATION:

60.10

PPB

AMD OPERATION UPTIME:

100.0

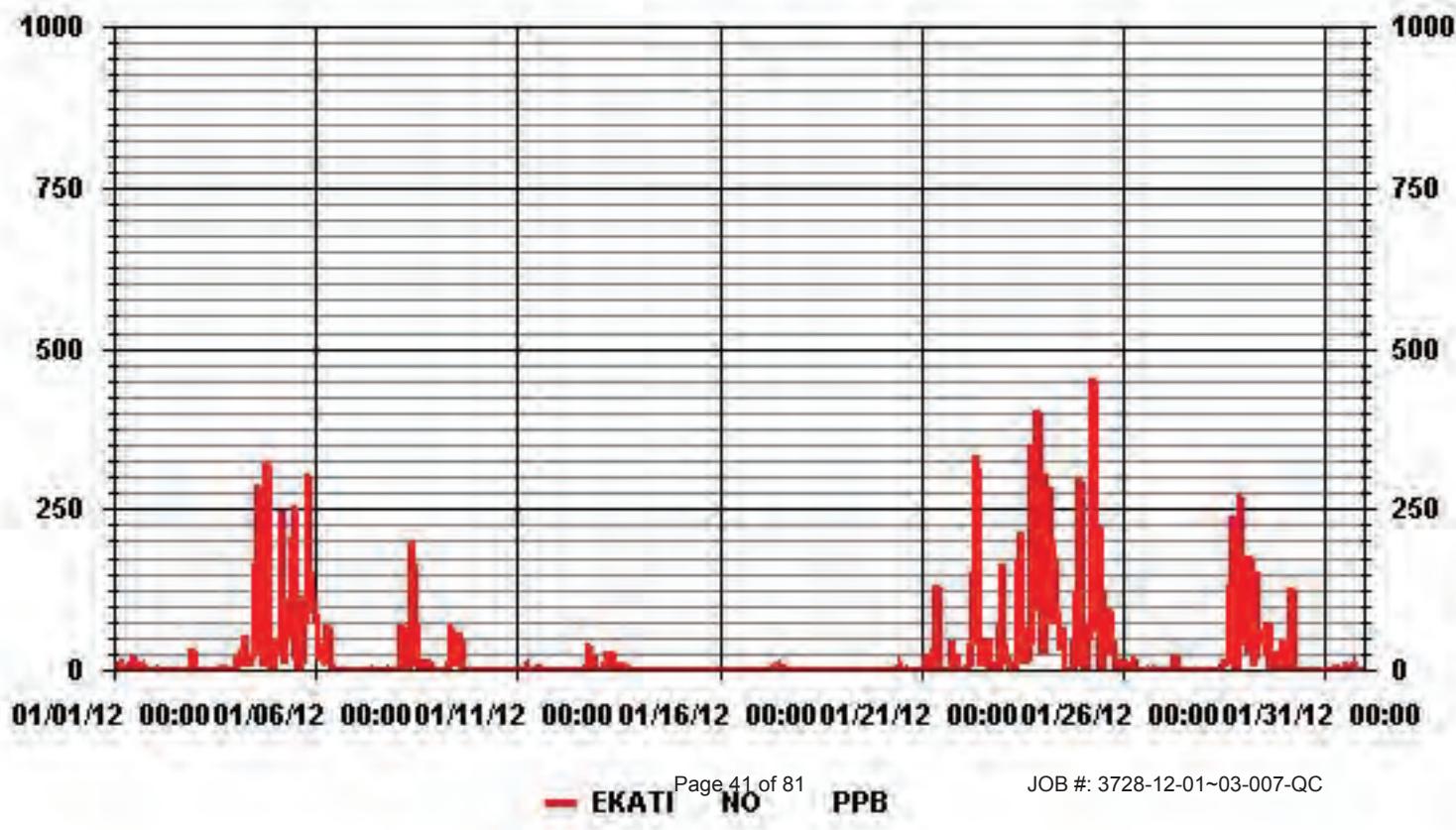
%

STANDARD DEVIATION:

22.80

PPB

01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

FEBRUARY 2012

NITRIC OXIDES (NO) hourly averages in ppb

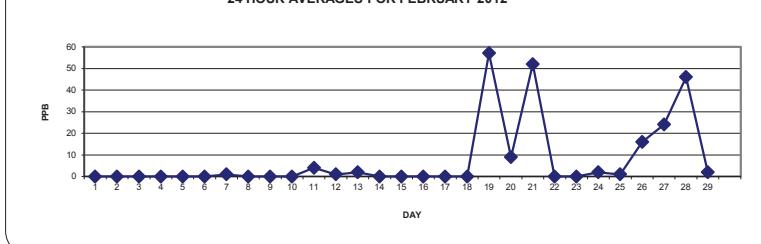
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX	24-HOUR AVG.	RDGS.		
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00	0:00		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00	0:00			
DAY																													
1	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24
2	0	0	0	0	0	Izs	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24
3	0	1	0	0	0	Izs	0	0	0	0	0	9	0	1	1	0	0	0	0	0	0	0	0	0	0	0	9	0	24
4	0	0	0	0	0	Izs	0	2	1	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	3	0	24
5	0	0	0	0	0	Izs	0	0	0	0	0	2	4	4	7	3	0	0	0	0	0	0	0	0	0	0	7	0	24
6	0	0	0	0	0	Izs	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	24
7	0	0	0	0	0	Izs	0	0	3	18	2	3	2	5	5	2	1	0	0	0	0	1	0	0	0	0	18	1	24
8	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24
9	0	0	0	0	0	Izs	0	0	0	1	0	0	0	3	8	3	0	0	0	0	0	0	0	0	0	0	8	0	24
10	0	0	0	0	0	Izs	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24
11	0	0	0	0	0	Izs	5	15	20	2	10	20	11	0	6	5	1	0	1	5	1	0	0	0	0	20	4	24	
12	0	0	0	0	0	Izs	0	0	0	1	5	0	0	2	1	2	3	1	5	2	0	2	2	10	10	1	24		
13	0	4	0	4	3	Izs	1	0	2	11	6	14	11	2	1	5	0	0	0	0	0	5	0	0	0	14	2	24	
14	0	0	0	0	0	Izs	0	0	5	3	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	5	0	24
15	0	0	0	0	0	Izs	1	0	1	0	2	3	0	1	2	1	9	0	1	0	0	0	0	0	0	9	0	24	
16	0	0	0	0	1	Izs	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	24	
17	0	0	0	0	0	Izs	0	0	6	1	4	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	6	0	24
18	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	9	3	9	0	24	
19	1	39	142	247	126	Izs	62	34	13	23	78	0	0	3	0	1	94	322	96	64	0	6	17	11	322	57	24		
20	164	66	0	0	Izs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	9	24	
21	0	0	71	1	22	Izs	161	51	226	223	263	21	27	16	40	5	1	0	45	37	6	11	0	0	0	263	52	24	
22	0	0	0	0	0	Izs	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	24
23	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	24
24	0	1	0	0	0	Izs	2	11	13	5	9	2	0	7	3	0	5	1	0	0	0	0	0	0	0	3	13	2	24
25	12	5	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	12	1	24
26	24	11	38	37	35	Izs	62	44	75	46	4	1	4	1	2	2	1	0	0	0	0	0	0	0	0	75	16	24	
27	0	0	0	0	0	Izs	4	1	2	5	16	185	205	110	23	3	15	3	4	3	0	0	1	4	205	24	24		
28	28	5	2	26	84	Izs	50	17	33	35	106	100	175	155	45	151	19	3	2	1	13	39	17	14	175	46	24		
29	3	3	2	3	1	Izs	0	3	12	5	12	1	0	0	1	2	0	0	0	0	0	0	0	0	12	2	24		

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

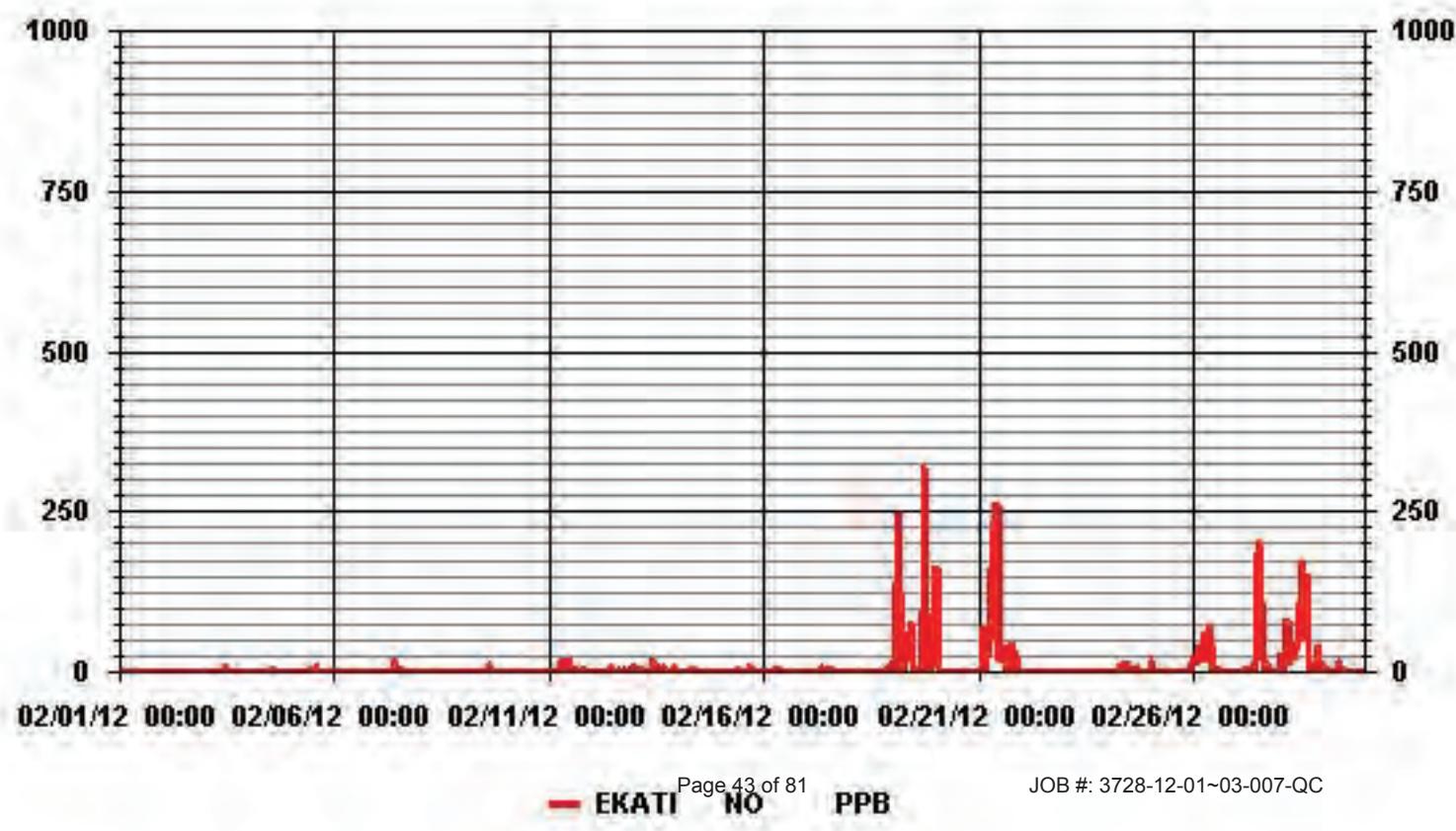
24 HOUR AVERAGES FOR FEBRUARY 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	221			
MAXIMUM 1-HR AVERAGE:	322	PPB	@ HOUR(S)	17
MAXIMUM 24-HR AVERAGE:	57.0	PPB	ON DAY(S)	19
Izs CALIBRATION TIME:	29	HRS	OPERATIONAL TIME:	696 HRS
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	31.52		MONTHLY AVERAGE:	8.18 PPB

01 Hour Averages



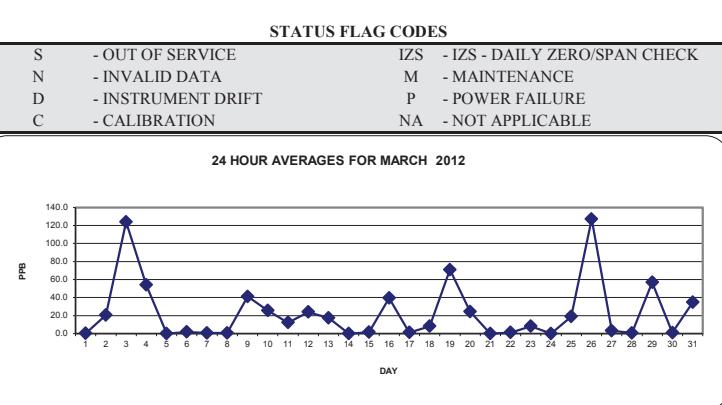
BHP Billiton Diamonds Inc. - EKATI

MARCH 2012

NITRIC OXIDES (NO) hourly averages in ppb

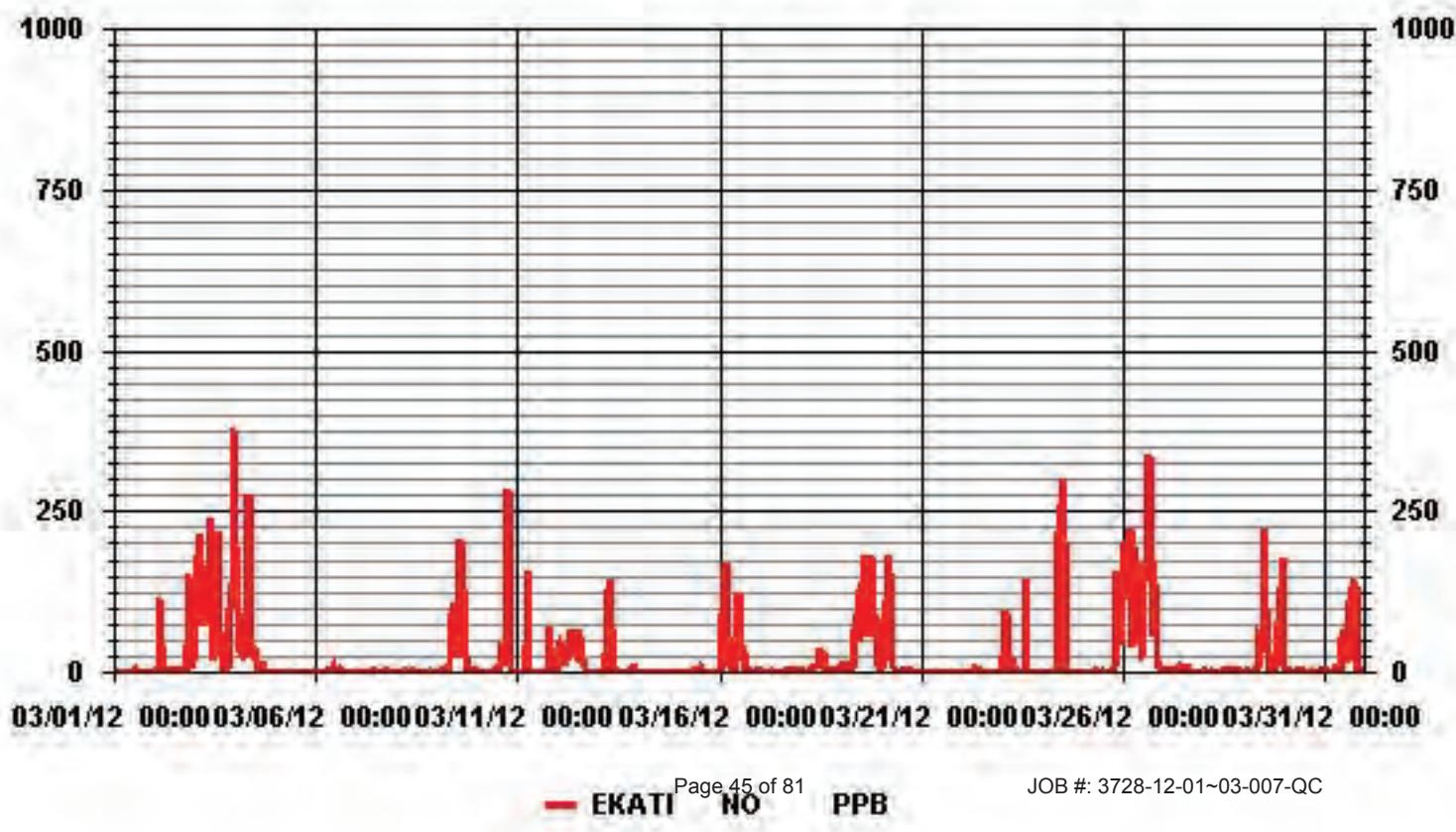
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	0	0	0	0	0	IZS	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0.2	24
2	0	3	2	115	44	IZS	1	0	3	4	5	4	4	3	3	2	2	5	1	43	151	57	6	16	151	20.6	24	
3	121	181	80	213	129	IZS	166	127	147	241	122	15	216	142	217	66	24	8	7	7	3	100	138	380	380	123.9	24	
4	196	117	95	36	26	IZS	43	200	277	126	22	42	20	7	7	9	6	14	1	0	1	0	0	0	0	277	54.1	24
5	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
6	0	0	0	0	0	IZS	0	2	2	5	11	2	2	3	7	2	3	2	1	0	0	0	0	0	0	11	1.8	24
7	0	0	0	0	0	IZS	0	0	1	2	2	2	0	0	2	0	1	4	1	1	0	0	0	0	0	4	0.7	24
8	0	0	0	0	0	IZS	2	1	0	2	2	3	0	0	2	0	0	0	0	0	3	0	0	0	0	3	0.7	24
9	0	0	1	4	0	IZS	1	11	84	92	108	64	21	47	208	136	130	27	5	1	2	1	2	3	208	41.2	24	
10	1	1	0	0	0	IZS	0	0	1	4	5	5	11	28	44	10	21	286	166	3	0	0	0	0	286	25.5	24	
11	0	0	0	0	0	IZS	156	4	0	0	0	0	0	0	0	0	-1	71	8	16	25	2	156	12.2	24			
12	37	48	43	42	12	IZS	21	27	64	52	26	24	64	55	23	13	0	0	0	0	0	0	0	0	64	24.0	24	
13	0	0	0	2	28	IZS	128	144	69	3	2	1	1	0	0	0	0	0	2	0	6	12	1	0	144	17.3	24	
14	0	0	0	0	0	IZS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
15	0	0	0	0	0	IZS	0	2	6	4	1	3	3	9	6	0	0	1	0	0	0	0	0	0	0	9	1.5	24
16	0	91	169	123	167	IZS	52	5	6	3	53	125	16	44	31	6	6	4	1	1	2	1	1	0	169	39.4	24	
17	2	3	0	0	0	IZS	1	1	0	0	0	0	0	1	0	0	2	3	1	1	1	4	5	2	5	1.2	24	
18	4	2	4	2	1	IZS	3	3	7	9	16	11	35	19	32	6	3	6	3	4	3	3	4	10	35	8.3	24	
19	5	4	11	17	3	IZS	1	5	64	89	45	128	139	123	180	94	55	124	180	172	94	85	12	1	180	70.9	24	
20	16	5	55	111	182	IZS	153	10	5	4	4	2	2	2	3	2	1	1	0	0	0	0	0	0	182	24.4	24	
21	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
22	0	0	0	0	0	IZS	0	0	7	6	5	3	0	0	1	0	0	2	0	1	0	0	1	0	7	1.1	24	
23	26	36	94	5	0	IZS	7	1	1	1	1	3	3	C	C	C	C	C	C	0	0	0	0	0	94	8.1	24	
24	0	0	0	0	0	IZS	0	C	C	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0.0	24	
25	0	0	0	0	1	IZS	1	2	5	5	2	0	1	1	0	0	1	1	1	11	156	64	41	144	156	19.0	24	
26	202	119	138	113	222	IZS	199	163	61	102	44	19	170	139	256	337	242	178	53	138	18	10	1	1	337	127.2	24	
27	1	1	1	1	1	IZS	1	1	7	12	9	7	7	8	1	2	1	2	1	0	1	12	3.3	24				
28	1	1	1	1	0	IZS	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	0.7	24			
29	0	1	1	1	1	IZS	1	4	6	59	56	224	207	104	32	8	10	15	4	10	80	131	174	179	224	56.9	24	
30	5	1	1	1	1	IZS	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	5	1.0	24		
31	1	1	1	0	1	IZS	10	1	1	1	53	64	29	15	111	133	87	145	134	6	1	1	1	1	145	34.7	24	



NUMBER OF NON-ZERO READINGS:			430		
MAXIMUM 1-HR AVERAGE:	380	PPB	@ HOUR(S)	23	ON DAY(S)
MAXIMUM 24-HR AVERAGE:	127.2	PPB			ON DAY(S)
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	11	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	53.54		MONTHLY AVERAGE:	23.58	PPB

01 Hour Averages



Oxides of Nitrogen

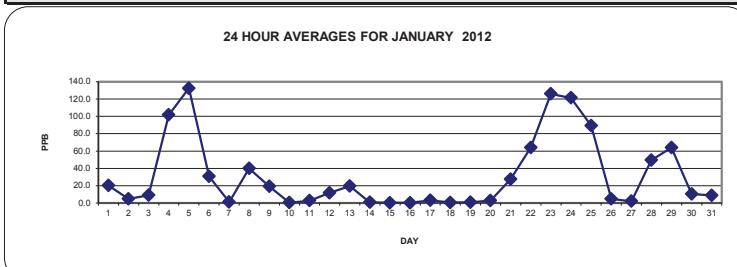
BHP Billiton Diamonds Inc. - EKATI
JANUARY 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

MST

DAY	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END																												
1	31	33	37	41	45	IZS	15	13	11	20	33	52	20	8	23	17	17	25	8	3	6	3	3	1	52	20.2	24	
2	1	1	10	2	1	IZS	0	0	0	0	0	0	0	1	5	5	2	0	0	1	7	11	63	63	4.8	24		
3	47	36	2	0	0	IZS	1	0	1	0	0	1	1	0	0	0	7	24	29	13	11	5	5	20	47	8.8	24	
4	39	26	35	57	71	IZS	92	49	37	20	50	40	202	329	278	100	55	14	209	368	178	14	16	59	368	101.7	24	
5	73	60	42	191	298	IZS	94	81	67	140	245	300	36	16	18	62	27	154	113	363	209	164	161	135	363	132.6	24	
6	121	50	84	61	50	IZS	81	124	56	17	13	7	9	5	7	8	2	3	1	2	0	1	0	2	124	30.6	24	
7	1	1	0	0	0	IZS	1	0	1	3	2	1	1	2	2	3	3	1	1	2	2	0	0	0	3	1.2	24	
8	4	8	58	95	58	IZS	2	1	62	241	205	98	14	29	5	2	1	1	8	20	1	2	1	2	241	39.9	24	
9	1	1	0	1	1	IZS	1	20	93	74	6	41	34	86	71	2	2	3	0	0	0	1	1	2	93	19.2	24	
10	1	1	2	2	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0.3	24	
11	1	0	1	2	2	IZS	2	7	3	5	7	4	2	3	3	4	1	3	1	0	2	2	2	7	2.6	24		
12	3	3	1	0	0	IZS	0	1	0	4	8	2	6	9	4	2	18	15	69	6	26	58	21	10	69	11.6	24	
13	5	13	13	26	37	IZS	55	39	63	24	18	31	26	27	19	16	9	11	8	5	2	2	1	0	63	19.6	24	
14	0	1	0	0	0	IZS	3	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.6	24		
15	0	0	1	0	0	IZS	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0.1	24	
16	0	1	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
17	0	0	0	0	0	IZS	1	2	12	8	7	13	3	3	4	9	3	3	1	0	0	0	0	0	13	3.0	24	
18	0	0	0	1	1	IZS	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	1	1	0	1	0.5	24	
19	0	0	0	0	0	IZS	0	0	1	1	0	0	0	1	1	2	0	1	0	0	2	1	2	1	2	0.6	24	
20	2	1	2	1	3	IZS	3	5	3	3	2	17	8	2	4	2	3	1	0	0	0	0	0	0	17	2.7	24	
21	0	4	12	51	36	IZS	9	65	44	167	43	6	5	8	6	7	12	13	68	8	8	40	7	7	167	27.2	24	
22	6	5	7	6	15	IZS	56	189	379	350	167	36	7	32	41	62	1	8	10	0	1	1	1	87	379	63.8	24	
23	202	63	21	35	15	IZS	17	16	12	27	210	240	76	22	94	29	58	390	308	114	257	425	208	59	425	126.0	24	
24	42	340	253	170	307	IZS	231	209	112	117	65	48	90	9	1	1	2	4	58	150	255	314	14	340	121.4	24		
25	8	9	7	103	73	IZS	481	350	164	248	2	2	156	71	41	75	117	63	54	6	23	0	1	1	481	89.3	24	
26	2	25	2	1	1	IZS	33	8	4	5	2	1	0	1	3	2	2	3	3	1	2	3	1	2	33	4.7	24	
27	1	0	0	1	2	IZS	1	32	1	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	32	1.9	24	
28	0	0	0	0	0	IZS	0	2	5	3	0	0	12	27	26	28	27	160	272	15	5	47	298	158	50	298	49.3	24
29	161	117	31	204	187	IZS	28	180	68	57	79	62	70	35	94	1	1	3	37	0	0	1	0	56	204	64.0	24	
30	5	3	1	63	152	IZS	1	0	0	0	0	0	0	1	3	2	1	1	0	0	1	2	2	152	10.3	24		
31	2	3	11	11	3	IZS	9	10	6	2	1	5	18	5	0	19	18	36	19	5	1	6	3	5	36	8.6	24	
HOURLY MAX	202	340	253	204	307	NA	481	350	379	350	245	300	202	329	278	100	160	390	308	368	257	425	314	135				
HOURLY AVG	24.5	26.0	20.5	36.3	43.8	NA	39.3	45.3	39.0	49.7	37.6	32.9	26.2	23.5	24.3	14.8	16.9	33.9	31.3	31.6	30.0	41.7	29.7	18.7				

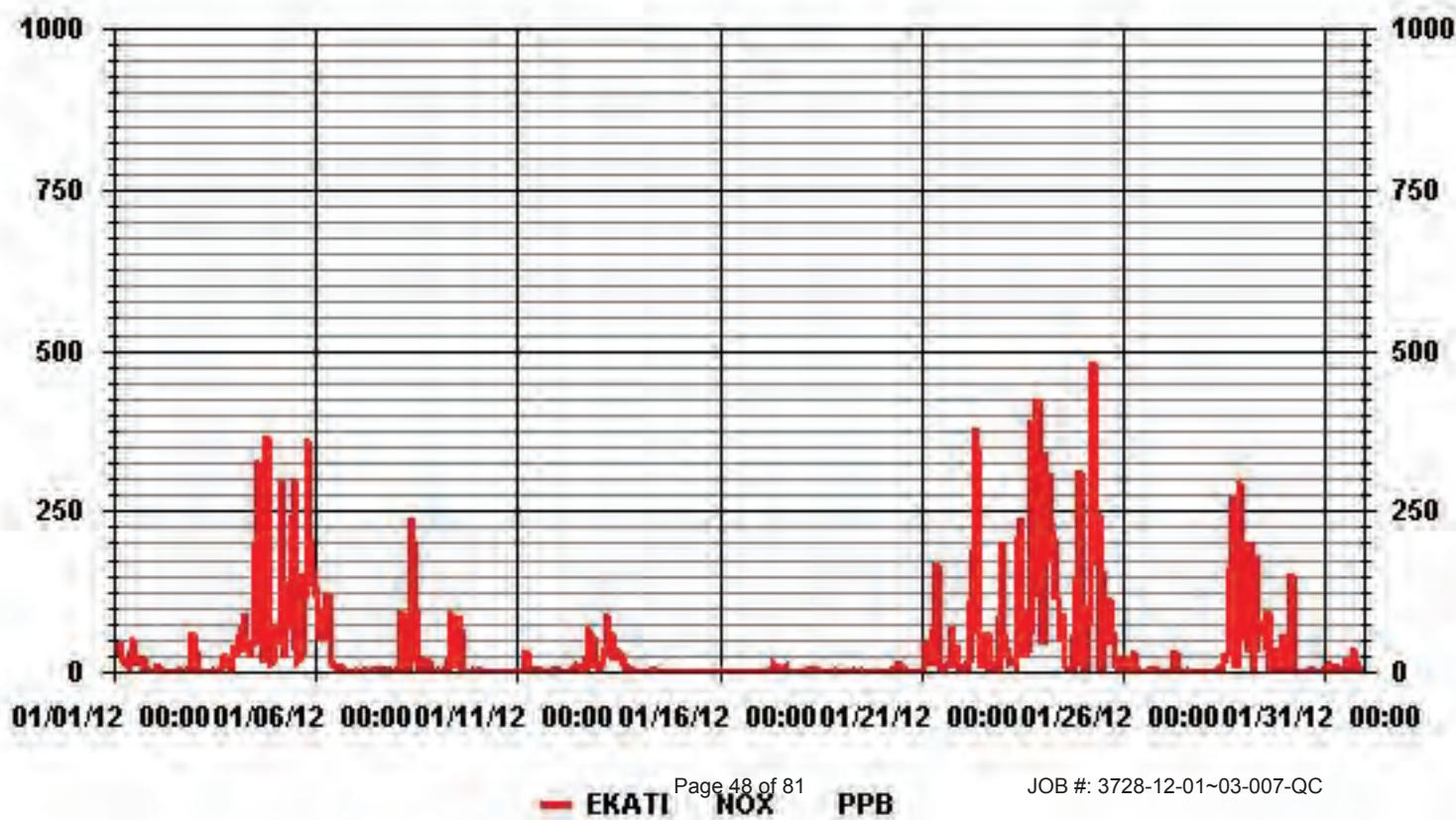
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

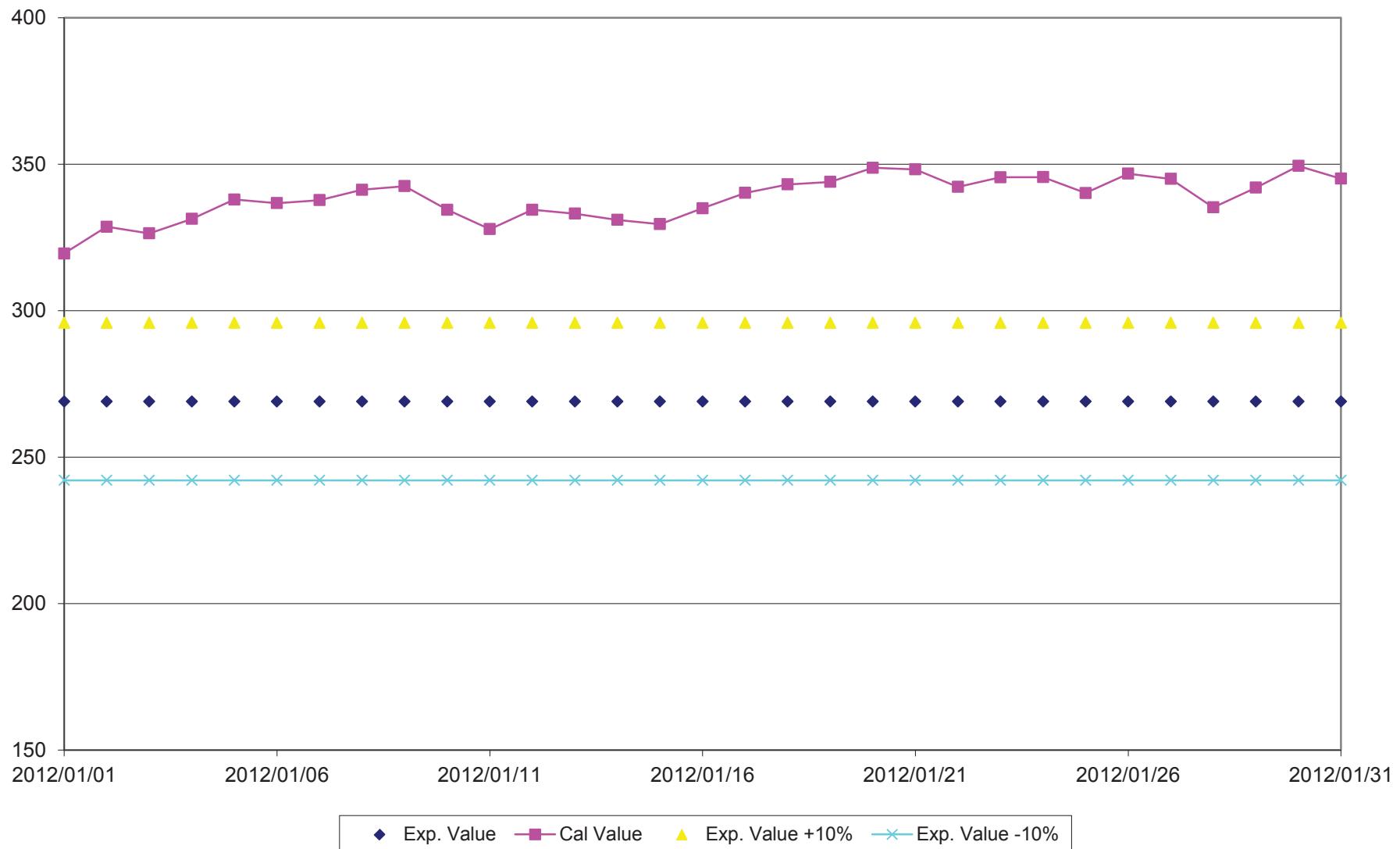


NUMBER OF NON-ZERO READINGS:	521
MAXIMUM 1-HR AVERAGE:	481 PPB
MAXIMUM 24-HR AVERAGE:	132.6 PPB
ON DAY(S)	25
ON DAY(S)	5
IIZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	0 HRS
STANDARD DEVIATION:	68.86
OPERATIONAL TIME:	744 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	31.20 PPB

01 Hour Averages



Calibration Graph for Site: EKATI Parameter: NOx Phase: SPAN



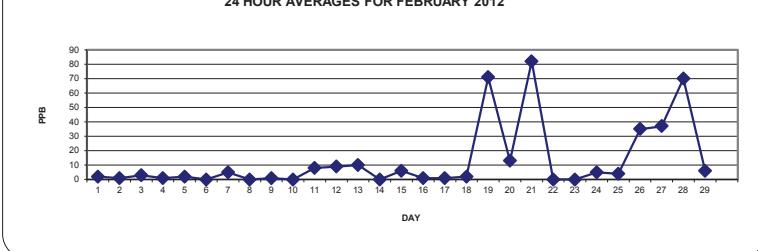
BHP Billiton Diamonds Inc. - EKATI
FEBRUARY 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	6	3	2	9	8	IZS	4	5	7	4	0	2	1	1	0	1	0	0	0	0	0	0	0	0	2	9	2	24
2	3	1	2	2	1	IZS	1	2	6	2	2	1	1	2	1	1	1	1	0	0	1	1	2	1	6	1	24	
3	2	7	4	1	1	IZS	0	0	1	4	6	21	4	7	6	4	2	4	4	2	2	3	3	1	21	3	24	
4	0	0	2	3	1	IZS	2	5	2	1	0	0	1	5	6	0	0	2	2	0	3	6	3	0	6	1	24	
5	0	0	0	0	0	IZS	0	0	0	0	1	4	8	7	16	11	1	1	0	0	4	7	2	0	16	2	24	
6	1	2	0	0	0	IZS	1	3	5	0	2	0	0	0	0	0	0	0	0	0	1	0	0	5	0	24		
7	0	0	0	0	0	IZS	2	0	12	37	9	10	6	13	15	9	6	3	0	0	3	1	1	0	37	5	24	
8	0	0	0	0	0	IZS	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	24	
9	0	0	0	0	0	IZS	0	0	0	5	1	1	2	7	14	7	2	1	0	2	3	1	0	0	14	1	24	
10	0	2	2	1	0	IZS	1	4	0	1	3	0	0	0	0	2	3	3	0	0	0	0	0	0	4	0	24	
11	0	0	0	0	0	IZS	10	25	33	5	19	32	20	2	11	11	3	2	6	14	4	1	3	2	33	8	24	
12	1	2	2	2	2	IZS	4	1	2	8	17	1	2	8	6	12	20	14	24	17	13	16	12	34	34	9	24	
13	13	20	9	24	18	IZS	6	1	17	30	21	31	23	6	3	9	1	0	1	0	0	10	0	1	31	10	24	
14	0	0	0	0	0	IZS	0	0	10	6	1	0	0	3	2	0	0	0	0	0	0	0	0	0	10	0	24	
15	0	0	2	5	13	IZS	26	16	12	6	10	11	0	5	10	6	21	1	5	1	0	0	0	0	26	6	24	
16	0	0	0	0	3	IZS	1	9	6	0	1	0	0	1	1	1	0	1	5	5	0	0	2	9	1	24		
17	0	0	0	1	0	IZS	1	0	11	3	7	3	0	1	6	1	0	0	1	1	0	0	0	11	1	24		
18	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15	26	14	26	2	24		
19	6	60	181	278	143	IZS	80	54	26	32	98	1	2	7	1	3	116	365	120	82	3	12	29	21	365	71	24	
20	203	84	1	1	1	IZS	4	2	1	0	0	0	0	0	0	0	0	2	2	3	5	9	6	203	13	24		
21	0	3	106	15	52	IZS	211	86	279	268	317	40	48	34	68	16	7	6	82	81	32	43	4	2	317	82	24	
22	1	1	0	0	3	IZS	2	0	0	6	0	0	0	0	5	1	0	0	0	0	0	0	0	6	0	24		
23	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24		
24	0	3	1	0	0	IZS	5	23	29	12	20	4	0	13	7	2	12	5	1	0	1	0	0	5	29	5	24	
25	23	9	0	0	0	IZS	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5	14	15	37	37	4	24	
26	61	40	76	76	71	IZS	105	82	113	74	8	3	7	3	6	7	6	4	6	5	5	4	4	3	113	35	24	
27	3	5	9	11	8	IZS	18	9	9	13	29	213	237	137	38	7	28	14	27	24	7	6	13	25	237	37	24	
28	58	25	16	53	120	IZS	79	35	55	57	135	131	216	195	65	187	37	11	9	9	29	60	35	32	216	70	24	
29	13	13	12	16	8	IZS	0	13	32	14	24	3	0	0	1	1	1	0	0	0	0	0	0	32	6	24		
HOURLY MAX	203	84	181	278	143	NA	211	86	279	268	317	213	237	195	68	187	116	365	120	82	32	60	35	37				
HOURLY AVG	13.6	9.7	14.7	17.2	15.6	NA	19.4	12.9	23.0	20.3	25.2	17.7	19.9	15.7	10.0	10.2	9.2	15.1	10.1	8.4	4.4	7.1	5.6	6.5				

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

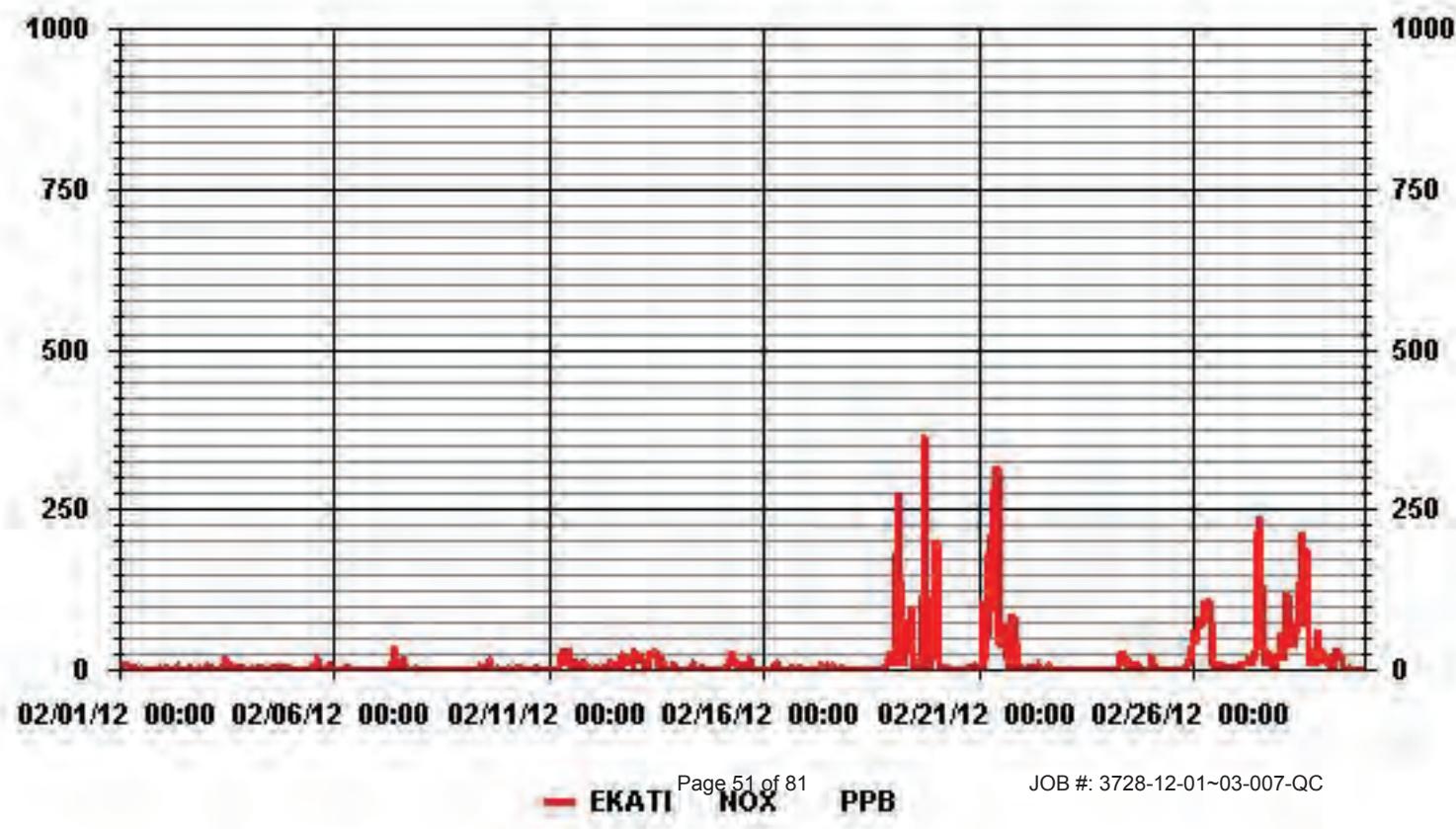
24 HOUR AVERAGES FOR FEBRUARY 2012



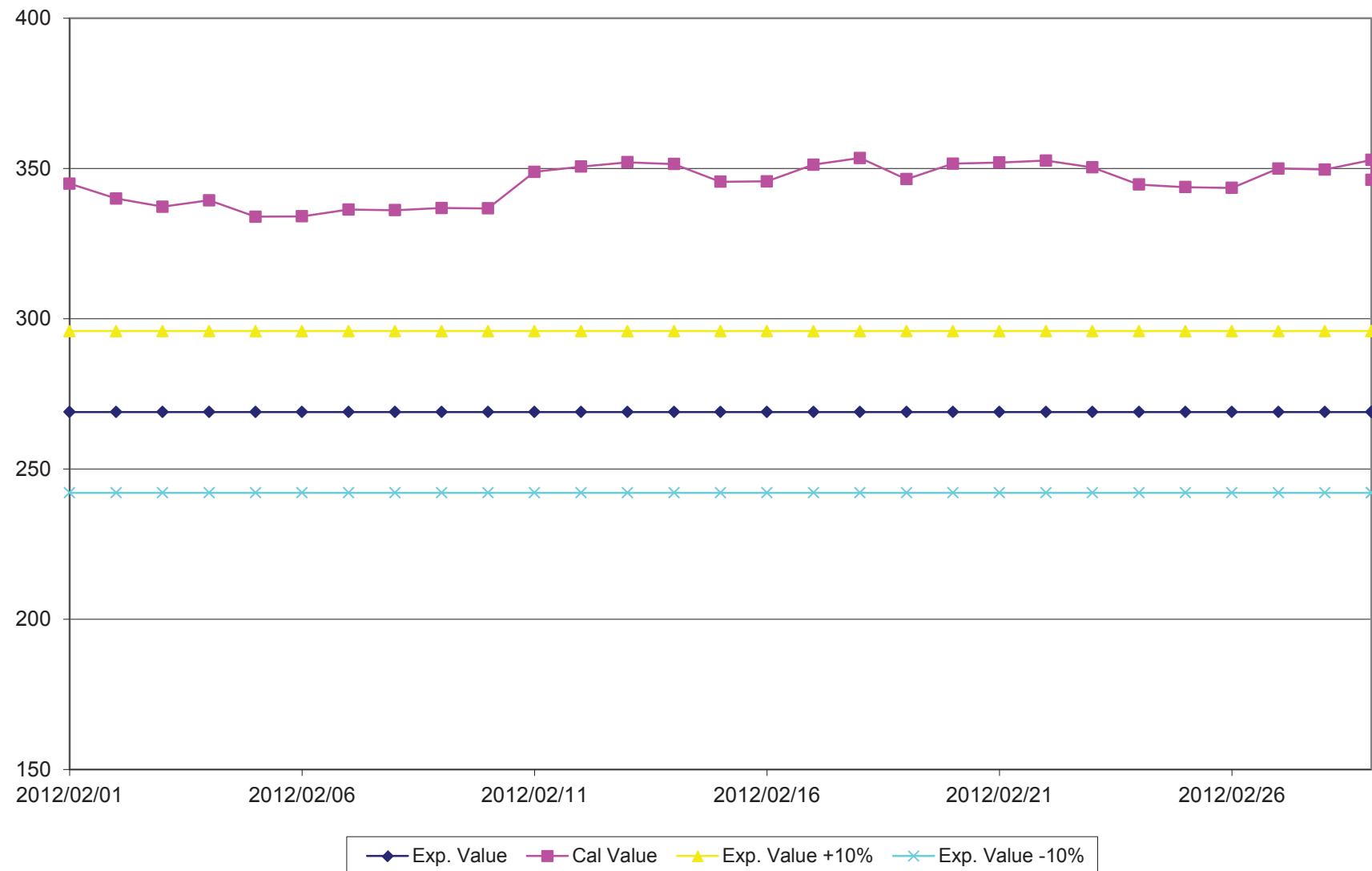
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	407			
MAXIMUM 1-HR AVERAGE:	365	PPB	@ HOUR(S)	17
MAXIMUM 24-HR AVERAGE:	82.0	PPB		ON DAY(S) 19 ON DAY(S) 21
Izs Calibration Time:	29	HRS	Operational Time:	696 HRS
Monthly Calibration Time:	0	HRS	AMD Operation Uptime:	100.0 %
Standard Deviation:	38.90		Monthly Average:	13.55 PPB

01 Hour Averages



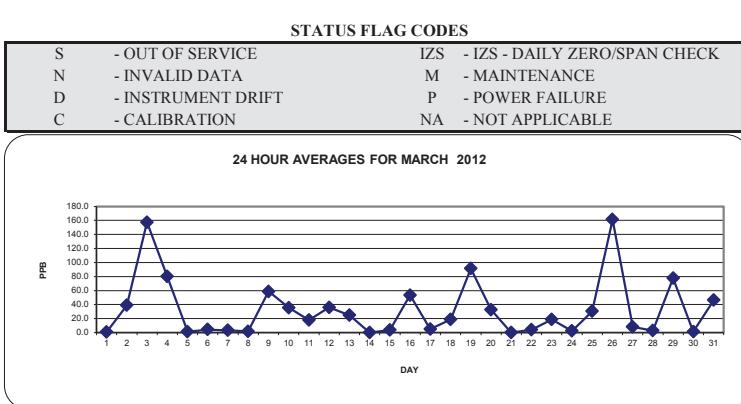
Calibration Graph for Site: EKATI Parameter: NOx Phase: SPAN



BHP Billiton Diamonds Inc. - EKATI
MARCH 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

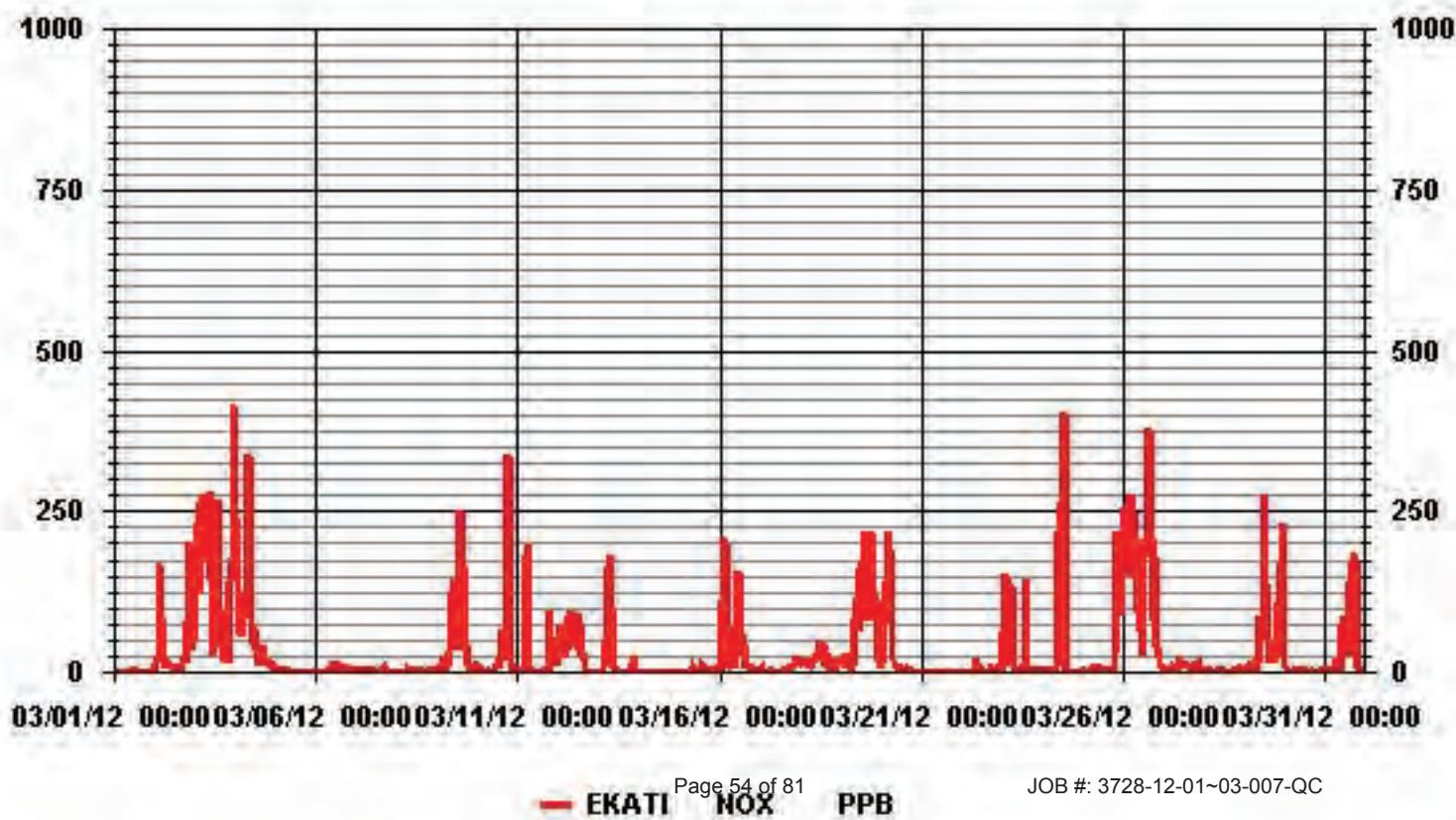
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY	1	0	0	0	0	IZS	0	1	0	0	0	0	9	1	0	0	0	0	0	0	0	0	0	0	0	6	9	0.8	24
2	1	20	24	167	87	IZS	15	7	14	11	12	8	9	6	7	6	8	24	12	77	201	98	35	48	201	39.0	24		
3	157	232	121	262	175	IZS	208	168	193	280	143	24	260	178	267	97	40	23	22	20	13	141	179	416	416	157.3	24		
4	243	152	127	63	55	IZS	84	257	336	172	43	70	36	17	16	23	20	41	24	13	19	18	10	7	336	80.3	24		
5	9	4	4	3	3	IZS	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1.4	24	
6	0	0	0	0	0	IZS	0	4	5	9	17	4	4	6	14	5	7	8	4	1	1	3	4	4	17	4.3	24		
7	3	4	7	5	3	IZS	4	2	4	5	4	4	1	2	4	1	3	9	3	3	1	0	0	0	0	9	3.1	24	
8	0	0	0	0	0	IZS	6	3	0	4	4	6	1	0	4	1	1	0	0	0	9	1	0	1	9	1.8	24		
9	1	4	12	24	4	IZS	11	31	122	123	145	87	32	62	250	175	165	44	15	6	9	7	8	13	250	58.7	24		
10	11	10	3	0	1	IZS	0	1	1	4	10	11	11	20	47	66	18	36	337	205	14	3	2	3	337	35.4	24		
11	1	1	1	1	6	IZS	196	11	1	1	0	1	0	1	1	1	0	0	94	14	29	40	7	196	17.7	24			
12	52	73	62	68	22	IZS	40	42	93	75	43	41	89	73	31	20	1	1	0	0	0	0	0	0	93	35.9	24		
13	0	0	0	8	48	IZS	165	183	99	10	5	2	3	0	0	0	0	5	1	10	24	4	0	183	24.7	24			
14	0	0	0	0	0	IZS	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24			
15	0	0	0	0	0	IZS	2	3	11	7	3	5	5	13	9	0	2	3	0	4	4	3	3	9	13	3.7	24		
16	8	113	211	162	198	IZS	69	13	15	7	69	157	26	62	44	13	14	11	4	7	8	6	5	2	211	53.2	24		
17	6	9	2	0	0	IZS	2	3	1	0	0	0	0	3	0	0	5	8	6	8	10	19	20	15	20	5.1	24		
18	20	16	16	17	13	IZS	19	11	16	18	27	18	51	28	47	13	9	17	11	12	9	8	10	21	51	18.6	24		
19	14	12	22	27	9	IZS	4	11	83	116	61	159	171	151	218	121	77	155	218	213	122	113	22	5	218	91.5	24		
20	25	12	75	139	217	IZS	190	20	11	8	9	5	4	5	5	7	7	5	4	4	0	0	0	0	217	32.7	24		
21	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24			
22	0	0	0	0	0	IZS	0	0	16	15	12	9	0	0	2	1	0	10	2	4	4	6	9	7	16	4.2	24		
23	61	80	154	26	9	IZS	27	6	5	4	3	3	7	7	C	2	2	4	1	2	3	3	2	4	154	18.9	24		
24	2	2	4	2	4	IZS	3	C	C	C	C	C	C	C	C	C	1	3	1	1	2	1	4	4	2.3	24			
25	3	1	0	0	2	IZS	1	4	10	9	4	1	1	1	1	1	4	8	30	218	114	86	197	218	30.3	24			
26	255	162	182	147	276	IZS	251	211	91	140	66	27	208	177	298	378	291	212	78	178	40	26	9	8	378	161.3	24		
27	6	6	5	2	4	IZS	5	3	11	22	16	13	12	13	13	3	4	3	11	10	15	3	5	22	8.2	24			
28	6	5	4	3	2	IZS	0	1	1	1	1	2	2	1	1	2	2	1	5	6	6	7	3	7	2.7	24			
29	6	5	12	9	7	IZS	4	10	14	82	80	278	253	141	55	16	22	29	12	22	108	170	221	230	278	77.7	24		
30	9	2	2	1	2	IZS	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	1	9	1.3	24		
31	1	1	1	0	2	IZS	21	2	1	1	73	85	43	25	141	170	117	186	177	11	2	1	1	1	186	46.2	24		



NUMBER OF NON-ZERO READINGS:			548		
MAXIMUM 1-HR AVERAGE:	416	PPB	@ HOUR(S)	23	ON DAY(S)
MAXIMUM 24-HR AVERAGE:	161.3	PPB			3
ON DAY(S)					26
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	11	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	65.90		MONTHLY AVERAGE:	33.31	PPB

01 Hour Averages

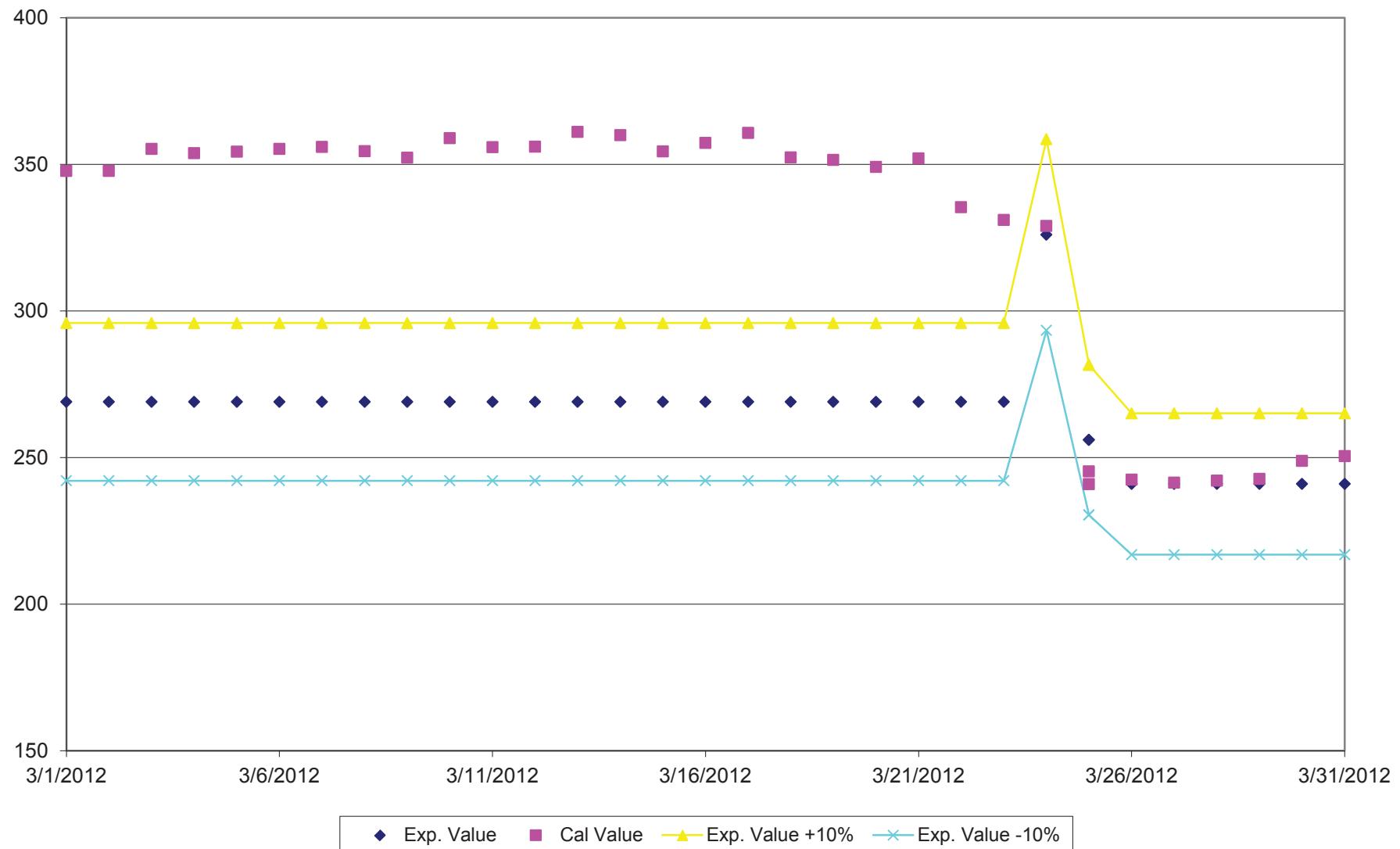


— EKATI NOX PPB

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JOB #: 3728-12-01~03-007-QC

Calibration Graph for Site: EKATI Parameter: NOx Phase: SPAN



Particulate Matter 2.5

BHP Billiton Diamonds Inc. - EKATI
JANUARY 2012
PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M³

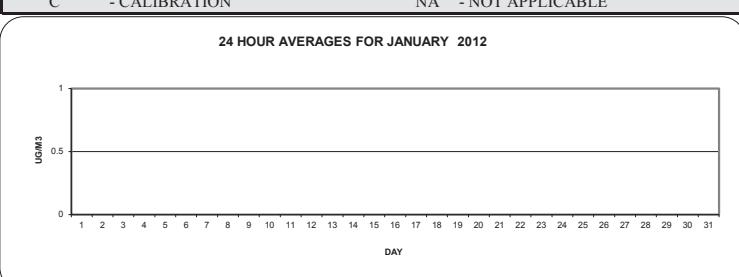
MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR MAX.	Avg.	RDGs.
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00	0:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00	0:00	
DAY	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
22	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
23	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
31	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
HOURLY MAX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
HOURLY AVG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										

STATUS FLAG CODES

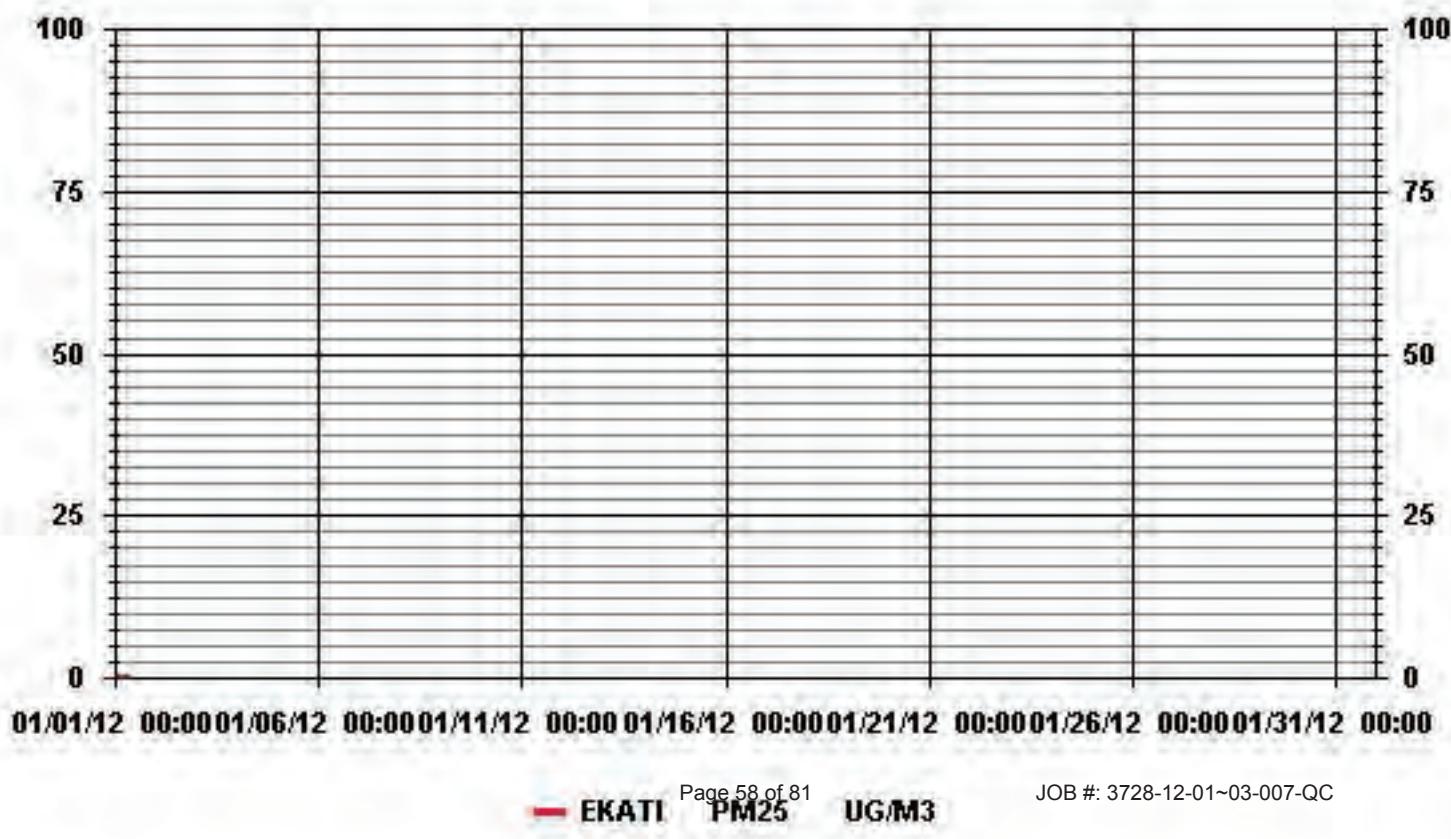
S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	0
MAXIMUM 1-HR AVERAGE:	NA ug/m ³
MAXIMUM 24-HR AVERAGE:	NA ug/m ³
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	0 HRS
OPERATIONAL TIME:	0 HRS
AMD OPERATION UPTIME:	0.0 %
STANDARD DEVIATION:	#####
MONTHLY AVERAGE:	NA UG/M ³



01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

FEBRUARY 2012

PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M₃

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX	24-HOUR AVG	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
22	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
23	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
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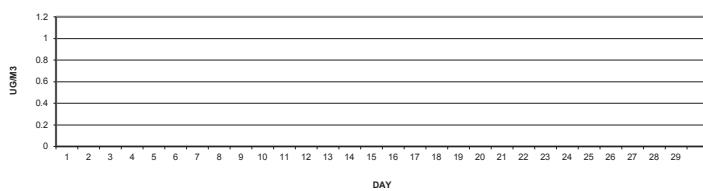
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

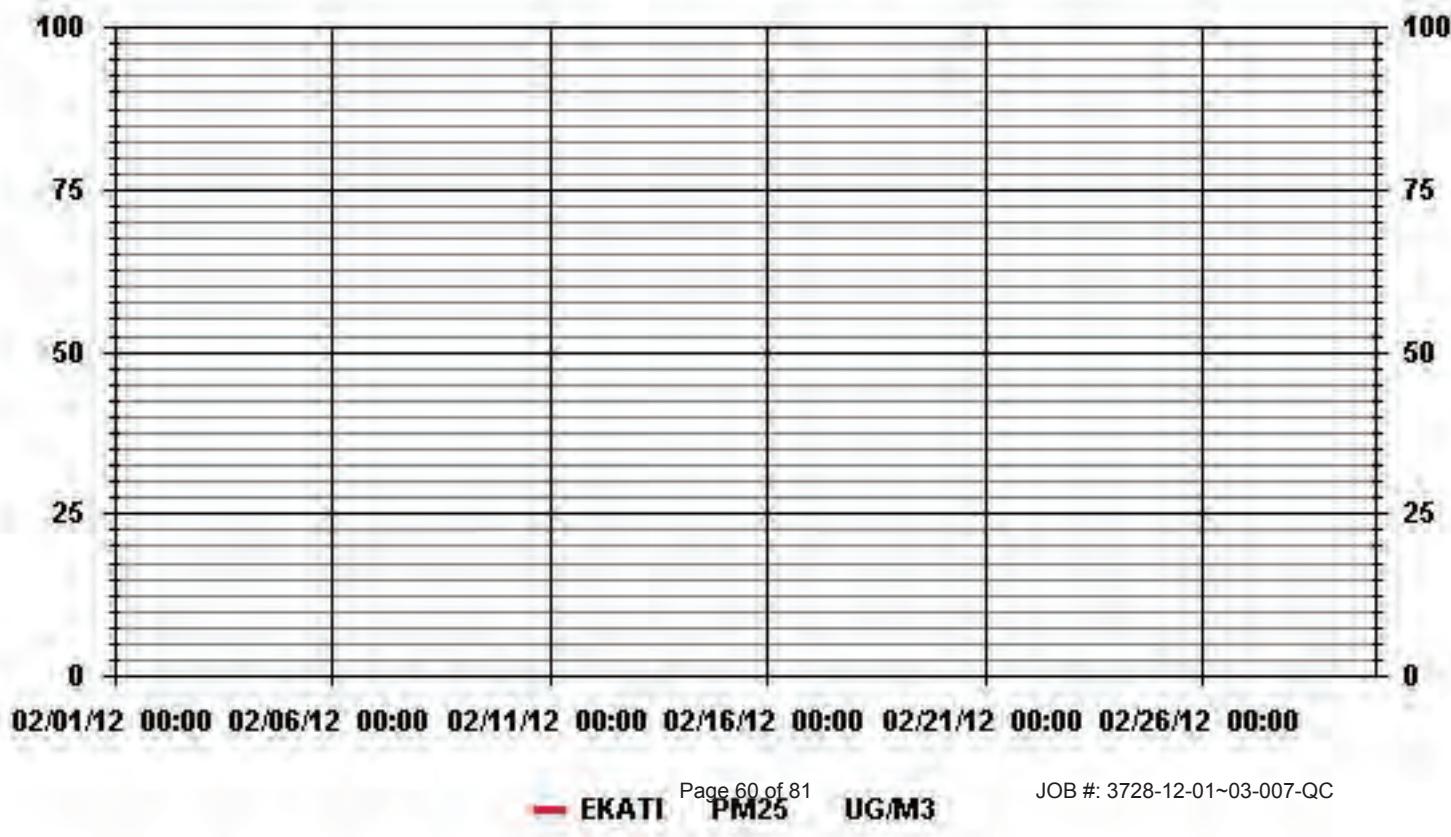
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	0
MAXIMUM 1-HR AVERAGE:	NA ug/m ³
MAXIMUM 24-HR AVERAGE:	NA ug/m ³
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	0 HRS
OPERATIONAL TIME:	NA ug/m ³
AMD OPERATION UPTIME:	0.0 %
STANDARD DEVIATION:	0.00
MONTHLY AVERAGE:	NA UG/M ³

24 HOUR AVERAGES FOR FEBRUARY 2012



01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

MARCH 2012

PARTICULATE MATTER (PM2.5) hourly averages in UG/M3

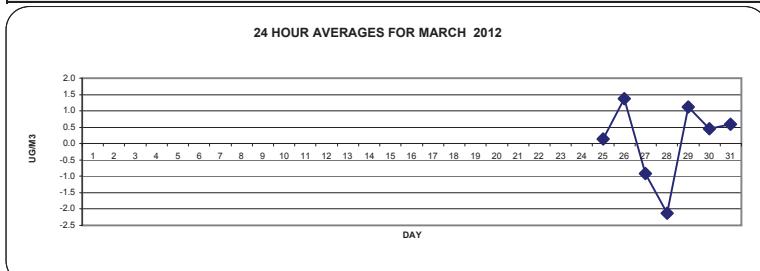
MST HOUR START HOUR END																									DAILY 24-HOUR			
	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	DAILY AVG.	DAILY RDGS.	
DAY																												
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
22	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
23	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
25	N	N	N	N	N	N	N	N	N	M	M	1	2	1	2	0	-1	-3	-4	-1	1	-2	0	3	3	3	0.1	14
26	6	6	3	0	-1	-2	0	2	2	1	0	0	0	0	0	3	4	1	0	-1	-1	2	5	3	6	1.4	24	
27	-1	-3	-2	0	1	-1	-2	-1	-2	-2	0	1	0	1	-1	-1	0	-1	-3	1	0	-3	-2	1	-0.9	24		
28	-4	-2	0	-4	-4	-4	-4	-1	0	-2	-3	-5	-5	-5	-5	-2	-2	-3	-3	0	0	-1	1	3	2	-2.1	24	
29	2	3	1	-4	-1	1	0	0	0	1	2	1	2	2	1	3	3	2	0	0	1	1	3	3	1.1	24		
30	1	1	1	2	3	0	-1	0	0	3	1	-2	-2	0	0	0	3	3	2	-1	-2	0	-1	3	0.5	24		
31	-1	-1	-1	0	1	0	0	0	0	-1	2	2	1	1	0	1	3	3	3	2	1	-1	-4	3	0.6	24		
HOURLY MAX	6	6	3	2	3	1	0	2	2	3	2	2	2	2	1	3	4	3	3	3	2	2	5	3				
HOURLY AVG	0.5	0.7	0.3	-1.0	-0.2	-1.2	0.0	0.0	0.0	0.4	-0.1	-0.4	0.1	-0.7	0.4	0.4	0.3	0.6	0.3	-0.1	0.4	1.4	0.6					

STATUS FLAG CODES

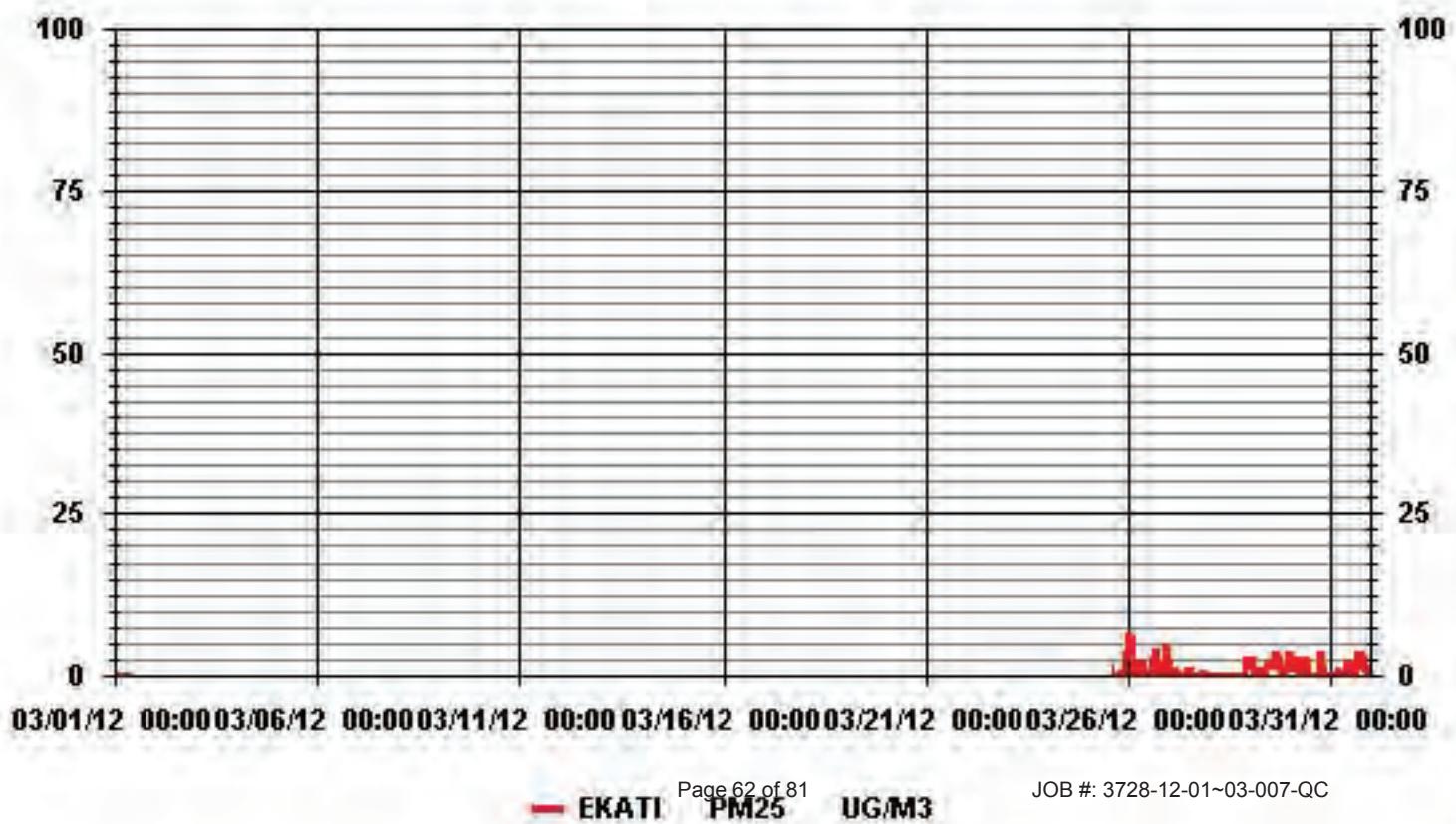
S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	65		
MAXIMUM 1-HR AVERAGE:	6 ug/m ³	@ HOUR(S)	0, 1
MAXIMUM 24-HR AVERAGE:	1.4 ug/m ³	ON DAY(S)	26
IZS CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	158.0 HRS
MONTHLY CALIBRATION TIME:	0 HRS	AMD OPERATION UPTIME:	21.2 %
STANDARD DEVIATION:	2.16	MONTHLY AVERAGE:	0.1 UG/M3



01 Hour Averages



— EKATI PM25 UG/M3

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JOB #: 3728-12-01~03-007-QC

Total Suspended Particulate

BHP Billiton Diamonds Inc. - EKATI

JANUARY 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

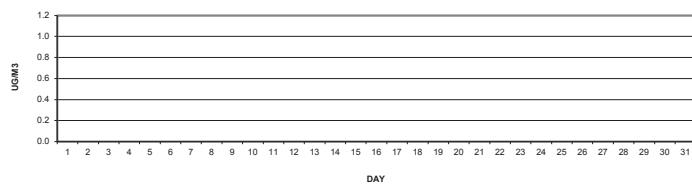
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
DAY	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
22	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
23	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
31	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

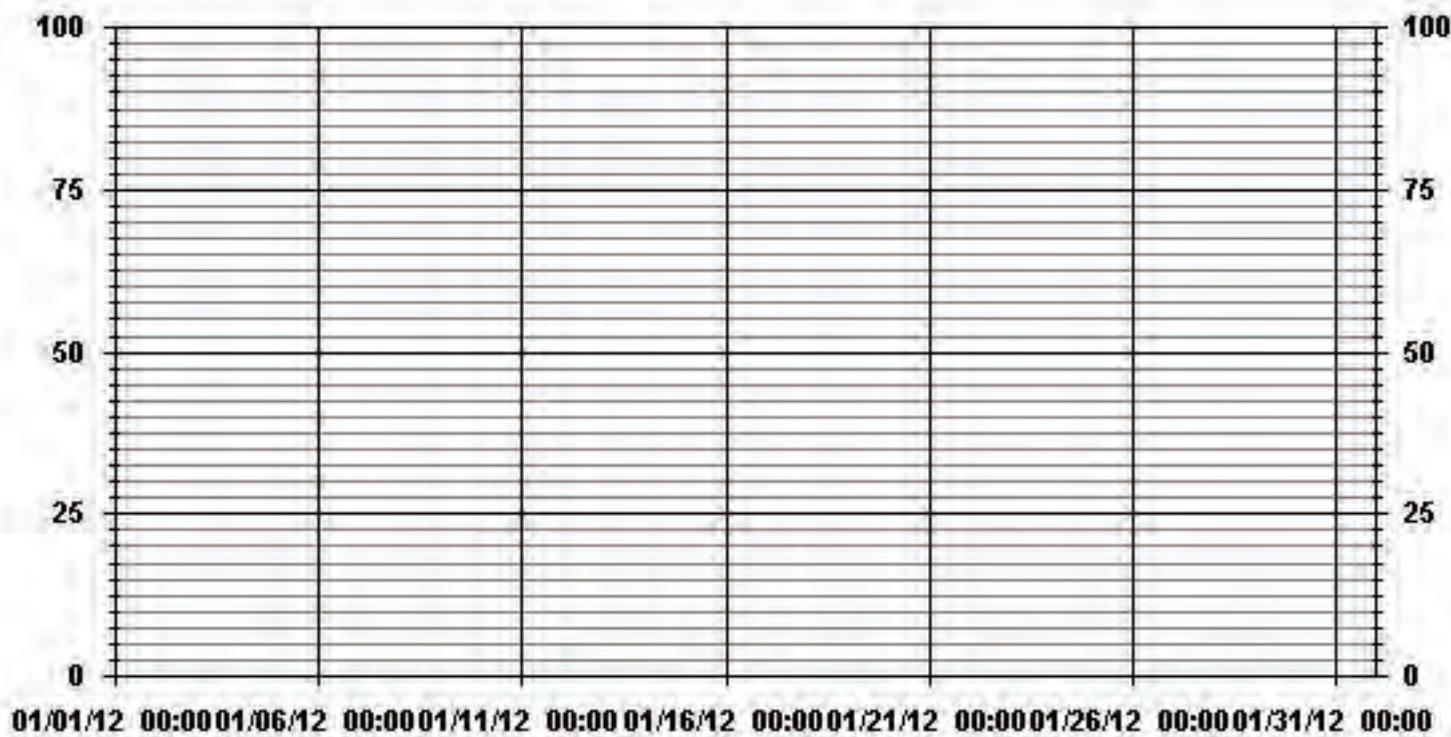
24 HOUR AVERAGES FOR JANUARY 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	0
MAXIMUM 1-HR AVERAGE:	NA ug/m³ @ HOUR(S)
MAXIMUM 24-HR AVERAGE:	NA ug/m³
ON DAY(S):	NA
ON DAY(S):	NA
Izs CALIBRATION TIME:	0 HRS
OPERATIONAL TIME:	0 HRS
MONTHLY CALIBRATION TIME:	0 HRS
AMD OPERATION UPTIME:	0.0 %
STANDARD DEVIATION:	#####
MONTHLY AVERAGE:	NA ug/m3

01 Hour Averages



— EKATI TSP UG/M3

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JOB #: 3728-12-01~03-007-QC

BHP Billiton Diamonds Inc. - EKATI

FEBRUARY 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

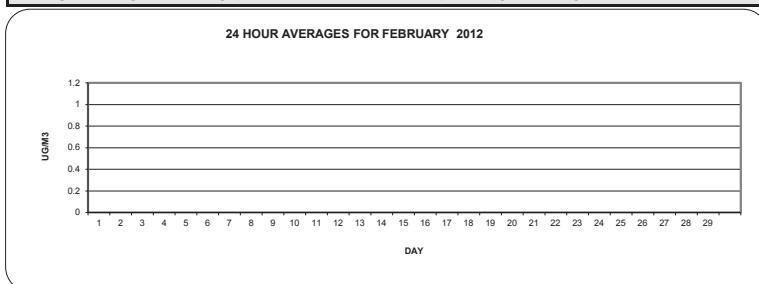
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX	24-HOUR AVG	RDGS.		
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
22	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
23	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
HOURLY MAX	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA												
HOURLY AVG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA												

STATUS FLAG CODES

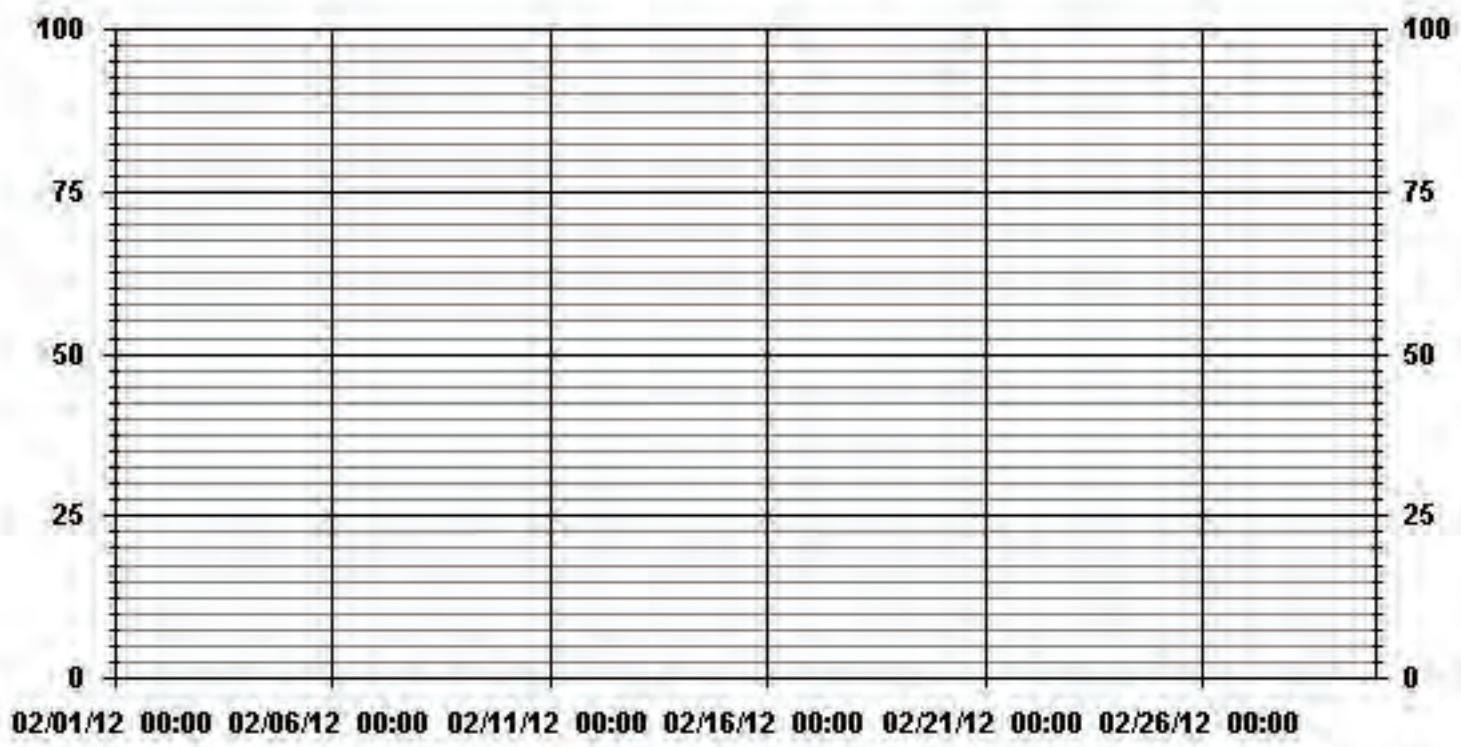
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY



NUMBER OF NON-ZERO READINGS:	0
MAXIMUM 1-HR AVERAGE:	NA ug/m³
MAXIMUM 24-HR AVERAGE:	NA ug/m³
ON DAY(S):	NA
ON DAY(S):	NA
IZS CALIBRATION TIME:	0 HRS
OPERATIONAL TIME:	0 HRS
MONTHLY CALIBRATION TIME:	0.0 %
AMD OPERATION UPTIME:	
STANDARD DEVIATION: #####	MONTHLY AVERAGE:
	NA ug/m3

01 Hour Averages



— EKATI TSP UG/M3

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JOB #: 3728-12-01~03-007-QC

BHP Billiton Diamonds Inc. - EKATI

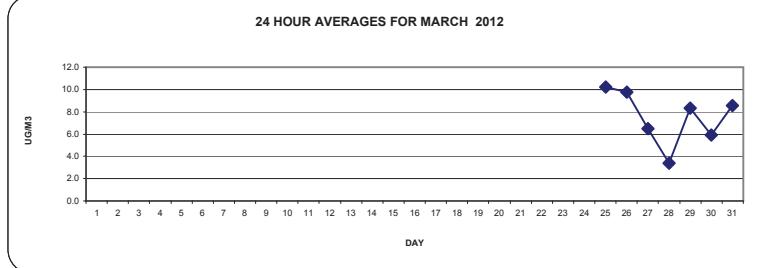
MARCH 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

MST HOUR START HOUR END	TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3																								DAILY MAX.	24-HOUR AVG.	RDGS.
	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00			
DAY	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
21	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
22	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
23	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
24	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
25	N	N	N	N	N	N	N	N	M	M	12	10	9	7	3	3	5	6	5	7	11	36	13	16	36	10.2	14
26	11	10	11	10	7	6	4	5	9	6	8	11	10	12	12	11	13	11	11	9	4	15	17	17	9.8	24	
27	11	12	12	8	5	6	5	4	3	5	11	16	5	7	8	5	6	6	5	4	4	4	3	1	16	6.5	24
28	3	3	0	1	2	4	4	3	1	1	8	4	-1	1	3	5	6	2	2	5	5	6	5	8	8	3.4	24
29	8	2	1	3	3	4	4	2	4	7	7	8	10	19	19	2	5	9	9	9	9	18	20	18	20	8.3	24
30	18	9	11	7	3	3	3	1	0	2	6	6	8	9	5	8	9	6	7	7	6	6	3	-1	18	5.9	24
31	-2	0	4	5	5	4	5	4	4	3	2	6	6	6	8	22	35	15	30	19	7	6	5	6	35	8.5	24
HOURLY MAX	18	12	12	10	7	6	5	5	9	7	12	16	10	19	19	22	35	15	30	19	11	36	20	18			
HOURLY AVG	8.2	6.0	6.5	5.7	4.2	4.5	4.2	3.2	3.5	4.0	7.7	8.7	6.7	8.7	8.3	8.0	11.0	8.1	9.9	8.9	7.3	11.4	9.1	9.3			

STATUS FLAG CODES

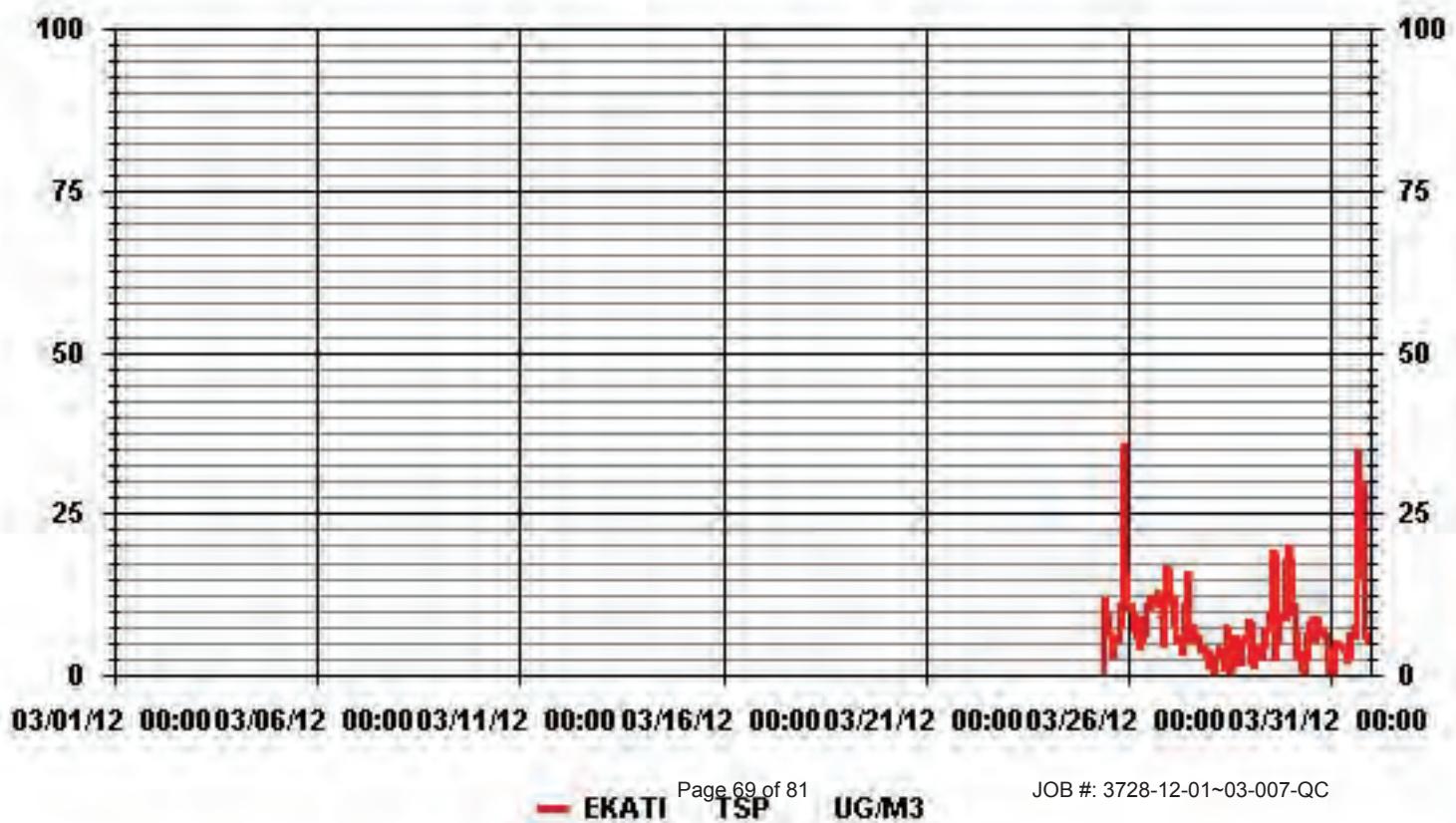
S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	Na	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	152		
MAXIMUM 1-HR AVERAGE:	36	ug/m³	@ HOUR(S)
MAXIMUM 24-HR AVERAGE:	10.2	ug/m³	ON DAY(S)
			25
			ON DAY(S)
			25
Izs CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:
STANDARD DEVIATION:	5.88		7.35 ug/m³
			MONTHLY AVERAGE:

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO₂ H₂S TRS Calibration Report
Station Information

Calibration Date	March 24, 2012	Previous Calibration	December 14, 2011
Company			
Plant / Location	BHP Billiton Diamonds Inc.		
Start Time (MST)	7:30	End Time (MST)	13:30
Reason:	Quarterly Calibration		
Barometric Pressure	723 mmHg	Station Temperature	20 Deg C
Cal Gas	52.3 ppm	Cal Gas Expiry date	August 5, 2012
DAS Output Voltage	0 - 5 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	1232	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	Envirionics 6100	S/N :	5212	Method:	Dilution
DAS Make / Model:	Enviradas/ADAM 5000	S/N :	N/A		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Bios DC-2	S/N :	1193		

Analyzer Settings

	Before Calibration			After Calibration		
Concentration Range		0 - 500	ppb			
Sample Flow / Box Temp	650 ccm	32.8	Deg C	645 ccm	35.6	Deg C
HVPS / Lamp Setting	575	2908		575	2906	
PMT / RxCell Temp	8.3 Deg C	50 Deg C		8.3 Deg C	50 Deg C	
Converter / IZS Temp	NA Deg C	40 Deg C		NA Deg C	40 Deg C	
Offset / Slope	44.7	1.001		45.9	1.028	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	N/A
No Zero Adj.				
4961	39.2	410	410	1.0000
No Span Adj.				
4980	19.6	205	204	1.0051
4990	9.8	103	100	1.0251
5000	0	0	0	N/A
Sum of Least Squares			1.0501	
New Correction Factor			1.0000	

IZS Calibration Data

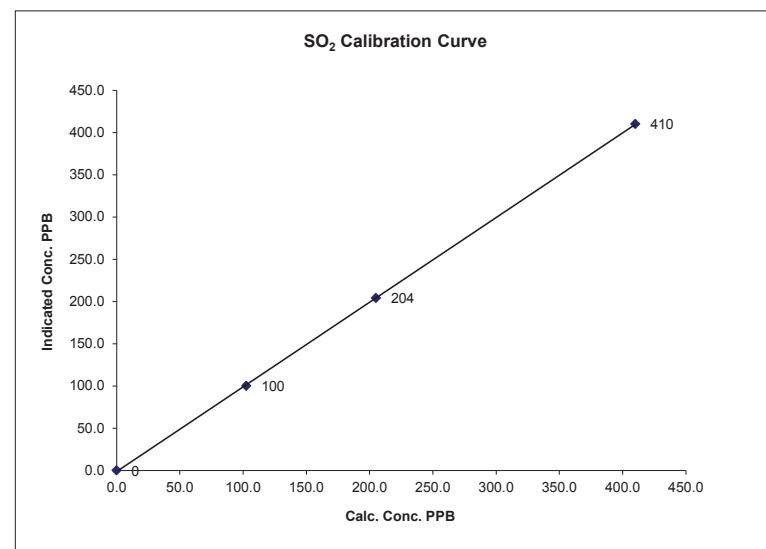
	Before Calibration		After Calibration	
Auto Zero	0.4		0.0	
Auto Span	342.8		328.0	
Sample Lines Connected			YES	
Percent Change from Previous Calibration			-1.1%	

Note - Replaced zero air scrubber material

Calibration Performed by: Limin Li

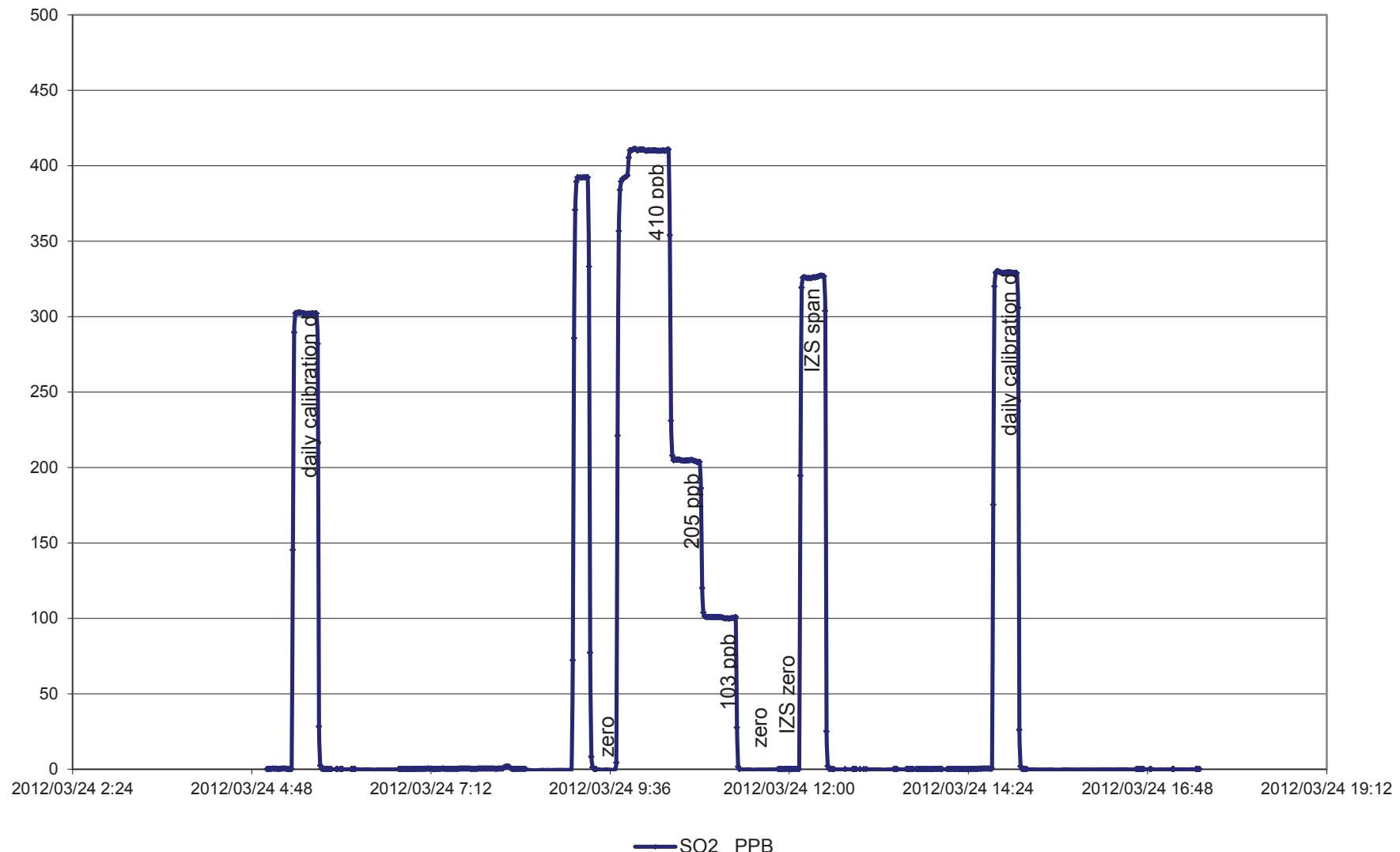
SO₂ H₂S TRS Calibration Curve

Calibration Date	March 24, 2012	Company	BHP Billiton Diamonds Inc.			
Plant / Location	EKATI Mine	Start Time (MST)	7:30			
End Time (MST)	13:30					
Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999958	
ppb	ppb	NA	Slope	(0.85 to 1.15)	1.001774	
0	0	1.0251	Intercept	(± 3% F.S.)	-1.208183	
103	100	1.0051				
205	204	1.0000				
410	410					



Notes:

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report
Station Information

Calibration Date	March 24, 2012		Previous Calibration	December 21, 2011	
Company	BHP		Plant/Location	EKATI	
Start Time (MST)	7:30		End Time (MST)	16:15	
Reason:	Quarterly Calibration			Other	
Barometric Pressure	723 mmHg	Station Temperature	20 Deg C	MFCF	1
Cal Gas Concentration	NOx 51.3 ppm	NO 51 ppm	Cal Gas Expiry date	05-Aug-12	
DAS Output Voltage	0 - 5 Volts	Chart Rec. Output	NA	Volts	
Equipment Information					
Analyzer Make / Model:	API 200E	S/N :	1375	Method:	Chemiluminescent
Calibrator Make / Model:	Environics 6100	S/N:	5212		
DAS Make / Model:	Envidas FW	S/N :	-		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Bios DC-2	S/N :	1193		
Analyzer Settings					
Before Calibration After Calibration					
Concentration Range	0 - 500				
Sample Flow/Conv. Temp	495 ccm	316.4 Deg C	ppb	315.1	Deg C
Ozone Flow / Vacuum	79 ccm	4.3 "Hg-A	ppb	4.2	"Hg-A
HVPS / A ZERO	747 Volts	17.1 MV	ppb	5.1	MV
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C	ppb	6.7	Deg C
Box Temp / IZS Temp	29.7 Deg C	50.0 Deg C	ppb	50.1	Deg C
Offset	0.1 NOx	-0.3 NO	ppb	-2.8	NO
Slope	1.010 NOx	1.008 NO	ppb	0.955	NO
NO ₂ COEF / Conv Efficency	NA NO2	0.996	ppb	0.996	

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor		
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO	NO
5000	0.0	----	0	0	0	0	0	-1	----	----	----
	No Zero Adj.										
4961	39.2	----	402	400	----	402	400	1	1.0004	0.9996	

4980	19.6	----	201	200	----	202	201	0	0.9956	0.9947	
4990	9.8	----	101	100	----	101	100	0	0.9956	0.9996	
5000	0.0	----	0	0	0	0	0	-1	----	----	

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO ₂ Correction Factor	NO ₂ Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
4961	39.2	----	402	400	----	403	400	2	----	----
						NO NO2 Adjust.				
4961	39.2	300	402	----	268	401	134	266	1.0037	99.25%
4961	39.2	200	402	----	181	401	221	179	1.0056	98.88%
4961	39.2	100	402	----	92	401	310	91	1.0000	98.89%

IZS Calibration Data

Linearity OK?	Yes	Sum of Least Squares Correction Factors:	NOx= 0.999 NOx= 1.0004	NO= 0.999 NO= 0.9996	NO2= 1.009 NO2= 1.0037
			Average Converter Efficiency= 99.01%		

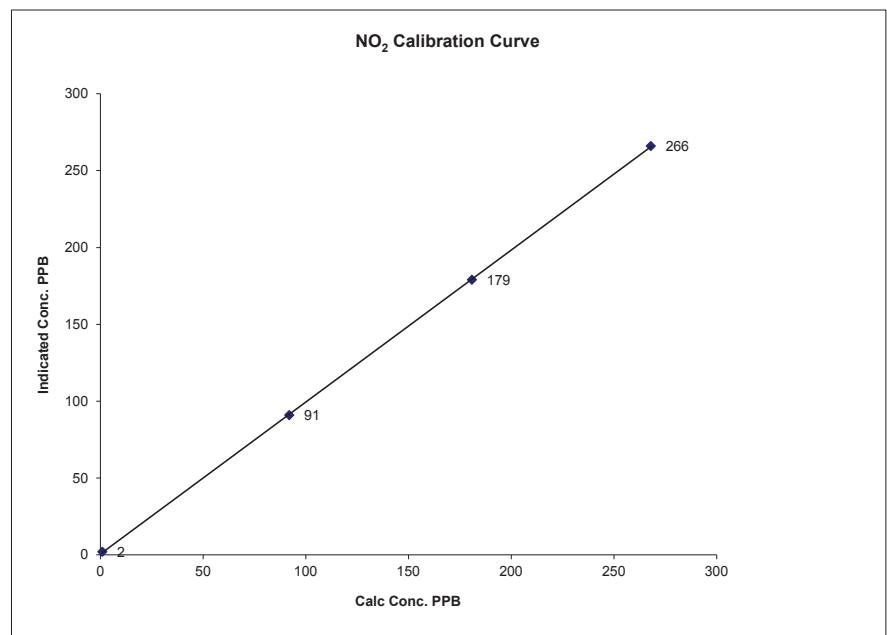
Before Calibration			After Calibration		
Auto Zero	0.0 NOx	-0.4 NO2	0 NOx	0	NO2
Auto Span	257 NOx	252 NO2	256 NOx	253	NO2
Sample Lines Connected			YES		
Percent Change from Previous Calibration	NOx 0.5%	NO 0.0%	NO2 0.3%		

Notes: - Cleaned reaction cell, UV filter. Changed 2 of seniter filters. Done leak check. Sample seniter filter was very dirty.
- Replaced zero air scrubber material
- Adjusted HVPS.

Calibration Performed by: Limin Li

NO₂ Calibration Curve

Calibration Date	March 24, 2012		Company	BHP		Plant / Location	EKATI		Start Time (MST)	7:30		End Time (MST)	16:15	
Calculated Conc.	ppb	Indicated Response	ppb	Correction Factor		Correlation Coefficient	(≥ 0.995)	Slope	(0.85 to 1.15)	Intercept	(± 3% F.S.)	0.999975		
1		2		N/A				1.0110				0.988715		
92		91						1.0112				0.52916		
181		179												
268		266						1.0075						

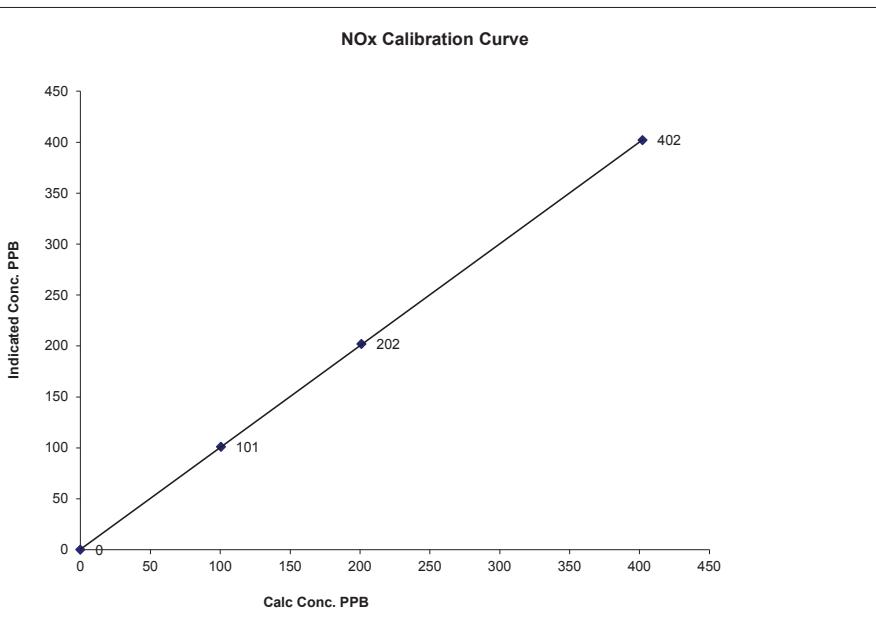


Notes:

NOx Calibration Curve

Calibration Date March 24, 2012
 Company **BHP**
 Plant / Location **EKATI**
 Start Time (MST) 7:30 End Time (MST) 16:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995) (0.85 to 1.15) ($\pm 3\%$ F.S.)	0.999993
0	0	N/A	Slope Intercept	0.999421 0.39193
101	101	0.9956		
201	202	0.9956		
402	402	1.0004		

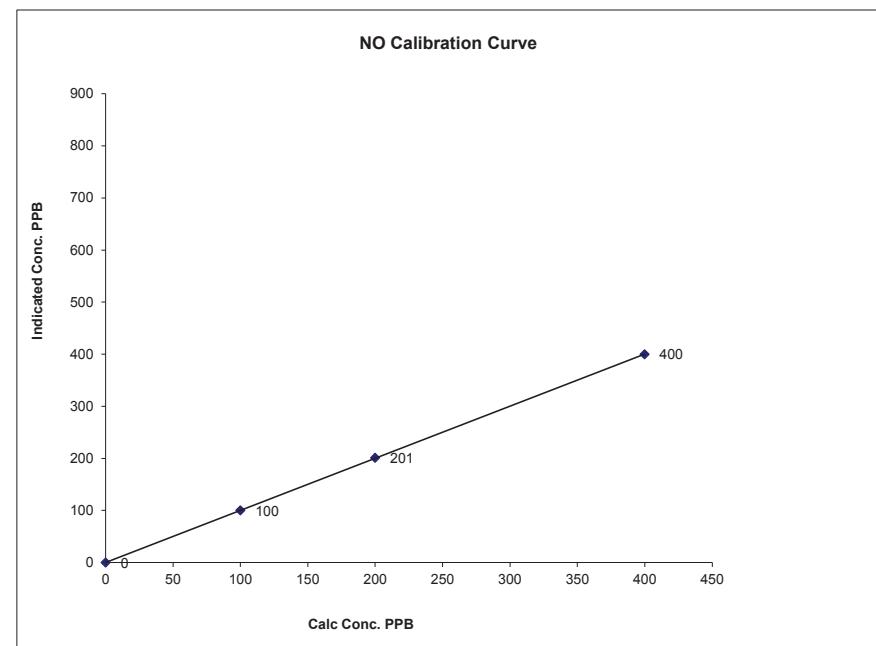


Notes:

NO Calibration Curve

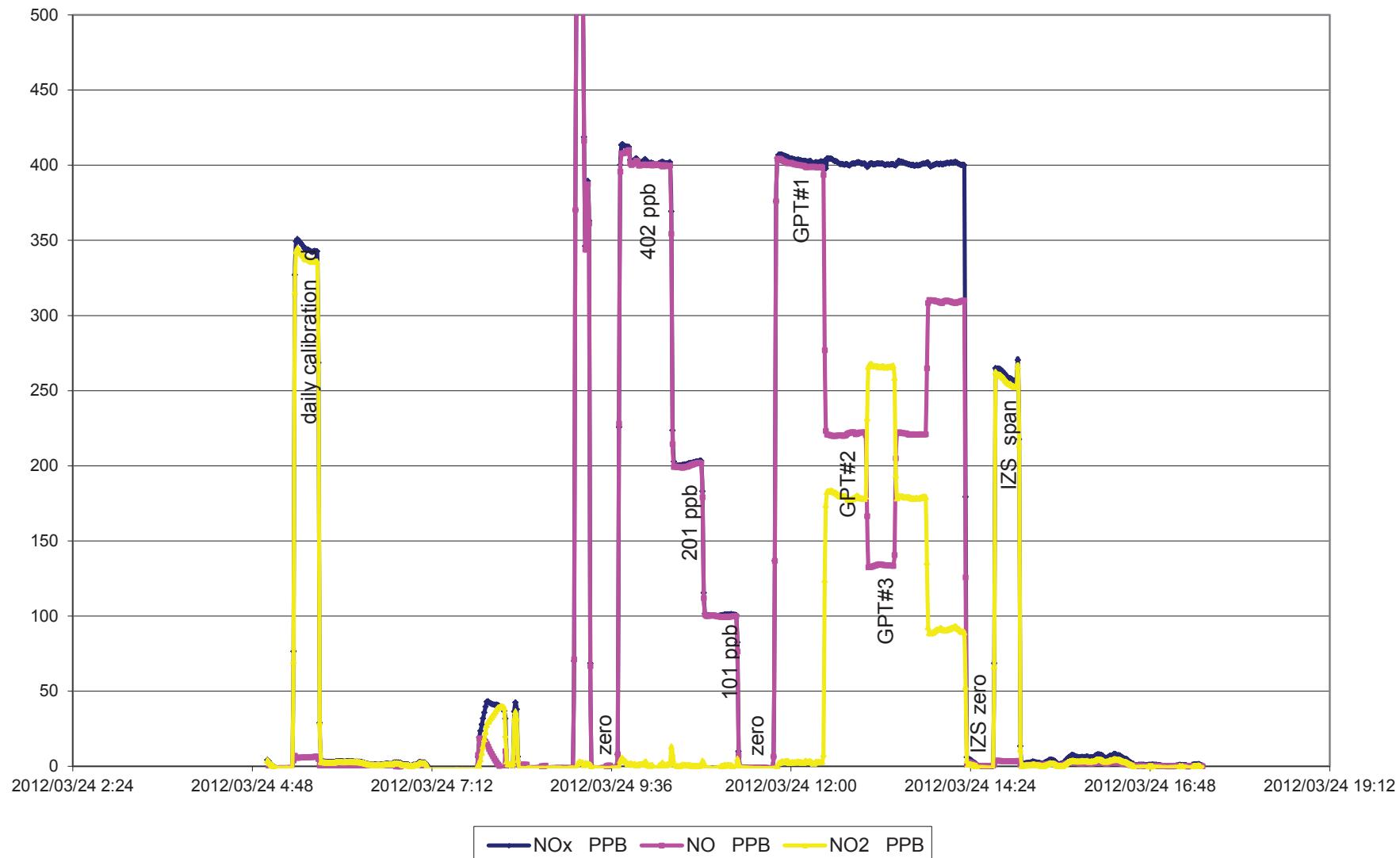
Calibration Date March 24, 2012
 Company **BHP**
 Plant / Location **EKATI**
 Start Time (MST) 7:30 End Time (MST) 16:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995) (0.85 to 1.15) ($\pm 3\%$ F.S.)	0.999992 0.999766
0	0	N/A	Slope Intercept	0.999421 0.39193
100	100	0.9996		
200	201	0.9947		
400	400	0.9996		



Notes:

01 Minute Averages



Particulate Matter 2.5

BAM -1020

Audit Report

Station Information

Date: April 24, 2012
 Company: BHP Billiton Diamonds Inc.
 Location: EKATI Mine
 Station Name: Polar Explosives

Audit Transfer Standard

Make/Model: BIOS-DC2
 Serial Number: 1193
 Cell S/N: 2272
 Thermometer S/N: Fluke (1735039)

Instrument Information

Make/Model: BAM 1020
 Serial Number: F4642
 Unit Number: NA
 Parameter: PM2.5
 Analog Output Voltage: 0-10 vdc
 Flow Type: Actual
 Amb Temperature Sensor Used: Y
 Model Number: BX 592-2 (-50 to +50C)

Mechanical Audit:

Pump Muffler Unclogged: Y
 Sample Nozzel Clean: Y
 Tape Support Vane Clean: Y
 Capstan Shaft Clean: Y
 Rubber Pinch Rollers Clean: Y
 Inlet Clean: Y
 Inlet tube Position Correct: Y
 Water Tight Seal OK: Y

Flow Audit

Note: Tolerances are in (**BOLD**)

Leak Check Value

	0.1 lpm (1.0 lpm)		
BAM	Ref. Std.	Difference	
-18.3	-17.9	-0.4	(Calibrated)
725	723	2	(Calibrated)
16.7	20.23	-3.53	

Amb Temperature (C)

Baro Pressure (mmHg)

Flow Rate (lpm)

Flow Setpoint:

16.7 lpm

Membrane Audit

Last m (mg):	0.81
ABS (mg):	0.812
Difference (mg)	-0.002
% Difference:	-0.25%

Setup and Calibration Values

Range	1.0 mg	Flow Set-pt.	16.7
Units	ug/m3	HEATER	Auto
Offset	-0.005	AP	150
Count Time	4min	FRI	10
Cv	1.001	FRh	20
Qo	0.000	RH Control	YES
ABS	0.815	RH Set-pt.	35%
u sw	0.287	e1	-0.005
K factor	0.936	BKRD	-0.0099

Error Codes (last six)

1 Flow	4 TAPE
2 MAINT.	5 COUNT
3 MAINT.	6 MAINT.

Comments: 12:30pm - 16:30pm

Audited By:

Limin Li

Total Suspended Particulate

BAM -1020

Audit Report

Station Information

Date: March 24, 2012
Company: BHP Billiton Diamonds Inc.
Location: EKATI Mine
Station Name: C Polar Explosives

Audit Transfer Standard

Make/Model: BIOS -DC2
Serial Number: 1193
Cell S/N: 2272
Thermometer S/N: Fluke 1735039

Instrument Information

Make/Model: BAM 11020
Serial Number: F 4641
Unit Number: 1
Parameter: TSP
Analog Output Voltage: 0-1vdc
Flow Type: Actual
Amb Temperature Sensor Used: Y
Model Number: BX592-2

Mechanical Audit:

Pump Muffler Unclogged: Y
Sample Nozzel Clean: Y
Tape Support Vane Clean: Y
Capstan Shaft Clean: Y
Rubber Pinch Rollers Clean: Y
Inlet Clean: Y
Inlet tube Position Correct: Y
Water Tight Seal OK: Y

Flow Audit

Note: Tolerances are in (**BOLD**)

Leak Check Value

0.3 lpm (1.0 lpm)		
BAM	Ref. Std.	Difference
-17.9	-17.9	0.0
723	723	0
16.7	19.63	-2.93

Flow Setpoint:

16.7 lpm

Membrane Audit

Last m (mg): 0.817
ABS (mg): 0.813
Difference (mg): 0.004
% Difference: 0.50%

Setup and Calibration Values

Range	0-1mg	Flow Set-pt.	16.7
Units	ug/m3	HEATER	Auto
Offset	-0.005	AP	150
Count Time	4min	FRI	10
Cv	0.987	FRh	20
Qo	0.000	RH Control	Yes
ABS	0.813	RH Set-pt.	35%
usw	0.287	e1	-0.005
K factor	0.965	BKRD	-0.0046

Error Codes (last six)

1 Tap Tens 4 Tap Tens
2 Tap Tens 5 Tap Tens
3 Tap Tens 6 Tap Tens

Comments: 10:30am - 16:30 pm

Audited By:

Limin Li

BHP Billiton Diamonds Inc.
EKATI Diamond Mine
Ambient Air Monitoring Data Report

For
April to June 2012

Prepared By:



September 22, 2014

BHP Billiton Diamonds Inc.

EKATI Diamond Mine

Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Andrew Howton
BHP Billiton Diamonds Inc.
#1102 4920 52nd Street
Yellowknife, NT, X1A 3T1

Monitoring Location: EKATI

Data Period: April to June 2012

The monthly ambient data report:

- Prepared by Lili Zhou
- Reviewed by Lily Lin

Calibration Procedure

The calibrations conducted at the BHP Billiton Diamonds Inc. - EKATI Air Monitoring Station conform to the following Maxxam Standard Operation Procedures:

- CAL SOP-00211
- CAL SOP-00213
- CAL SOP-00215

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6.*

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – April 2012

BHP Billiton Diamonds Inc.- EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.27	10	23	4	2.1	23	100.0
NO ₂ (PPB)	3.82	51	22	23	17.4	22	100.0
NO (PPB)	12.3	483	23	4	113.0	23	100.0
NOx (PPB)	16.2	493	23	4	133.0	23	100.0
PM _{2.5} (UG/M ³)	-1.56	28	13	11	1.0	13	99.9
TSP (UG/M ³)	13.15	155	25	11	42.3	25	100.0

NA: Not Applicable

Exceedences Summary Report

April 2012

Plant Operator: BHP Billiton Diamonds Inc.

Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed.

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

Hourly data collected on April 13th at hour 11 was invalidated due to the unit spike. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer as if the rules apply, not many data will be left.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The analyzer was working well throughout this month. No operational issues were observed.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – May 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.58	7	30	10	2.2	30	100.0
NO ₂ (PPB)	3.62	37	4, 5	19, 21	14.7	4	100.0
NO (PPB)	6.45	122	30	21	30.4	17	100.0
NOx (PPB)	10.30	148	30	21	45.8	17	100.0
PM _{2.5} (UG/M ³)	-1.02	26	30	10, 11	5	30	99.7
TSP (UG/M ³)	57.24	992	25	0	450.2	26	87.4

NA: Not Applicable

Exceedences Summary Report

May 2012

Plant Operator: BHP Billiton Diamonds Inc. Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	4

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	4

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed.

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

Hourly data collected on May 30th at hour 10 and hour 11 were invalidated due to the unit spike. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer as if the rules apply, not many data will be left.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The BAM unit started recording 149 -150 $\mu\text{g}/\text{m}^3$ consistently on May 28th at hour 2. As we were confident that the readings were unreal, we discarded the data. A total of 94 hours of data was invalidated.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – June 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	1.49	7	2	11	2.3	17	82.6
NO ₂ (PPB)	3.72	44	7	2	15.4	7	82.6
NO (PPB)	8.04	276	7	2	49.3	7	82.6
NOx (PPB)	11.46	319	7	2	64.4	7	82.6
PM _{2.5} (UG/M ³)	1.49	20	6	3	9.0	6	80.4
TSP (UG/M ³)	20.62	119	24	9	37.7	24	16.5

Exceedences Summary Report

June 2012

Plant Operator: BHP Billiton Diamonds Inc. Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout the month. An as found points check was performed on June 20th, and the result was good. The internal pump was rebuilt, the SO₂ charcoal was renewed, the sample filter was changed, and the leak check was performed before the quarterly calibration was performed on June 21st. Data between June 24th at hour 23 and June 29th at hour 13 and June 30th between hour 10 and hour 23 are missing, reason unknown.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout the month. An as found points check was performed on June 20th, and the result was good. The charcoal was renewed and the purifier was changed before the quarterly calibration was started on June 21st. Due to time limits, the GPT points check could not be completed on June 21st. The full NOx calibration with the GPT points check was repeated on June 22nd. Data between June 24th at hour 23 and June 29th at hour 13 and June 30th between hour 10 and hour 23 are missing, reason unknown.

General Monthly Summary

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

Hourly data collected on June 11th at hour 11 and hour 12 and on June 17th at hour 9, hour 10, hour 17 and hour 18 were invalidated due to the unit spike. The PM 2.5 channel was put into the maintenance mode for data download on June 20th from hour 17 to hour 19. A BAM audit/calibration was performed on June 21st. Following the audit/calibration, the sample inlet, nozzle and vane were cleaned. A post-maintenance audit was performed. The sample pump was replaced on June 22nd. A flow check was performed after the replacement. Data between June 24th at hour 23 and June 29th at hour 13 and June 30th between hour 10 and hour 23 are missing, reason unknown. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The BAM unit started recording 149 -150 $\mu\text{g}/\text{m}^3$ consistently on May 28th at hour 2. Upon arrival on June 20th, it was found out that a message if filter tape error showed on the BAM unit. The tape was reinstalled and a tape self- test was run on June 20th. The hourly data went back to normal after the tape self- test. A total of 475 hours of data was invalidated due to this event. A BAM audit/calibration was performed on June 21st. Following the audit/calibration, the sample inlet, nozzle and vane were cleaned. Data between June 24th at hour 23 and June 29th at hour 13 and June 30th between hour 10 and hour 23 are missing, reason unknown.

Continuous Monitoring

Monthly Summaries & Graphs

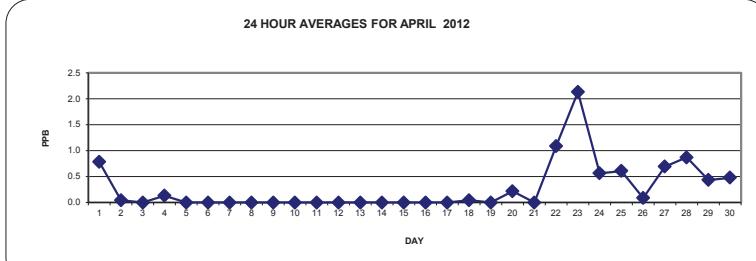
Sulphur Dioxide

BHP Billiton Diamonds Inc. - EKATI
 APRIL 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1	1	0	2	0	IZS	1	1	1	0	0	1	0	2	0	0	3	5	0	0	0	0	0	0	0	5	0.8	24
2	0	0	0	0	0	IZS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
3	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
4	0	0	0	1	0	IZS	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
5	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
6	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
7	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
8	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
9	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
10	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
11	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
12	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
13	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
15	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
16	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	0	0	0	0	IZS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
19	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	1	0.2	24	
21	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22	0	0	1	1	3	IZS	1	4	1	0	0	0	0	1	1	1	0	0	0	2	1	3	5	5	1.1	24		
23	6	2	9	7	10	IZS	5	6	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	10	2.1	24	
24	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	5	0.6	24			
25	2	0	0	1	2	IZS	0	0	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.6	24	
26	0	0	0	0	0	IZS	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.1	24	
27	0	0	0	1	0	IZS	1	1	1	0	0	1	3	2	2	2	1	0	0	0	0	0	0	1	3	0.7	24	
28	0	0	1	1	1	IZS	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24
29	1	1	0	1	0	IZS	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.4	24	
30	0	0	0	0	1	IZS	0	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	1	0.5	24	
HOURLY MAX	6	2	9	7	10	NA	5	6	3	4	2	1	3	2	2	2	3	5	1	1	2	2	5	5				
HOURLY AVG	0.3	0.1	0.4	0.5	0.6	NA	0.3	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.0	0.1	0.1	0.1	0.3	0.4				

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:

106

MAXIMUM 1-HR AVERAGE: 10 PPB @ HOUR(S) 4 ON DAY(S) 23

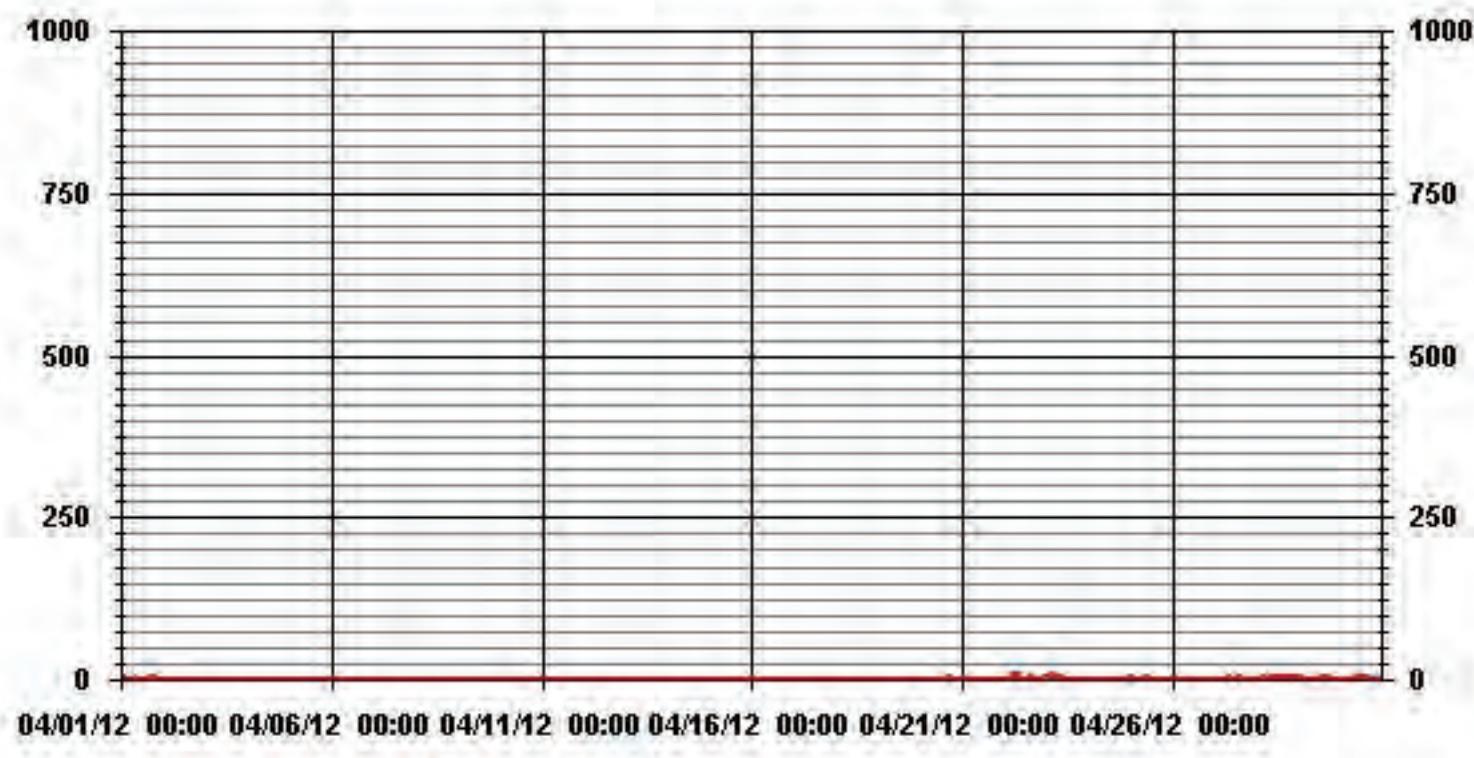
MAXIMUM 24-HR AVERAGE: 2.1 PPB ON DAY(S) 23

Izs Calibration Time: 30 Hrs Operational Time: 720 Hrs

Monthly Calibration Time: 0 Hrs AmD Operation Uptime: 100.0 %

Standard Deviation: 0.92 Monthly Average: 0.27 PPB

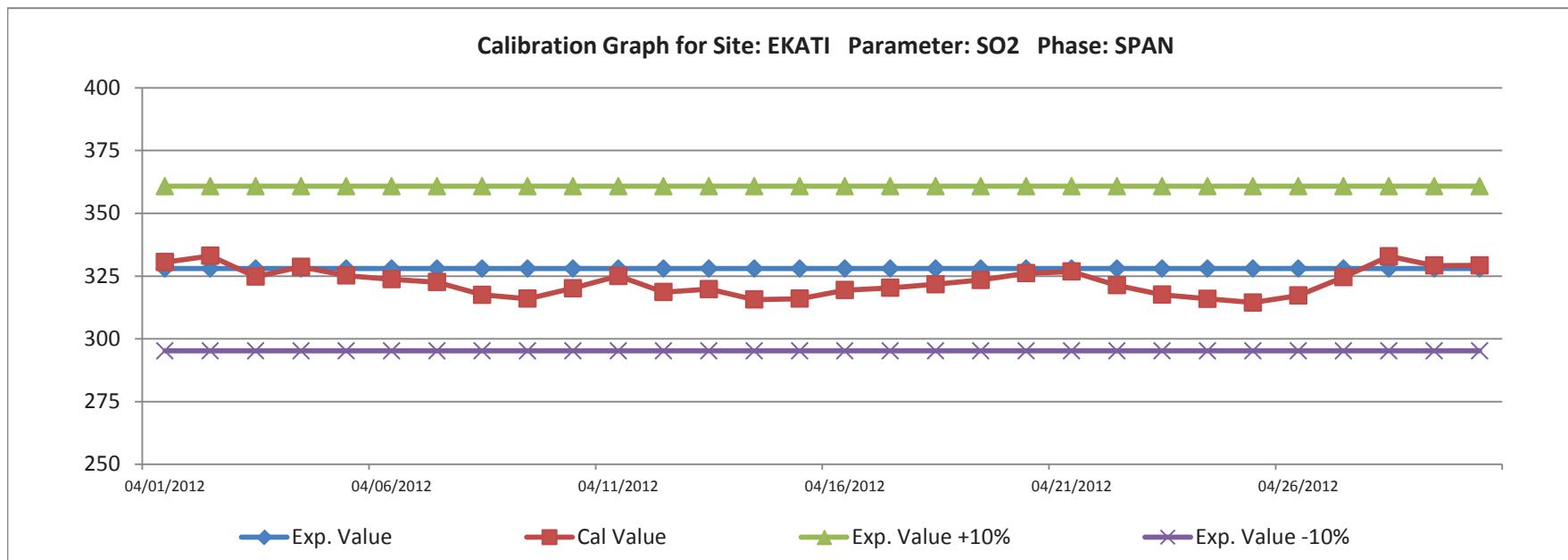
01 Hour Averages



— EKATI SO₂ PPB

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JOB #: 3728-12-04~06-007-QC



BHP Billiton Diamonds Inc. - EKATI
MAY 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY	1	2	1	1	1	IZS	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24	
2	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
3	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.0	24	
4	0	0	1	1	0	IZS	0	1	0	0	0	0	0	0	0	1	2	2	1	1	2	1	0	1	1	2	0.7	24	
5	0	0	0	0	1	IZS	0	1	1	2	2	1	1	1	1	1	0	0	1	2	2	2	1	2	0.9	24			
6	0	0	0	0	0	IZS	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
7	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.1	24	
8	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
9	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
10	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1.0	24	
11	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
12	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0.9	24
13	0	0	0	0	0	IZS	0	0	0	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	1	0.3	24	
14	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.0	24	
15	0	0	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
16	0	0	1	1	0	IZS	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.3	24	
17	1	1	1	1	1	IZS	0	0	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0	1	0.7	24	
18	1	2	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
19	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
20	0	0	0	0	0	IZS	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.1	24	
21	0	0	0	0	0	IZS	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.3	24	
22	0	0	0	0	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	24	
23	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.7	24	
24	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0.2	24	
25	0	0	0	0	0	IZS	0	0	0	1	0	1	1	1	1	1	1	1	0	1	0	1	0	1	0	1	0.5	24	
26	1	1	1	1	1	IZS	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	0	0	0	0	1	0.7	24	
27	1	1	0	0	0	IZS	0	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	1	0.7	24	
28	0	0	0	0	0	IZS	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	24	
29	1	1	1	1	1	IZS	1	1	1	1	1	1	1	2	2	2	2	2	3	3	3	4	4	3	2	7	2.2	24	
30	1	1	1	1	1	IZS	1	1	1	1	7	2	2	2	2	2	2	2	2	1	1	2	2	1	3	1.9	24		
31	2	3	3	2	1	IZS	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	3	1.9	24		
HOURLY MAX	2	3	3	2	1	NA	2	2	2	2	7	2	2	2	2	2	2	2	3	3	3	4	4	3	2				
HOURLY AVG	0.5	0.5	0.5	0.5	0.5	NA	0.4	0.5	0.5	0.5	0.8	0.6	0.6	0.6	0.6	0.8	0.7	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.4				

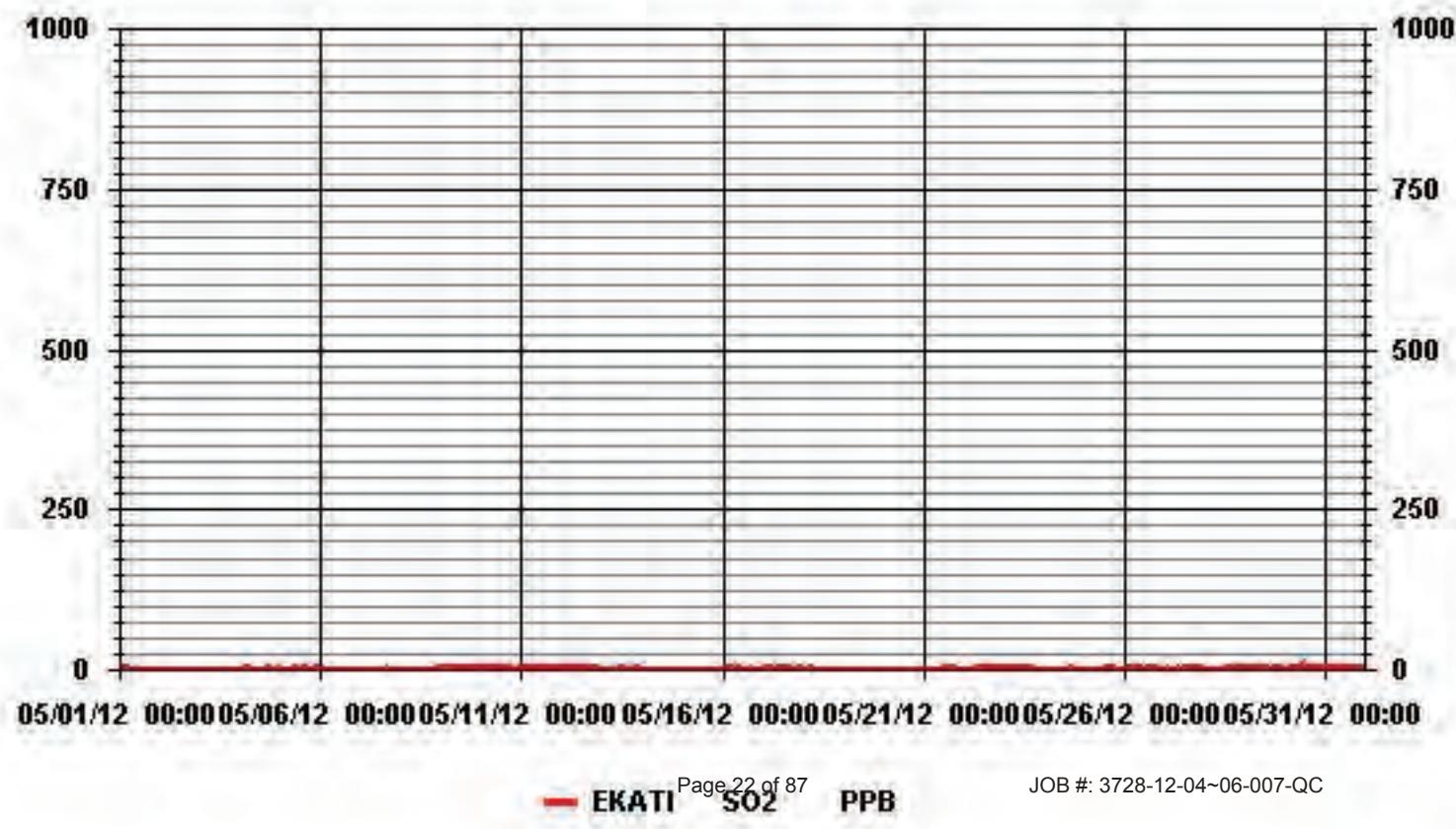
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	348
MAXIMUM 1-HR AVERAGE:	7 PPB
MAXIMUM 24-HR AVERAGE:	2.2 PPB
Izs Calibration Time:	31 HRS
Monthly Calibration Time:	0 HRS
Standard Deviation:	0.70
Operational Time:	744 HRS
AmD Operation Uptime:	100.0 %
Monthly Average:	0.58 PPB

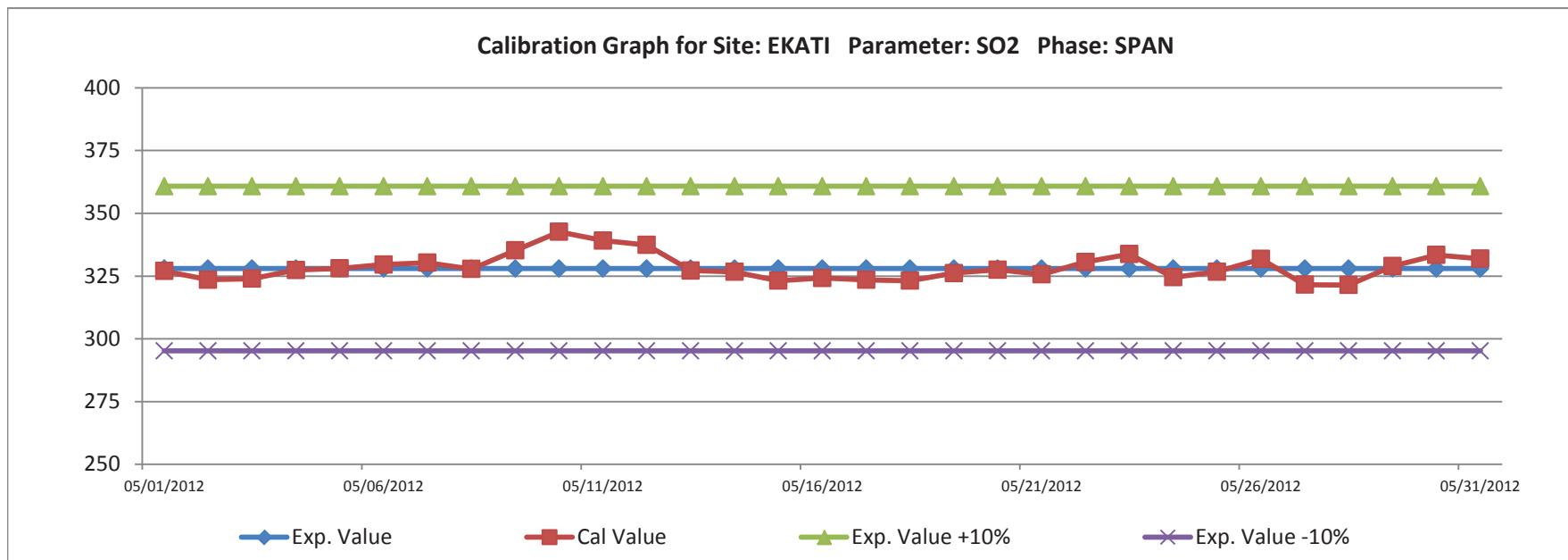
01 Hour Averages



— EKATI SO₂ PPB

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JOB #: 3728-12-04~06-007-QC



BHP Billiton Diamonds Inc. - EKATI
JUNE 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

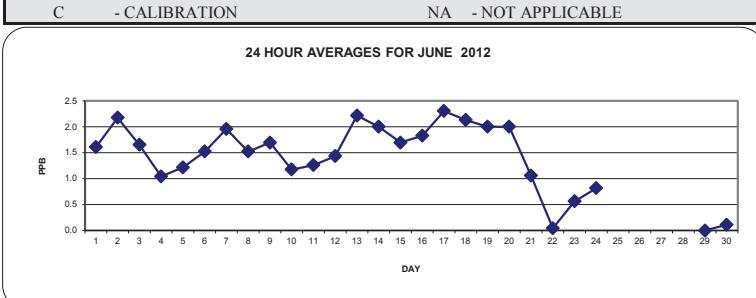
MST	24-HOUR																								DAILY MAX.	AVERAGE	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1	1	1	1	1	IZS	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1.6	24	
2	1	2	1	3	4	IZS	2	2	2	2	2	7	2	2	2	2	2	2	2	2	2	1	1	2	7	2.2	24	
3	1	2	2	2	2	IZS	3	2	2	1	1	1	1	2	2	2	2	2	2	2	1	1	1	1	3	1.7	24	
4	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24	
5	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	2	2	1.2	24	
6	2	2	2	3	3	IZS	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	3	1.5	24	
7	1	3	6	2	3	IZS	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	2	1	1	6	2.0	24	
8	1	1	1	2	2	IZS	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	2	3	3	1.5	24		
9	3	2	2	1	1	IZS	2	2	2	1	2	2	2	2	2	2	2	1	1	1	1	1	1	3	1.7	24		
10	1	2	1	2	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	2	1.2	24	
11	2	2	3	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	3	1.3	24		
12	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1.4	24	
13	2	2	2	4	4	IZS	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2.2	24		
14	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24	
15	1	1	1	1	1	IZS	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.7	24	
16	1	1	2	1	2	IZS	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.8	24		
17	2	2	2	2	2	IZS	2	2	2	5	2	2	2	2	2	2	2	6	2	2	2	2	2	6	2.3	24		
18	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	3	2.1	24		
19	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24		
20	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	C	2	2	2	2	2	2	2	2	2.0	24		
21	2	2	2	2	2	IZS	2	2	C	C	C	C	0	1	1	1	0	1	0	0	0	0	0	0	1.1	24		
22	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	N	N	N	N	N	N	N	N	0	0.0	24		
23	0	0	0	0	0	IZS	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0.6	24		
24	1	1	0	0	1	IZS	0	0	1	1	1	1	1	1	1	1	2	2	1	1	0	0	N	2	0.8	23		
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0.0	10		
30	0	0	0	1	0	IZS	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	1	0.1	10		
HOURLY MAX	3	3	6	4	4	NA	3	3	2	5	2	7	2	2	2	3	3	6	2	2	2	2	2	3				
HOURLY AVG	1.3	1.5	1.6	1.6	1.6	NA	1.3	1.3	1.5	1.5	1.5	1.7	1.5	1.6	1.5	1.6	1.8	1.6	1.6	1.4	1.2	1.2	1.5					

STATUS FLAG CODES

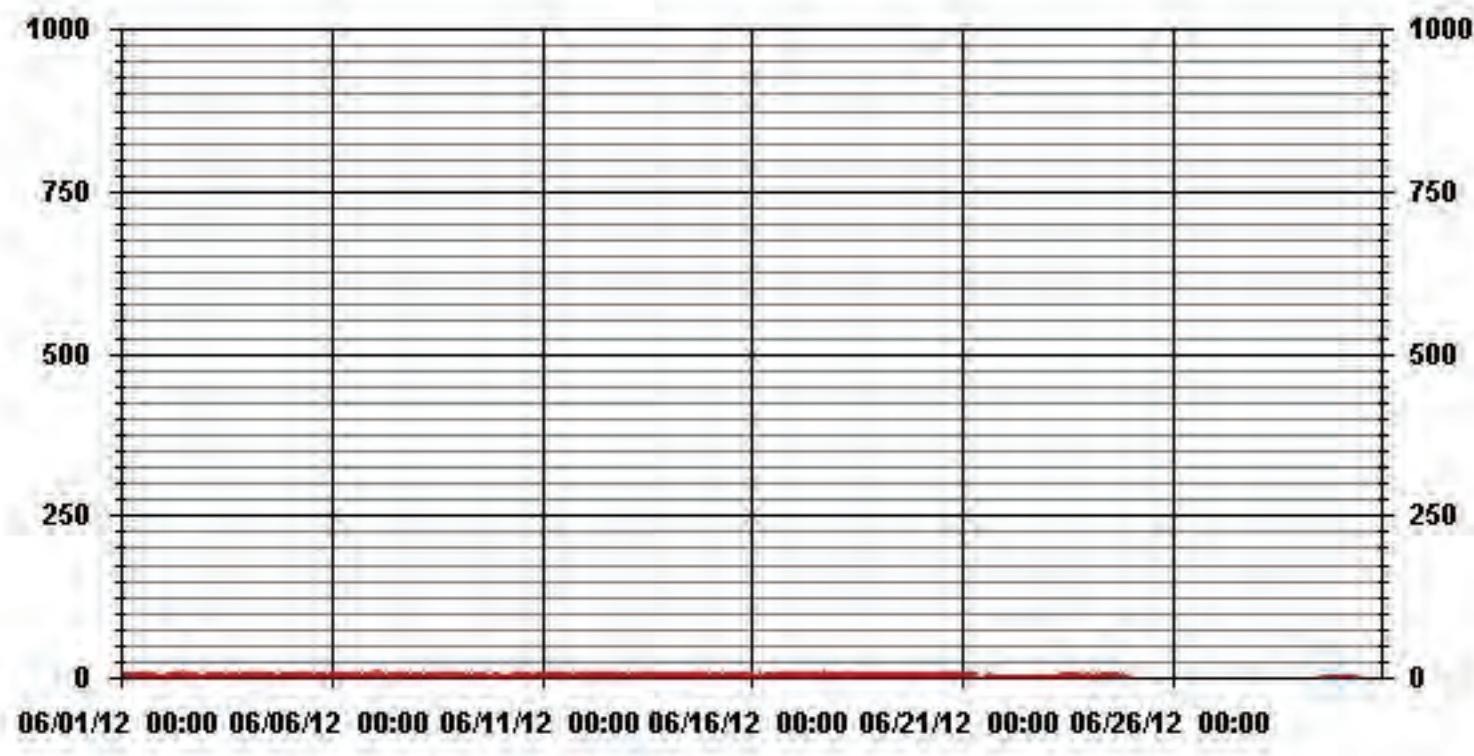
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	501
MAXIMUM 1-HR AVERAGE:	7 PPB
MAXIMUM 24-HR AVERAGE:	2.3 PPB
Izs Calibration Time:	25 HRS
Monthly Calibration Time:	7 HRS
Operational Time:	595 HRS
Standard Deviation:	0.83
Monthly Average:	1.49 PPB
On Day(s):	2
On Day(s):	17
Am Operation Uptime:	82.6 %



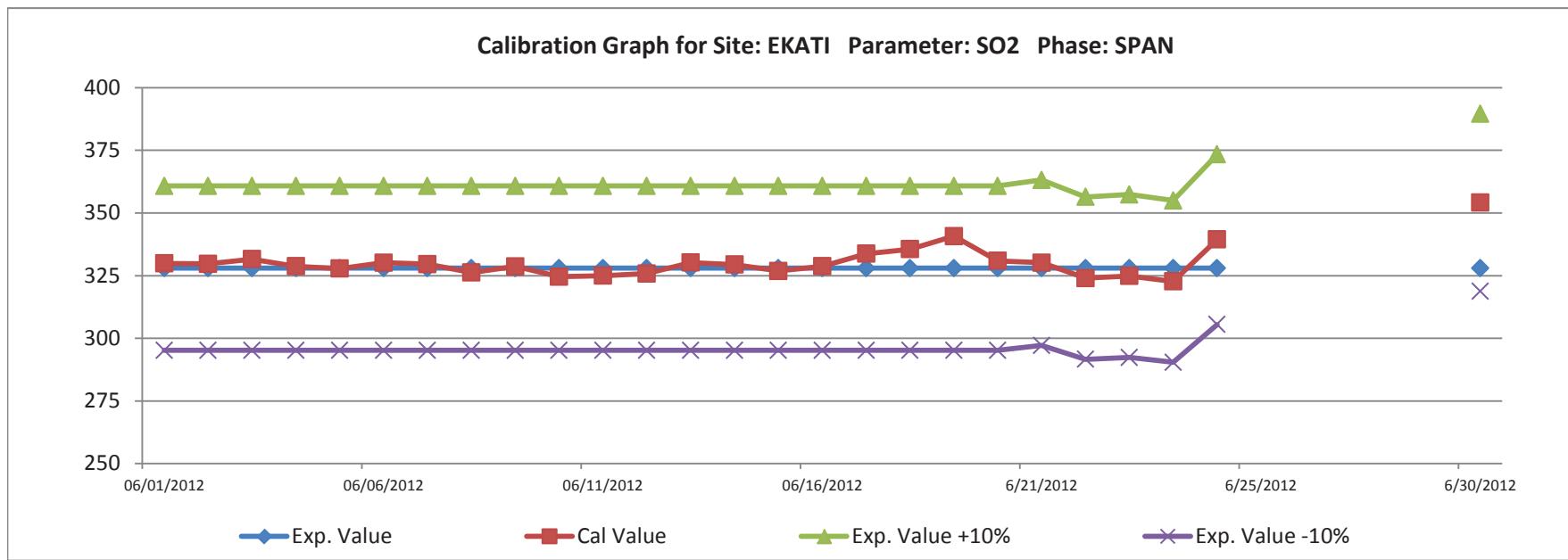
01 Hour Averages



— EKATI SO₂ PPB

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JOB #: 3728-12-04~06-007-QC



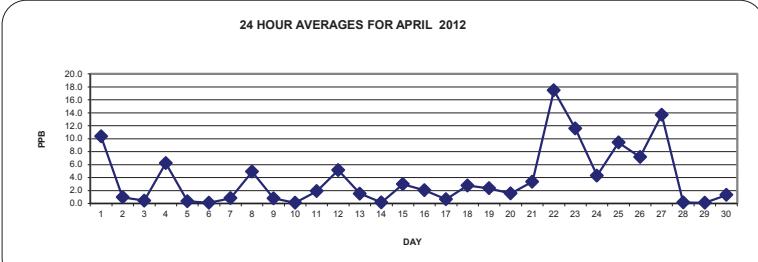
Nitrogen Dioxide

BHP Billiton Diamonds Inc. - EKATI
 APRIL 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST	NO ₂ Hourly Averages (ppb)																								DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	10	10	2	33	6	IZS	24	8	10	3	4	5	2	25	0	9	39	48	0	0	0	0	0	0	0	48	10.3	24
2	3	1	1	0	2	IZS	1	0	3	1	9	0	0	1	0	0	0	0	0	0	0	0	0	0	0	9	1.0	24
3	0	0	2	1	1	IZS	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24
4	0	1	0	17	17	IZS	8	11	9	12	17	1	0	0	0	0	10	1	1	13	2	3	14	6	17	6.2	24	
5	4	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
6	0	0	1	0	0	IZS	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
7	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	24
8	5	31	30	14	6	IZS	5	3	2	2	1	0	0	0	1	0	0	0	0	0	4	4	3	2	31	4.9	24	
9	3	3	4	2	4	IZS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0.8	24
10	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0.1	24
11	0	3	8	3	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	21	21	1.9	24		
12	22	19	25	27	19	IZS	3	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	27	5.1	24
13	3	4	1	0	5	IZS	6	5	8	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	1.5	24
14	0	0	0	0	0	IZS	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.2	24		
15	3	4	3	5	3	IZS	4	6	4	2	5	9	4	0	0	0	2	1	0	0	0	3	5	6	9	3.0	24	
16	3	12	10	9	4	IZS	1	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2.0	24	
17	0	0	0	0	3	IZS	2	0	0	0	2	4	1	2	0	1	0	0	0	0	0	0	0	0	4	0.7	24	
18	0	0	0	0	0	IZS	1	5	0	2	0	2	5	5	0	0	0	0	0	0	0	3	30	11	30	2.8	24	
19	4	2	2	2	2	IZS	12	7	5	3	3	2	0	0	0	0	0	0	1	2	1	3	3	12	2.3	24		
20	5	6	5	4	6	IZS	0	1	2	1	2	3	0	0	0	1	0	0	0	0	0	0	0	0	6	1.6	24	
21	0	0	0	5	0	IZS	0	3	3	0	0	0	0	0	0	0	0	0	0	0	14	15	21	16	21	3.3	24	
22	14	18	24	27	43	IZS	22	29	6	0	1	2	5	8	10	17	3	8	2	3	36	32	40	51	51	17.4	24	
23	40	23	45	36	47	IZS	22	21	9	0	0	0	0	0	0	0	0	0	2	14	3	1	2	1	47	11.6	24	
24	3	2	2	3	3	IZS	1	0	1	0	1	0	0	0	0	0	0	0	0	3	12	15	24	29	29	4.3	24	
25	21	8	17	26	26	IZS	13	9	29	4	22	0	3	1	0	1	5	7	4	1	4	4	5	6	29	9.4	24	
26	7	6	9	3	19	IZS	14	18	5	1	2	1	1	1	0	0	1	2	37	22	4	4	7	37	7.2	24		
27	6	5	15	31	5	IZS	19	30	19	2	1	18	41	35	34	38	13	0	0	0	1	2	0	0	41	13.7	24	
28	0	0	0	1	1	IZS	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0.2	24	
29	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0.1	24	
30	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	11	12	12	1.3	24	
HOURLY MAX	40	31	45	36	47	NA	24	30	29	12	22	18	41	35	34	38	39	48	4	37	36	32	40	51				
HOURLY AVG	5.2	5.3	6.9	8.3	7.4	NA	5.3	5.4	4.0	1.4	2.4	1.6	2.1	2.6	1.6	2.3	2.4	2.2	0.4	2.4	3.4	3.2	5.9	6.2				

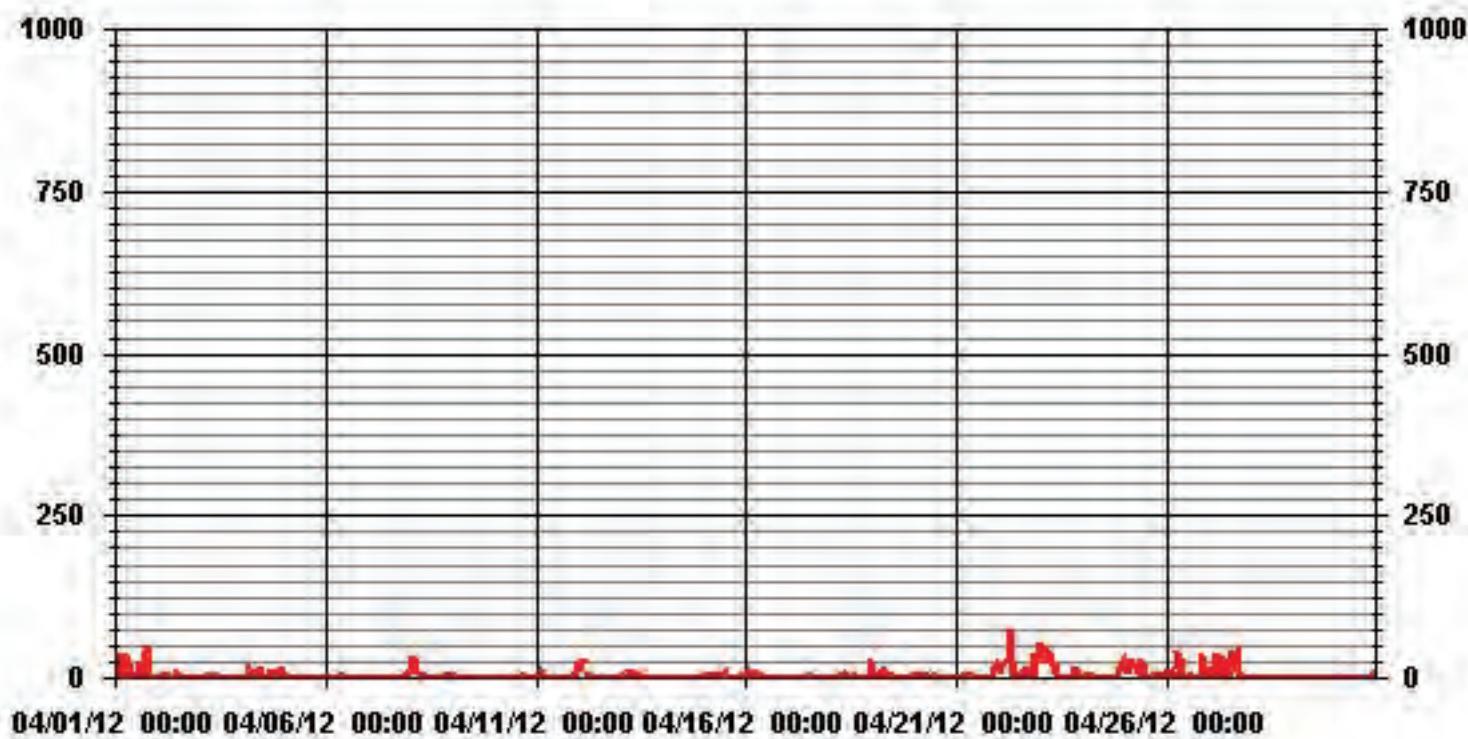
STATUS FLAG CODES

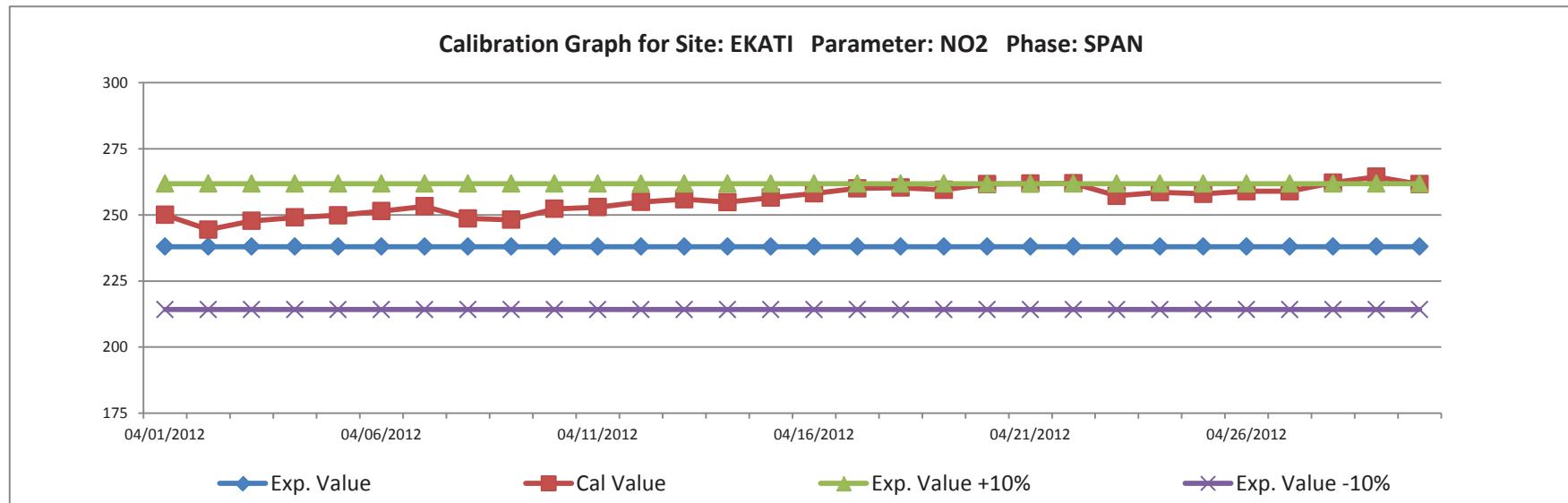
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:	305
MAXIMUM 1-HR AVERAGE:	51 PPB
MAXIMUM 24-HR AVERAGE:	17.4 PPB
Izs Calibration Time:	30 Hrs
Monthly Calibration Time:	0 Hrs
Standard Deviation:	8.23
Operational Time:	720 Hrs
AmD Operation Uptime:	100.0 %
Monthly Average:	3.82 PPB

01 Hour Averages





BHP Billiton Diamonds Inc. - EKATI
MAY 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST

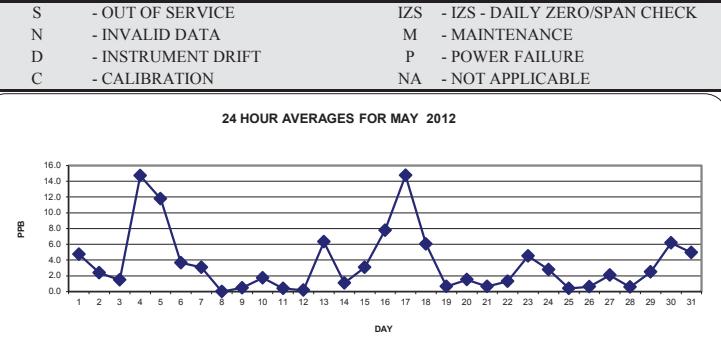
DAY	NO ₂ HOURS																								DAILY MAX.	24-HOUR AVG.	RDGS.		
	HOUR START 1:00	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
HOUR END 1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00						
1	17	15	15	13	14	IZS	13	9	2	0	0	0	0	0	0	0	0	0	1	1	2	2	2	1	2	17	4.7	24	
2	4	3	6	9	8	IZS	7	5	4	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	9	2.4	24	
3	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	4	3	4	4	14	4	14	1.5	24	
4	6	18	30	22	7	IZS	5	15	5	1	1	2	1	1	7	28	33	16	18	37	19	9	29	28	37	14.7	24		
5	3	3	3	10	23	IZS	4	9	18	25	23	0	0	0	0	1	1	1	3	25	32	37	31	19	37	11.8	24		
6	5	4	3	3	2	IZS	0	0	0	0	7	3	1	0	0	1	1	0	0	5	8	18	12	11	18	3.7	24		
7	13	13	5	2	0	IZS	9	3	6	0	0	0	0	0	0	14	2	0	1	1	2	0	0	0	0	14	3.1	24	
8	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
9	0	0	0	0	0	0	IZS	2	2	0	0	1	2	2	1	0	0	0	1	0	0	0	0	0	0	2	0.5	24	
10	0	0	0	0	0	1	IZS	0	0	0	0	0	0	0	0	1	1	0	0	0	24	6	4	1	2	24	1.7	24	
11	4	5	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.4	24	
12	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.2	24	
13	0	0	0	0	0	IZS	2	6	5	8	14	6	9	10	3	4	4	4	14	15	15	10	12	4	15	6.3	24		
14	1	1	1	0	2	IZS	0	0	1	0	0	0	0	1	0	0	7	10	0	1	0	0	0	0	0	10	1.1	24	
15	1	8	22	2	2	IZS	3	0	0	2	1	3	0	0	0	0	0	0	0	1	5	11	10	22	3.1	24			
16	5	9	23	19	6	IZS	4	9	7	10	10	4	1	3	7	12	7	4	2	4	9	10	8	6	23	7.8	24		
17	19	21	22	25	17	IZS	3	6	6	9	17	22	14	14	17	18	21	8	3	9	16	23	19	10	25	14.7	24		
18	28	30	26	19	26	IZS	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	6.0	24	
19	0	0	1	0	2	IZS	4	3	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	4	0.7	24		
20	2	1	4	5	6	IZS	1	2	3	2	2	0	0	0	0	0	0	0	0	1	1	3	1	1	6	1.5	24		
21	5	4	1	0	0	IZS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5	0.7	24		
22	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5	5	3	5	4	5	1.3	24
23	5	3	6	11	26	IZS	5	3	1	5	0	0	1	2	0	2	2	0	0	0	2	4	14	12	26	4.5	24		
24	6	7	5	4	6	IZS	1	2	5	4	2	2	1	0	0	0	1	1	0	0	1	4	6	6	7	2.8	24		
25	2	2	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	2	0.4	24			
26	1	1	3	2	3	IZS	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	3	0.6	24	
27	7	7	0	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	13	8	0	0	13	2.1	24	
28	0	0	1	5	1	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5	0.6	24		
29	1	0	0	0	0	IZS	0	4	1	0	0	0	0	0	0	3	8	0	0	0	0	14	7	19	19	2.5	24		
30	4	4	3	1	3	IZS	1	2	0	1	1	6	1	0	0	0	1	6	17	20	25	27	17	2	27	6.2	24		
31	14	20	21	14	1	IZS	0	0	10	4	7	0	0	1	11	11	0	0	0	0	0	0	0	0	21	5.0	24		
HOURLY MAX	28	30	30	25	26	NA	13	15	18	25	23	22	14	14	17	28	33	16	18	37	32	37	31	28					
HOURLY AVG	5.0	5.8	6.5	5.4	5.1	NA	2.4	2.6	2.4	2.4	2.8	1.7	1.0	1.1	1.5	2.5	3.1	2.1	2.1	4.9	5.2	6.5	6.5	4.7					

STATUS FLAG CODES

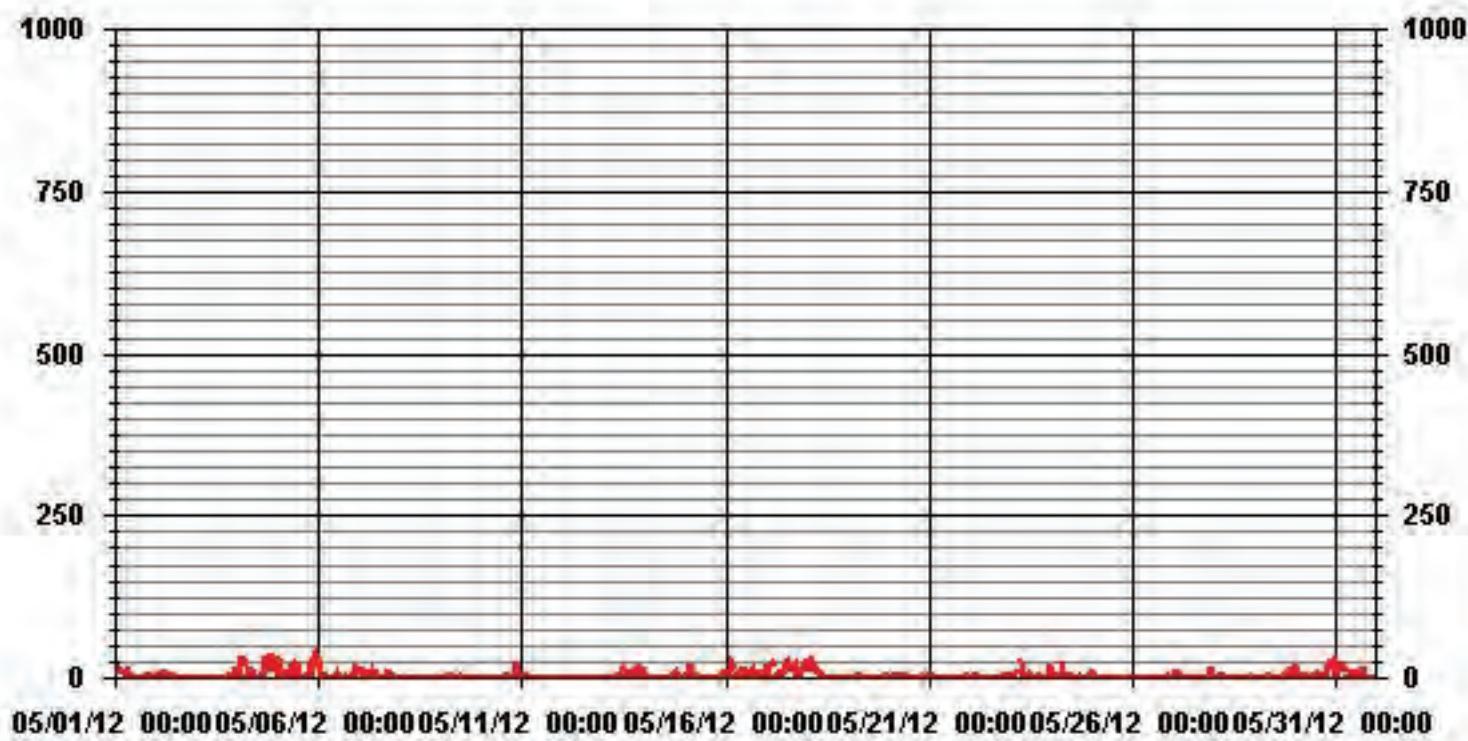
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	357			
MAXIMUM 1-HR AVERAGE:	37	PPB	@ HOUR(S)	19, 21
MAXIMUM 24-HR AVERAGE:	14.7	PPB	ON DAY(S)	4, 5
ON DAY(S)	4			
Izs Calibration Time:	31	HRS	Operational Time:	744 HRS
Monthly Calibration Time:	0	HRS	AmD Operation Uptime:	100.0 %
Standard Deviation:	6.55		Monthly Average:	3.62 PPB



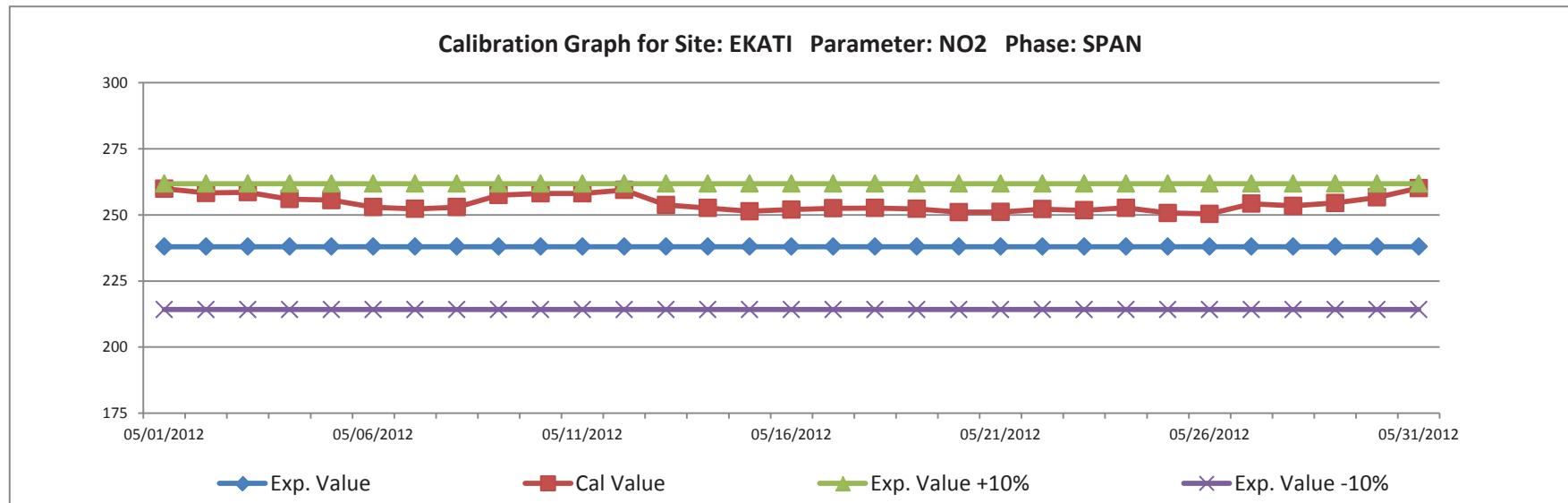
01 Hour Averages



— EKATI NO2 PPB

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JOB #: 3728-12-04~06-007-QC

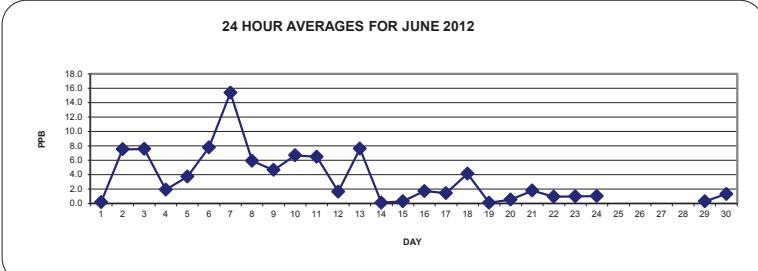


BHP Billiton Diamonds Inc. - EKATI
JUNE 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST	NO ₂ Hourly Averages (ppb)																								DAILY MAX.	24-HOUR AVG.	RDGS.			
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00						
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00						
DAY																														
1	0	0	0	0	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	0.2	24
2	3	26	19	33	34	Izs	2	6	0	0	0	1	6	2	4	2	0	0	0	0	0	0	3	3	29	34	7.5	24		
3	8	26	15	23	28	Izs	35	15	13	0	2	0	0	2	0	1	1	1	1	0	0	0	1	1	2	35	7.6	24		
4	7	4	10	7	5	Izs	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	1	2	10	1.9	24			
5	1	2	1	2	6	Izs	0	1	1	3	1	5	0	1	0	0	1	1	1	0	1	1	14	43	43	3.7	24			
6	35	33	28	36	32	Izs	1	1	2	4	2	1	0	0	0	0	0	0	0	0	0	0	3	36	7.8	24				
7	16	37	44	25	25	Izs	1	6	14	10	7	13	14	14	15	16	16	13	12	9	12	29	5	1	44	15.4	24			
8	9	2	8	27	13	Izs	0	0	0	0	0	0	0	0	0	0	1	4	5	9	5	4	17	32	32	5.9	24			
9	29	22	22	10	7	Izs	2	1	2	2	2	3	3	0	1	0	0	0	0	0	0	0	1	0	29	4.7	24			
10	4	17	5	23	2	Izs	4	7	11	3	7	2	0	1	2	6	3	6	6	10	5	9	10	11	23	6.7	24			
11	18	17	25	9	6	Izs	2	3	3	2	1	4	1	0	0	1	1	3	6	11	11	8	11	6	25	6.5	24			
12	0	0	1	4	3	Izs	1	5	6	0	2	1	0	0	1	0	1	0	2	1	1	1	4	4	6	1.7	24			
13	24	24	20	36	31	Izs	18	18	0	0	0	1	0	0	1	1	0	0	0	0	0	0	1	0	36	7.6	24			
14	0	0	0	1	0	Izs	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.1	24			
15	0	0	0	2	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0.3	24			
16	6	2	2	3	12	Izs	3	1	0	1	0	0	0	0	0	0	0	0	1	1	1	1	2	3	12	1.7	24			
17	5	2	4	6	5	Izs	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2	6	6	1.4	24		
18	5	25	27	20	7	Izs	1	1	1	0	0	0	0	0	1	0	1	0	0	0	1	1	2	2	27	4.1	24			
19	0	0	0	0	1	Izs	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24			
20	0	0	0	0	0	Izs	5	2	0	1	0	0	0	0	1	1	2	C	0	0	0	0	0	0	5	0.5	24			
21	0	1	1	2	2	Izs	8	4	C	C	C	C	C	C	C	C	C	C	1	1	1	1	1	1	8	1.8	24			
22	1	1	1	1	1	Izs	0	C	C	C	C	1	1	0	0	0	0	0	0	1	1	1	3	5	5	0.9	24			
23	12	3	1	1	0	Izs	0	0	0	1	0	0	0	1	0	0	1	1	0	0	0	1	1	0	12	1.0	24			
24	2	1	1	0	0	Izs	0	0	2	2	1	1	2	1	4	1	1	1	0	0	0	1	1	N	4	1.0	23			
25	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
26	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
27	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
28	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
29	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	1	1	0	0	0	0	1	0	1	0.3	10		
30	0	0	1	9	2	Izs	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	9	1.3	10			
HOURLY MAX	35	37	44	36	34	NA	35	18	14	10	7	13	14	14	15	16	16	13	12	11	12	29	17	43						
HOURLY AVG	7.4	9.8	9.4	11.2	8.9	NA	3.4	3.0	2.4	1.3	1.1	1.5	1.2	1.1	1.3	1.4	1.2	1.4	1.4	1.7	1.7	2.6	3.2	6.6						

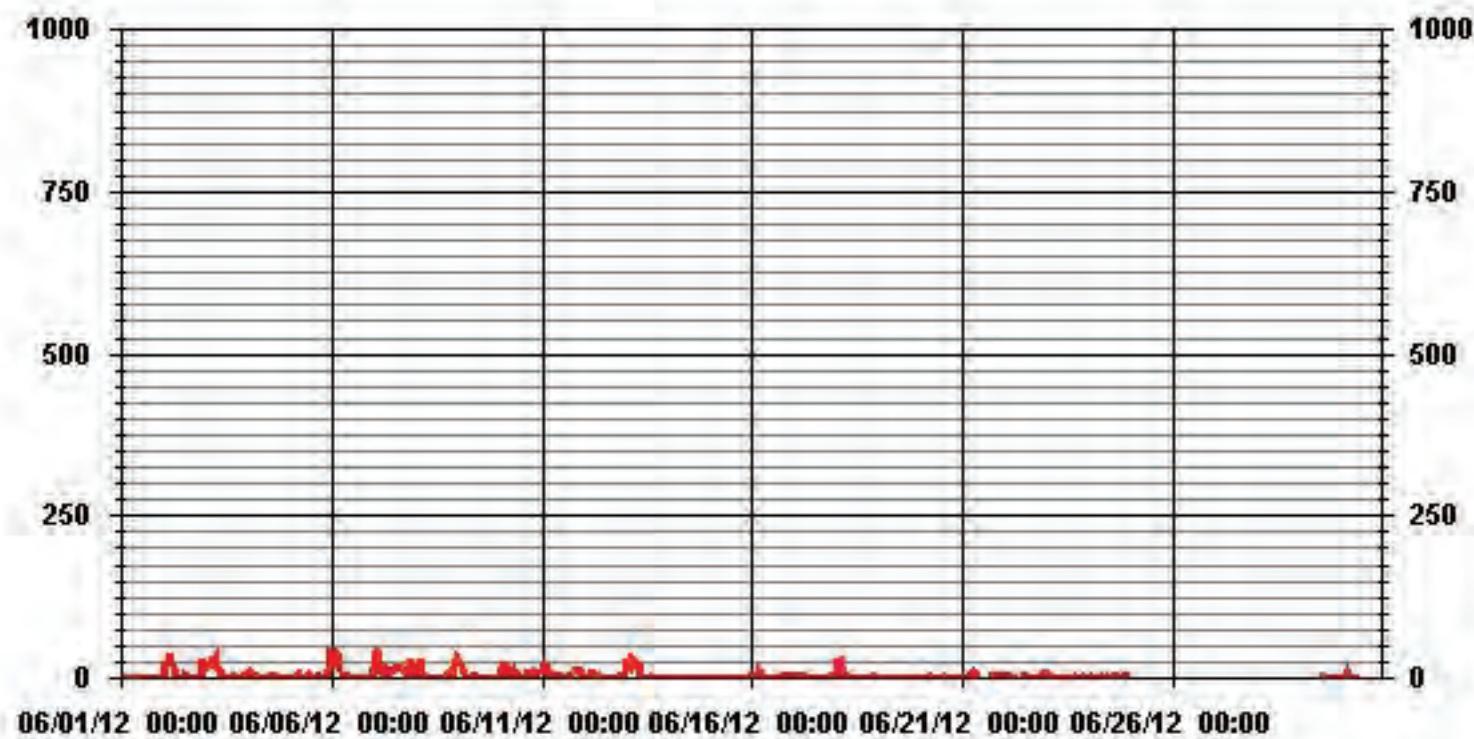
STATUS FLAG CODES

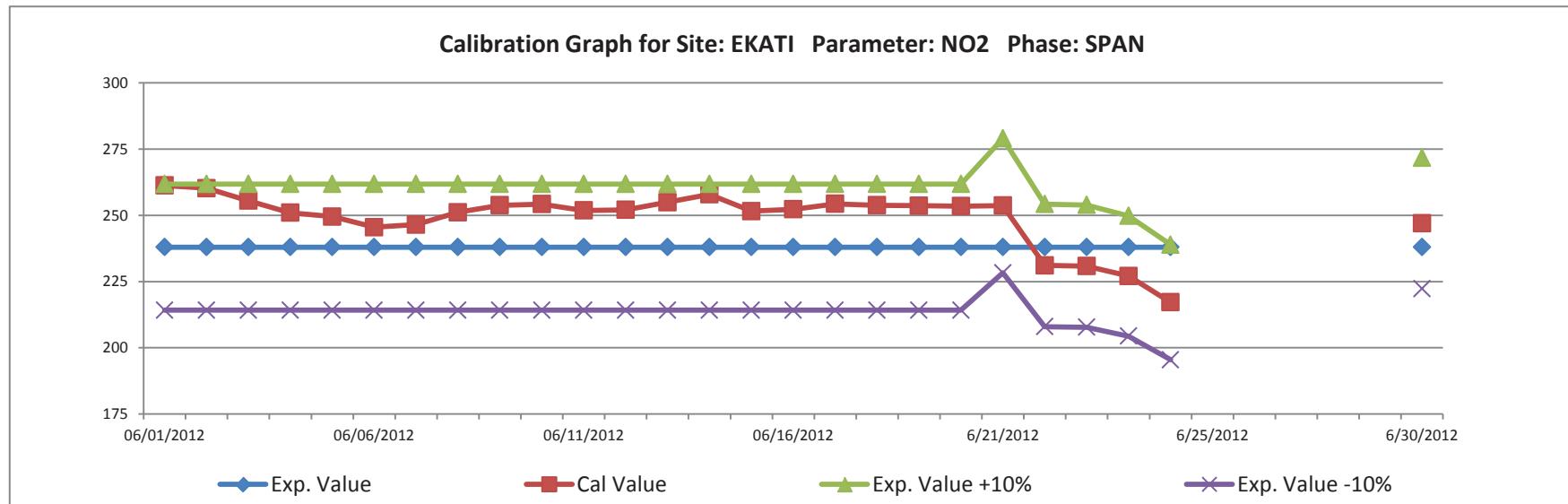
S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:	306
MAXIMUM 1-HR AVERAGE:	44 PPB
MAXIMUM 24-HR AVERAGE:	15.4 PPB
Izs CALIBRATION TIME:	25 HRS
MONTHLY CALIBRATION TIME:	15 HRS
STANDARD DEVIATION:	7.55
OPERATIONAL TIME:	595 HRS
AMD OPERATION UPTIME:	82.6 %
MONTHLY AVERAGE:	3.72 PPB

01 Hour Averages





Nitric Oxide

BHP Billiton Diamonds Inc. - EKATI

APRIL 2012

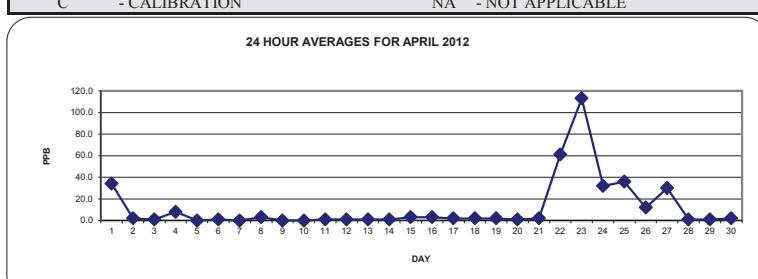
NITRIC OXIDES (NO) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	30	19	3	91	8	IZS	62	17	27	5	9	12	5	67	1	16	146	259	1	0	1	1	1	1	259	34.0	24	
2	1	1	1	0	1	IZS	1	2	4	9	18	2	2	6	2	1	1	1	1	0	0	1	0	0	18	2.0	24	
3	0	0	0	1	1	IZS	2	2	3	9	7	3	2	1	1	1	1	1	0	0	1	0	0	0	9	1.0	24	
4	1	1	1	36	19	IZS	15	13	15	21	32	2	1	1	1	1	14	2	2	14	1	1	9	1	36	8.0	24	
5	1	1	0	0	1	IZS	1	1	1	0	1	1	0	1	0	1	0	0	0	3	1	1	0	0	3	0.0	24	
6	1	1	3	2	1	IZS	1	1	3	3	2	0	1	1	1	1	1	0	0	1	3	1	0	0	3	1.0	24	
7	0	1	1	0	1	IZS	1	1	1	1	1	1	0	1	1	0	1	1	1	0	2	2	1	2	0.0	24		
8	0	37	17	1	1	IZS	2	2	2	3	2	1	1	4	1	1	1	1	1	1	1	1	1	1	37	3.0	24	
9	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	2	0.0	24	
10	0	0	0	0	0	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0.0	24	
11	0	1	2	1	0	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	3	3	1.0	24	
12	1	6	3	2	5	IZS	2	1	1	2	1	4	1	2	1	1	1	1	1	1	0	1	0	0	6	1.0	24	
13	1	1	1	0	1	IZS	3	4	9	3	1	1	1	2	2	1	1	1	1	0	0	0	1	1	9	1.0	24	
14	1	1	0	0	1	IZS	1	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	1.0	24	
15	1	1	1	1	1	IZS	6	10	9	4	11	20	9	1	1	1	4	2	1	1	0	2	1	4	20	3.0	24	
16	2	11	13	14	5	IZS	4	10	11	7	3	1	2	1	1	1	1	0	0	0	0	1	1	1	14	3.0	24	
17	0	0	1	1	2	IZS	3	1	1	1	6	10	4	4	2	3	1	1	1	1	1	1	1	1	10	2.0	24	
18	1	1	1	1	2	IZS	2	7	2	4	1	5	9	8	1	1	1	1	1	1	1	1	1	14	1	14	2.0	24
19	5	1	1	1	1	IZS	7	6	5	4	4	3	1	1	2	1	1	1	1	1	1	1	1	1	7	2.0	24	
20	1	1	1	1	2	IZS	1	2	2	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1	4	1.0	24	
21	1	1	1	1	1	IZS	1	3	3	2	1	1	1	1	1	1	2	1	1	5	6	10	5	10	2.0	24		
22	5	7	39	46	160	IZS	61	155	10	2	3	5	9	24	25	65	8	19	3	2	119	78	184	288	288	61.0	24	
23	315	114	475	346	483	IZS	276	328	145	1	2	1	1	1	1	1	7	76	8	2	3	3	483	113.0	24			
24	4	3	3	4	6	IZS	7	3	10	3	10	4	5	2	1	1	2	1	1	7	71	109	273	254	273	32.0	24	
25	114	10	38	103	133	IZS	35	41	172	16	119	3	8	3	2	2	13	18	8	1	1	1	1	1	172	36.0	24	
26	1	1	6	1	25	IZS	22	68	9	3	4	2	3	3	2	2	1	2	3	88	21	2	1	1	88	12.0	24	
27	1	1	17	29	1	IZS	45	65	48	2	2	52	128	107	89	102	35	1	1	1	1	1	1	1	128	30.0	24	
28	1	1	1	1	1	IZS	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24	
29	1	1	1	1	1	IZS	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24	
30	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	14	26	26	2.0	24		
HOURLY MAX	315	114	475	346	483	NA	276	328	172	21	119	52	128	107	89	102	146	259	8	88	119	109	273	288				
HOURLY AVG	16.4	7.5	21.1	22.9	28.9	NA	18.9	25.0	16.7	3.9	8.3	4.9	6.9	8.2	5.0	7.2	8.1	10.8	1.5	6.9	8.2	7.5	17.6	20.0				

STATUS FLAG CODES

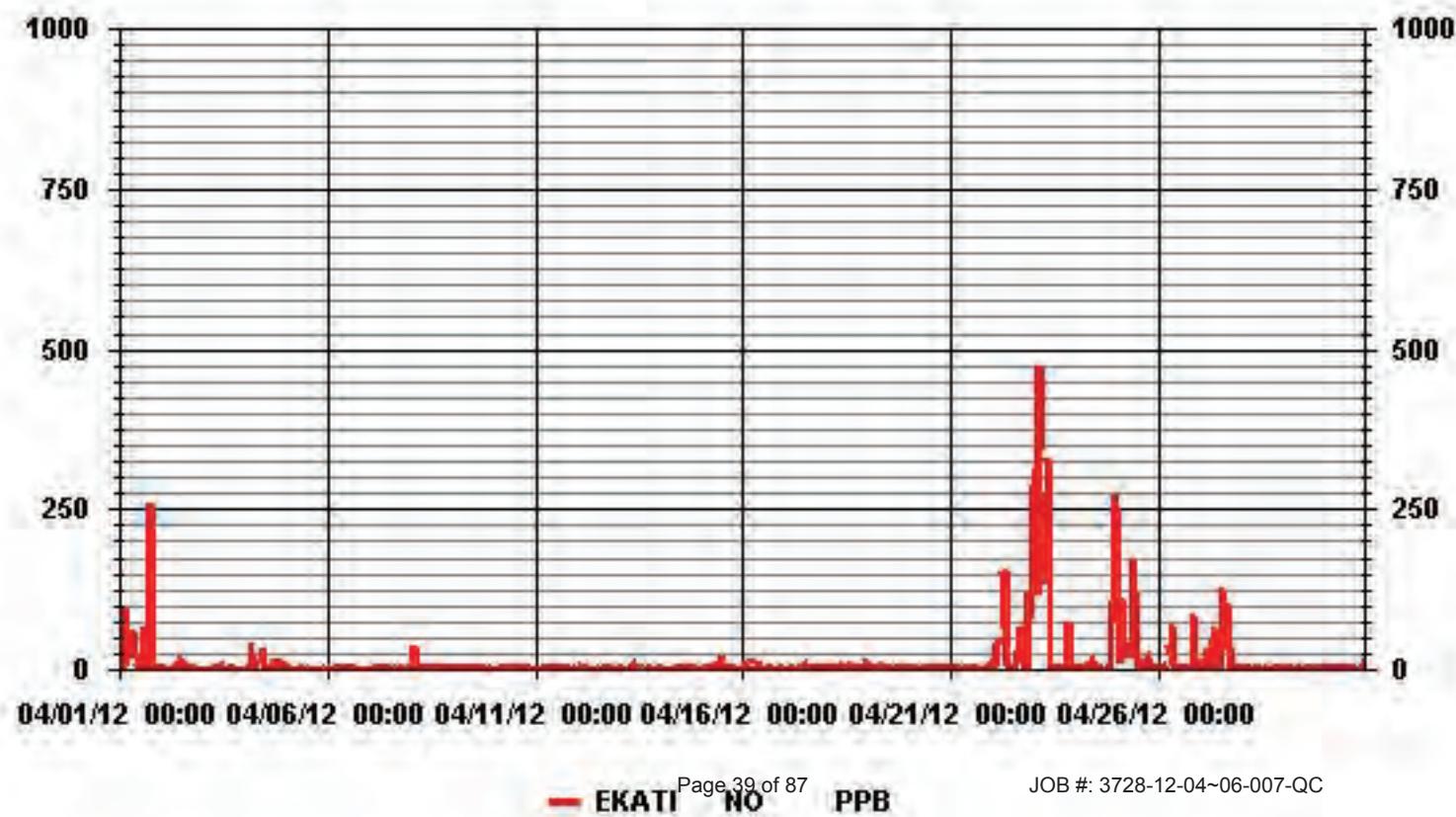
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	629
MAXIMUM 1-HR AVERAGE:	483 PPB
MAXIMUM 24-HR AVERAGE:	113.0 PPB
ON DAY(S)	23
ON DAY(S)	23
IZS CALIBRATION TIME:	30 HRS
MONTHLY CALIBRATION TIME:	0 HRS
STANDARD DEVIATION:	45.64
OPERATIONAL TIME:	720.0 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	12.3 PPB

01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

MAY 2012

NITRIC OXIDES (NO) hourly averages in ppb

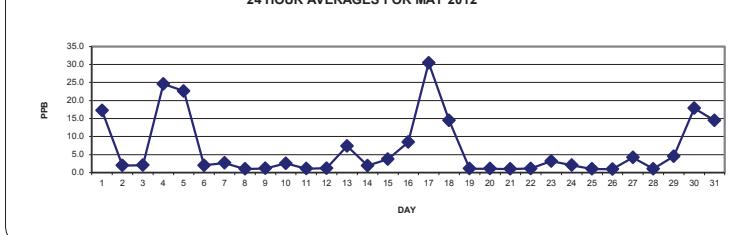
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY	1	94	50	42	22	34	IZS	91	35	11	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	94	17.2	24
2	1	1	1	1	2	IZS	4	5	4	5	4	3	3	1	1	1	1	1	1	1	1	1	1	1	1	5	2.0	24
3	1	1	1	1	1	IZS	1	2	2	1	2	1	1	1	1	1	1	2	4	2	1	1	1	17	1	17	2.0	24
4	1	14	58	21	2	IZS	4	38	6	3	3	4	3	2	11	74	80	32	35	85	25	7	27	31	85	24.6	24	
5	1	1	1	3	20	IZS	4	10	35	60	55	1	1	1	1	2	2	1	2	50	72	106	77	14	106	22.6	24	
6	1	1	1	1	1	IZS	1	1	1	2	13	4	2	1	1	2	3	1	1	1	1	3	2	1	13	2.0	24	
7	1	2	1	1	1	IZS	15	5	9	2	1	1	1	1	1	11	1	1	1	1	1	1	1	1	15	2.7	24	
8	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
9	1	1	1	1	1	IZS	1	1	1	1	2	3	2	2	1	1	1	1	1	0	1	1	1	1	3	1.2	24	
10	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	35	2	1	1	1	1	35	2.6	24
11	1	1	1	1	1	IZS	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	3	1.1	24	
12	1	1	2	1	1	IZS	1	1	1	1	1	2	1	1	1	2	2	1	1	1	1	2	1	1	2	1.2	24	
13	1	1	1	1	1	IZS	2	3	3	9	28	9	12	14	3	4	4	4	18	29	16	2	4	1	29	7.4	24	
14	1	1	1	1	1	IZS	1	1	1	1	1	1	1	3	1	1	5	14	2	2	1	1	1	1	14	1.9	24	
15	1	6	31	1	2	IZS	4	1	1	4	2	4	1	1	1	1	1	1	1	1	5	7	8	31	3.7	24		
16	3	6	30	19	4	IZS	7	8	11	13	19	5	2	2	10	27	13	2	1	2	3	3	3	2	30	8.5	24	
17	31	54	46	54	19	IZS	2	6	21	17	60	60	46	25	34	43	39	8	4	9	21	47	36	18	60	30.4	24	
18	62	80	64	32	59	IZS	16	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	80	14.4	24	
19	1	1	1	1	1	IZS	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	24	
20	1	1	1	1	1	IZS	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	24	
21	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
22	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1	2	1.1	24
23	1	1	1	4	22	IZS	3	3	2	6	1	1	2	3	1	4	4	1	1	1	1	5	4	22	3.2	24		
24	2	2	4	2	5	IZS	1	2	6	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1	6	2.1	24	
25	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
26	1	1	1	1	1	IZS	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
27	10	15	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	33	16	5	1	33	4.2	24		
28	1	1	1	2	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24		
29	1	1	1	1	1	IZS	1	8	2	1	1	1	1	1	1	1	2	7	1	1	1	14	5	50	50	4.5	24	
30	1	1	1	1	1	IZS	2	3	1	1	5	7	2	2	2	2	2	9	46	50	97	122	49	3	122	17.8	24	
31	39	69	76	36	2	IZS	2	2	24	10	15	2	2	2	16	19	2	2	2	2	2	2	2	76	14.4	24		
HOURLY MAX	94	80	76	54	59	NA	91	38	35	60	60	60	46	25	34	74	80	32	46	85	97	122	77	50				
HOURLY AVG	8.5	10.3	12.1	7.0	6.2	NA	5.6	4.8	5.0	5.0	7.4	4.1	3.2	2.5	3.3	6.5	6.1	3.4	4.4	9.3	9.5	11.2	8.3	5.0				

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

24 HOUR AVERAGES FOR MAY 2012



NUMBER OF NON-ZERO READINGS:

711

MAXIMUM 1-HR AVERAGE:

122

PPB

@ HOUR(S)

21

ON DAY(S)

30

MAXIMUM 24-HR AVERAGE:

30.4

PPB

ON DAY(S)

17

IZS CALIBRATION TIME: 31 HRS

OPERATIONAL TIME: 744 HRS

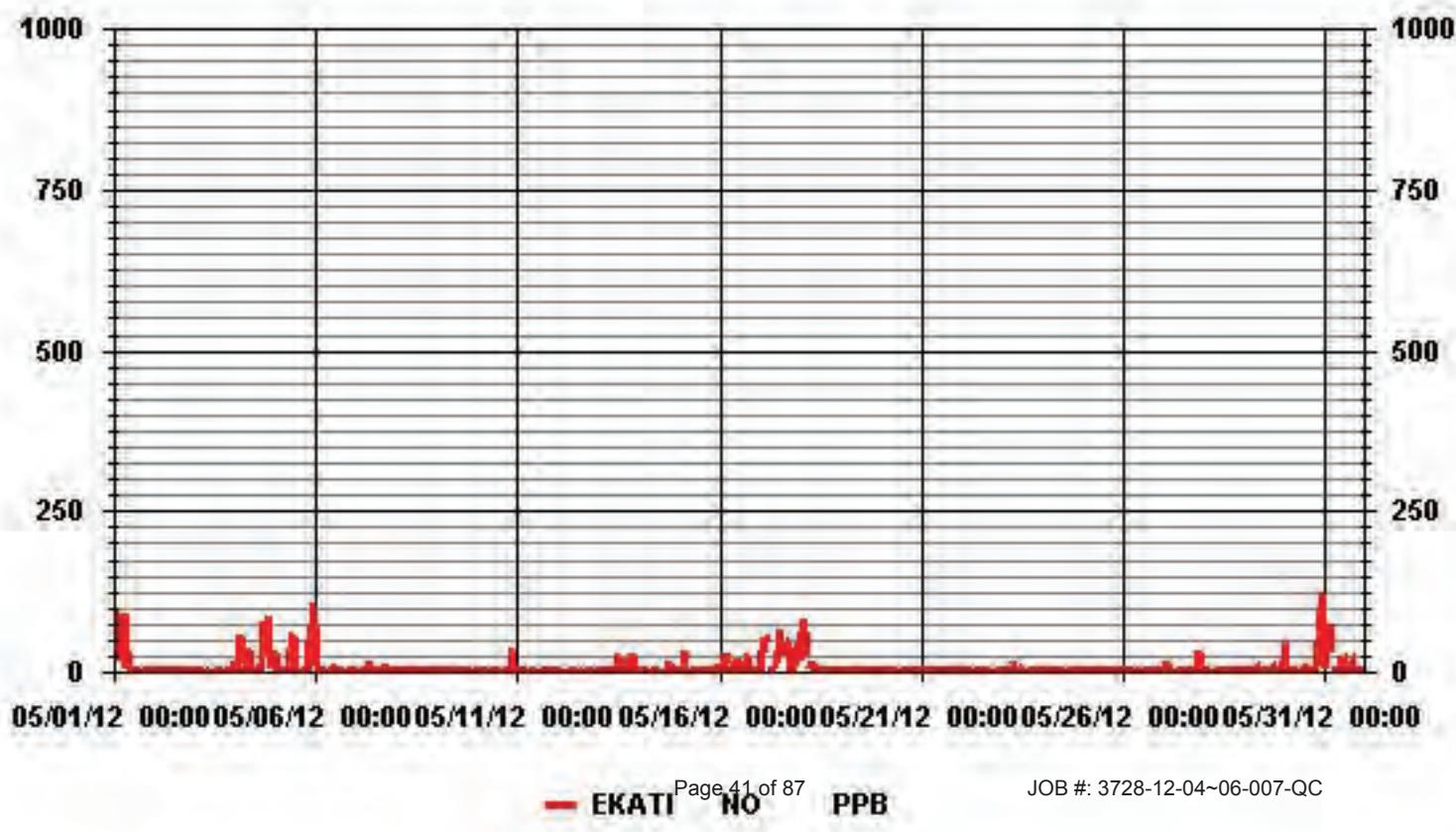
MONTHLY CALIBRATION TIME: 0 HRS

AMD OPERATION UPTIME: 100.0 %

STANDARD DEVIATION: 15.33

MONTHLY AVERAGE: 6.45 PPB

01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

JUNE 2012

NITRIC OXIDES (NO) hourly averages in ppb

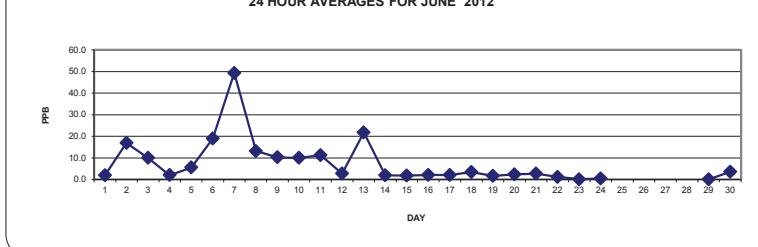
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	2	2	2	2	2	Izs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
2	2	53	10	98	153	Izs	4	7	2	2	6	8	3	5	3	2	2	2	2	2	2	2	2	2	18	153	17.0	24
3	3	19	11	40	41	Izs	29	27	26	2	5	2	2	3	2	2	2	2	2	2	2	2	2	2	2	41	10.0	24
4	2	2	2	2	2	Izs	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.0	24
5	2	2	2	2	2	Izs	2	2	2	2	7	2	2	2	2	2	2	2	2	2	2	2	2	2	6	71	5.6	24
6	63	66	55	131	82	Izs	3	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	131	19.0	24
7	17	108	276	62	85	Izs	3	16	55	38	18	43	44	45	49	46	52	36	32	15	16	71	5	2	276	49.3	24	
8	10	2	9	69	25	Izs	3	2	2	2	2	2	2	2	2	2	2	2	5	8	18	6	5	14	109	109	13.2	24
9	103	32	40	6	5	Izs	3	2	3	3	4	6	7	2	3	2	2	2	2	2	2	2	2	2	2	103	10.3	24
10	3	25	10	57	3	Izs	3	11	17	5	9	3	2	2	4	9	7	9	9	13	7	7	9	6	57	10.0	24	
11	23	35	74	11	4	Izs	3	5	4	3	3	5	2	2	2	2	4	10	18	16	9	15	7	74	11.3	24		
12	2	2	3	4	3	Izs	5	6	6	2	3	3	2	2	2	2	2	3	2	2	2	2	2	2	6	2.8	24	
13	33	25	49	164	129	Izs	13	56	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	164	21.8	24
14	2	2	1	2	1	Izs	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	3	2.0	24
15	1	1	1	2	2	Izs	3	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	3	1.9	24
16	2	2	2	2	3	Izs	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.1	24
17	2	2	2	2	2	Izs	3	2	2	3	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	3	2.1	24
18	2	18	13	7	2	Izs	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18	3.4	24
19	2	1	2	2	2	Izs	3	2	2	2	2	2	2	2	2	1	2	2	2	1	1	1	1	2	1	3	1.7	24
20	1	2	1	2	2	Izs	5	5	2	3	2	2	2	3	3	4	C	2	2	2	2	2	1	2	5	2.4	24	
21	2	2	2	2	2	Izs	4	5	1	C	C	C	C	C	C	C	3	3	3	3	3	3	3	5	2.7	24		
22	3	3	3	3	3	Izs	4	C	C	C	C	2	0	0	0	0	0	0	0	0	0	0	0	0	4	1.2	24	
23	0	0	0	0	0	Izs	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
24	0	0	0	0	0	Izs	1	0	2	2	1	0	1	0	3	1	0	0	0	0	0	0	0	N	3	0.5	23	
25	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
26	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
27	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
28	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
29	N	N	N	N	N	Izs	N	N	N	N	N	N	N	N	N	N	1	0	0	0	0	0	0	0	0	1	0.1	10
30	0	0	1	27	2	Izs	1	0	0	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	27	3.6	10	
HOURLY MAX	103	108	276	164	153	NA	29	56	55	38	18	43	44	45	49	46	52	36	32	18	16	71	15	109				
HOURLY AVG	11.3	16.2	22.8	28.0	22.3	NA	4.4	6.8	5.9	4.0	3.2	4.5	4.2	3.8	4.0	4.0	3.6	3.8	3.9	3.2	5.0	3.2	10.1					

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

24 HOUR AVERAGES FOR JUNE 2012



NUMBER OF NON-ZERO READINGS:

497

MAXIMUM 1-HR AVERAGE:

276

PPB

@ HOUR(S)

2

ON DAY(S)

7

MAXIMUM 24-HR AVERAGE:

49.3

PPB

ON DAY(S)

7

Izs CALIBRATION TIME:

30

HRS

OPERATIONAL TIME:

595

HRS

MONTHLY CALIBRATION TIME:

14

HRS

AMD OPERATION UPTIME:

82.6

%

STANDARD DEVIATION:

22.09

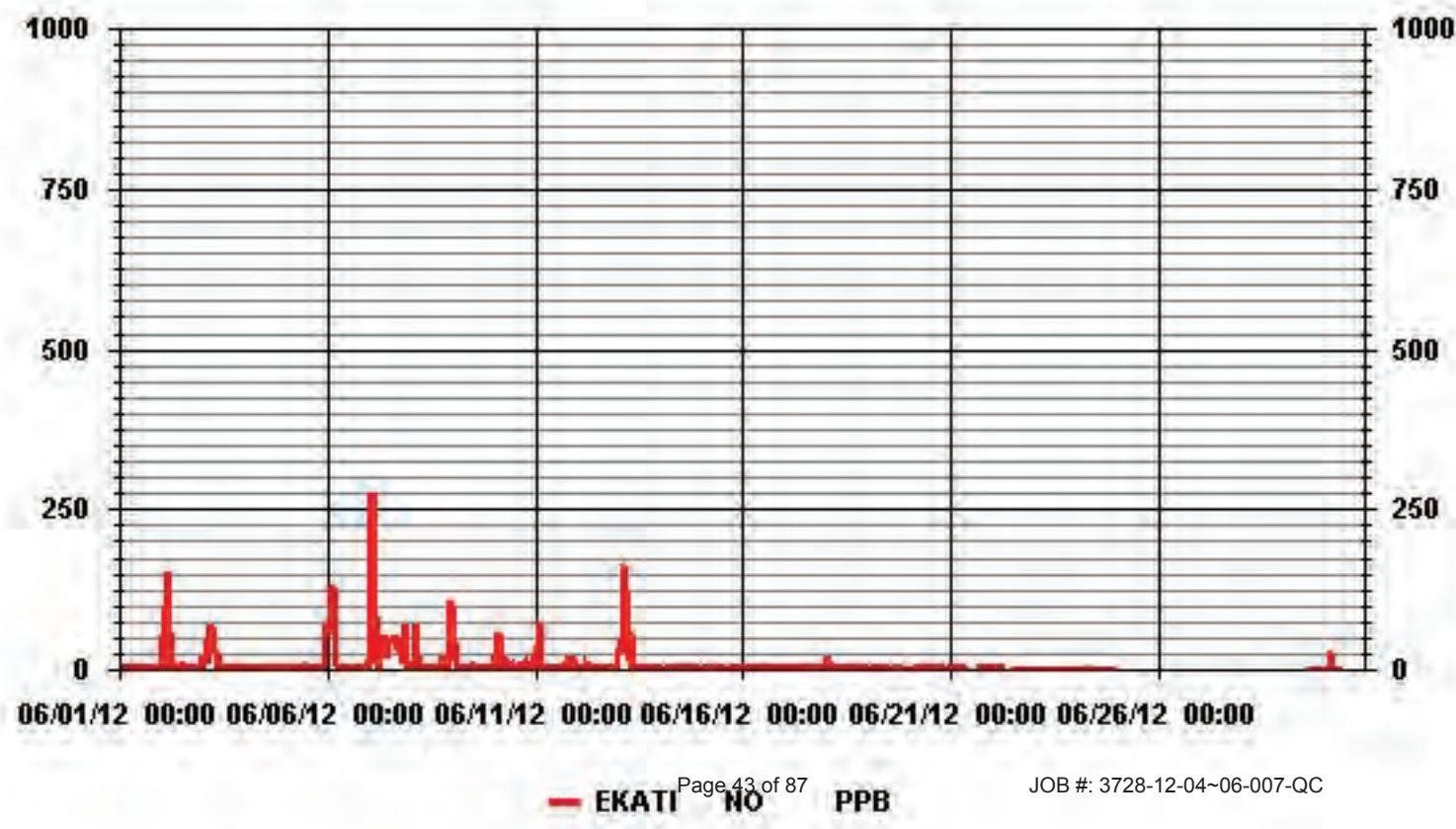
PPB

MONTHLY AVERAGE:

8.04

PPB

01 Hour Averages



— EKATI NO PPB

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JOB #: 3728-12-04~06-007-QC

Oxides of Nitrogen

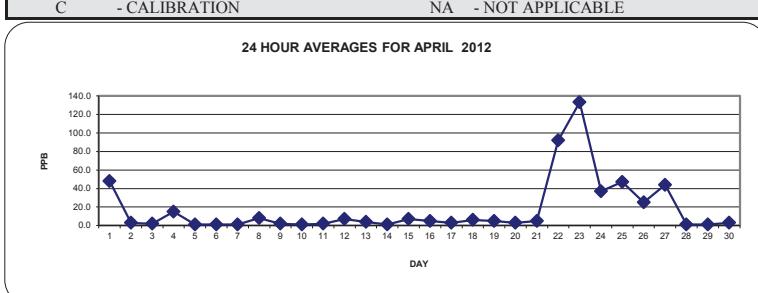
BHP Billiton Diamonds Inc. - EKATI
 APRIL 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00					
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY																													
1	41	30	5	125	15	Izs	86	26	38	8	14	18	7	92	2	26	185	307	2	1	1	2	2	1	307	48.0	24		
2	4	3	2	1	3	Izs	2	2	7	11	25	2	3	8	2	1	1	1	2	1	1	0	0	0	0	0	25	3.0	24
3	1	1	3	2	2	Izs	4	3	4	12	9	4	2	1	1	0	1	0	0	0	0	0	0	0	0	12	2.0	24	
4	1	3	2	54	37	Izs	24	25	25	33	50	4	1	0	1	1	24	4	4	27	3	5	23	7	54	15.0	24		
5	5	0	0	1	1	Izs	1	0	2	0	0	1	0	0	0	0	0	0	0	6	1	2	4	6	1.0	24			
6	2	2	5	2	1	Izs	2	1	5	5	3	0	1	1	0	0	1	0	0	0	3	0	0	0	5	1.0	24		
7	0	0	1	0	2	Izs	1	1	1	0	0	0	1	0	0	1	0	1	1	1	6	8	11	11	1.0	24			
8	6	69	48	16	7	Izs	8	5	5	6	4	2	1	1	5	1	1	1	1	1	5	5	4	3	69	8.0	24		
9	5	5	6	3	5	Izs	2	3	2	2	3	2	1	1	2	1	2	1	0	1	1	2	1	1	6	2.0	24		
10	0	0	0	1	1	Izs	1	1	2	2	2	1	1	1	2	3	3	3	1	1	1	1	1	1	3	1.0	24		
11	0	5	11	5	2	Izs	0	0	1	0	0	1	2	1	2	1	1	1	0	1	1	1	10	24	2.0	24			
12	24	26	28	30	24	Izs	6	2	2	3	2	5	2	3	1	0	1	1	1	0	1	0	1	30	7.0	24			
13	4	5	2	2	7	Izs	9	10	18	6	2	1	2	3	3	2	2	2	1	0	1	1	2	1	18	4.0	24		
14	1	0	0	0	2	Izs	1	4	3	4	1	1	1	0	1	0	1	0	2	1	1	3	2	4	1.0	24			
15	4	5	4	6	4	Izs	10	17	14	7	17	30	14	1	2	2	6	4	0	0	1	6	7	10	30	7.0	24		
16	6	24	23	23	9	Izs	5	14	15	9	3	1	2	1	0	1	0	0	0	0	0	1	0	0	24	5.0	24		
17	0	0	1	2	5	Izs	6	1	1	1	8	15	5	7	3	5	1	1	2	1	1	2	0	0	15	3.0	24		
18	1	2	1	1	3	Izs	4	13	3	7	2	8	15	14	2	1	2	1	1	1	1	4	45	12	45	6.0	24		
19	9	3	4	3	3	Izs	19	15	11	7	7	5	1	2	3	2	1	1	1	2	4	3	4	4	21	5.0	24		
20	6	7	7	5	8	Izs	2	4	4	4	5	8	2	2	1	2	1	1	1	1	1	1	1	9	3.0	24			
21	1	0	1	6	2	Izs	2	6	6	3	2	1	1	0	0	0	2	3	1	2	19	21	32	21	3.0	24			
22	19	25	63	75	200	Izs	83	171	17	3	5	7	14	33	36	83	12	27	6	6	155	111	219	332	510	92.0	24		
23	347	137	490	370	493	Izs	297	340	147	1	2	1	1	1	1	1	1	10	90	12	4	6	5	493	133.0	24			
24	7	5	5	7	10	Izs	8	3	11	3	11	5	6	2	2	2	2	1	1	10	83	124	294	284	37.0	24			
25	136	18	55	130	160	Izs	48	50	198	21	142	3	11	4	3	4	19	25	13	3	6	6	7	7	198	47.0	24		
26	9	7	15	5	45	Izs	37	86	15	5	6	4	5	5	3	2	2	4	6	126	44	7	5	8	160	25.0	24		
27	8	6	32	61	7	Izs	65	96	67	5	4	70	170	142	123	141	49	1	1	2	3	3	2	2	170	44.0	24		
28	1	1	2	2	3	Izs	1	1	2	2	1	1	3	2	2	5	2	0	1	1	2	1	1	0	5	1.0	24		
29	0	1	1	1	1	Izs	1	2	1	2	1	2	2	1	1	2	1	0	0	1	0	1	2	3	3	1.0	24		
30	1	1	1	1	0	Izs	1	1	1	0	0	0	0	0	0	0	0	1	3	3	10	25	39	39	3.0	24			
HOURLY MAX	347	137	490	370	493	NA	297	340	198	33	142	70	170	142	123	141	185	307	13	126	155	124	294	332					
HOURLY AVG	21.6	13.0	27.3	31.3	35.4	NA	24.5	30.1	20.9	5.8	11.0	6.7	9.3	11.0	6.8	9.7	10.8	13.1	1.9	9.5	12.0	11.0	23.5	26.1					

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:

594

MAXIMUM 1-HR AVERAGE:

493

PPB

@ HOUR(S)

4

ON DAY(S)

23

MAXIMUM 24-HR AVERAGE:

133.0

PPB

ON DAY(S)

23

Izs CALIBRATION TIME:

30

HRS

OPERATIONAL TIME:

720.0

HRS

MONTHLY CALIBRATION TIME:

0

HRS

AMD OPERATION UPTIME:

100.0

%

STANDARD DEVIATION:

50.73

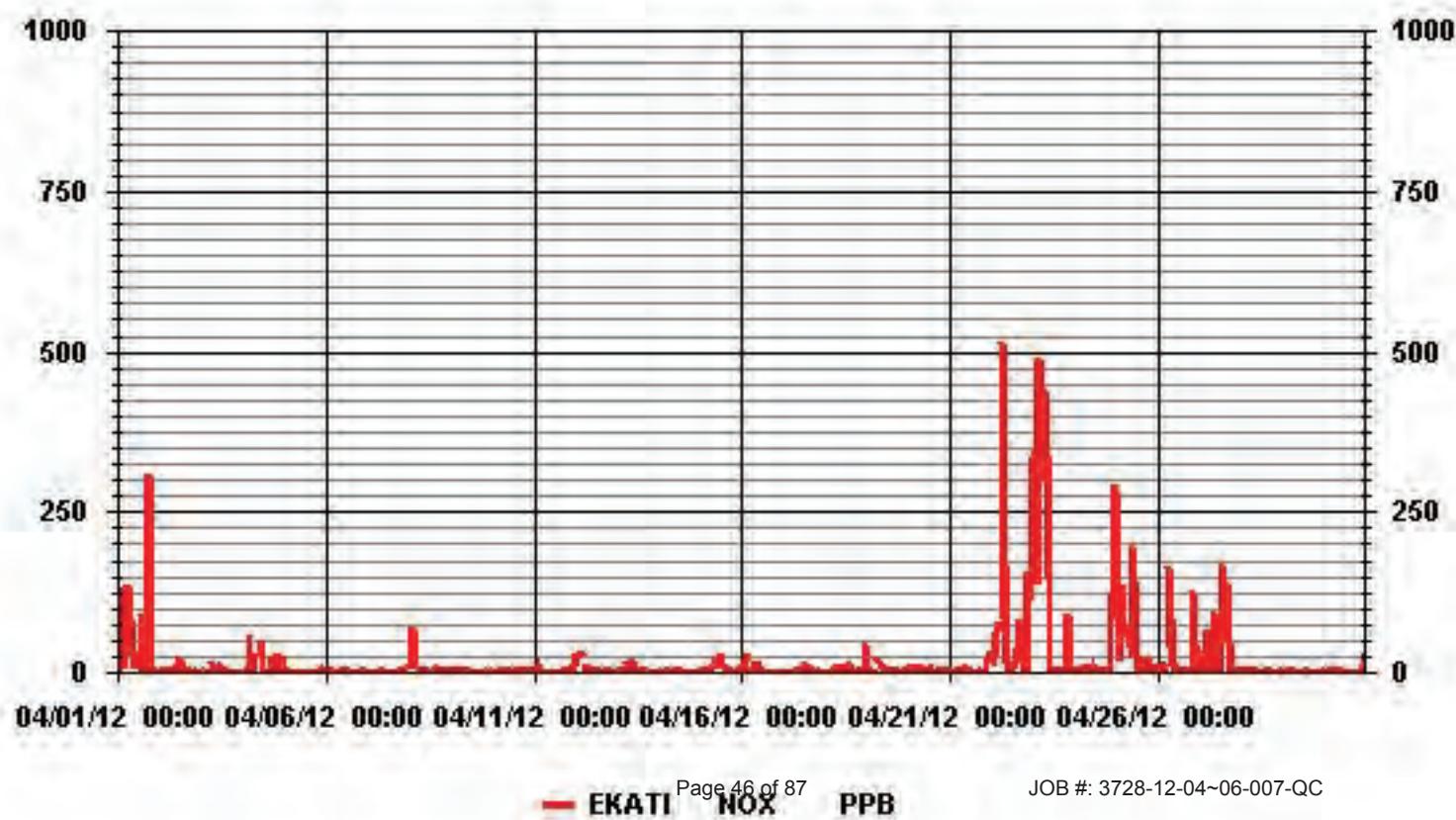
PPB

MONTHLY AVERAGE:

16.2

PPB

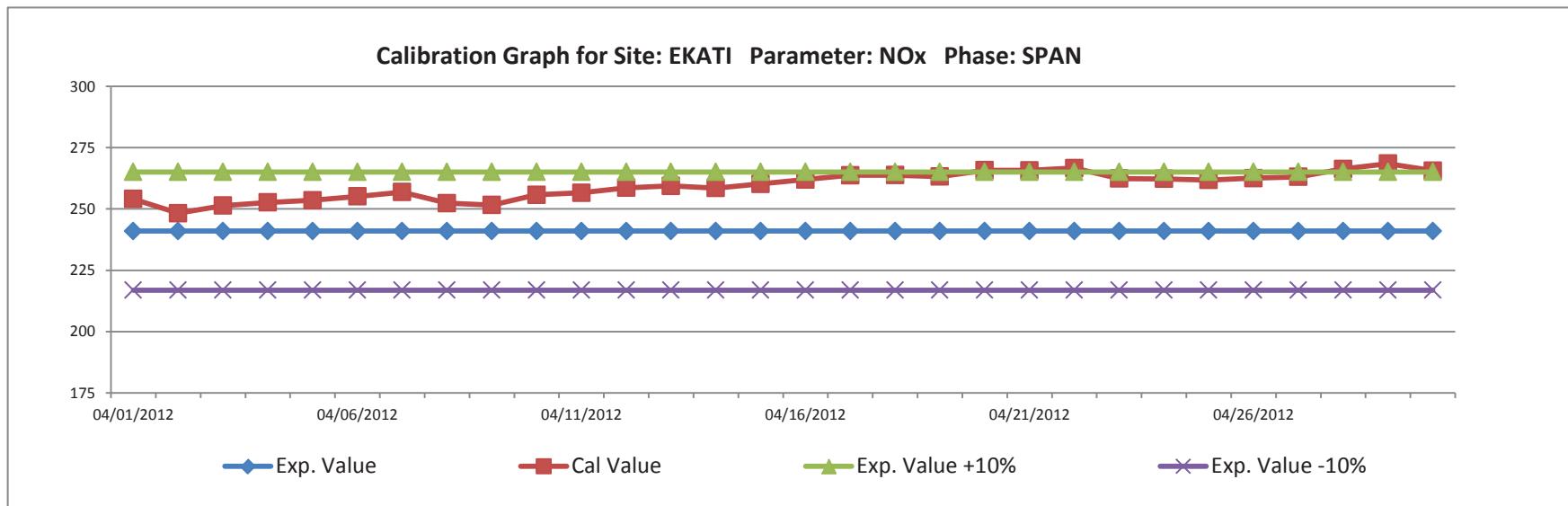
01 Hour Averages



— EKATI NOX PPB

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JOB #: 3728-12-04~06-007-QC



BHP Billiton Diamonds Inc. - EKATI
MAY 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

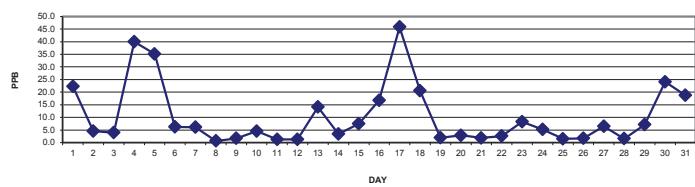
MST

	HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
DAY																												
1		111	65	58	35	49	IZS	105	45	13	1	1	1	1	1	1	3	3	3	4	3	3	2	3	111	22.3	24	
2		5	5	7	10	10	IZS	12	11	9	9	6	6	4	1	1	1	1	0	1	1	1	1	1	12	4.5	24	
3		1	1	1	1	2	IZS	2	3	2	2	2	2	1	1	1	1	2	3	9	5	6	6	31	6	31	4.0	24
4		7	32	89	44	10	IZS	9	54	11	5	5	8	4	4	18	103	113	49	53	122	45	17	57	59	122	39.9	24
5		5	4	4	14	44	IZS	8	20	53	86	79	2	2	2	3	3	3	5	76	105	145	108	34	145	35.1	24	
6		6	6	5	5	3	IZS	1	2	2	3	21	8	4	2	2	4	5	1	0	7	10	21	14	12	21	6.3	24
7		15	15	7	4	1	IZS	24	9	15	3	1	1	1	1	1	25	4	1	3	2	3	2	1	25	6.1	24	
8		1	1	1	0	1	IZS	0	1	1	1	0	1	1	1	1	1	0	0	1	1	0	1	0	1	0.7	24	
9		1	0	1	1	1	IZS	3	3	1	1	4	6	5	4	1	1	1	2	1	0	0	0	1	6	1.7	24	
10		1	0	0	2	2	IZS	2	2	1	2	1	1	2	1	3	3	1	1	1	60	8	5	3	3	60	4.6	24
11		6	6	1	0	1	IZS	0	0	1	0	1	5	2	1	1	1	1	0	0	0	0	0	1	1	6	1.3	24
12		1	1	2	0	0	IZS	0	0	0	1	1	2	1	1	2	3	2	2	0	0	1	5	2	2	5	1.3	24
13		2	1	1	1	2	IZS	4	10	9	18	42	16	21	25	6	9	8	8	32	44	32	12	16	5	44	14.1	24
14		3	2	2	1	3	IZS	0	2	3	2	2	1	2	5	1	1	12	24	3	3	1	2	1	2	24	3.4	24
15		2	15	54	4	5	IZS	8	1	1	7	4	8	2	2	1	1	1	2	1	2	2	11	19	18	54	7.4	24
16		9	15	54	38	10	IZS	11	18	19	23	29	10	3	6	18	39	20	7	3	7	12	14	11	8	54	16.7	24
17		50	76	69	80	37	IZS	5	13	28	27	77	82	60	40	51	62	60	16	7	19	38	71	56	29	82	45.8	24
18		90	111	90	51	86	IZS	25	5	1	1	1	1	1	1	1	1	0	0	1	1	1	1	111	20.5	24		
19		1	1	2	1	3	IZS	6	5	2	2	1	1	1	3	2	1	1	1	1	1	2	2	2	2	6	1.9	24
20		3	2	5	6	8	IZS	3	3	5	4	4	1	1	2	1	1	1	1	3	2	5	2	2	8	2.9	24	
21		7	6	2	1	1	IZS	1	3	2	2	1	1	1	1	1	1	1	0	1	2	3	3	1	7	1.9	24	
22		2	2	2	2	2	IZS	1	1	1	1	1	1	0	1	1	1	1	3	4	8	7	4	7	6	8	2.6	24
23		7	5	8	16	49	IZS	8	6	4	11	1	1	4	6	1	7	7	2	0	1	3	6	20	16	49	8.2	24
24		8	10	9	6	11	IZS	2	4	12	10	6	5	4	1	1	1	2	2	2	1	2	6	8	7	12	5.2	24
25		4	3	1	1	1	IZS	1	1	1	1	1	2	1	1	1	1	1	0	1	2	3	2	3	4	1.5	24	
26		2	2	4	3	4	IZS	1	1	1	1	1	0	1	1	3	2	1	1	0	1	2	3	2	2	4	1.7	24
27		17	23	2	1	2	IZS	1	1	1	1	1	1	1	1	1	1	1	0	1	46	30	14	1	46	6.5	24	
28		1	1	2	7	3	IZS	3	1	1	0	1	0	0	1	1	1	1	1	1	1	2	2	4	7	1.6	24	
29		2	1	0	1	1	IZS	1	12	4	1	1	1	1	1	1	1	6	15	1	1	1	28	12	70	70	7.1	24
30		6	5	5	3	5	IZS	3	6	1	3	5	12	3	2	2	2	2	15	63	70	121	148	66	6	148	24.1	24
31		53	88	97	49	2	IZS	1	1	34	14	21	1	2	2	27	29	2	1	1	1	1	2	1	1	97	18.7	24
HOURLY MAX		111	111	97	80	86	NA	105	54	53	86	79	82	60	40	51	103	113	49	63	122	121	148	108	70			
HOURLY AVG		13.8	16.3	18.9	12.5	11.6	NA	8.1	7.9	7.7	7.8	10.4	6.1	4.4	3.9	5.0	9.2	9.3	5.5	6.2	14.4	14.8	18.0	15.1	9.9			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

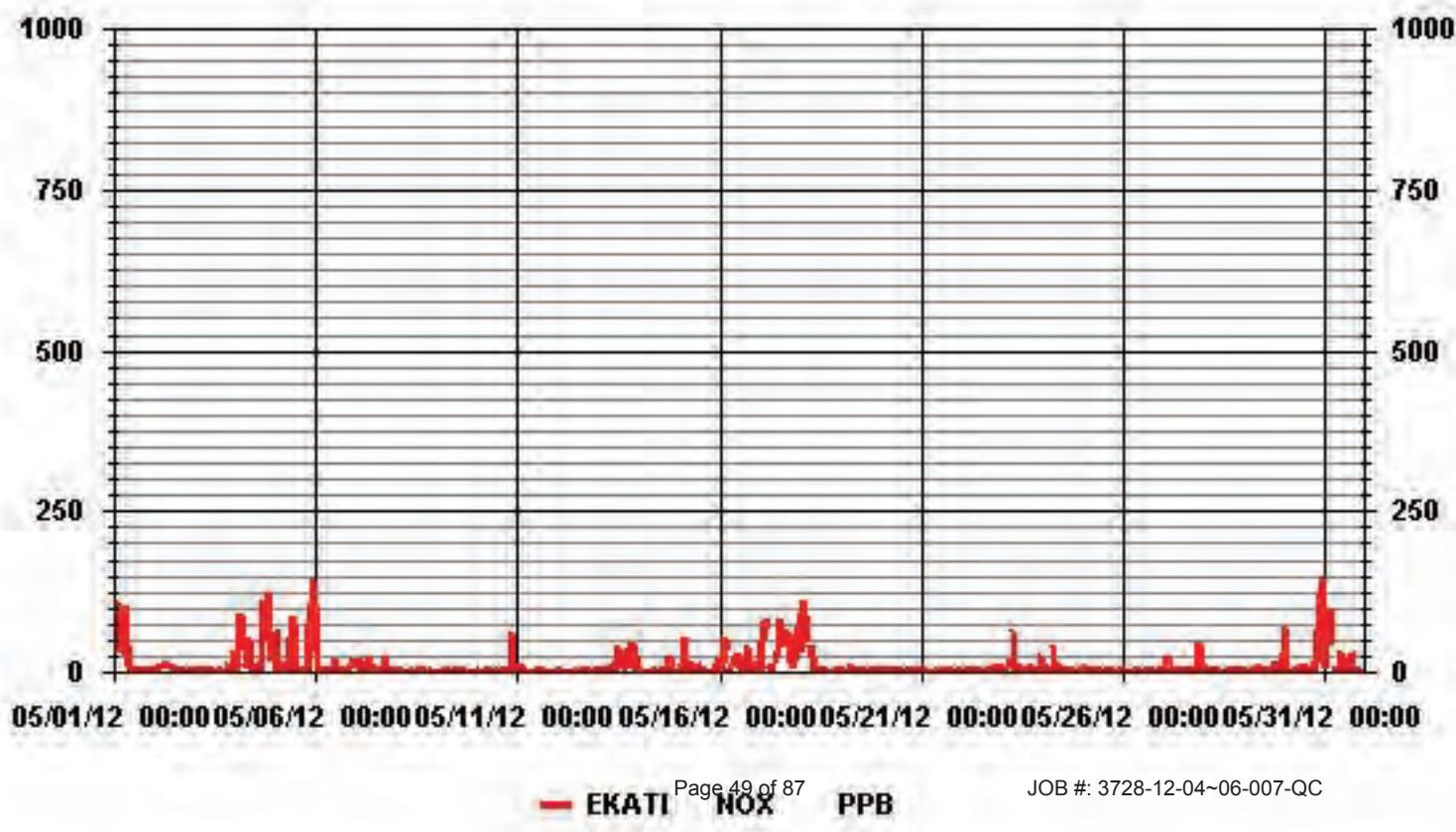
24 HOUR AVERAGES FOR MAY 2012

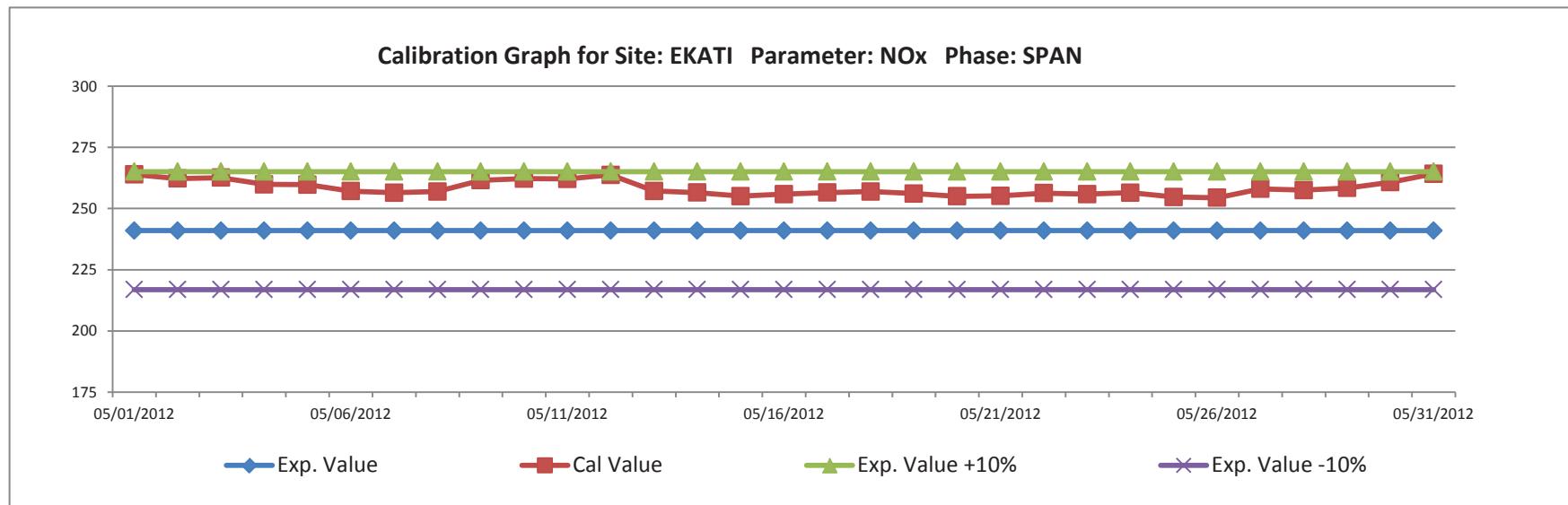


MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	667		
MAXIMUM 1-HR AVERAGE:	148	PPB	@ HOUR(S)
MAXIMUM 24-HR AVERAGE:	45.8	PPB	
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:
STANDARD DEVIATION:	21.33		100.0 %
			MONTHLY AVERAGE:
			10.30 PPB

01 Hour Averages





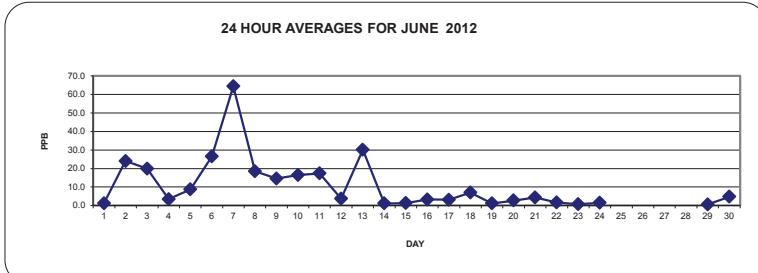
BHP Billiton Diamonds Inc. - EKATI
JUNE 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	5	5	1.3	24
2	4	79	29	130	187	IZS	5	13	1	1	2	7	14	5	9	4	1	1	1	1	2	5	5	47	187	24.0	24	
3	10	45	26	62	69	IZS	127	42	39	2	6	1	1	4	1	2	3	2	1	2	3	3	4	127	19.9	24		
4	9	6	11	8	6	IZS	3	2	2	1	1	2	2	3	3	3	2	3	1	1	2	3	3	11	3.4	24		
5	3	3	3	4	8	IZS	1	3	3	7	3	11	1	2	2	2	2	2	2	2	2	2	2	20	114	114	8.7	
6	97	99	83	167	114	IZS	3	3	4	7	4	2	2	1	2	2	2	2	2	2	2	2	2	4	167	26.4	24	
7	33	144	319	87	110	IZS	4	21	69	48	24	56	58	59	63	62	67	49	44	24	27	100	10	3	319	64.4	24	
8	19	4	17	95	38	IZS	1	1	1	1	1	1	1	1	1	1	1	3	9	13	27	11	8	31	141	141	18.5	24
9	132	53	62	15	11	IZS	5	3	4	5	5	9	9	1	4	1	1	2	1	1	2	2	3	2	132	14.5	24	
10	7	42	14	80	5	IZS	7	18	27	8	15	5	2	2	6	15	9	14	15	23	12	16	18	17	80	16.4	24	
11	41	51	99	19	10	IZS	5	7	7	4	4	9	3	2	2	2	7	16	28	27	17	25	13	99	17.4	24		
12	1	2	4	8	6	IZS	3	10	11	1	4	3	1	1	2	1	2	1	4	3	3	2	6	6	11	3.7	24	
13	57	49	69	199	160	IZS	56	74	2	1	2	2	2	2	2	2	1	1	2	1	2	1	3	1	199	30.0	24	
14	1	1	1	2	1	IZS	1	1	1	1	1	2	1	1	1	3	1	1	1	1	1	1	1	1	3	1.2	24	
15	1	1	1	3	1	IZS	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	6	6	1.3	24	
16	8	3	4	5	14	IZS	5	3	1	2	1	1	1	2	2	2	2	2	2	2	2	3	4	4	14	3.3	24	
17	7	4	5	8	7	IZS	2	2	2	3	1	2	1	1	2	1	1	4	2	1	2	2	4	8	8	3.1	24	
18	6	43	40	27	9	IZS	3	3	2	2	1	2	2	1	3	1	2	2	1	2	2	2	3	3	43	7.0	24	
19	1	1	1	1	2	IZS	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.2	24	
20	1	1	1	1	1	IZS	14	7	2	4	2	2	2	4	4	5	C	2	1	1	1	1	1	1	14	2.7	24	
21	2	2	3	4	4	IZS	14	8	C	C	C	C	C	C	C	C	C	4	4	3	3	3	3	3	14	4.3	24	
22	3	3	3	3	3	IZS	3	C	C	C	C	C	1	1	0	0	0	0	0	0	1	1	3	5	5	1.7	24	
23	12	3	0	1	0	IZS	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	12	0.8	24		
24	2	2	1	1	0	IZS	0	0	4	4	2	1	2	1	7	3	0	1	0	0	1	1	0	N	7	1.5	23	
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0		
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0		
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0		
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0		
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1	0.5	10	
30	0	0	2	36	4	IZS	0	0	0	1	N	N	N	N	N	N	N	N	N	N	N	N	N	36	4.8	10		
HOURLY MAX	132	144	319	199	187	NA	127	74	69	48	24	56	58	59	63	62	67	49	44	28	27	100	31	141				
HOURLY AVG	18.3	25.7	32.0	38.7	30.8	NA	10.6	9.4	8.1	4.7	3.7	5.5	4.7	4.2	5.0	4.8	4.6	4.5	4.8	5.1	4.4	7.1	6.1	16.3				

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:

514

MAXIMUM 1-HR AVERAGE:

319

PPB

@

HOUR(S)

2

ON DAY(S)

7

MAXIMUM 24-HR AVERAGE:

64.4

PPB

ON DAY(S)

7

IZS CALIBRATION TIME:

25

HRS

OPERATIONAL TIME:
AMD OPERATION UPTIME:

595 HRS
82.6 %

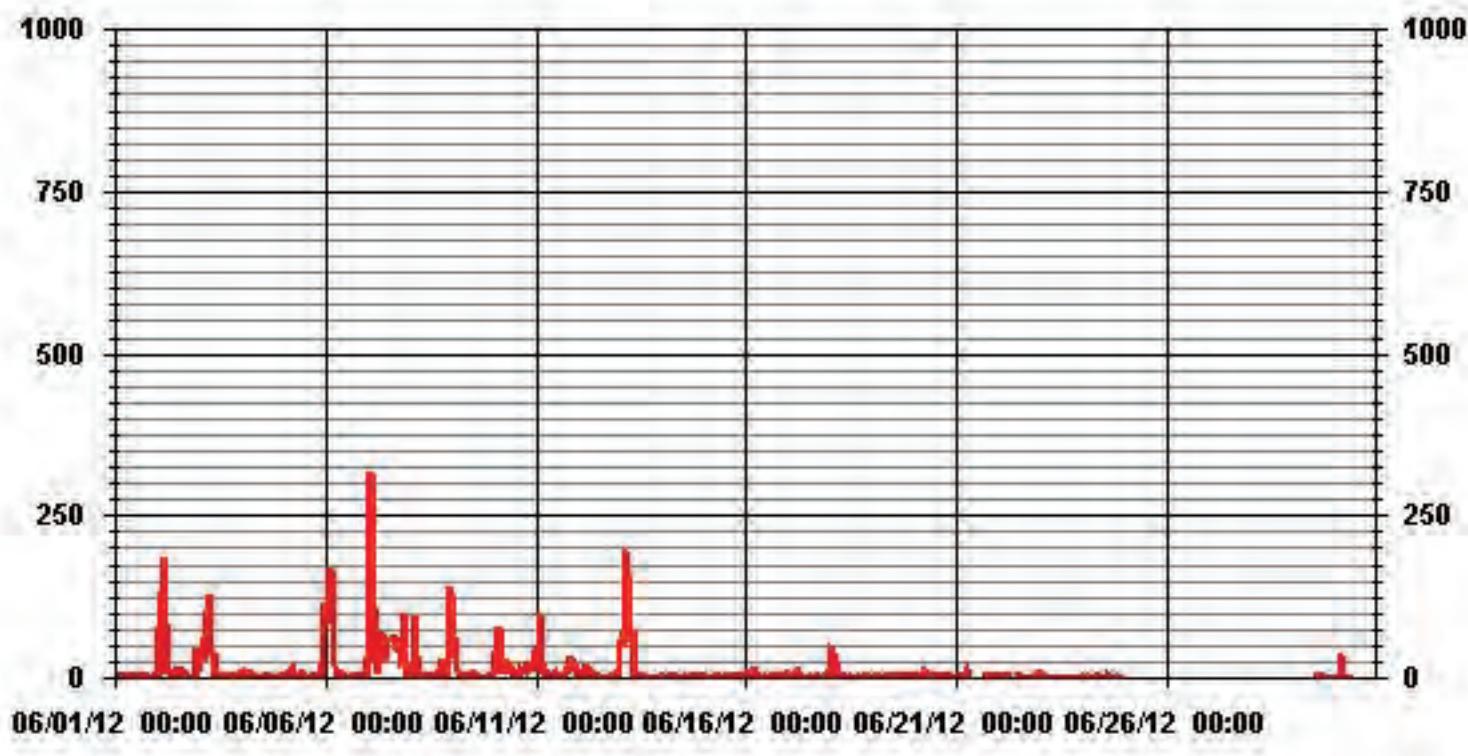
STANDARD DEVIATION:

29.13

MONTHLY AVERAGE:

11.46 PPB

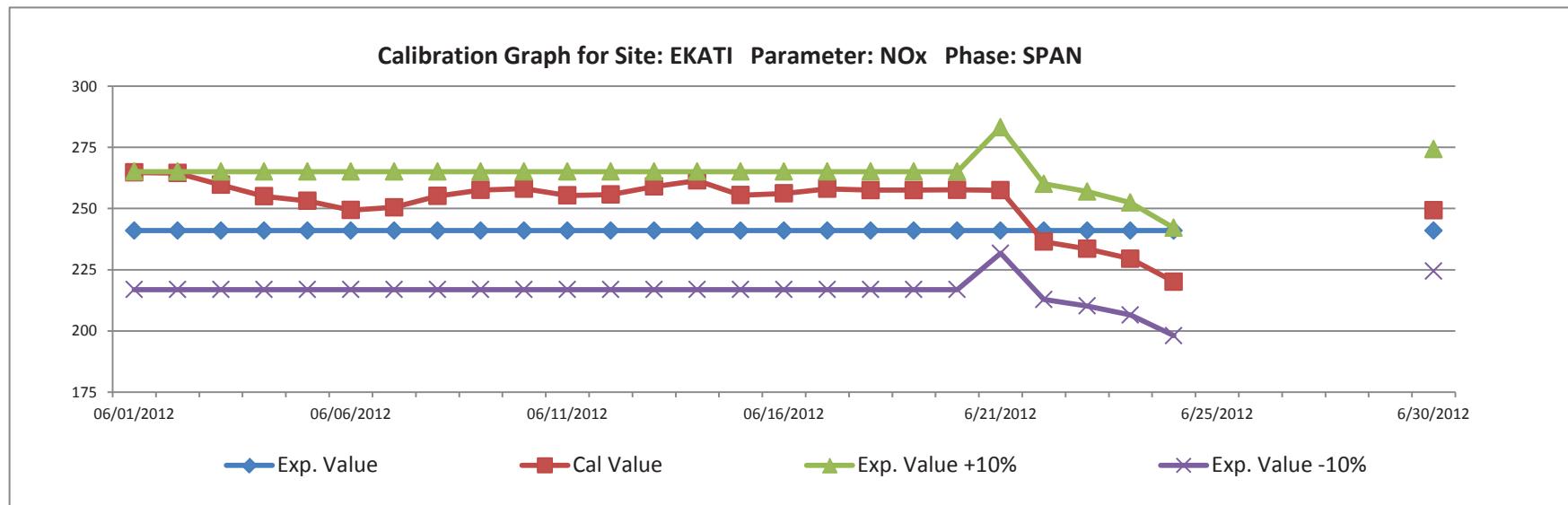
01 Hour Averages



— EKATI NOX PPB

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JOB #: 3728-12-04~06-007-QC



Particulate Matter 2.5

BHP Billiton Diamonds Inc. - EKATI

APRIL 2012

PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M₃

MST	24-HOUR																								DAILY MAX.	Avg.	RDGS.
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
DAY																											
1	-5	-2	1	-1	-2	-2	-3	-1	0	-2	-2	0	2	0	1	4	1	1	1	0	2	2	-2	-1	4	0	24
2	0	-1	-4	-5	-4	-2	-1	0	0	1	0	-1	2	3	3	2	2	2	3	3	2	-1	3	0	24		
3	-1	1	1	-2	-2	-4	-5	-3	-3	-3	-2	-2	-1	-1	-1	-1	1	0	-1	0	1	0	-2	-1	1	-1	24
4	-1	-2	0	2	0	-4	-5	0	0	-3	-2	-2	1	-1	-3	-2	-5	-2	-2	-3	2	3	-2	3	-1	24	
5	-2	0	-2	-2	1	0	0	1	0	1	5	2	0	1	-1	0	-1	0	2	2	-1	-1	-4	5	0	24	
6	-3	-2	2	2	-3	-2	-4	-5	-5	-4	-2	-1	-4	-4	-3	-1	2	1	-2	-5	-4	-2	-3	2	-2	24	
7	-1	-3	-5	-1	-1	-3	-2	-3	-4	-4	-4	-2	-2	-3	-4	-3	0	1	-2	-5	-5	-5	-1	-2	1	-2	24
8	-1	1	3	0	-3	-1	0	2	2	-1	0	3	1	-3	-5	-4	-4	-3	-5	-4	-5	-5	-5	-3	3	-1	24
9	-3	-4	-4	-4	-2	-1	0	2	-2	-4	-2	1	1	1	0	-1	1	-1	-3	-4	-4	-5	-5	2	-2	24	
10	-5	-5	-2	-3	0	1	-2	-3	-3	-1	4	3	0	1	-3	-3	1	1	2	0	4	-3	1	-2	4	-1	24
11	-3	1	1	-1	-2	-3	-5	-4	-2	-2	-1	0	-2	-2	-1	-1	-1	-3	-1	0	-1	-5	-5	1	-1	24	
12	-4	-2	1	-1	0	-1	-1	1	2	2	2	1	0	1	0	-2	-2	-1	-1	2	2	-2	-5	2	0	24	
13	-5	-3	-2	-3	-5	-5	0	1	4	7	6	X	28	3	2	0	-2	0	0	-2	0	2	-5	-5	28	1	23
14	-5	-3	-3	-2	0	-1	-4	-3	0	-1	-2	-3	-3	-1	3	3	0	-1	-2	0	-4	-5	-5	-2	3	-1	24
15	-1	-1	-3	-4	-4	-4	1	4	1	2	3	4	2	0	-1	-3	0	2	0	-2	-4	-4	-3	4	0	24	
16	-5	-3	-2	-3	-1	0	-3	-5	-3	1	1	-2	-1	1	-1	-2	-1	-2	-3	-5	-5	-5	-5	1	-2	24	
17	-5	-5	-3	-2	-2	-3	-4	-2	3	2	0	-2	-3	0	0	-2	-3	-2	-1	-1	-2	-4	-4	3	-2	24	
18	-5	-5	-4	-4	-5	-5	-4	-3	-4	-3	1	-1	-2	-4	-4	0	1	-4	-4	-1	0	-1	-4	-3	1	-2	24
19	-3	-3	-2	-2	-3	-3	-3	-2	-1	-1	1	3	-2	-3	-1	-2	-3	-1	0	-1	-2	-2	-1	-1	3	-1	24
20	-3	-3	-1	-4	-2	-2	-5	-3	-4	-5	-5	-5	-4	-4	-4	-4	-3	1	-4	-4	-3	-1	-1	-2	1	-3	24
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22	-1	-2	-5	-5	-4	-2	1	3	4	1	0	-1	-3	-3	-4	-3	0	-2	-4	-1	-2	0	-2	-5	4	-1	24
23	-5	-1	2	1	0	0	1	-2	-2	0	-2	0	1	0	0	-4	-4	-1	0	0	-3	-5	-5	2	-1	24	
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26	-5	-5	-3	-3	-5	-4	-4	-4	-5	-3	2	3	1	-3	-4	-3	-5	-4	-4	-1	-3	-4	-5	-4	3	-3	24
27	-3	-5	-5	-5	-4	-3	-1	1	-1	-2	-4	-5	-2	-2	1	1	-3	-4	-3	-2	0	-2	-4	-4	1	-2	24
28	-3	-2	0	1	-2	-4	-4	-1	-2	-5	-3	0	0	-1	-2	-3	-2	-3	-2	-3	-4	-3	-2	-3	1	-2	24
29	-4	-2	-3	-2	3	2	2	4	1	-3	-1	0	-2	-1	0	0	1	3	2	1	-1	0	1	0	4	0	24
30	-1	-2	-1	1	1	0	-3	-3	2	1	-1	-3	-1	2	0	1	1	0	0	-1	0	2	2	6	6	0	24
HOURLY MAX	0	1	3	2	3	2	4	4	7	6	4	28	3	3	4	2	3	2	2	3	3	3	6				
HOURLY AVG	-2.9	-2.3	-1.9	-2.2	-2.1	-2.1	-1.2	-1.0	-0.9	-0.4	-0.6	0.0	-0.9	-1.1	-1.4	-1.3	-1.2	-1.5	-1.4	-1.8	-1.8	-2.5	-2.8				

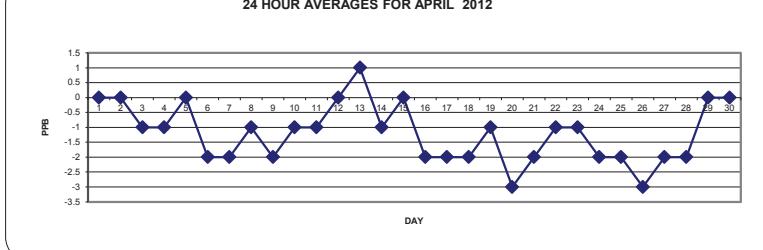
STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

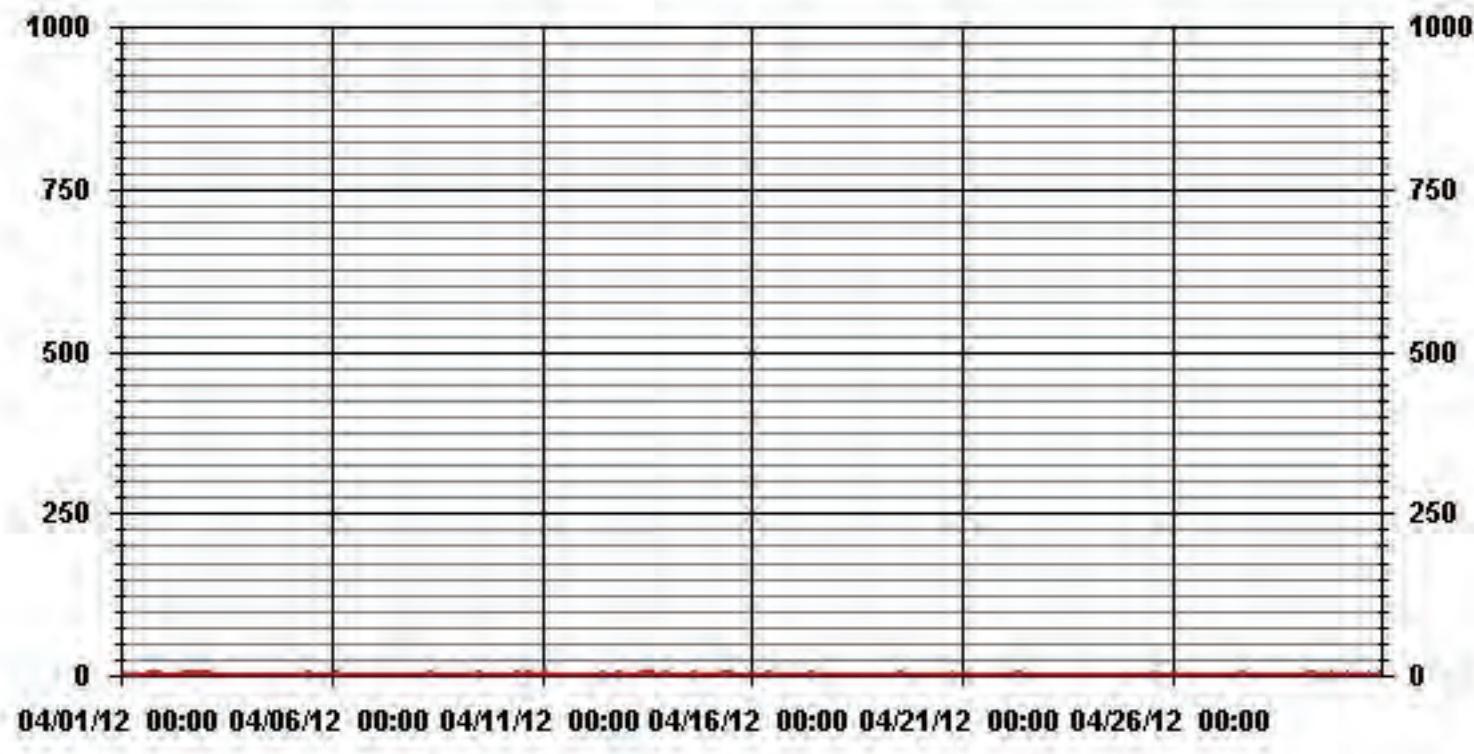
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	139		
MAXIMUM 1-HR AVERAGE:	28	ug/m ³	@ HOUR(S)
MAXIMUM 24-HR AVERAGE:	1.0	ug/m ³	ON DAY(S)
IZS CALIBRATION TIME:	0	hrs	ON DAY(S)
MONTHLY CALIBRATION TIME:	0	hrs	13
STANDARD DEVIATION:	2.56		AMD OPERATION UPTIME:
			99.9 %
			MONTHLY AVERAGE:
			-1.56 ug/m ³

24 HOUR AVERAGES FOR APRIL 2012



01 Hour Averages



— EKATI PM25 UG/M3

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JOB #: 3728-12-04~06-007-QC

BHP Billiton Diamonds Inc. - EKATI
MAY 2012
PARTICULATE MATTER (PM2.5) hourly averages in UG/M3

MST

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY 24-HOUR MAX.	DAILY 24-HOUR AVG.	RDGs.		
	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00						
DAY	1	7	2	2	3	2	3	2	2	3	0	1	3	2	3	2	-3	-5	-3	-3	-2	-2	-4	-3	7	0	24		
1	2	0	-1	-2	-2	1	0	-2	-4	-5	-5	-5	-4	-2	-1	-3	-3	-2	-2	-3	-2	-1	0	-1	1	-2	24		
2	3	-4	-4	-2	-2	-3	-2	4	3	-3	-4	-3	-2	-3	-3	-4	-4	-4	-2	0	-2	0	0	-3	-5	4	-2	24	
3	4	-5	-5	-3	-3	-2	-2	-2	-1	1	1	-1	-4	-2	0	-3	-2	-2	-2	3	4	0	-4	-4	4	-1	24		
5	5	2	2	0	1	0	-1	-2	-1	1	1	2	1	-2	-2	-1	-2	-4	-4	-2	1	1	1	-1	1	2	0	24	
6	6	1	-2	-1	0	-1	-1	-2	-2	-1	0	2	1	0	-1	1	2	-2	-4	-2	0	-1	-2	-4	2	0	24		
7	7	-4	0	0	0	-3	-4	-4	-4	-3	-1	1	-2	-3	-2	-2	-2	-3	-1	0	-3	-3	-2	-2	1	-2	24		
8	8	-3	-3	-1	0	-3	-4	-5	-5	-4	-5	-1	1	-2	-3	-2	-2	-2	-3	-1	0	-3	-3	-2	-2	1	-2	24	
9	9	-2	-4	-4	-3	-3	-4	-2	0	-2	-2	-2	-4	-4	-4	-1	1	-2	-4	-3	-2	-1	-4	-4	1	-2	24		
10	10	-2	-3	-3	-2	-1	-2	-3	-2	1	-1	-4	-2	-2	-4	-2	-1	-1	-4	-3	0	-1	-2	-2	1	-2	24		
11	11	3	3	-1	0	1	-2	-4	-5	-4	-1	-3	-4	-4	-2	-2	-3	-3	-4	-4	-2	0	-3	3	-2	24			
12	12	-3	-3	-3	-4	-4	-3	-4	-4	0	-1	-4	-3	-4	-4	-3	-2	-1	0	-2	-4	-2	-1	-4	0	-2	24		
13	13	-4	-3	-3	-3	-4	-5	-5	-3	-2	-3	-1	1	-2	-3	-4	-3	-1	-3	-4	-4	-2	-1	-3	1	-2	24		
14	14	-1	-4	-1	-1	-3	-4	-4	1	-1	-3	-3	-3	-2	-1	-1	-3	-2	-2	-3	-3	-4	-4	-1	-2	1	-2	24	
15	15	-2	-2	-4	-5	-5	-5	-4	-1	-1	-3	-4	-4	-4	-2	-2	-1	1	-2	-1	-2	-4	-3	-3	1	-2	24		
16	16	-2	-3	-4	1	2	-1	-4	-4	-2	-2	-2	-3	-3	-2	-4	-4	-3	-3	-4	-5	-4	-2	-3	2	-2	24		
17	17	-3	-4	-2	-1	-1	-1	-3	-4	-4	-4	0	0	-4	-2	-1	-4	-4	-4	-2	-1	-1	0	0	-2	24			
18	18	0	-3	-5	-5	-4	-5	-5	-3	-2	-1	-2	-4	-5	-3	-4	-4	-4	-4	-3	0	0	-3	-4	0	-3	24		
19	19	-3	0	-3	-4	-2	-1	1	-1	1	0	-1	-3	-2	0	-3	-4	-4	-4	-2	-2	-3	-3	-1	0	1	-1	24	
20	20	-2	-1	-1	-3	-4	-4	-3	-1	0	-1	-4	-4	-3	-4	-3	0	-1	-3	-4	-2	-1	-2	-2	-3	0	-2	24	
21	21	-3	-2	0	1	2	0	-2	-3	0	0	-1	-1	-1	-3	-3	-1	-2	-2	0	-1	2	0	0	3	3	0	24	
22	22	0	-3	-3	-4	-4	-2	-2	-2	-1	-1	0	-4	-4	-4	0	3	1	-1	4	5	2	3	0	5	0	24		
23	23	0	-1	-3	-3	-1	2	3	1	-1	-1	-1	-1	-1	-1	-3	-4	-2	0	0	-2	-3	-2	-3	-3	3	-1	24	
24	24	-2	-3	-3	1	1	0	-1	-2	-1	-1	-2	-2	0	-2	-3	0	4	2	-1	0	2	4	4	6	6	0	24	
25	25	9	7	-1	-4	-1	0	-2	-4	-4	-4	-3	1	0	-3	-4	-3	-2	-3	1	1	-2	1	6	7	9	0	24	
26	26	7	7	5	7	7	6	6	5	2	1	5	4	2	3	3	-1	-3	-3	-4	-5	-3	1	2	3	7	2	24	
27	27	0	-2	0	-1	-2	-1	-2	-1	4	4	4	0	-2	0	1	4	8	4	1	2	-2	-1	1	-2	0	8	0	24
28	28	-3	-5	-3	0	2	3	4	4	7	9	7	2	0	3	3	2	0	0	5	8	6	5	6	9	2	24		
29	29	8	7	5	2	1	4	6	5	4	3	1	1	-1	-1	0	2	2	0	6	10	3	1	5	8	10	3	24	
30	30	5	4	3	5	6	4	8	10	5	2	X	X	26	3	4	5	4	2	4	6	2	1	2	0	26	5	22	
31	31	-1	-2	-2	-3	-2	-1	-4	-3	-2	0	2	2	-1	-3	1	3	2	2	2	-3	-4	-4	-4	3	-1	24		
HOURLY MAX	9	7	5	7	7	6	8	10	7	9	7	4	26	3	4	8	4	2	6	10	6	5	6	8					
HOURLY AVG	-0.2	-1.0	-1.4	-1.0	-0.9	-1.1	-1.1	-0.9	-0.5	-0.7	-1.1	-1.1	-0.9	-1.6	-1.5	-1.0	-1.2	-1.7	-1.3	-1.0	-0.9	-0.9	-0.8	-0.6					

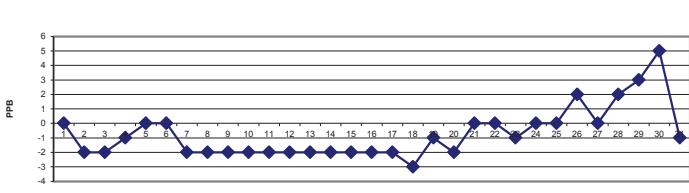
STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

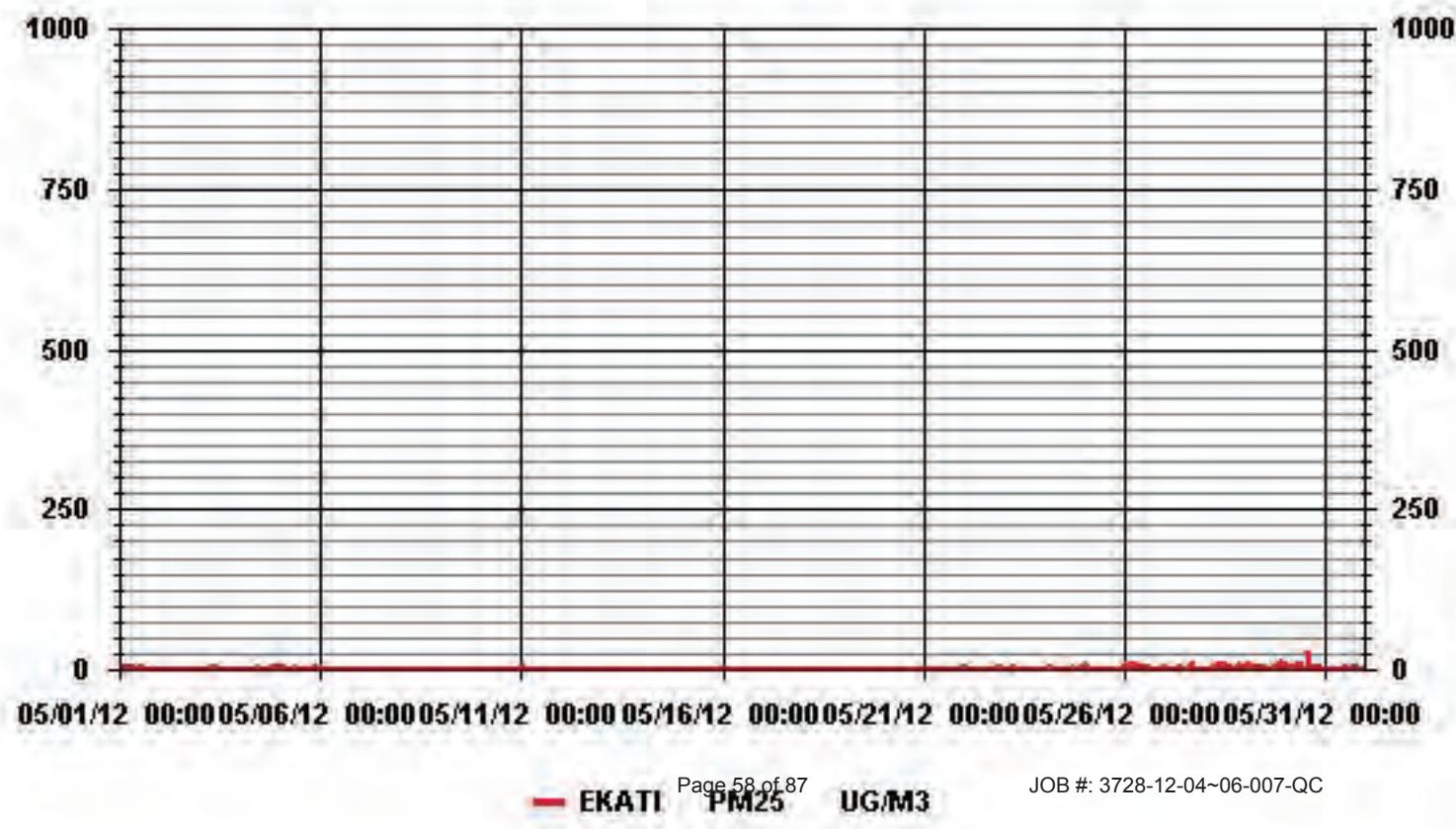
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	173		
MAXIMUM 1-HR AVERAGE:	26	ug/m ³	@ HOUR(S)
MAXIMUM 24-HR AVERAGE:	5.0	ug/m ³	ON DAY(S)
			30
ON DAY(S)			
Izs CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:
			99.7 %
STANDARD DEVIATION:	3.03		MONTHLY AVERAGE:
			-1.02 UG/M3

24 HOUR AVERAGES FOR MAY 2012



01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

JUNE 2012

PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M₃

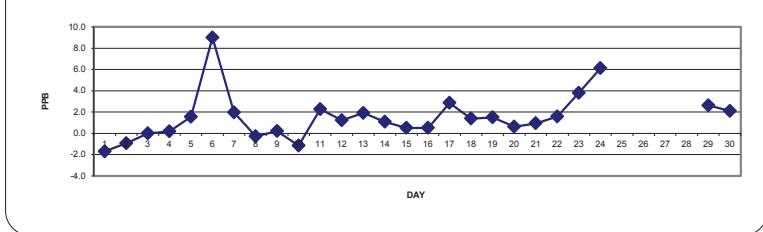
MST

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX. 24-HOUR AVG.	DAILY MAX. 24-HOUR RDGS.		
DAY																												
1	-4	-4	-4	-4	0	2	-2	-1	1	2	4	3	1	-1	-3	-3	-4	-4	-1	-3	-4	-4	-4	-4	4	-1.7	24	
2	-1	-1	1	-4	-4	-2	0	3	3	-1	-2	-2	N	N	1	1	-2	-4	-3	1	-1	-2	-1	-1	3	-1.0	22	
3	1	4	7	5	1	2	0	0	-1	0	3	2	-4	1	1	-3	-3	-3	-3	-2	0	-1	-3	-4	7	0.0	24	
4	-4	0	0	-4	-4	-4	-1	0	2	6	6	1	0	0	0	0	2	4	4	2	0	-2	-4	0	6	0.2	24	
5	3	1	-4	-4	-2	0	1	2	4	2	-1	1	2	0	0	0	2	5	2	0	4	5	5	9	9	1.5	24	
6	13	9	10	20	13	10	7	8	8	7	8	10	8	5	7	9	10	10	9	8	10	9	5	3	20	9.0	24	
7	2	2	3	1	1	-1	-1	2	4	5	5	4	3	3	5	7	1	-1	0	-1	-2	0	3	2	7	2.0	24	
8	-2	-4	-4	-4	-2	-1	0	1	2	1	1	1	4	1	-3	-3	-1	-1	0	2	0	0	1	4	4	-0.3	24	
9	4	4	4	5	3	-3	-4	-2	1	2	2	0	-1	-1	-4	-2	1	0	-1	1	2	-1	-4	5	0.2	24		
10	-4	-4	-1	2	1	1	-1	-2	-2	0	-2	-3	0	2	4	0	0	-1	-3	-3	-4	-2	-2	-4	4	-1.2	24	
11	-4	-4	-1	1	0	-1	0	0	2	1	-2	N	N	11	10	8	3	6	11	12	3	-2	-1	-3	12	2.3	22	
12	1	1	2	4	3	2	3	4	4	0	0	0	0	0	7	6	0	2	1	1	0	-4	-3	-1	7	1.2	24	
13	1	2	2	5	5	0	1	4	5	6	3	0	2	3	5	3	-2	0	1	2	1	-2	-2	1	6	1.9	24	
14	2	1	2	0	-4	-1	3	2	4	2	2	1	-1	1	1	1	0	1	1	2	6	1	-1	0	6	1.1	24	
15	0	-2	-4	-4	-1	3	3	-3	-4	0	3	7	8	2	-1	0	2	2	0	2	0	-1	0	0	8	0.5	24	
16	4	0	-3	-2	-3	-4	-2	2	3	1	-1	-1	1	1	0	-1	2	5	3	1	3	1	0	2	5	0.5	24	
17	3	3	2	3	5	7	7	2	3	N	N	3	4	4	1	1	-2	N	N	1	3	4	1	2	7	2.9	20	
18	5	3	5	5	3	4	2	-1	-3	-3	-2	-1	1	0	-1	1	3	1	1	1	3	2	0	4	5	1.4	24	
19	3	2	0	0	2	5	6	3	5	5	2	2	3	1	-1	0	-1	0	1	1	-2	-2	1	0	6	1.5	24	
20	-3	-2	-4	-4	-2	1	2	1	6	7	3	2	2	-1	-1	0	1	M	M	M	1	2	2	0	7	0.6	21	
21	1	2	0	-2	-4	-4	-1	1	3	5	C	C	C	C	C	C	C	C	C	0	3	4	3	3	5	0.9	24	
22	4	4	2	5	4	0	-1	1	2	M	M	-1	-2	-2	-1	5	5	1	0	0	1	2	4	5	1.6	21		
23	4	1	-4	-3	0	-1	2	5	8	6	3	3	8	9	6	4	3	5	8	7	4	6	5	2	9	3.8	24	
24	1	4	10	15	8	7	4	5	11	17	2	4	6	5	9	11	5	2	5	6	2	0	2	N	17	6.1	23	
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	4	2.6	8
30	4	4	1	1	3	0	-1	5	3	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	5	2.1	10	
HOURLY MAX	13	9	10	20	13	10	7	8	11	17	8	10	8	11	10	11	10	10	11	12	10	9	5	9				
HOURLY AVG	1.4	1.0	0.9	1.5	1.0	0.9	1.1	1.7	3.0	3.1	1.8	1.8	2.2	2.3	1.8	1.3	1.0	1.6	1.8	1.7	1.2	0.8	0.5	0.8				

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

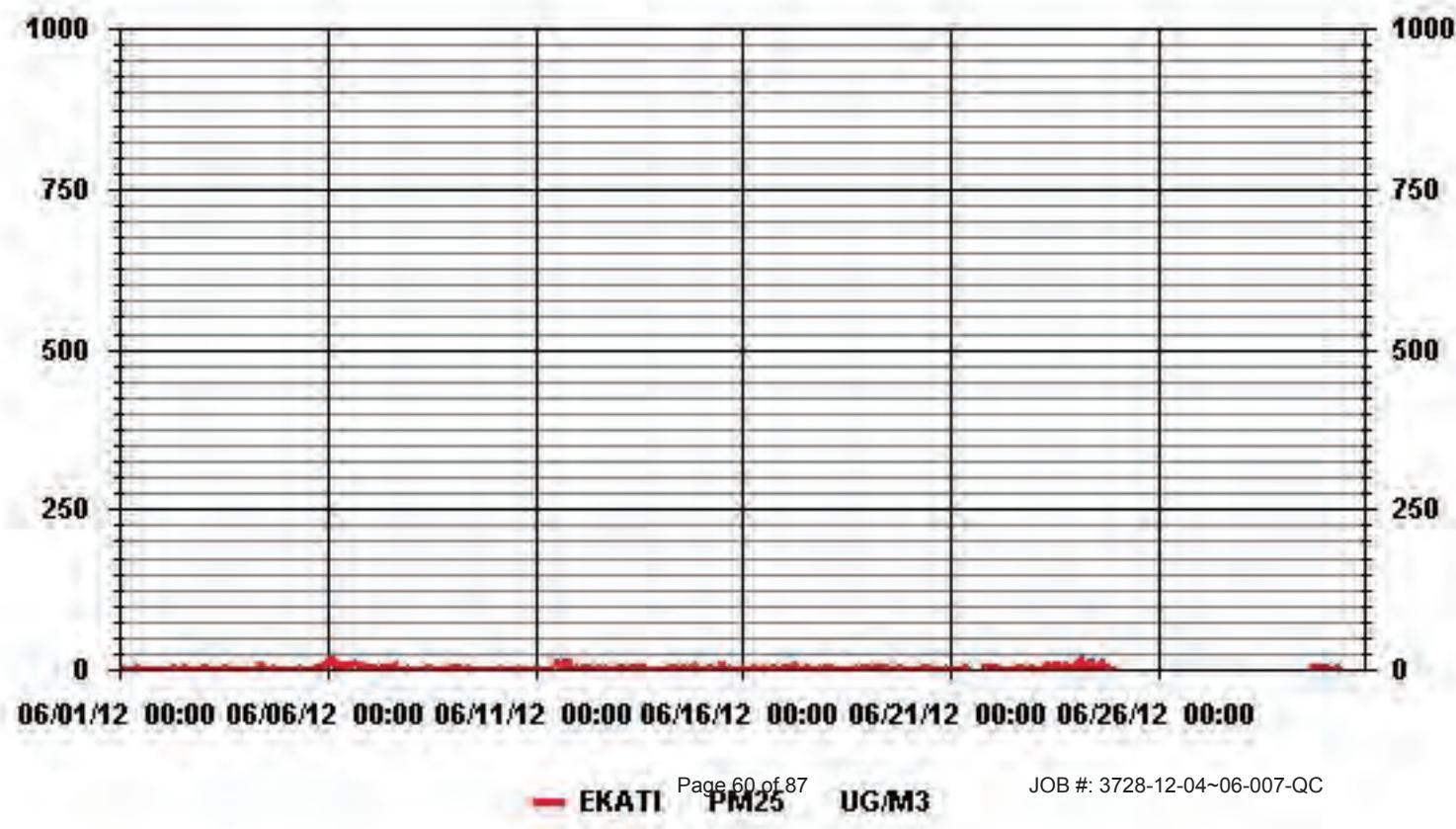
24 HOUR AVERAGES FOR JUNE 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	336
MAXIMUM 1-HR AVERAGE:	20 ug/m ³
MAXIMUM 24-HR AVERAGE:	9.0 ug/m ³
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	9 HRS
STANDARD DEVIATION:	3.55
OPERATIONAL TIME:	579 HRS
AMD OPERATION UPTIME:	80.4 %
MONTHLY AVERAGE:	1.49 UG/M ³
ON DAY(S)	6
ON DAY(S)	6

01 Hour Averages



— EKATI PM25 UG/M3

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JOB #: 3728-12-04~06-007-QC

Total Suspended Particulate

BHP Billiton Diamonds Inc. - EKATI

APRIL 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

MST

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX. 24-HOUR AVG.	DAILY MAX. 24-HOUR RDGS.		
DAY																												
1	5	6	7	6	10	13	13	9	7	11	21	52	27	28	12	15	20	12	10	6	4	4	2	1	52	12.5	24	
2	1	0	0	4	3	2	1	2	4	7	8	7	8	8	5	5	3	1	6	6	3	6	5	3	8	4.1	24	
3	7	5	5	7	7	7	6	8	6	8	10	15	13	12	17	27	27	33	31	18	13	18	1	1	33	12.6	24	
4	5	6	2	2	5	3	3	5	8	8	5	4	10	8	3	4	5	3	2	2	3	2	4	4	10	4.4	24	
5	3	7	22	14	9	8	7	7	6	8	9	9	10	11	6	5	9	8	6	4	3	3	5	3	22	7.6	24	
6	6	6	-1	1	3	0	1	3	2	6	9	9	27	16	20	14	13	24	12	9	8	11	9	4	27	8.8	24	
7	1	0	2	3	4	3	0	2	5	8	5	4	7	8	11	10	8	5	3	0	0	0	3	6	11	4.1	24	
8	9	10	20	14	12	7	5	6	5	5	9	9	5	2	3	5	2	4	4	4	2	-1	3	2	20	6.1	24	
9	3	6	3	2	4	4	3	4	3	3	10	12	5	4	9	8	5	3	5	5	5	4	1	0	12	4.6	24	
10	-2	1	1	-1	4	5	4	4	5	6	3	1	2	5	4	5	3	1	7	7	7	7	7	10	10	4.0	24	
11	8	6	6	7	6	2	0	2	1	3	4	4	4	2	2	5	6	3	3	5	4	1	-2	-1	8	3.4	24	
12	5	7	6	5	5	8	8	6	6	10	13	7	5	6	1	-2	-1	3	3	0	5	7	1	-2	13	4.7	24	
13	-1	-1	1	5	4	6	5	4	2	35	13	13	13	10	6	7	8	7	8	10	7	4	4	2	35	7.2	24	
14	1	4	5	5	6	4	6	4	4	8	9	12	12	11	9	9	6	4	9	8	1	0	3	5	12	6.0	24	
15	3	3	4	3	59	5	8	8	6	8	22	6	7	8	6	6	8	11	8	4	5	8	7	5	59	9.1	24	
16	4	4	5	8	10	8	2	2	9	22	11	9	6	5	2	0	1	3	4	5	4	2	0	-1	22	5.2	24	
17	1	1	2	-1	3	2	3	6	7	3	1	1	1	4	4	2	2	6	6	4	5	5	3	7	2.9	24		
18	2	-1	0	2	3	2	0	2	4	10	64	1	3	6	4	3	0	-2	2	3	3	5	6	63	64	7.7	24	
19	12	8	5	3	1	3	5	15	62	26	32	21	7	8	6	1	3	4	2	5	10	9	6	10	62	11.0	24	
20	13	18	12	10	7	5	7	9	25	14	18	8	5	2	0	-1	2	1	3	5	5	4	9	9	8	25	8.0	24
21	9	3	0	-1	1	5	8	8	7	5	4	19	7	5	3	2	3	5	8	9	7	22	10	10	22	6.6	24	
22	7	5	6	9	19	28	20	114	96	70	90	77	78	26	13	11	12	12	9	49	39	118	62	118	40.6	24		
23	17	10	9	10	12	20	11	10	11	15	9	23	34	25	55	19	61	44	13	12	62	57	55	42	62	26.5	24	
24	13	22	44	30	10	17	40	36	52	29	27	62	66	80	63	37	38	72	52	28	45	17	10	16	80	37.8	24	
25	13	23	14	23	13	12	32	45	37	39	39	155	89	130	51	66	66	39	17	12	26	24	36	14	155	42.3	24	
26	11	9	9	6	5	8	16	25	61	139	123	67	95	58	81	26	16	19	22	6	8	12	29	13	139	36.0	24	
27	80	21	32	26	29	61	114	79	74	150	75	36	49	17	15	13	17	19	1	4	5	4	4	20	150	39.4	24	
28	8	3	5	5	0	4	3	0	0	1	3	5	2	-3	-2	4	3	1	1	-1	3	3	0	1	8	2.0	24	
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30	20	37	33	10	7	6	6	6	10	9	6	11	6	7	9	11	13	11	9	8	9	21	25	37	12.5	24		
HOURLY MAX	80	37	44	30	59	61	114	79	114	150	123	155	95	130	81	66	66	72	52	28	62	57	118	63				
HOURLY AVG	8.9	7.8	8.8	7.4	8.5	8.9	11.9	11.5	18.8	24.0	22.3	23.5	20.9	19.3	14.8	11.0	12.2	12.1	9.3	7.0	11.3	9.8	12.9	13.0				

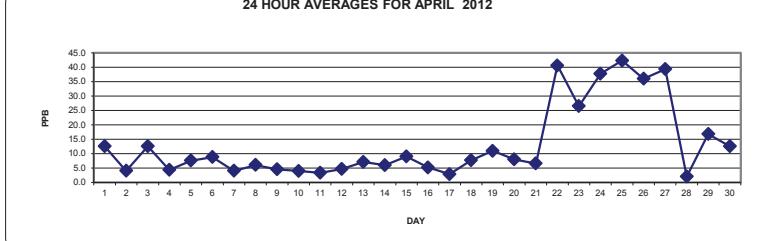
STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

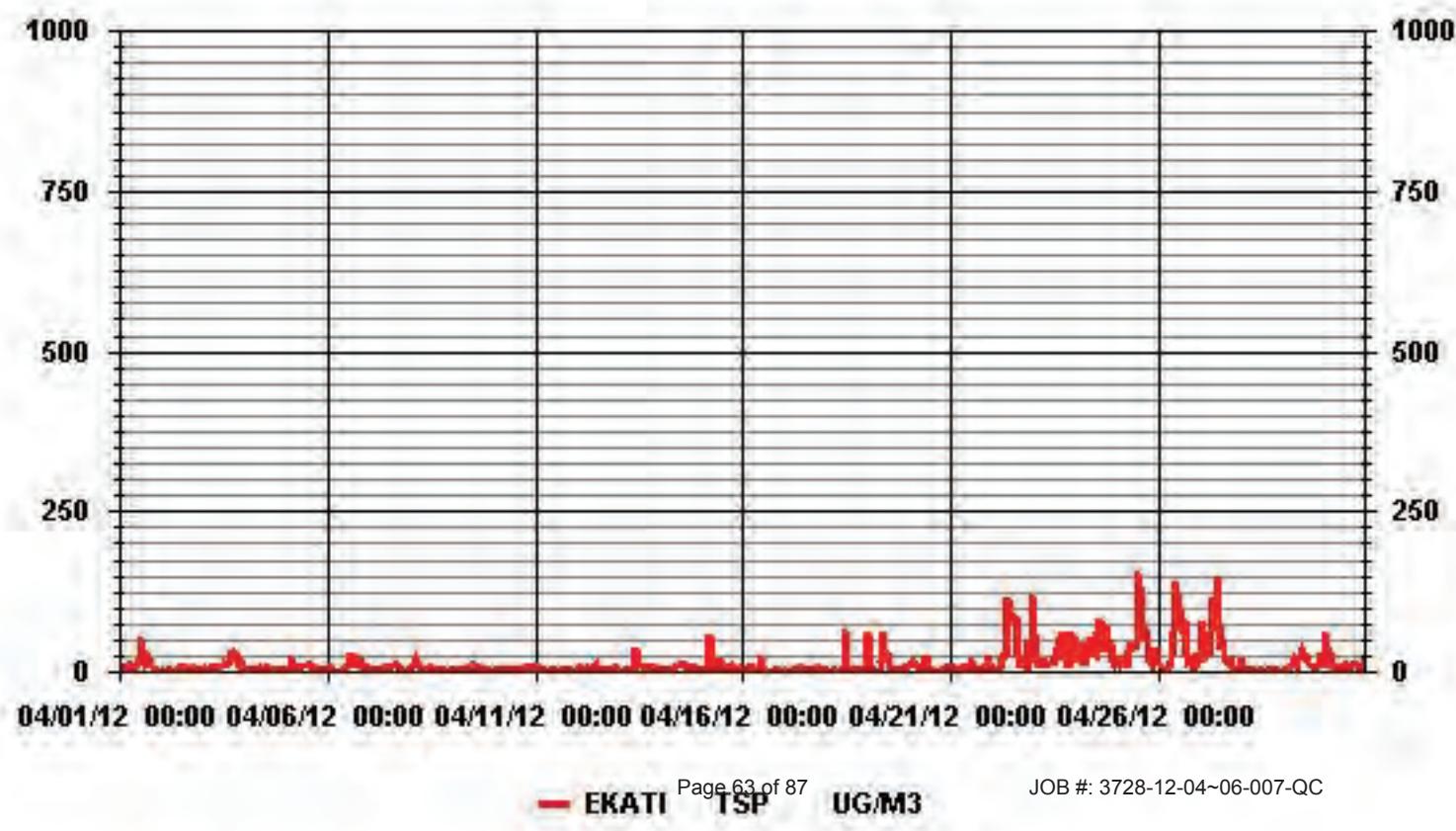
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	676
MAXIMUM 1-HR AVERAGE:	155 ug/m ³
MAXIMUM 24-HR AVERAGE:	42.3 ug/m ³
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	0 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	20.31
MONTHLY AVERAGE:	13.15 ug/m ³

24 HOUR AVERAGES FOR APRIL 2012



01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

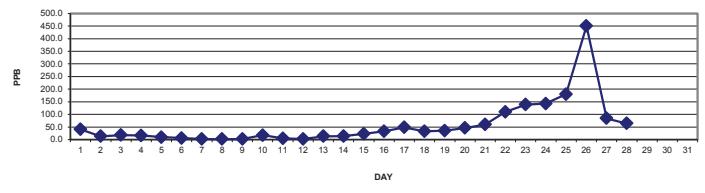
MAY 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	32	70	43	126	145	143	160	34	42	26	41	12	12	11	7	6	4	2	3	6	16	9	26	12	160	41.2	24	
2	18	18	14	16	5	7	7	2	2	20	36	19	7	9	16	5	4	9	12	18	31	22	18	36	13.2	24		
3	13	20	24	18	14	20	12	40	65	53	49	20	14	12	9	4	3	3	6	4	0	5	4	65	17.7	24		
4	4	7	24	33	21	28	47	23	25	12	12	10	11	37	8	11	12	13	12	6	3	7	47	16.3	24			
5	8	7	4	4	6	16	5	7	7	6	8	11	10	7	8	10	9	16	14	9	22	12	13	12	22	9.6	24	
6	8	5	4	3	1	2	6	4	-2	0	5	9	7	5	18	16	8	8	6	6	8	8	7	6	18	6.2	24	
7	7	8	10	7	5	4	2	2	3	3	4	4	1	1	-1	-1	0	1	1	0	2	2	0	1	10	2.8	24	
8	0	1	5	-1	-3	6	8	7	7	5	3	4	4	0	-2	-2	1	0	0	-1	-3	1	4	2	8	1.9	24	
9	-1	-1	3	3	4	4	1	-1	-2	1	4	4	4	0	0	4	4	1	1	4	7	5	5	7	2.4	24		
10	8	4	5	6	5	8	7	6	8	5	4	7	6	4	5	7	9	9	9	11	51	159	53	20	159	17.3	24	
11	20	13	11	9	9	7	4	3	4	4	1	2	7	3	-1	-1	0	2	2	1	0	0	3	5	20	4.5	24	
12	3	4	5	4	7	4	3	4	6	5	4	5	2	0	-4	-4	-1	-2	2	4	2	-1	0	1	7	2.2	24	
13	0	3	3	1	3	5	2	6	20	12	20	24	21	32	30	23	15	15	22	8	10	11	26	8	32	13.3	24	
14	5	6	7	3	3	4	4	5	7	6	2	5	5	9	5	6	25	56	23	44	23	34	29	56	13.4	24		
15	15	18	12	15	24	68	57	19	35	8	10	12	20	27	22	18	4	6	16	6	22	38	69	69	22.8	24		
16	21	3	6	12	10	24	29	11	32	42	54	45	38	31	41	51	72	69	56	16	19	57	44	13	72	33.2	24	
17	21	31	57	55	30	43	85	20	63	33	78	64	31	46	58	54	52	72	58	33	37	54	45	34	85	48.1	24	
18	27	32	31	39	12	8	26	36	65	34	54	45	52	68	64	37	29	14	13	31	20	19	14	68	32.6	24		
19	9	5	4	5	7	6	5	6	8	29	25	34	38	44	47	27	31	41	22	38	83	131	121	82	131	35.3	24	
20	75	165	30	14	56	66	29	28	60	64	47	46	28	26	29	17	36	59	23	25	21	59	48	51	165	45.9	24	
21	10	34	39	22	18	12	27	40	94	59	131	29	53	14	82	12	47	129	97	44	65	108	204	74	204	60.2	24	
22	32	139	52	130	63	98	106	61	153	80	71	128	75	60	86	34	86	89	111	86	149	391	176	181	391	109.9	24	
23	122	241	165	318	135	296	544	89	221	91	150	21	33	86	125	118	98	65	25	10	26	65	114	163	544	138.4	24	
24	80	97	74	45	35	40	60	15	48	53	43	60	30	47	85	49	35	127	154	77	63	248	871	990	990	142.8	24	
25	992	432	315	68	61	63	26	52	56	24	48	9	167	14	74	110	136	90	61	19	104	340	524	526	992	179.6	24	
26	488	233	380	743	600	593	593	593	593	593	590	595	593	594	594	594	586	597	82	31	69	184	192	94	743	450.2	24	
27	76	66	31	80	61	87	76	70	100	90	70	75	105	136	135	78	85	139	131	48	100	82	45	56	139	84.3	24	
28	34	94	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	94	64.0	2	
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
31	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
HOURLY MAX	992	432	380	743	600	593	593	593	593	590	595	593	594	594	594	586	597	154	86	149	391	871	990					
HOURLY AVG	76.0	62.7	50.3	65.9	49.5	61.6	71.5	43.8	63.7	49.6	57.3	48.8	51.3	48.0	58.1	47.8	50.8	59.1	36.6	20.2	35.7	75.1	97.9	91.7				

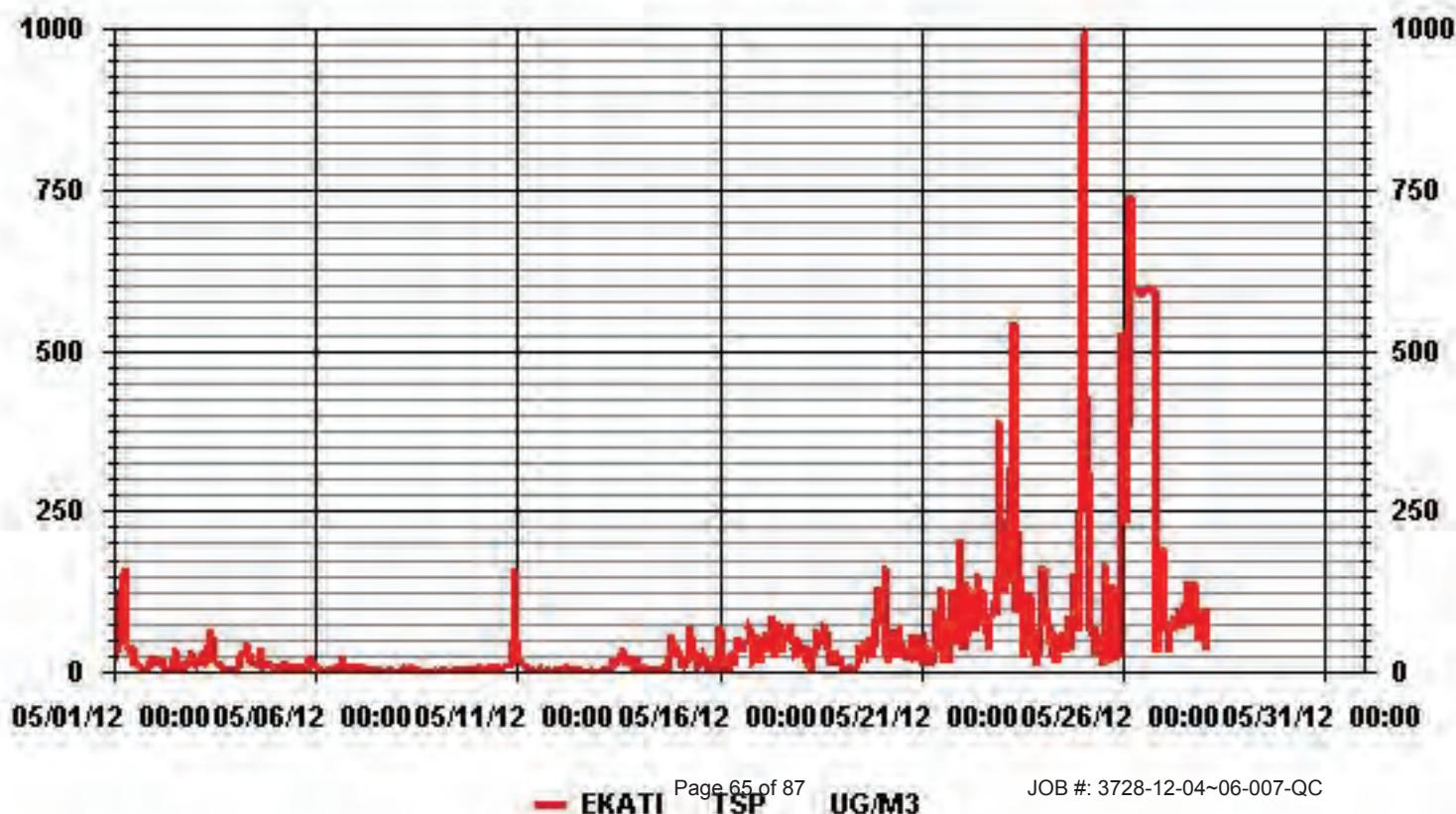
24 HOUR AVERAGES FOR MAY 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	613
MAXIMUM 1-HR AVERAGE:	992 ug/m ³
MAXIMUM 24-HR AVERAGE:	450.2 ug/m ³
Izs Calibration Time:	0 HRS
Operational Time:	650 HRS
Monthly Calibration Time:	0 HRS
AMD Operation Uptime:	87.4 %
Standard Deviation:	123.00
Monthly Average:	57.24 ug/m ³

01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

JUNE 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

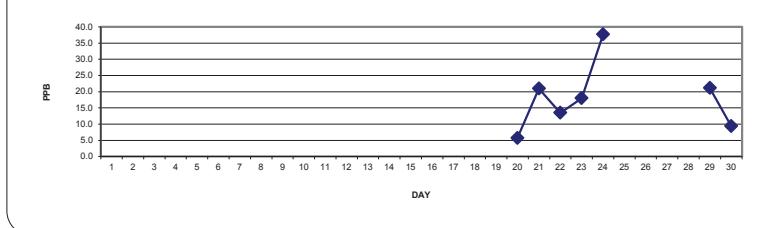
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
7	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
9	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
12	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
13	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
14	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
15	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
16	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
17	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
19	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
20	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	2	6	8	7	8	5.8	4				
21	6	17	12	6	0	6	12	34	42	26	14	8	15	47	C	C	82	82	14	11	5	6	8	8	82	21.0	24	
22	8	6	4	15	8	8	10	9	73	12	12	9	16	13	12	12	15	6	5	5	8	12	19	27	73	13.5	24	
23	18	18	17	4	3	5	29	16	44	17	30	22	39	20	23	11	23	27	23	10	7	8	10	8	44	18.0	24	
24	15	19	38	19	20	4	7	12	39	119	73	55	82	50	52	107	38	53	7	5	3	8	42	N	119	37.7	23	
25	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
26	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
27	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
28	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	24	24	34	41	17	11	13	13	11	41	21.2	10
30	19	15	11	6	6	9	7	4	6	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	19	9.4	10	
HOURLY MAX	19	19	38	19	20	9	29	34	73	119	73	55	82	50	52	107	82	82	41	17	11	13	42	27				
HOURLY AVG	13.2	15.0	16.4	10.0	7.4	6.4	13.0	15.0	40.8	37.0	32.3	23.5	38.0	32.5	27.8	38.5	36.4	40.4	18.0	9.6	6.0	8.8	16.7	12.2				

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

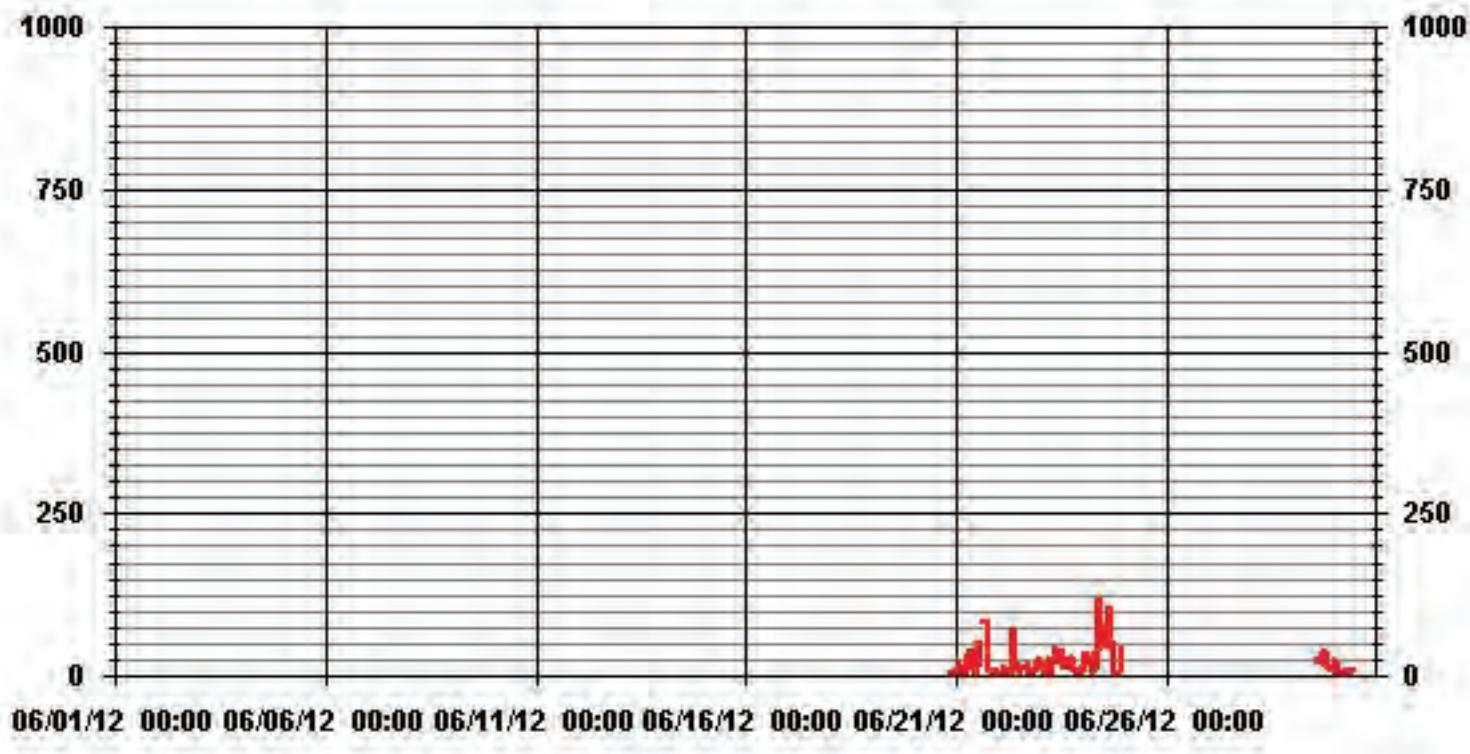
24 HOUR AVERAGES FOR JUNE 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	116		
MAXIMUM 1-HR AVERAGE:	119	ug/m ³	@ HOUR(S)
MAXIMUM 24-HR AVERAGE:	37.7	ug/m ³	ON DAY(S)
IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:
MONTHLY CALIBRATION TIME:	2	HRS	AMD OPERATION UPTIME:
STANDARD DEVIATION:	21.39		MONTHLY AVERAGE:
			20.62 ug/m ³

01 Hour Averages



— EKATI TSP UG/M3

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JOB #: 3728-12-04~06-007-QC

Calibration Reports

Sulphur Dioxide

SO2 Calibration Report
Station Information

Calibration Date	June 20, 2012	Previous Calibration	March 24, 2012
Company	BHP Billiton Diamonds Inc.		
Plant / Location	EKATI Mine		
Start Time (MST)	14:30	End Time (MST)	16:30
Reason:	AS FOUND		
Barometric Pressure	28.14 inHg	Station Temperature	30.4 Deg C
Cal Gas	52.3 ppm	Gas Cyl. #	LL85389 Cal Gas Expiry date August 5, 2012
DAS Output Voltage	0-5 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	1232	Method:	Fluorescent
Converter Make / Model:	NA	S/N :	NA		
Calibrator Make / Model:	Environics 6100	S/N :	5212	Method:	Dilution
DAS Make / Model:	Envidas/ADAM 5000	S/N :	NA		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Bios DC-2	S/N :	1193		

Analyzer Settings

Concentration Range	Before Calibration			After Calibration		
	631	ccm	38.8	Deg C	631	ppb
Sample Flow / Box Temp	575		2850(91.7%)		575	ccm
HVPS / Lamp Setting						38.7
PMT / RxCell Temp	8.3	Deg C	50	Deg C	8.3	Deg C
Converter / IZS Temp	na	Deg C	40	Deg C	na	Deg C
Offset / Slope	45.9		1.028		45.9	40.0
						Deg C
						1.028

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	2	0.0000
4961	39.2	410	418	0.9809
			Sum of Least Squares	
			New Correction Factor	0.9809

Before Calibration

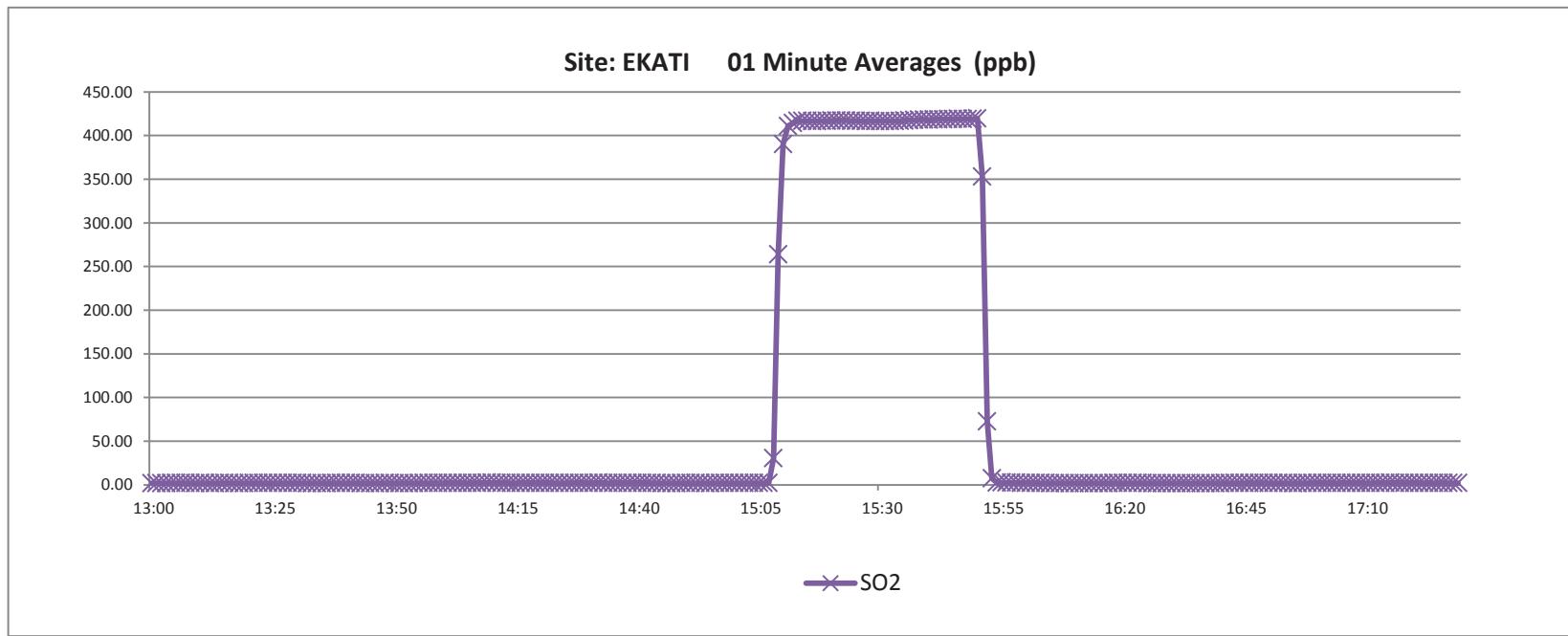
Auto Zero	0.0	After Calibration	0.0
Auto Span	328.0		328.0
Sample Lines Connected	yes		

Percent Change

Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	0.9809
Percent Change:	1.9%

Notes:

Calibration Performed by: Limin Li



SO₂ Calibration Report

Station Information

Calibration Date	June 21, 2012	Previous Calibration	March 24, 2012
Dominion Diamonds Ekati Corporation.			
Plant / Location	EKATI MINE		
Start Time (MST)	6:40	End Time (MST)	13:00
Reason:	Quarterly calibration		
Barometric Pressure	28.33 inHg	Station Temperature	26.6 Deg C
Cal Gas	52.3 ppm	Gas Cyl. #	LL85389 Cal Gas Expiry date
DAS Output Voltage	0-5 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	1232	Method:	Fluorescent
Converter Make / Model:	NA	S/N :	NA		
Calibrator Make / Model:	eEnvirronics 6100	S/N :	5212	Method:	Dilution
DAS Make / Model:	Envidas/ADAM 5000	S/N :	NA		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Bios DC-2	S/N :	1193		

Analyzer Settings

Concentration Range	Before Calibration			After Calibration		
	0 - 500	ppb		0 - 500	ppb	
Sample Flow / Box Temp	638 ccm	37.4 Deg C		633 ccm	41 Deg C	
HVPS / Lamp Setting	575	2858(91.9%)		575	2850(91.7%)	
PMT / RxCell Temp	8.3 Deg C	50 Deg C		8.3 Deg C	50 Deg C	
Converter / IZS Temp	na Deg C	40 Deg C		na Deg C	40.0 Deg C	
Offset / Slope	45.9	1.028		48.5	1.008	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	Rebuilt pump
4961	39.2	410	410	1.0000
4980	19.6	205	202	1.0150
4990	9.8	103	101	1.0150
5000	0	0	0	Rebuilt pump
Sum of Least Squares			1.0036	
New Correction Factor			1.0000	

IZS Calibration Data

Auto Zero	Before Calibration		After Calibration	
	0.0	328.0	0.0	328.0
Auto Span				Yes

Percent Change

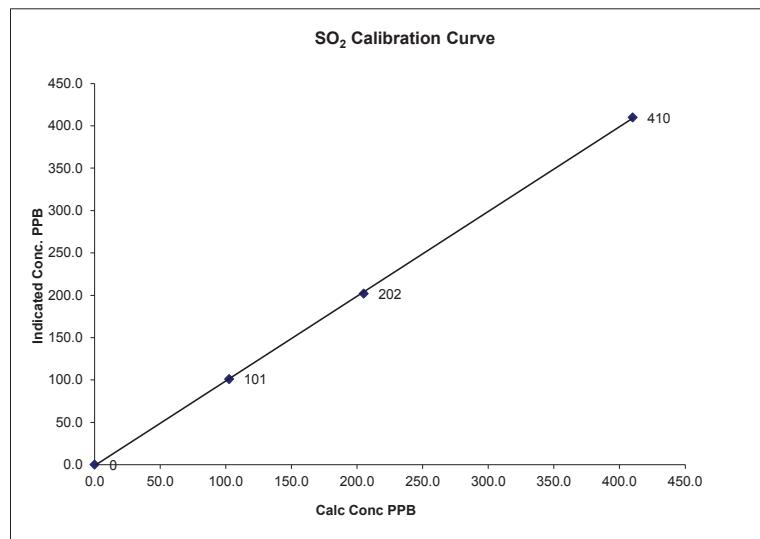
Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	0.0%

Notes: Rebuilt pump
Renewed charcoal

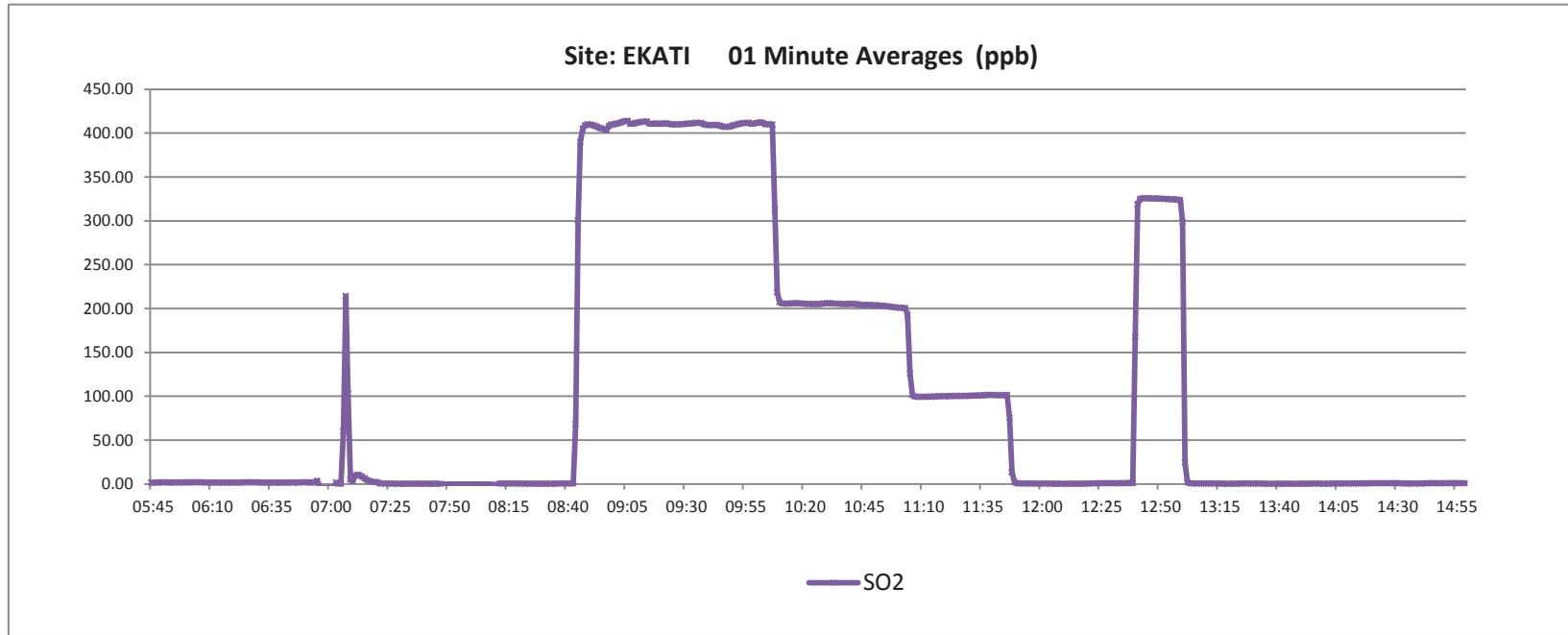
Calibration Performed by: Limin Li

SO₂ Calibration Curve

Calibration Date	Dominion Diamonds Ekati Corporation.			
Plant / Location	EKATI MINE			
Start Time (MST)	6:40	End Time (MST)	13:00	
Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	
ppb	ppb		(≥ 0.995) (0.85 to 1.15)	
0	0	Rebuilt pump	Slope Intercept	(± 3% F.S.)
103	101	1.0150		
205	202	1.0150		
410	410	1.0000		



Notes:



Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	June 20, 2012	Previous Calibration	March 24, 2012
Company	BHP Billiton Diamonds Inc.	Plant/Location	EKATI Mine
Start Time (MST)	14:30	End Time (MST)	16:30
Reason:			
Barometric Pressure	28.14 inHg	Station Temperature	30 Deg C
Cal Gas Concentration	NOx 51.3 ppm	NO 51 ppm	MFCF 0
Cal Gas Cylinder #	LL85389	Cal Gas Expiry date	August 5, 2012
DAS Output Voltage	0-5 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	1375	Method:	Chemiluminescent
Calibrator Make / Model:	Environics 6100	S/N:	5212		
DAS Make / Model:	Envidas/ADAM 5000	S/N :	NA		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Bios DC-2	S/N :	1193		

Analyzer Settings

Concentration Range	Before Calibration				After Calibration			
	486	ccm	314.4	Deg C	486	ccm	315	Deg C
Sample Flow/Conv. Temp	78	ccm	4.4	"Hg-A	78	ccm	4.4	"Hg-A
Ozone Flow / Vacuum	-716	Volts	2.1	MV	-716	Volts	2.1	MV
HVPS / A ZERO	50.0	Deg C	6.7	Deg C	50.0	Deg C	6.7	Deg C
Rx/ Temp / PMT Temp	35.5	Deg C	50.1	Deg C	35.5	Deg C	50	Deg C
Box Temp / IZS Temp	-1.6	NOx	-2.8	NO	-1.6	NOx	-2.8	NO
Offset	0.962	NOx	0.955	NO	0.962	NOx	0.955	NO
Slope		NO2	0.996			NO2	0.996	
NO ₂ COEF / Conv Efficacy								

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
5000	0.0	0	0	0	0	2	2	0	0	0
4961	39.2	0	402	400	0	401	396	5	1.0080	1.0148

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO ₂ Correction Factor	NO ₂ Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		

Linearity OK?	Yes	Sum of Least Squares Correction Factors:	NOx= <u>1.0080</u>	NO= <u>1.0148</u>	NO2= <u> </u>
Average Converter Efficiency= <u> </u>					

Before Calibration

Auto Zero	0.0	NOx	0.0	NO2		0.0	NOx	0.0	NO2
Auto Span	241	NOx	238	NO2		241	NOx	238	NO2

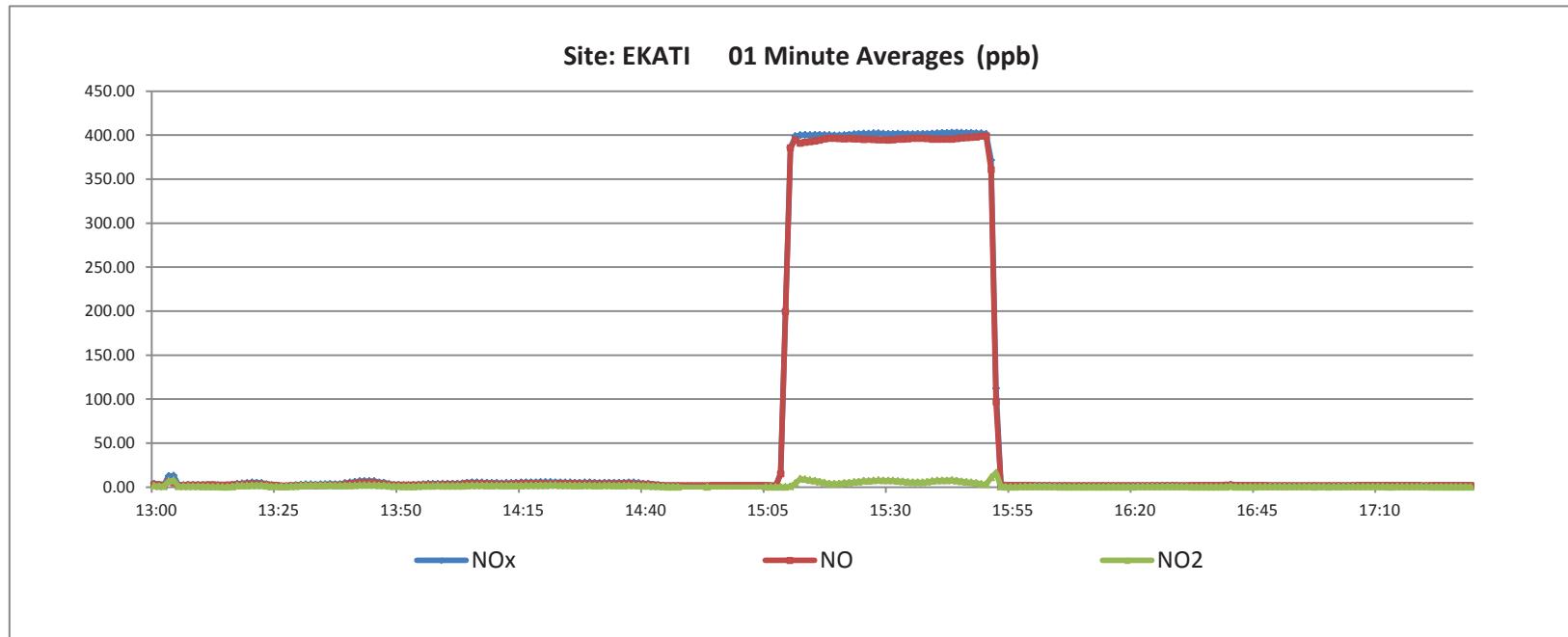
Sample Lines Connected

YES

Percent Change from Previous Calibration	NOx	NO	NO2
--	-----	----	-----

Notes

Calibration Performed by: Limin Li



NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	June 21, 2012	Previous Calibration	March 24, 2012
Company	Dominion Diamonds Ekati	Plant/Location	EKATI MINE
Start Time (MST)	6:40	End Time (MST)	16:10
Reason:	Quarterly calibration		
Barometric Pressure	28.33 inHg	Station Temperature	27 Deg C
Cal Gas Concentration	NOx 51.3 ppm	NO 51 ppm	Cal Gas Expiry date August 5, 2012
Cal Gas Cylinder #	II85389		
DAS Output Voltage	0-5 Volts	Chart Rec. Output	na Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	1375	Method:	Chemiluminescent
Calibrator Make / Model:	Environics 6100	S/N:	5212		
DAS Make / Model:	Envidas/ADAM 5000	S/N :	na		
Chart Recorder Make / Model:	na	S/N:	na		
Flow Meter:	Bios DC-2	S/N :	1193		

Analyzer Settings

Concentration Range	Before Calibration			After Calibration		
	0-500	ppb	Deg C	0-500	ppb	Deg C
Sample Flow/Conv. Temp	486 ccm	315	Deg C	493 ccm	316	Deg C
Ozone Flow / Vacuum	78 ccm	4.4	"Hg-A	78 ccm	4.5	"Hg-A
HVPS / A ZERO	-716 Volts	1.9	MV	-716 Volts	2.5	MV
Rx/ Temp / PMT Temp	50.0 Deg C	6.7	Deg C	50.0 Deg C	6.8	Deg C
Box Temp / IZS Temp	33.8 Deg C	50.1	Deg C	38.7 Deg C	50.1	Deg C
Offset	-1.6 NOx	-2.8	NO	-6 NOx	-5.9	NO
Slope	-0.962 NOx	0.955	NO	0.959 NOx	0.958	NO
NO ₂ COEF / Conv Efficency	na NO2	0.996		na NO2	0.996	

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O ₃ Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO ₂	NOx	NO	NO ₂	NOx	NO
5000	0.0	NA	0	0	NA	0	0	0	NA	NA
4961	39.2	NA	402	400	NA	402	400	2	1.0000	1.0000
4980	19.6	NA	201	200	NA	201	200	1	1.0000	1.0000
4990	9.8	NA	101	100	NA	100	99	1	1.0055	1.0097
5000	0.0	NA	0	0	NA	1	1	0	NA	NA

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O ₃ Set Point	Calculated Concentration			Indicated Concentration			NO ₂ Correction Factor	NO ₂ Conv Efficacy
			NOx	NO	NO ₂	NOx	NO	NO ₂		
4961	39.2	NA	402	400	NA	400	398	2	NA	NA
4961	39.2	400	402	NA	352	398	48	350	1.0057	99.43%
4961	39.2	200	402	NA	180	399	220	179	1.0056	99.44%
4961	39.2	120	402	NA	106	396	294	103	1.0291	97.12%

Linearity OK?	Yes	Sum of Least Squares	NOx= 1.001	NO= 1.000	NO ₂ = 1.007
	No	Correction Factors:	NOx= 1.0000	NO= 1.0000	NO ₂ = 1.0057
Average Converter Efficiency= 98.66%					

IZS Calibration Data

Auto Zero	Before Calibration			After Calibration		
	0.0 NOx	0.0 NO ₂		0.0 NOx	0.0 NO ₂	
Auto Span	241 NOx	238 NO ₂		241 NOx	238 NO ₂	

Sample Lines Connected

Yes

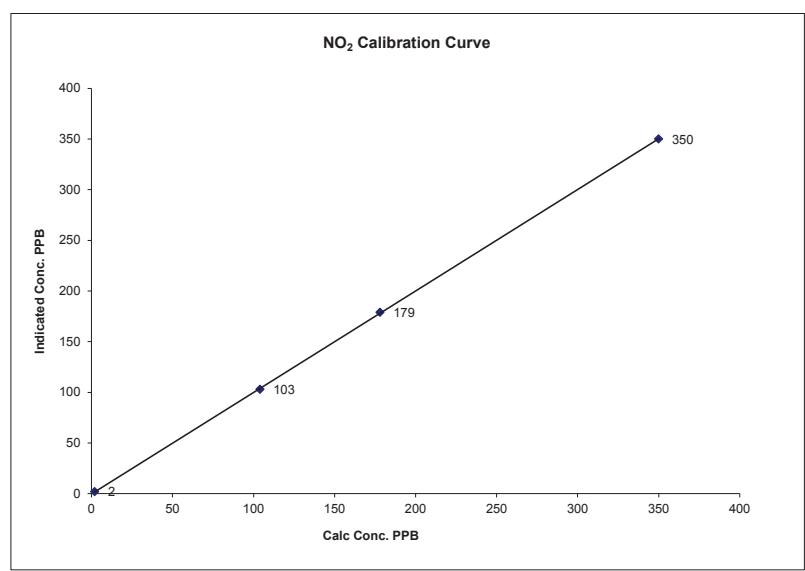
Percent Change

	NOx	NO	NO ₂
Previous Month's Calibration Correction Factor	1.000	1.000	0.996
Current Correction Factor Before Span Adjust	1.000	1.000	1.006
Percent Change	0.0%	0.0%	-0.9%

Notes	NA : Not Applicable
Air conditioner did not work. Temperature changed when opened door. Second zero shifted.	
Renewed charcoal and purifier of zero air supply.	
Last GPT point only 5 minutes.	
Calibration Performed by:	Limin Li

NO₂ Calibration Curve

Calibration Date	June 21, 2012
Company	Dominion Diamonds Ekati
Plant / Location	EKATI MINE
Start Time (MST)	6:40
End Time (MST)	16:10
Calculated Conc. ppb	2
Indicated Response ppb	2
Correction Factor	NA
Correlation Coefficient (≥ 0.995) (0.85 to 1.15)	0.999970 1.001147
Slope Intercept (± 3% F.S.)	-0.18180

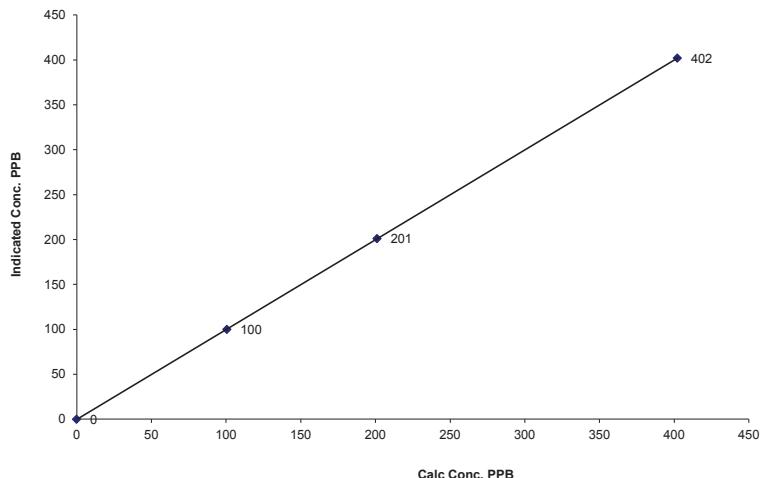


Notes:

NOx Calibration Curve

Calibration Date	June 21, 2012			
Company	Dominion Diamonds Ekati			
Plant / Location	EKATI Mine			
Start Time (MST)	6:40	End Time (MST)	16:10	
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995) Slope (0.85 to 1.15) Intercept ($\pm 3\%$ F.S.)	0.999998 0.999989 -0.20804
0	0	NA		
101	100	1.0055		
201	201	1.0000		
402	402	1.0000		

NOx Calibration Curve

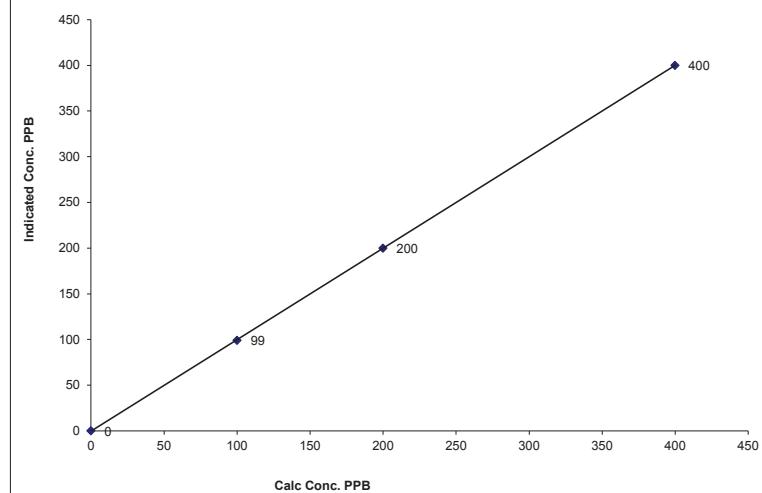


Notes:

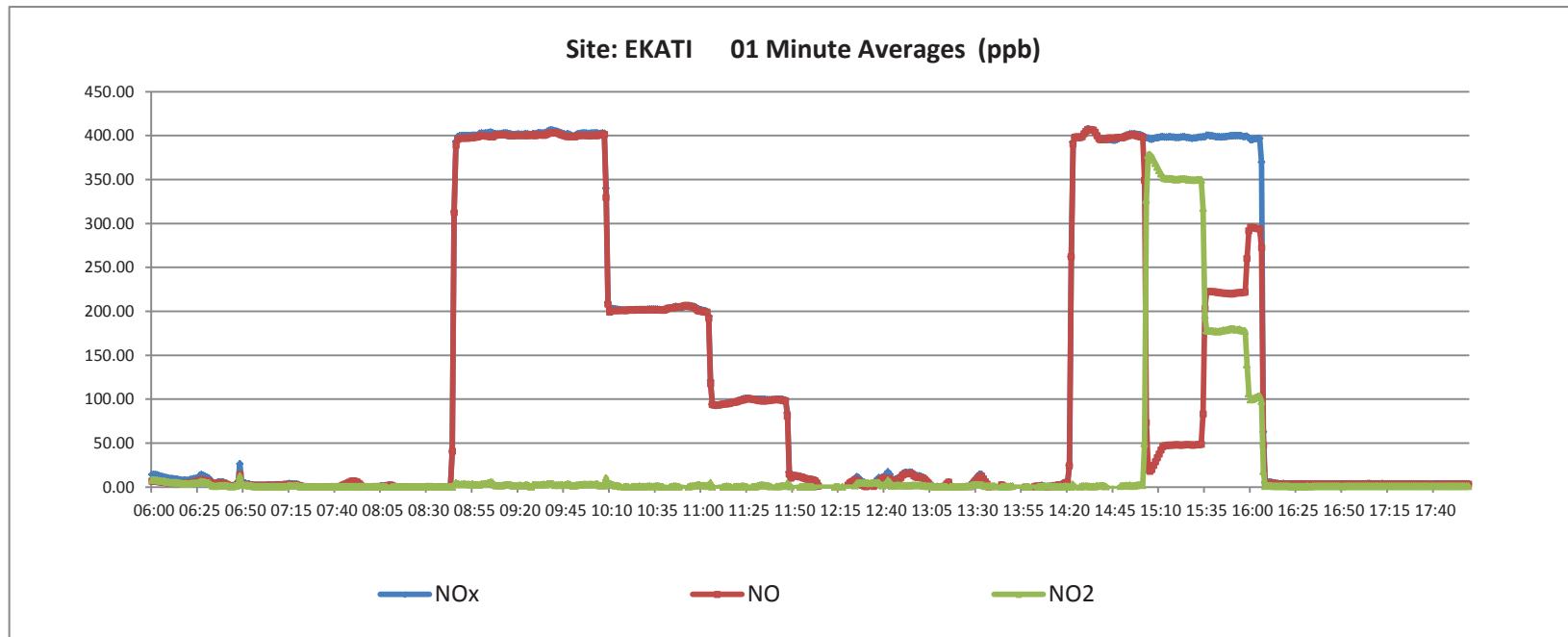
NO Calibration Curve

Calibration Date	June 21, 2012			
Company	Dominion Diamonds Ekati			
Plant / Location	EKATI Mine			
Start Time (MST)	6:40	End Time (MST)	16:10	
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995) Slope (0.85 to 1.15) Intercept ($\pm 3\%$ F.S.)	0.999992 1.001298 -0.40801
0	0	NA		
100	99	1.0097		
200	200	1.0000		
400	400	1.0000		

NO Calibration Curve



Notes:



NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	June 22, 2012	Previous Calibration	March 24, 2012
Company	Dominion Diamonds Ekati	Plant/Location	EKATI MINE
Start Time (MST)	5:57	End Time (MST)	11:30
Reason: Quarterly calibration -Repeated			
Barometric Pressure	28.33 inHg	Station Temperature	27 Deg C
Cal Gas Concentration	NOx 51.3 ppm	NO 51 ppm	Cal Gas Expiry date August 5, 2012
Cal Gas Cylinder #	I185389		
DAS Output Voltage	0-5 Volts	Chart Rec. Output	na Volts
Equipment Information			
Analyzer Make / Model:	API 200E	S/N :	1375
Calibrator Make / Model:	Environics 6100	S/N:	5212
DAS Make / Model:	Envidas/ADAM 5000	S/N :	na
Chart Recorder Make / Model:	na	S/N:	na
Flow Meter:	Bios DC-2	S/N :	1193

Analyzer Settings

Concentration Range	Before Calibration			After Calibration		
	Sample Flow/Conv. Temp	490 ccm	315 Deg C	0-500 ppb	492 ccm	315 Deg C
Sample Flow / Vacuum	78 ccm	4.5 "Hg-A		78 ccm	4.6 "Hg-A	
HVPS / A ZERO	-716 Volts	2.5 MV		-716 Volts	4.3 MV	
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C		50.2 Deg C	6.7 Deg C	
Box Temp / IZS Temp	34.6 Deg C	50.0 Deg C		31.7 Deg C	50.1 Deg C	
Offset	-6 NOx	-5.9 NO		0.7 NOx	0.2 NO	
Slope	0.959 NOx	0.958 NO		0.966 NOx	0.966 NO	
NO ₂ COEF / Conv Efficiency	na NO2	0.996		na NO2	0.996	

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O ₃ Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO ₂	NOx	NO	NO ₂	NOx	NO
5000	0.0	NA	0	0	NA	0	0	0	NA	NA
4963	39.2	NA	402	400	NA	399	399	0	1.0076	1.0017
4980	19.6	NA	201	200	NA	200	200	0	1.0056	1.0000
4990	9.8	NA	101	100	NA	99	99	0	1.0157	1.0097
5000	0.0	NA	0	0	NA	0	0	0	NA	NA

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O ₃ Set Point	Calculated Concentration			Indicated Concentration			NO ₂ Correction Factor	NO ₂ Conv Efficacy
			NOx	NO	NO ₂	NOx	NO	NO ₂		
4961	39.2	NA	402	400	NA	399	398	0	NA	NA
4961	39.2	340	402	NA	310	398	88	310	1.0000	100.00%
4961	39.2	230	402	NA	213	398	185	213	1.0000	100.00%
4961	39.2	120	402	NA	112	398	286	112	1.0000	100.00%

Linearity OK?	Yes	Sum of Least Squares	NOx= 1.008	NO= 1.002	NO ₂ = 1.000
	No	Correction Factors:	NOx= 1.0076	NO= 1.0017	NO ₂ = 1.0000
Average Converter Efficiency= 100.00%					

IZS Calibration Data

Auto Zero	Before Calibration			After Calibration		
	0.0 NOx	0.0 NO ₂		0.0 NOx	0.0 NO ₂	
Auto Span	241 NOx	238 NO ₂		241 NOx	238 NO ₂	

Sample Lines Connected

Yes

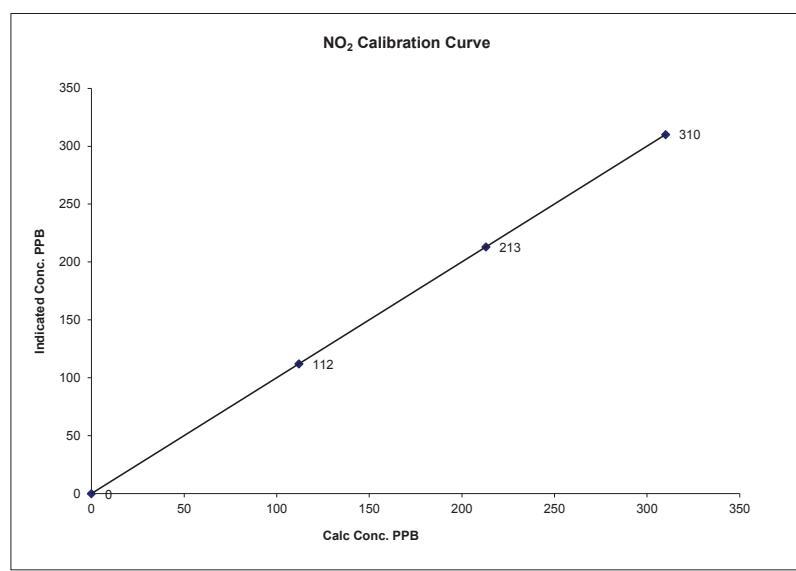
Percent Change

	NOx	NO	NO ₂
Previous Month's Calibration Correction Factor	1.000	1.000	0.996
Current Correction Factor Before Span Adjust	1.008	1.002	1.000
Percent Change	-0.8%	-0.2%	-0.4%

Notes	NA : Not Applicable
	Redid the quarterly calibraiton
	Opened the door a bit to keep room temperatur stable around 27 degC.
	AC is not working.
Calibration Performed by:	Limin Li

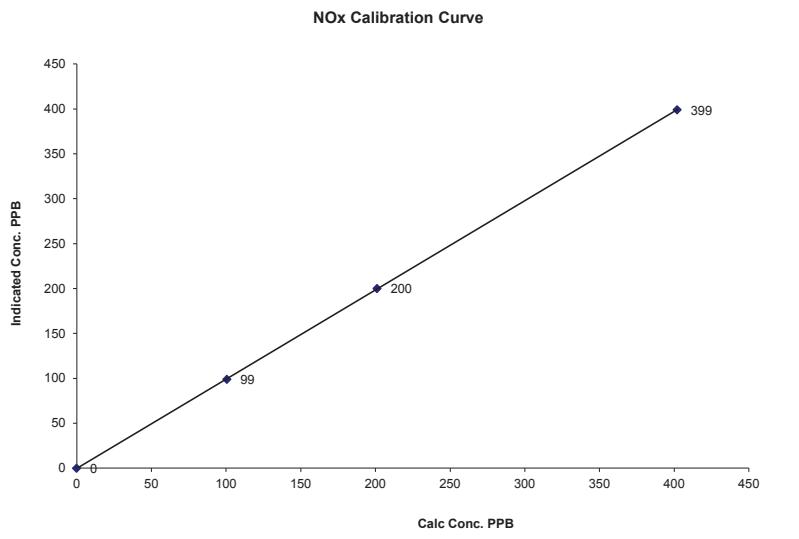
NO₂ Calibration Curve

Calibration Date	June 22, 2012
Company	Dominion Diamonds Ekati
Plant / Location	EKATI MINE
Start Time (MST)	5:57
End Time (MST)	11:30
Calculated Conc. ppb	0
Indicated Response ppb	0
Correction Factor NA	
Correlation Coefficient (≥ 0.995) 1.000000	1.000000
Slope (0.85 to 1.15) 1.000000	1.000000
Intercept (± 3% F.S.) 0.000000	0.000000



NOx Calibration Curve

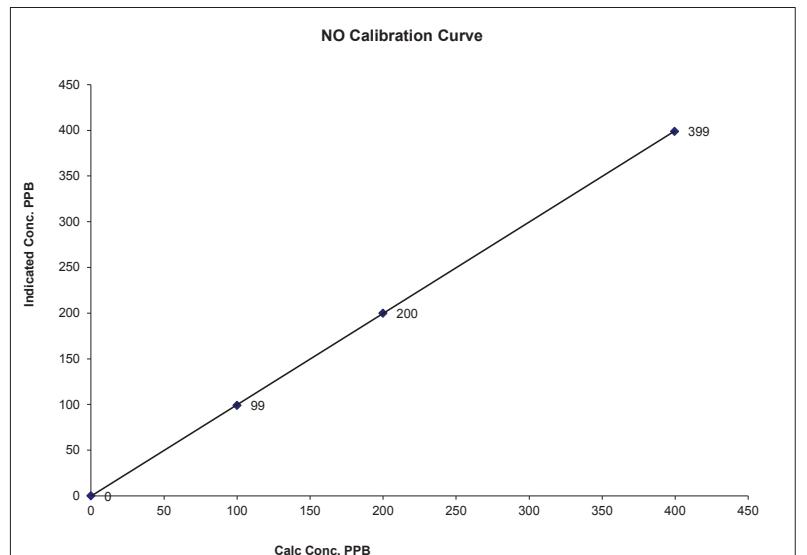
Calibration Date	June 22, 2012			
Company	Dominion Diamonds Ekati			
Plant / Location	EKATI Mine			
Start Time (MST)	5:57	End Time (MST)	11:30	
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995) Slope (0.85 to 1.15) Intercept ($\pm 3\%$ F.S.)	0.999992 0.993293 -0.23997
0	0	NA		
101	99	1.0157		
201	200	1.0056		
402	399	1.0076		



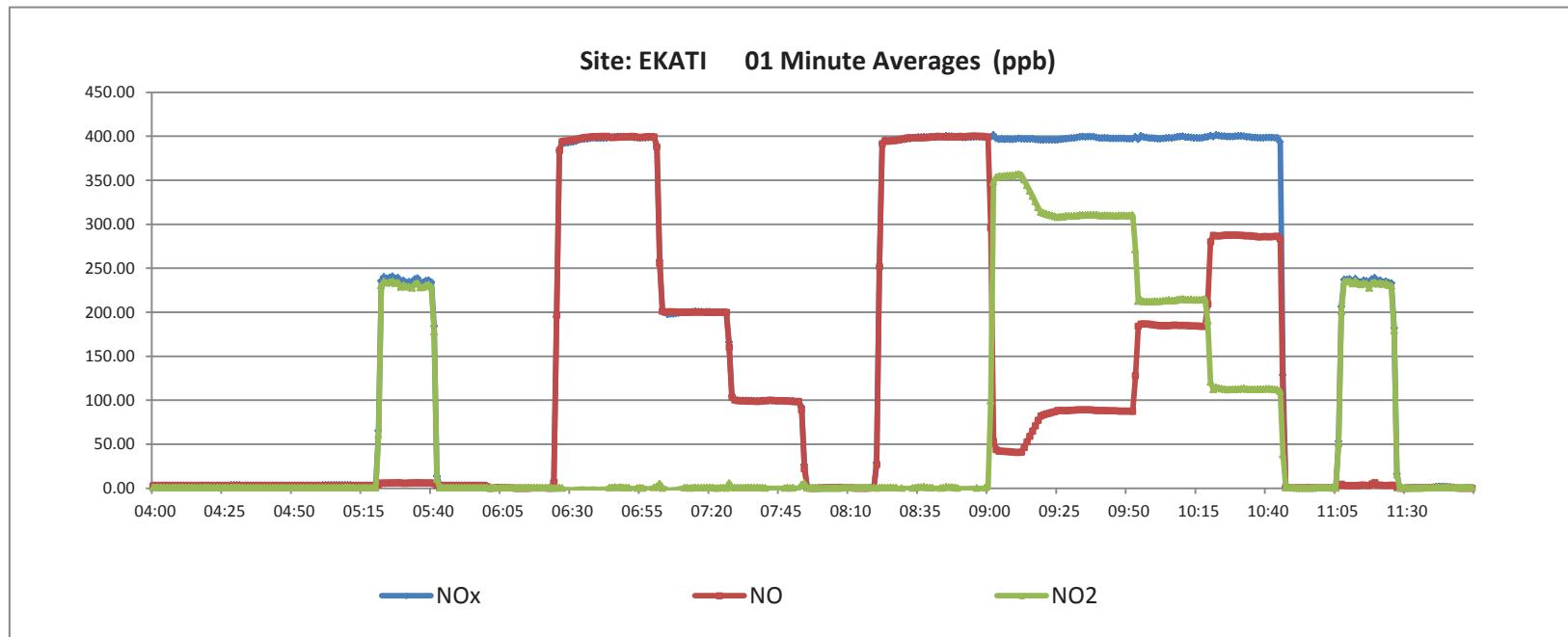
Notes:

NO Calibration Curve

Calibration Date	June 22, 2012			
Company	Dominion Diamonds Ekati			
Plant / Location	EKATI Mine			
Start Time (MST)	5:57	End Time (MST)	11:30	
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995) Slope (0.85 to 1.15) Intercept ($\pm 3\%$ F.S.)	0.999992 0.999136 -0.23997
0	0	NA		
100	99	1.0097		
200	200	1.0000		
400	399	1.0017		



Notes:



Particulate Matter 2.5

BAM -1020

Audit Report

Station Information

Date: June 21, 2012
Company: BHP Billiton Diamonds Inc.
Location: EKATI Mine
Station Name: Polar Explosives

Audit Transfer Standard

Make/Model: BIOS-DC2
Serial Number: 1193
Cell S/N: 2272
Thermometer S/N: Fluke (1735039)

Instrument Information

Make/Model: BAM 1020
Serial Number: F4642
Unit Number: NA
Parameter: PM2.5
Analog Output Voltage: 0-10 vdc
Flow Type: Actual
Amb Temperature Sensor Used: Y
Model Number: BX 592-2 (-50 to +50C)

Mechanical Audit:

Pump Muffler Unclogged: Y
Sample Nozzel Clean: Y
Tape Support Vane Clean: Y
Capstan Shaft Clean: Y
Rubber Pinch Rollers Clean: Y
Inlet Clean: Y
Inlet tube Position Correct: Y
Water Tight Seal OK: Y

Flow Audit

Note: Tolerances are in (**BOLD**)

Leak Check Value

0.1 lpm (1.0 lpm)		
BAM	Ref. Std.	Difference
13.8	13.4	0.4
720	719.6	0.4
16.7	18.3	-1.6

Amb Temperature (C)
Baro Pressure (mmHg)
Flow Rate (lpm)

Flow Setpoint:

16.7 lpm

Membrane Audit

Last m (mg): 0
ABS (mg): 0.812
Difference (m \bar{c}): 0.812
% Difference: 100.00%

Setup and Calibration Values

Range	1.0 mg	Flow Set-pt.	16.7
Units	ug/m3	HEATER	Auto
Offset	-0.005	AP	150
Count Time	4min	FRI	10
Cv	1.001	FRh	20
Qo	0.000	RH Control	YES
ABS	0.812	RH Set-pt.	35%
usw	0.287	e1	-0.005
K factor	0.936	BKRD	-0.0099

Error Codes (last six)

1 POWER FAIL 4 FLOW
2 MAINT. 5 FLOW
3 MAINT. 6 MAINT.

Comments: 09:30pm to 10:30pm

Audited By:

Limin Li

BAM -1020

Audit Report

Station Information

Date: June 21, 2012
Company: BHP Billiton Diamonds Inc.
Location: EKATI Mine
Station Name: Polar Explosives

Audit Transfer Standard

Make/Model: BIOS-DC2
Serial Number: 1193
Cell S/N: 2272
Thermometer S/N: Fluke (1735039)

Instrument Information

Make/Model: BAM 1020
Serial Number: F4642
Unit Number: NA
Parameter: PM2.5
Analog Output Voltage: 0-10 vdc
Flow Type: Actual
Amb Temperature Sensor Used: Y
Model Number: BX 592-2 (-50 to +50C)

Mechanical Audit:

Pump Muffler Unclogged: Y
Sample Nozzel Clean: Y
Tape Support Vane Clean: Y
Capstan Shaft Clean: Y
Rubber Pinch Rollers Clean: Y
Inlet Clean: Y
Inlet tube Position Correct: Y
Water Tight Seal OK: Y

Flow Audit

Note: Tolerances are in (**BOLD**)

Leak Check Value

0.1 lpm (1.0 lpm)		
BAM	Ref. Std.	Difference
17.2	17.2	0.0
719	719	0
16.7	16.8	-0.1

Amb Temperature (C)
Baro Pressure (mmHg)
Flow Rate (lpm)

Flow Setpoint:

16.7 lpm

Membrane Audit

Last m (mg): 0.813
ABS (mg): 0.812
Difference (m \bar{c}): 0.001
% Difference: 0.12%

Setup and Calibration Values

Range	1.0 mg	Flow Set-pt.	16.7
Units	ug/m3	HEATER	Auto
Offset	-0.005	AP	150
Count Time	4min	FRI	10
Cv	1.001	FRh	20
Qo	0.000	RH Control	YES
ABS	0.812	RH Set-pt.	35%
usw	0.287	e1	-0.005
K factor	0.936	BKRD	-0.0099

Error Codes (last six)

1 POWER FAIL 4 FLOW
2 MAINT. 5 FLOW
3 MAINT. 6 MAINT.

Comments: 13:30pm to 14:30pm. 4.40INCH. On June 22, 2012, Changed a pump, then audit flow rate 16.9lpm with BIOS-DC2 flow meter, 16.68 lpm with MNF1868 flow meter in calibration mode. Changed pump due to noisy on June 22, 2012.

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Audited By:

Limin Li

JOB #: 3728-12-04~06-007-QC

Total Suspended Particulate

BAM -1020

Audit Report

Station Information

Date: June 21, 2012
 Company: BHP Billiton Diamonds Inc.
 Location: EKATI Mine
 Station Name: Polar Explosives

Audit Transfer Standard

Make/Model: BIOS-DC2
 Serial Number: 1193
 Cell S/N: 2272
 Thermometer S/N: Fluke 1735039

Instrument Information

Make/Model: BAM 11020
 Serial Number: F 4641
 Unit Number: 1
 Parameter: TSP
 Analog Output Voltage: 0-1vdc
 Flow Type: Actual
 Amb Temperature Sensor Used: Y
 Model Number: BX592-2

Mechanical Audit:

Pump Muffler Unclogged: Y
 Sample Nozzel Clean: Y
 Tape Support Vane Clean: Y
 Capstan Shaft Clean: Y
 Rubber Pinch Rollers Clean: Y
 Inlet Clean: Y
 Inlet tube Position Correct: Y
 Water Tight Seal OK: Y

Flow Audit

Note: Tolerances are in (**BOLD**)

Leak Check Value

0.2->0 lpm (1.0 lpm)		
BAM	Ref. Std.	Difference
17	17.0	0.0
720	720	0
16.7	16.6	0.1

Calibrated from 18.4

Calibrated from 716

Calibrated From 18.4

Amb Temperature (C)

Baro Pressure (mmHg)

Flow Rate (lpm)

Flow Setpoint:

16.7 lpm

Membrane Audit

Last m (mg): 0.82
 ABS (mg): 0.813
 Difference (mg): 0.007
 % Difference: 0.86%

Setup and Calibration Values

Range	0-1mg	Flow Set-pt.	16.7
Units	mg/m3	HEATER	Auto
Offset	-0.005	AP	150
Count Time	4min	FRI	10
Cv	0.987	FRh	20
Qo	0.000	RH Control	Yes
ABS	0.813	RH Set-pt.	35%
usw	0.287	e1	-0.005
K factor	0.965	BKRD	-0.0046

Error Codes (last six)

power fail	4 Tap Tens
2 Tap Tens	5 Tap Tens
3 Tap Tens	6 Tap Tens

Comments: 14:00am-15:00pm. On June 22, 2012, audit flow rate 16.9lpm with BIOS-DC2 flow meter, 16.53 lpm with MNF1868 flow meter in normal sample mode.

Audited By:

Page 87 of 87
 Limin Li

JOB #: 3728-12-04~06-007-QC

BHP Billiton Diamonds Inc.
EKATI Diamond Mine
Ambient Air Monitoring Data Report

For
July to September 2012

Prepared By:



September 22, 2014

BHP Billiton Diamonds Inc.

EKATI Diamond Mine

Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Andrew Howton
BHP Billiton Diamonds Inc.
#1102 4920 52nd Street
Yellowknife, NT, X1A 3T1

Monitoring Location: EKATI

Data Period: July to September 2012

The monthly ambient data report:

- Prepared by Lili Zhou
- Reviewed by Lily Lin

Calibration Procedure

The calibrations conducted at the BHP Billiton Diamonds Inc. - EKATI Air Monitoring Station conform to the following Maxxam Standard Operation Procedures:

- CAL SOP-00211
- CAL SOP-00213
- CAL SOP-00215

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6.*

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – July 2012

BHP Billiton Diamonds Inc.- EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.54	14	19	3	7.5	19	40.6
NO ₂ (PPB)	2.46	26	14	2	7.4	12	82.0
NO (PPB)	3.02	155	5	1	19.6	5	82.0
NOx (PPB)	5.29	177	31	1	26.7	12	82.0
PM _{2.5} (UG/M ³)	6.52	110	16	18	21.5	16	70.3
TSP (UG/M ³)	27.18	208	22	3	63.8	16	82.0

NA: Not Applicable

Exceedences Summary Report

July 2012

Plant Operator: BHP Billiton Diamonds Inc.

Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

Data between July 1st at hour 0 and July 6th at hour 13 are missing, reason unknown. The analyzer failed on July 19th at hour 4. The issue was fixed on August 17th at hour 12 by Ekati operator. A total of 308 hours of data was invalidated due to this event this month.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed. Data between July 1st at hour 0 and July 6th at hour 13 are missing, reason unknown.

Particulate Matter 2.5 (ug/m³)

- System make / model – Met One BAM 1020

Data between July 1st at hour 0 and July 6th at hour 13 are missing, reason unknown. The BAM unit failed on July 28th at hour 15, and the issue was fixed on August 4th at hour 11 by Ekati operator. A total of 81 hours of data was invalidated. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer.

Total suspended Particulate (ug/m³)

- System make / model – Met One BAM 1020

Data between July 1st at hour 0 and July 6th at hour 13 are missing, reason unknown. The analyzer was working well throughout this month. No operational issues were observed.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – August 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	4.14	16	17	17, 19	11.5	17	46.6
NO ₂ (PPB)	2.36	23	2	3	8.8	23	100.0
NO (PPB)	4.17	126	24	7	28.1	28	100.0
NOx (PPB)	6.47	143	24	7	36.2	28	100.0
PM _{2.5} (UG/M ³)	2.96	17	9	20	10.3	9	88.2
TSP (UG/M ³)	30.41	432	7	18	68.1	23	100.0

NA: Not Applicable

Exceedences Summary Report

July 2012

Plant Operator: BHP Billiton Diamonds Inc. Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer failed on July 19th at hour 4. The issue was fixed on August 17th at hour 12 by Ekati operator. A total of 397 hours of data was invalidated due to this event this month.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed.

Particulate Matter 2.5 (ug/m³)

- System make / model – Met One BAM 1020

The BAM unit failed on July 28th at hour 15, and the issue was fixed on August 4th at hour 11 by Ekati operator. A total of 84 hours of data was invalidated this month. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer as if the rules apply, not many data will be left.

Total suspended Particulate (ug/m³)

- System make / model – Met One BAM 1020

The BAM unit was working well throughout the month. No operational issues were observed.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – September 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	2.39	6	1, 16	23, 13	3.3	1	100.0
NO ₂ (PPB)	2.02	28	30	2	9.3	30	100.0
NO (PPB)	3.35	159	1	23	21.0	1	100.0
NOx (PPB)	5.24	179	1	23	25.1	30	100.0
PM _{2.5} (UG/M ³)	1.36	19	27	11	5.8	27	90.0
TSP (UG/M ³)	11.60	110	5	21	22.1	5	81.5

Exceedences Summary Report

August 2012

Plant Operator: BHP Billiton Diamonds Inc. Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed.

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

Hourly data collected on September 13th between hour 16 and hour 18 and on September 16th between hour 13 and hour 15 were invalidated due to the unit spike. The BAM unit started recording 5 $\mu\text{g}/\text{m}^3$ consistently on September 28th at hour 6. As we were confident that the readings were unreal, we discarded the data. A total of 66 hours of data was invalidated this month. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The BAM unit started recording 11 $\mu\text{g}/\text{m}^3$ consistently on September 25th at hour 10. As we were confident that the readings were unreal, we discarded the data. A total of 133 hours of data was invalidated this month.

Continuous Monitoring

Monthly Summaries & Graphs

Sulphur Dioxide

BHP Diamonds Inc. - EKATI
JULY 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

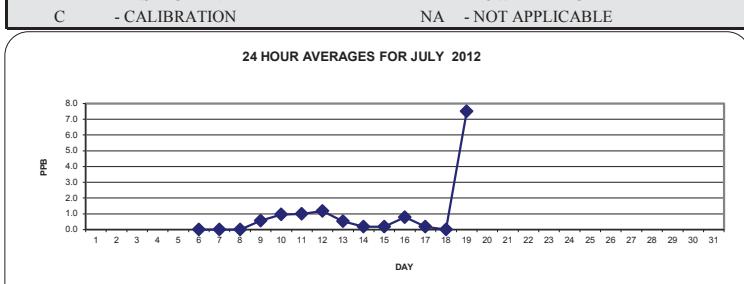
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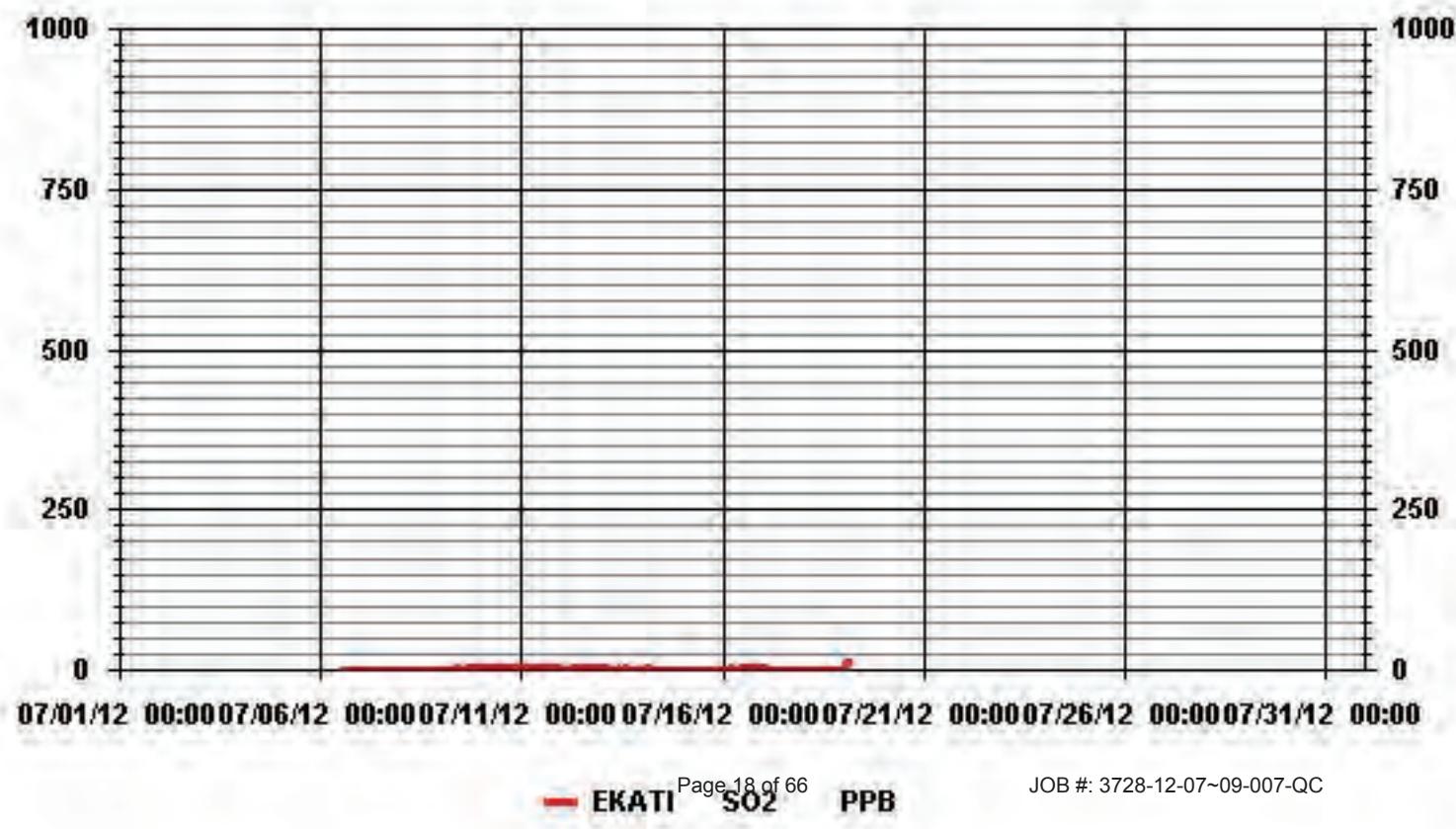
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D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	127
MAXIMUM 1-HR AVERAGE:	14 PPB
MAXIMUM 24-HR AVERAGE:	7.5 PPB
Izs Calibration Time:	12 HRS
Operational Time:	302 HRS
Monthly Calibration Time:	0 HRS
AMD Operation Uptime:	40.6 %
Standard Deviation:	1.11
Monthly Average:	0.54 PPB



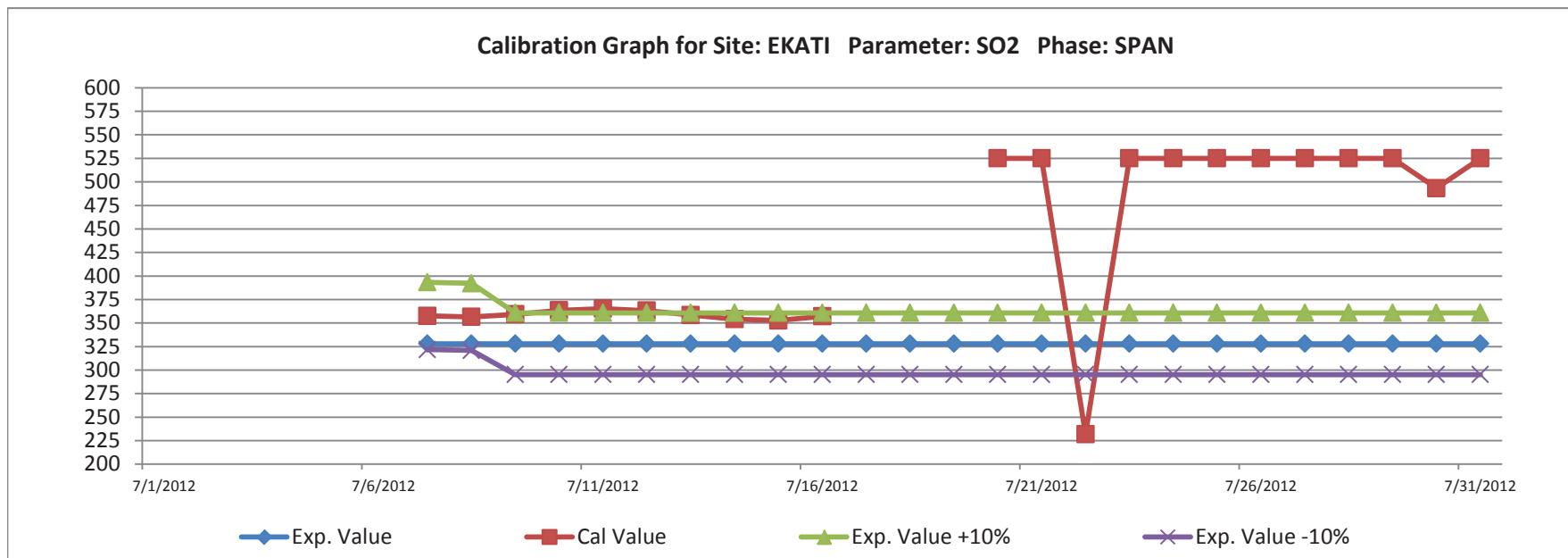
01 Hour Averages



— EKATI SO2 PPB

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JOB #: 3728-12-07~09-007-QC



BHP Diamonds Inc. - EKATI
AUGUST 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

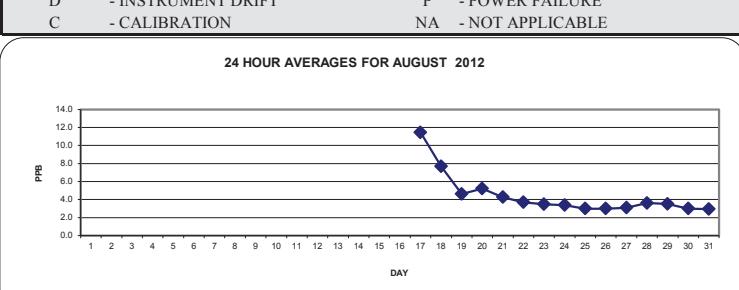
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HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	0:00	0:00	
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DAY																												
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27	3	3	3	3	3	Izs	3	3	3	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	4	3.1	24
28	3	3	3	3	3	Izs	3	3	4	3	3	3	3	3	4	5	4	4	3	4	4	5	5	5	5	3.6	24	
29	3	3	5	3	5	Izs	4	5	5	3	3	4	4	3	4	3	3	3	3	3	3	3	3	3	5	3.5	24	
30	3	3	3	3	3	Izs	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.0	24
31	3	3	3	3	3	Izs	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.0	24
HOURLY MAX	7	8	8	9	7	NA	10	10	9	9	7	7	8	8	8	12	15	16	15	16	13	11	8	7				
HOURLY AVG	3.7	3.6	3.8	3.7	3.7	NA	4.1	4.1	4.1	3.9	3.7	3.8	3.9	4.1	4.1	4.5	4.9	5.0	4.9	4.8	4.6	4.2	4.0	3.8				

STATUS FLAG CODES

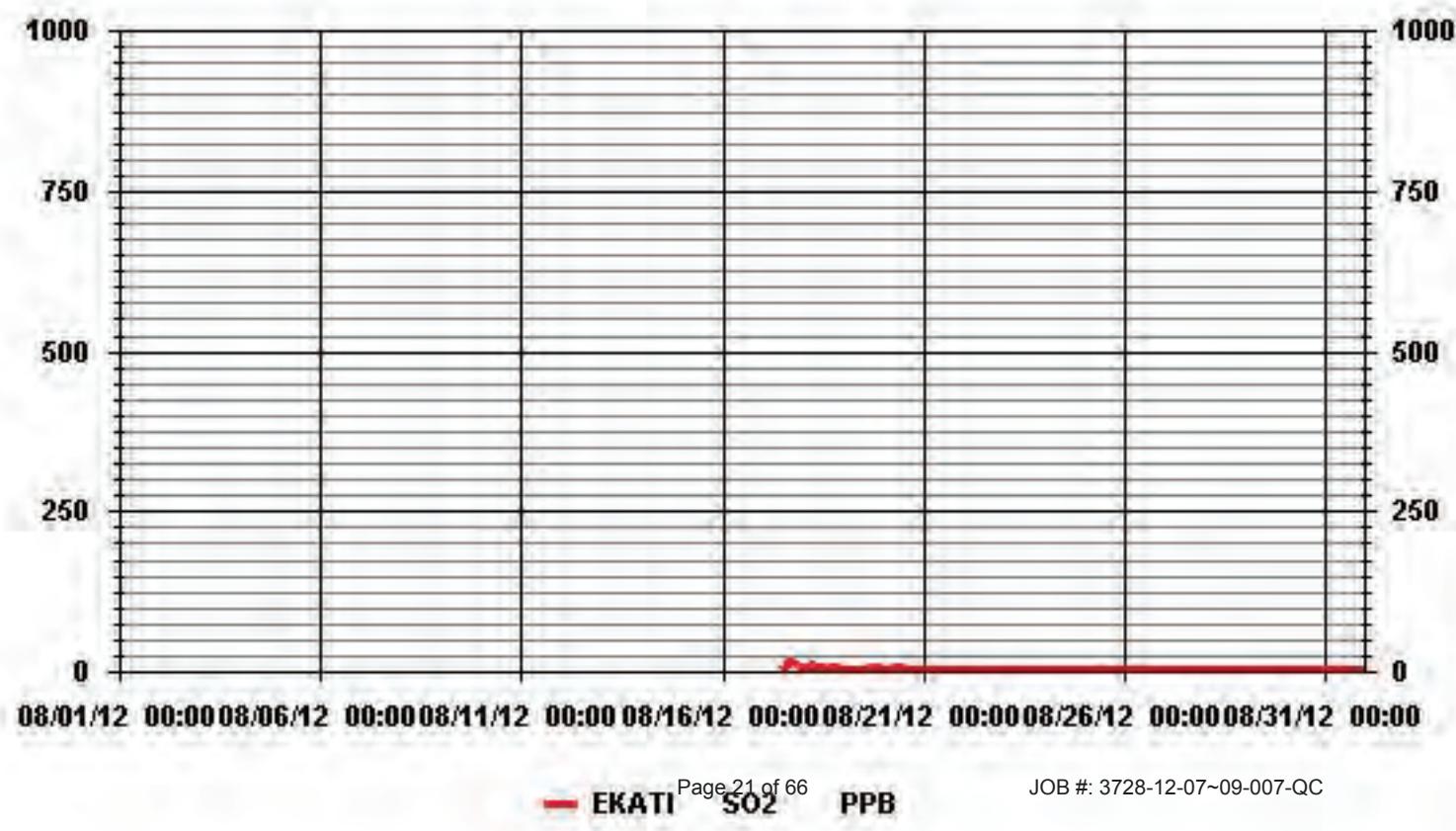
S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	333
MAXIMUM 1-HR AVERAGE:	16 PPB
MAXIMUM 24-HR AVERAGE:	11.5 PPB
Izs CALIBRATION TIME:	14 HRS
MONTHLY CALIBRATION TIME:	0 HRS
STANDARD DEVIATION:	2.11
OPERATIONAL TIME:	347 HRS
AMD OPERATION UPTIME:	46.6 %
MONTHLY AVERAGE:	4.14 PPB



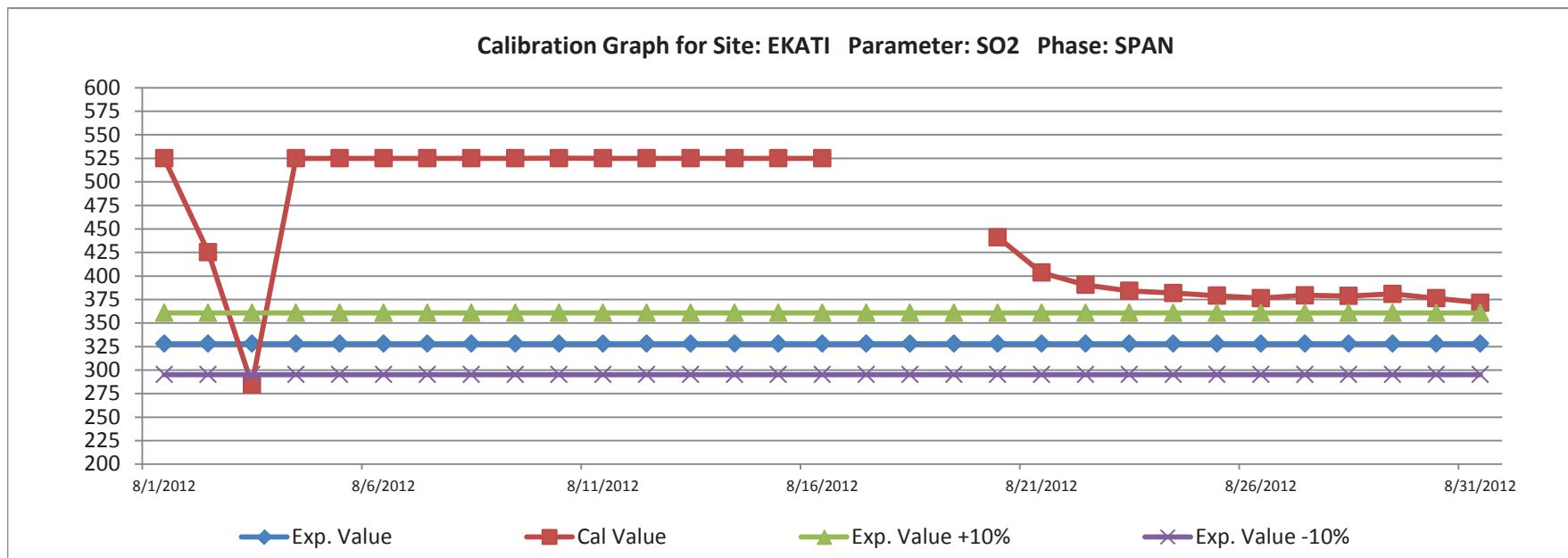
01 Hour Averages



— EKATI SO₂ PPB

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JOB #: 3728-12-07~09-007-QC



BHP Billiton Diamonds Inc. - EKATI
 SEPTEMBER 2012
SULPHUR DIOXIDE (SO₂) hourly averages in ppb

MST

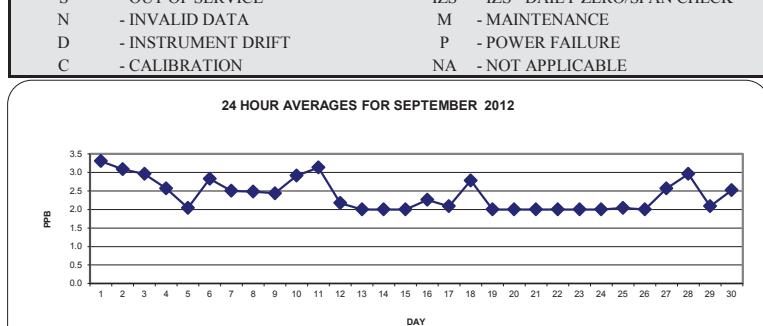
	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY	1	3	3	3	3	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	4	4	6	6	3.3	24
2	5	3	3	3	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	5	3.1	24
3	3	3	3	3	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3.0	24
4	3	3	3	3	3	IZS	3	3	3	2	2	3	3	2	3	3	2	2	3	2	2	2	2	2	2	3	2.6	24
5	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	3	2.0	24
6	2	2	2	2	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.8	24
7	3	3	3	3	3	IZS	3	3	3	3	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2.5	24
8	2	2	2	2	2	IZS	2	2	2	2	3	3	3	3	3	3	3	3	3	3	2	3	2	2	3	2	2.5	24
9	3	3	2	3	3	IZS	3	2	3	3	3	2	2	2	3	2	2	2	2	2	2	2	2	3	2	3	2.4	24
10	2	3	3	3	3	IZS	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.9	24
11	4	5	5	5	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	5	3.1	24	
12	2	2	2	3	2	IZS	2	4	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2.2	24	
13	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
14	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
15	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
16	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	6	3	2	2	2	2	2	2	2	2	6	2.3	24
17	3	3	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.1	24	
18	2	3	3	3	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	2	3	2	2.8	24
19	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
20	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
21	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
22	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
23	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
24	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
25	2	2	2	2	2	IZS	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2.0	24
26	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.0	24
27	2	2	2	2	2	IZS	2	2	2	2	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	2.6	24
28	3	3	3	3	3	IZS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3.0	24
29	2	2	2	2	2	IZS	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	3	2.1	24
30	2	3	4	3	3	IZS	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	3	4	4	2.5	24	
HOURLY MAX	5	5	5	5	5	3	NA	3	4	3	3	3	3	3	3	6	3	3	3	3	3	5	4	4	6			
HOURLY AVG	2.4	2.5	2.4	2.5	2.4	NA	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.3	2.4	2.2	2.4	2.3	2.4	2.4	2.4			

STATUS FLAG CODES

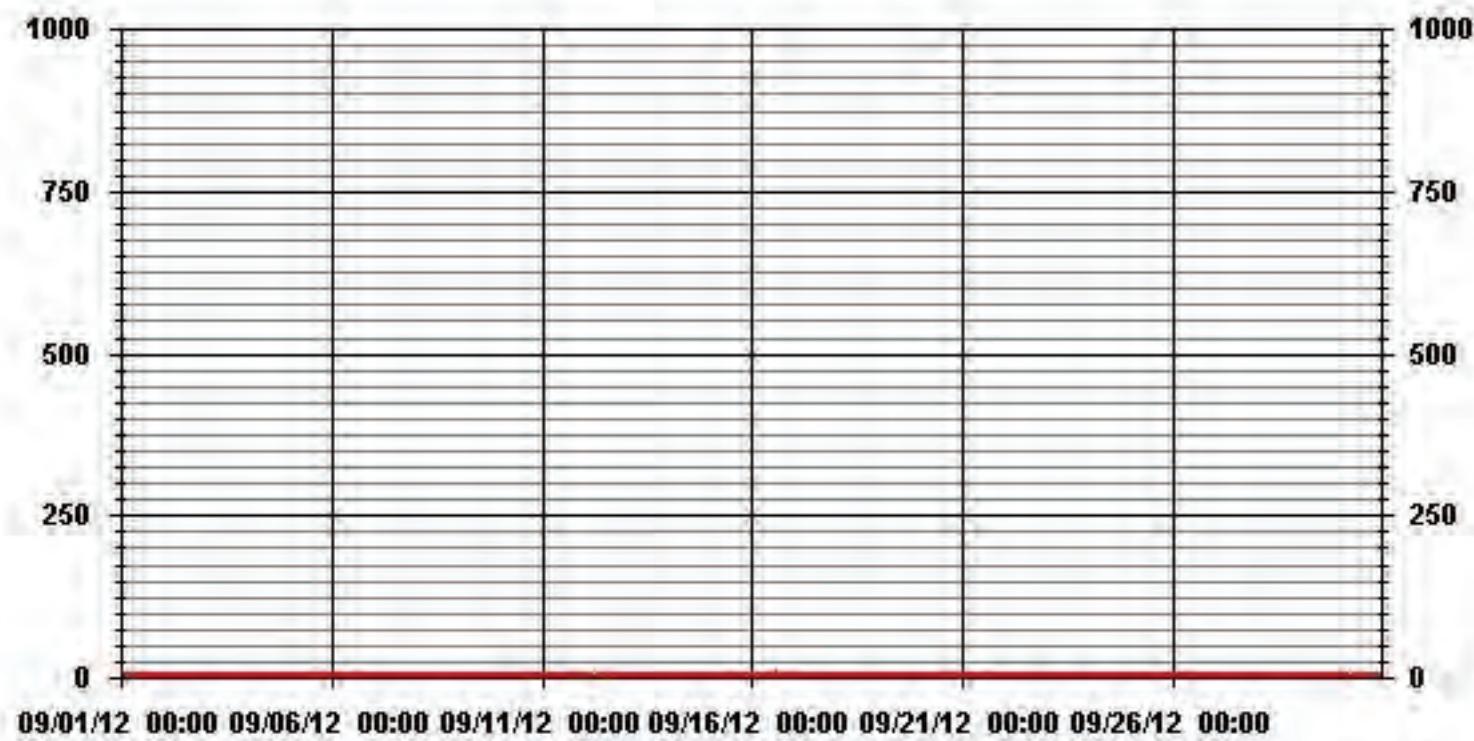
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	689
MAXIMUM 1-HR AVERAGE:	6 PPB
MAXIMUM 24-HR AVERAGE:	3.3 PPB
Izs Calibration Time:	30 HRS
Monthly Calibration Time:	0 HRS
Standard Deviation:	0.58
Operational Time:	720 HRS
Amid Operation Uptime:	100.0 %
Monthly Average:	2.39 PPB



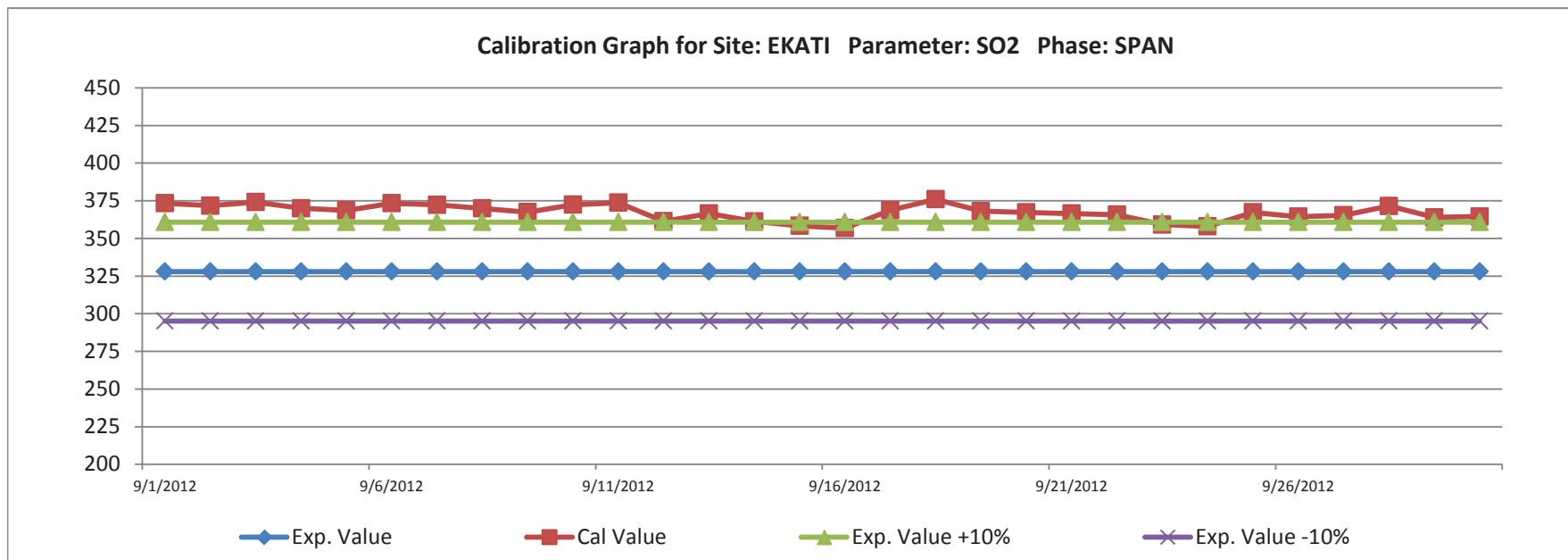
01 Hour Averages



— EKATI SO₂ PPB

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JOB #: 3728-12-07~09-007-QC



Nitrogen Dioxide

BHP Diamonds Inc. - EKATI
JULY 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST

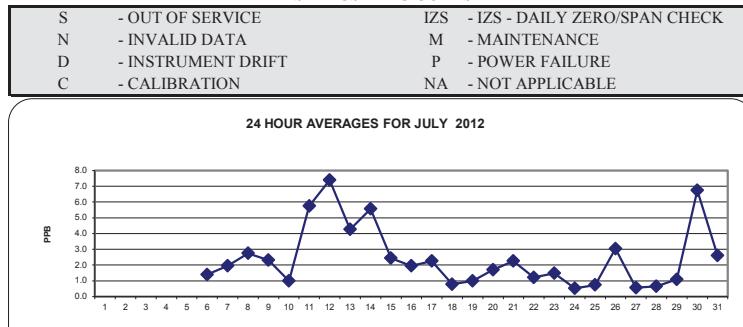
	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1	1	1	0	0	1	1	1	4	4	4	1.4	10	
7	7	4	2	0	3	IZS	4	1	2	1	0	1	1	1	1	1	1	0	1	2	7	3	7	2.0	24			
8	1	5	1	1	3	IZS	1	3	1	1	1	0	1	1	1	0	0	3	2	2	6	6	22	22	2.7	24		
9	16	2	7	2	3	IZS	1	1	1	3	2	1	1	1	1	1	1	1	1	1	3	2	0	16	2.3	24		
10	0	1	3	6	1	IZS	1	1	0	1	1	0	1	0	0	0	0	0	1	0	0	1	4	6	1.0	24		
11	3	5	4	6	6	IZS	6	5	8	14	11	13	4	1	2	1	10	5	9	1	0	1	9	8	14	5.7	24	
12	10	10	14	8	15	IZS	1	4	8	9	8	17	15	13	14	8	3	2	1	1	2	4	2	1	17	7.4	24	
13	1	3	6	6	8	IZS	0	2	5	5	4	8	2	5	5	7	3	5	2	2	2	7	8	8	4.3	24		
14	4	15	26	22	21	IZS	2	1	2	1	0	0	0	0	1	1	1	1	2	6	2	6	13	26	5.6	24		
15	9	7	6	6	5	IZS	2	2	2	1	1	0	1	1	1	1	0	0	1	2	3	3	9	2.4	24			
16	4	5	4	3	2	IZS	1	1	1	1	1	1	1	1	1	2	4	2	1	2	2	2	5	2.0	24			
17	2	2	5	1	1	IZS	7	1	1	1	3	1	1	1	1	1	1	1	2	4	6	4	4	7	2.3	24		
18	3	2	3	2	1	IZS	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0.8	24		
19	1	1	1	1	2	IZS	0	0	1	1	1	0	0	0	1	1	1	0	0	0	2	6	2	6	1.0	24		
20	0	0	0	0	0	IZS	0	0	1	0	1	1	0	0	0	0	0	0	0	1	1	13	21	21	1.7	24		
21	17	8	10	2	1	IZS	2	2	1	0	0	0	0	0	1	0	1	1	1	0	1	1	1	17	2.3	24		
22	2	4	4	4	3	IZS	1	1	3	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	2	4	1.2	24
23	0	0	1	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	23	1.5	24		
24	3	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	3	0.5	24	
25	1	1	2	2	1	IZS	0	3	1	0	0	0	0	0	0	1	0	0	0	0	0	2	2	1	3	0.7	24	
26	2	8	12	18	17	IZS	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	1	1	2	18	3.0	24	
27	2	4	1	1	1	IZS	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0.6	24	
28	0	1	4	0	1	IZS	0	0	1	0	1	0	0	0	1	0	0	0	0	0	2	4	0	4	0.7	24		
29	0	0	0	0	0	IZS	1	4	1	2	2	2	2	3	2	1	1	0	0	0	1	0	0	3	4	1.1	24	
30	7	6	4	6	2	IZS	0	2	4	5	3	1	2	4	4	5	3	8	4	14	23	26	18	26	6.7	24		
31	13	23	9	6	2	IZS	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	2	2	23	2.6	24		
HOURLY MAX	17	23	26	22	21	NA	7	5	8	14	11	17	15	13	14	8	10	5	9	4	14	23	26	23				
HOURLY AVG	4.3	4.7	5.2	4.2	4.0	NA	1.3	1.4	1.8	2.0	1.8	2.1	1.2	1.5	1.5	1.3	1.3	1.0	1.2	0.7	1.6	2.5	4.5	5.7				

STATUS FLAG CODES

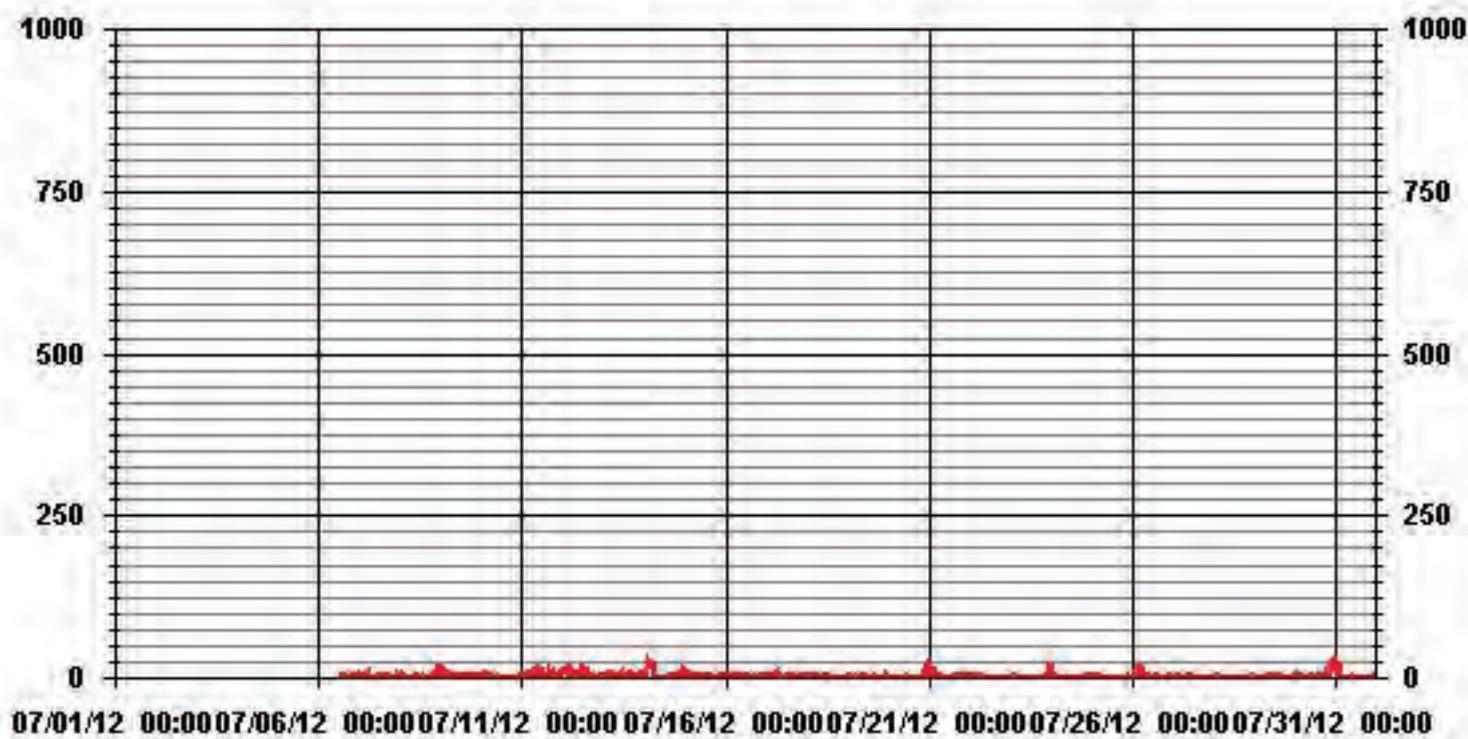
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	405
MAXIMUM 1-HR AVERAGE:	26 PPB
MAXIMUM 24-HR AVERAGE:	7.4 PPB
Izs Calibration Time:	25 HRS
Monthly Calibration Time:	0 HRS
Standard Deviation:	4.08
Operational Time:	610 HRS
AmD Operation Uptime:	82.0 %
Monthly Average:	2.46 PPB



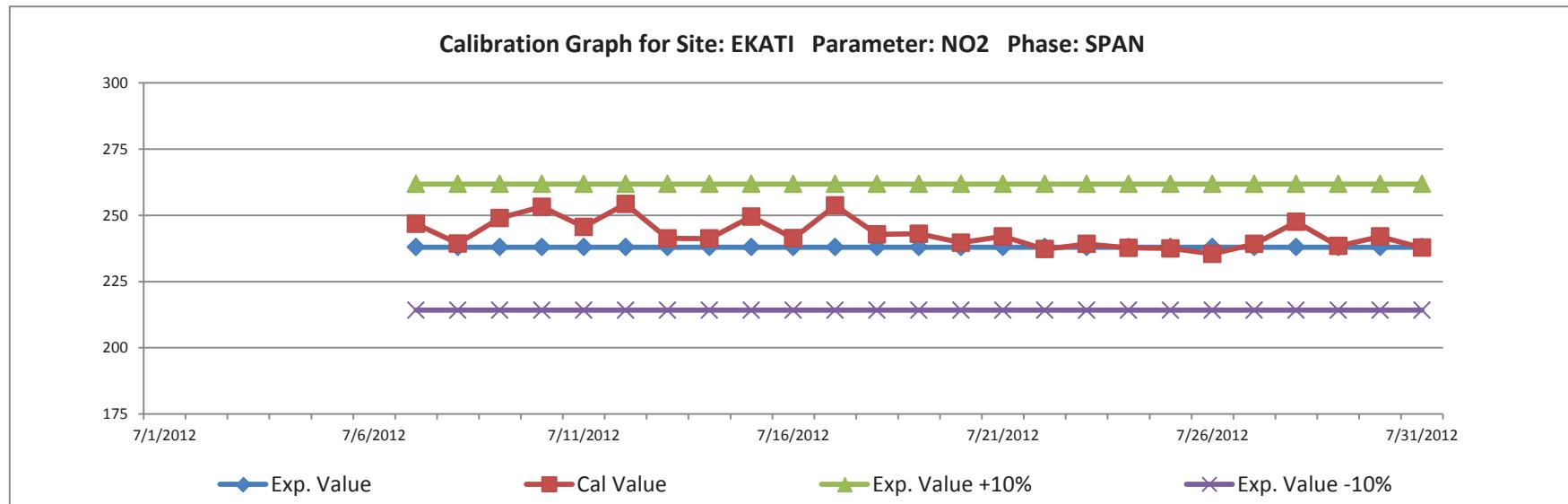
01 Hour Averages



— EKATI NO2 PPB

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JOB #: 3728-12-07~09-007-QC

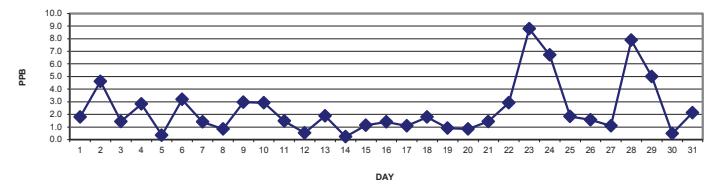


BHP Diamonds Inc. - EKATI
AUGUST 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1	3	3	10	1	IZS	1	4	3	1	0	0	0	0	0	0	0	0	0	1	0	1	3	4	5	10	1.8	24
2	5	13	17	23	17	IZS	11	3	4	1	0	0	0	0	0	0	0	0	0	0	1	2	3	6	23	4.6	24	
3	4	4	4	4	3	IZS	0	0	0	1	1	1	0	0	0	0	0	1	1	1	3	2	1	1	4	1.4	24	
4	1	2	3	1	2	IZS	0	0	1	1	1	0	1	0	0	0	1	3	6	13	9	6	6	8	13	2.8	24	
5	2	1	0	0	0	IZS	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
6	0	0	2	5	3	IZS	3	3	5	7	5	0	0	1	1	1	0	5	3	0	1	12	10	6	12	3.2	24	
7	1	1	2	2	0	IZS	0	0	0	1	1	1	2	2	2	1	1	0	0	2	4	5	3	5	1.4	24		
8	0	2	1	1	0	IZS	0	0	0	1	0	0	0	0	0	0	1	1	2	1	3	2	2	3	0.8	24		
9	3	2	4	3	1	IZS	1	1	1	2	2	3	3	1	1	1	1	1	1	3	17	6	9	17	3.0	24		
10	7	12	13	13	16	IZS	1	0	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	16	2.9	24	
11	1	4	5	6	5	IZS	1	2	1	1	0	0	0	1	1	1	1	1	1	0	0	0	1	1	6	1.5	24	
12	0	0	0	0	0	IZS	0	0	1	0	0	1	0	0	0	0	0	1	1	0	0	0	1	6	0.5	24		
13	2	0	4	11	11	IZS	4	1	2	1	3	1	1	1	0	0	0	1	0	0	0	0	0	11	1.9	24		
14	0	0	0	0	0	IZS	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	0.2	24			
15	0	0	1	1	1	IZS	4	7	3	2	0	0	0	1	0	0	0	0	0	1	2	1	2	7	1.1	24		
16	2	1	0	0	2	IZS	0	0	1	2	1	0	1	1	2	2	2	6	3	1	1	1	2	6	1.4	24		
17	1	2	1	0	1	IZS	2	1	0	0	0	0	1	0	0	0	1	1	1	5	4	3	5	1.1	24			
18	6	4	4	7	2	IZS	2	1	0	0	1	1	1	1	1	1	2	1	1	1	1	1	1	7	1.8	24		
19	2	1	1	2	1	IZS	3	1	1	2	1	0	1	1	1	0	0	1	1	0	0	0	1	3	0.9	24		
20	2	1	2	1	1	IZS	0	1	2	0	0	0	1	0	1	0	0	0	0	0	0	5	2	5	0.8	24		
21	3	4	3	4	4	IZS	1	1	1	1	1	0	1	1	0	0	0	0	1	0	1	2	4	0	4	1.4	24	
22	0	3	3	15	4	IZS	3	0	0	1	0	0	1	1	0	0	0	0	0	0	0	5	18	12	18	2.9	24	
23	9	8	9	12	8	IZS	7	5	10	13	8	1	1	6	6	7	1	11	13	14	18	12	15	8	18	8.8	24	
24	6	7	5	7	7	IZS	15	18	5	2	2	6	7	8	4	9	5	8	8	3	4	2	2	14	18	6.7	24	
25	6	4	1	3	10	IZS	1	5	0	1	0	0	0	0	1	1	1	1	1	1	1	1	3	10	1.8	24		
26	4	3	3	3	1	IZS	0	0	1	1	0	0	0	0	0	1	1	1	1	0	1	6	6	3	6	1.6	24	
27	2	1	1	1	2	IZS	3	0	1	1	0	3	0	1	2	1	1	0	0	0	1	4	0	0	4	1.1	24	
28	1	5	8	8	12	IZS	9	6	11	2	0	1	0	1	10	12	10	18	7	5	13	9	20	13	20	7.9	24	
29	0	2	13	8	13	IZS	7	16	9	0	0	0	10	4	3	12	7	6	4	1	0	0	0	0	16	5.0	24	
30	0	0	0	0	0	IZS	0	0	0	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	0.5	24		
31	1	4	14	9	1	IZS	5	3	1	1	0	0	0	0	0	0	0	0	0	0	2	4	2	2	14	2.1	24	
HOURLY MAX	9	13	17	23	17	NA	15	18	11	13	8	6	10	8	10	12	10	18	13	14	18	17	20	14				
HOURLY AVG	2.3	3.0	4.1	5.2	4.2	NA	2.7	2.5	2.1	1.6	1.0	0.7	1.1	1.1	1.2	1.7	1.2	2.3	1.9	1.4	2.3	3.3	3.8	3.7				

24 HOUR AVERAGES FOR AUGUST 2012



NUMBER OF NON-ZERO READINGS:

461

MAXIMUM 1-HR AVERAGE:

23

PPB

@ HOUR(S)

3

ON DAY(S)

2

MAXIMUM 24-HR AVERAGE:

8.8

PPB

ON DAY(S)

23

Izs Calibration Time:

31

HRS

Operational Time:

744

HRS

Monthly Calibration Time:

0

HRS

Am Operation Uptime:

100.0

%

Standard Deviation:

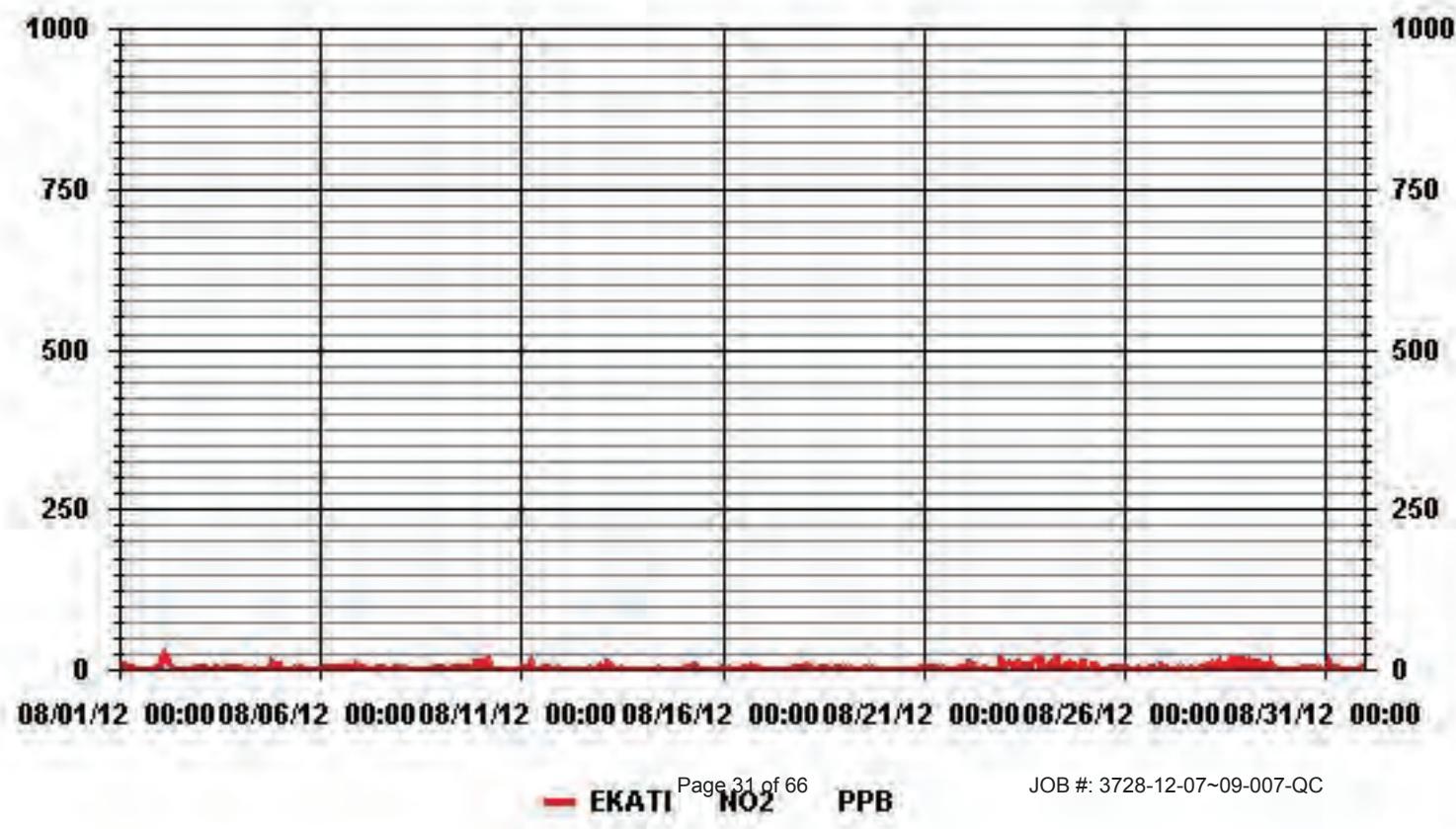
3.67

Monthly Average:

2.36

PPB

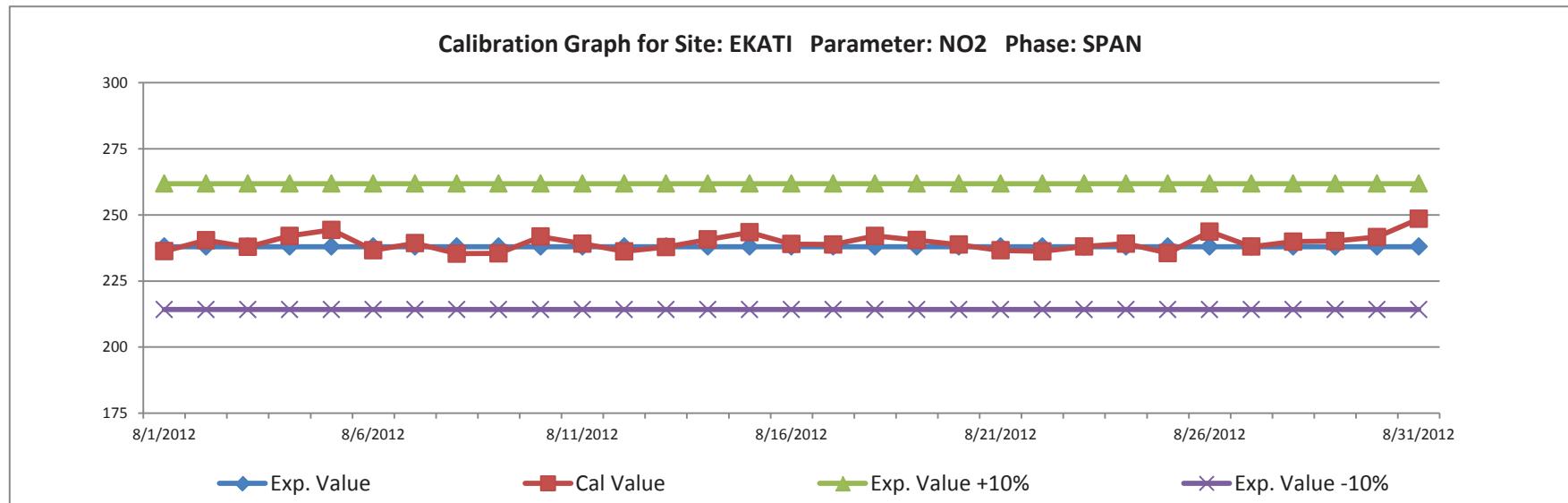
01 Hour Averages



— EKATI NO₂ PPB

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JOB #: 3728-12-07~09-007-QC

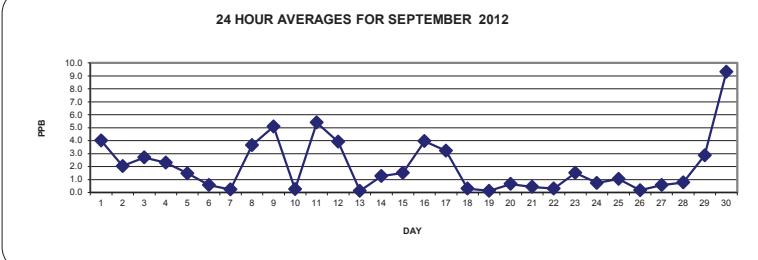


BHP Billiton Diamonds Inc. - EKATI
 SEPTEMBER 2012
NITROGEN DIOXIDE (NO₂) hourly averages in ppb

MST																									DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1	1	0	0	0	IZS	0	0	2	1	1	2	0	2	1	1	1	2	6	8	16	12	15	20	20	4.0	24	
2	20	3	1	1	0	IZS	1	2	0	0	0	0	0	0	1	1	1	2	1	4	4	2	1	2	20	2.0	24	
3	1	2	2	2	1	IZS	0	1	9	7	2	3	7	8	2	1	1	1	0	2	2	4	3	9	2.7	24		
4	4	4	5	1	2	IZS	3	1	1	6	3	1	1	1	1	1	1	4	3	1	2	4	2	6	2.3	24		
5	2	3	3	4	4	IZS	5	1	1	1	0	0	0	0	0	1	1	1	3	1	1	1	5	1.5	24			
6	2	3	2	1	1	IZS	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0.6	24		
7	0	0	0	0	0	IZS	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.2	24		
8	0	4	7	6	2	IZS	1	2	2	1	0	1	0	2	1	2	5	16	1	5	13	5	6	2	16	3.7	24	
9	9	13	4	18	22	IZS	18	12	7	4	2	1	0	0	0	0	1	1	1	1	1	1	1	22	5.1	24		
10	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24		
11	11	19	17	20	10	IZS	2	1	1	3	4	4	5	2	3	3	2	2	2	2	2	3	4	20	5.4	24		
12	3	6	8	11	11	IZS	14	21	8	0	0	0	0	0	0	0	1	2	2	0	1	1	0	1	21	3.9	24	
13	0	1	0	0	0	IZS	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
14	0	0	0	0	0	IZS	2	0	2	6	1	2	2	3	3	1	0	1	0	0	1	3	2	6	1.3	24		
15	1	1	1	0	0	IZS	0	0	3	3	1	1	0	0	1	0	0	0	0	5	9	9	9	1.5	24			
16	5	8	7	3	3	IZS	0	2	0	1	2	2	2	1	1	0	1	1	0	8	21	16	7	21	4.0	24		
17	22	19	2	2	10	IZS	1	0	0	1	1	0	2	2	0	2	2	1	5	2	0	0	0	0	22	3.2	24	
18	0	1	1	1	1	IZS	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0.3	24	
19	0	0	0	0	0	IZS	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0.1	24		
20	0	0	0	0	0	IZS	3	1	3	1	0	1	0	1	0	0	0	1	1	1	1	1	0	0	3	0.7	24	
21	0	0	0	1	1	IZS	0	0	0	0	0	1	0	1	1	1	1	1	0	0	1	0	0	0	0.4	24		
22	0	0	0	0	0	IZS	1	0	1	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0	0.3	24		
23	0	1	1	1	1	IZS	0	0	3	1	1	4	9	1	0	0	0	1	1	1	3	3	2	9	1.5	24		
24	1	4	0	0	0	IZS	1	3	1	0	0	0	0	0	0	0	0	0	1	2	3	1	4	0.7	24			
25	1	2	1	1	1	IZS	4	2	6	4	1	0	0	0	0	0	1	0	0	0	0	0	0	6	1.0	24		
26	0	0	0	0	0	IZS	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0.2	24			
27	1	1	2	0	0	IZS	1	0	3	1	1	0	0	0	0	0	0	1	0	0	0	0	0	3	0.6	24		
28	0	0	0	0	0	IZS	0	0	1	0	1	1	0	1	1	1	1	2	1	2	2	2	2	0.8	24			
29	3	4	2	0	2	IZS	14	5	2	2	1	0	0	1	1	1	4	10	3	4	3	2	1	14	2.9	24		
30	14	26	28	18	19	IZS	7	2	2	1	2	5	6	4	7	8	5	4	4	2	7	11	15	17	28	9.3	24	
HOURLY MAX	22	26	28	20	22	NA	18	21	9	7	4	5	9	8	7	8	5	16	10	8	16	21	16	20				
HOURLY AVG	3.4	4.2	3.2	3.1	3.1	NA	2.6	1.9	2.0	1.5	0.9	1.0	1.3	1.1	0.9	0.8	0.9	1.5	1.4	1.2	2.3	2.6	3.0	2.6				

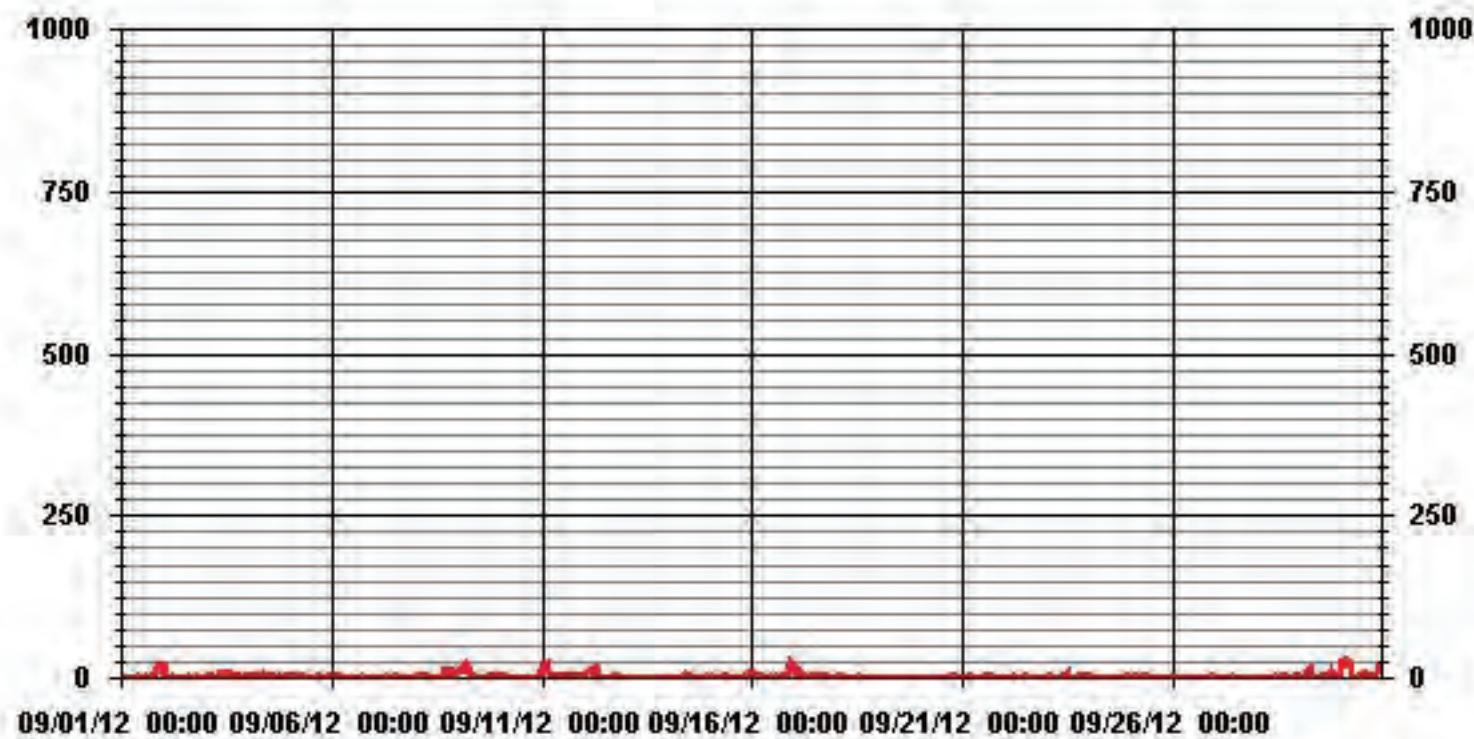
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:	395
MAXIMUM 1-HR AVERAGE:	28 PPB
MAXIMUM 24-HR AVERAGE:	9.3 PPB
Izs Calibration Time:	30 Hrs
Monthly Calibration Time:	0 Hrs
Standard Deviation:	3.92
Operational Time:	720 Hrs
AmD Operation Uptime:	100.0 %
Monthly Average:	2.02 PPB

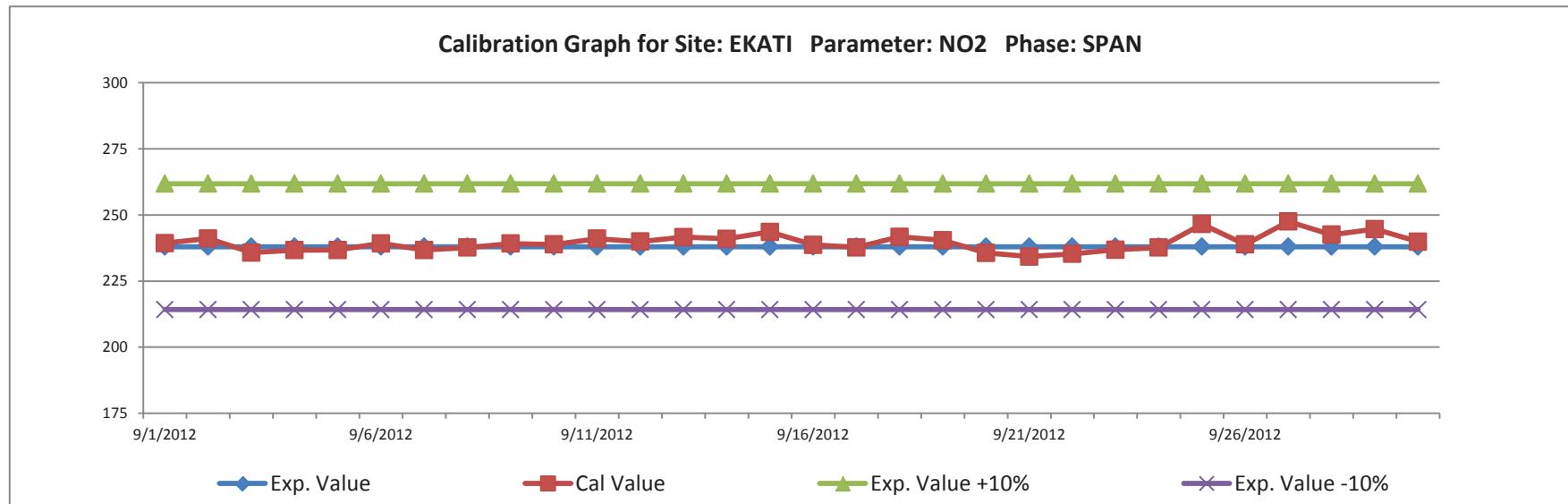
01 Hour Averages



— EKATI NO2 PPB

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JOB #: 3728-12-07~09-007-QC



Nitric Oxide

BHP Diamonds Inc. - EKATI

JULY 2012

NITRIC OXIDES (NO) hourly averages in ppb

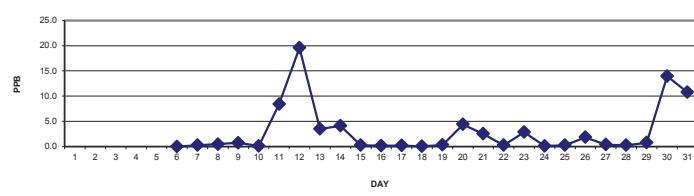
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	0	0	0	0	0	0	0	0.0	10	
7	0	0	0	0	1	IZS	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0.3	24	
8	0	1	0	0	0	IZS	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	4	4	0.5	24	
9	8	1	2	0	0	IZS	2	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	8	0.7	24		
10	0	1	0	0	0	IZS	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
11	0	2	1	2	4	IZS	2	8	10	32	19	26	3	0	2	1	41	10	22	0	0	0	4	4	41	8.4	24	
12	22	14	55	9	45	IZS	2	8	19	42	27	70	50	42	36	7	0	1	0	0	0	1	0	0	70	19.6	24	
13	0	1	3	4	9	IZS	1	1	3	6	5	13	2	5	4	7	2	5	1	2	1	1	2	2	13	3.5	24	
14	1	10	32	22	21	IZS	2	1	1	0	0	0	0	0	0	0	0	0	3	0	1	1	1	32	4.1	24		
15	0	0	0	0	0	IZS	1	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24		
16	0	0	0	0	0	IZS	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0.2	24	
17	0	0	1	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.2	24		
18	0	0	0	0	0	IZS	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
19	0	0	1	1	1	IZS	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	1	0.3	24		
20	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	71	71	4.4	24	
21	38	4	12	1	1	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	2.6	24	
22	0	0	0	1	0	IZS	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0.3	24	
23	0	0	1	1	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	59	59	2.9	24	
24	2	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24	
25	0	0	0	0	0	IZS	1	1	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	0.3	24		
26	1	1	3	12	20	IZS	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	20	1.9	24	
27	1	2	0	1	1	IZS	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24		
28	0	0	1	0	0	IZS	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0.3	24		
29	0	0	0	0	0	IZS	1	5	2	2	2	1	1	3	1	0	0	0	0	0	0	0	0	0	5	0.8	24	
30	1	1	0	0	0	IZS	1	1	3	8	5	1	2	5	4	3	7	4	10	6	31	47	91	90	91	14.0	24	
31	55	155	16	16	1	IZS	1	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	155	10.8	24	
HOURLY MAX	55	155	55	22	45	NA	2	8	19	42	27	70	50	42	36	7	41	10	22	6	31	47	91	90				
HOURLY AVG	5.2	7.7	5.1	2.8	4.2	NA	1.2	1.2	1.9	3.8	2.6	4.5	2.4	2.2	1.9	0.7	2.0	0.8	1.3	0.3	1.4	2.1	5.3	9.0				

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

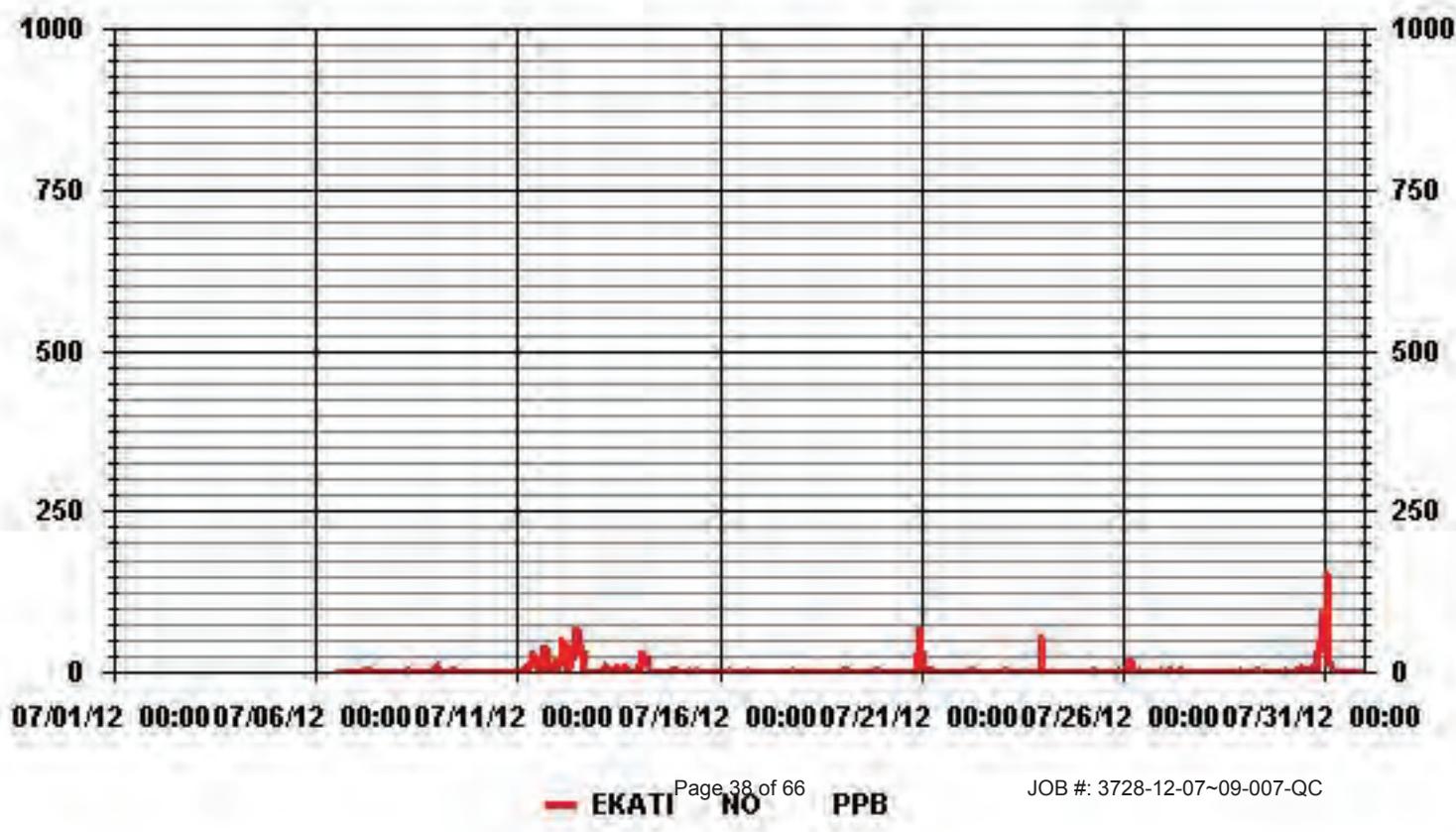
24 HOUR AVERAGES FOR JULY 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	209			
MAXIMUM 1-HR AVERAGE:	155	PPB	@ HOUR(S)	1
MAXIMUM 24-HR AVERAGE:	19.6	PPB	ON DAY(S)	5
IZS CALIBRATION TIME:	25	HRS	OPERATIONAL TIME:	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	82.0 %
STANDARD DEVIATION:	11.71		MONTHLY AVERAGE:	3.02 PPB

01 Hour Averages



— EKATI NO PPB

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JOB #: 3728-12-07~09-007-QC

BHP Diamonds Inc. - EKATI

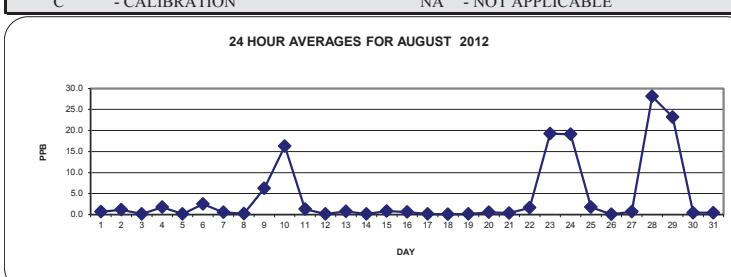
AUGUST 2012

NITRIC OXIDES (NO) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY																													
1	0	1	1	6	1	IZS	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0.7	24
2	0	3	4	7	3	IZS	4	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	1.2	24
3	0	1	1	1	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
4	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	4	4	13	15	1	1	2	15	1.8	24		
5	1	0	0	0	0	IZS	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
6	0	0	1	3	1	IZS	2	2	13	12	6	0	0	1	0	1	0	7	2	0	0	4	2	0	13	2.5	24		
7	0	0	0	0	0	IZS	1	0	0	0	0	1	1	4	2	2	0	0	0	0	0	1	0	0	0	4	0.5	24	
8	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.2	24		
9	0	0	1	1	0	IZS	1	0	0	1	1	3	3	0	0	0	0	0	0	0	2	47	18	65	6.2	24			
10	30	75	80	79	108	IZS	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	16.3	24	
11	0	1	2	13	11	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1.3	24	
12	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
13	0	0	1	2	2	IZS	1	0	3	1	4	0	1	1	0	0	0	1	0	0	0	0	0	0	0	4	0.7	24	
14	0	0	0	0	0	IZS	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
15	0	0	1	0	0	IZS	2	10	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	10	0.8	24	
16	0	0	0	0	0	IZS	1	0	1	1	0	0	1	1	2	1	1	4	1	0	0	0	0	0	0	4	0.6	24	
17	0	0	0	0	0	IZS	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24	
18	0	0	0	1	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
19	0	0	0	0	0	IZS	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
20	0	0	1	0	2	IZS	1	2	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	2.5	24		
21	0	0	0	0	0	IZS	1	1	2	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
22	0	1	0	5	0	IZS	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	24	3	1.6	24		
23	1	1	1	2	1	IZS	3	5	70	71	20	1	0	12	12	14	2	33	37	39	71	11	32	4	71	19.3	24		
24	2	4	2	4	5	IZS	41	126	14	1	2	19	29	36	9	27	9	20	14	1	4	2	1	67	126	19.1	24		
25	8	4	0	3	10	IZS	2	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1.7	24	
26	0	0	1	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
27	0	0	0	0	2	IZS	1	0	0	1	0	4	0	2	3	1	1	0	0	0	0	1	0	0	4	0.7	24		
28	0	2	3	3	4	IZS	6	24	63	2	1	2	0	1	37	56	36	103	22	10	39	41	98	93	103	28.1	24		
29	0	2	107	18	74	IZS	7	92	56	0	0	0	56	20	9	58	17	13	3	1	0	0	0	0	0	107	23.2	24	
30	0	0	0	0	0	IZS	1	0	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	1	0.4	24		
31	0	0	5	1	0	IZS	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.4	24		
HOURLY MAX	30	75	107	79	108	NA	41	126	70	71	20	19	56	36	37	58	36	103	37	39	71	47	98	93					
HOURLY AVG	1.4	3.1	6.8	4.8	7.2	NA	2.9	9.1	7.6	3.3	1.2	1.0	3.0	2.6	2.5	5.2	2.2	6.0	2.7	2.1	4.3	3.6	5.8	7.6					

24 HOUR AVERAGES FOR AUGUST 2012



NUMBER OF NON-ZERO READINGS:

258

MAXIMUM 1-HR AVERAGE:

126

PPB

@ HOUR(S)

7

ON DAY(S)

24

MAXIMUM 24-HR AVERAGE:

28.1

PPB

IZS CALIBRATION TIME:

31

HRS

OPERATIONAL TIME:

744

HRS

MONTHLY CALIBRATION TIME:

0

HRS

AMD OPERATION UPTIME:

100.0

%

STANDARD DEVIATION:

14.73

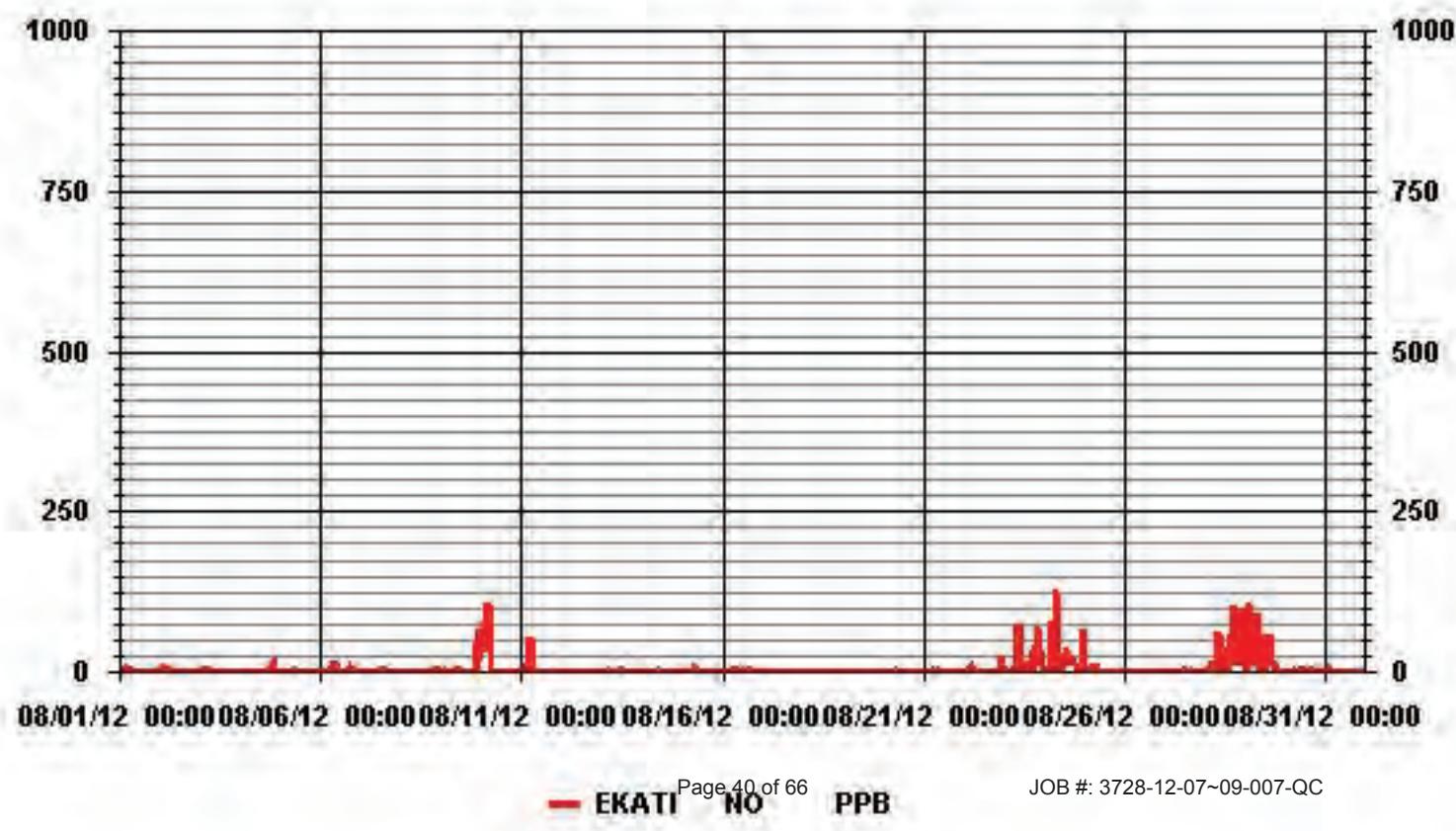
PPB

MONTHLY AVERAGE:

4.17

PPB

01 Hour Averages



BHP Billiton Diamonds Inc. - EKATI

SEPTEMBER 2012

NITRIC OXIDES (NO) hourly averages in ppb

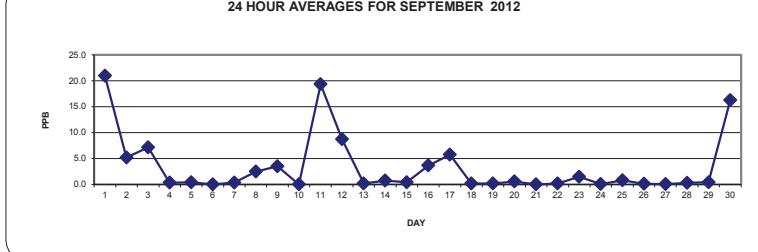
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00					
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY																													
1	0	0	0	0	0	Izs	1	0	2	1	3	4	0	4	2	0	1	1	17	27	141	53	66	159	159	21.0	24		
2	100	6	1	0	0	Izs	1	0	0	0	0	0	0	0	0	2	1	1	1	2	1	1	1	1	100	5.2	24		
3	1	1	1	1	0	Izs	1	3	47	36	9	7	29	21	5	0	1	1	0	0	0	0	1	0	47	7.2	24		
4	2	1	0	0	0	Izs	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2	0.3	24			
5	1	1	1	1	0	Izs	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0.4	24		
6	0	0	0	0	0	Izs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
7	0	0	0	0	0	Izs	1	2	2	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0.4	24	
8	0	0	0	0	4	Izs	1	1	1	0	0	0	0	1	1	1	12	31	0	1	2	0	0	0	0	31	2.5	24	
9	2	2	0	0	17	35	Izs	8	7	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	35	3.5	24	
10	0	0	0	0	0	Izs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
11	49	106	115	100	30	Izs	2	1	1	3	4	5	10	2	3	2	1	1	1	1	1	1	2	4	115	19.3	24		
12	2	10	11	23	19	Izs	14	102	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	8.7	24		
13	0	0	0	0	0	Izs	1	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
14	0	0	0	0	0	Izs	2	0	2	3	1	1	1	2	2	1	0	0	0	0	0	1	1	1	3	0.8	24		
15	1	0	0	0	0	Izs	1	0	1	2	1	0	0	0	1	0	0	0	0	0	0	1	1	1	2	0.4	24		
16	1	2	2	1	0	Izs	1	1	0	0	1	1	2	6	2	1	0	0	0	0	1	28	32	2	32	3.7	24		
17	50	70	1	1	6	Izs	1	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	70	5.8	24		
18	0	0	0	0	0	Izs	1	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
19	0	0	0	0	0	Izs	1	0	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0.2	24	
20	0	0	0	0	0	Izs	1	1	5	1	0	1	0	1	2	0	1	0	0	0	0	0	0	0	5	0.6	24		
21	0	0	0	0	0	Izs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
22	0	0	0	0	0	Izs	1	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
23	0	0	0	0	0	Izs	1	0	1	1	0	4	22	1	0	0	0	0	1	0	1	1	1	0	22	1.5	24		
24	0	0	0	0	0	Izs	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
25	0	0	0	0	1	Izs	1	3	9	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0.8	24		
26	0	0	0	0	0	Izs	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	24		
27	0	0	0	0	0	Izs	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
28	0	0	0	0	0	Izs	1	0	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	1	0.3	24		
29	0	0	0	0	0	Izs	2	0	1	3	1	0	0	0	1	0	0	1	1	0	0	0	0	0	3	0.4	24		
30	10	36	58	7	14	Izs	4	0	1	1	2	5	8	8	12	14	8	2	1	1	9	28	60	85	85	16.3	24		
HOURLY MAX	100	106	115	100	35	NA	14	102	47	36	9	7	29	21	12	14	12	31	17	27	141	53	66	159					
HOURLY AVG	7.3	7.8	6.3	5.2	3.5	NA	1.9	4.1	3.5	2.0	0.9	1.0	2.5	1.7	1.2	0.8	0.9	1.3	0.7	1.0	5.3	3.8	5.6	8.5					

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

24 HOUR AVERAGES FOR SEPTEMBER 2012

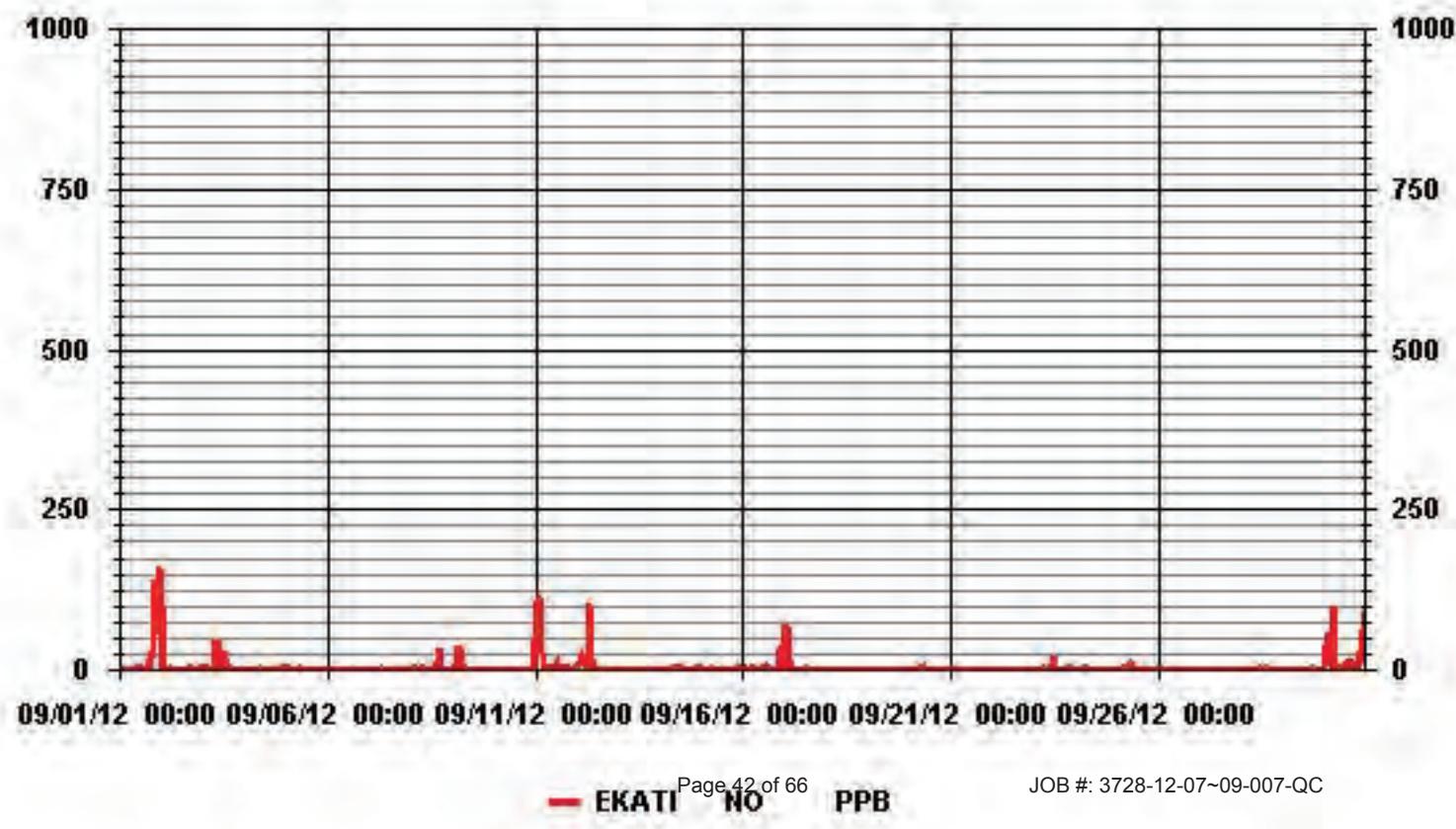


NUMBER OF NON-ZERO READINGS:

251

MAXIMUM 1-HR AVERAGE:	159	PPB	@ HOUR(S)	23	ON DAY(S)	1
MAXIMUM 24-HR AVERAGE:	21.0	PPB			ON DAY(S)	1
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:			
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:			
STANDARD DEVIATION:	14.30		MONTHLY AVERAGE:			
					720	HRS
					100.0	%
					3.35	PPB

01 Hour Averages



— EKATI NO PPB

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JOB #: 3728-12-07~09-007-QC

Oxides of Nitrogen

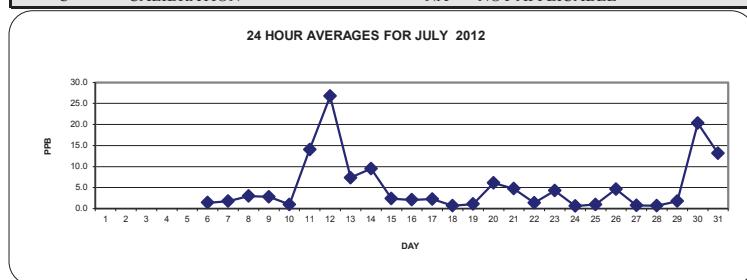
BHP Diamonds Inc. - EKATI
JULY 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

MST

DAY	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1	1	0	0	1	1	1	4	4	4	1.4	10	
7	6	4	2	0	3	IZS	5	2	2	1	0	1	0	1	0	1	0	1	0	0	1	2	7	2	7	1.8	24	
8	1	5	1	1	3	IZS	1	4	1	1	0	1	0	1	1	1	0	0	2	1	1	3	3	0	24	2.8	24	
9	24	2	8	2	3	IZS	2	1	1	3	3	1	1	1	0	0	0	2	1	1	3	3	0	24	2.8	24		
10	0	2	3	6	1	IZS	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	4	6	1.0	24	
11	3	7	5	8	10	IZS	9	12	17	47	30	38	7	1	4	1	51	15	31	1	0	1	13	12	51	14.0	24	
12	33	23	69	17	60	IZS	1	11	27	51	35	86	65	55	49	15	3	3	1	0	3	5	2	1	86	26.7	24	
13	1	4	8	9	17	IZS	0	2	8	11	9	21	4	10	9	13	4	10	3	4	2	3	8	9	21	7.3	24	
14	5	25	57	43	42	IZS	3	2	3	0	0	0	0	0	1	1	1	2	2	9	2	6	13	57	9.5	24		
15	9	6	6	5	5	IZS	2	3	4	1	1	0	1	1	0	0	0	0	1	1	4	3	9	2.3	24			
16	4	5	4	3	2	IZS	1	1	1	2	1	1	1	1	1	3	5	2	1	2	2	2	2	5	2.1	24		
17	2	2	5	1	1	IZS	7	1	1	1	3	1	1	1	1	1	1	1	1	5	6	4	4	7	2.3	24		
18	3	2	3	2	1	IZS	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.7	24		
19	0	0	1	1	3	IZS	0	0	1	1	1	1	0	1	1	1	0	0	0	0	2	7	2	7	1.1	24		
20	0	0	0	0	0	IZS	0	0	1	0	1	1	1	0	0	0	0	0	0	1	1	41	92	92	6.1	24		
21	55	12	21	2	2	IZS	4	3	2	0	0	0	0	0	1	0	1	0	0	0	1	1	2	1	55	4.7	24	
22	2	4	4	4	3	IZS	1	2	4	1	0	0	0	0	1	0	0	0	0	0	0	1	0	2	2	4	1.3	24
23	0	0	1	2	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	82	82	4.3	24	
24	5	1	1	1	0	IZS	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	1	5	0.6	24		
25	1	1	2	2	1	IZS	1	4	1	0	0	0	0	0	0	2	0	0	0	0	0	3	3	1	4	1.0	24	
26	2	9	14	30	37	IZS	1	1	1	1	2	0	0	0	1	1	1	0	0	0	0	0	1	1	3	37	4.6	24
27	3	5	1	2	2	IZS	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.7	24	
28	0	1	4	0	1	IZS	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	5	0	5	0.7	24	
29	0	0	0	0	0	IZS	2	9	3	4	4	3	3	5	2	1	1	0	0	0	1	0	0	3	9	1.8	24	
30	8	6	4	7	2	IZS	0	2	7	12	8	2	3	8	8	6	12	7	17	10	45	69	117	108	117	20.3	24	
31	68	177	24	22	3	IZS	0	0	0	2	1	0	1	0	0	1	0	0	0	0	0	2	2	177	13.2	24		
HOURLY MAX	68	177	69	43	60	NA	9	12	27	51	35	86	65	55	49	15	51	15	31	10	45	69	117	108				
HOURLY AVG	9.4	12.1	9.9	6.8	8.1	NA	1.7	2.5	3.5	5.7	4.1	6.4	3.5	3.6	3.2	1.8	3.1	1.8	2.3	0.9	3.0	4.3	9.7	14.5				

STATUS FLAG CODES

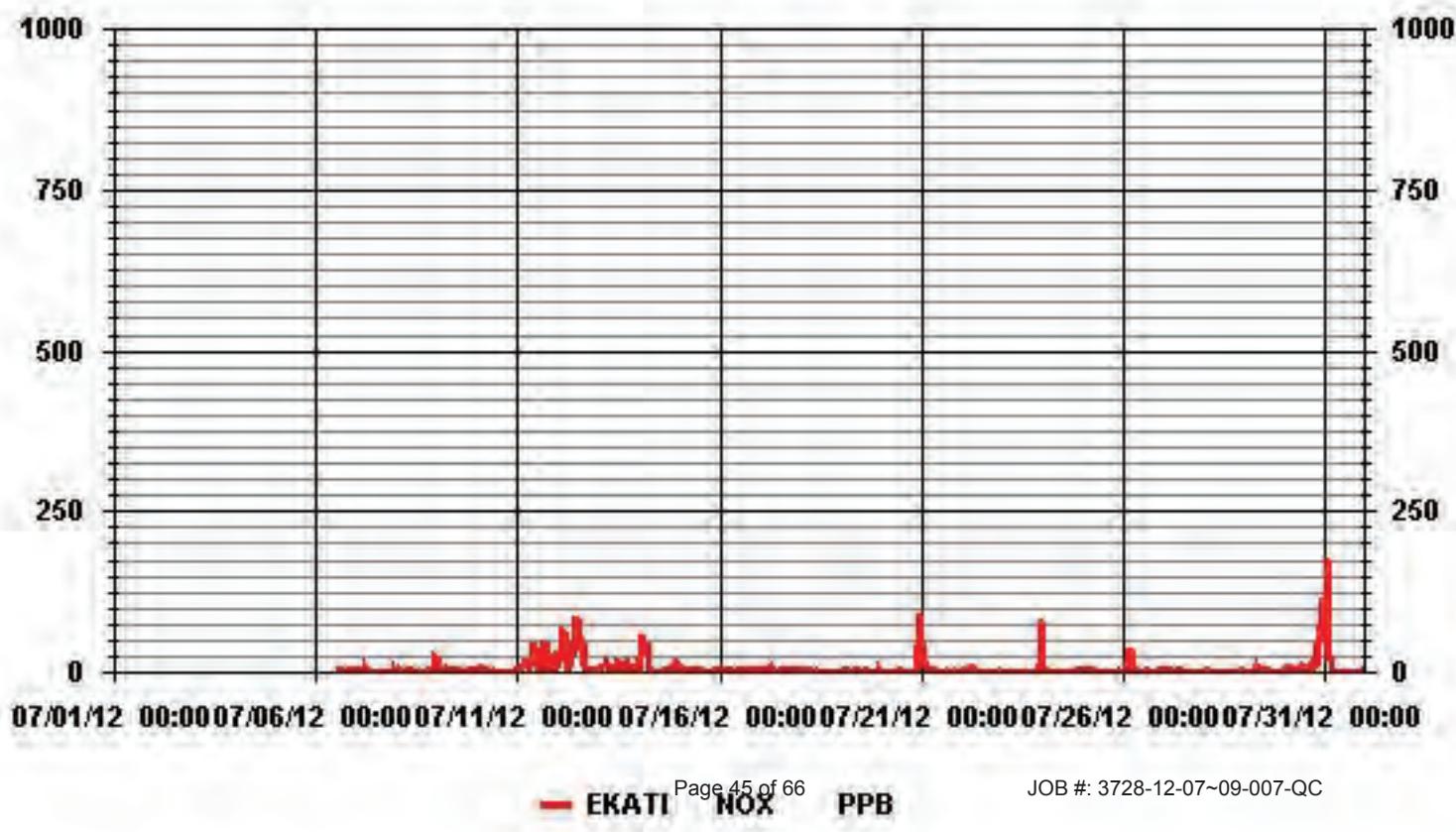
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	388			
MAXIMUM 1-HR AVERAGE:	177	PPB	@ HOUR(S)	1
MAXIMUM 24-HR AVERAGE:	26.7	PPB	ON DAY(S)	31
ON DAY(S)	ON DAY(S)			12
Izs Calibration Time:	25	HRS	Operational Time:	610 HRS
Monthly Calibration Time:	0	HRS	AMD Operation Uptime:	82.0 %
Standard Deviation:	15.00		Monthly Average:	5.29 PPB

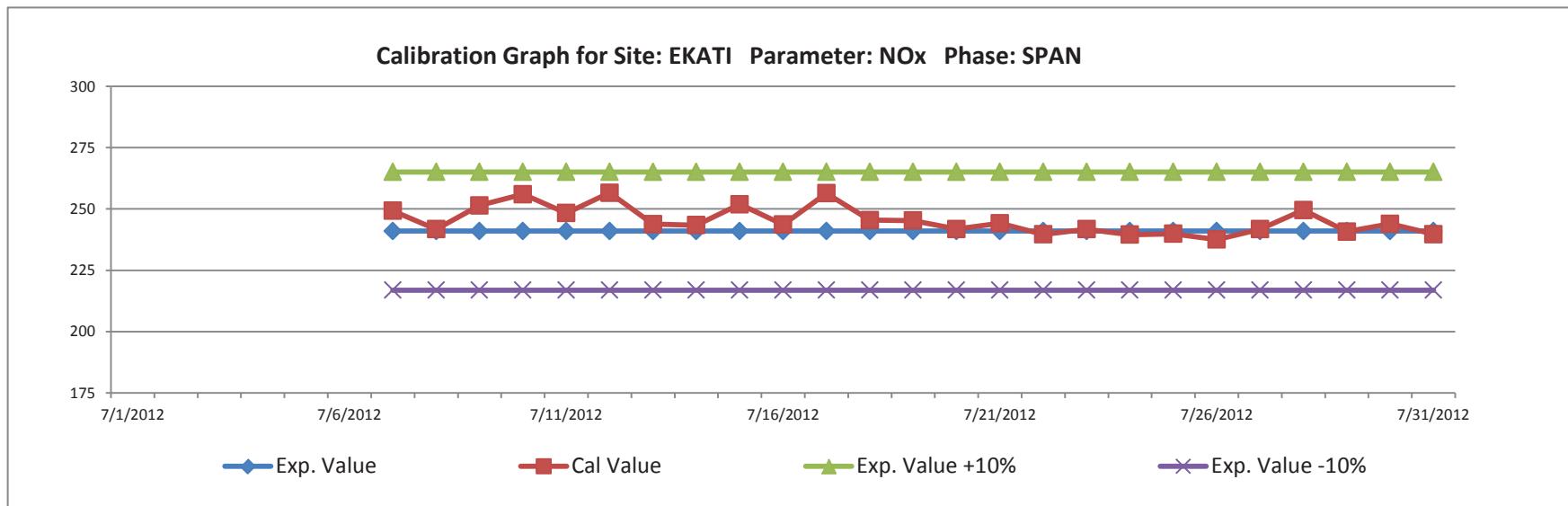
01 Hour Averages



— EKATI NOX PPB

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JOB #: 3728-12-07~09-007-QC



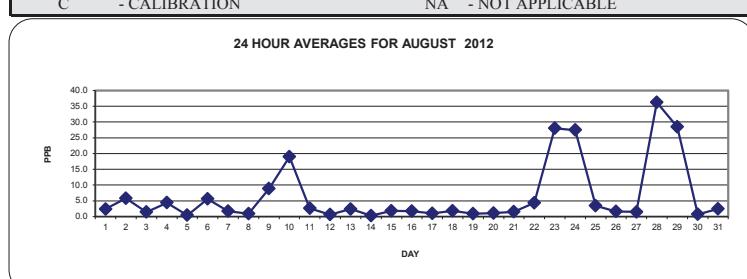
BHP Diamonds Inc. - EKATI
AUGUST 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.		
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
DAY																													
1	1	3	5	15	2	IZS	1	6	5	2	0	0	0	0	0	0	0	0	0	0	1	0	1	3	4	6	15	2.4	24
2	5	15	21	30	20	IZS	18	4	7	2	0	0	0	0	0	0	0	0	0	0	0	0	2	3	7	30	5.8	24	
3	4	5	5	4	3	IZS	0	0	0	1	1	1	0	0	0	0	0	1	1	0	1	3	1	1	1	5	1.4	24	
4	1	1	3	1	2	IZS	0	0	1	1	0	0	1	0	0	0	1	7	10	26	23	6	7	10	26	4.4	24		
5	3	0	0	0	0	IZS	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0.4	24		
6	0	0	2	8	4	IZS	6	5	18	19	11	0	0	3	1	1	0	12	5	0	1	16	11	6	19	5.6	24		
7	1	1	2	2	0	IZS	0	0	0	1	2	1	6	4	4	1	0	0	2	4	5	3	6	1.7	24				
8	0	2	1	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	1	2	1	3	3	3	3	0.9	24			
9	3	2	5	4	1	IZS	1	1	1	2	3	5	5	0	1	1	1	0	5	63	24	74	74	8.9	24				
10	37	86	92	92	124	IZS	1	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	124	19.0	24		
11	1	5	7	19	16	IZS	1	2	2	1	0	0	0	0	1	1	1	1	0	0	0	0	0	1	19	2.6	24		
12	0	0	0	0	0	IZS	1	0	1	0	0	1	0	0	1	1	1	2	0	0	0	1	6	6	0.7	24			
13	2	0	5	13	12	IZS	4	1	5	3	6	1	1	0	0	0	0	1	0	0	0	0	0	0	13	2.4	24		
14	0	0	0	0	0	IZS	0	0	0	1	1	0	0	0	0	1	1	0	0	1	0	0	1	1	0.3	24			
15	0	0	1	1	1	IZS	5	17	6	3	0	0	0	1	0	0	0	0	0	1	2	1	2	17	1.8	24			
16	2	1	0	0	2	IZS	0	0	1	2	1	0	2	1	4	2	2	10	4	1	1	1	2	10	1.7	24			
17	0	2	1	0	1	IZS	5	1	0	0	0	0	1	0	0	0	0	0	0	0	5	4	3	5	1.0	24			
18	6	4	4	8	2	IZS	2	1	0	0	0	1	2	1	1	1	2	1	1	1	1	1	1	1	8	1.8	24		
19	2	1	1	1	1	IZS	4	1	1	2	0	0	1	1	3	0	0	0	0	0	0	0	0	1	4	0.9	24		
20	2	1	3	1	2	IZS	0	2	4	0	0	0	1	0	1	0	0	0	0	0	0	6	2	6	1.1	24			
21	3	4	3	4	4	IZS	1	1	3	2	1	0	1	2	0	0	0	0	0	1	2	4	0	4	1.6	24			
22	0	3	3	20	4	IZS	4	0	0	1	0	1	1	1	0	0	0	0	0	0	0	6	41	41	4.3	24			
23	10	9	10	14	9	IZS	12	10	80	84	28	1	1	17	18	21	3	44	50	52	88	23	47	12	88	28.0	24		
24	8	10	7	10	12	IZS	105	143	19	2	4	24	35	43	13	36	13	27	21	4	7	4	3	81	143	27.4	24		
25	14	8	1	5	20	IZS	1	16	1	1	1	0	0	0	1	1	1	1	1	1	2	1	3	20	3.5	24			
26	4	3	3	3	1	IZS	0	0	1	1	0	0	0	0	1	1	1	1	0	1	6	6	4	6	1.6	24			
27	2	1	1	0	4	IZS	3	0	1	1	0	6	0	3	4	2	1	0	0	0	5	0	0	6	1.5	24			
28	1	6	11	10	16	IZS	25	30	73	4	1	3	1	2	47	67	46	121	29	15	51	50	118	106	121	36.2	24		
29	0	4	120	26	87	IZS	20	108	65	1	0	0	66	24	11	70	25	19	7	1	0	0	0	0	120	28.4	24		
30	0	0	0	0	0	IZS	0	0	1	1	2	1	1	2	2	1	2	1	0	1	1	0	0	2	0.7	24			
31	1	4	19	10	1	IZS	5	5	1	1	0	0	0	0	0	0	0	0	0	0	2	4	2	2	19	2.5	24		
HOURLY MAX	37	86	120	92	124	NA	105	143	80	84	28	24	66	43	47	70	46	121	50	52	88	63	118	106					
HOURLY AVG	3.6	5.8	10.8	9.7	11.3	NA	7.3	11.4	9.6	4.5	1.9	1.6	4.0	3.5	3.6	6.8	3.3	8.2	4.4	3.3	6.3	6.8	9.5	11.4					

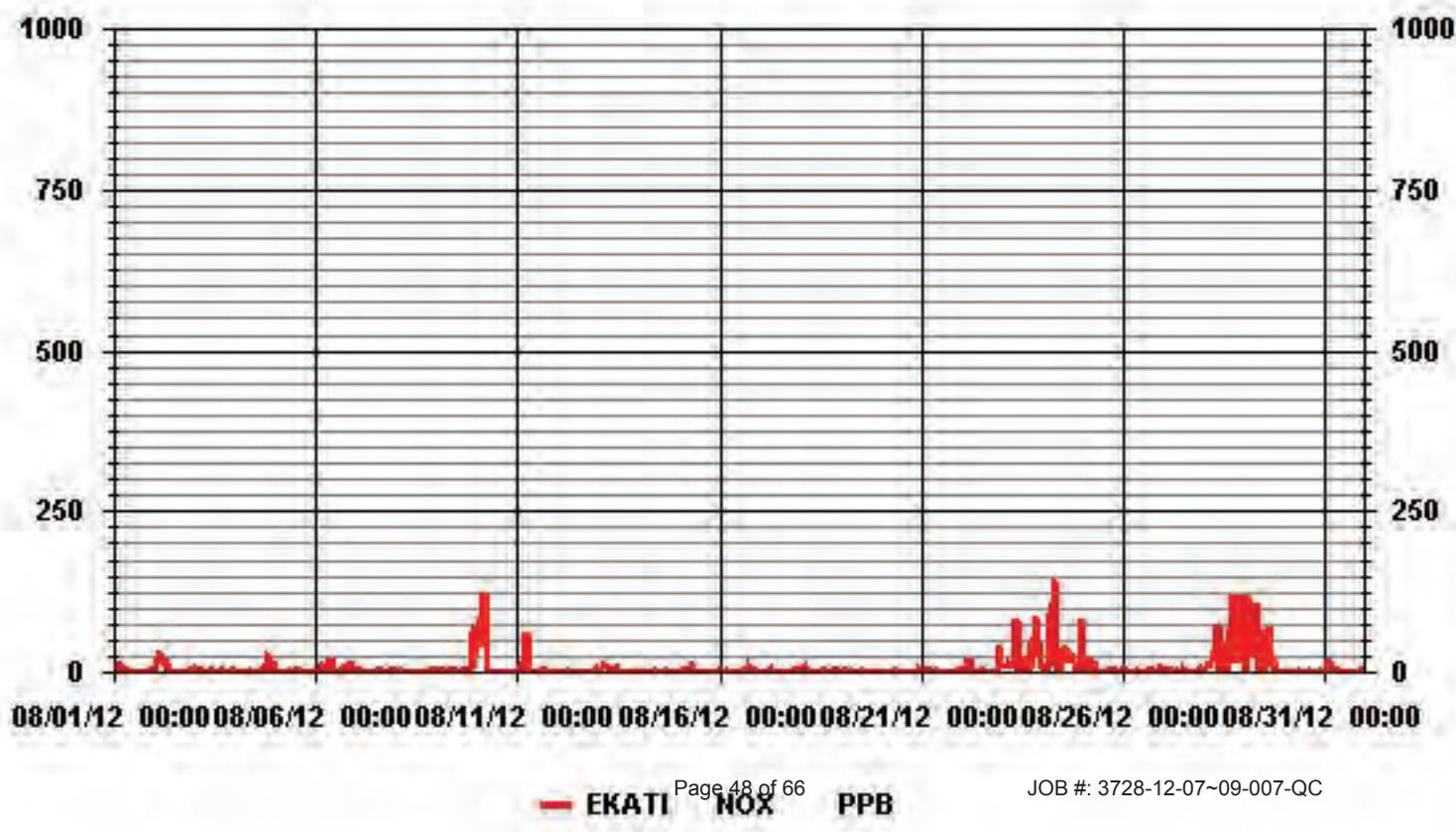
STATUS FLAG CODES

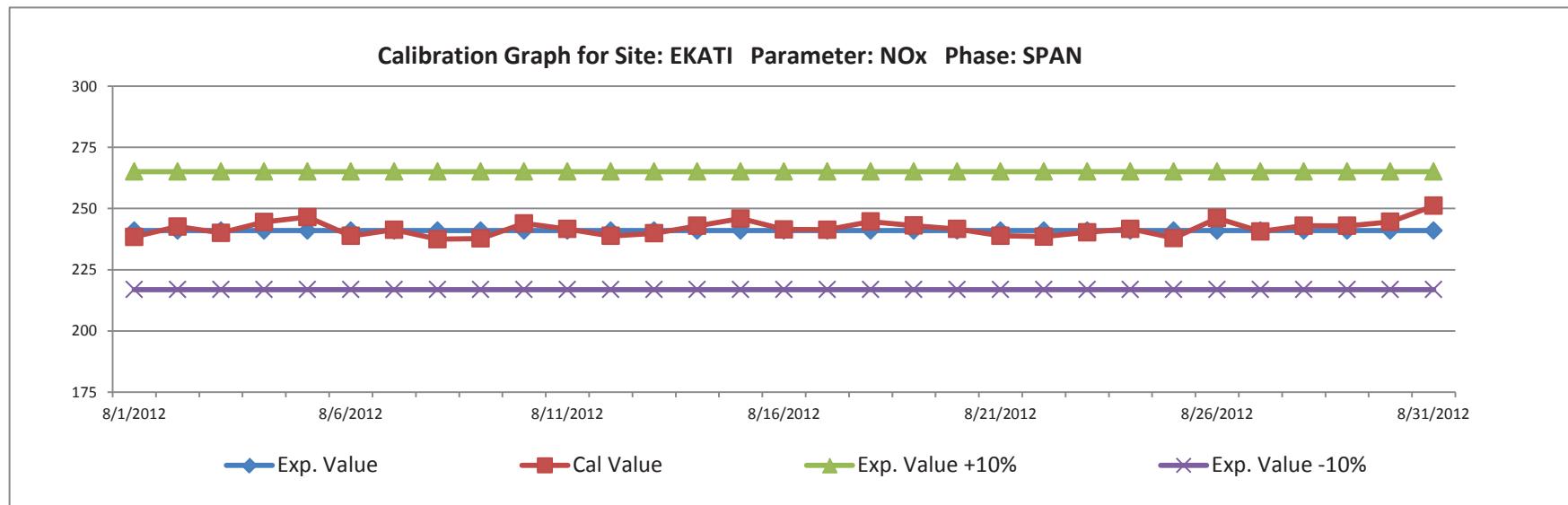
S	- OUT OF SERVICE	IZS	- DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



NUMBER OF NON-ZERO READINGS:			448			
MAXIMUM 1-HR AVERAGE:	143	PPB	@ HOUR(S)	7	ON DAY(S)	24
MAXIMUM 24-HR AVERAGE:	36.2	PPB			ON DAY(S)	28
Izs Calibration Time:	31	HRS				
Monthly Calibration Time:	0	HRS				
Standard Deviation:	17.78					
Operational Time:						
AmD Operation Uptime:						
Monthly Average:	6.47	PPB				

01 Hour Averages





BHP Billiton Diamonds Inc. - EKATI
 SEPTEMBER 2012
OXIDES OF NITROGEN (NOX) hourly averages in ppb

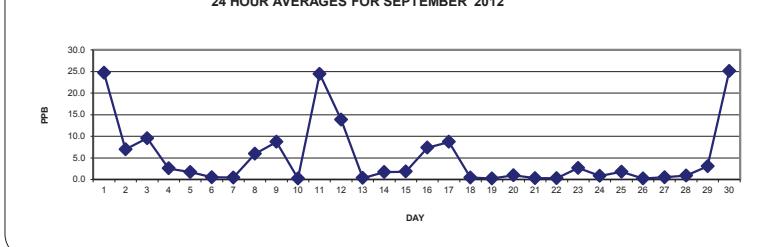
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	1	1	0	0	0	Izs	0	0	4	1	4	5	0	6	2	1	1	3	23	35	156	65	81	179	179	24.7	24	
2	119	8	1	1	0	Izs	1	3	0	0	0	0	0	1	3	2	3	1	5	6	2	1	3	119	7.0	24		
3	1	2	2	3	1	Izs	0	4	55	43	11	9	36	29	7	1	2	2	1	0	2	2	4	3	55	9.6	24	
4	6	5	5	1	2	Izs	3	1	1	7	4	1	1	1	1	1	1	4	3	1	2	4	3	7	2.6	24		
5	2	3	4	5	4	Izs	7	2	1	1	0	0	0	0	0	1	1	1	1	3	1	1	1	7	1.7	24		
6	2	2	2	1	1	Izs	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0.5	24		
7	0	0	0	0	0	Izs	0	3	2	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0.5	24		
8	0	4	7	10	3	Izs	2	3	2	0	0	1	0	3	2	3	17	46	1	6	14	5	6	2	46	6.0	24	
9	11	14	4	35	57	Izs	29	19	12	6	3	2	0	0	0	0	1	1	2	1	1	1	57	8.7	24			
10	1	1	1	1	0	Izs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.3	24		
11	60	124	132	120	40	Izs	3	2	2	5	8	9	14	4	5	4	3	3	2	3	3	5	8	132	24.4	24		
12	5	16	19	33	29	Izs	61	124	26	0	0	0	0	0	0	0	1	2	2	0	0	1	0	0	124	13.9	24	
13	0	1	0	0	0	Izs	0	0	2	0	0	0	3	1	0	1	0	0	0	0	0	0	0	0	0.3	24		
14	0	0	0	0	0	Izs	3	0	4	8	2	4	2	4	4	2	0	1	0	0	0	1	3	2	8	1.7	24	
15	1	1	1	0	0	Izs	1	0	3	4	2	1	0	0	1	1	0	0	0	0	6	10	10	1.8	24			
16	6	9	8	4	3	Izs	0	2	1	1	3	3	4	5	3	1	1	1	0	0	9	49	48	8	49	7.3	24	
17	72	88	3	2	15	Izs	1	0	0	1	1	0	2	3	0	2	2	1	5	2	0	0	0	0	88	8.7	24	
18	0	1	1	1	1	Izs	0	0	1	0	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0.4	24	
19	0	0	0	0	0	Izs	0	0	0	0	3	0	1	0	0	0	1	0	0	0	0	0	0	0	0.2	24		
20	0	0	0	0	0	Izs	3	1	8	2	0	1	0	1	2	0	1	0	1	1	1	1	0	0	8	1.0	24	
21	0	0	0	0	1	Izs	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	1	0	0	0.3	24		
22	0	0	0	0	0	Izs	1	0	1	0	0	0	1	1	2	0	0	1	0	0	0	0	0	0	0.3	24		
23	0	1	1	1	1	Izs	0	0	3	1	1	7	30	2	0	0	0	1	1	1	2	4	3	1	30	2.7	24	
24	1	4	0	1	0	Izs	1	3	2	0	0	0	0	0	0	0	0	1	0	1	2	3	1	4	0.9	24		
25	1	2	1	1	2	Izs	4	4	15	9	1	0	0	0	0	0	1	0	0	0	0	0	0	15	1.8	24		
26	0	0	0	0	0	Izs	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0.2	24			
27	1	1	2	0	0	Izs	1	0	3	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0.5	24		
28	0	0	0	0	0	Izs	0	0	2	1	1	2	1	0	2	2	2	1	0	2	1	1	2	1	0.9	24		
29	3	4	2	0	2	Izs	14	5	2	5	2	0	0	1	1	1	4	11	3	4	3	2	1	14	3.1	24		
30	23	61	86	24	33	Izs	11	2	3	1	4	9	14	11	19	22	12	5	5	3	15	39	75	101	101	25.1	24	
HOURLY MAX	119	124	132	120	57	NA	61	124	55	43	11	9	36	29	19	22	17	46	23	35	156	65	81	179				
HOURLY AVG	10.5	11.8	9.4	8.2	6.5	NA	4.9	5.9	5.2	3.2	1.8	1.9	3.7	2.6	1.8	1.5	1.7	2.7	2.1	2.2	7.4	6.3	8.4	10.9				

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

24 HOUR AVERAGES FOR SEPTEMBER 2012



NUMBER OF NON-ZERO READINGS:

398

MAXIMUM 1-HR AVERAGE:

179

PPB

@ HOUR(S)

23

ON DAY(S)

1

MAXIMUM 24-HR AVERAGE:

25.1

PPB

ON DAY(S)

30

IZS CALIBRATION TIME:

30

HRS

OPERATIONAL TIME:

720

HRS

MONTHLY CALIBRATION TIME:

0

HRS

AMD OPERATION UPTIME:

100.0

%

STANDARD DEVIATION:

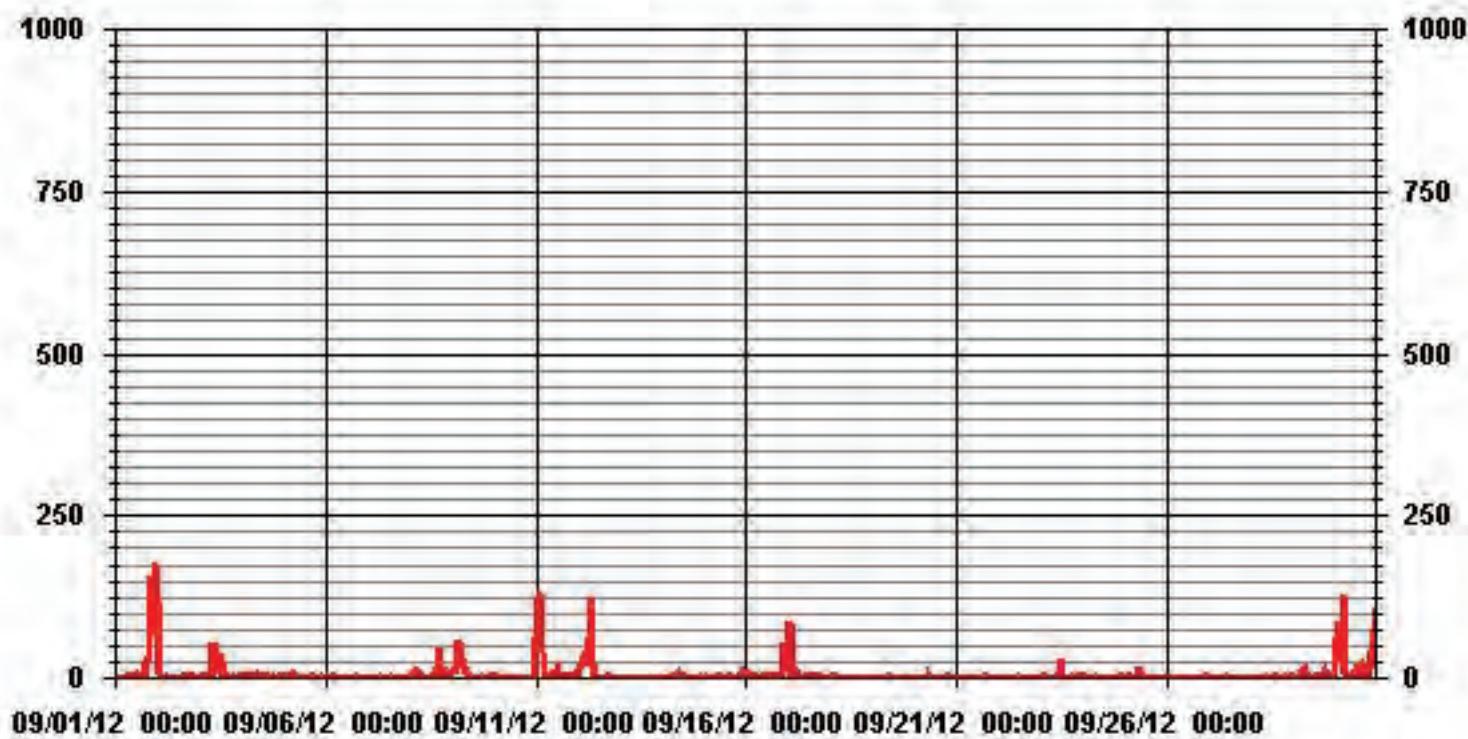
17.46

MONTHLY AVERAGE:

5.24

PPB

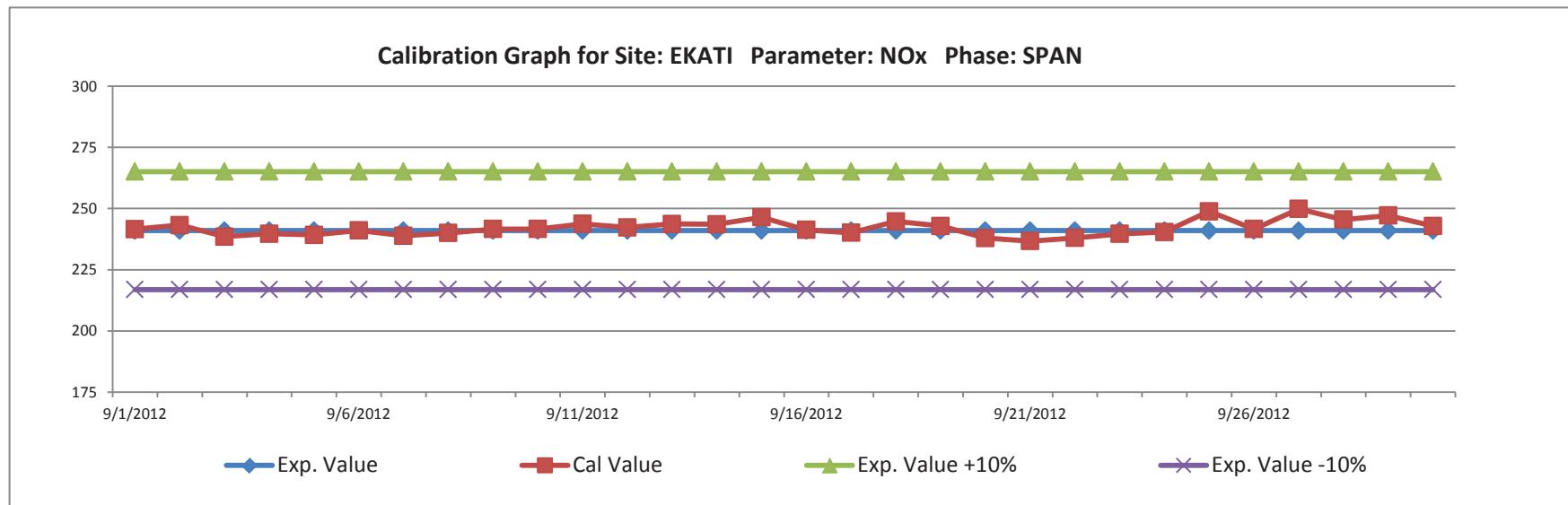
01 Hour Averages



— EKATI NOX PPB

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JOB #: 3728-12-07~09-007-QC



Particulate Matter 2.5

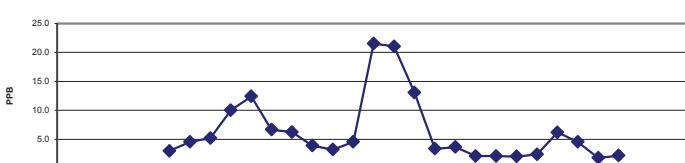
BHP Diamonds Inc. - EKATI
JULY 2012
PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M³

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR MAX.	DAILY 24-HOUR AVG.	RDGGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3	N	4	2	1	1	4	6	3	6	3.0	8	
7	2	1	3	7	8	7	7	9	8	3	1	4	8	5	-1	2	1	-2	5	11	8	5	4	4	11	4.6	24	
8	5	6	7	4	0	2	4	6	9	10	7	2	3	8	8	5	6	9	6	4	3	2	3	6	10	5.2	24	
9	5	5	6	8	8	7	4	3	5	6	5	7	10	11	13	17	14	16	11	12	21	20	19	21	10.0	24		
10	14	22	23	20	26	23	25	14	14	11	6	7	9	6	5	5	9	13	10	9	8	8	7	4	26	12.4	24	
11	5	4	15	14	8	3	4	5	5	5	6	7	7	6	9	11	10	6	6	4	1	4	8	15	6.7	24		
12	11	5	3	6	5	4	3	4	9	10	8	7	6	6	5	5	6	8	9	9	8	3	5	5	11	6.3	24	
13	2	2	2	5	7	6	6	3	2	3	1	5	5	1	3	4	3	3	5	6	5	4	5	6	7	3.9	24	
14	3	4	7	7	8	6	5	3	-1	-1	-2	-3	2	5	3	5	4	-1	0	4	5	6	6	3	8	3.3	24	
15	3	4	1	1	4	4	3	3	3	4	6	6	3	6	5	1	3	5	6	6	7	6	8	11	11	4.5	24	
16	10	7	4	8	11	11	15	10	7	2	3	6	5	5	9	12	12	76	110	83	57	26	14	13	110	21.5	24	
17	23	18	25	7	8	22	24	26	26	14	10	7	10	15	21	22	26	23	28	35	27	26	32	30	35	21.0	24	
18	32	40	31	9	28	31	11	8	9	6	4	7	5	4	10	13	8	4	5	8	11	9	8	12	40	13.0	24	
19	8	4	4	3	2	1	2	2	2	4	7	6	2	0	0	3	5	3	4	4	4	4	4	3	8	3.4	22	
20	1	4	7	4	4	4	5	5	3	4	3	3	5	4	4	4	0	-2	-2	4	6	7	7	7	3.7	24		
21	1	-1	3	2	2	5	8	4	0	0	1	-1	0	4	5	7	4	0	0	1	2	2	2	0	8	2.1	22	
22	2	4	4	3	4	3	1	-1	-2	1	3	1	2	2	2	3	1	1	4	5	4	2	0	2	5	2.1	24	
23	3	6	8	9	4	-1	-1	-3	-3	1	2	3	5	7	4	0	-2	-1	1	5	4	0	-1	9	2.0	24		
24	0	0	3	4	4	3	3	4	6	2	0	2	4	2	-1	1	0	2	4	3	1	2	4	5	6	2.4	24	
25	6	6	5	7	7	6	8	10	8	10	11	8	5	3	5	5	4	5	7	4	3	6	6	4	11	6.2	24	
26	1	1	8	5	3	6	5	4	3	3	4	6	6	4	2	1	4	6	5	5	7	8	5	8	8	4.6	24	
27	5	1	3	2	1	0	-2	-1	2	2	4	3	-1	0	1	4	5	1	2	1	1	2	4	3	5	1.8	24	
28	0	0	-1	-2	0	4	4	3	5	5	5	4	2	1	3	N	N	N	N	N	N	N	N	N	5	2.2	15	
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
31	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
HOURLY MAX	32	40	31	20	28	31	25	26	26	14	11	8	10	15	21	22	26	76	110	83	57	26	32	30				
HOURLY AVG	6.5	6.5	7.8	6.0	6.9	7.2	6.6	5.5	5.5	4.7	4.4	4.3	4.5	4.8	4.9	5.9	6.2	8.3	10.5	9.8	8.5	7.1	7.0	7.0				

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

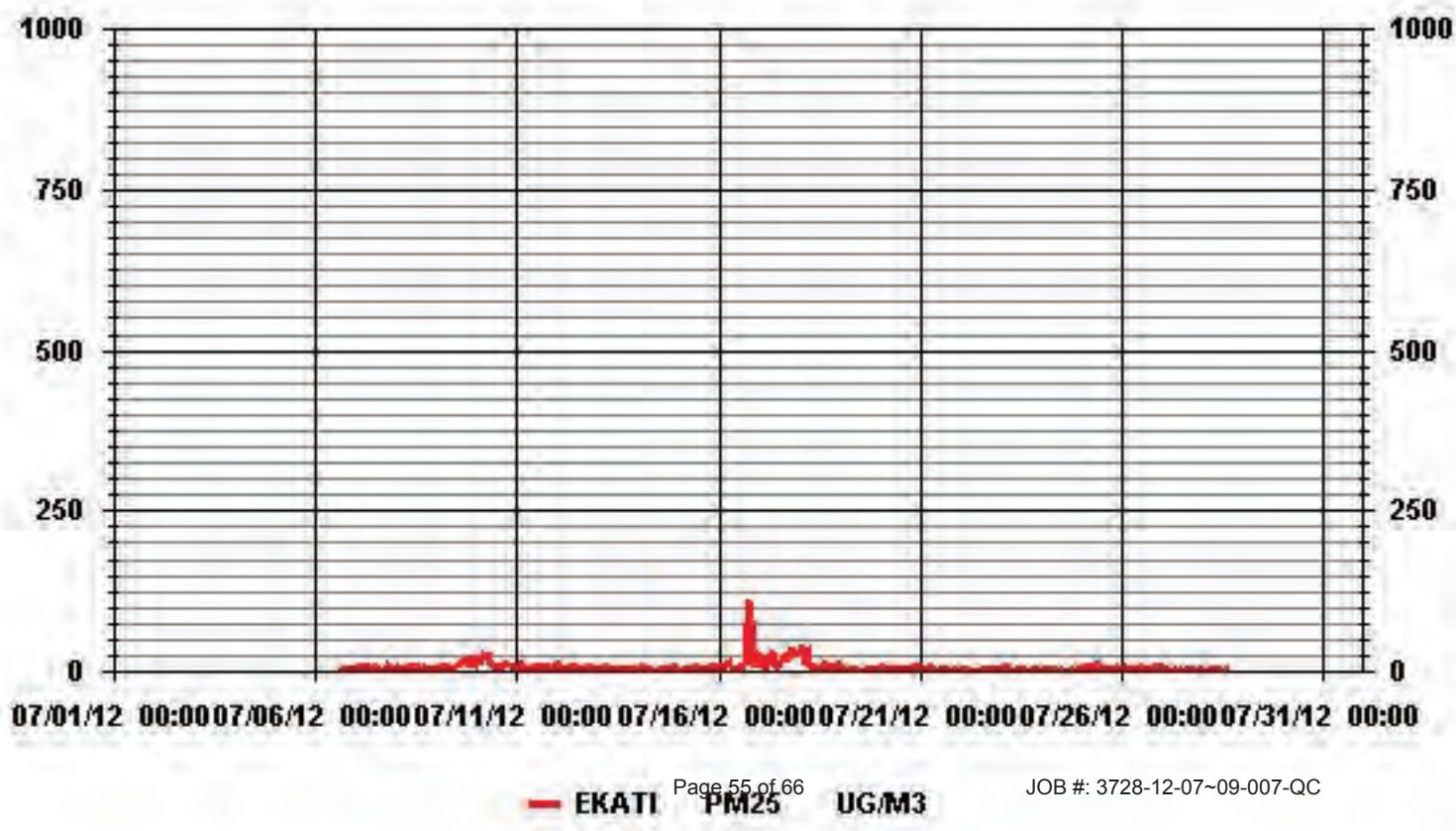
24 HOUR AVERAGES FOR JULY 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	477
MAXIMUM 1-HR AVERAGE:	110 ug/m ³ @ HOUR(S)
MAXIMUM 24-HR AVERAGE:	21.5 ug/m ³
Izs Calibration Time:	0 Hrs
Operational Time:	523 Hrs
Monthly Calibration Time:	0 Hrs
Amid Operation Uptime:	70.3 %
Standard Deviation:	9.14
Monthly Average:	6.52 ug/m ³

01 Hour Averages



BHP Diamonds Inc. - EKATI
AUGUST 2012
PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M₃

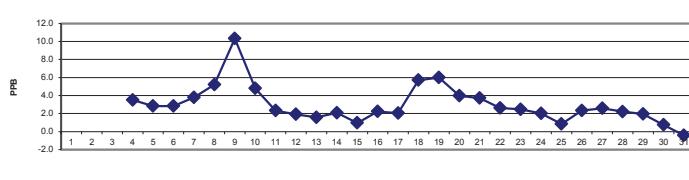
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR MAX.	DAILY 24-HOUR AVG.	RDGGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00					
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00					
DAY																												
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0		
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0			
5	4	6	7	6	5	4	5	4	1	3	3	6	6	0	-5	-3	3	4	4	0	-2	1	3	3	7	2.8	24	
6	4	3	1	2	0	1	3	3	2	-1	-1	5	7	4	4	1	1	3	3	4	4	5	7	7	2.8	24		
7	7	2	3	3	0	2	6	5	4	7	8	8	6	3	4	4	3	2	1	2	2	2	4	3	8	3.8	24	
8	3	6	8	10	8	7	7	7	6	1	3	4	0	0	2	3	2	5	8	6	6	9	8	6	10	5.2	24	
9	9	9	16	9	7	15	10	11	11	10	10	9	10	10	9	10	9	10	11	8	17	11	10	7	17	10.3	24	
10	5	6	9	9	6	4	3	3	7	8	6	3	-2	-3	2	7	7	7	5	0	2	2	8	8	5	9	4.8	24
11	7	5	1	2	-1	-1	0	-1	1	4	5	4	3	4	4	3	1	3	2	0	1	2	7	7	2.3	24		
12	1	3	4	3	7	7	2	0	1	2	1	0	1	1	1	2	0	1	2	2	3	2	-1	1	7	1.9	24	
13	2	-2	0	2	3	3	3	1	2	3	2	2	3	2	3	2	-2	-1	1	2	2	1	2	2	3	1.6	24	
14	4	6	6	4	-1	-1	0	0	6	5	0	2	2	3	2	0	2	0	1	4	2	1	0	2	6	2.1	24	
15	3	1	2	3	1	1	0	3	3	3	4	0	-1	1	1	1	-1	-3	-1	3	2	-4	0	4	1.0	24		
16	4	2	0	0	3	5	4	0	0	0	-1	-1	1	4	3	1	3	N	N	7	3	5	4	2	7	2.2	22	
17	2	3	1	0	-3	-4	-2	-5	-1	5	10	9	7	4	0	-2	0	5	5	5	1	0	3	6	10	2.0	24	
18	6	3	1	5	6	6	7	4	1	3	1	6	11	8	9	7	7	10	6	3	6	10	7	4	11	5.7	24	
19	5	8	8	4	5	7	15	9	8	7	8	7	8	9	9	8	5	0	-3	1	4	4	6	2	15	6.0	24	
20	2	5	5	5	2	3	4	3	5	9	10	5	3	2	4	8	8	8	3	1	-1	-3	2	2	10	4.0	24	
21	2	2	2	3	-1	-2	3	2	2	4	3	5	5	3	5	8	7	7	6	3	3	5	7	8	3.7	24		
22	6	2	5	4	3	6	7	5	1	-4	-4	-2	-2	1	1	3	8	7	4	1	2	3	3	3	8	2.6	24	
23	3	4	6	4	2	1	1	1	2	4	5	4	1	-1	-2	-1	1	5	7	5	2	1	3	7	2.5	24		
24	4	2	3	0	-1	2	0	-1	3	5	3	3	3	3	6	5	-1	-2	1	1	-1	2	6	2	6	2.0	24	
25	0	0	1	2	1	0	-2	-1	2	4	2	-2	-2	0	1	-1	1	3	2	0	1	3	1	4	4	0.8	24	
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27	1	5	7	6	7	7	6	5	3	2	4	3	0	0	1	-2	-2	2	5	4	0	-2	-1	1	7	2.6	24	
28	3	3	1	2	2	1	1	0	0	0	0	3	6	2	1	5	8	0	0	4	2	-1	3	7	8	2.2	22	
29	5	1	2	4	5	3	2	3	5	6	2	-2	-2	1	3	3	2	-1	0	1	0	2	1	1	6	2.0	24	
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31	-1	-4	-2	2	1	0	0	1	1	-1	-3	-4	-2	-2	-1	0	1	3	4	5	-2	-5	-2	1	5	-0.4	24	
HOURLY MAX	9	9	16	10	8	15	15	11	11	10	10	9	11	10	9	10	9	10	11	8	17	11	10	7				
HOURLY AVG	3.6	3.0	3.6	3.6	2.7	2.8	3.1	2.3	2.9	3.5	3.2	2.8	3.0	2.9	2.8	2.9	3.1	3.0	3.0	2.5	2.4	2.7	3.1					

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- Izs - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

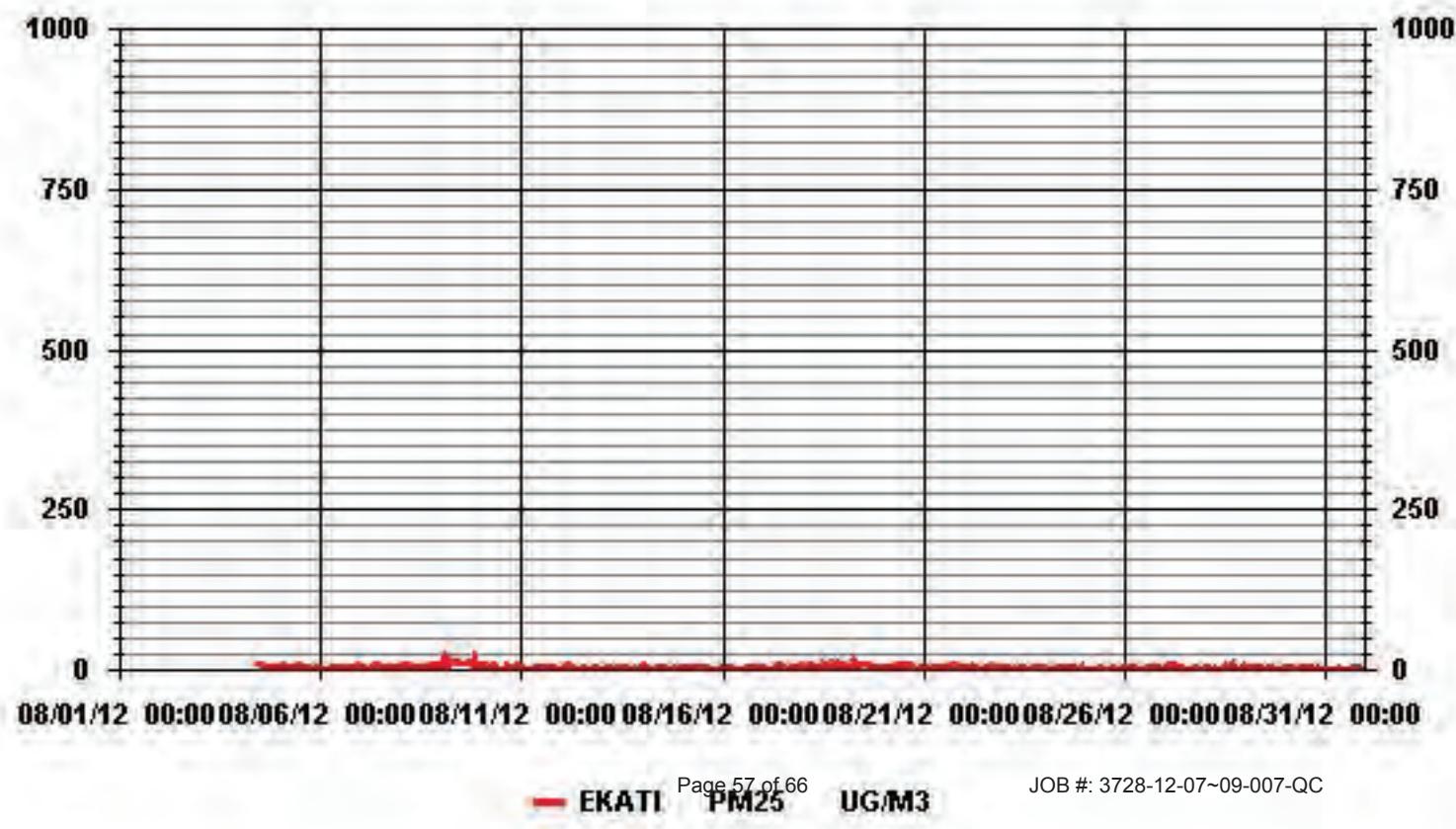
24 HOUR AVERAGES FOR AUGUST 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	521
MAXIMUM 1-HR AVERAGE:	17 ug/m ³
MAXIMUM 24-HR AVERAGE:	10.3 ug/m ³
Izs CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	0 HRS
STANDARD DEVIATION:	3.26
OPERATIONAL TIME:	656 HRS
AMD OPERATION UPTIME:	88.2 %
MONTHLY AVERAGE:	2.96 UG/M3

01 Hour Averages



— EKATI PM25 UG/M3

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JOB #: 3728-12-07~09-007-QC

BHP Billiton Diamonds Inc. - EKATI

SEPTEMBER 2012

PARTICULATE MATTER (PM_{2.5}) hourly averages in UG/M₃

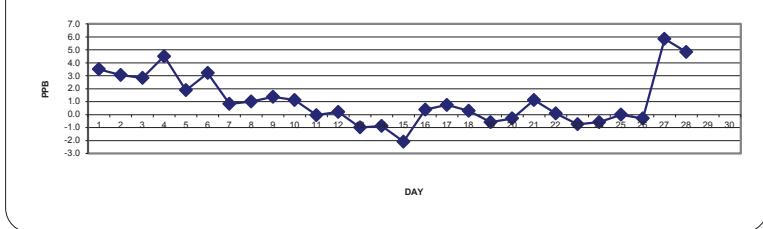
MST

HOUR START HOUR END	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX. MAX.	24-HOUR AVG. AVG.	RDGS.
DAY																											
1	1	3	3	3	2	1	1	1	3	5	4	4	2	2	4	5	6	7	6	5	4	5	4	3	7	3.5	24
2	3	3	5	4	4	4	4	2	2	3	4	5	2	0	1	1	6	8	5	2	-3	-1	4	5	8	3.0	24
3	3	2	1	1	0	2	4	3	4	4	4	7	5	1	1	0	1	7	6	4	5	4	2	-3	7	2.8	24
4	0	7	5	5	8	8	5	0	1	1	2	3	3	7	9	6	4	4	4	5	7	5	4	5	9	4.5	24
5	3	4	5	1	2	3	2	2	3	3	3	3	1	-1	-2	-3	-1	2	2	1	3	3	2	4	5	1.9	24
6	4	4	4	5	5	1	0	3	4	5	6	5	4	1	4	4	6	4	3	2	2	1	-4	6	3.2	24	
7	0	2	0	2	1	0	-2	-1	2	1	2	3	3	5	1	1	3	2	0	0	-1	-2	-1	-1	5	0.8	24
8	2	3	0	1	1	-1	1	3	-1	1	3	-1	-2	2	2	2	1	-2	1	4	2	1	1	0	4	1.0	24
9	-1	1	3	2	1	5	3	2	4	3	3	0	0	0	0	-2	-1	1	3	2	0	0	1	3	5	1.4	24
10	0	1	5	5	2	-1	-2	0	2	0	-1	1	4	5	1	-2	-1	-2	-1	0	1	1	4	5	5	1.1	24
11	3	4	4	4	3	1	-4	-5	-3	-4	-4	-3	-1	2	3	4	3	-1	-5	-2	0	1	0	-1	4	0.0	24
12	-3	-5	-3	0	2	0	0	1	0	1	1	2	-1	-1	1	0	-2	1	2	2	0	2	3	3	0.2	24	
13	-1	1	4	0	-3	0	0	-1	-3	-4	-2	-1	-1	1	3	2	N	N	N	0	-4	-5	-5	-2	4	-1.0	21
14	-3	-3	-1	0	2	5	1	-1	0	-1	-2	-5	-5	-3	-1	-1	1	1	0	1	0	-2	-3	-1	5	-0.9	24
15	2	1	-2	-3	-3	-2	-2	-3	-1	-1	-2	-3	-5	-5	-2	1	-3	-5	-3	-2	-2	-2	0	2	-2.1	24	
16	1	-1	0	1	-1	-2	-1	1	1	0	1	1	2	N	N	3	2	1	1	-1	-1	0	0	3	0.4	21	
17	0	2	4	5	6	3	0	1	0	0	1	1	-1	0	1	2	2	-1	-3	-4	-4	-1	3	1	6	0.8	24
18	-2	-1	1	3	4	4	1	3	3	0	-3	-1	3	4	3	-2	1	3	-2	-4	-2	-1	-3	-5	4	0.3	24
19	-2	-2	-3	-3	1	1	2	2	-1	-1	1	0	-3	-1	-1	2	5	2	-3	-1	-1	-2	-5	5	-0.6	24	
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21	0	-3	-2	0	1	-2	-3	0	0	1	3	2	1	1	0	4	6	5	2	2	1	2	3	3	6	1.1	24
22	1	-1	-1	-1	-1	-3	-3	-2	-1	-1	0	0	0	1	0	0	4	6	4	4	2	-2	-2	-1	6	0.1	24
23	-3	-2	2	3	2	0	-1	-2	-2	-2	-1	-2	-3	0	1	1	0	0	2	1	-2	-5	-4	-1	3	-0.8	24
24	2	2	1	-1	-4	-3	1	0	-4	-1	1	-1	-5	-5	-2	-1	4	5	2	2	0	-1	-4	-2	5	-0.6	24
25	-2	-2	0	-1	-1	0	1	3	3	1	2	2	4	2	-3	-1	-1	-4	-2	0	-1	0	0	4	0.0	24	
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27	-1	1	0	-1	-1	2	4	4	5	7	9	19	13	11	9	10	13	11	9	6	3	3	1	3	19	5.8	24
28	4	2	2	5	8	8	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	8	4.8	6
29	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
30	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	
HOURLY MAX	4	7	5	5	8	8	5	4	5	7	9	19	13	11	9	10	13	11	9	6	7	5	4	5			
HOURLY AVG	0.2	0.7	1.3	1.4	1.5	1.3	0.4	0.6	0.7	0.8	1.3	1.6	0.9	1.3	1.1	2.4	2.2	1.2	1.2	0.2	-0.1	0.1	0.3				

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

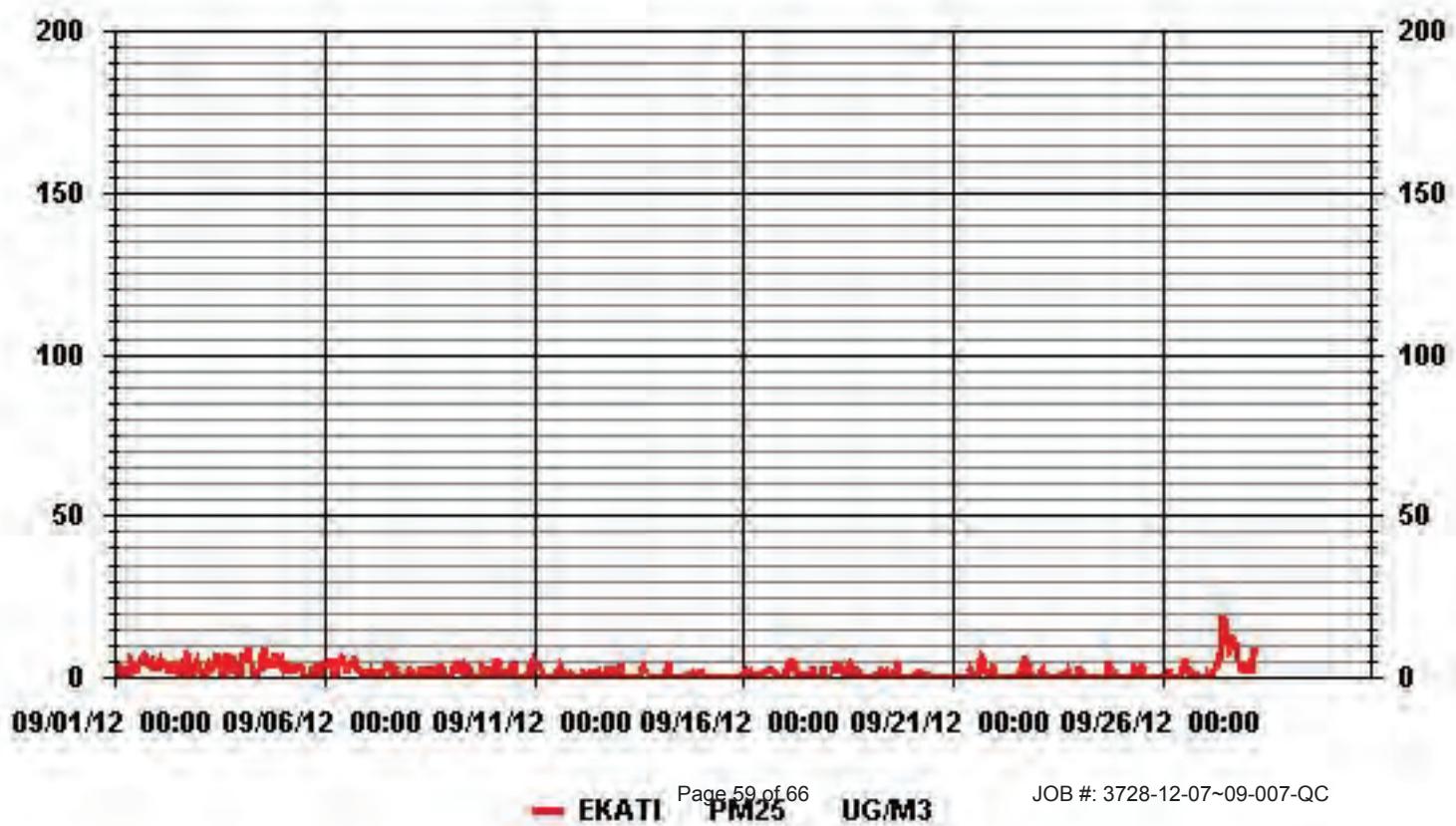
24 HOUR AVERAGES FOR SEPTEMBER 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	356		
MAXIMUM 1-HR AVERAGE:	19	ug/m ³	@ HOUR(S)
MAXIMUM 24-HR AVERAGE:	5.8	ug/m ³	ON DAY(S)
Izs CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:
STANDARD DEVIATION:	2.99		MONTHLY AVERAGE:
			0.99 UG/M ³

01 Hour Averages



— EKATI PM25 UG/M3

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JOB #: 3728-12-07~09-007-QC

Total Suspended Particulate

BHP Billiton Diamonds Inc. - EKATI

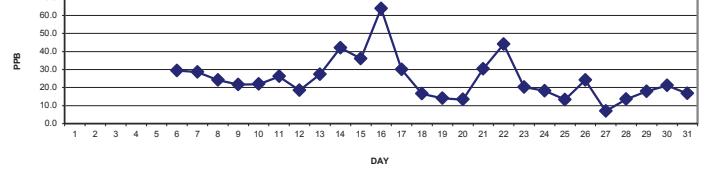
JULY 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.			
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00					
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00						
DAY	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
4	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
5	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0				
6	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	12	12	12	59	53	13	28	28	48	29	59	29.4	10		
7	18	55	10	24	14	17	20	44	31	41	18	35	24	20	16	14	43	20	14	55	9	26	25	95	95	28.7	24			
8	20	21	51	16	10	11	19	11	12	18	43	25	25	78	42	42	26	20	13	12	10	19	24	12	78	24.2	24			
9	33	13	10	8	7	8	15	19	8	8	21	22	18	18	23	31	25	13	56	22	23	48	41	30	56	21.7	24			
10	32	28	40	25	29	32	21	20	22	12	24	23	36	18	21	22	17	14	11	8	22	15	15	19	40	21.9	24			
11	31	28	57	30	17	13	20	16	10	25	31	31	29	25	29	31	38	33	29	15	4	5	10	71	71	26.2	24			
12	18	6	19	6	6	7	16	10	29	20	24	26	23	27	28	59	48	16	12	16	9	8	4	6	59	18.5	24			
13	9	8	11	16	13	12	10	5	3	19	17	30	24	16	21	22	28	15	28	25	30	43	174	76	174	27.3	24			
14	68	34	58	83	154	44	61	55	25	25	11	9	8	10	7	27	31	20	34	21	26	79	59	59	154	42.0	24			
15	207	43	16	25	34	13	10	16	21	64	22	18	23	9	40	32	24	24	19	15	12	30	86	63	207	36.1	24			
16	32	85	121	97	119	45	70	52	26	20	53	62	47	32	49	22	38	94	142	98	62	69	57	40	142	63.8	24			
17	65	26	40	38	19	28	30	42	28	18	7	9	16	18	26	34	36	37	35	33	29	33	39	34	65	30.0	24			
18	37	45	37	21	27	25	18	11	10	10	7	7	8	10	13	9	7	25	12	12	10	9	18	9	45	16.5	24			
19	7	6	9	11	8	17	12	13	13	17	17	18	15	15	13	11	10	16	6	7	7	8	40	40	40	14.0	24			
20	9	7	4	4	8	7	9	12	10	8	8	10	9	21	14	11	5	5	5	2	5	21	63	64	64	13.4	24			
21	22	18	27	27	33	12	12	11	11	5	5	10	20	13	27	16	19	18	78	22	18	39	120	147	147	30.4	24			
22	116	55	163	208	144	33	57	26	8	10	19	20	17	17	10	18	8	58	7	16	3	26	9	9	208	44.0	24			
23	39	7	16	21	14	12	8	9	10	9	12	14	20	7	28	16	11	30	6	9	12	39	40	97	97	20.3	24			
24	40	12	35	13	9	3	15	9	10	11	9	16	18	9	19	19	21	5	6	16	15	37	47	44	47	18.3	24			
25	22	17	15	10	4	5	9	11	25	18	5	8	9	9	10	7	22	19	21	8	10	9	25	20	25	13.3	24			
26	16	15	28	47	52	22	43	12	25	24	24	32	14	13	20	28	18	31	25	43	10	11	12	15	52	24.2	24			
27	5	4	9	11	8	7	4	4	5	9	13	9	5	6	7	7	5	3	8	9	8	9	7	4	13	6.9	24			
28	4	7	8	7	8	10	8	5	7	23	12	46	32	12	21	22	12	7	4	5	6	8	19	32	46	13.5	24			
29	7	5	6	11	8	2	5	11	9	67	18	39	17	16	46	20	14	10	59	9	11	17	11	12	67	17.9	24			
30	27	8	8	16	16	8	8	8	10	11	11	21	22	13	13	24	27	17	23	17	22	33	59	85	85	21.1	24			
31	38	25	14	13	8	5	6	8	10	9	7	11	23	21	13	13	17	22	16	23	11	16	11	61	61	16.7	24			
HOURLY MAX	207	85	163	208	154	45	70	55	31	67	53	62	47	78	49	59	48	94	142	98	62	79	174	147						
HOURLY AVG	36.9	23.1	32.5	31.5	30.8	15.9	20.2	17.6	15.1	20.0	17.5	22.0	20.1	18.1	21.8	21.9	21.6	24.3	27.8	20.4	15.8	26.3	40.9	45.1						

24 HOUR AVERAGES FOR JULY 2012



NUMBER OF NON-ZERO READINGS:

634

MAXIMUM 1-HR AVERAGE:

208 ug/m³ @ HOUR(S) 3 ON DAY(S) 22

63.8 ug/m³ ON DAY(S) 16

Izs Calibration Time:

0 HRS OPERATIONAL TIME: 610 HRS

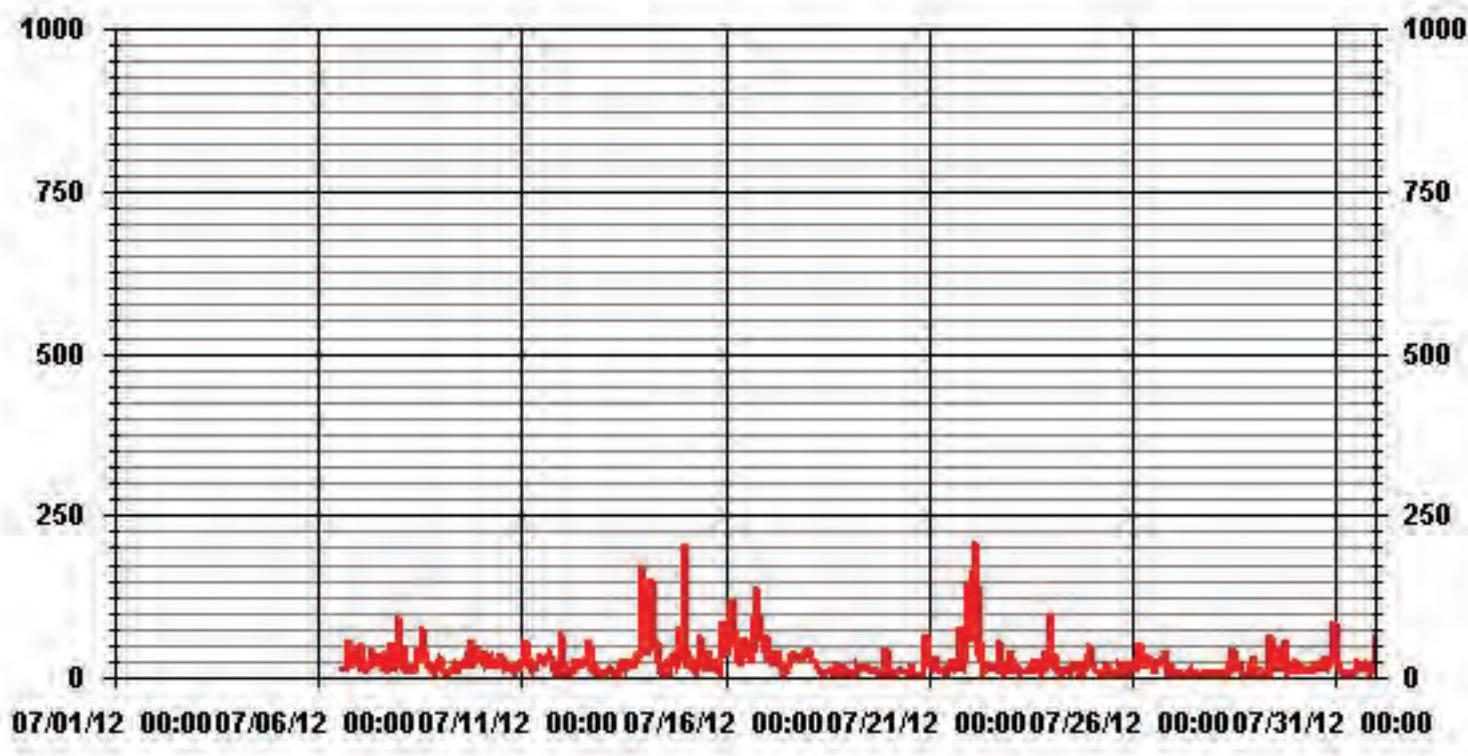
Monthly Calibration Time:

0 HRS AMD OPERATION UPTIME: 82.0 %

Standard Deviation:

29.91 MONTHLY AVERAGE: 27.18 ug/m³

01 Hour Averages



— EKATI TSP UG/M3

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JOB #: 3728-12-07~09-007-QC

BHP Billiton Diamonds Inc. - EKATI

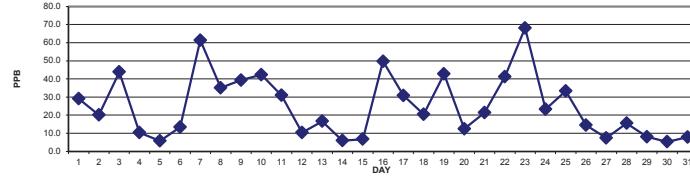
AUGUST 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	77	68	117	125	43	19	16	16	6	7	11	9	7	7	8	8	20	19	18	14	12	16	33	20	125	29.0	24	
2	19	22	15	11	15	20	21	13	28	54	48	11	8	6	8	11	9	10	11	42	17	16	19	49	54	20.1	24	
3	38	22	36	40	66	19	15	23	12	12	20	18	285	31	20	17	25	16	53	17	46	158	41	21	285	43.8	24	
4	19	23	24	15	11	10	8	11	10	10	9	4	0	1	7	8	5	27	9	8	8	6	4	27	10.3	24		
5	3	4	3	3	5	6	5	2	4	6	7	11	10	9	11	9	9	7	4	2	1	3	7	8	11	5.8	24	
6	11	9	5	15	16	9	11	12	12	24	38	34	6	4	5	7	9	8	8	6	10	32	22	38	13.4	24		
7	16	7	5	5	8	6	7	11	12	8	7	11	9	40	24	11	40	51	432	248	25	232	190	67	432	61.3	24	
8	21	11	11	9	17	16	17	10	19	17	12	12	29	15	14	18	35	35	75	118	70	161	77	23	161	35.1	24	
9	16	13	16	19	16	12	11	9	11	10	16	62	23	103	21	43	14	12	30	45	102	38	15	285	285	39.3	24	
10	20	12	10	6	7	8	6	4	4	8	11	11	10	8	7	33	289	44	277	178	16	16	15	289	42.3	24		
11	250	241	16	16	12	9	22	10	6	3	18	10	9	7	8	11	11	18	14	12	8	3	6	22	250	30.9	24	
12	16	17	12	12	13	10	8	10	10	6	5	6	3	16	2	4	3	18	10	9	8	7	3	39	39	10.3	24	
13	106	7	4	6	11	17	19	35	9	17	7	19	8	17	10	7	7	10	33	9	24	8	5	4	106	16.6	24	
14	9	9	7	7	8	5	4	5	4	5	5	4	2	4	16	10	10	8	6	4	3	0	2	7	16	6.0	24	
15	6	3	5	5	2	2	5	37	9	6	6	4	2	3	4	5	7	7	17	3	4	6	7	6	37	6.7	24	
16	5	6	7	7	6	3	4	5	3	5	7	3	3	5	6	320	330	332	35	9	8	29	35	19	332	49.7	24	
17	26	11	27	10	9	10	8	7	15	13	12	12	8	6	7	22	12	9	7	7	261	223	4	14	261	30.8	24	
18	15	18	10	12	14	13	20	15	14	14	16	17	15	18	13	22	13	31	37	37	38	31	29	28	38	20.4	24	
19	40	46	43	43	35	19	280	26	134	24	33	14	24	45	22	133	13	7	6	7	8	10	8	6	280	42.8	24	
20	6	5	8	10	5	6	6	8	13	16	7	8	12	24	12	68	19	15	14	10	7	3	0	17	68	12.5	24	
21	49	18	19	33	43	23	14	14	13	13	18	10	8	20	30	10	10	9	6	5	47	42	14	43	49	21.3	24	
22	9	8	30	43	178	33	177	28	5	6	10	26	27	87	16	8	4	37	9	4	0	37	88	119	178	41.2	24	
23	163	98	107	110	109	85	153	98	41	48	80	103	79	88	49	25	32	20	39	26	22	16	23	20	163	68.1	24	
24	23	26	31	38	28	20	21	12	9	5	4	3	5	18	21	20	24	22	39	39	19	26	50	54	23.2	24		
25	57	25	43	80	96	39	61	30	14	11	8	9	28	20	37	34	58	55	28	15	14	17	13	9	96	33.4	24	
26	7	8	10	16	12	9	8	7	6	9	21	19	26	13	21	29	31	12	21	14	14	13	9	10	31	14.4	24	
27	15	10	10	8	8	8	7	6	4	5	8	8	7	16	6	5	6	5	3	5	8	6	7	16	7.4	24		
28	7	9	9	9	8	3	0	4	4	7	8	10	27	24	24	40	23	23	60	21	19	3	17	14	60	15.5	24	
29	13	13	33	12	6	5	6	4	3	2	4	5	5	9	9	10	12	9	7	6	3	6	8	4	33	8.1	24	
30	1	3	3	3	6	5	2	3	3	5	11	12	10	8	7	6	7	5	7	6	1	2	4	12	5.3	24		
31	4	3	5	7	8	5	5	9	8	4	3	2	5	8	6	8	12	11	8	8	7	19	14	19	19	7.8	24	
HOURLY MAX	250	241	117	125	178	85	280	98	134	54	80	103	285	103	49	320	330	332	432	248	261	232	190	285				
HOURLY AVG	34.4	25.0	22.0	23.7	26.5	14.6	30.5	15.6	14.4	12.3	15.2	15.9	22.7	21.9	14.4	31.0	35.5	28.1	43.2	30.3	26.8	37.5	25.1	31.6				

24 HOUR AVERAGES FOR AUGUST 2012



NUMBER OF NON-ZERO READINGS:

763

STANDARD DEVIATION:

57.40

MONTHLY AVERAGE:

30.41

MAXIMUM 1-HR AVERAGE:

432

MAXIMUM 24-HR AVERAGE:

68.1

OPERATIONAL TIME:

744

HRS

AMD OPERATION UPTIME:

100.0

%

ON DAY(S):

7

ON DAY(S):

23

STANDARD DEVIATION:

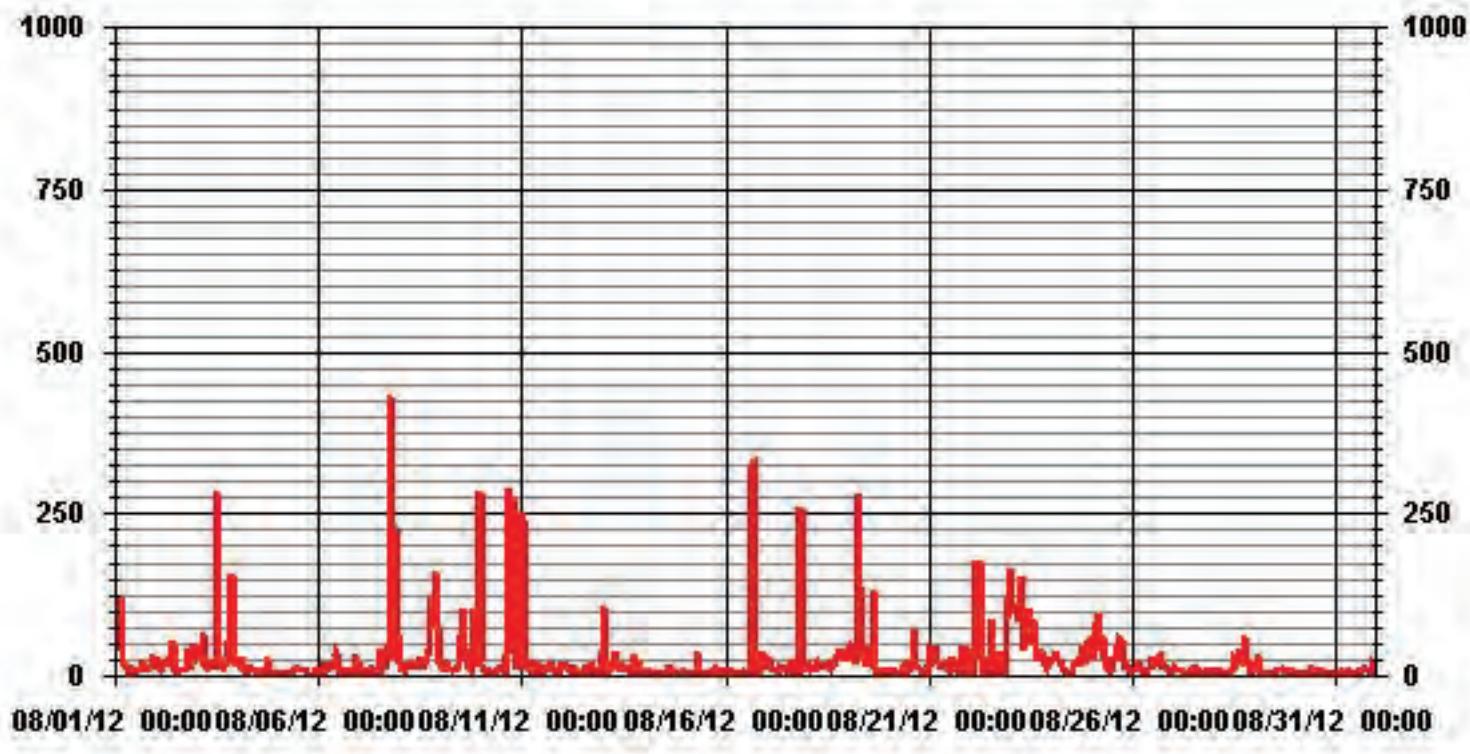
57.40

MONTHLY AVERAGE:

30.41

ug/m3

01 Hour Averages



— EKATI TSP UG/M3

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JOB #: 3728-12-07~09-007-QC

BHP Billiton Diamonds Inc. - EKATI

SEPTEMBER 2012

TOTAL SUSPENDED PARTICULATES (TSP) hourly averages in UG/M3

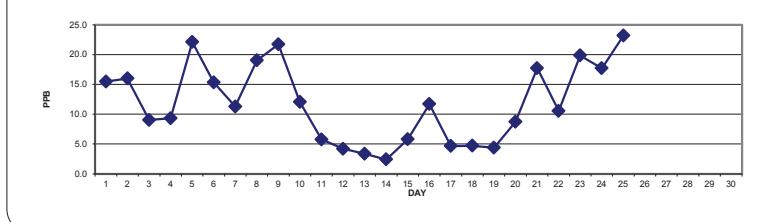
MST

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY	1	6	5	7	9	11	10	6	5	9	14	20	13	20	14	14	21	19	20	33	45	13	25	19	14	45	15.5	24
2	22	12	16	11	10	9	10	9	6	5	2	2	3	7	22	31	58	19	29	19	18	39	19	6	58	16.0	24	
3	6	10	11	9	8	7	5	5	5	2	1	5	9	11	21	33	8	8	7	10	12	10	8	6	33	9.0	24	
4	8	7	7	8	8	7	7	8	10	12	10	5	5	5	15	8	10	9	10	15	11	13	14	12	15	9.3	24	
5	15	11	12	15	13	13	12	13	11	10	10	10	10	9	11	20	29	24	40	31	110	49	43	110	22.1	24		
6	26	16	10	9	9	8	9	11	9	11	11	21	35	32	32	27	6	16	16	28	10	7	5	4	35	15.3	24	
7	1	3	5	2	1	2	0	0	5	6	9	11	5	29	24	28	41	57	11	11	8	5	5	2	57	11.3	24	
8	6	7	5	8	5	16	3	6	6	8	11	17	16	21	28	27	20	14	50	40	8	82	49	4	82	19.0	24	
9	3	7	9	7	24	27	6	9	13	11	9	9	9	11	14	11	20	30	40	33	86	74	51	86	21.8	24		
10	42	43	19	18	7	17	2	2	4	10	15	13	13	12	28	10	6	2	3	2	2	7	7	6	43	12.1	24	
11	7	7	8	7	7	4	4	7	6	5	1	1	5	5	7	5	6	7	9	10	6	4	2	8	10	5.8	24	
12	9	7	8	6	6	7	5	4	5	6	3	1	3	2	3	-2	0	3	4	1	3	8	7	9	4.2	24		
13	5	3	5	5	2	4	7	4	1	3	3	-1	1	3	2	2	4	4	2	2	5	6	6	3	7	3.4	24	
14	0	0	0	3	5	5	3	1	1	0	3	4	2	0	2	3	4	6	3	2	4	2	1	4	6	2.4	24	
15	5	1	5	6	6	3	0	2	5	3	3	3	4	3	3	5	5	8	4	2	6	24	27	27	5.8	24		
16	33	15	28	24	28	7	19	12	8	5	6	6	7	7	6	4	4	5	4	7	27	8	33	11.7	24			
17	6	4	6	6	1	1	4	6	4	3	4	5	4	0	1	5	6	7	5	2	4	7	10	11	4.7	24		
18	8	7	4	6	6	5	5	6	6	1	0	-1	1	4	4	7	7	7	8	6	7	5	1	3	8	4.7	24	
19	5	4	7	5	4	4	-1	2	3	-1	0	5	5	8	9	9	10	7	7	3	0	4	4	2	10	4.4	24	
20	2	2	3	4	2	0	2	5	6	4	4	5	8	8	5	4	5	2	3	20	64	25	17	10	64	8.8	24	
21	9	5	6	22	6	7	10	10	29	28	14	14	11	7	10	9	31	14	28	55	30	43	17	11	55	17.8	24	
22	7	4	8	16	6	5	6	15	10	10	9	9	13	12	22	13	13	16	13	11	7	16	8	4	22	10.5	24	
23	2	2	2	19	9	6	15	9	6	3	5	8	33	19	18	39	42	32	53	53	34	8	7	53	19.9	24		
24	7	5	5	6	2	3	4	2	5	6	7	15	11	6	17	23	20	17	23	31	19	58	82	51	82	17.7	24	
25	45	27	57	17	23	19	20	10	9	16	12	N	N	N	N	N	N	N	N	N	N	N	N	57	23.2	11		
26	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
27	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
28	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
29	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
30	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	0	0	0	
HOURLY MAX	45	43	57	24	28	27	20	15	29	28	20	21	35	32	32	39	58	57	53	55	64	110	82	51				
HOURLY AVG	11.3	8.6	10.1	9.9	8.4	8.0	6.6	6.4	7.2	7.3	6.9	7.5	9.7	9.8	13.1	14.2	14.8	13.4	15.9	19.1	14.7	25.2	19.3	12.7				

STATUS FLAG CODES

S	- OUT OF SERVICE	Izs	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

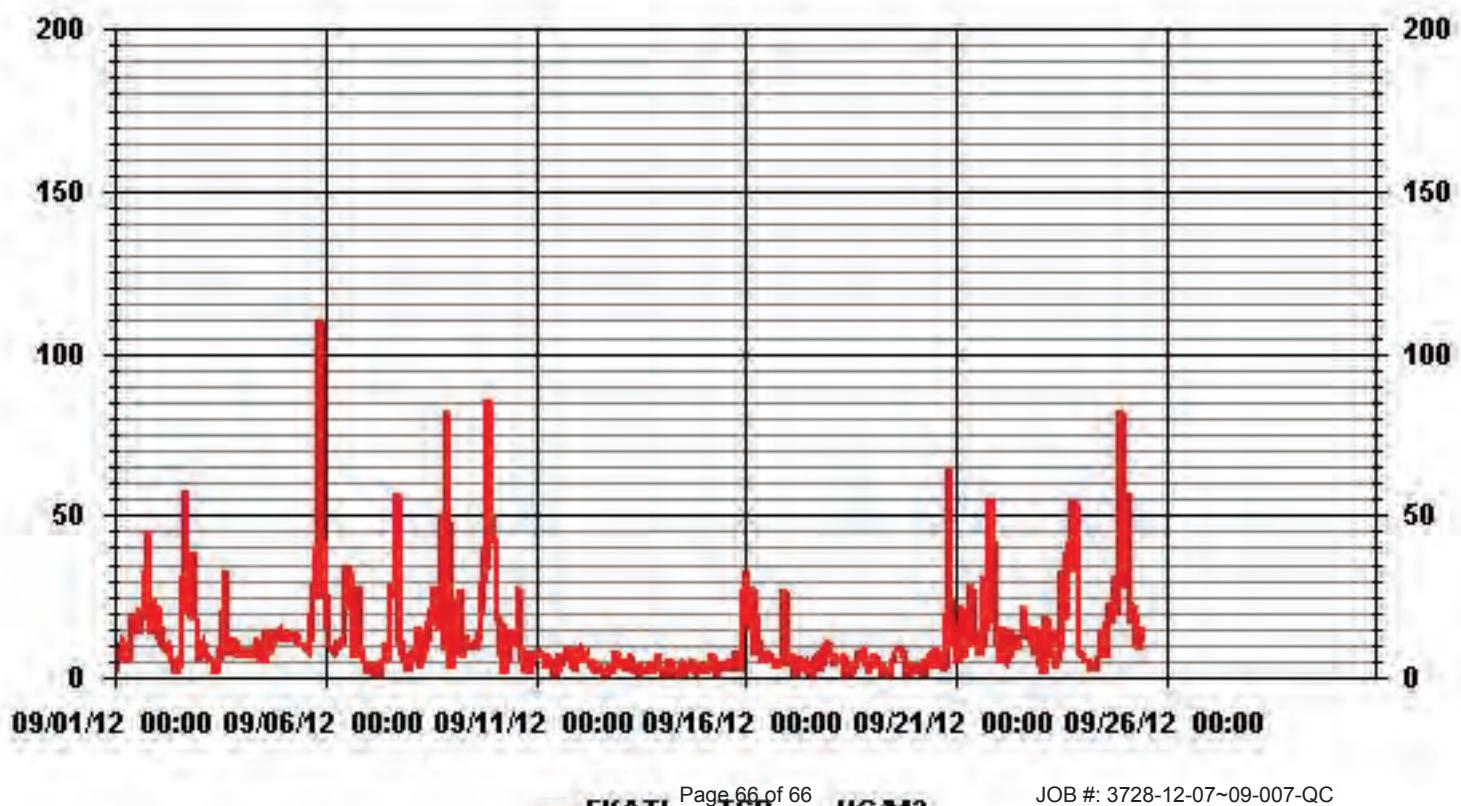
24 HOUR AVERAGES FOR SEPTEMBER 2012



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	573
MAXIMUM 1-HR AVERAGE:	110 ug/m ³
MAXIMUM 24-HR AVERAGE:	23.2 ug/m ³
IZS CALIBRATION TIME:	0 HRS
OPERATIONAL TIME:	587 HRS
MONTHLY CALIBRATION TIME:	0 HRS
AMD OPERATION UPTIME:	81.5 %
STANDARD DEVIATION:	13.10
MONTHLY AVERAGE:	11.60 ug/m ³

01 Hour Averages



BHP Billiton Diamonds Inc.
EKATI Diamond Mine
Ambient Air Monitoring Data Report

For
October to December 2012

Prepared By:



September 22, 2014

BHP Billiton Diamonds Inc.

EKATI Diamond Mine

Ambient Air Monitoring

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	84

Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Andrew Howton
BHP Billiton Diamonds Inc.
#1102 4920 52nd Street
Yellowknife, NT, X1A 3T1

Monitoring Location: EKATI
Data Period: October to December 2012

The monthly ambient data report:

- Prepared by Lili Zhou
- Reviewed by Lily Lin

Calibration Procedure

The calibrations conducted at the BHP Billiton Diamonds Inc. - EKATI Air Monitoring Station conform to the following Maxxam Standard Operation Procedures:

- CAL SOP-00211
- CAL SOP-00213
- CAL SOP-00215

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6.*

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – October 2012

BHP Billiton Diamonds Inc.- EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	1.63	7	29	22	2.8	15	100.0
NO ₂ (PPB)	3.28	51	29	22	10.7	28	100.0
NO (PPB)	5.87	301	29	22	39.3	15	100.0
NOx (PPB)	9.28	351	29	22	49.3	15	100.0
PM _{2.5} (UG/M ³)	4.62	10	30	13	-2.8	30	7.5
TSP (UG/M ³)	4.09	21	30	0	6.9	29	7.4

NA: Not Applicable

Exceedences Summary Report

October 2012

Plant Operator: BHP Billiton Diamonds Inc. Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed.

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The BAM unit started recording 5 $\mu\text{g}/\text{m}^3$ consistently on September 28th at hour 6. Upon arrival on October 29th, it was found that the unit was under the self-test complete mode. After setting the unit back to the sample mode, the unit started operating properly. A total of 684 hours of data was invalidated this month. A BAM audit/calibration was performed on October 29th. The sample inlet, nozzle and vane were cleaned on October 29th. Another BAM audit was completed after sample pump rebuilt on October 31st. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The BAM unit started recording 11 $\mu\text{g}/\text{m}^3$ consistently on September 25th at hour 10. Upon arrival on October 29th, it was found that the BAM unit had a flow error message on the screen. After deleting the error message and restarting the unit, the unit started operating properly. The unit showed a flow error on October 30th. The pump was rebuilt on October 30th. A BAM audit/calibration was performed on October 31st. A total of 684 hours of data was invalidated this month.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – November 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.29	5	5	4	2.4	5	100.0
NO ₂ (PPB)	3.06	45	6	3	25.0	5	100.0
NO (PPB)	5.88	251	5	4	101.0	5	100.0
NOx (PPB)	9.38	295	5	4	133.0	5	100.0
PM _{2.5} (UG/M ³)	-3.04	5	4	12	-0.7	10	90.8
TSP (UG/M ³)	6.46	92	14	18	42.1	18	99.6

NA: Not Applicable

Exceedences Summary Report

November 2012

Plant Operator: BHP Billiton Diamonds Inc.

Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed.

Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

Hourly data collected on November 18th between hour 19 and hour 23, on November 25th at hour 13 and hour 14, on November 26th between hour 10 and hour 12, and on November 27th at hour 17 and hour 18 were invalidated due to the unit spike. The BAM unit failed on November 21st at hour 10, and the issue was fixed on November 23rd at hour 12 by Ekati operator. A total of 26 hours of data was invalidated this month. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer as if the rules apply, not many data will be left.

Total suspended Particulate ($\mu\text{g}/\text{m}^3$)

- System make / model – Met One BAM 1020

The BAM unit was working well throughout the month. No operational issues were observed. Hourly data collected on November 26th between hour 9 and hour 11 were invalidated due to the unit spike.

Monthly Continuous Data Summary

BHP Billiton Diamonds Inc. - EKATI

Continuous Ambient Monitoring – December 2012

BHP Billiton Diamonds Inc. - EKATI		MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
		1-HOUR			24-HOUR		
PARAMETER	MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
SO ₂ (PPB)	0.67	8	16	7, 8	4.1	16	90.9
NO ₂ (PPB)	10.65	55	28	20	30.8	19	90.9
NO (PPB)	27.38	340	16	7	144.4	16	90.9
NOx (PPB)	15.95	359	16	7	171.6	16	90.9
PM _{2.5} (UG/M ³)	27.38	144	13	22	2.6	13	90.6
TSP (UG/M ³)	-3.3	21	1	22	7.7	2	90.9

Exceedences Summary Report

December 2012

Plant Operator: BHP Billiton Diamonds Inc.

Plant Location: EKATI

PARAMETER	CANADIAN AMBIENT AIR QUALITY OBJECTIVES		CANADIAN AMBIENT AIR QUALITY EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	344	115	0	0
NO ₂ (PPB)	213	106	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

PARAMETER	NT AMBIENT AIR QUALITY STANDARDS		NT AMBIENT AIR QUALITY STANDARDS EXCEEDENCES	
	1-HR	24-HR	1-HR	24-HR
SO2 (PPB)	172	57	0	0
PM 2.5 (UG/M ³)	-	30	-	0
TSP (UG/M ³)	-	120	-	0

Note: NA

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance compared to Canadian Environmental Quality Guidelines for ambient air monitors. Any problems or maintenance performed are detailed at the end of each section.

AQM STATION – BHP Billiton Diamonds Inc. - EKATI

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100

The analyzer was working well throughout this month. No operational issues were observed. Hourly collected between December 29th at hour 4 and December 31st at hour 23 are missing, reason unknown.

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

The analyzer was working well throughout this month. No operational issues were observed. Hourly collected between December 29th at hour 4 and December 31st at hour 23 are missing, reason unknown.

Particulate Matter 2.5 (ug/m³)

- System make / model – Met One BAM 1020

Hourly data collected on November 21st at hour 16 and hour 17 were invalidated due to the unit spike. Hourly collected between December 29th at hour 4 and December 31st at hour 23 are missing, reason unknown. Data was not corrected using Alberta air quality guideline for PM2.5 analyzer.

Total suspended Particulate (ug/m³)

- System make / model – Met One BAM 1020

The analyzer was working well throughout this month. No operational issues were observed. Hourly collected between December 29th at hour 4 and December 31st at hour 23 are missing, reason unknown.

Continuous Monitoring

Monthly Summaries & Graphs