

ANEXO – 6.3
CALIDAD DE AIRE

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-1 (Sorá)
Variable: Material Particulado mayor a 10 micras (PM10)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	PM10 Ave (ug/m3)
404248.64	915085	3/27/2019	14:41:00	5.15
404248.64	915085	3/27/2019	15:41:00	32.43
404248.64	915085	3/27/2019	16:41:00	13.60
404248.64	915085	3/27/2019	17:41:00	37.98
404248.64	915085	3/27/2019	18:41:00	59.35
404248.64	915085	3/27/2019	19:41:00	26.05
404248.64	915085	3/27/2019	20:41:00	4.38
404248.64	915085	3/27/2019	21:41:00	2.28
404248.64	915085	3/27/2019	22:41:00	2.32
404248.64	915085	3/27/2019	23:41:00	2.32
404248.64	915085	3/28/2019	00:41:00	3.25
404248.64	915085	3/28/2019	01:41:00	7.02
404248.64	915085	3/28/2019	02:41:00	4.22
404248.64	915085	3/28/2019	03:41:00	4.13
404248.64	915085	3/28/2019	04:41:00	2.30
404248.64	915085	3/28/2019	05:41:00	4.83
404248.64	915085	3/28/2019	06:41:00	15.40
404248.64	915085	3/28/2019	07:41:00	2.42
404248.64	915085	3/28/2019	08:41:00	2.08
404248.64	915085	3/28/2019	09:41:00	2.00
404248.64	915085	3/28/2019	10:41:00	2.25
404248.64	915085	3/28/2019	11:41:00	4.03
404248.64	915085	3/28/2019	12:41:00	4.57
404248.64	915085	3/28/2019	13:41:00	26.00
Average 24 h				11.27
Min				2.00
Max				59.35

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-1 (Sorá)
Variable: Dióxido de Nitrógeno (NO2)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	NO2 Ave (ug/m3)
404248.64	915085	3/27/2019	14:41:00	3.76
404248.64	915085	3/27/2019	15:41:00	3.76
404248.64	915085	3/27/2019	16:41:00	3.76
404248.64	915085	3/27/2019	17:41:00	3.76
404248.64	915085	3/27/2019	18:41:00	24.85
404248.64	915085	3/27/2019	19:41:00	139.46
404248.64	915085	3/27/2019	20:41:00	179.54
404248.64	915085	3/27/2019	21:41:00	194.71
404248.64	915085	3/27/2019	22:41:00	211.28
404248.64	915085	3/27/2019	23:41:00	209.67
404248.64	915085	3/28/2019	00:41:00	205.12
404248.64	915085	3/28/2019	01:41:00	217.86
404248.64	915085	3/28/2019	02:41:00	232.27
404248.64	915085	3/28/2019	03:41:00	231.08
404248.64	915085	3/28/2019	04:41:00	255.24
404248.64	915085	3/28/2019	05:41:00	243.90
404248.64	915085	3/28/2019	06:41:00	242.33
404248.64	915085	3/28/2019	07:41:00	238.26
404248.64	915085	3/28/2019	08:41:00	211.50
404248.64	915085	3/28/2019	09:41:00	89.30
404248.64	915085	3/28/2019	10:41:00	14.95
404248.64	915085	3/28/2019	11:41:00	3.76
404248.64	915085	3/28/2019	12:41:00	3.76
404248.64	915085	3/28/2019	13:41:00	3.76
Average 24 h				131.98
Min				3.76
Max				255.24

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-1 (Sorá)
Variable: Monóxido de Carbono (CO)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	CO Ave (ug/m3)
404248.64	915085	3/27/2019	17:41:00	0.00
404248.64	915085	3/27/2019	18:41:00	8.18
404248.64	915085	3/27/2019	19:41:00	162.19
404248.64	915085	3/27/2019	20:41:00	186.24
404248.64	915085	3/28/2019	06:41:00	162.11
404248.64	915085	3/28/2019	07:41:00	151.03
404248.64	915085	3/28/2019	08:41:00	143.92
404248.64	915085	3/28/2019	09:41:00	76.94
Average 8 h				111.33
Min				0.00
Max				186.24

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-2 (Las Lajas)
Variable: Material Particulado mayor a 10 micras (PM10)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	PM10 Ave (ug/m3)
404361.52	915085	3/28/2019	14:47:00	2.05
404361.52	915085	3/28/2019	15:47:00	17.75
404361.52	915085	3/28/2019	16:47:00	47.82
404361.52	915085	3/28/2019	17:47:00	64.85
404361.52	915085	3/28/2019	18:47:00	24.32
404361.52	915085	3/28/2019	19:47:00	9.00
404361.52	915085	3/28/2019	20:47:00	4.65
404361.52	915085	3/28/2019	21:47:00	5.77
404949.52	915085	4/3/2019	11:28:00	13.68
404949.52	915085	4/3/2019	12:28:00	2.47
404949.52	915085	4/3/2019	13:28:00	7.65
404949.52	915085	4/3/2019	14:28:00	11.45
404949.52	915085	4/3/2019	15:28:00	11.93
404949.52	915085	4/3/2019	16:28:00	58.38
404949.52	915085	4/3/2019	17:28:00	28.45
404949.52	915085	4/3/2019	18:28:00	42.63
407049.20	915085	4/24/2019	11:56:00	2.45
407049.20	915085	4/24/2019	12:56:00	2.00
407049.20	915085	4/24/2019	13:56:00	2.33
407049.20	915085	4/24/2019	14:56:00	10.10
407049.20	915085	4/24/2019	15:56:00	34.85
407049.20	915085	4/24/2019	16:56:00	49.15
407049.20	915085	4/24/2019	17:56:00	33.22
407049.20	915085	4/24/2019	18:56:00	14.56
Average 24 h				20.90
Min				2.00
Max				64.85

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-2 (Las Lajas)
Variable: Dióxido de Nitrógeno (NO2)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	NO2 Ave (ug/m3)
404361.52	915085	3/28/2019	14:47:00	97.10
404361.52	915085	3/28/2019	15:47:00	7.39
404361.52	915085	3/28/2019	16:47:00	34.28
404361.52	915085	3/28/2019	17:47:00	112.80
404361.52	915085	3/28/2019	18:47:00	204.14
404361.52	915085	3/28/2019	19:47:00	224.16
404361.52	915085	3/28/2019	20:47:00	262.26
404361.52	915085	3/28/2019	21:47:00	274.48
404949.52	915085	4/3/2019	11:28:00	360.08
404949.52	915085	4/3/2019	12:28:00	121.86
404949.52	915085	4/3/2019	13:28:00	45.72
404949.52	915085	4/3/2019	14:28:00	30.80
404949.52	915085	4/3/2019	15:28:00	37.54
404949.52	915085	4/3/2019	16:28:00	61.29
404949.52	915085	4/3/2019	17:28:00	126.37
404949.52	915085	4/3/2019	18:28:00	171.11
407049.20	915085	4/24/2019	11:56:00	42.39
407049.20	915085	4/24/2019	12:56:00	3.76
407049.20	915085	4/24/2019	13:56:00	3.76
407049.20	915085	4/24/2019	14:56:00	3.76
407049.20	915085	4/24/2019	15:56:00	3.76
407049.20	915085	4/24/2019	16:56:00	3.76
407049.20	915085	4/24/2019	17:56:00	18.61
407049.20	915085	4/24/2019	18:56:00	59.85
Average 24 h				96.29
Min				3.76
Max				360.08

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-2 (Las Lajas)
Variable: Monóxido de Carbono (CO)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	CO Ave (ug/m3)
404361.52	915085	3/28/2019	16:47:00	22.53
404361.52	915085	3/28/2019	17:47:00	133.74
404361.52	915085	3/28/2019	18:47:00	118.81
404361.52	915085	3/28/2019	19:47:00	202.43
404361.52	915085	3/28/2019	20:47:00	190.15
404361.52	915085	3/28/2019	21:47:00	205.51
404949.52	915085	4/3/2019	11:28:00	96.16
404949.52	915085	4/3/2019	12:28:00	15.68
Average 8 h				123.13
Min				15.68
Max				205.51

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-3 (San Carlos)
Variable: Material Particulado mayor a 10 micras (PM10)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	PM10 Ave (ug/m3)
405067.56	915085	4/4/2019	18:14:00	58.78
405067.56	915085	4/4/2019	19:14:00	52.68
405067.56	915085	4/4/2019	20:14:00	20.92
405067.56	915085	4/4/2019	21:14:00	8.38
405067.56	915085	4/4/2019	22:14:00	5.47
405067.56	915085	4/4/2019	23:14:00	6.07
405067.56	915085	4/5/2019	00:14:00	7.50
405067.56	915085	4/5/2019	01:14:00	5.23
405067.56	915085	4/5/2019	02:14:00	7.22
405067.56	915085	4/5/2019	03:14:00	5.95
405067.56	915085	4/5/2019	04:14:00	7.10
405067.56	915085	4/5/2019	05:14:00	4.78
405067.56	915085	4/5/2019	06:14:00	3.40
405067.56	915085	4/5/2019	07:14:00	6.30
405067.56	915085	4/5/2019	08:14:00	8.32
405067.56	915085	4/5/2019	09:14:00	9.17
405067.56	915085	4/5/2019	10:14:00	3.67
405067.56	915085	4/5/2019	11:14:00	2.32
405067.56	915085	4/5/2019	12:14:00	2.28
405067.56	915085	4/5/2019	13:14:00	15.43
405067.56	915085	4/5/2019	14:14:00	4.33
405067.56	915085	4/5/2019	15:14:00	5.42
405067.56	915085	4/5/2019	16:14:00	22.75
405067.56	915085	4/5/2019	17:14:00	13.50
Average 24 h				11.96
Min				2.28
Max				58.78

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-3 (San Carlos)
Variable: Dióxido de Nitrógeno (NO2)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	NO2 Ave (ug/m3)
405067.56	915085	4/4/2019	18:14:00	91.27
405067.56	915085	4/4/2019	19:14:00	211.56
405067.56	915085	4/4/2019	20:14:00	271.72
405067.56	915085	4/4/2019	21:14:00	307.88
405067.56	915085	4/4/2019	22:14:00	314.27
405067.56	915085	4/4/2019	23:14:00	311.47
405067.56	915085	4/5/2019	00:14:00	333.27
405067.56	915085	4/5/2019	01:14:00	380.95
405067.56	915085	4/5/2019	02:14:00	356.95
405067.56	915085	4/5/2019	03:14:00	367.10
405067.56	915085	4/5/2019	04:14:00	360.99
405067.56	915085	4/5/2019	05:14:00	375.97
405067.56	915085	4/5/2019	06:14:00	400.94
405067.56	915085	4/5/2019	07:14:00	388.38
405067.56	915085	4/5/2019	08:14:00	370.80
405067.56	915085	4/5/2019	09:14:00	330.25
405067.56	915085	4/5/2019	10:14:00	242.21
405067.56	915085	4/5/2019	11:14:00	233.72
405067.56	915085	4/5/2019	12:14:00	165.57
405067.56	915085	4/5/2019	13:14:00	134.73
405067.56	915085	4/5/2019	14:14:00	143.07
405067.56	915085	4/5/2019	15:14:00	22.28
405067.56	915085	4/5/2019	16:14:00	5.39
405067.56	915085	4/5/2019	17:14:00	23.34
Average 24 h				256.00
Min				5.39
Max				400.94

Proyecto: Estudio de Impacto Ambiental Categoría III. Corredor de Playas Tramo II
Monitoreo: Calidad del aire ambiente.
Punto: CPA-3 (San Carlos)
Variable: Monóxido de Carbono (CO)

Header ID	Logger ID	Date (mm/dd/yyyy)	Time (hh:mm:ss)	CO Ave (ug/m3)
405067.56	915085	4/4/2019	18:14:00	142.31
405067.56	915085	4/4/2019	19:14:00	189.94
405067.56	915085	4/4/2019	20:14:00	451.72
405067.56	915085	4/4/2019	21:14:00	303.79
405067.56	915085	4/5/2019	06:14:00	388.47
405067.56	915085	4/5/2019	07:14:00	440.81
405067.56	915085	4/5/2019	08:14:00	396.02
405067.56	915085	4/5/2019	09:14:00	302.49
Average 8 h				326.95
Min				142.31
Max				451.72

Certificate of Calibration

Certificate Number: EDCQP200-4.11.5

Environmental Devices Corporation certifies the Haz-Scanner model EPAS is calibrated to published specifications and NIST traceable.

Calibration Dust Specifications are NIST traceable using Coulter Mutisizer II e. ISO12103 -1 A2 Fine Test Dust and is designed to agree with EPA Class I and Class III FRM and FEM particulate samplers and monitors and EN 12341 and EN 14907 standards.

Gas sensors are Calibrated against NIST/EPA traceable Calibration Gas using NIST primary Flow Standard: LFE774300 to ISO 17025 and EPA Instrumental Test Methods as defined by 40 CFR Part 60.

Quality system standard to meet the requirements of ANSI/ASQC standard Q9000-1994 (ISO 9001), MIL-STD 45662A, and customer's specification if required.

Temperature = 22°C

Relative Humidity = 30%

Atmospheric Pressure = 760 mmHg

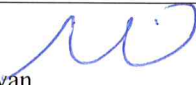
Measurement Uncertainty Estimated @ 95% Confidence Level (k=2) using ISO 17025 guidelines.

Model	Serial Number	Calibration Date	Next Calibration Due
EPAS	915085	September 25, 2018	September 2019

Calibration Span Accessory if purchased	Sensor A K=	Sensor B K=	Model :
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Technician

Supervisor

 Dan Okuniewicz	 Mark Sullivan
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Environmental Devices Corporation
 4 Wilder Drive Building #15
 Plaistow, NH 03865
 ISO-9001 Certified

ENVIRONMENTAL DEVICES CORPORATION

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Calibration Report

Date: September 2018

Customer Name:

System ID: Serial Number 915085

Notes:

BASIC CHECK

Power Voltage	PASS
CPU Diagnostic Test	PASS
Air Flow Rate	PASS
Digital Communication	PASS
Sensor Output Voltages	PASS
Signal Channel Voltages	PASS
Memory Card Voltages	PASS

SENSOR	Low Span	Observed Low Test Result	High Span	Observed High Test Result	Calibration Accuracy
<i>PM A (10μm)</i>	0 μ g/m ³	0 μ g/m ³	5000 μ g/m ³	5000 μ g/m ³	+/- 10ug/m3
<i>PM B (2.5μm)</i>	0 μ g/m ³	0 μ g/m ³	5000 μ g/m ³	5000 μ g/m ³	+/- 10 ug/m3
<i>CO</i>	0 ppm	0 ppm	2.5 ppm	2.5 ppm	+/- 0.01 ppm
<i>CO₂</i>	300ppm	300 ppm	1000 ppm	1000 ppm	+/- 50 ppm
<i>NO₂</i>	0 ppb	0 ppb	374 ppb	374 ppb	+/- 5 ppb
<i>SO₂</i>	0 ppb	0 ppb	352 ppb	352 ppb	+/- 5 ppb
<i>VOC</i>	0 ppb	0 ppb	500 ppb	500 ppb	+/- 5ppb
<i>O₃</i>	0 ppb	0 ppb	58 ppb	58 ppb	+/- .1 ppb
<i>Temperature</i>	0°C	0°C	50°C	50°C	+/- 2°C
<i>Relative Humidity</i>	13%	13%	75%	75%	+/- 3%

Calibration Technician
Dan OkuniewiczSupervisor
Mark Sullivan