APPENDIX C

VOC Emissions Data – Truck Loading

C1. VOC Emission Rate Calculations / Data Sheets

C2. Tank Displacement Rate Calculations / Truck Loading Logs

C1. VOC Emission Rate Calculations / Data Sheets

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Time / Date:**	5:15	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	5:31	09/20/12
Truck No. :	1	**Load Time (hours):**	0.30	

Average Concentration:		299 ppmvw
Average Flow Rate:		53 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol, PPM)	=	**547.46** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**15.50** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**3.42E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.11** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.005** lb/hr
NMHC lb/hr =			**0.10** lb/hr
NMHC lb/load =			**0.03** lb/load
NMHC ton/load			**1.56E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	7:15	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	7:33	09/20/12
Truck No. :	2	**Load Time (hours):**	0.30	

Average Concentration:		432 ppmvw
Average Flow Rate:		54 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**792.22** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**22.44** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**4.95E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.16** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.008** lb/hr
NMHC lb/hr =			**0.15** lb/hr
NMHC lb/load =			**0.05** lb/load
NMHC ton/load			**2.27E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	8:42	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	9:00	09/20/12
Truck No. :	3	**Load Time (hours):**	0.31	

Average Concentration:		475 ppmvw
Average Flow Rate:		51 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**870.68** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**24.66** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**5.44E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.17** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.010** lb/hr
NMHC lb/hr =			**0.16** lb/hr
NMHC lb/load =			**0.05** lb/load
NMHC ton/load			**2.46E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	9:48	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	10:02	09/20/12
Truck No. :	4	**Load Time (hours):**	0.23	

Average Concentration:		323 ppmvw
Average Flow Rate:		72 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**592.09** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**16.77** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**3.70E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.16** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.010** lb/hr
NMHC lb/hr =			**0.15** lb/hr
NMHC lb/load =			**0.03** lb/load
NMHC ton/load			**1.70E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	11:53	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	12:11	09/20/12
Truck No. :	5	**Load Time (hours):**	0.31	

Average Concentration:		552 ppmvw
Average Flow Rate:		39 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**1010.85** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**28.63** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**6.31E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.15** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.007** lb/hr
NMHC lb/hr =			**0.14** lb/hr
NMHC lb/load =			**0.04** lb/load
NMHC ton/load			**2.15E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	12:29	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	12:48	09/20/12
Truck No. :	6	**Load Time (hours):**	0.31	

Average Concentration:		454 ppmvw
Average Flow Rate:		51 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**831.59** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**23.55** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**5.19E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.16** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.009** lb/hr
NMHC lb/hr =			**0.15** lb/hr
NMHC lb/load =			**0.05** lb/load
NMHC ton/load			**2.34E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	14:28	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	14:42	09/20/12
Truck No. :	7	**Load Time (hours):**	0.24	

Average Concentration:		492 ppmvw
Average Flow Rate:		67 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**901.40** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**25.53** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**5.63E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.23** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.014** lb/hr
NMHC lb/hr =			**0.21** lb/hr
NMHC lb/load =			**0.05** lb/load
NMHC ton/load			**2.51E-05** ton/load

Emission Rate Calculation Sheet
Total Hydrocarbon Emissions

Facility :	Global South Portland	**Start Date/Time:**	15:05	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	15:24	09/20/12
Truck No. :	8	**Load Time (hours):**	0.32	

Average Concentration:		447 ppmvw
Average Flow Rate:		38 scfm
Molecular Weight:	Propane	44.09 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**819.87** mg/m^3
mg/SCF =	(mg/m^3) (m^3/35.31 SCF)	=	**23.22** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**5.12E-05** lb/SCF
THC lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.12** lb/hr
CH4 lb/hr =	(lb/SCF * SCFM * 60 min/hr)		**0.006** lb/hr
NMHC lb/hr =			**0.11** lb/hr
NMHC lb/load =			**0.04** lb/load
NMHC ton/load			**1.77E-05** ton/load

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	5:15	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	5:31	09/20/12
Truck No. :	1	**Load Time (hours):**	0.30	

Average Concentration:		40 ppmvw
Average Flow Rate:		53.3 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM) =		**26.51** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**0.75** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**1.65488E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.005** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	7:15	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	7:33	09/20/12
Truck No. :	2	**Load Time (hours):**	0.30	

Average Concentration:	61 ppmvw
Average Flow Rate:	54 scfm
Molecular Weight: (Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM) =		**40.51** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.15** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**2.52915E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.008** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	8:42	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	9:00	09/20/12
Truck No. :	3	**Load Time (hours):**	0.31	

Average Concentration:		78 ppmvw
Average Flow Rate:		51 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**51.70** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.46** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**3.22764E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.010** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	9:48	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	10:02	09/20/12
Truck No. :	4	**Load Time (hours):**	0.23	

Average Concentration:		54 ppmvw
Average Flow Rate:		72 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**36.10** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.02** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**2.25378E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.010** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	11:53	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	12:11	09/20/12
Truck No. :	5	**Load Time (hours):**	0.31	

Average Concentration:		74 ppmvw
Average Flow Rate:		39 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**49.67** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.41** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**3.10136E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.007** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	12:29	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	12:48	09/20/12
Truck No. :	6	**Load Time (hours):**	0.31	

Average Concentration:		70 ppmvw
Average Flow Rate:		51 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**46.87** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.33** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**2.92652E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.009** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	14:28	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	14:42	09/20/12
Truck No. :	7	**Load Time (hours):**	0.24	

Average Concentration:		86 ppmvw
Average Flow Rate:		67 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM) =		**57.14** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.62** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**3.56757E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.014** lb/hr

Emission Rate Calculation Sheet
Methane Emissions

Facility :	Global South Portland	**Start Date/Time:**	15:05	09/20/12
Source/Location:	Asphalt Loading Rack	**End Date/Time:**	15:24	09/20/12
Truck No. :	8	**Load Time (hours):**	0.32	

Average Concentration:		61 ppmvw
Average Flow Rate:		38 scfm
Molecular Weight:	(Methane)	16.04 g/mole

mg/m^3 =	(MW * PPM) / (24.055 l/mol. PPM)	=	**40.39** mg/m^3
mg/SCF =	(mg/m^3) $(m^3/35.31$ SCF)	=	**1.14** mg/SCF
lb/SCF =	(1 lb/ 4.536E+5 mg) * (mg/SCF)	=	**2.52159E-06** lb/SCF
lb/hr =	(lb/SCF * SCFM * 60 min/hr)	=	**0.006** lb/hr

Instrumental Analyzer Monitoring Data

Facility/Site:	Global South Portland
Source:	Asphalt Loading Rack
Truck	1
Start Time:	5:15
End Time:	5:31
Fill Minutes	18.0

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	5:15:06 AM	116	11
9/20/2012	5:16:06 AM	144	14
9/20/2012	5:17:06 AM	178	14
9/20/2012	5:18:06 AM	211	25
9/20/2012	5:19:06 AM	213	28
9/20/2012	5:20:06 AM	252	28
9/20/2012	5:21:06 AM	293	38
9/20/2012	5:22:06 AM	324	41
9/20/2012	5:23:06 AM	352	41
9/20/2012	5:24:06 AM	379	51
9/20/2012	5:25:06 AM	400	53
9/20/2012	5:26:06 AM	413	53
9/20/2012	5:27:06 AM	352	58
9/20/2012	5:28:06 AM	350	59
9/20/2012	5:29:06 AM	388	59
9/20/2012	5:30:06 AM	414	63
Averages		299	40

Instrumental Analyzer Monitoring Data

Facility/Site:	Global South Portland
Source:	Asphalt Loading Rack
Truck	2
Start Time:	7:15
End Time:	7:33
Fill Minutes	18.0

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	7:15:20 AM	208	26
9/20/2012	7:16:20 AM	268	26
9/20/2012	7:17:20 AM	319	29
9/20/2012	7:18:20 AM	364	47
9/20/2012	7:19:20 AM	400	47
9/20/2012	7:20:20 AM	428	49
9/20/2012	7:21:20 AM	437	64
9/20/2012	7:22:20 AM	449	64
9/20/2012	7:23:20 AM	463	64
9/20/2012	7:24:20 AM	474	69
9/20/2012	7:25:20 AM	488	69
9/20/2012	7:26:20 AM	506	71
9/20/2012	7:27:20 AM	511	78
9/20/2012	7:28:20 AM	520	78
9/20/2012	7:29:20 AM	527	79
9/20/2012	7:30:20 AM	520	79
9/20/2012	7:31:20 AM	517	79
9/20/2012	7:32:20 AM	382	75
Averages		432	61

Instrumental Analyzer Monitoring Data

Facility/Site:	Global South Portland
Source:	Asphalt Loading Rack
Truck	3
Start Time:	8:42
End Time:	9:00
Fill Minutes	18.8

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	8:42:20 AM	250	41
9/20/2012	8:43:20 AM	305	41
9/20/2012	8:44:20 AM	356	44
9/20/2012	8:45:20 AM	394	64
9/20/2012	8:46:20 AM	428	64
9/20/2012	8:47:20 AM	458	66
9/20/2012	8:48:20 AM	464	78
9/20/2012	8:49:20 AM	474	78
9/20/2012	8:50:20 AM	496	80
9/20/2012	8:51:20 AM	511	88
9/20/2012	8:52:20 AM	533	88
9/20/2012	8:53:20 AM	559	89
9/20/2012	8:54:20 AM	557	96
9/20/2012	8:55:20 AM	560	96
9/20/2012	8:56:20 AM	564	96
9/20/2012	8:57:20 AM	566	96
9/20/2012	8:58:20 AM	576	96
9/20/2012	8:59:20 AM	499	95
Averages		475	78

Instrumental Analyzer Monitoring Data

Facility/Site:	Global South Portland
Source:	Asphalt Loading Rack
Truck	4
Start Time:	9:48
End Time:	10:02
Fill Minutes	13.6

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	9:48:20 AM	116	11
9/20/2012	9:49:20 AM	157	11
9/20/2012	9:50:20 AM	194	16
9/20/2012	9:51:20 AM	230	44
9/20/2012	9:52:20 AM	264	44
9/20/2012	9:53:20 AM	293	46
9/20/2012	9:54:20 AM	318	60
9/20/2012	9:55:20 AM	348	60
9/20/2012	9:56:20 AM	379	62
9/20/2012	9:57:20 AM	404	74
9/20/2012	9:58:20 AM	431	74
9/20/2012	9:59:20 AM	474	77
9/20/2012	10:00:20 AM	504	90
9/20/2012	10:01:20 AM	410	90
Averages		323	54

Instrumental Analyzer Monitoring Data

Facility/Site:	Global South Portland
Source:	Asphalt Loading Rack
Truck	5
Start Time:	11:53
End Time:	12:11
Fill Minutes	18.4

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	11:53:20 AM	312	10
9/20/2012	11:54:20 AM	375	46
9/20/2012	11:55:20 AM	431	46
9/20/2012	11:56:20 AM	482	50
9/20/2012	11:57:20 AM	516	69
9/20/2012	11:58:20 AM	543	69
9/20/2012	11:59:20 AM	556	71
9/20/2012	12:00:20 PM	563	80
9/20/2012	12:01:20 PM	594	80
9/20/2012	12:02:20 PM	609	81
9/20/2012	12:03:20 PM	628	89
9/20/2012	12:04:20 PM	645	89
9/20/2012	12:05:20 PM	653	91
9/20/2012	12:06:20 PM	642	97
9/20/2012	12:07:20 PM	632	97
9/20/2012	12:08:20 PM	629	96
9/20/2012	12:09:20 PM	619	91
9/20/2012	12:10:20 PM	498	91
Averages		552	74

Instrumental Analyzer Monitoring Data

Facility/Site:	**Global South Portland**
Source:	**Asphalt Loading Rack**
Truck	**6**
Start Time:	**12:29**
End Time:	**12:48**
Fill Minutes	**18.7**

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	12:29:20 PM	220	11
9/20/2012	12:30:20 PM	277	39
9/20/2012	12:31:20 PM	324	39
9/20/2012	12:32:20 PM	363	43
9/20/2012	12:33:20 PM	393	59
9/20/2012	12:34:20 PM	416	59
9/20/2012	12:35:20 PM	442	62
9/20/2012	12:36:20 PM	470	74
9/20/2012	12:37:20 PM	490	74
9/20/2012	12:38:20 PM	502	76
9/20/2012	12:39:20 PM	510	83
9/20/2012	12:40:20 PM	523	83
9/20/2012	12:41:20 PM	537	85
9/20/2012	12:42:20 PM	555	91
9/20/2012	12:43:20 PM	554	91
9/20/2012	12:44:20 PM	550	92
9/20/2012	12:45:20 PM	563	95
9/20/2012	12:46:20 PM	534	95
9/20/2012	12:47:20 PM	399	88
Averages		454	70

Instrumental Analyzer Monitoring Data

Facility/Site:	**Global South Portland**
Source:	**Asphalt Loading Rack**
Truck	**7**
Start Time:	**14:28**
End Time:	**14:42**
Fill Minutes	**14.2**

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	2:28:20 PM	286	55
9/20/2012	2:29:20 PM	350	59
9/20/2012	2:30:20 PM	396	70
9/20/2012	2:31:20 PM	438	70
9/20/2012	2:32:20 PM	476	75
9/20/2012	2:33:20 PM	502	87
9/20/2012	2:34:20 PM	520	87
9/20/2012	2:35:20 PM	545	90
9/20/2012	2:36:20 PM	560	97
9/20/2012	2:37:20 PM	563	97
9/20/2012	2:38:20 PM	584	100
9/20/2012	2:39:20 PM	572	107
9/20/2012	2:40:20 PM	586	107
9/20/2012	2:41:20 PM	507	101
Averages		492	86

Instrumental Analyzer Monitoring Data

Facility/Site:	**Global South Portland**
Source:	**Asphalt Loading Rack**
Truck	**8**
Start Time:	**15:05**
End Time:	**15:24**
Fill Minutes	**19.0**

Date	Time	THC (Propane) (ppm)	Methane (ppm)
9/20/2012	3:05:20 PM	146	9
9/20/2012	3:06:20 PM	190	25
9/20/2012	3:07:20 PM	237	25
9/20/2012	3:08:20 PM	282	29
9/20/2012	3:09:20 PM	318	42
9/20/2012	3:10:20 PM	355	42
9/20/2012	3:11:20 PM	385	45
9/20/2012	3:12:20 PM	416	55
9/20/2012	3:13:20 PM	447	55
9/20/2012	3:14:20 PM	473	58
9/20/2012	3:15:20 PM	499	69
9/20/2012	3:16:20 PM	530	69
9/20/2012	3:17:20 PM	569	73
9/20/2012	3:18:20 PM	599	85
9/20/2012	3:19:20 PM	629	85
9/20/2012	3:20:20 PM	639	89
9/20/2012	3:21:20 PM	645	102
9/20/2012	3:22:20 PM	612	102
9/20/2012	3:23:20 PM	531	96
Averages		447	61

Method 25A Calibration Data Sheet - Total Hydrocarbons

Source Summary			
Facility:	Global South Portland		
Source/Location:	Asphalt Loading Rack		
Start Date	20-Sep-12	End Date:	20-Sep-12
Start Time:	4:27	End Time:	16:19

THC Analyzer Data			
Manufacturer -	VIG		
Model/Serial Number -	200/2660406		
Fuel Pressure -	6.5		
Combustion Air Pressure -	5.5		
Sample Pressure -	2.0		
Range -	0	-	10,000
Calibrant (choose one, x in box)	Propane		x
	Methane		
Cal Gas Molecular Weight:	44.09		g/mol

Initial Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	4:27

Initial Calibration Data (Hi / Zero)		
Calibration Gas	Cylinder Conc.	Actual Response
Zero Gas	0.0	2
High Gas	8483	8478
Response Line	0.999	

Where: Response Line = (Ha-Za)/(Hc-Zc)

Initial Calibration Data (Mid / Low)					
Calibration Gas	**Cylinder Conc.**	**Predicted Response**	**Actual Response**	**Calibration Error**	**Acceptance Criteria**
Low Gas	3066	3063	3078	0.5	< 5% of cylinder concentration
Mid Gas	5010	5006	4980	0.5	< 5% of cylinder concentration

Where:

Predicted Response = (Cylinder Concentration) x (Response Line)

Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Post Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	5:44

Post Calibration Drift Data						
Calibration Gas	**Cylinder Conc.**	**Initial Test Response**	**Final Test Response**	**Calibration Drift**	**Acceptance Criteria**	
Post Cal 1 Zero	0	2	24	**0.22**	< 3% of the measurement range	
Post Cal 1 Upscale	867	n/a	890	**n/a**	< 3% of the measurement range	
Post Cal 2 Upscale	515	n/a	531	**n/a**	Test Avg. Conc.	

Where:

Calibration Drift = (Final Test Response - Initial Test Response) * 100

Gas Cylinder Data						
Calibration Gas	Required % of Span	Cylinder Conc.	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel	N/A		UHP H2		N/A	N/A
Combustion Air			UHP Air		N/A	
Zero Gas	<0.1%	0	UHP Air		N/A	0%
Low Gas	25-35	3,066	Propane/Air	SA3275	3/26/2015	31%
Mid Gas	45-55	5,010	Propane/Air	SA20684	3/26/2015	50%
High Gas	80-90	8,483	Propane/Air	CC110684	4/2/2015	85%

System Response Time = 120 seconds

Method 25A Calibration Data Sheet - Total Hydrocarbons

Source Summary			
Facility:	Global South Portland		
Source/Location:	Asphalt Loading Rack		
Start Date	20-Sep-12	End Date:	20-Sep-12
Start Time:	4:27	End Time:	16:19

THC Analyzer Data			
Manufacturer -	VIG		
Model/Serial Number -	200/2660406		
Fuel Pressure -	6.5		
Combustion Air Pressure -	5.5		
Sample Pressure -	2.0		
Range -	0	-	1,000
Calibrant (choose one, x in box)	Propane		x
	Methane		
Cal Gas Molecular Weight:	44.09		g/mol

Initial Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	5:44

Initial Calibration Data (Hi / Zero)		
Calibration Gas	Cylinder Conc.	Actual Response
Zero Gas	0.0	2
High Gas	866.9	869
Response Line	1.000	

Where: Response Line = (Ha-Za)/(Hc-Zc)

Initial Calibration Data (Mid / Low)					
Calibration Gas	**Cylinder Conc.**	**Predicted Response**	**Actual Response**	**Calibration Error**	**Acceptance Criteria**
Low Gas	297.3	297	300.6	1.1	< 5% of cylinder concentration
Mid Gas	515.4	516	514.6	0.2	< 5% of cylinder concentration

Where:

Predicted Response = (Cylinder Concentration) x (Response Line)

Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Post Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	16:00

Post Calibration Drift Data						
Calibration Gas	**Cylinder Conc.**	**Initial Test Response**	**Final Test Response**	**Calibration Drift**	**Acceptance Criteria**	
Post Cal 1 Zero	0	2	10	**0.75**	< 3% of the measurement range	
Post Cal 1 Upscale	515	515	535	**2.08**	< 3% of the measurement range	
					Test Avg. Conc.	

Where:

Calibration Drift = (Final Test Response - Initial Test Response) * 100

Gas Cylinder Data						
Calibration Gas	Required % of Span	Cylinder Conc.	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel	N/A		UHP H2		N/A	N/A
Combustion Air			UHP Air		N/A	
Zero Gas	<0.1%	0	UHP Air		N/A	0%
Low Gas	25-35	297.3	Propane/Air	CC350652	3/12/2015	30%
Mid Gas	45-55	515.4	Propane/Air	CC248679	3/26/2015	52%
High Gas	80-90	866.9	Propane/Air	CC50868	3/26/2015	87%

System Response Time = 120 seconds

Method 25A Calibration Data Sheet - Methane

Source Summary			
Facility:	Global South Portland		
Source/Location:	Asphalt Loading Rack		
Start Date	20-Sep-12	End Date:	20-Sep-12
Start Time:	4:27	End Time:	16:19

THC Analyzer Data			
Manufacturer -	VIG		
Model/Serial Number -	200/2660406		
Fuel Pressure -	7.0		
Combustion Air Pressure -	5.5		
Carrier Gas Pressure -	22.0		
Range -	0	-	100
Calibrant (choose one, x in box)	Propane		
	Methane		x
Cal Gas Molecular Weight:	16.039	g/mol	

Initial Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	4:27

Initial Calibration Data (Hi / Zero)		
Calibration Gas	Cylinder Conc.	Actual Response
Zero Gas	0.0	0.0
High Gas	820	824
Response Line	1.005	

Where: Response Line = (Ha-Za)/(Hc-Zc)

Initial Calibration Data (Mid / Low)					
Calibration Gas	**Cylinder Conc.**	**Predicted Response**	**Actual Response**	**Calibration Error**	**Acceptance Criteria**
Low Gas	290	291	288	1.2	< 5% of cylinder concentration
Mid Gas	484	486	486	0.1	< 5% of cylinder concentration

Where:

Predicted Response = (Cylinder Concentration) x (Response Line)

Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Post Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	5:44

Post Calibration Drift Data						
Calibration Gas	**Cylinder Conc.**	**Initial Test Response**	**Final Test Response**	**Calibration Drift**	**Acceptance Criteria**	
Post Cal 1 Zero	0	0.0	1	**1.0**	< 3% of the measurement range	
Post Cal 1 Upscale	290	288	289	**1.0**	< 3% of the measurement range	
Post Cal 1 Upscale	88.2	N/A	85	**N/A**	Test Avg. Conc.	

Where:

Calibration Drift = (Final Test Response - Initial Test Response) * 100

Gas Cylinder Data						
Calibration Gas	Required % of Span	Cylinder Conc.	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel	N/A		UHP H2		N/A	N/A
Combustion Air			UHP Air		N/A	
Zero Gas	<0.1%	0	UHP Air		N/A	0%
Low Gas	25-35	290	CH4/Air	CC198791	4/2/2015	290%
Mid Gas	45-55	485	CH4/Air	SA15203	4/2/2015	485%
High Gas	80-90	820	CH4/Air	SA1610	4/2/2015	820%

System Response Time = 120 seconds

Method 25A Calibration Data Sheet - Methane

Source Summary			
Facility:	Global South Portland		
Source/Location:	Asphalt Loading Rack		
Start Date	20-Sep-12	End Date:	20-Sep-12
Start Time:	4:27	End Time:	16:19

THC Analyzer Data			
Manufacturer -	VIG		
Model/Serial Number -	200/2660406		
Fuel Pressure -	7.0		
Combustion Air Pressure -	5.5		
Carrier Gas Pressure -	22.0		
Range -	0	-	100
Calibrant (choose one, x in box)	Propane		
	Methane		x
Cal Gas Molecular Weight:	16.039	g/mol	

Initial Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	4:27

Initial Calibration Data (Hi / Zero)		
Calibration Gas	Cylinder Conc.	Actual Response
Zero Gas	0.0	0.6
High Gas	88.2	88.4
Response Line	0.995	

Where: Response Line = (Ha-Za)/(Hc-Zc)

Initial Calibration Data (Mid / Low)					
Calibration Gas	**Cylinder Conc.**	**Predicted Response**	**Actual Response**	**Calibration Error**	**Acceptance Criteria**
Low Gas	30.5	30.4	29.5	2.8	< 5% of cylinder concentration
Mid Gas	50.90	50.7	49.5	2.3	< 5% of cylinder concentration

Where:

Predicted Response = (Cylinder Concentration) x (Response Line)

Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Post Calibration Summary	
Operator:	A. Stratton
Date:	20-Sep-12
Time:	16:00

Post Calibration Drift Data						
Calibration Gas	**Cylinder Conc.**	**Initial Test Response**	**Final Test Response**	**Calibration Drift**	**Acceptance Criteria**	
Post Cal 1 Zero	0	0.6	1	**0.4**	< 3% of the measurement range	
Post Cal 1 Upscale	88.2	88.4	91	**2.1**	< 3% of the measurement range	
					Test Avg. Conc.	**527**

Where:

Calibration Drift = (Final Test Response - Initial Test Response) * 100

Gas Cylinder Data						
Calibration Gas	Required % of Span	Cylinder Conc.	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel	N/A		UHP H2		N/A	N/A
Combustion Air			UHP Air		N/A	
Zero Gas	<0.1%	0	UHP Air		N/A	0%
Low Gas	25-35	30.5	CH4/Air	CC80798	8/24/2014	31%
Mid Gas	45-55	50.9	CH4/Air	CC78508	8/26/2014	51%
High Gas	80-90	88.2	CH4/Air	CC9110	8/26/2014	88%

System Response Time = **120 seconds**

Method 25A Data Sheet (THC) as Propane

Truck #1 Cal Only

Client South [redacted] Global
Facility [redacted] Maine Terminal
Source Portland Asphalt Loading Rack
Test Location Tanker Truck Loading Rack
Date 20 Sept 2012

Asphalt

THC Analyzer Data

Manufacturer	VIG
Model/Serial Number	200 / 2660406
Fuel Pressure	6.5
Combustion Air Pressure	5.5
Sample Pressure	2.0
Measurement Range	0-10000
Response Time	120 sec

Test Data

Test Number	1	2	3
Start Time			
Stop Time			
Testers			

Calibration Error Test Data

Calibration Gas	Cylinder Concentration	Actual Response
Zero Gas	0	2
High Gas	8483	8478
Response Line		

Response Line = (Ha/Za)/(Hc-Zc)

Calibration Gas	Cylinder Concentration	Predicted Response	Actual Response	Calibration Error	Criteria Acceptance
Low Gas	3066	3078			< 5% of cylinder concentration
Mid Gas	5010	4980			< 5% of cylinder concentration

Predicted Response = (Cylinder Concentration) x (Response Line)
Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Calibration Drift Test Data — Post Truck #1

Calibration Gas	Cylinder Concentration	CE Test Response	Actual Response	Calibration Drift	Criteria Acceptance	
Test Run 1 Zero	0		24		< 3% of the measurement range	
Test Run 1 Mid					< 3% of the measurement range	
~~866.9~~	866.9 515.4		899 539		Test Run 1 Avg. Conc.	
Test Run 2 Zero					< 3% of the measurement range	
Test Run 2 Mid					< 3% of the measurement range	
					Test Run 2 Avg. Conc.	
Test Run 3 Zero					< 3% of the measurement range	
Test Run 3 Mid					< 3% of the measurement range	
Calibration Drift = (Actual Response - CE Test Response) * 100 / Measurement Range					Test Run 3 Avg. Conc.	

Gas Cylinder Data

Calibration Gas	Required % of Span	Cylinder Concentration	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel			UHP H2			
Combustion Air			UHP Air			
Zero Gas			UHP N2			
Low Gas	25 - 35					
Mid Gas	45 - 55					
High Gas	80 - 90					

Truck #1 Only

Method 25A Data Sheet (Methane Only)

Client [redacted] Global
Facility South [redacted], Maine Terminal
Source Portland, Tanker Truck Filling Hatch
Test Location Asphalt Loading Rack
Date 20 Sept 12

THC Analyzer Data

Manufacturer	VIG
Model/Serial Number	200 /
Fuel Pressure	7.0
Combustion Air Pressure	5.5
Carrier Gas Pressure	22
Measurement Range	0-1000
Response Time	180 sec (1 injection/3 min)

Test Data

Test Number	1	2	3
Start Time			
Stop Time			
Testers			

Calibration Error Test Data

Calibration Gas	Cylinder Concentration	Actual Response
Zero Gas	0	0
High Gas	820	824
Response Line		

Response Line = (Ha/Za)/(Hc-Zc)

Calibration Gas	Cylinder Concentration	Predicted Response	Actual Response	Calibration Error	Criteria Acceptance
Low Gas	290		288		< 5% of cylinder concentration
Mid Gas	485		486		< 5% of cylinder concentration

Predicted Response = (Cylinder Concentration) x (Response Line)
Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Post Truck #1 Calibration Drift Test Data

Calibration Gas	Cylinder Concentration	CE Test Response	Actual Response	Calibration Drift	Criteria Acceptance	
Test Run 1 Zero	0		1		< 3% of the measurement range	
Test Run 1 Mid	290		289		< 3% of the measurement range	
	88.2		85		Test Run 1 Avg. Conc.	
Test Run 2 Zero					< 3% of the measurement range	
Test Run 2 Mid					< 3% of the measurement range	
					Test Run 2 Avg. Conc.	
Test Run 3 Zero					< 3% of the measurement range	
Test Run 3 Mid					< 3% of the measurement range	
Calibration Drift = (Actual Response - CE Test Response) / Measurement Range * 100					Test Run 3 Avg. Conc.	

Gas Cylinder Data

Calibration Gas	Required % of Span	Cylinder Concentration	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel			UHP H2			
Combustion Air			UHP Air			
Zero Gas			UHP N2			
Low Gas	25 - 35					
Mid Gas	45 - 55					
High Gas	80 - 90					

Method 25A Data Sheet (THC)

Client [redacted] Global
Facility South Portland [redacted] Maine Terminal
Source Truck Loading Rack — Asphalt
Test Location Asphalt truck hatch
Date 20 Sept 2012

THC Analyzer Data

Manufacturer	VIG
Model/Serial Number	200 / 2660406
Fuel Pressure	6.5
Combustion Air Pressure	5.5
Sample Pressure	2.0
* Measurement Range	0-1000 (analyzer set to 0-10000)
Response Time	120 sec

Test Data

Test Number	1	2	3
Start Time			
Stop Time			
Testers			

Calibration Error Test Data

Calibration Gas	Cylinder Concentration	Actual Response
Zero Gas	0	2
High Gas	869.9	869.1
Response Line	~~869.9~~	

Response Line = (Ha/Za)/(Hc-Zc)

Calibration Gas	Cylinder Concentration	Predicted Response	Actual Response	Calibration Error	Criteria Acceptance
Low Gas	297.3		300.6		< 5% of cylinder concentration
Mid Gas	515.4	514.6 →	514.6		< 5% of cylinder concentration

Predicted Response = (Cylinder Concentration) x (Response Line)
Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Calibration Drift Test Data

Truck #4 Post Cal

Calibration Gas	Cylinder Concentration	CE Test Response	Actual Response	Calibration Drift	Criteria Acceptance	
Test Run 1 Zero	0		22	2.0	< 3% of the measurement range	
Test Run 1 Mid	515.4		532.8	1.8	< 3% of the measurement range	
Truck 8 post cal					Test Run 1 Avg. Conc.	
Test Run 2 Zero	0		9.5	0.75	< 3% of the measurement range	
Test Run 2 Mid	515.4		535.4	2.1	< 3% of the measurement range	
					Test Run 2 Avg. Conc.	
Test Run 3 Zero					< 3% of the measurement range	
Test Run 3 Mid					< 3% of the measurement range	
Calibration Drift = (Actual Response - CE Test Response) / Measurement Range * 100					Test Run 3 Avg. Conc.	

Gas Cylinder Data

Calibration Gas	Required % of Span	Cylinder Concentration	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel			UHP H2			
Combustion Air			UHP Air			
Zero Gas			UHP N2			
Low Gas	25 - 35					
Mid Gas	45 - 55					
High Gas	80 - 90					

* Calibrating using 0-1000 ppm gas. But analyzer range set to 0-10000 ppm.

Method 25A Data Sheet (Methane Only)

Client [redacted] Global
Facility South Portland [redacted], Maine Terminal
Source Asphalt Loading Rack
Test Location Asphalt Truck Hatch
Date 20 Sept 2012

THC Analyzer Data

Manufacturer	VIG
Model/Serial Number	200 /
Fuel Pressure	7.0
Combustion Air Pressure	5.5
Carrier Gas Pressure	22
Measurement Range	0-100 (analyzer set on 0-1000)
Response Time	180 sec.

Test Data

Test Number	1	2	3
Start Time			
Stop Time			
Testers			

Calibration Error Test Data

Calibration Gas	Cylinder Concentration	Actual Response
Zero Gas	0	0.6
High Gas	88.2	88.4
Response Line		

Response Line = (Ha/Za)/(Hc-Zc)

Calibration Gas	Cylinder Concentration	Predicted Response	Actual Response	Calibration Error	Criteria Acceptance
Low Gas	30.5		29.5		< 5% of cylinder concentration
Mid Gas	50.9		49.5		< 5% of cylinder concentration

Predicted Response = (Cylinder Concentration) x (Response Line)
Calibration Error = (Actual Response - Predicted Response) / Cylinder Concentration x 100

Calibration Drift Test Data

Truck #4 Post Cal

Calibration Gas	Cylinder Concentration	CE Test Response	Actual Response	Calibration Drift	Criteria Acceptance	
Test Run 1 Zero	~~30.5~~ 0		0.2	0.2	< 3% of the measurement range	
Test Run 1 Mid	~~50.9~~ (~~50.9~~) 88.2		90.4	2.0	< 3% of the measurement range	
Truck #4 Post Cal					Test Run 1 Avg. Conc.	
Test Run 2 Zero	0		1.0	~~1.0~~ 1.0	< 3% of the measurement range	
Test Run 2 Mid	88.2		90.5	2.1	< 3% of the measurement range	
					Test Run 2 Avg. Conc.	
Test Run 3 Zero					< 3% of the measurement range	
Test Run 3 Mid					< 3% of the measurement range	
Calibration Drift = (Actual Response - CE Test Response) / Measurement Range * 100					Test Run 3 Avg. Conc.	

Gas Cylinder Data

Calibration Gas	Required % of Span	Cylinder Concentration	Cylinder Composition	Cylinder Number	Expiration Date	Actual % of Span
Fuel			UHP H2			
Combustion Air			UHP Air			
Zero Gas			UHP N2			
Low Gas	25 - 35					
Mid Gas	45 - 55					
High Gas	80 - 90					

C2. Tank Displacement Rate Calculations / Truck Loading Logs

Global South Portland - Asphalt Loading Rack
Tank Air Displacement Calculations

Truck No.	Start Time	End Time	Load Time (minutes)	Load (gallons)	Fill Rate (gal/hr)	Displacement (scfm)	NMHC (lb/hr)	NMHC (lb/load)	NMHC (Ton/load)
1	5:15	5:31	18.0	7174	23913	53.3	0.10	0.031	1.56E-05
2	7:15	7:33	18.0	7248	24160	53.8	0.15	0.045	2.27E-05
3	8:42	9:00	18.8	7200	23040	51.3	0.16	0.049	2.46E-05
4	9:48	10:02	13.6	7320	32373	72.1	0.15	0.034	1.70E-05
5	11:53	12:11	18.4	5371	17546	39.1	0.14	0.043	2.15E-05
6	12:29	12:48	18.7	7135	22893	51.0	0.15	0.047	2.34E-05
7	14:28	14:42	14.2	7114	29989	66.8	0.21	0.050	2.51E-05
8	15:05	15:24	19.0	5445	17165	38.2	0.11	0.035	1.77E-05
Average:			**17.3**	**6751**	**23885**	**53.2**	**0.15**	**0.042**	**2.10E-05**

Note: One Gallon = 0.13368 cubic feet

All Weigh Scale BOL Records
(Summary)

Terminal 5335
Global Companies LLC
1 Clark Road
South Portland, ME 04106

Criteria: Date/Time is between 09/20/2012 00:00:01 and 09/20/2012 15:34:34

Load Type: L

Date/Time	BOL	Customer		Product	API	Temp	Tank	Gallons	Tare	Gross	Net	Tons
09/20/2012 04:46 am	11560	7008	Dayton Sand &	0696	4.7		D9	7,174	36,980	99,120	62,140	31.07
09/20/2012 05:27 am	11561	7003	F.R. Carroll	0696	4.7		D9	7,248	35,360	98,140	62,780	31.39
09/20/2012 07:36 am	11562	7008	Dayton Sand &	0696	4.7		D9	7,200	36,880	99,240	62,360	31.18
09/20/2012 09:05 am	11563	7003	F.R. Carroll	0696	4.7		D9	7,320	35,260	98,660	63,400	31.70
09/20/2012 10:11 am	11564	7015	Benevento Asphalt	0696	4.7		D9	5,371	33,360	79,880	46,520	23.26
09/20/2012 12:14 pm	11565	7008	Dayton Sand &	0696	4.7		D9	7,135	36,760	98,560	61,800	30.90
09/20/2012 12:57 pm	11566	7003	F.R. Carroll	0696	4.7		D9	7,114	35,120	96,740	61,620	30.81
09/20/2012 02:47 pm	11567	7015	Benevento Asphalt	0696	4.7		D9	5,445	32,920	80,080	47,160	23.58
09/20/2012 03:28 pm	11568	7018	American Liquid	0696	4.7		D9	7,297	34,840	98,040	63,200	31.60
Total	9							61,304	317,480	848,460	530,980	265.49

GLOBAL COMPANIES, LLC
Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET
Call Hudson Terminal (401) 941-0500 for emergency assistance.

Chris Axtman

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Axtman, Chris

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: F.R. Carroll

CARRIER: J.P. Noonan Transportation Inc.

CONSIGNEE: F.R. Carroll

DESTINATION: Limerick, ME

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11561

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load: _____

Date	Time	Weight	
09/20/2012	05:27	98,140 LBS	Gross
09/20/2012	04:45	35,360 LBS	Tare
		62,780 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

GLOBAL COMPANIES, LLC

Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Gordon, James

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: Dayton Sand & Gravel Co, Inc

CARRIER: J.P. Noonan Transportation Inc.

CONSIGNEE: Dayton Sand & Gravel Co, Inc

DESTINATION: Dayton, ME

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11562

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	07:36	99,240 LBS	Gross
09/20/2012	07:04	36,880 LBS	Tare
		62,360 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load. I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

2

GLOBAL COMPANIES, LLC
Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

Chris Axtman

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Axtman, Chris

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: F.R. Carroll

CARRIER: J.P. Noonan Transportation Inc.

CONSIGNEE: F.R. Carroll

DESTINATION: Limerick, ME

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11563

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	09:05	98,660 LBS	Gross
09/20/2012	08:29	35,260 LBS	Tare
		63,400 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

3

GLOBAL COMPANIES, LLC
Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

Chester Smith

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Smith, Chester

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: Benevento Asphalt Corp - MA

CARRIER: American Liquid Asphalts

CONSIGNEE: Benevento Asphalt Corp - MA

DESTINATION: N.Wilmington , MA

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11564

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	10:11	79,880 LBS	Gross
09/20/2012	09:36	33,360 LBS	Tare
		46,520 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

4

GLOBAL COMPANIES, LLC
Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Gordon, James

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: Dayton Sand & Gravel Co, Inc

CARRIER: J.P. Noonan Transportation Inc.

CONSIGNEE: Dayton Sand & Gravel Co, Inc

DESTINATION: Dayton, ME

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11565

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	12:14	98,560 LBS	Gross
09/20/2012	11:44	36,760 LBS	Tare
		61,800 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.6% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

5

GLOBAL COMPANIES, LLC
Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

Chris Axtman

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Axtman, Chris

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: F.R. Carroll

CARRIER: J.P. Noonan Transportation Inc.

CONSIGNEE: F.R. Carroll

DESTINATION: Limerick, ME

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11566

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	12:57	96,740 LBS	Gross
09/20/2012	12:18	35,120 LBS	Tare
		61,620 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

6

GLOBAL COMPANIES, LLC
Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

Chester Smith

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Smith, Chester

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: Benevento Asphalt Corp - MA

CARRIER: American Liquid Asphalts

CONSIGNEE: Benevento Asphalt Corp - MA

DESTINATION: N.Wilmington , MA

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11567

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	14:47	80,080 LBS	Gross
09/20/2012	14:18	32,920 LBS	Tare
		47,160 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

7

GLOBAL COMPANIES, LLC

Asphalt Facilities

1 Clark Rd
Portland, ME

BILL OF LADING/DELIVERY TICKET

Call Hudson Terminal (401) 941-0500 for emergency assistance.

SIGNATURE FOR CUSTOMER CARRIER

SIGNATURE FOR SHIPPER - WEIGHER

Profenno, Mark GL HSE

REC'D BY - FULL NAME

WAS DELIVERY TIMELY? Yes ☐ No ☐

WAS OPERATOR COURTEOUS? Yes ☐ No ☐

REMARKS

ARRIVE AT JOB	
LEAVE JOB	
TIME ON JOB	
JOB NO.	

FOB: South Portland, ME

SOLD BY: American Liquid Asphalt

SOLD TO: American Liquid Asphalt

CARRIER: GLOBAL HOUSE SO. PTLD

CONSIGNEE: American Liquid Asphalt

DESTINATION: Providence, RI

MESSAGES:

UN3257, Elevated Temperature Liquid, n.o.s. (Asphalt), 9, PG III

TICKET NO. 11568

PRODUCT PG 64-28

TANK NO. D9 Lot: 09B210

TRUCK NO.

TRAILER NO.

Specific Gravity of the PG Binder at 25 °C: 1.0390
Rotational Viscosity in Pascal-seconds:
- At 135 °C: 0.528 At 165 °C: 0.143
Recommended Temperatures:
- Mixing: 158-164 Compaction: 146-151
Flashpoint: 260 per AASHTO/SHRP/ASTM
Neat / Unmodified

Previous Load:

Date	Time	Weight	
09/20/2012	15:28	98,040 LBS	Gross
09/20/2012	14:49	34,840 LBS	Tare
		63,200 LBS	Net

THIS IS TO CERTIFY THAT THE ASPHALT PRODUCTS DELIVERED UNDER THIS TICKET CONFORMS TO SPECIFICATION REQUIREMENTS FOR THE MATERIAL INDICATED.

I Certify that the product in my current load is compatible with product residue from my previous load.
I understand that if my truck contains resin which exceeds 0.5% of transport capacity, it cannot be used without the express permission of authorizedHudson Terminal personnel.

8