2 COMBINED MONITORING REPORT

In accordance with Title V Permit Standard Condition 1.F, BAAQMD Rule 8-34-411 and §60.757(f) in the NSPS, this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted by Newby Island Landfill. The report contains monitoring data for the operation of the landfill gas collection and control system (GCCS). The operational records have been reviewed and summarized. The timeframe included in this report is February 1, 2012 through July 31, 2012. The following table lists the rules and regulations that are required to be included in this Combined Report.

Table 2-1 Combined Report Requirements

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.1 §60.757(f)(4)	All collection system downtime, including individual well shutdown times and the reason for the shutdown.	Section 2.1, Appendices C & D
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendix D
8-34-501.3, 8-34-507, §60.757(f)(1)	Continuous temperature for all operating flares and any enclosed combustor subject to Section 8-34-507.	Section 2.3, Appendix E
8-34-501.4, 8-34-505, 8-34-510	Testing performed to satisfy any of the requirements of this rule.	Section 2.4 & 2.10 Appendices F & J
8-34-501.5	Monthly landfill gas flow (LFG) rates and well concentration readings for facilities subject to 8-34-404.	Section 2.5, 2.11 Appendix L
8-34-501.6, 8-34-503, 8-34-506, §60.757(f)(5)	For operations subject to Section 8-34-503 and 8-34-506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in parts per million by volume (ppmv), date of discovery, the action taken to repair the leak, date of the repair, date of any required re-monitoring, and the re-monitored concentration in ppmv.	Section 2.6 & 2.7, Appendices G & H
8-34-501.7	Annual waste acceptance rate and current amount of waste in-place.	Section 2.8, Appendix I
8-34-501.8	Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the GCCS Design Plan.	Section 2.9

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.9, 8-34-505, §60.757(f)(1)	For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair.	Section 2.10, 2.10.1, Appendices J & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate records for any site subject to Section 8-34-508.	Section 2.11, Appendices E and L
8-34-501.11, 8-34-509	For operations subject to Section 8-34-509, records or key emission control system operating parameters.	Section 2.2.2
8-34-501.12	The records required above shall be made available and retained for a period of five years.	Section 1.2
§60.757(f)(2)	Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.	Section 2.2.1
§60.757(f)(6)	The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), (c)(4) of §60.755.	Section 2.12, Appendices A & C
§60.10 (d)(5)(i)	Startup, Shutdown, Malfunction Events	Section 4.0, Appendices C & D

2.1 Collection System operation *(BAAQMD 8-34-501.1 & §60.757(f)(4))*

Appendix A contains a current map of Newby Island's existing GCCS. Section 2.1.1 includes the GCCS downtime for the reporting period. The information contained in Section 2.1.2 includes the individual well shutdown times and the reason for the shutdown.

2.1.1 Collection System Downtime

During the period covered in this report, the GCCS was not shut down for more than five days on any one occasion. The downtime for the reporting period of February 1, 2012 through July 31, 2012 was 1.98 hours. The total downtime for the 2012 calendar year is 1.98 hours out of an allowable 240 hours per year. Per direction from Republic Operations personnel no GCCS downtime is accrued unless Cornerstone is notified by AEG West technicians that all onsite (A-1 and A-2 Flares) and offsite (internal combustion (IC) engine power generators operated by Fortistar and IC engine power generators operated by the San Jose/Santa Clara Water Pollution Control Plant) emission control devices are not operating.

Appendix D contains the A-1 and A-2 Flare Downtime Reports which lists dates, times, and lengths of shutdowns for the reporting period and year-to-date. Appendix E contains the GCCS Downtime.

2.1.2 Well Start-Up & Disconnection Log

There were 179 wellfield SSM events that occurred during the reporting period. There were no wells started-up and 8 wells decommissioned during the reporting period. See Appendix C, Wellfield SSM Log for details of well disconnection and reconnection events. Start-up and Decommissioning Notifications were submitted to the BAAQMD and are included in Appendix C.

2.2 Emission Control Device Downtime *(BAAQMD 8-34-501.2 & §60.757(f)(3))*

The emission control system consists of two flares (A-1 and A-2), which began operation in 1997 and 2005, respectively. The control system was not bypassed at any time during the reporting period. Raw LFG was not emitted during the reporting period. The SSM logs for the A-1 and A-2 Flares are located in Appendix D.

2.2.1 LFG Bypass Operations *(§60.757(f)(2))*

Title 40 CFR §60.757(f)(2) is not applicable at Newby Island because a by-pass line has not been installed. LFG cannot be diverted from the control equipment.

2.2.2 Key Emission Control Operating Parameters *(BAAQMD 8-34-501.11 & 8-34-509)*

BAAQMD Regulation 8-34-501.11 and 8-34-509 are not applicable to the A-1 and A-2 Flares because the A-1 and A-2 Flare is subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1).

2.3 Temperature Monitoring Results *(BAAQMD 8-34-501.3, 8-34-507, & §60.757(f)(1))*

The combustion zone temperatures of the flares are monitored with Thermo-Electric Thermocouples. The temperature is displayed with a Yokogawa digital recorder, which is downloaded and archived. There were no temperature deviations during the reporting period. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for February 1, 2012 through July 31, 2012.

2.4 Monthly Cover Integrity Monitoring *(BAAQMD 8-34-510)*

The cover integrity monitoring was performed on the following dates:

- February 10, 2012
- March 29, 2012
- April 30, 2012

- May 31, 2012
- June 28, 2012
- July 26, 2012

During the February, March, April, May, June, and July 2012 Monthly Cover Inspections, AEG West noted that litter and debris were present on-site but it was being remediated by litter pickers. The Monthly Cover Integrity Monitoring Logs are included in Appendix G.

2.5 Less Than Continuous Operation *(BAAQMD 8-34-501.5)*

Newby Island does not operate under BAAQMD Regulation 8-34-404 (Less Than Continuous Operation) and, therefore, is not required to submit monthly LFG flow rates.

2.6 Surface Emissions Monitoring (BAAQMD 8-34-501.6, 8-34-506, & §60.757(f)(5) & California Air Resources Board Assembly Bill 32 Methane Control Measure (CARB AB-32 LF MCM))

Quarterly Surface Emissions Monitoring (SEM), was conducted for First and Second Quarter 2012. Refer to the First and Second Quarter 2012 SEM Reports, located in Appendix H, for detailed results.

2.7 Component Leak Testing *(BAAQMD 8-34-501.6 & 8-34-503)*

Quarterly component leak testing, pursuant to BAAQMD Regulation 8-34-503, occurred during the reporting period on the following dates:

- First Quarter 2012 – February 25 and 28, and March 15 and 19, 2012
- Second Quarter 2012 – April 25 and May 2, 2012

Refer to the Quarterly LFG Component Leak Monitoring Reports, located in Appendix I, for detailed results.

2.8 Waste Acceptance Records *(BAAQMD 8-34-501.7)*

The Annual Waste Acceptance Rate was compiled for the timeframe of February 1, 2012 through July 31, 2012. The amount of waste accepted during the reporting period was approximately 473,958 tons. The current Waste-In-Place as of July 31, 2012 is approximately 28,794,968 tons.

2.9 Non-degradable waste acceptance records *(BAAQMD 8-34-501.8)*

The GCCS Design Plan for Newby Island does not indicate non-degradable waste areas that are excluded from the collection system. Therefore, BAAQMD Regulation 8-34-501.8 is not applicable.

2.10 Wellhead Monitoring Data *(BAAQMD 8-34-501.4 & 8-34-505)*

Wellhead monitoring was performed on a monthly basis pursuant to 8-34-505. The well readings for February 1, 2012 through July 31, 2012 are included in Appendix J. Each well was monitored in accordance with the following requirements:

- 8-34-305.1 – Each wellhead shall operate under a vacuum;
- 8-34-305.2 – The LFG temperature in each wellhead shall be less than 55 degrees Celsius (°C) (131 degrees Fahrenheit [°F]); and
- 8-34-305.4 – The oxygen concentration in each wellhead shall be less than 5 percent by volume.

Wellhead monitoring was performed on the following dates:

- February 1, 3, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, and 19, 2012
- March 2, 3, 6, 7, 8, 9, 13, 14, 16, 20, 22, 23, 27, 28, and 29, 2012
- April 3, 4, 5, 6, 7, 12, 16, 17, 18, 19, 23, and 30, 2012
- May 2, 3, 4, 7, 9, 14, 16, 21, 24, 25, 29, 30, and 31, 2012
- June 5, 6, 7, 8, 11, 18, 20, 21, 22, 25, and 28, 2012, 2012
- July 2, 5, 6, 9, 11, 16, 17, 18, 19, 23, 24, and 30, 2012

2.10.1 Wellhead Deviations *(BAAQMD 8-34-501.9 & §60.757(f)(1))*

There were 99 wells with readings that exceeded the limits set forth in BAAQMD Regulation 8-34-305 during the reporting period. Corrective action for wells was initiated within the required 5-day time period and re-monitoring was completed within 15 days of the deviation pursuant to BAAQMD Regulation 8-34-414. See Appendix K, Wellfield Deviation Log, for more detail.

2.10.2 Higher Operating Value (HOV) Wells

As of July 31, 2012, the following wells are approved to operate at a HOV for oxygen and temperature pursuant to Permit Application Number 23393 Part 6c(i) and Part 6d(i), respectively:

Oxygen HOV Wells
Pursuant to Permit Application Number 23393, Part 6(c)(i), the oxygen concentration limit does not apply to the wells listed below, provided that the oxygen concentration in the LFG at the main header does not exceed five percent oxygen by volume (dry basis) and the methane concentration is greater than 35 percent by volume (dry basis): EW-30R, EW-09, EW-13, 24, 54, 68, 71, 72, 101, 103, 13R, 20R, 213, 224, 235R, 237, 253, HC-201, HC-203, HC-204, HC-208, MW-12.

Temperature HOV Wells
Pursuant to Permit Application Number 23393, Part 6(d)(i), the following wells are approved to operate at a temperate HOV of 145°F: EW-10R, EW-11R, EW-39R, EW-

40R, EW-14, EW-14, EW-15, EW-24, EW-31R, EW-33, EW-35, 4, 5, A, B, B, D, E, 11, 14, 16, 19, 22, 25, 30, 3R, 9R, 106, 218, 241, 243, 31R, 51R.

The following wells are approved for both the temperature and oxygen HOV listed above: EW-9 and EW-33A.

2.11 Gas Flow Monitoring Results *(BAAQMD 8-34-501.10, 8-34-508, & §60.757(f)(1)*

The flare LFG flow rate is measured with a Rosemount flow meter. The General Electric data panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every minute and is downloaded and saved to a compact flash card. The flare flow meter meets the requirements of BAAQMD Regulation 8-34-508 by recording data at least every 15 minutes. The flow meter is maintained and calibrated pursuant to manufacturer's recommendations. The flow data for the flare is available for review at Newby Island. Appendix L contains a summary of the monthly LFG flow rates for the flares. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for February 1, 2012 through July 31, 2012. Table 2-2 below is a summary of the total LFG flow for the reporting period of February 1, 2012 through July 31, 2012.

Table 2-2 Total LFG Flow for February 1, 2012 through July 31, 2012

Emission Control Device	Average Flow (scfm)	Average CH_4 (%)*	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heat Input (MMBTU)
A-1 Flare	1,590.3	45.7	24,888,998.0	11,929,905.3	12,085.0
A-2 Flare	1,354.2	48.0	349,885,805.0	168,446,900.6	170,384.6

scfm = standard cubic feet per minute
CH_4 = methane
scf = standard cubic feet
*Methane content determined from the March 1, 2012 Source Test
MMBTU = million British thermal units

2.12 Compliance with Title V Permit Condition Number 10423 Part 10

Pursuant to Title V Permit Condition Number 10423, Part 10(a)(2), quarterly hydrogen sulfide (H_2S) readings were taken using Draeger tubes. The First, Second, and Third Quarter 2012 H_2S readings and quarterly averages are included in Appendix O, H_2S Quarterly Monitoring.

2.13 Compliance with §60.757(f)(6)

"The date of installation and the location of each well or collection system expansion added pursuant to (a)(3), (b), (c)(4) of §60.755."

The GCCS was modified pursuant to Title V Permit Number A9013 during the reporting period.

There were 8 wells decommissioned and no wells were started up during the reporting period pursuant to Application Number 23393 that was deemed complete on June 21, 2011. Well Decommissioning Notification Letters were submitted to the BAAQMD and are included in Appendix B.

Application Number 23393 still allows for the replacement of up to unlimited vertical wells, installation of up to 82 new vertical wells, installation of up to 20 new horizontal collectors, the decommissioning of up to 93 vertical wells, and the decommissioning of up to 9 horizontal collectors.

As of July 31, 2012, Newby Island consists of 194 vertical wells and 6 horizontal collectors.

2.14 Compliance with Title V Permit Condition Number 14098 for S-4 Non-Retail Gasoline Dispensing Facility G#9641

Newby Island's gasoline throughput for the period of February 1, 2012 through July 31, 2012 is 4,935.0 gallons (gal). Newby Island's annual gasoline throughput for the period of August 1, 2011 through July 31, 2012 is 8,925.4 gal. Appendix P contains monthly throughput records for this reporting period. This is within the limit of 940,000 gal per any consecutive 12-month period pursuant to BAAQMD Toxic Section Policy. Monthly gasoline throughput totals for the reporting period are listed in Table 2-3:

Table 2-3 Gasoline Throughput for S-4

Month	Total Throughput (gallons)	Rolling 12-Month Fuel Usage (gallons)
February 2012	840.2	8,218.1
March 2012	840.2	8,407.2
April 2012	698.1	8,443.9
May 2012	782.1	8,529.4
June 2012	885.6	8,712.7
July 2012	888.8	8,925.4
TOTAL:	4,935.0	

These records are maintained at Newby Island and can be made available upon request.

2.15 Compliance with Title V Permit Condition Number 15050 for S-5 Tub Grinder; S-7 Trommel Screen; and A-7 Water Sprays

The S-5 Tub Grinder and the S-7 Trommel Screen are no longer operated on site. The equipment currently operated is registered under the California Air Resources Board (CARB) Portable Equipment Registration Program.

2.16 Compliance with Title V Permit Condition Number 19498 for S-6 Tub Grinder Engine

The S-6 Tub Grinder Engine is no longer operated on site. The equipment currently operated is registered under the CARB Portable Equipment Registration Program.

4 STARTUP, SHUTDOWN, MALFUNCTION (SSM) PLAN

SSM Log for the GCCS at Newby Island

The NESHAP contained in 40 CFR Part 63, AAAA for MSW landfills to control hazardous air pollutants include the regulatory requirements for submittal of a semi-annual report (under 40 CFR §63.10(d)(5) of the general provisions) if an SSM event occurred during the reporting period. The reports required by §63.1980(a) of the NESHAP and §60.757(f) of the NSPS summarize the GCCS exceedances. These two semi-annual reports contain similar information and have been combined as allowed by §63.10(d)(5)(i) of the General Provisions.

NESHAP 40 CFR part 63, AAAA became effective on January 16, 2004. Those SSM events that occurred during the NSPS semi-annual reporting period are reported in this section (February 1, 2012 through July 31, 2012). The following information is included as required:

- During the reporting period, 20 A-1 Flare SSM events occurred. The A-1 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log.
- During the reporting period, 16 A-2 Flare SSM events occurred. The A-2 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log.
- During the reporting period, 179 Wellfield SSM events occurred. Details are included in Appendix C, Well SSM Log.
- There were 215 events in total. In all 215 events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan. There were no deviations from the SSM plan.
- Exceedances were not identified during the reporting period in any applicable emission limitation in the landfills NESHAP (§63.10(d)(5)(i)).
- Revisions of the SSM Plan to correct deficiencies in the landfill operations or procedures were neither required, nor prepared (§63.6(e)(3)(viii)).