STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM (No. CI-2043)

FOR

BROWNING-FERRIS INDUSTRIES OF CALIFORNIA, INC.
(SUNSHINE CANYON CITY/COUNTY LANDFILL)

Browning-Ferris Industries of California, Inc. (BFI) (Discharger) shall implement this revised Monitoring and Reporting Program (M&RP[1]) at the Sunshine Canyon City/County Landfill (Landfill) beginning the effective date of Regional Board Order No. R4-2008-xxxx.

I. REQUIRED REPORTS AND CONTINGENCY RESPONSE

The Discharger shall submit the following reports to this Regional Board in accordance with the schedules specified.

A. SEMI-ANNUAL MONITORING REPORT

A written Monitoring Report shall be submitted semi-annually by February 15 (for the period from July 1 to December 31) and August 15 (for the period from January 1 to June 30) of each year. Semi-annual Reports shall include, but should not be limited to, the following:

1. **Transmittal Letter:** A letter transmitting the essential points shall accompany each report. The letter shall include a discussion of any violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the transmittal letter. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or above, or by his/her duly authorized representative, if such a representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

2. **Summary of Non-Compliance:** The report shall contain a summary of non-compliance that discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. Significant aspects of any on-going corrective action measures conducted during the monitoring period shall also be summarized. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all exceedances of water quality protection standards.

3. **Site Conditions**: General discussion of site conditions (geology, climate, 100-year 24-hour storm, and watershed specifics, etc.) relative to water quality monitoring.

[1] Terms and acronyms used in this Program are defined in Attachment A of Regional Board Order R4-2008-xxxx as well as section 20164 of 27 CCR.

4. **Narrative Description:** A narrative discussion of the site's various monitoring activities and results. Each requirement of Part II of this M&RP shall be specifically discussed.

5. **Laboratory Results:** Laboratory results and statements demonstrating compliance with Part II of this M&RP. Results of additional water sampling and analyses performed at the Landfill outside of the requirements of this M&RP, shall be summarized and reported. If the results of such additional sampling and analyses have or will be reported under separate cover, a statement as such shall be included in the monitoring report.

6. **Standard Observations:** A summary and certification of completion of all Standard Observations for the Landfill property in accordance with NPDES monitoring and reporting requirements. The records of observation are to be included with the semi-annual report due August 15th.

7. **Management of Liquids:** A summary of the total volumes, on a monthly basis, of landfill leachate, gas condensate, and contaminated subdrain water extracted at the site, and how these liquids are handled. If leachate and gas condensate are returned to the Landfill during the period per Section J of R4-2008-xxxx, the report must also include methods of leachate and condensate reintroduction, locations where such liquids are returned to the Landfill, and the quantities of liquids returned at each location.

8. **Waste Disposal Reporting:** Waste disposal activities at the site, including**:**

    a. A tabular list of the estimated average monthly quantities (in cubic yards and tons) deposited each month.

    b. An estimate of the remaining capacity (in cubic yards and tons) and the remaining life of the site in years and months.

    c. A certification that all wastes deposited were deposited in compliance with the Regional Board's requirements, and that no wastes were deposited outside of the boundaries of the waste management area as specified in the Regional Board's requirements.

    d. A description of the location and an estimate of the seepage rate or flow of all known seeps and springs at the site.

    e. The estimated amount of water used at the waste management area for landscape irrigation, compaction, dust control, etc., during each month. (If a source other than potable water is used, the sources and amounts of water from each source shall also be reported.)

    f. The Discharger shall report all unacceptable wastes inadvertently received at this site and their disposition. The following details shall be included:

        i. The source (if known), including the hauler, of the unacceptable wastes and date received and/or discovered.

        ii. Identification of waste (if known) and the amount of waste.

        iii. The name and address of the hauler who removed the waste from this site.

        iv. The ultimate point of disposal for the waste.

v. The Discharger's actions to prevent recurrence of the attempted depositing of unacceptable wastes by this source or individual.

If no unacceptable wastes were received (or discovered) during the month, the report shall so state.

9. **Map(s):** Map(s) or aerial photograph(s) showing waste disposal and monitoring locations, relative physical features, and groundwater contours to the greatest degree of accuracy possible.

B. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual summary report to the Regional Board covering the previous monitoring year. The annual monitoring period ends December 31. This report may be combined with the second semi-annual report of the year and shall be submitted no later than February 15 of each year. The annual summary report shall include at least the following:

1. **Discussion:** Include a comprehensive discussion of the compliance record, any significant monitoring system and operational changes, a summary of corrective action results and milestones, and a review of construction projects, with water quality significance, completed or commenced in the past year or planned for the up-coming year.

2. **Graphical Presentation of Analytical Data:** For each Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous eight calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given Monitoring Point, at a scale appropriate to show trends or variations in water quality. Maximum contaminant levels (MCL) shall be graphed along with constituent concentrations where applicable. Graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot downgradient data. In lieu of including graphs in the Annual Report, the Discharger may provide references if such data have been submitted electronically to a data base that is accessible to Regional Board staff.

3. **Analytical Data:** All monitoring analytical data obtained during the previous year, presented in tabular form. Additionally, complete data histories of each well shall be submitted in an electronic format acceptable to the Regional Board.

4. **Map(s):** Map(s) showing the areas where any significant events have taken place during the previous calendar year.

C. CONTINGENCY RESPONSE

1. **Leachate Seep:** The Discharger shall, within 24 hours of discovery, report to the designated Regional Board staff by telephone any previously unreported seepage from the Landfill. A written report shall be filed with the Regional Board within seven days, containing at least the following information:

   a. Map - A map showing the location(s) of seepage.

   b. Flow rate - An estimate of the flow rate.

c. Description - A description of the nature of the discharge (e.g., all pertinent observations and analyses).

d. Location - Location of sample(s) collected for laboratory analysis, as appropriate.

e. Corrective measures - approved (or proposed for consideration) by the Executive Officer.

2. **Response to an Initial Indication of a Release:** Should the initial statistical or non-statistical comparison indicate that a release is tentatively identified, the Discharger shall:

a. Within 24 hours, verbally notify the designated Regional Board staff contact as to the Monitoring Point(s) and constituent(s) or parameter(s) involved;

b. Provide written notification to the Regional Board by certified mail within seven days of such determination; and

c. Do either of the following:

i. Carry out a discrete re-test in accordance with Section II.B.9.b. of this M&RP[2]. If the re-test confirms the existence of a release or the Discharger fails to perform the re-test, the Discharger shall carry out the release discovery response requirements in Section I.C.4. In any case, the Discharger shall inform the Regional Board of the re-test outcome within 24 hours of results becoming available, following up with written results submitted by certified mail within seven days, or

ii. Make a determination, in accordance with 27 CCR section 20420(k)(7), that a source other than the waste management unit caused the release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in the groundwater, surface water, or the unsaturated zone.

3. **Physical Evidence of a Release:** If either the Discharger or the Executive Officer determines that there is significant physical evidence of a release (27 CCR section 20385(a)(3)), the Discharger shall conclude that a release has been discovered and shall:

a. Within seven days notify the Regional Board of this fact by certified mail (or acknowledge the Regional Board's determination).

b. Carry out the requirements of Section I.C.4. for all potentially affected monitored media.

c. Carry out any additional investigations stipulated in writing by the Executive Officer for the purpose of identifying the cause of the indication.

4. **Release Discovery Response:** If either the Discharger or the Executive Officer concludes that a release has been discovered, the following steps shall be carried out:

a. If this conclusion is not based upon monitoring for all COCs, the Discharger shall sample for all COCs at all Monitoring Points in the affected medium. Within seven days of receiving the

[2] In case the discrete re-test is triggered by detections of common laboratory contaminants (i.e., acetone, toluene, methylene chloride, and carbon disulfide) the Discharger may postpone the discrete re-test until after the next quarterly monitoring event. Re-test will not be required unless the same pollutants are also detected in the next quarterly monitoring event.

laboratory analytical results, the Discharger shall notify the Executive Officer, by certified mail, of the concentration of all COCs at each Monitoring Point. This notification shall include a synopsis showing, for each Monitoring Point, those constituents that exhibit an unusually high concentration.

b. The Discharger shall, within 90 days of discovering the release, submit an Amended Report of Waste Discharge to the Regional Board proposing an Evaluation Monitoring and Reporting Program that:

   i. Meets the requirements of 27 CCR sections 20420 and 20425.
   ii. Satisfies the requirements of 40 CFR 258.55(g)(I)(ii) by committing to install at least one monitoring well at the facility boundary directly down gradient of the center of the release.

c. The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study [27 CCR § 20420(k)(6)] to the Regional Board meeting the requirements of 27 CCR section 20430.

d. The Discharger shall immediately begin delineating the nature and extent of the release by installing and monitoring assessment wells as necessary to assure that it can meet the requirements of 27 CCR section 20425 to submit a delineation report within 90 days of when the Executive Officer directs the Discharger to begin the Evaluation Monitoring and Reporting Program.

5. **Release Beyond Facility Boundary:** Any time the Discharger concludes (or the Executive Officer directs the Discharger to conclude) that a release from the Landfill has proceeded beyond the facility boundary, the Discharger shall so notify all persons who either own or reside upon the land that directly overlies any part of the plume (Affected Persons) as follows:

   a. Initial notification to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release.

   b. Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.

   c. Each time the Discharger sends a notification to Affected Persons (under a. or b., above), it shall, within seven days of sending such notification, provide the Regional Board with, and add into the Facility's operating record, both a copy of the notification and a current mailing list of Affected Persons.

D. SUBMITTING OF REPORTS

1. Each monitoring report shall contain the following statement:

   "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the

information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

2. A duly authorized representative of the Discharger may sign the documents if:

   a. The authorization is made in writing by the person described above;

   b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and

   c. The written authorization is submitted to the Executive Officer.

3. The Discharger shall submit all scheduled reports required in this M&RP electronically, in accordance with section 3890 et. seq. of title 23 of the California Code of Regulations, division 3. In addition, a hard copy of the report and a compact disk that contains all electronic submittals shall be submitted to the Regional Board. To reduce volume, appendices to the report, such as field records and laboratory reports, may be omitted from the hard copy.

4. All reports required in this M&RP shall be addressed to:

   California Regional Water Quality Control Board
   Los Angeles Region
   320 W. 4th Street, Suite 200
   Los Angeles, California 90013
   ATTN: Information Technology Unit

II. REQUIRED MONITORING AND INSPECTIONS

The Discharger shall conduct the following monitoring and inspections at the Landfill. Unless otherwise indicated, all monitoring data and inspection results shall be reported to the Regional Board as outlined in Section I of this M&RP. In addition, Regional Board staff shall conduct annual testing appropriate to confirm the accuracy of the Discharger's self monitoring.

A. ENVIRONMENTAL MONITORING NETWORKS

The Discharger shall conduct analytical monitoring on groundwater, surface water, leachate, and the vadose (unsaturated) zone at the Landfill. The current environmental monitoring points for the Landfill are summarized in Table T-1 and their locations are displayed on Figure T-1.

B. ANALYTICAL MONITORING

1. **Initial Full Appendix II Scan:** Within 30 days of the adoption of this Order, all groundwater monitoring points where a full Appendix II Scan has not been performed within the last five years must be sampled and analyzed for the presence or absence of all Appendix II constituents that are not yet on the landfill's Monitoring Parameter (MPar) list. Such sampling shall also be performed at any new groundwater monitoring well within 30 days of its installation. For any Appendix II constituent detected in the scan that is not yet on the landfill's MPar list, the Discharger shall resample for that constituent, within 30 days, at all monitoring points where the constituent(s) was detected. Any Appendix II constituent that is detected and confirmed at one or more groundwater monitoring points becomes a new constituent of concern (COC) for the Landfill and shall be added to the Landfill's MPar list, pursuant to 40CFR 258.55(b-d).

Table T-1: Water Quality Monitoring Points at the Landfill

Media Monitored	Monitoring Point	Location
Groundwater	CM-9R3, CM-10R, CM-11R	Up-gradient
	CM-15, CM-16R, CM-17R	Temporary[1]
	MW-1, MW-5, MW-6, MW-13R, MW-14, DW-1, DW-2, DW-3	Down Gradient
	MW-2A, MW-2B, MW-9, DW-4, Extraction Trench	Reference[2]
	ET-1, ET-2, ET3, EW-1, EW-2, EW-3, EW-4, EW-5	Extraction[3]
	OM-1, OM-2, OM-3	Observation[4]
Surface/Storm Water	As required under NPDES stormwater permits	N/A
Leachate	All leachate sump(s)	N/A
Unsaturated zone	All subdrain outfalls, lysimeters, and landfill gas monitoring points	N/A

[1] These wells will be decommissioned as necessary with the development of landfill liner construction.
[2] These wells are located upgradient of the cutoff wall and analytical data from these wells are used for evaluation purposes only.
[3] These wells are used for groundwater extraction and groundwater level monitoring only. No groundwater sampling is required for these wells
[4] These wells are used for groundwater level monitoring only. No groundwater sampling is required for these wells

2. **COC List:** As of the date of this M&RP, the COC list for the Landfill consists of all those constituents listed in Table T-2 below. In addition, at any subsequent time, the COC list shall include: all Appendix II constituents detected and verified in the initial scan under Sections II.B.1. and all Appendix II constituents that have been detected and affirmed in the leachate scan required by this M&RP. The Discharger shall notify Regional Board staff of any such new addition to the COC list immediately, via phone, fax, or e-mail, shall note it in the operating record within 14 days of the verification, and shall note prominently the constituent(s) added to the COC list in the next scheduled monitoring report.

3. **Monitoring Parameters (MPars):** Current Groundwater MPars at the Landfill are listed in Table T-2, including:

   a. **Indicator Parameters**, including all Inorganic Indicator Parameters, Appendix I VOCs, methyl tertiary butyl ether (MTBE), and 1,4-Dioxane. These constituents are considered capable of providing reliable indication of a release from the Landfill. The Discharger shall apply the statistical analyses described in Section II.B.8. or nonstatistical analysis in Section II.B.9. of this M&RP to analyze all groundwater monitoring data obtained under this program

   b. **Supplemental Parameters** are inorganic constituents that provide important information regarding groundwater geochemistry but are not expected to show significant variation in groundwater in the event of a landfill release. Monitoring data for the Supplemental Parameters will generally be used for informational purposes only and will not be subjected to routine statistical analysis.

c. **Other COCs:** These include trace metals and any other pollutants that have been detected and confirmed to be in leachate from the landfill.

4. **Ongoing Background Well Testing:** Even though most data analysis will be via Intra-Well comparisons, The Discharger shall continue to monitor background wells, for each MPar and COC, each time that MPar or COC is monitored at down gradient wells. Water quality data obtained from background wells shall be processed and reported the same way as Detection Monitoring Wells. The Discharger shall follow the requirements in Section I.C.2. of this M&RP in response to the detection of any VOCs at any background well at the site.

Table T- 2 Current Constituents of Concern at the Landfill

Monitoring Parameters			Other COCs
Indicator Parameters		Supplemental Parameters	
Inorganic Parameters: Alkalinity, total Ammonia, nitrogen Chemical oxygen demand (COD) Chloride Potassium, total Total dissolved solids (TDS) Total organic carbon (TOC) **Appendix I VOCs:** 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2,3-Trichloropropane 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,4-Dichlorobenzene 2-Butanone 2-Hexanone 4-Methyl-2-Pentanone Acetone Acrylonitrile Benzene	Bromochloromethane Bromodichloromethane Bromoform Bromomethane c-1,2-Dichloroethene c-1,3-Dichloropropene Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane Dibromochloromethane Dibromomethane Dichlorodifluoromethane Ethylbenzene Iodomethane Methylene chloride o-Xylene p/m-Xylene Styrene t-1,2-Dichloroethene t-1,3-Dichloropropene t-1,4-Dichloro-2-Butene Tetrachloroethene Toluene Trichloroethene Trichlorofluoromethane Vinyl Acetate Vinyl Chloride **Other Organics:** Dichlorodifluoromethane (DCDFM) Methyl tertiary butyl ether (MTBE) 1,4-Dioxane	Bicarbonate (as $CaCO_3$) Boron, total Bromide Calcium, total Carbon dioxide, lab Fluoride Iron, total Magnesium, total Manganese, total Nitrate-N pH, field Sodium, total Sulfate Sulfide Specific conductance, field Temperature, field Turbidity, field	**Metals:** Antimony Arsenic Barium Beryllium Chromium, total Cobalt Copper Lead Mercury Nickel Selenium Silver Tin Thallium Vanadium Zinc **Any other pollutants that are detected and confirmed in landfill leachate**

5. **Water Quality Protection Standard (WQPS):** In accordance with 27 CCR section 20390, WQPS for the Landfill is established as the natural background groundwater quality at the site. The concentration limit of a constituent~~, which~~ is set to either the statistically predicted value (if the constituent naturally exists) or the laboratory detection limit (if the constituent does not naturally exist in the water).

6. **Development and Updating of Concentration Limits:** ~~Current concentration limits (statistically predicted values)~~ The current statistically-derived do-not-exceed concentrations (upper prediction limits derived from concentration limits) for indicator parameters at down gradient groundwater monitoring wells at the Landfill are listed in Table T-3. The Discharger shall continue to develop and update Concentration Limits following the procedures provided in Section ~~I~~II.B.8.a. of this M&RP. The Discharger shall review Concentration Limits biannually in its annual reports submitted to the Regional Board. When appropriate, new Concentration Limits shall be proposed. For any well/Mpar pair for which the Intra-Well Comparison analysis is not applicable, the Discharger shall use the Inter-Well comparison analysis to determine whether water quality protection standards are violated.

Table T-3. Down Gradient Well Inorganic Indicator Parameters Do-Not-Exceed Concentrations ~~Limits~~ (in mg/L)

	MW-1	MW-5	MW-6	MW-13R	MW-14	DW-1	DW-2	DW-3	CM-15	CM-16	CM-17
Alkalinity	1024.	1015.	573.	778.	528.	605.	578.	200.	601.	545.	443.
Ammonia N	14.1	3.1	1.3	8.0	0.3	2.0	3.2	0.7	3.60	3.85	1.53
COD	245.	294.	57.7	455.	93.7	52.7	32.1	26.2	66.1	6.40	50.3
Chloride	443.	494.	81.1	239.	124.	19.5	13.8	17.5	18.4	6.64	18.0
Potassium	62.0	20.3	11.5	29.8	13.6	4.8	8.2	13.8	10.7	4.94	10.1
TDS	5289.	4723.	4422.	2919	5370.	2883.	2117.	2278.	2885.	997.	3426.
TOC	93.3	82.3	19.9	67.1	20.6	14.7	7.1	4.3	16.7	36.2	15.5
Appendix II Organics	Laboratory detection limits or reporting limits										

7. **Groundwater Quality Monitoring:** The Discharger shall conduct the following groundwater monitoring activities at the Landfill:

   a. **Quarterly Monitoring** shall be conducted at all groundwater monitoring wells and subdrain outfalls. Water samples from these monitoring points shall be analyzed for all Indicator Parameters on a quarterly basis and all Supplemental Parameters on a semi-annual basis;

   b. **Five-Yearly COC Scan:** Every five years, starting in 2007, the Discharger shall analyze a sample from each ground water monitoring point for the detectable presence (including trace determinations) of all COCs that are not yet on the Monitoring Parameter list. This constitutes the means by which the Discharger continues to meet the requirements of 40 CFR 258.55(b)-(d).

      i. During each such COC scanning event, the Discharger shall obtain and analyze a minimum of one sample from each monitoring well (sufficient to obtain a datum for each COC that is subject to the scan). Upon detecting (including trace value) a COC that is not yet on the MPar list, the Discharger shall, within 30 days, take a single resample from the indicating affected well(s) and reanalyze it only for the newly-detected constituent(s).

ii. Any COC detected in samples collected from a groundwater monitoring well, and verified by a retest, automatically becomes part of the MPar list for the facility. This constitutes the means by which the Discharger shall meet the requirements of 40 CFR 258.55(d) (2).

8. **Statistical Data Analysis Methodology**

a. Intra-well comparison methods shall be used for all compliance wells for all constituents that are detectable at concentrations above their respective Method Detection Limit (MDL) in 10% or more of the background data to date. ~~Initially, for each given MPar at a given downgradient monitoring well (well/MPar pair), the proposed background data set shall consist of all validated data from that compliance well and parameter, from the period 1995 through 2002.~~ Every two years, following the adoption of this M&RP, as part of the annual monitoring summary report, the Discharger shall add the newer data to the background data set for each well/MPar pair after validating (via a method approved by the Executive Officer) that the new data does not indicate an increase over the existing background data. At that time, the Discharger shall also retire the well/MPar's oldest two years of background data, thereby producing a data set covering the then-previous eight years. The Discharger shall validate the proposed intra-well background data set as follows for each MPar at each well (initially) or, subsequently, at a new well or for a new MPar at an existing well. The Discharger shall report the validated or updated background data set, for each affected well/MPar pair, in the next scheduled monitoring report. Upon approval by the Executive Officer of the proposed additional background data, it becomes part of the intra-well Concentration Limit for that well/MPar pair. The Discharger may use an alternative statistical method or approach for development of a do-not-exceed concentration based upon the revised intra-point Concentration Limit~~concentration limits~~, if approved by Regional Board staff.

b. Per 27 CCR section 20415(e)(9)(C), if a control chart approach is used to evaluate water quality monitoring data, the specific type of control chart and its associated statistical parameter values (e.g., the upper control limit) shall be included in the supporting documentation as required by 27 CCR section 20415(e)(7). The Discharger shall use the procedure only if this supporting documentation shows the procedure to be protective of human health and the environment. Any control charting procedure must have a false positive rate of no less than 1 percent for each monitoring point charted. For example, upper control limits on X bar or R Charts used only once every six months (where no composite retest is used) must be set at no more than 2.327 standard deviations of the statistic plotted for a one-sided statistical comparison, or at no more than 2.576 standard deviations of the statistic plotted for a two-sided statistical comparison.

c. In the event that an approved data analysis method provides a preliminary indication that a given monitoring parameter has a measurably significant increase at a given well, the Discharger shall conduct a verification procedure (retest) in accordance with 27 CCR section 20415(e)(8)(E).

d. The verification procedure shall be performed only for the constituent(s) or parameter(s) that has shown "measurably significant" (see 27 CCR section 20164) evidence of a release, and shall be performed only for those monitoring points at which a release is indicated.

e. For any COC or monitoring parameter that is detectable at concentrations above its respective MDL in 10% or less of the background data to date, the constituent's concentration limit shall be its MDL. A measurable exceedance of this concentration limit shall be determined by application of the non-statistical analysis method described in Section II.B.9 of this M&RP.

f. **Water Quality Monitoring Approach:** Except for COC scans, the monitoring approach used for each monitoring parameter at each compliance well (well/MPar pair) shall be controlled by whether that monitoring parameter has exhibited a measurably significant increase at that well as verified by retesting. Therefore, the Discharger shall monitor each well/MPar pair in one of two modes, as follows, either:

i. **Detection Mode:** For an MPar that has not produced a measurably significant increase at that well, the purpose of monitoring, for that well/MPar pair, is to watch for the MPar's arrival at that well at a concentration strong enough to trigger a measurably significant indication using an appropriate statistical or nonstatistical data analysis method; or

ii. **Tracking Mode:** For an MPar that has produced a measurably significant increase at a given well, the purpose of the monitoring, for that well/MPar pair, is to verify the suitability and effectiveness of the existing or proposed corrective measures by tracking changes in the MPar's concentration at that location via an evolving concentration-versus-time plot.

g. **Detection Mode Data Analyses:** The following applies to all detection mode data analyses (i.e., this Section does not apply to the scans under Sections II.B.1 or II.B.7.c.):

i. **Monitoring Parameters Readily Detectable in Background:** At any given monitoring point, the Discharger shall apply an appropriate statistical analysis for each detection mode monitoring parameter that exceeds its respective MDL in at least 10% of the applicable background data set;

ii. **Monitoring Parameters Not Readily Detectable in Background:** For any monitoring point at which one or more monitoring parameters, in detection mode, exceed their respective MDL in less than 10% of the applicable background data set, the Discharger shall analyze the data for these monitoring parameters via the California Nonstatistical Data Analysis Method (CNSDAM) test described in Section A.9 of this M&RP.

9. **California Nonstatistical Data Analysis Method (CNSDAM)**

a. **Non-Statistical Method for Detection Mode for MPars Seldom Found in Background:** For any given compliance (downgradient) well, regardless of the monitoring program (DMP, EMP, AMP, or CAP), the Discharger shall use this data analysis method, jointly, for all constituents on the "scope list" in Section II.B.9.a.i. of this M&RP (or, for each retest sample, the modified scope list of Section II.B.9.b.ii.).

i. **Scope List:** Within 30 days of the effective date of this Order, the Discharger shall create a current "scope list" showing each detection mode MPar, at that well, that exceeds its MDL in less than 10% of its background data.

ii. **Two Triggers:** From the scope list made under Section II.B.9.a.i. above, for an initial test (or, for a retest, the modified scope list under Section II.B.9.b.ii. below), the Discharger shall identify each MPar in the current sample from that well that exceeds

either its respective MDL or PQL. The Discharger shall conclude that these exceeding MPars provide a preliminary indication (or, for a retest, provide a measurably significant indication) of a change in the nature or extent of the release, at that well, if ***either***:

(a) Two or more of the MPars on a monitoring well's scope list exceed their respective MDL; or

(b) At least one of the MPars on a monitoring well's scope list equals or exceeds its respective PQL.

b. **Discrete Retest** [27 CCR § 20415(e)(8)(E)]**:**

i. In the event that the Discharger concludes (pursuant to Section II.B.9.a.ii above) that there is a preliminary indication, then the Discharger shall immediately notify the designated Regional Board staff by phone, fax, or e-mail and, within 30 days of such indication, shall collect two new (re-test) samples from the indicating compliance well.

ii. For any given compliance well, the Discharger shall analyze the retest samples only for those constituents indicated in that well's original test, under Section II.B.9.a.ii of this M&RP, and these indicated constituents shall comprise the well's "modified scope list." As soon as the retest data are available, the Discharger shall apply the same test (under Section II.B.9.a.ii above, but using this modified scope list) to separately analyze each of the two suites of retest data at that compliance well.

iii. If either (or both) of the retest samples trips either (or both) of the triggers under Section II.B.9.a.ii, then the Discharger shall conclude that there is a measurably significant increase at that well for the constituent(s) indicated in the validating retest sample(s). Furthermore, thereafter, the Discharger shall monitor the indicated constituent(s) in tracking mode at that well, shall remove the constituent(s) from the scope list created for that well, notify the Regional Board in writing, and highlight this conclusion and these changes in the next scheduled monitoring report and in the Landfill's operating record.

10. **Groundwater Flow Direction:** the Discharger shall measure the water level in each well at least quarterly and determine the presence of horizontal and vertical gradients and groundwater flow rate and direction for the respective groundwater body.

11. **Leachate Monitoring:** The Discharger shall conduct leachate monitoring at all leachate collection sumps at the Landfill as follows:

a. **Annual Appendix II Constituent Scan:** Leachate samples shall be taken at each monitoring point each year during the month of October. The samples shall be analyzed for all Appendix II Constituents in 40 CFR, part 258, that are not already a COC for the Landfill.

b. **Retest:** If any constituents that are not in the COC list are detected in the leachate sampling event at any sampling point above their respective PQL concentrations, the Discharger shall resample the leachate at that point during the next April and analyze the sample for those detected constituents. If any such constituent is confirmed to be in the leachate, the Discharger shall add the constituent to the COC list and report this to the Regional Board within two weeks of the confirmation, and shall begin collecting quarterly samples (for a total of at least eight) to develop a concentration limit for the new constituent.

c. **Reporting:** Leachate monitoring results shall be included in the semi-annual and annual report that covers the period during which the monitoring is conducted.

12. **Vadose Zone Monitoring:** Vadose zone monitoring at the Landfill shall include:

    a. **Subdrain Monitoring:** As allowed under 27 CCR section 20415(d)(5), subdrain liquid monitoring will be conducted for those cells that require the placement of subdrains to control groundwater seepage beneath the liner system at the Landfill.

    b. **Lysimeter Monitoring:** A leachate sump shall be constructed for each waste management unit that includes a secondary leak detection system, essentially a lysimeter below the sump. Once each quarter, the lysimeters shall be checked for the presence of liquids. In the event liquids are present in a quantity feasible to sample, samples will be taken and analyzed, to the extent feasible, for the parameters indicated in Table T-2.

    c. **Landfill Gas Monitoring:** The Discharger shall include in the semi-annual reports all the monthly gas probe monitoring results conducted in accordance with South Coast Air Quality Management District Rule 1150.1.

13. **Surface Water Monitoring:** Surface water monitoring at the site shall be conducted as required under the General NPDES Stormwater Permit as described in Finding No. 17 of Order No. R4-2008-xxxx. In addition to reporting under the General NPDES Stormwater Permit, all surface/storm water monitoring results shall be included in appropriate semi-annual or annual reports submitted to the Regional Board under this M&RP.

14. **Water Used on Site for Irrigation and Dust Control**: The Discharger shall record the amount of water used on site for the purposes of irrigation and dust control from each source on a monthly basis. Each water source, other than potable water, shall be sampled quarterly and analyzed for pH, heavy metals, nitrate, and VOCs.

C. SITE INSPECTIONS

The Discharger shall inspect the Landfill in accordance with the following schedule, and record, at a minimum, Standard Observations.

1. During the wet season (October through April), following each storm that produces storm water runoff, or on a monthly basis if no storm produces runoff during the month.

2. During the dry season, a minimum of one inspection shall be performed every three months.

3. **Standard Observations** during a site inspection shall include at least the following:

    a. Evidence of any surface water leaving or entering the waste management unit, estimated size of affected area, and estimated flow rate (show affected area on map).

    b. Evidence of odors; presence or absence, characterization, source, and distance of travel from source.

    c. Evidence of erosion and/or of exposed refuse.

d. Inspection of all storm water discharge locations for evidence of non-storm water discharges during dry seasons, and integrity during wet seasons.

e. Evidence of ponded water at any point on the waste management facility (show affected area on map).

f. Compliance with the Storm Water Pollution Prevention Plan, insuring that the terms of the General NPDES Stormwater Permit are properly implemented.

g. Integrity of all drainage systems.

PART III: SAMPLING AND ANALYTICAL PROCEDURES

A. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"), and in accordance with a sampling and analysis plan acceptable to the Executive Officer. A State of California approved laboratory shall perform water analysis. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign reports of such work submitted to the Regional Board. In addition, the Discharger is responsible for seeing that the laboratory analysis of samples from all Monitoring Points meets the following restrictions:

1. The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., Trace or ND determinations) in historical data for that medium, the SW-846 analytical method having the lowest Method Detection Limit (MDL) shall be selected.

2. Trace results (results falling between the MDL and the Practical Quantitation Limit (PQL)) for organic compounds shall be reported as such.

3. MDL and PQL shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived values, the results shall be flagged accordingly, and an estimate of the limit actually achieved shall be included.

4. For each MPar addressed during a given reporting period, the Discharger shall include in the monitoring report a listing of the prevailing MDL and PQL for that MPar, together with an indication as to whether the MDL, PQL, or both have changed since the prior reporting period. The Discharger shall require the analytical laboratory to report censored data (trace level and non-detect determinations). In the event that an MPar's MDL and/or PQL change, the Discharger shall highlight that change in the report's summary and the report shall include an explanation for the change that is written and signed by the owner/director of the analytical laboratory.

5. Quality assurance and quality control (QA/QC) data shall be reported along with the sample results to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include:

   a. The method, equipment, and analytical detection limits.
   b. The recovery rates, including an explanation for any recovery rate that is outside the USEPA-specified recovery rate.
   c. The results of equipment and method blanks.
   d. The results of spiked and surrogate samples.
   e. The frequency of quality control analysis.
   f. The name and qualifications of the person(s) performing the analyses.

6. QA/QC analytical results involving detection of common laboratory contaminants in any sample shall be reported and flagged for easy reference.

7. Non-targeted chromatographic peaks shall be identified, quantified, and reported to a reasonable extent. When significant unknown peaks are encountered, second column or second method confirmation procedures shall be performed in an attempt to identify and more accurately quantify the unknown analyte(s).

B. RECORDS TO BE MAINTAINED

Analytical records shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. The period of retention shall be extended during the course of any unresolved litigation or when directed by the Executive Officer. Such records shall show the following for each sample:

1. Identity of sample and the actual Monitoring Point designation from which it was taken, along with the identity of the individual who obtained the sample.

2. Date and time of sampling.

3. Date and time that analyses were started and completed, and the name of personnel performing each analysis.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Results of analyses, and Method Detection Limit and Practical Quantitation Limit for each analysis.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

ORDERED BY: _____ DATE: October 2, 2008

Tracy J. Egoscue
Executive Officer

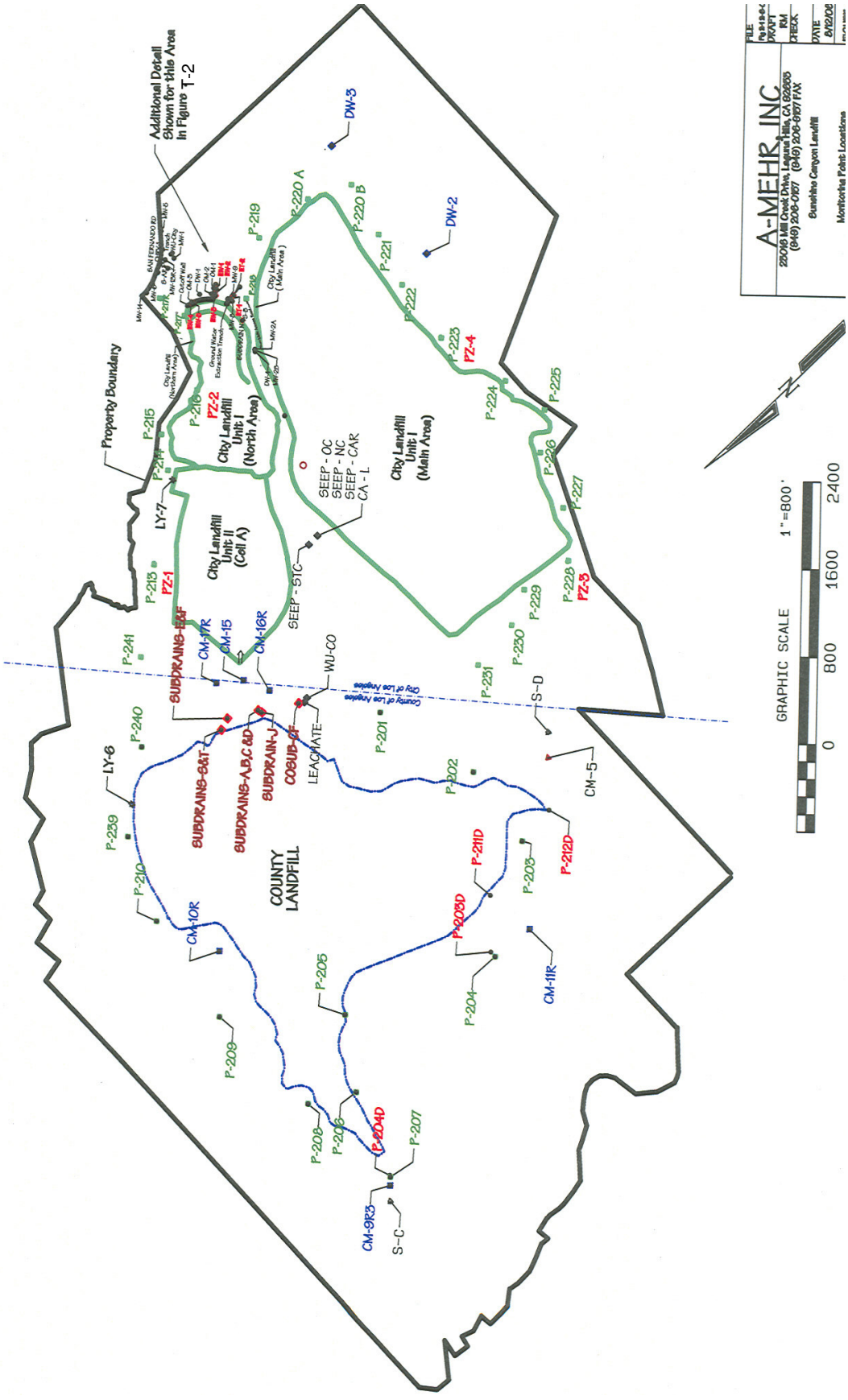

Figure T-1

TENTATIVE

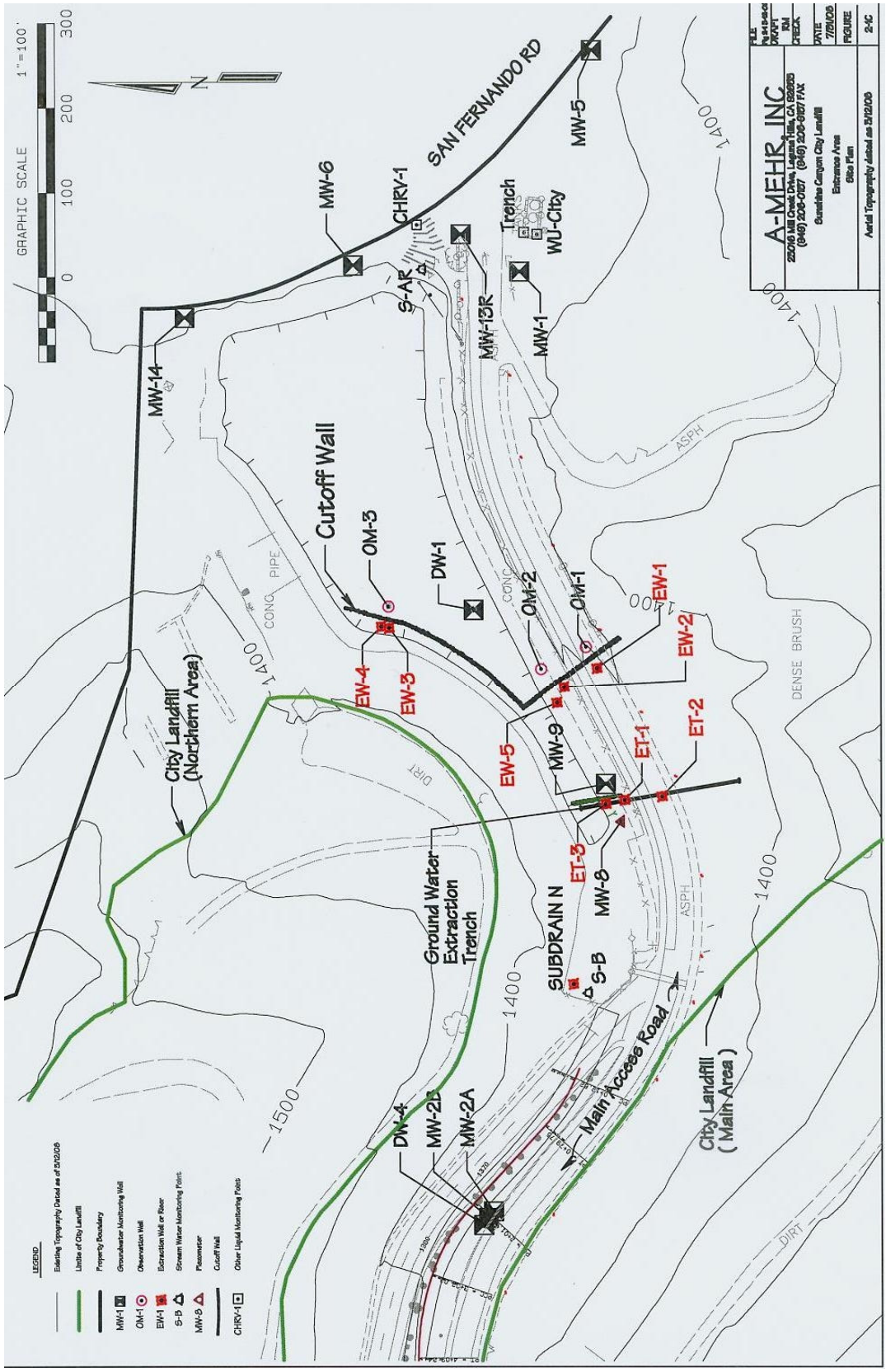

Figure T-2

TENTATIVE