

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION  
Order No. 94-005  
WASTE DISCHARGE REQUIREMENTS  
FOR  
LAIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.  
CLASS I WASTE MANAGEMENT FACILITY  
West of Westmorland - Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. Laidlaw Environmental Services (Imperial Valley), Inc. (hereinafter referred to as the discharger), Class I Waste Management Facility (hereinafter referred to as the Facility), P.O. Box 158, 5295 S. Garvey Road, Westmorland, California 92281, submitted a Report of Waste Discharge (ROWD), dated September 28, 1993.
2. The discharger is both the owner and the operator of the property.
3. All Waste Management Units at the Facility are permitted to accept a wide range of hazardous and non-hazardous wastes. However, by Permit, the Facility is not allowed to accept the following waste types:
  - a. Any hazardous waste not listed in Section III, Table 1 of the Facility's State Hazardous Waste Facility Permit issued by California Department of Toxic Substances Control (DTSC) on February 26, 1992.
  - b. Radioactive materials and/or waste (does not include geothermal waste containing Naturally Occurring Radioactive Materials (NORMS)),
  - c. Infectious materials and/or wastes.
  - d. California Department of Transportation (DOT) forbidden and Class A, B, and C explosives.
  - e. Compressed gases.
  - f. Materials and/or wastes containing restricted levels of PCB's and/or dioxins.
  - g. Municipal garbage/refuse, except for wastes generated at the Imperial Valley Facility (excluding septic system wastes, which shall not be managed in any hazardous waste landfill at the Facility).

The Class I landfill units can accept any material not on the above no-take list so long as the waste meets all applicable state and federal land disposal treatment standards.

4. The facility currently has the following units on site:

Landfill Unit LC-1 (Class 1)	closed (certified by DTSC March 16, 1992)
Landfill Unit LC-2 (Class 1)	operating (capacity 750,000 cu. yds.)
Landfill Unit LC-3 (Class 1)	operating (slated for closure in approx. 6 months)

Waste Management Units 3, 5, 8, & 9 (evaporation ponds)	closed (awaiting certification by DTSC)
Treatment Unit (mixing tanks)	one part of a three unit complex
Bulk solid/drum waste storage area	to be utilized by existing and future treatment units

5. The Facility has recently completed the first part of a Stabilization/Treatment Unit. Mixing tanks are designed to handle a wide range of solids and sludges, both hazardous and non-hazardous and treat and/or stabilize the waste to meet regulatory requirements prior to landfilling. By utilizing various additives (i.e. kiln dust, portland cement, etc.) the unit can treat waste containing hazardous constituents banned from the landfill to below regulatory levels. This particular unit is best suited for complexing heavy metals that would otherwise leach out over time.
6. The Facility is located approximately six (6) miles west of Westmorland, California, and four (4) miles south of the Salton Sea. The facility occupies all of Section 16 (640 acres) of Township 13 South, Range 12 East, San Bernardino Base and Meridian. Access to the Facility is via State Route 86 to a private access road. Current access to the Facility is provided at the northeastern corner of the property via a private access road.
7. The Facility is located in the Imperial Valley which has a desert climate characterized by low precipitation and very high evaporation rates. In the Imperial Valley, the average summer temperature is 90 °F; in the winter the temperature averages 60° F. Precipitation averages less than three(3) inches per year.
8. The discharger states that the Facility is underlain by alluvial sands. Beneath the alluvial sands lie lacustrine sediments that have been encountered to depths greater than 200 feet. These lacustrine deposits typically consist of weak to moderately consolidated, thin to thickly bedded clay with subordinate amounts of interlayered silt, and sparse, weakly consolidated very fine grained sand and/or silt interbeds. The lacustrine deposits beneath the Facility have been divided into ten stratigraphic units, named Q1<sub>1</sub> through Q1<sub>10</sub>. Units Q1<sub>1</sub> through the upper portion of Q1<sub>5</sub> constitute the vadose (unsaturated) zone. The vadose zone is dominated by clays with permeabilities ranging from 10<sup>-8</sup> to 10<sup>-9</sup> centimeters per sec (cm/sec). Three of the stratigraphic units, Q1<sub>5</sub>, Q1<sub>6</sub>, and Q1<sub>9</sub> contain saturated zones making up the upper (Q1<sub>5</sub>) and lower (Q1<sub>6</sub> and Q1<sub>9</sub>) aquifers. The permeability of the Q1<sub>6</sub> clay confining layer between the upper and lower aquifers is 10<sup>-8</sup>cm/sec. The correlation of stratigraphic units across the site has been interrupted by numerous faults; however, these units typically can be identified by using key marker beds from either surface exposures or drill hole data. The lacustrine beds dip gently (approximately 5 degrees from the horizontal) to the northeast.
9. The discharger states that the primary hydrologic Feature of the facility is the groundwater. The only perennial surface water body nearby is man made, the Westside Main Canal, located approximately 0.5 miles northeast of the Facility. Storm water runoff in response to high intensity

precipitation events occurs in numerous small gullies that have been cut into the surface soils at the Facility; this runoff, however, is typically of short duration. Storm water runoff is diverted away from all waste management units. Ground water has been encountered in primarily three stratigraphic units; the uppermost water-bearing zone is an unconfined aquifer, and the next two saturated zones form the lower aquifer. The upper aquifer occurs within a sandy unit approximately 45 to 75 feet below ground surface. The saturated thickness of the upper aquifer typically ranges from 5 to 20 feet. This aquifer has only been encountered east of several discontinuous, north-south trending parallel faults located in the eastern portion of the facility. The uppermost aquifer is believed to originate from ground water flow across the faults where faulting has juxtaposed the upper and lower aquifer stratigraphic units.

The lower aquifer is continuous across the site and has been encountered approximately 60 to 80 feet below ground surface west of the faults and at a depth of approximately 80 to 100 feet east of the faults. The lower aquifer is confined, with a potentiometric head greater than that of the upper aquifer. The saturated thickness of the aquifer typically ranges from 0.5 to 10 feet. Ground water flow in the lower aquifer is to the northeast, with a seepage velocity of approximately 10 feet per year in the area west of the faults, to approximately 30 feet per year east of the faults.

Because of the low rates of ground water flow, and the thin saturated zones present in both the upper and lower aquifers, the volume of the ground water flowing beneath the site is very low. Ground water at the site is naturally non-potable. As is common with the Imperial Valley Hydrologic Basin, both aquifers below the Facility have high background concentrations of dissolved inorganic parameters (e.g.; TDS and chloride concentrations range from approximately 2,300 to 4,300 mg/L and 700 to 1,700 mg/L. Respectively, for the upper aquifer, and TDS and chloride concentrations range from approximately 4,000 to 7,500 mg/L and 1,500 to 3,000 mg/L, respectively, for the lower aquifer).

10. The discharger states that ten small faults have been encountered at the Facility. Faults A through J have been identified from surface and subsurface exposures. The fault segments mapped at the surface are typically less than a few thousand feet long and terminate at both ends. All but two of these faults are north trending and form an echelon (step-like) pattern across the eastern half of the site. Two faults are located in the northwestern part of the site and trend to the northwest. All faults are near vertical, and have normal separation (the eastern block downdropped relative to the western block). Stratigraphic offsets created by faulting range from far less than one foot up to approximately 80 feet. The age of faulting at the Facility is unknown however, for conservatism, all faults at the site are considered to be holocene, thus all landfills constructed at the Facility have been setback a minimum of 200 feet from the faults.
11. Waste material from four surface impoundments formerly located in the SE 1/4 of said Section 16 has been excavated and placed into the Class I landfills. The discharger is currently awaiting certification of clean closure for the surface impoundments by the appropriate regulatory agencies.

12. Disposal of solid waste to land in California is regulated under Chapter 15, Division 3, Title 23 of the California Code of Regulations (hereinafter referred to as Chapter 15). These regulations prescribe waste and site classifications, and waste management requirements for waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment facilities. The requirements in Chapter 15 are minimum standards for proper management of each waste category. Regional Boards may impose more stringent requirements to accommodate regional and site-specific conditions.

The discharger proposes to meet or exceed said minimum requirements by constructing all additional waste management units according to the following criteria:

- a. The base of the landfills will be at least five feet above the uppermost aquifer.
  - b. The base of the landfills will be immediately underlain by natural geologic materials which have permeability of not more than  $1 \times 10^{-6}$  cm/sec, and which have sufficient thickness to prevent vertical movement of fluid.
  - c. Construction of the landfills will include the installation of a single 80-mil high density polyethylene (HDPE) synthetic liner, and a leachate collection and recovery system (LCRS). Additionally, a bentonite mat and a secondary 80-mil HDPE liner will be installed in the LCRS, to further enhance its ability to contain liquids in an area where they are most likely to accumulate and flow.
  - d. The landfills will be sited at least 200 feet away from any known Holocene fault, and outside areas of rapid geologic change.
  - e. A detection monitoring well network will be installed at each of the landfills (point of compliance wells). Background water quality data (up-gradient wells) will, in some cases, be shared by contiguous landfills. The ground water monitoring program will be subject to approval by the Regional Board's Executive Officer.
  - f. A liquid capture vadose zone monitoring system will be installed underneath newly constructed units to detect leaks due to the failure of the liner system and/or LCRS.
13. The main drainage channel, which approximately bisects the site, is maintained to accommodate a projected 100-year flood from up-slope area. Disposal units are set back 100 feet from the channel banks. Perimeter drainage is provided for a 100-year flood. Drainage not in contact with wastewater material is being directed off-site. Contact water and any polluted drainage will remain on-site.
14. Prior to construction operations, the site was undeveloped desert land. The area immediately adjacent to the site is also undeveloped desert land managed by the U.S. Bureau of Land Management. The nearest dwelling is a farmhouse, approximately one mile to the east. The nearest surface water, the Westside Main Canal, is located 1/2 mile north of the site boundaries.

15. The discharger states that all landfills will be constructed so as to withstand a maximum peak ground acceleration of at least 0.5 G.
16. Geothermal wastes might contain naturally occurring radio active materials containing detectable amounts of Radium-228, Radium-226, and their daughter isotopes. Ground water will be monitored for the appropriate radiological parameters. Other pathways of exposure to low-level radioactivity are regulated by other agencies.
17. Liquid waste may be generated on-site from the following sources:
  - a. Liquids removed from leachate and leak detection systems.
  - b. Rainfall upon the deposited wastes.
  - c. Purged water from ground water monitoring wells.
  - d. Liquids generated from the on-site laboratory.
  - e. Liquids from cleaning of equipment or trucks.
18. Liquid waste generated on-site will be stored in above ground tanks or will be immediately treated in a treatment unit.
19. Covers will be installed over the landfills after they are filled to capacity. The discharger reports that the final cover systems will consist of the following components in descending order:
  - a. Soil Cover: Two-foot minimum thickness of soil cover with the top foot stabilized with a soil binder followed by a polymer sealant surface treatment.
  - b. Synthetic Liner: 80-mil HDPE synthetic liner with textured surface.
  - c. Foundation: Four-foot thickness consisting of, from the base upward:
    - 1) Two-feet of compacted selected waste and clean fill
    - 2) Two-feet of clay.
20. On August 13, 1980, Imperial County Planning Department adopted Environmental Impact Report No. 226-79 for this disposal site. Said EIR was updated on December 6, 1983, as "Final EIR for Amended CUP 457-80" (SCH# 79090501(a)). On February 5, 1991, the Imperial County Planning Department adopted Environmental Impact Report (EIR) No. 90010086 which meets the California Environmental Quality Act (CEQA) requirements for the expansion of the subject facility.
21. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on May 15, 1991, and designates the beneficial uses of ground and surface waters in this Region.

22. The designated beneficial uses of ground waters in the Imperial Hydrologic Unit are:
  - a. Municipal supply (MUN)
  - b. Industrial supply (IND)
23. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge.
24. The Board in a public meeting heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that Board Orders No. 88-45, 88-54, 89-41 and 91-014 be rescinded and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Discharge Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.
2. The waste management units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to a 24-hour storm having a predicted frequency of once in 100 years.
3. Wastes shall not be accepted for disposal into the subject landfills if they meet or exceed any of the criteria listed below:
  - a. Flammable solids or oxidizers (as defined in 49 CFR 173.150 and .151).
  - b. Reactive wastes (as defined in Section 66705, Title 22 of the California Code of Regulations).
  - c. Wastes containing materials that exceed ten times the total threshold limit concentrations (TTL) listed in Sections 66999 (b) and (C), Title 22 of the California Code of Regulations.
  - d. Wastes listed in Finding No. 3
4. Waste material, and any waste that has contacted the waste materials, shall be contained in those areas designated for the particular waste.
5. Waste confinement barriers shall be protected and maintained to ensure their effectiveness.
6. All the facilities shall be designed and constructed to minimize damage to the graded foundation or to the structures which control leachate, surface drainage, erosion, and gas, due to the maximum credible earthquake.
7. There shall be no seepage or overflow from the landfill sites.

8. Ponded liquids observed in the subject landfills shall be removed and discharged to appropriate facilities. Liquids removed from the leak detection and leachate collection systems shall be collected, analyzed, and discharged to the appropriate facility.
9. The discharger shall prevent any transport of waste by wind from the subject landfills through the active operational and post-closure periods.
10. The subject landfills shall be designed, constructed and operated as required by Chapter 15, Division 3, Title 23 of California Code of Regulations (CCR).
11. The discharger shall place the waste in such a manner as to facilitate and maximize evaporation loss.
12. The discharger shall perform waste compatibility testing on all liner components as required by said Chapter 15. The data shall be submitted and approved by the Regional Board's Executive Officer prior to discharge.
13. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
14. Upon closure, the completed landfills shall be covered, graded, and maintained in conformance with a closure plan approved by the Regional Board's Executive Officer in accordance with said Chapter 15.
15. The discharger shall establish an irrevocable closure fund, or provide other acceptable means, to ensure closure and post closure maintenance of the subject landfills.
16. All monitoring shall be done according to the groundwater and vadose zone monitoring programs which are contained in the document entitled: Resource Conservation and Recovery Act Permit Application and Report of Waste Discharge dated December 15, 1989. The pertinent sections are contained in volume 2A, sections 5.4 and 5.5.
17. All monitoring procedures described in Title 23, Division 3, Chapter 15, Article 5 of the California Code of Regulations shall be followed.
18. This discharge shall not cause degradation of any water supply.
19. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.

#### B. Prohibitions

1. The discharge of waste to surface drainage courses or to ground water is prohibited.
2. The placement of bulk liquid wastes or free liquid contained in wastes (whether or not absorbents have been added) in the subject landfills is prohibited. The procedure for determination of free liquid in a waste shall be the standard EPA approved method contained in Attachment A, appended hereto as part of this Board Order.

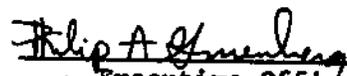
3. The discharge or deposit of waste to land not owned or controlled by the discharger is prohibited.

#### C. Provisions

1. The discharger shall maintain a copy of this Board Order at the site to be available at all times to site-operating personnel.
2. The discharger shall maintain a legible record of volume and type of each waste received at the site and the manner and location of disposal. The record shall be maintained for a period of not less than ten years, with the records to be forwarded to the Regional Board when disposal operation cease.
3. The discharger shall update the operation plan when material changes in the operations are made; and a letter shall be submitted to the Regional Board annually indicating compliance or non-compliance with said plan. The plan shall conform to Chapter 15.
4. The discharger shall comply with "Monitoring and Reporting Program No. 94-005" and future revisions thereto, as specified by the Regional Board's Executive Officer.
5. At least ten days prior to discharge of any waste into a new landfill, the discharger shall submit to the Regional Board a technical report, prepared and signed by a California certified geologist or engineer stating that the landfill is constructed to meet the requirements of this Board Order.
6. Prior to any change of ownership of these facilities/operations, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal to this Regional Board.
7. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
8. At least 10 days prior to discharging any waste into a new waste management unit, the discharger shall notify the Regional Board to allow sufficient time to schedule a staff evaluation of construction and inspection procedures utilized by the discharger for liner installation.
9. At least 60 days prior to commencement of construction of each new landfill at the facility, the discharger shall submit to the Regional Board, for approval by the Regional Board's Executive Officer, a technical report which shall include a plan showing in detail the proposal construction and monitoring at landfill.
10. The discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
11. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.

12. Water used for site maintenance shall be limited to amounts necessary for dust control.
13. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California registered civil engineer and shall be certified by the individual as meeting the prescriptive standards and performance goals of Chapter 15.
14. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of wastes over the operating life, closure and post-closure maintenance period of the landfill.
15. In-place permeabilities of liners shall be determined in the field using techniques approved by the Executive Officer. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the liners are adequate to contain landfill leachate.
16. Each disposal cell shall have a leachate collection and removal system. Leachate collection sumps shall be designed and operated to keep leachate levels at the minimum needed to ensure efficient pump operation. Leachate collected shall be disposed of in accordance with local, state, and federal regulations.
17. Materials used to construct leachate collection and removal systems shall have appropriate physical and chemical properties to ensure the required transmission of leachate through the system over the operating life, closure and post-closure maintenance period of the landfill. Materials shall have sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and equipment used on the landfill.
18. This Board Order is subject to Regional Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics, in three year increments from the effective date of this Board Order.
19. Any liquid found in the leachate detection and collection system shall be reported to the Regional Board staff immediately.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on January 18, 1994.

  
Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

**MONITORING AND REPORTING PROGRAM NO. 94-005 (REVISION 2)**

**FOR**

**CLEAN HARBORS WESTMORLAND  
CLASS I WASTE MANAGEMENT FACILITY  
West of Westmorland – Imperial County**

**CONSISTS OF**

**PART I, PART II, AND PART III**

## PART I

### **A. GENERAL**

A Discharger who owns or operates a Waste Management Facility is required to comply with the provisions of Chapter 3, Subchapter 3, Article 1, Title 27, California Code of Regulations for the purpose of detecting, characterizing, and responding to releases to the ground water. Section 13267, California Water Code gives the Regional Water Board authority to require monitoring program reports for discharges that could affect the quality of waters within its region. State Water Resources Control Board Resolution No. 93-062 requires the Regional Water Board to implement federal Municipal Solid Waste Regulations (Title 40 Code of Federal Regulations, Parts 257 and 258).

This self-monitoring program is issued pursuant to Provision No. 4 of Regional Water Board Order No. 94-005. The principal purposes of a self-monitoring program by a waste discharger are:

1. To document compliance with WDRs and prohibitions established by the Regional Board;
2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge;
3. To prepare water quality analyses.

### **B. DEFINITION OF TERMS**

1. The "Monitored Media" are those water- or gas-bearing media that are monitored pursuant to this Monitoring and Reporting Program. The monitored Media may include: (1) ground water in the uppermost aquifer, in any other portion of the zone of saturation (Section 20164, Title 27) in which it would be reasonable to anticipate that waste constituents migrating from the WMF could be detected, and in any perched zones underlying the WMF, (2) any bodies of surface water that could be measurably affected by a release, and (3) soil-pore liquid beneath and/or adjacent to the WMF.
2. The "Constituents of Concern (COC)" are those constituents which are likely to be in the waste in the landfill or which are likely to be derived from waste constituents, in the event of a release. The list of Constituents of Concern for this WMF is found in Part III, Summary of Self-Monitoring and Reporting Programs, of this program.
3. The "Monitoring Parameters" consists of a short list of constituents and parameters used for the majority of the monitoring activity. The list of Monitoring Parameters for this WMF is found in Part III, Summary of Monitoring and Reporting Programs, C of this program. Monitoring for the short list of Monitoring Parameters constitutes "indirect monitoring", in that the results are used to indirectly indicate the success or failure of adequate containment for the longer list of Constituents of Concern.
4. The "Volatile Organics Composite Monitoring Parameter for Water (VOC<sub>water</sub>)" is composite Monitoring Parameters addressing all volatile organic constituents detectable in a sample of water- or soil-pore gas, respectively. (See Part III.A.2. of this Program for additional discussion of these Monitoring Parameters).
5. "Standard Observations" refers to:

- a. For Receiving Waters:
  - 1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area;
  - 2) Discoloration and turbidity: description of color, source, and size of affected area;
  - 3) Evidence of odors: presence or absence, characterization, source, and distance of travel from source;
  - 4) Evidence of beneficial use: presence of water-associated wildlife;
  - 5) Flow Rate; and
  - 6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five (5) days and on the day of observation.
- b. Along the perimeter of the Landfill:
  - 1) Evidence of liquid leaving or entering the WMF, estimated size of affected area, and flow rate (show affected area on map);
  - 2) Evidence of odors: presence or absence, characterization, source, and distance of travel from source; and
  - 3) Evidence of erosion and/or of exposed refuse.
- c. For the Landfill:
  - 1) Evidence of ponded water at any point on the WMF (show affected area on map);
  - 2) Evidence of odor: presence, characterization, source, and distance of travel from source;
  - 3) Evidence of erosion and/or of day-lighted refuse; and
  - 4) "Standard Analysis and Measurements", which refers to:
    - (a) Turbidity (only for water samples) in NTU;
    - (b) Water elevation to the nearest 1/100<sup>th</sup> foot above mean sea level (only for ground water monitoring); and
    - (c) Sampling and statistical/non-statistical analysis of the Monitoring Parameters.
6. "Matrix Effect" refers to any increase in the Method Detection Limit or Practical Quantitation Limit for a given constituent as a result of the presence of other constituents – either of natural origin or introduced through a release – that are present in the sample of water or soil-pore gas being analyzed.

7. "Facility-Specific Method Detection Limit (MDL)", for a given analytical laboratory using a given analytical method to detect a given constituent (in spite of any Matrix Effect) means the lowest concentration at which the laboratory can regularly differentiate – with 99 percent reliability – between a sample which contains the constituent and a sample which does not.
8. "Facility-Specific Practical Quantitation Limit (PQL)", for a given analytical laboratory using a given analytical method to determine the concentration of a given constituent (in spite of any Matrix Effect) means the lowest constituent concentration the laboratory can regularly quantify within specified limits of precision that are acceptable to the Regional Board's Executive Officer.
9. "Reporting Period" means the duration separating the submittal of a given type of monitoring report from the time the next iteration of that report is scheduled for submittal. Therefore, the reporting period for Monitoring Parameters is semi-annually. The reporting period for Constituents of Concern is every five years. An Annual Report extends from January 1<sup>st</sup> through December 31<sup>st</sup>. The due date for the Annual Report will be April 30<sup>th</sup>, unless otherwise stated. A summary of due dates for all Monitoring Reports can be found in Part III, Summary of Reporting Requirements of this program.
10. "Receiving Waters" refers to any surface water, which actually or potentially receives surface or ground waters, which pass over, through or under waste materials or contaminated soils.
11. "Affected Persons" refers to all individuals who either own or reside upon the land that directly overlies any part of that portion of gas or liquid-phase release that has migrated beyond the facility boundary.

### **C. SAMPLING AND ANALYTICAL METHODS**

Sampling collection, storage, and analysis shall be performed according to the most recent version of Standard USEPA methods, and in accordance with an approved sampling and analysis plan. All analysis shall be performed in a laboratory certified by the State of California. 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 all reports of such work submitted to the Regional Water Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. In addition, the Discharger is responsible for insuring that the laboratory analysis of all samples from Monitoring Points and Background Monitoring Points meets the following restrictions:

1. The methods and 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 percent non-numerical determinations (i.e. "trace" or "ND") in data from Background Monitoring Points for that medium, the analytical methods having the lowest "facility-specific method detection limit (MDL)", defined in Part I.B.7, shall be selected from among those methods which would provide valid results in light of any "Matrix Effects" (defined in Part I.B.6.) involved.
2. MDLs and PQLs shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory, rather than simply being quoted from

USEPA analytical method manuals. 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 MDL/PQL values, the results shall be flagged accordingly, along with an estimate of the detection limit and quantitation limit actually achieved.

3. All QA/QC data shall be reported, along with the sample results to which it applies, including the method, equipment, and analytical detection limits, the recovery rates, an explanation of any recovery rate that is less than 80 percent, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery.
4. Upon receiving written approval from the Regional Water Board's Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given Reporting Period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or downgradient sample shall be reported and flagged for easy reference by the Regional Water Board staff.
5. In cases where contaminants are detected in QA/QC samples (i.e. field, trip, or laboratory blanks), the accompanying sample results shall be appropriately flagged.
6. The MDL shall always be calculated such that it represents a concentration associated with a 99 percent reliability of a non-zero result.

#### **D. RECORDS TO BE MAINTAINED**

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five (5) years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Water Board. Such records shall show the following for each sample.

1. Identity of sample and of the Monitoring Point or Background Monitoring Point 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;
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;
5. Calculations of results; and
6. Results of analyses, and the PQL for each analysis.

## E. REPORTS TO BE FILED WITH THE REGIONAL BOARD

### 1. DETECTION MONITORING REPORT

A written "Detection Monitoring Report" shall be submitted twice annually, in addition to an "Annual Summary Report". Every five years, the Discharger shall submit a report concerning the direct analysis of all Constituents of Concern as indicated in the "Summary of Self-Monitoring and Reporting Programs". All reports shall be submitted no later than their respective due dates as summarized in Part III, Summary of Monitoring and Reporting Requirements. The reports shall be comprised of at least the following:

- a. Letter of Transmittal – A letter of transmittal signed by a duly authorized representative of the Discharger containing the following statement: "I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations."
- b. Executive Summary – An executive summary that includes the essential points in each report shall accompany each report. The executive summary shall include a discussion of any requirement 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 requirement 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 executive summary. Monitoring reports, including the executive summary 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 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;
- c. Each Detection Monitoring Report and each COC Report shall include a compliance evaluation summary. The summary shall contain at least:
  - 1) For each monitored ground water body, a description and graphical presentation of the velocity and direction of the ground water flow under/around the WMF, based upon water level elevations taken during the collection of the water quality data submitted in the report;
  - 2) Pre-Sampling Purge for Samples Obtained From Wells: For each monitoring well addressed by the report, a description of the method and time of water level measurement, of the type of pump used for purging, and of the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of field equipment, results of the pH, temperature, conductivity, and turbidity testing);

- 3) **Sampling:** For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump – or other device – used and its placement for sampling, and a detailed description of the sampling procedure (number and description of the samples, field blanks, travel blanks, and duplicate samples taken, the type of containers and preservatives used, the date and time of sampling, and any other observations);
- d. A map or aerial photograph showing the locations of observation stations, Monitoring Points, and Background Monitoring Points;
- e. For each Detection Monitoring Report and each COC Report, include laboratory statements as a pdf file on computer disk with the results of all analyses demonstrating compliance with Part I.C;
- f. An evaluation of the effectiveness of the run-off/run-on control facilities;
- g. A summary and certification of completion of all Standard Observations (Part I.B.5.) for the WMF, for the perimeter of the WMF, and for the Receiving Waters; and
- h. The quantity and types of wastes discharged and the locations in the WMF where waste has been placed since submittal of last such report.

## 2. CONTINGENCY REPORTING

- a. The Discharger shall report by telephone concerning any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Regional Water Board within seven (7) days, containing at least the following:
  - 1) A map showing the locations(s) of seepage;
  - 2) An estimate of the flow rate;
  - 3) A description of the nature of the discharge (e.g., all pertinent observations and analyses); and
  - 4) Corrective measures underway or proposed.
- b. Should the initial statistical comparison (Part III.A.1.) or non-statistical comparison (Part III.A.2.) indicate, for any Constituent of Concern or Monitoring Parameter, that a release is tentatively identified, the Discharger shall notify the Regional Water Board verbally as to the Monitoring Point(s) and constituent(s) or parameter(s) involved. The Discharger shall provide written notification by certified mail with seven (7) days of such determination (Section 20420(j), Title 27), and shall carry out a discrete retest pursuant to Part III.A.3. If the retest confirms the existence of a release, the Discharger shall carry out the requirements of Part I.E.2.d. In any case, the Discharger shall inform the Regional Water Board of the outcome of the retest as soon as the results are available, following up with written results submitted by certified mail within seven (7) days of completing the retest analysis.
- c. If either the Discharger or the Regional Water Board determines that there is significant physical evidence of a release (Section 20420(j), Title 27) the Discharger shall immediately notify the Regional Water Board of this fact by certified mail (or

acknowledge the Regional Water Board's determination) and shall carry out the requirements of Part I.E.2.d. for all potentially-affected monitored media.

- d. If the Discharger concludes that a release has been discovered:
- 1) If this conclusion is not based upon "direct monitoring" of the Constituents of Concern, pursuant to Part II.B.3, then the Discharger shall, within 30 days, sample for all Constituents of Concern at all Monitoring Points within the WMU of concern and submit them for laboratory analysis. Within seven (7) days of receiving the laboratory analytical results, the discharger shall notify the Regional Water Board, by certified mail, of the concentration of all Constituents of Concern at each Monitoring Point. Because this scan is not to be tested against background, only a single datum is required for each Constituent of Concern at each Monitoring Point (Section 20420(k)(1), Title 27);
  - 2) The Discharger shall, within 90 days of discovering the release, submit a Revised Report of Waste Discharge proposing an Evaluation Monitoring Program meeting the requirements of Section 20420(k)(5) and Section 20425, Title 27; and
  - 3) The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study meeting the requirements of Section 20420(k)(6), Title 27.
- e. Any time the Discharger concludes – or the Regional Water Board Executive Officer directs the Discharger to conclude – that a liquid- or gaseous-phase release from the WMF 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).
- 1) 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; and
  - 2) Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons – including any newly Affected Persons – within 14 days of concluding there has been any material change in the nature or extent of the release.

### 3. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual summary report to the Regional Water Board on April 30th each year covering the previous monitoring year. This report shall contain:

- a. A Graphical Presentation of Analytical Data (Section 20415(e)(14), Title 27). For each Monitoring Point and Background Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous five (5) calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given Monitoring Point and Background Monitoring Point, at a scale appropriate to show trends or variations in water quality. The 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. On the basis of any aberrations noted in the plotted data, the Regional Water Board's Executive Officer may direct the Discharger to carry out a

preliminary investigation (Section 20080(d)(2), Title 27), the results of which will determine whether or not a release is indicated;

- b. All monitoring analytical data obtained during the previous two six-month Reporting Periods, shall be presented in tabular form as well as digitally on electronic media in a file format acceptable to the Regional Water Board's Executive Officer. The Regional Board regards the submittal of data in hard copy and on disk as "...the form necessary for..." statistical analysis (Section 20420(h), Title 27) in that this facilitates periodic review by the Regional Water Board's statistical consultant;
- c. A comprehensive discussion of the compliance record, and the result of any corrective action taken or planned which may be needed to bring the Discharger into full compliance with the WDRs;
- d. A map showing the area, if any, in which filling has been completed during the previous calendar year.

## **PART II: MONITORING AND OBSERVATION SCHEDULE**

### **A. WASTE MONITORING**

1. The following information shall be reported quarterly to the Regional Board concerning the waste accepted for disposal into each Waste Management Unit:
  - a. Quantity of waste received in gallons, tons, or cubic yards.
  - b. A general description (e.g., contaminated soil, debris, corrosive material, etc.) of the waste received for disposal.

### **B. GROUNDWATER SAMPLING/ANALYSIS FOR DETECTION MONITORING**

1. Thirty-Day Sample Procurement Limitation. For any given monitored medium, the samples taken from all Monitoring Points and Background Monitoring Points to satisfy the data analysis requirements for a given reporting period shall all be taken within a span not exceeding 30 days (with the exception of collection of verification samples which require a 90 day separation), and shall be taken in a manner that ensures sample independence to the greatest extent feasible (Section 20415(e)(12), Title 27). Ground water sampling shall also include an accurate determination of the ground water surface elevation and field parameters (temperature, electrical conductivity, turbidity) for that Monitoring Point or Background Monitoring Point (Section 20415(e)(13), Title 27; ground water elevations taken prior to purging the well and sampling for Monitoring Parameters shall be used to fulfill the Spring and Fall ground water flow rate/direction analyses required under Part II.B.6. Statistical or non-statistical analysis shall be carried out as soon as the data is available, in accordance with Part III of this program.
2. "Indirect Monitoring" for Monitoring Parameters Done Semi-Annually. For each monitoring medium, all Monitoring Points assigned to detection monitoring and all background Monitoring Points (Part II.B.4.) shall be monitored semi-annually pursuant to the following schedule and for parameters listed in the Part III, Summary of Self Monitoring and Reporting Programs of this program:

First Semi-Annual: January 1 through June 30 – Report Due July 31st

Second Semi-Annual: July 1 through December 30 – Report Due January 31st

Monitoring for Monitoring Parameters shall be carried out in accordance with Part II.B.1. and Part III of this program.

3. "Direct Monitoring" of all Constituents of Concern Every Five (5) Years. In the absence of a release being indicated: (1) pursuant to Parts II.B.2. and III.A.3. for a Monitoring Parameter, (2) based upon physical evidence, pursuant to Part I.E.2.c. or (3) by a study required by the Regional Water Board's Executive Officer based upon anomalies noted during visual inspection of graphically-depicted analytical data (Part I.E.3.a.), then the Discharger shall sample all Monitoring Points and Background Monitoring Points of water-bearing media, not including soil-pore gas, for all Constituents of Concern every fifth year, with successive direct monitoring efforts being carried out alternately in the Spring of the first semi-annual monitoring period of one 5-year sampling event and the fall of the second semi-annual monitoring period of the next 5-year sampling event, and every fifth year, thereafter. Direct monitoring for Constituents of Concern shall be carried out in accordance with this section (Part

II.B.3) and Part III of this program, and shall encompass only those Constituents of Concern listed in the Summary of Self-Monitoring and Reporting Program.

4. **"Monitoring Points and Background Monitoring Points for Each Monitored Medium":** The Discharger shall sample the following Monitoring Points in accordance with the sampling schedule given under Parts II.B.2. and II.B.3 (immediately foregoing), taking enough samples to qualify for the most appropriate test under Part III.

For groundwater monitoring, the following Monitoring Points shall be Point of Compliance and Background wells:

<u>Unit LC-1</u>	<u>Unit LC-2</u>	<u>Unit LC-3</u>	<u>Morton Solids Unit</u>
MW-19*	MW-63*	MW-51	MW-34
MW-20A*	MW-64*	MW-52	MW-35
MW-21*	MW-65*	MW-53	MW-36
MW-22*	MW-66	MW-54	MW-37
MW-23	MW-67	MW-55	MW-38
MW-24	MW-68	MW-56	
MW-25	MW-69	MW-57	
MW-26	MW-70	MW-58*	
MW-27	MW-71	MW-59*	
MW-28	MW-72	MW-60R*	
MW-29	MW-73	MW-62*	
MW-30			
MW-31			
MW-32			
MW-33			

\*indicates background wells

5. **Initial Background Determination:** For the purpose of establishing an initial pool of background data for each Constituent of Concern at each Monitoring Point in each monitored medium (Section 20415(e)(6), Title 27):
- Whenever a new organic Constituent of Concern is added to the Water Quality Protection Standard, including any added by the adoption of this Order, the Discharger shall collect at least one sample quarterly for at least one (1) year from each Background Monitoring Point in each monitored medium and analyze for the newly-added constituent(s); and
  - Whenever a new Background Monitoring Point is added, including any added by this Board Order, the Discharger shall sample it at least quarterly for at least one (1) year, analyzing for all Constituents of Concern and Monitoring Parameters.
6. **Semi-Annual Determination of Ground Water Flow Rate/Direction** (Section 20415(e)(15), Title 27): The Discharger shall measure the water level in each well and determine ground water flow rate and direction in each ground water body described in Part II.B.4. semi-annually, including the times of expected highest and lowest elevations of the water level for the respective ground water body. This information shall be included in the semi-annual monitoring report.

**PART III: STATISTICAL AND NON-STATISTICAL ANALYSES OF SAMPLE DATA  
DURING A DETECTION MONITORING PROGRAM**

- A. The Discharger shall use the following methods to compare the downgradient concentration of each monitored constituent or parameter with its respective background concentration to determine if there has been a release from the WMF. For any given data set, proceed sequentially down the list of statistical analysis methods listed in Part III.A.1., followed by the non-statistical method in Part III.A.2., using the first method for which the data qualifies. If that analysis tentatively indicates the detection of a release, implement the retest procedure under Part III.A.3.
1. **Statistical Methods.** The Discharger shall use one of the following statistical methods to analyze Constituents of Concern or Monitoring Parameters, which exhibit concentrations exceeding their respective MDL in at least ten percent of the background samples taken during that Reporting Period. Each of these statistical methods is more fully described in the statistical methods discussion, below. Except for pH, which uses a two-tailed approach, the statistical analysis for all constituents and parameters shall be one-tailed (testing only statistically significant increase relative to background):
    - a. **One-Way Parametric Analysis of Variance ANOVA followed by multiple comparisons** (Section 20415(e)(8)(A), Title 27). This method requires at least four (4) independent samples from each Monitoring Point and Background Monitoring Point during each sampling episode. It shall be used when the background data from the parameter or constituent, obtained during a given sampling period, has not more than 15 percent of the data below the PQL. Prior to analysis, replace all 'trace' determinations with a value halfway between the PQL and the MDL values reported for that sample run, and replace all "non-detect" determinations with a value equal to half the MDL value reported for that sample run. The ANOVA shall be carried out at the 95 percent confidence level. Following the ANOVA, the data from each downgradient Monitoring Point shall be tested at a 99 percent confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., that there is no release) to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated from that parameter or constituent; or
    - b. **One (1)-Way Non-Parametric ANOVA (Kruskal-Wallis Test), followed by multiple comparisons.** This method requires at least nine independent samples from each Monitoring Point and Background Monitoring Point, therefore, the Discharger shall anticipate the need for taking more than four samples per Monitoring Point, based upon past monitoring results. This method shall be used when the pooled background data for the parameter or constituent, obtained within a given sampling period, has not more than 50 percent of the data below the PQL. The ANOVA shall be carried out at a 95 percent confidence level. Following the ANOVA, the data from each downgradient Monitoring Point shall be tested at a 99 percent confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., that there is no release) to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated for that parameter or constituent; or
    - c. **Method of Proportions.** This method shall be used if the "combined data set", the data from a given Monitoring Point in combination with data from the Background

Monitoring Points, has between 50 percent and 90 percent of the data below the MDL for the constituent or parameter in question. This method (1) requires at least nine (9) downgradient data points per Monitoring Point per Reporting Period, (2) requires at least 30 data points in the combined data set, and (3) requires that  $N * P > 5$  (where N is the number of data points in the combined data set and P is the proportion of the combined set that exceeds the MDL); therefore, the Discharger shall anticipate the number of samples required, based upon past monitoring results. The test shall be carried out at the 99 percent confidence level. If the analysis results in rejection of the Null Hypothesis (i.e., that there is no release), the Discharger shall conclude that a release is tentatively indicated for that constituent or parameter; or

- d. Other Statistical Methods. These include methods pursuant to Section 20415(e)(8)(E).
2. Non-Statistical Method. The Discharger shall use the following non-statistical method for the  $VOC_{water}$  for all Constituents of Concern which are not amenable to statistical tests under Part III.A.1.; each of these groupings of constituents utilizes a separate variant of the test, as listed below. Regardless of the variant used, the method involves a two-step process: (1) from all constituents to which the variant applies, compile a list of those constituents which exceed their respective MDL in the downgradient sample, yet do so in less than 10 percent of the applicable background samples; and (2) from the sample which contains the largest number of constituents. Background shall be represented by the data from all samples taken from the appropriate Background Monitoring Points during that Reporting Period (at least one sample from each Background Monitoring Point). The method shall be implemented as follows:
    - a. For the Volatile Organics Composite Monitoring Parameter for Water Samples ( $VOC_{water}$ ): For any given Monitoring Point, the  $VOC_{water}$  Monitoring Parameter is a composite parameter addressing all VOCs detectable using USEPA Method 8260, including at least all 47 VOCs listed in Appendix I to 40 CFR 258, and all unidentified peaks. Compile a list of each VOC which: (1) exceeds its MDL in the Monitoring Point sample (an unidentified peak is compared to its presumed (MDL); and also (2) exceeds its MDL in less than 10 percent of the samples taken during that Reporting Period from that medium's Background Monitoring Points. The Discharger shall conclude that a release is tentatively indicated for the  $VOC_{water}$  Composite Monitoring Parameter if the list either: (1) contains two or more constituents, or (2) contains one constituent that exceeds its PQL;
    - b. For Constituent of Concern: Compile a list of new organic constituents that exceed their respective MDL at the Monitoring Point yet do so in less than 10 percent of the background samples taken during that Reporting Period. The Discharger shall conclude that a release is tentatively indicated if the list either (1) contains two or more constituents, or contains one constituent, which exceeds its PQL.
3. Discrete Retest (Section 20415(e)(8)(E), Title 27). In the event that the Discharger concludes that a release has been tentatively indicated (under Parts III.A.1. or III.A.2.), the Discharger shall, within 90 days of this indication, collect two (2) new suites of samples for the indicated Constituent(s) of Concern or Monitoring Parameter(s) at each indicating Monitoring Point, collecting at least as many samples per suite as were used for the initial test. Re-sampling of the Background Monitoring Points is optional.

As soon as the data is available, the Discharger shall rerun the statistical method (or non-statistical comparison) separately upon each suite of retest data. For any indicated Monitoring Parameter or Constituent of Concern at an affected Monitoring Point, if the test results of either (or both) of the retest data suites confirms the original indication, the Discharger shall conclude that a release has been discovered. All retests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the Constituent of Concern or Monitoring Parameter which triggered the indication there, as follows:

- a. If an ANOVA method was used, the retest shall involve only a repeat of the multiple comparison procedure, carried out separately on each of the two new suites of samples taken from the indicating Monitoring Point;
- b. If the Method of Proportions statistical test was used, the retest shall consist of a full repeat of the statistical test for the indicated constituent or parameter, using the new sample suites from the indicating Monitoring Point;
- c. If the non-statistical method was used:
  - 1) Because the VOC Composite Monitoring Parameters (VOC<sub>water</sub>) each address, as a single parameter, an entire family of constituents, which are likely to be present in any landfill release, the scope of the laboratory analysis for each retest sample shall include all VOCs detectable in that retest sample. Therefore, a confirming retest for either parameter shall have validated the original indication even if the suite of constituents in the confirming retest samples(s) differs from that in the sample which initiated the retest;
  - 2) Because all Constituents of Concern that are jointly addressed in the non-statistical testing under Part III.A.2.c. remain as individual Constituents of Concern, the scope of the laboratory analysis for the non-statistical retest samples shall be narrowed to involve only those constituents detected in the sample which initiated the retest.

## B. RESPONSES TO VOC DETECTION IN BACKGROUND

1. Except as indicated in Part III.B.2., below, any time the laboratory analysis of a sample from a Background Monitoring Point, sampled for VOCs under Part III.A., shows either (1) two or more VOCs above their respective MDL, or (2) one VOC above its respective PQL, then the Discharger shall immediately notify the Regional Water Board by phone that possible background contamination has occurred, shall follow-up with written notification by certified mail within seven days, and shall obtain two new independent VOC samples from that Background Monitoring Point and send them for laboratory analysis of all detectable VOCs within 90 days. If either or both the new samples validates the presence of VOC(s) at that Background Monitoring Point, using the above procedure, the Discharger shall:
  - a. Immediately notify the Regional Water Board about the VOC(s) verified to be present at that Background Monitoring Point, and follow up with written notification submitted by certified mail within seven (7) days of validation; and
  - b. Within 180 days of validation, submit a report, acceptable to the Regional Water Board's Executive Officer, which examines the possibility that the detected VOC(s)

originated from the WMF and proposing appropriate changes to the Monitoring Program.

2. If the Regional Water Board's Executive Officer determines, after reviewing the report submitted under Part III.B.1.b, that the VOC(s) detected originated from a source other than the WMF, the Regional Water Board's Executive Officer will make appropriate changes to the Monitoring Program.
3. If the Regional Water Board's Executive Officer determines, after reviewing the report submitted under Part III.B.1.b, that the detected VOC(s) most likely originated from the WMF, the Discharger shall assume that a release has been detected and shall immediately begin carrying out the requirements of Part I.E.2.d.

## SUMMARY OF SELF-MONITORING AND REPORTING PROGRAMS

### A. WASTE MONITORING (In the Landfill)

Quarterly report the following information to the Regional Board concerning the waste acceptance.

1. Quantity of waste received in gallons, tons, or cubic yards
2. General description (e.g., contaminated soil, debris, corrosive material, etc.) of the waste received for disposal.

### B. WASTE MANAGEMENT UNITS

The Discharger shall inspect all containment structures weekly and report the results of the inspections semi-annually. As described in Part I.B.5, standard observations of the site including the landfills, nearby surface waters, and the perimeter. The report shall contain the following information.

1. Detection of liquid and quantity thereof within the leak detection system, and disposition of any leachate recovered.
2. Any apparent seepage from the WMU.
3. General condition of the berms, caps, monitoring equipment at each WMU.
4. Step taken to correct any problems found during inspection, and when taken.
5. On an annual basis the leak detection system and leachate collection and removal system shall be tested to ensure they are operating properly. The Discharger shall report the result of this testing in the annual report.

### C. GROUND WATER ANALYSIS FOR DETECTION MONITORING

The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency (USEPA) approved procedures. Unless otherwise approved by the Regional Water Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR 136), promulgated by the USEPA.

1. Background Monitoring - Whenever a new Monitoring Well (II.B.5) is added, including any added by this Board Order, the Discharger shall sample it at least quarterly for at least one (1) year, analyzing for all Constituents of Concern and Monitoring Parameters. The new background well shall be sampled for the following Monitoring Parameters:

<u>Parameter &amp; Constituents</u>	<u>Unit</u>
1) Ground water Elevation	(USGS Datum)
2) Temperature (field measurement)	°C
3) pH (field Measurement)	Number
4) Specific Conductance (field measurement)	Microsemens (µs/cm)

5) Total Dissolved Solids (TDS)	mg/l
6) Total Organic Carbon (TOC)	mg/l
7) Total Organic Halogen	mg/l
8) Magnesium (Mg)	mg/l
9) Total Alkalinity (as CaCO <sub>3</sub> )	mg/l
10) Alkalinity (Carbonate)	mg/l
11) Alkalinity (Bicarbonate)	mg/l
12) Calcium (Ca)	mg/l
13) Lithium (Li)	mg/l
14) Potassium (K)	mg/l
15) Chloride (Cl)	mg/l
16) Cyanide	mg/l
17) Fluoride (F)	mg/l
18) Nitrate (NO <sub>3</sub> as N)	mg/l
19) Nitrite (NO <sub>2</sub> as N)	mg/l
20) Phosphate (Ortho-)	mg/l
21) Sulfate (SO <sub>4</sub> )	mg/l
22) Sulfide (S)	mg/l
23) Total Phenols	mg/l
24) Radium	pCi/l
25) Gross Alpha	pCi/l
26) Gross Beta	pCi/l
27) Aluminum (Al)	mg/l
28) Antimony (Sb)	mg/l
29) Arsenic (As)	mg/l
30) Barium (Ba)	mg/l
31) Boron (B)	mg/l
32) Beryllium (Be)	mg/l
33) Cadmium (Cd)	mg/l
34) Chromium (Cr)	mg/l
35) Cobalt (Co)	mg/l
36) Copper (Cu)	mg/l
37) Iron (Fe)	mg/l
38) Lead (Pb)	mg/l
39) Manganese (Mn)	mg/l
40) Mercury (Hg)	mg/l
41) Molybdenum (Mo)	mg/l
42) Nickel (Ni)	mg/l
43) Selenium (Se)	mg/l
44) Silicon (Si)	mg/l
45) Silver (Ag)	mg/l
46) Thallium (Tl)	mg/l
47) Vanadium (V)	mg/l
48) Zinc (Zn)	mg/l
49) Volatile Organics (EPA Method 8260)	µg/l
50) Semi-Volatile Organics (EPA Method 8270)	µg/l

2. "Indirect Monitoring" for Monitoring Parameters Done Semi-annually. The ground water monitoring points assigned in Part II.B.4. of this Program, shall be sampled semi-annually for the following Monitoring Parameters:

<u>Constituents</u>	<u>Units</u>
1) Ground water Elevation	(USGS Datum)
2) Temperature (field measurement)	°C
3) pH (field Measurement)	Number
4) Specific Conductance (field measurement)	Microsemens (µs/cm)
5) Total Dissolved Solids (TDS)	mg/l
6) Total Organic Carbon (TOC)	mg/l
7) Total Organic Halogen	mg/l
8) Magnesium (Mg)	mg/l
9) Total Alkalinity (as CaCO <sub>3</sub> )	mg/l
10) Alkalinity (Carbonate)	mg/l
11) Alkalinity (Bicarbonate)	mg/l
12) Calcium (Ca)	mg/l
13) Lithium (Li)	mg/l
14) Potassium (K)	mg/l
15) Chloride (Cl)	mg/l
16) Cyanide	mg/l
17) Fluoride (F)	mg/l
18) Nitrate (NO <sub>3</sub> as N)	mg/l
19) Nitrite (NO <sub>2</sub> as N)	mg/l
20) Phosphate (Ortho-)	mg/l
21) Sulfate (SO <sub>4</sub> )	mg/l
22) Sulfide (S)	mg/l
23) Total Phenols	mg/l
24) Radium	pCi/l
25) Gross Alpha	pCi/l
26) Gross Beta	pCi/l
27) Aluminum (Al)	mg/l
28) Antimony (Sb)	mg/l
29) Arsenic (As)	mg/l
30) Barium (Ba)	mg/l
31) Boron (B)	mg/l
32) Beryllium (Be)	mg/l
33) Cadmium (Cd)	mg/l
34) Chromium (Cr)	mg/l
35) Cobalt (Co)	mg/l
36) Copper (Cu)	mg/l
37) Iron (Fe)	mg/l
38) Lead (Pb)	mg/l
39) Manganese (Mn)	mg/l
40) Mercury (Hg)	mg/l
41) Molybdenum (Mo)	mg/l
42) Nickel (Ni)	mg/l
43) Selenium (Se)	mg/l
44) Silicon (Si)	mg/l
45) Silver (Ag)	mg/l
46) Thallium (Tl)	mg/l
47) Vanadium (V)	mg/l

48) Zinc (Zn)	mg/l
49) Volatile Organics (EPA Method 8260)	µg/l
50) Semi-Volatile Organics (EPA Method 8270)	µg/l

In addition to the above constituents, the following information is also required for semi-annual reporting of groundwater monitoring:

- a. Date of sampling
  - b. Date well purged prior to sampling
  - c. Estimate of volume of water purged from each well prior to sampling
3. **"Direct Monitoring" of all Constituents of Concern Done Every Five Years.** In the absence of a release being indicated: (1) pursuant to Parts II.B.2. and III.A.3. for a Monitoring Parameter; (2) based upon physical evidence, pursuant to Part I.E.2.c.; or (3) by a study required by the Regional Water Board's Executive Officer based upon anomalies noted during visual inspection of graphically-depicted analytical data (Part I.E.3.a.), the Discharger shall sample all Monitoring Points and Background Monitoring Points of water-bearing media, not including soil-pore gas, for all Constituents of Concern every five years. Successive direct monitoring efforts shall be carried out alternately in the Spring of one Five-Year sampling event and in the Fall of the next Five-Year sampling event, and every five years thereafter. Direct monitoring for Constituents of Concern shall be carried out pursuant to Parts II.B.1 and III of this program, and shall encompass only those Constituents of Concern that do not also serve as a Monitoring Parameter.

The five-year sampling event for the ground water shall consist of sampling and analysis of the following Constituents of Concern:

<u>Constituent</u>	<u>Unit</u>
<b>General Chemistry Parameters</b>	
1) Alkalinity, Bicarbonate	mg/L
2) Alkalinity, Carbonate	mg/L
3) Alkalinity, Total	mg/L
4) Barium (Dissolved)	mg/L
5) Calcium (Dissolved)	mg/L
6) Chloride	mg/L
7) Cyanide, Total	mg/L
8) Fluoride, Free	mg/L
9) Gross Alpha	pCi/L
10) Gross Beta	pCi/L
11) Lithium (Dissolved)	mg/L
12) Magnesium (Dissolved)	mg/L
13) Nitrogen, Nitrate	mg/L
14) Nitrogen, Nitrite	mg/L
15) Phenolics, Total	mg/L
16) Phosphate, Ortho-	mg/L
17) Potassium (Dissolved)	mg/L
18) Radium	pCi/L
19) Silicon (Dissolved)	mg/L
20) Sulfate	mg/L

21) Sulfide	mg/L
22) Toc	mg/L
23) Total Dissolved Solids	mg/L
24) Tox	mg/L

**Detection Monitoring Parameters - Metals**

25) Aluminum (Dissolved)	mg/L
26) Antimony (Dissolved)	mg/L
27) Arsenic (Dissolved)	mg/L
28) Barium (Dissolved)	mg/L
29) Boron (Dissolved)	mg/L
30) Beryllium (Dissolved)	mg/L
31) Cadmium (Dissolved)	mg/L
32) Chromium (Dissolved)	mg/L
33) Cobalt (Dissolved)	mg/L
34) Copper (Dissolved)	mg/L
35) Iron (Dissolved)	mg/L
36) Lead (Dissolved)	mg/L
37) Manganese (Dissolved)	mg/L
38) Mercury (Dissolved)	mg/L
39) Molybdenum (Dissolved)	mg/L
40) Nickel (Dissolved)	mg/L
41) Selenium (Dissolved)	mg/L
42) Silver (Dissolved)	mg/L
43) Thallium (Dissolved)	mg/L
44) Vanadium (Dissolved)	mg/L
45) Zinc (Dissolved)	mg/L

**Pesticides**

46) 4,4'-Ddd	ug/L
47) 4,4'-Dde	ug/L
48) 4,4'-Ddt	ug/L
49) Aldrin	ug/L
50) Alpha-Bhc	ug/L
51) Alpha-Endosulfan	ug/L
52) Beta-Bhc	ug/L
53) Beta-Endosulfan	ug/L
54) Chlordane	ug/L
55) Delta-Bhc	ug/L
56) Diallyte	ug/L
57) Dieldrin	ug/L
58) Endosulfan Sulfate	ug/L
59) Endrin	ug/L
60) Endrin Aldehyde	ug/L
61) Gamma-Bhc (Lindane)	ug/L
62) Heptachlor	ug/L
63) Heptachlor Epoxide	ug/L
64) Isodrin	ug/L
65) Kepone	ug/L
66) Methoxychlor	ug/L
67) Toxaphene	ug/L

**Polychlorinated Biphenyls (Pcbs)**

68) Pcb-1016	ug/L
69) Pcb-1221	ug/L
70) Pcb-1232	ug/L
71) Pcb-1242	ug/L
72) Pcb-1248	ug/L
73) Pcb-1254	ug/L
74) Pcb-1260	ug/L

**Organophosphorous Pesticides**

75) 0,0,0-Trimethylphosphor Thioate	ug/L
76) Dimethoate	ug/L
77) Disulfoton	ug/L
78) Famphur	ug/L
79) Methyl Parathion	ug/L
80) Parathion	ug/L
81) Phorate	ug/L
82) Sulfotepp	ug/L
83) Thionazin	ug/L

**Herbicides**

84) 2,4,5-T	ug/L
85) 2,4,5-Tp (Silvex)	ug/L
86) 2,4-Dichlorophenoxy Acetic Acid	ug/L

**Volatile Organic Compounds (Vocs)**

87) 1,1,1,2-Tetrachloroethane	ug/L
88) 1,1,1-Trichloroethane	ug/L
89) 1,1,2,2-Tetrachloroethane	ug/L
90) 1,1,2-Trichloroethane	ug/L
91) 1,1-Dichloroethane	ug/L
92) 1,1-Dichloroethene	ug/L
93) 1,2,3-Trichloropropane	ug/L
94) 1,2-Dibromo-3-Chloropropane	ug/L
95) 1,2-Dibromoethane	ug/L
96) 1,2-Dichloroethane	ug/L
97) 1,2-Dichloropropane	ug/L
98) 1,4-Dioxane	ug/L
99) 2-Butanone (Mek)	ug/L
100) 2-Chloro-1,3-Butadiene (Chloroprene)	ug/L
101) 2-Chloroethyl Vinyl Ether	ug/L
102) 2-Hexanone	ug/L
103) 3-Chloropropene (Allyl Chloride)	ug/L
104) 4-Methyl-2-Pentanone (Mibk)	ug/L
105) Acetone	ug/L
106) Acetonitrile	ug/L
107) Acrolein	ug/L
108) Acrylonitrile	ug/L
109) Benzene	ug/L
110) Bromodichloromethane	ug/L
111) Bromoform	ug/L
112) Bromomethane	ug/L
113) Carbon Disulfide	ug/L
114) Carbon Tetrachloride	ug/L

115) Chlorobenzene	ug/L
116) Chlorodibromomethane	ug/L
117) Chloroethane	ug/L
118) Chloroform	ug/L
119) Chloromethane	ug/L
120) Cis-1,3-Dichloropropene	ug/L
121) Dibromomethane	ug/L
122) Dichlorodifluoromethane	ug/L
121) Ethyl Methacrylate	ug/L
122) Ethylbenzene	ug/L
123) Iodomethane	ug/L
124) Isobutyl Alcohol	ug/L
125) Methacrylonitrile	ug/L
126) Methyl Methacrylate	ug/L
127) Methylene Chloride	ug/L
128) Propionitrile	ug/L
129) Styrene	ug/L
130) Tetrachloroethene	ug/L
131) Toluene	ug/L

132) Total Xylenes	ug/L
133) Trans-1,3-Dichloropropene	ug/L
134) Trans-1,4-Dichloro-2-Butene	ug/L
135) Trichloroethene	ug/L
136) Trichlorofluoromethane	ug/L
137) Vinyl Acetate	ug/L
138) Vinyl Chloride	ug/L

**Semi-volatile Organic Compounds (Svocs)**

139) 1,2,4,5-Tetrachlorobenzene	ug/L
140) 1,2,4-Trichlorobenzene	ug/L
141) 1,2-Dichlorobenzene	ug/L
142) 1,3,5-Trinitrobenzene	ug/L
143) 1,3-Dichlorobenzene	ug/L
144) 1,3-Dinitrobenzene	ug/L
145) 1,4-Dichlorobenzene	ug/L
146) 1,4-Naphthoquinone	ug/L
147) 1-Naphthylamine	ug/L
148) 2,3,4,6-Tetrachlorophenol	ug/L
149) 2,4,5-Trichlorophenol	ug/L
150) 2,4,6-Trichlorophenol	ug/L
151) 2,4-Dichlorophenol	ug/L
152) 2,4-Dimethylphenol	ug/L
153) 2,4-Dinitrophenol	ug/L
154) 2,4-Dinitrotoluene	ug/L
155) 2,6-Dichlorophenol	ug/L
156) 2,6-Dinitrotoluene	ug/L
157) 2-Acetylamino fluorene	ug/L
158) 2-Chloronaphthalene	ug/L
159) 2-Chlorophenol	ug/L
160) 2-Methylnaphthalene	ug/L
161) 2-Methylphenol	ug/L
162) 2-Naphthylamine	ug/L

163) 2-Nitroaniline	ug/L
164) 2-Nitrophenol	ug/L
165) 2-Picoline	ug/L
166) 2-Sec-Butyl-4,6-Dinitrophenol	ug/L
167) 3,3'-Dichlorobenzidine	ug/L
168) 3,3'-Dimethylbenzidine	ug/L
169) 3-Methylcholanthrene	ug/L
170) 3-Methylphenol	ug/L
171) 3-Nitroaniline	ug/L
172) 4,6-Dinitro-2-Methylphenol	ug/L
173) 4-Aminobiphenyl	ug/L
174) 4-Bromophenyl Phenyl Ether	ug/L
175) 4-Chloro-3-Methylphenol	ug/L
176) 4-Chloroaniline	ug/L
177) 4-Chlorophenyl Phenyl Ether	ug/L
178) 4-Methylphenol	ug/L
179) 4-Nitroaniline	ug/L
180) 4-Nitrophenol	ug/L
181) 4-Nitroquinoline-1-Oxide	ug/L
182) 5-Nitro-O-Toluidine	ug/L
183) 7,12-Dimethylbenz(A)Anthracene	ug/L
184) Acenaphthene	ug/L
185) Acenaphthylene	ug/L
186) Acetophenone	ug/L
187) Alpha, Alpha-Dimethylphenethylamine	ug/L
188) Aniline	ug/L
189) Anthracene	ug/L
190) Aramite	ug/L
191) Benzo(A)Anthracene	ug/L
192) Benzo(A)Pyrene	ug/L
193) Benzo(B)Fluoranthene	ug/L
194) Benzo(G,H,I)Perylene	ug/L
195) Benzo(K)Fluoranthene	ug/L
196) Benzoic Acid	ug/L
197) Benzyl Alcohol	ug/L
198) Bis(2-Chloroethoxy)Methane	ug/L
199) Bis(2-Chloroethyl) Ether	ug/L
200) Bis(2-Chloroisopropyl) Ether	ug/L
201) Bis(2-Ethylhexyl) Phthalate	ug/L
202) Butyl Benzyl Phthalate	ug/L
203) Chlorobenzilate	ug/L
204) Chrysene	ug/L
205) Di-N-Butyl Phthalate	ug/L
206) Di-N-Octyl Phthalate	ug/L
207) Dibenz(A,H)Anthracene	ug/L
208) Dibenzofuran	ug/L
209) Diethyl Phthalate	ug/L
210) Dimethyl Phthalate	ug/L
211) Diphenylamine	ug/L
212) Ethyl Methanesulfonate	ug/L
213) Fluoranthene	ug/L
214) Fluorene	ug/L

215) Hexachlorobenzene	ug/L
216) Hexachlorobutadiene	ug/L
217) Hexachlorocyclopentadiene	ug/L
218) Hexachloroethane	ug/L
219) Hexachlorophene	ug/L
220) Hexachloropropene	ug/L
221) Indeno(1,2,3-C,D)Pyrene	ug/L
222) Isophorone	ug/L
223) Isosafrole	ug/L

224) Methapyrilene	ug/L
225) Methyl Methanesulfonate	ug/L
226) N-Nitroso-Di-N-Butylamine	ug/L
227) N-Nitroso-Di-N-Propylamine	ug/L
228) N-Nitrosodiethylamine	ug/L
229) N-Nitrosodimethylamine	ug/L
230) N-Nitrosodiphenylamine	ug/L
231) N-Nitrosomethylethylamine	ug/L
232) N-Nitrosomorpholine	ug/L
233) N-Nitrosopiperidine	ug/L
234) N-Nitrosopyrrolidine	ug/L
235) Naphthalene	ug/L
236) Nitrobenzene	ug/L
237) O-Toluidine	ug/L
238) P-Dimethylaminoazobenzene	ug/L
239) P-Phenylenediamine	ug/L
240) Pentachlorobenzene	ug/L
241) Pentachloroethane	ug/L
242) Pentachloronitrobenzene	ug/L
243) Pentachlorophenol	ug/L
244) Phenacetin	ug/L
245) Phenanthrene	ug/L
246) Phenol	ug/L
247) Pronamide	ug/L
248) Pyrene	ug/L
249) Pyridine	ug/L
250) Safrole	ug/L

#### **Dioxins And Furans**

251) Hexachlorodibenzo-P-Dioxins	ng/L
252) Hexachlorodibenzo-P-Furans	ng/L
253) Pentachlorodibenzo-P-Dioxins	ng/L
254) Pentachlorodibenzo-P-Furans	ng/L
255) Tetrachlorodibenzo-P-Dioxins	ng/L
256) Tetrachlorodibenzo-P-Furans	ng/L

#### **Additional Inorganics**

257) Cyanide, Total	mg/L
258) Sulfide	mg/L

#### **D. VADOSE ZONE MONITORING**

1. Vadose zone monitoring shall be conducted and reported semi-annually using a neutron probe. Measurements shall be obtained from all neutron probe access tube locations at each WMU.
  - a. Moisture measurements from each access tube presented separately in graphical format for the monitoring event.
  - b. A single graphic display for each access tube showing the three previous moisture measurements and measurements from the current monitoring event.
  - c. Location map showing all access tube locations.

#### **E. CONTINGENCY REPORTING**

As described in Part 1.E.2 of this monitoring and reporting program, notify Regional Board staff immediately by telephone, and submit a written report.

## SUMMARY OF REPORTING REQUIREMENTS

1. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with Waste Discharge Requirements.
2. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurement(s);
  - b. The individual(s) who performed the sampling or measurement(s);
  - c. The date(s) analyses were performed;
  - d. The analytical techniques or method used; and
  - e. The results of such analyses.
3. Each report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations."
4. 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 Regional Board's Executive Officer.
5. Monitoring Reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this Monitoring and Reporting Program.
6. **Semi-Annual Reports.** Monitoring Reports shall be submitted to the Regional Water Board semi-annually according to the following schedule:

First Semi-Annual Report (January 1 through June 30) – Report due July 31<sup>st</sup>.

Second Semi-Annual Report (July 1 through Dec. 31st) – Report due January 31<sup>st</sup>.
7. **Annual Reports.** Annual Monitoring Reports shall be submitted to the Regional Water Board by April 30 of the each year, covering the Reporting Period from January 1<sup>st</sup> through December 31<sup>st</sup> of the previous year.
8. **Five-Year COC Reports.** Sampling of constituents from the five-year CoCs list was completed in summer 2006. Starting with the 2011 Winter/Spring COC sampling event schedule, with successive sampling efforts being carried out alternately between the Summer/Fall Monitoring Period of one Five-Year sampling event, and the Winter/Spring of the next five-year sampling event, and every fifth year thereafter, as long as the WMF is in operation and through the closure/post-closure period.

The Five-Year COC Report shall be submitted with the appropriate Semi-Annual Report due on by either July 31<sup>st</sup> or January 31<sup>st</sup>, whichever is appropriate for the particular Five-Year COC sampling event, pursuant to Parts II.B.3 and III, Summary of Monitoring and Reporting Programs, C.2 of this Monitoring and Reporting Program.

9. **Submit Monitoring Reports to:**

California Regional Water Quality Control Board  
Colorado River Basin Region  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, CA 92260

Ordered by:   
ROBERT PERDUE  
Executive Officer

Date: 11/9/06

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - 7

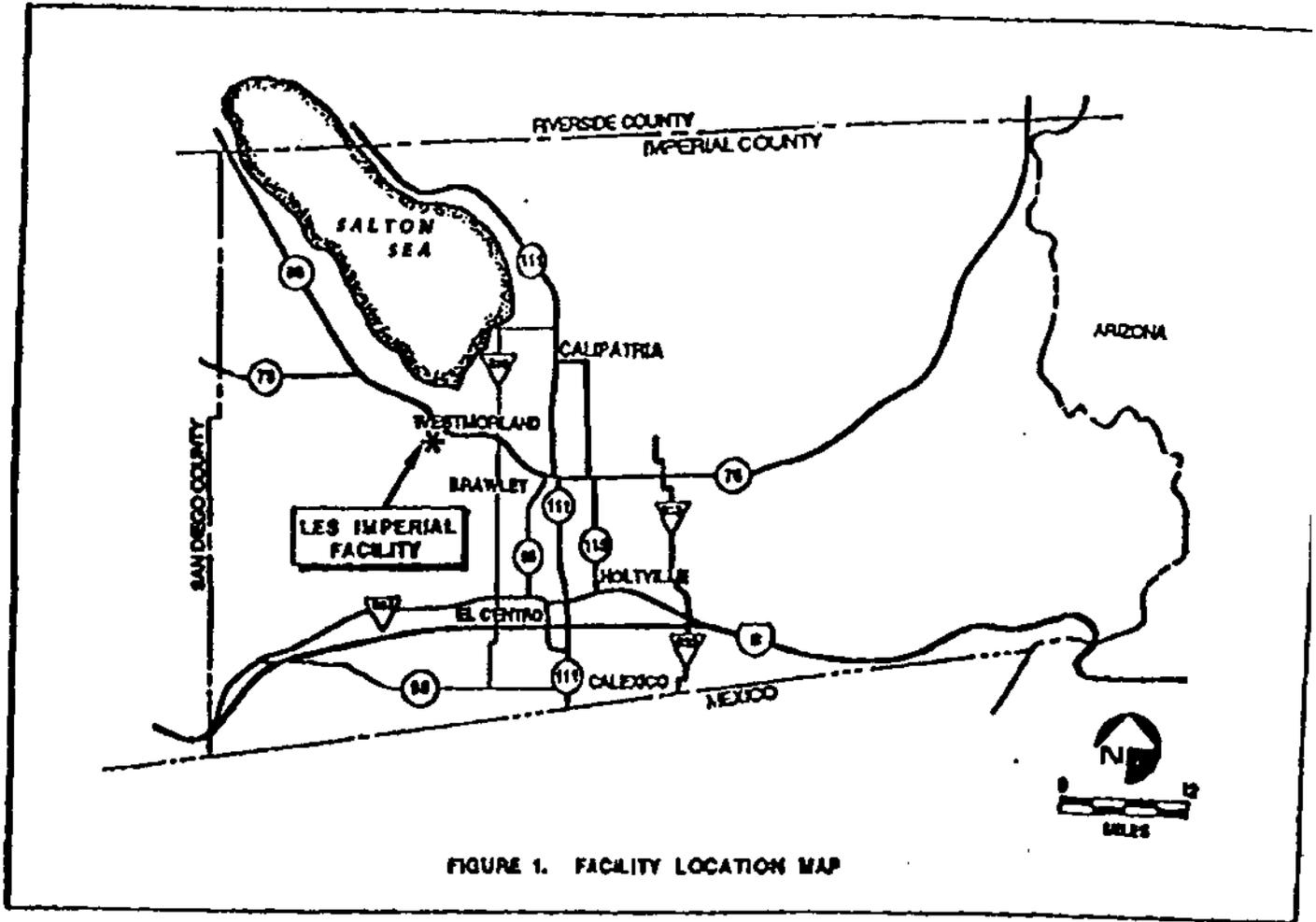
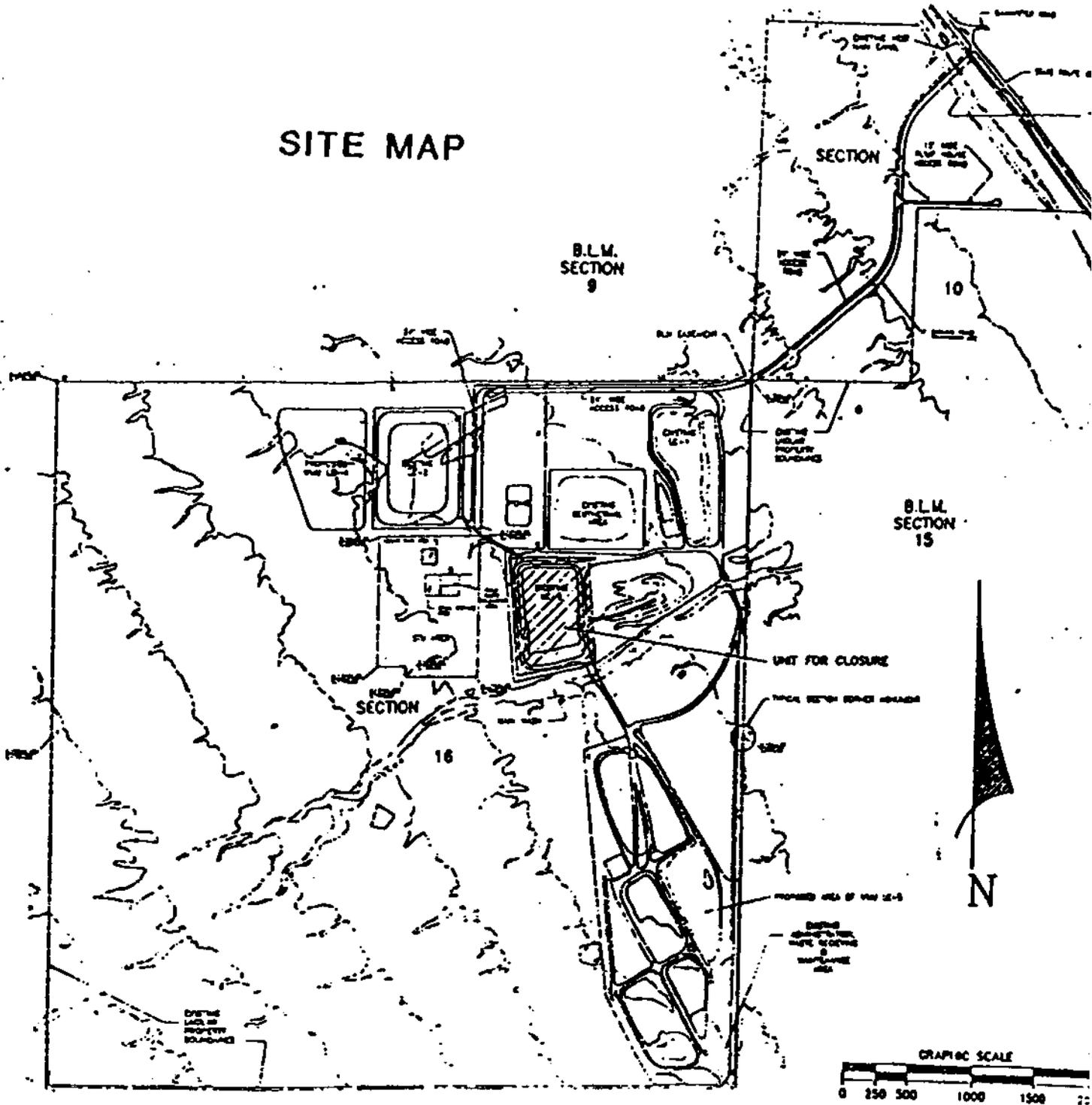


FIGURE 1. FACILITY LOCATION MAP

LIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.  
West of Westmorland - Imperial County

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - 7

SITE MAP



SITE MAP

LIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.  
West of Westmorland - Imperial County

ATTACHMENT A

U. S. ENVIRONMENTAL PROTECTION AGENCY  
METHOD 9095

PAINT FILTER LIQUIDS TEST

1.0 Scope and application

1.1 This method is used to determine the presence of free liquid in a representative sample of waste.

2.0 Summary of method

2.1 A predetermined amount of material is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5 minute test period, the material is deemed to contain free liquid.

3.0 Interferences

3.1 Filter media was observed to separate from the filter cone on exposure to alkaline materials. This development causes no problem if the sample is not disturbed.

4.0 Apparatus and Material

4.1 Conical paint filter - mesh number 60. Available at local paint stores such as Sherwin Williams and Glidden for an approximate cost of \$.07 each.

4.2 Glass Funnel (if the paint filter, with the waste, cannot sustain its weight on the ring stand, then a fluted glass funnel or glass funnel with a mouth large enough to allow at least one inch of filter mesh to protrude should be used to support the filter. The funnel is to be fluted or have a large open mount in order to support the paint filter yet not interfere with the movement, to the graduated cylinder, of the material that passes through the filter mesh).

4.3 Ring Stand and Ring, or Tripod.

4.4 Beaker or Graduated Cylinder, 100 ml.

5.0 Reagents

5.1 None

6.0 Sample Collection, Preservation and Handling

6.0 All samples must be collected according to the directions in Section One of U.S. Environmental Protection Agency guidance document SW-846.

6.2 A 100 ml or 100 g representative sample is required for the test. (If it is not possible to obtain a sample of 100 ml or 100 g that is sufficiently representative of the waste, the analyst may use larger size samples in multiples of 100 ml or 100 g, i.e., 200, 300, 400 ml or g. However, when larger samples are used, analyst shall divide the sample into 100 ml or 100 g portions and test each portion separately. If any portion contains free liquid the entire sample is considered to have free liquid. If the percent of free liquid in the sample needs to be determined, it shall be the average of the subsamples tested)

7.0 Sample Collection, Preservation and Handling

6.1 All samples must be collected according to the directions in Section One of U.S. Environmental Protection Agency guidance document SW-846.

8.0 Quality Control

8.1 Duplicate samples should be analyzed on a routine basis.