

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 91-014

WASTE DISCHARGE REQUIREMENTS
FOR
LAIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.
CLASS II LANDFILLS IIA, IIB, G1, G2
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), P.O. Box 158, 5295 S. Garvey Road, Westmorland, California 92281, submitted a Report of Waste Discharge (ROWD), dated March 16, 1990.
2. The ROWD was submitted in order to facilitate the construction of four Class II landfills. These are to be located on the discharger's privately owned 640-acre tract comprising Section 16, T13S, R12E, SBB&M. A non-hazardous waste stabilization unit (NWSU) will also be constructed in order to treat selected wastes prior to disposal in said units. A site plan is shown in Attachment A appended hereto as a part of this Board Order.
3. The size and waste capacity of each of the proposed landfills will be as follows:

<u>UNIT</u>	<u>SIZE</u> <u>(Acres)</u>	<u>CAPACITY</u> <u>(Cubic Yards)</u>
IIA	8.6	541,000
IIB	10.0	617,000
G1	8.4	575,000
G2	12.4	941,000

4. The discharger currently operates two Class I landfills, LC-1 and LC-3. LC-1 (subject to Board Order No. 89-041) has reached capacity and is in the process of closure. LC-3 (subject to Board Order No. 88-045) is projected by the discharger to reach capacity sometime in 1991. Another Class I landfill, LC-2 (subject to Board Order No. 88-045) is currently under construction. The discharger also maintains post-closure monitoring on a geothermal solids disposal unit (the Morton Solids Disposal Unit) under Board Order 88-054. These landfills are located in the NE $\frac{1}{4}$ of said Section 16.
5. Waste material from four surface impoundments formerly located in the SE $\frac{1}{4}$ 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. Closure of these units is subject to Board Order No. 88-054.

*Revised
1/18/94*

6. Disposal of solid waste to land in California is regulated under Chapter 15, Division 7, 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.
7. The Regional Board has established that the minimum containment requirements as set forth in Chapter 15 are adequate for the proposed waste management units at the site, based on local and regional geology and hydrogeology.
8. The discharger proposes to meet or exceed said minimum requirements by constructing the subject landfills 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 1×10^{-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 any 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 neutron probe vadose zone monitoring system will be installed underneath each of the units to detect any leaks due to the failure of the liner system and/or LCRS.
9. The NWSU will allow the discharger to treat and stabilize non-hazardous wastes to a solidified product as defined by EPA Method 9095. The unit will comprise approximately six acres, and is designed to process 800 tons of sludge per day. The solids receiving area is designed to handle 15,000 tons of solid wastes, and the treated waste holding area is designed for a minimum of 7,000 tons of stabilized mix. The NWSU is not subject to Chapter 15 since it will not be a land treatment facility.

10. Proposals for ground water and vadose zone monitoring networks at the subject landfills have been submitted by the discharger. These proposals are being reviewed by Regional Board staff to assure compliance with requirements in Chapter 15. Written approval from the Regional Board's Executive Officer will be obtained prior to implementation of the proposals. Both the ground water and vadose zone monitoring systems will be in place and functioning to the satisfaction of the Regional Board's Executive Officer prior to the disposal of wastes into any of the landfills. The approved monitoring networks may also be used for closure and post-closure monitoring.
11. The main drainage channel, which approximately bisects the site, has been improved and is maintained to accommodate a projected 100-year flood from up-slope areas. 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 waste material is being directed off-site. Polluted drainage will remain on-site.
12. 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 south. The desert land at the site consists of shallow alluvial soils, underlain by partially indurated clays, silts, and silty sands. Ground water first occurs at a depth of 50 to 100 feet below the ground surface and has total dissolved solids concentrations that range from 1900 mg/l to 9,000 mg/l. Average annual rainfall is approximately 3 inches, and average annual evaporation is approximately 100 inches. The nearest surface water, the Westside Main Canal, is located 1½ miles east of the site boundaries.
13. Each of the subject landfills will be constructed so as to withstand a peak ground acceleration of at least 0.5 g, provided that additional quantitative justification for use of this design value is submitted. If justification cannot be shown to the satisfaction of Imperial County, the project design will incorporate a peak seismic ground acceleration value of 0.60 g.
14. Geothermal wastes accepted into Landfills G1 and G2 might contain naturally occurring low-level radioactive materials (NORM). NORM for purposes of this Board Order are defined as natural 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 separate agencies.
15. Landfills G1 and G2 will receive only non-hazardous, non-radioactive (except for NORM), geothermal wastes. Landfills IIA and IIB may receive:
 - a. Special wastes as defined by Section 66742, Title 22 of the California Code of Regulations (CCR);
 - b. Designated wastes as defined in Section 2522, Title 23 of the CCR; and,
 - c. Non-hazardous solid wastes as defined in Section 2523, Title 23 of the CCR.

Wastes considered unacceptable for placement in Landfills IIA and IIB include the following:

- Hazardous waste as defined in 23 CCR 2521
- Hazardous waste as defined in 40 Code of Federal Regulations (CFR) 261
- Putrescible wastes
- Reactive wastes
- Corrosive wastes
- Ignitable wastes
- Paper
- Garbage
- Discarded home and industrial appliances
- Compressed gases
- Infectious wastes
- Radioactive wastes
- Etiological wastes
- Explosives
- Wastes determined to be incompatible with components of the waste management units

Monthly monitoring reports detailing the amount and type of wastes received into the landfills described above will be submitted to the Regional Board. Additional waste types may be accepted if written approval is given by the Regional Board's Executive Officer. The wastes listed above are broadly classified and are subject to other restrictions within this Board Order.

16. The subject landfills will receive only solid wastes. For the purposes of this Board Order, solid waste is defined as waste that contains no free liquid as prescribed in Prohibition No. 3 of this Board Order.
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 wastes generated on-site will be stored in above-ground tanks.
19. Final covers will be installed over the subject 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 surfaces.
 - c. Foundation: Four-foot thickness consisting of, from the base upward:

- 1) Two-feet of compacted selected waste;
 - 2) One-foot of clean fill; and
 - 3) Two-feet of clay.
20. 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, including the subject landfills.
 21. The discharger has filed an operations and maintenance plan, and plans for financing site closure and long-term maintenance.
 22. The Water Quality Control Plan for the Colorado River Basin Region of California designates the beneficial uses of ground and surface waters in this Region.
 23. The designated beneficial uses of ground waters in the Imperial Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 24. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
 25. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, Laidlaw Environmental Services Corporation shall comply with the following:

A. Discharge Specifications

1. Neither the treatment nor the discharge of wastes shall create pollution or nuisance as defined in Division 7 of the California Water Code.
2. Waste material shall not be discharged outside the proposed new landfills shown on Attachment A.
3. The subject landfills shall be protected from any washout or erosion of wastes or covering material, and from inundations, which could occur as a result of floods having a predicted frequency of a 100-year return period, as set forth in the current edition of said Chapter 15.
4. The discharge of wastes into the subject landfills shall be limited to those described in Finding No. 15 of this Board Order, unless prior approval is given by the Regional Board's Executive Officer.

5. Wastes designated in Discharge Specification No. 4, above, 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 (TTLIC) listed in Sections 66999 (b) and (c), Title 22 of the California Code of Regulations.
6. Waste material, and any waste that has contacted the waste materials, shall be contained in those areas designated for the particular wastes.
7. Waste confinement barriers shall be protected and maintained to ensure their effectiveness.
8. 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.
9. There shall be no seepage or overflow from the subject landfills.
10. Pooled 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.
11. The discharger shall prevent any transport of waste by wind from the subject landfills through the active operational and post-closure periods.
12. The subject landfills shall be designed, constructed and operated as described in Findings No. 8 and 13, above; and construction shall be in accordance with Chapter 15.
13. The discharger shall place the waste in such a manner as to facilitate and maximize evaporative loss.
14. 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 of any wastes.
15. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
16. 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.
17. The subject landfills shall receive final inspections of construction by Regional Board staff, and approval by the Executive Officer, prior to the discharge of wastes into said landfills.

18. The discharger shall establish an irrevocable closure fund, or provide other acceptable means, to ensure closure and post-closure maintenance of the subject landfills.

B. Prohibitions

1. The discharge of waste to surface drainage courses or to ground water is prohibited.
2. Waste shall not be accepted for disposal if it contains a substance which is all of the following:
 - a. A material that has toxicity upon inhalation that causes it to be toxic as defined by criteria adopted by the California Department of Health Services, or as listed in Section 66680, Title 22 of the California Code of Regulations with an indication that it is toxic; and,
 - b. A substance with a vapor pressure exceeding one (1) mm mercury at 20 C; and,
 - c. Present in the waste in a concentration greater than ten (10) percent by weight.
3. 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 B, appended hereto as part of this Board Order.

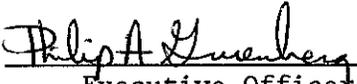
C. Provisions

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 using a reporting form approved by the Executive Officer, of the 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 operations cease.
3. The discharger shall update the operation plan when material changes in operations are made; and a letter shall be submitted to the Regional Board annually indicating compliance or noncompliance with said plan. The plan shall conform to Chapter 15.
4. The discharger shall comply with "Monitoring and Reporting Program No. 91-014" and future revisions thereto, as specified by the Regional Board Executive Officer.
5. This Board Order regulates only discharges into the above-specified landfills. Prior to the beginning of construction of any additional waste management unit for discharge of the above-listed wastes, the discharger shall submit a completed report of the proposed discharge and receive an adopted Board Order from the Regional Board.

for discharge of the above-listed wastes, the discharger shall submit a completed report of the proposed discharge and receive an adopted Board Order from the Regional Board.

6. At least ten days prior to discharge of any waste into a landfill, the discharger shall submit to the Regional Board a technical report showing the construction of the landfill, and a certificate signed by a California Registered Civil Engineer or Geologist, or Certified Engineering Geologist stating that the landfill is constructed to meet the requirements of this Board Order.
7. 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 Board.
8. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
9. The discharger shall maintain an impermeable road surface on the Garvey Road bridge at the Westside Main Canal to prevent any materials on the bridge from entering the canal. The discharger shall maintain a surface water drainage system to prevent lateral runoff from the bridge or its approaches from entering the Westside Main Canal.

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 March 13, 1991.



Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 91-014
FOR
LAIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.
CLASS II LANDFILLS IIA, IIB, G1, G2
West of Westmorland - Imperial County

Location of Discharge: Section 16, T13S, R12E, SBB&M

MONITORING

Laidlaw Environmental Services (Imperial Valley), Inc. shall report monitoring data to the Regional Board in accordance with the following schedule:

A. WASTE MONITORING

1. The following information shall be reported monthly to the Regional Board concerning each load of waste accepted for disposal into the Solid Waste Management Unit (SWMU):
 - a. Quantity of each waste received in gallons, tons, or cubic yards.
 - b. Type of waste received classified by the general categories of wastes which have been approved for disposal into the SWMU.
 - c. Date of receipt of the waste.
2. The discharger shall annually submit a report concerning each approved waste other than emergency discharges which the discharger plans to continue to accept for disposal into the SWMU. Said report shall contain the following information:
 - a. Analysis of each waste not in excess of 60 days old. If no waste of a specific type has been received during the last 60 days of the calendar year, the discharger shall submit the latest available analysis.
 - b. A statement concerning the maximum anticipated concentrations of hazardous constituents in the waste.
 - c. Anticipated maximum quantity of material to be discharged on a quarterly basis.

B. SOLID WASTE MANAGEMENT UNIT MONITORING

1. The discharger shall inspect the SWMU containment structures weekly and report the results of the inspections monthly. The report shall contain the following information:
 - a. Detection of liquid and quantity thereof within the leak detection system, and disposition of any leachate recovered.
 - b. Any apparent seepage from the SWMU structure.
 - c. General condition of the berms.
 - d. Steps taken to correct any problems found during inspection, and when taken.
 - e. A map showing the location and depth of waste placed within the SWMU since the last report, at five (5) foot depth intervals.
 - f. 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 results of this testing in the annual report.

C. GROUND WATER MONITORING

1. Upon completion of each approved ground water monitoring well, the discharger shall obtain four (4) consecutive quarterly samples and analyze for the following constituents:

<u>Constituent</u>	<u>Units</u>
pH ¹	pH Units
Specific Conductance ¹	micromhos/cm
Total Dissolved Solids (TDS)	mg/l
Total Organic Carbon (TOC) ¹	mg/l
Chemical Oxygen Demand (COD)	mg/l
Total Organic Halogen ¹ (TOX)	mg/l
Magnesium (Mg)	mg/l
Total Alkalinity (as CaCO ₃)	mg/l
Calcium (Ca)	mg/l
Sodium (Na)	mg/l
Lithium (Li)	mg/l
Potassium (K)	mg/l
Chloride (Cl)	mg/l
Fluoride (F)	mg/l
Nitrate (NO ₃ as N)	mg/l
Nitrite (NO ₂ as N)	mg/l
Phosphate, Total (P)	mg/l

¹ Four replicate analyses to be performed on each sample.

<u>Constituent</u>	<u>Unit</u>
Sulfate (SO ₄)	mg/l
Sulfide (S)	mg/l
Oil and Grease	mg/l
Total Phenols	mg/l
Radium	pCi/l
Gross Alpha	pCi/l
Gross Beta	mrem/year
Coliform bacteria (Total)	MPN/100 ml
Arsenic (As)	mg/l
Barium (Ba)	mg/l
Cadmium (Cd)	mg/l
Chromium (Cr)	mg/l
Copper (Cu)	mg/l
Iron (Fe)	mg/l
Lead (Pb)	mg/l
Manganese (Mn)	mg/l
Mercury (Hg)	mg/l
Nickel (Ni)	mg/l
Selenium (Se)	mg/l
Silver (Ag)	mg/l
Zinc (Zn)	mg/l
Endrin	mg/l
Lindane	µg/l
Methoxychlor	µg/l
Toxaphene	µg/l
2,4-D	µg/l
2,4,5,-TP Silvex	µg/l

2. Upon completion of the sampling program described in Section C.1., representative samples of ground water shall be obtained from each ground water monitoring well and analyzed for the following constituents:

<u>Constituent</u>	<u>Unit</u>	<u>Frequency</u>
Total Dissolved Solids (TDS)	mg/l	Quarterly
Specific Conductance ²	micromhos/cm	Quarterly
pH ²	pH Units	Quarterly
Total Organic Carbon (TOC) ²	mg/l	Quarterly
Total Organic Halogen (TOX) ²	mg/l	Quarterly
Total Alkaninity as CaCO ₃	mg/l	Quarterly
Phosphate, Total (P)	mg/l	Quarterly
Calcium (Ca)	mg/l	Quarterly
Sodium (Na)	mg/l	Quarterly
Potassium (K)	mg/l	Quarterly
Magnesium (Mg)	mg/l	Quarterly
Manganese (Mn)	mg/l	Quarterly
Iron (Fe)	mg/l	Quarterly
Lithium (Li)	mg/l	Quarterly
Chloride (Cl)	mg/l	Quarterly
Fluoride (F)	mg/l	Quarterly
Sulfate (SO ₄)	mg/l	Quarterly

² Four replicate analyses to be performed on each sample.

<u>Constituent</u>	<u>Unit</u>	<u>Frequency</u>
Nitrate (NO ₃ as N)	mg/l	Quarterly
Nitrite (NO ₂ as N)	mg/l	Quarterly
Total Phenols	mg/l	Quarterly

3. The following additional information shall be reported for each sampling of the ground water monitoring wells:
 - a. Date of sampling.
 - b. Date well purged prior to sampling.
 - c. Estimate of volume of water purged from each well prior to sampling.
 - d. Static water level in well prior to pumping (MSL Elevation).
 - e. Date static water level measurement taken.
 - f. Temperature.
4. The velocity and direction of ground water in the uppermost aquifer shall be determined quarterly, and submitted as part of the quarterly ground water monitoring report outlined in Section C.2.

D. VADOSE ZONE MONITORING

1. Vadose zone monitoring shall be conducted quarterly using a neutron probe. Measurements shall be obtained from a minimum of two neutron probe access tube locations per unit (subject to approval by the Executive Officer). Quarterly vadose zone monitoring reports shall include the following information:
 - a. Moisture measurements from each access tube presented separately in graphic form for the current quarter.
 - b. A single graphic display for each access tube showing the three previous moisture measurements (if collected) and measurements from the current quarter.
 - c. Location map showing all access tube locations.

E. FLOOD PROTECTION FACILITIES

The discharger shall inspect the landfills and all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the diversion channels. The results of inspection shall be reported quarterly to the Regional Board. If significant damage to the flood protection facilities are found, the discharger shall report immediately to the Regional Board by telephone and transmit by letter the following information:

1. Location and extent of damage.
 2. Type and quantity of wastes threatened, if any.
 3. Interim measures to be taken to assure that no wastes are discharged from the SWMU.
 4. Time schedule for repairs.
- F. The discharge of any waste other than those allowed in the specifications, or any other noncompliance with the operations plan, shall be reported to the Regional Board immediately upon the discharger becoming aware that said violation(s) occurred, along with an explanation of how the correction of said violation(s) will be accomplished expeditiously.
- G. The discharger shall report to the Regional Board within 30 days of the occurrence of an earthquake of a Richter Scale Magnitude 5.0 or greater that occurs within 50 miles of the site. The report shall include a complete description of damages to any facilities covered by this Board Order and the steps taken to repair said damages.
- H. A report shall be submitted annually summarizing progress and compliance, and including any noncompliance, with the operations plan.

REPORTING

Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted to the Regional Board by January 15, April 15, July 15, and October 15 of each year. Annual monitoring reports shall be submitted to the Regional Board by January 15 of each year.

Submit monitoring reports to:

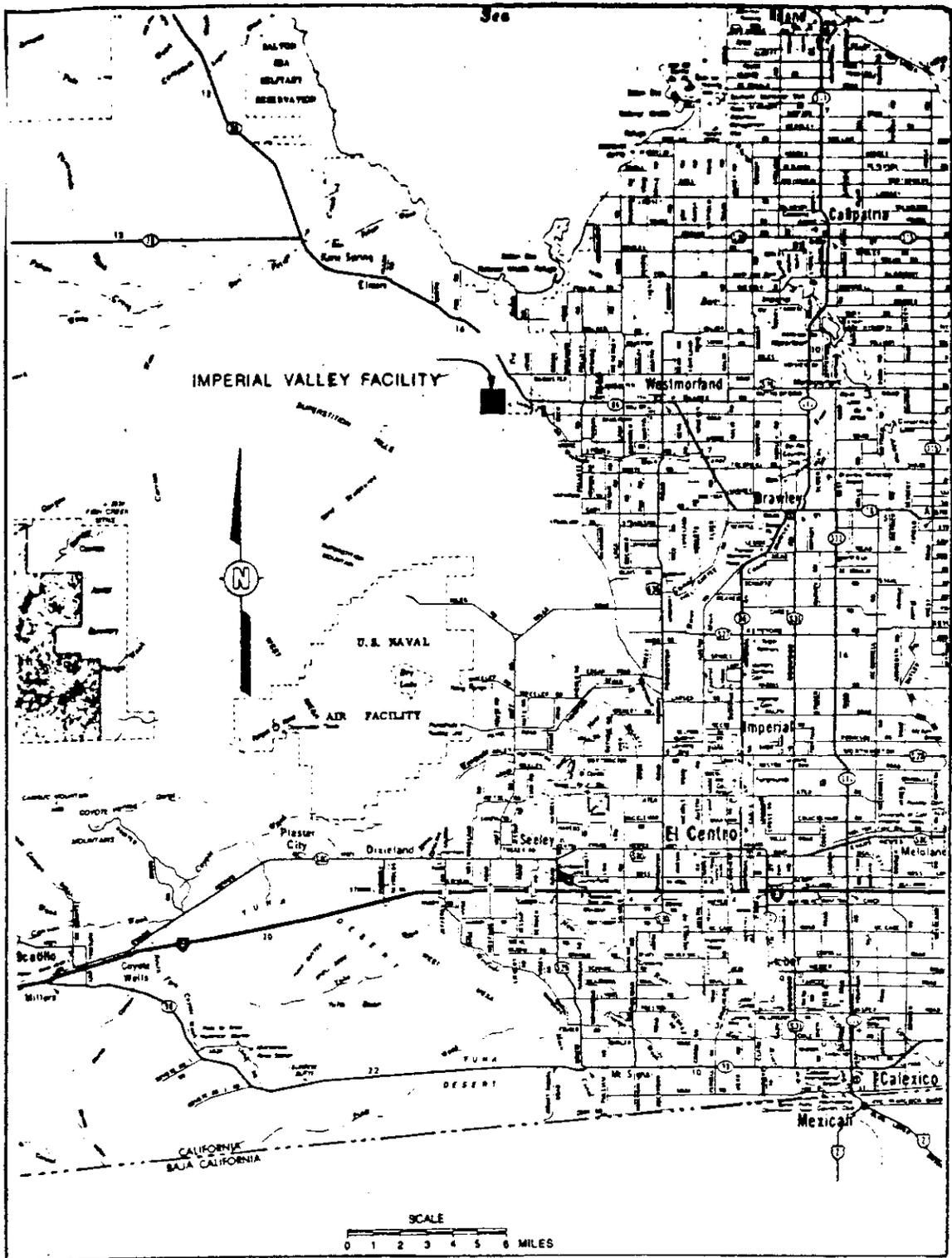
California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

ORDERED BY:

Philip A. Guevara
Executive Officer

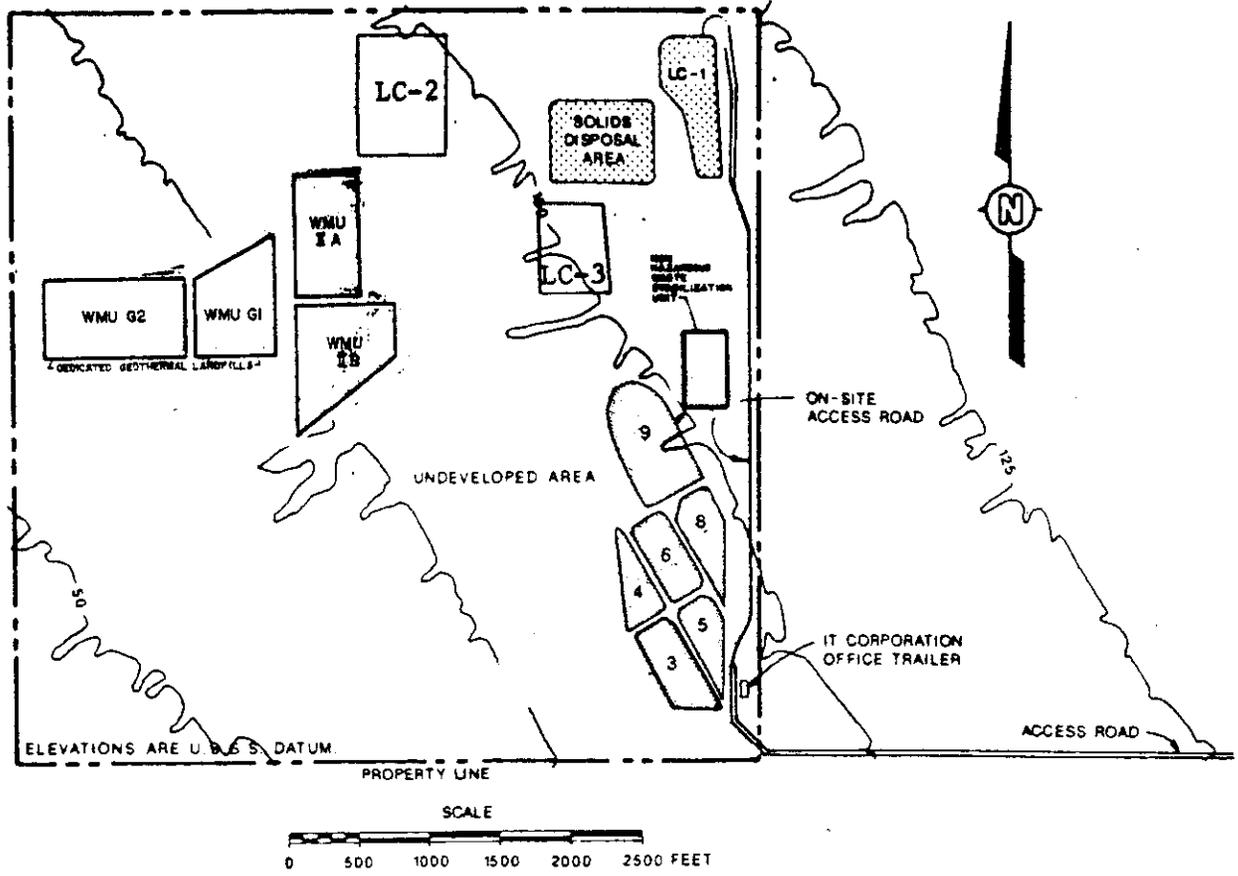
March 13, 1991

Date



SITE LOCATION MAP

LIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.
CLASS II LANDFILLS IIA, IIB, G1, G2
West of Westmorland - Imperial Valley
Section 16, T13S, R12E, SBB&M



ATTACHMENT A

LIDLAW ENVIRONMENTAL SERVICES (IMPERIAL VALLEY), INC.
CLASS II LANDFILLS IIA, IIB, G1, G2
West of Westmorland - Imperial Valley
Section 16, T13S, R12E, SBB&M

ATTACHMENT B

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.
- 1.2 The method is used to determine compliance with Prohibition B.3. of Order No. 88-45.

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 Materials

- 4.1 Conical paint filter - mesh number 60. Available at local paint stores such as Sherwin-Williams and Glidden for an approximate cost of \$0.07 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

- 6.1 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, analysts 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 Procedure

- 7.1 Assemble test apparatus.
- 7.2 Place sample in the filter. A funnel may be used to provide support for the paint filter.
- 7.3 Allow sample to drain for 5 minutes into the graduated cylinder.
- 7.4 If any portion of the test material collects in the graduated cylinder in the 5-minute period, then the material is deemed to contain free liquid for purposes of Prohibition B.3. of Order No. 88-45.

8.0 Quality Control

- 8.1 Duplicate samples should be analyzed on a routine basis.