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Secretary for
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California Regional Water Quality Control Board San Diego Region

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June 1, 2011

In Reply Refer to:
T0607303039:smcclain

Ms. Carol Baxter
La Mesa Lumber Company
P. O. Box 156
La Mesa, California 91944-0156

Dear Ms. Baxter:

**SUBJECT: CLEANUP AND ABATEMENT ORDER NO. R9-2011-0043
LA MESA LUMBER COMPANY, 4981 SPRING STREET, LA MESA, CA**

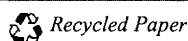
Enclosed is Cleanup and Abatement Order (CAO) No. R9-2011-0043, issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) pursuant to California Water Code sections 13267 and 13304. This Order directs you to cleanup and abate the affects of the unauthorized release of petroleum hydrocarbons from the former La Mesa Lumber Company facility, and to submit technical reports to the San Diego Water Board.

If you fail to comply with the Order fully, under the authority of Water Code section 13304, the San Diego Water Board may have the Attorney General petition the San Diego County Superior Court for the issuance of an injunction requiring La Mesa Lumber Company to comply with the Order. If you fail to furnish information required by the Order or falsify information submitted to the San Diego Water Board, pursuant to Water Code section 13304, you are guilty of a misdemeanor and may be subject to civil liability. Under Water Code section 13350 (e), a civil liability may be imposed administratively by the San Diego Water Board in an amount of up to \$5,000 per day of violation (i.e., for each day of delay in submitting all information requested, or for each day that false information remains uncorrected).

A request for an evidentiary hearing does not stay the effective date of the Order. Any person affected by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) as described in Notification L.4. of the Order. A request for an evidentiary hearing does not extend the 30-day period to file a petition with the State Water Board.

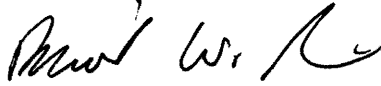
In the subject line of any response, please include the requested "in reply refer to" information located in the heading of this letter.

California Environmental Protection Agency



If you have any questions please contact Mr. Sean McClain of my staff at (858) 627-3988 or by email at smcclain@waterboards.ca.gov.

Respectfully,



DAVID W. GIBSON
Executive Officer

Enclosure: Cleanup and Abatement Order No. R9-2011-0043

DG:CLC:sm

cc: Mr. Veryl Wittig, GeoSyntec Consultants, vwittig@geosyntec.com (sent via e-mail)

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

CLEANUP AND ABATEMENT ORDER NO. R9-2011-0043

**AN ORDER DIRECTING LA MESA LUMBER COMPANY TO CLEANUP AND
ABATE THE EFFECTS OF WASTE AND SUBMIT TECHNICAL AND
MONITORING REPORTS PERTAINING TO CORRECTIVE
ACTIONS AT THE SITE OF THE:**

**LA MESA LUMBER COMPANY,
4981 SPRING STREET,
LA MESA, CALIFORNIA**

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) finds that:

1. **Legal and Regulatory Authority:** This Order conforms to and implements policies and requirements of the Porter-Cologne Water Quality Control Act (Division 7, commencing with Water Code section 13000) including (1) sections 13267 and 13304; (2) applicable State and federal regulations; (3) all applicable provisions of Statewide Water Quality Control Plans adopted by the State Water Resources Control Board (State Water Board) and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the San Diego Water Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies and regulations, including State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, Resolution No. 88-63, *Sources of Drinking Water*, and Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under California Water Code Section 13304*; California Code of Regulations (CCR) Title 23, Chapter 16, Article 11; CCR Title 23, section 3890 et. seq., and (5) relevant standards, criteria, and advisories adopted by other State and federal agencies.
2. **Unauthorized Discharge of Petroleum Hydrocarbon Waste:** Based on soil sampling conducted during removal of the underground storage tank (UST), an unauthorized release of petroleum Hydrocarbons was documented by the County of San Diego Department of Environmental Health (DEH).¹ The 1,000 gallon UST was installed at the former La Mesa

¹ County of San Diego, Department of Environmental Health, Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report, May 8, 1987.

Lumber facility in 1966, taken out of service in October 1986, and removed in May 1987.²

Continued discharges of wastes from soil to groundwater, and continued migration of wastes in the groundwater have created a plume of light non aqueous phase liquid (LNAPL, or free product) extending northwest of the general vicinity of the former UST location approximately 640 feet long by 450 feet wide.³ These petroleum hydrocarbons are not naturally occurring and are wastes, as defined in California Water Code section 13050, subdivision (d).⁴

Interim remedial actions were implemented in 1996 and included the installation of an off-property LNAPL recovery system and on-property soil vapor extraction system. In 2000 the La Mesa Lumber property was redeveloped into its current configuration as A-1 Self Storage, at which time a number of groundwater monitoring wells on the property were destroyed and the soil vapor extraction system was removed from the Site.⁵ LNAPL recovery is currently performed by using skimmers in monitoring wells that contain measurable LNAPL.

As reported in the *Third Quarter 2010 Groundwater Monitoring Report*, LNAPL is present in groundwater monitoring wells at thicknesses ranging from approximately 0.02 to 2.69 feet. Dissolved phase concentrations of petroleum hydrocarbon wastes were detected in groundwater greater than applicable water quality objectives as shown below:

² GeoSyntec Consultants, Updated Site Conceptual Model and 2009 Annual Groundwater Monitoring Report, January 2010.

³ KAHL Environmental Services, Third Quarter Monitoring Report, October 20, 1999.

⁴ "Waste" is very broadly defined in Water Code section 13050(d) and includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

⁵ The Site is defined as all areas affected by the discharge of petroleum hydrocarbon wastes.

Constituent	Maximum Contaminant Levels⁶ (micrograms per liter or µg/L)	Maximum Measured Groundwater Concentration (µg/L)
Benzene	1	33,000
Toluene	150	16,000
Ethylbenzene	300	1,900
Xylenes	1,750	14,300
MTBE ^a	13	500
TBA ^b	12 ⁷	3,200

a = Methyl tertiary-butyl ether

b = Tertiary Butyl Alcohol

The types and levels of waste constituents found in the soil and groundwater are associated with the waste discharges from the UST which occurred prior to 1987. The discharge of waste from the UST has caused the concentrations of waste constituents in the groundwater to exceed applicable water quality objectives and has therefore created a condition of pollution in waters of the State as defined in Water Code section 13050(l). The adverse changes in groundwater quality caused by the waste discharges are a contributing cause of interference with the potential Municipal and Domestic Supply (MUN)⁸ designated beneficial use and are potentially injurious to the public health. This water quality condition caused by the discharge constitutes a nuisance condition because it potentially interferes with and complicates the use of groundwater for drinking water purposes and can be considered an obstruction to the free use of property as provided in Water Code section 13050(m).

- Persons Responsible for the Discharge of Waste:** La Mesa Lumber Company developed the property with a steel warehouse building in 1956 and reportedly used as materials storage and a staging yard until 1995 or 1996 when the building was demolished in preparation for redevelopment.

⁶ Maximum contaminant levels from California Department of Public Health, <http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chemicalcontaminants.aspx>

⁷ California Notification Level -- Notification levels are published by the California Department of Health Services (DHS) for chemicals for which there is no drinking water MCL. Notification levels are based mainly on health effects - an incremental cancer risk estimate of 10⁻⁶ for carcinogens and a threshold toxicity limit for other constituents. When they are purely health-based, notification levels may also be used to interpret narrative water quality objectives that prohibit toxicity to humans that beneficially use the water resource. California Department of Health Services, Division of Drinking Water and Environmental Management, *Drinking Water Notification Levels*, <http://www.dhs.ca.gov/ps/ddwem/chemicals/AL/notificationlevels.htm>.

⁸ See Basin Plan, page 2-3. The Basin Plan defines MUN as "uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply."

La Mesa Lumber Company was the UST owner/operator and owned the property located at 4981 Spring Street, La Mesa. La Mesa Lumber Company, hereinafter the Discharger, is subject to this Order because they either own the property and permitted activities to occur that caused waste to be discharged or deposited where it discharged into waters of the State and created and threatens to create a condition of pollution or nuisance, or they operated the facility and discharged or deposited waste where it discharged into waters of the State and created and threatens to create a condition of pollution or nuisance. The Discharger, by failing to control the discharge, has caused or permitted waste to be discharged in such a manner that it has created a condition of pollution or nuisance. The term "discharge" includes active, initial release and passive migration of waste.

4. **Water Quality Standards:** The Site is located within the Mission San Diego Hydrologic Sub Area (907.11) of the Lower San Diego Hydrologic Area or the San Diego Hydrologic Unit (907.00).⁹ The Basin Plan designates the following beneficial uses of groundwater in the Mission San Diego Hydrologic Sub Area:
- a. Potential municipal and domestic supply;
 - b. Agricultural supply; and
 - c. Industrial supply.

The Basin Plan contains numeric water quality objectives¹⁰ for chemical constituents to protect groundwater designated for MUN. The numeric objectives are derived from primary maximum contaminant levels (MCLs)¹¹ established by the California Department of Public Health in Title 22 of the CCR.¹² Groundwater concentrations of petroleum hydrocarbons

⁹ Basin Plan, footnote 2, supra. Table 2-5 at page 2-64.

¹⁰ "Water quality objectives" are defined in Water Code section 13050(h) as "the limits or levels water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."

¹¹ MCLs, maximum contaminant levels, are public health-protective drinking water standards to be met by public water systems. MCLs take into account not only chemicals' health risks but also factors such as their detectability and treatability, as well as the costs of treatment. Primary MCLs can be found in Title 22 California Code of Regulations (CCR) sections 64431 - 64444. Secondary MCLs address the taste, odor, or appearance of drinking water, and are found in 22 CCR section 64449.

¹² Basin Plan, footnote 2, supra. Page 3-24 and Table 3-5 at page 3-25. The Basin Plan provides that "Water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels specified in California Code of Regulations, Title 22, Table 64444-A of section 64444 (Organic Chemicals) which is incorporated by reference into this plan. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. (See Table 3-5.)"

are not in conformance with the water quality objectives needed to support potential Municipal and Domestic uses of the groundwater, creating a condition of pollution and nuisance in water of the State.

5. **Surface Water:** The Site is located within the Alvarado Canyon Hydrologic Subarea (907.11). The Alvarado Canyon Hydrologic Subarea is exempted from municipal use. City of La Mesa storm drains near the former La Mesa Lumber facility discharge surface water runoff into Alvarado Creek. KAHL Environmental Services reported that LNAPL and dissolved petroleum hydrocarbons have entered the storm drain.¹³ The outfall storm drain sample collected in December 2010 contained 1.3 µg/L benzene, 1.6 µg/L toluene, and 1.2 µg/L total xylenes.¹⁴ Discharges of waste to waters of the State in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in Water Code section 13050), are prohibited.
6. **Basis for Cleanup and Abatement Order:** Water Code section 13304 contains the authority for the San Diego Water Board to require cleanup and abatement of pollution caused by discharges of waste. Water Code section 13304 requires a person to clean up waste or abate the effects of the waste discharge if so ordered by a regional water board in the event there has been a discharge in violation of waste discharge requirements, or if a person has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State and creates or threatens to create a condition of pollution or nuisance. Therefore, based on the previous findings the San Diego Water Board is authorized to order the Discharger to cleanup and abate the effects of the waste discharge.
7. **Basis for Requiring Technical and Monitoring Reports:** Water Code section 13267 provides that the San Diego Water Board may require the discharger, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the San Diego Water Board may specify, provided that the burden, including costs, of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring the reports, the San Diego Water Board must provide the person with a written explanation with regard to the need for the reports, and identify the evidence that supports requiring that person to provide the reports.

¹³ KAHL Environmental Services, Quarterly Monitoring Report, Third Quarter 2001, October 29, 2001.

¹⁴ GeoSyntec Consultants, 2010 Annual Groundwater Monitoring Report, January 28, 2011.

8. **Need for and Benefit of Technical and Monitoring Reports:** Technical reports and Monitoring reports are needed to provide information to the San Diego Water Board regarding (a) the nature and extent of the discharge, (b) the nature and extent of pollution conditions in State waters created by the discharge, (c) the threat to public health posed by the discharge, and (d) appropriate cleanup and abatement measures. The reports will enable the San Diego Water Board to determine the vertical and lateral extent of the discharge, ascertain if the condition of pollution poses a threat to human health in the vicinity of the Site, and provide technical information to determine what cleanup and abatement measures are necessary to bring the Site into compliance with applicable water quality standards. Based on the nature and possible consequences of the discharges (as described in Findings No. 2 through 5, above) the burden of providing the required reports, including the costs, bears a reasonable relationship to the need for the reports, and the benefits to be obtained from the reports.

9. **Cleanup Levels:** State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under California Water Code Section 13304*. This Resolution sets forth the policies and procedures to be used during an investigation or cleanup of a discharge of waste and requires that cleanup levels be consistent with State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution No. 92-49 applies to the cleanup and abatement of the effects of waste discharges at the site.

Resolution No. 92-49 requires the waste to be cleaned up to background levels, or if that is not reasonable, to alternative levels that are the most stringent levels that are economically and technologically feasible in accordance with Title 23, CCR section 2550.4. Any alternative cleanup level greater than background must (1) be consistent with the maximum benefit to the people of the State; (2) not unreasonably affect present and anticipated beneficial use of waters of the State; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.

10. **California Environmental Quality Act Compliance:** The issuance of this Order is an enforcement action taken by a regulatory agency and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321(a) (2), Chapter 3, Title 14 of the California Code of Regulations. This Order requires submittal of detailed work plans that address cleanup activities. The proposed activities under the work plans are not yet known, but implementation of the work plans may result in significant physical impacts to the

environment that must be evaluated under CEQA. The appropriate lead agency will address the CEQA requirements prior to implementing any work plan that may have a significant impact on the environment.

11. **Cost Recovery:** Pursuant to California Water Code section 13304, and consistent with other statutory and regulatory requirements, including not but limited to Water Code section 13365, the San Diego Water Board is entitled to, and will seek reimbursement for, all reasonable costs actually incurred by the San Diego Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
12. **Qualified Professionals:** The Discharger's reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of licensed professionals.

IT IS HEREBY ORDERED that, pursuant to sections 13267 and 13304 of the Water Code, the Discharger must comply with the following Directives:

- A. **CLEANUP AND ABATE DISCHARGES:** As soon as possible, and **no later than June 27, 2016**, remove all LNAPL from groundwater, both on the property and beyond the property limits, to the extent technically practicable.
- B. **INTERIM REMEDIAL ACTION:** The Discharger may continue to implement interim remedial actions to abate or correct the actual or potential effects of the unauthorized release.¹⁵ Interim remedial actions can occur concurrently with any phase of the Site investigation or remedial action. Before taking interim remedial action, the Discharger shall notify the San Diego Water Board 30 days in advance of the proposed action.
- C. **HUMAN HEALTH RISK ASSESSMENT:** The Discharger must prepare a human health risk assessment (HHRA) that evaluates the risks to human health from LNAPL migration into utilities and surface water. The risks from each chemical and from all applicable exposure pathways should be summed

¹⁵ The Discharger has installed skimmers to remove free product detected in monitoring wells during quarterly groundwater monitoring events. However, the Product Removal Feasibility Study concluded, that using a product skimming pump, it will take between 50 to over 2,000 years to reduce product thicknesses to less than 0.5 feet.

to obtain the overall screening level risk posed by chemicals detected from the Site. The HHRA may be included as an appendix in the semi-annual monitoring report (see Directive E Monitoring Program below).

D. CORRECTIVE ACTION PLAN

1. **Corrective Action Plan:** The Discharger must prepare a Corrective Action Plan (CAP) that contains the information listed below. The CAP must be received by the San Diego Water Board by **5:00 p.m. on August 26, 2011**. At a minimum, the CAP must contain the following information.
 - a. Feasibility Study: The Feasibility Study (FS) shall evaluate at least two cleanup and abatement alternatives that:
 - i. Result in effective removal of LNAPL, groundwater pollutants, and control of conditions that contribute to the migration of pollutants.
 - ii. Considers the following cleanup and abatement methods or combinations thereof in the development of Site remediation alternatives including, but not limited to, the following:
 1. Active LNAPL removal;
 2. In-place treatment of soil or water; and
 3. Extraction of soil, water, or soil vapor for appropriate recycling, reuse, or disposal.
 - iii. Evaluate remedial alternatives, including the cost and effectiveness of each alternative, for the remediation of the waste constituents to attain either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, alternative cleanup levels shall be the lowest levels that are economically and technologically feasible. Alternative cleanup levels greater than background also must (1) be consistent with the maximum benefit to the people of the State; (2) not unreasonably affect present and anticipated beneficial use of waters of the State; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board.

The FS must present a recommended alternative for the cleanup or remediation of the waste constituents.

- b. Implementation Activities Schedule: A detailed description of all activities planned to implement the recommended alternative for remediation of the waste constituents described in the FS and a schedule for their completion.
 - c. Monitoring Plan: A monitoring plan capable of meeting the requirements in Directive E-Groundwater Monitoring Program.
 - d. Verification Monitoring: Within 60 days of completion of an adequate CAP, the Discharger shall submit a work plan to implement a verification monitoring program that includes a schedule for submitting monitoring reports. The Discharger shall conduct verification monitoring in conformance with the provisions of section 2727 of CCR Title 23, Chapter 16. The Discharger shall implement the verification monitoring program within 30 days of submitting the work plan to the San Diego Water Board.
 - e. Updated Site Conceptual Model: The Discharger shall update the Site Conceptual Model (SCM), as needed. Updates to the SCM may be included as an appendix to the Monitoring Program (see Directive E Monitoring Program below).
 2. **Corrective Action Plan Implementation**: The Discharger must implement the CAP in accordance with the activities schedule in the CAP, unless otherwise directed in writing by the San Diego Water Board. Before beginning CAP implementation activities, the Discharger shall:
 - a. Notify the San Diego Water Board of its intention to begin cleanup; and
 - b. Comply with any conditions set by the San Diego Water Board, including mitigation of adverse consequences from cleanup activities.
 3. **Monitoring and Evaluation**: The Discharger shall monitor, evaluate, and report the results of the CAP implementation on a semi-annual schedule. Results from monitoring and evaluation of CAP implementation may be included as an appendix to regular monitoring reports (see Directive E Monitoring Program below).
 4. **Modify or Suspend Cleanup Activities**: The Discharger must modify or suspend cleanup activities when directed to do so by the San Diego Water Board.

E. MONITORING PROGRAM

The Discharger must submit the technical reports required in this Monitoring Program (MP). The purpose of the MP is to regularly assess progress toward and document achievement of cleanup levels, and to provide data to answer the following questions.

- a. Are interim remedial actions effective?
 - b. Has the lateral and vertical extent of each waste constituent in soil, groundwater, and soil vapor been delineated?
 - c. Is the plume of each waste constituent decreasing in size and/or mass?
 - d. Has the source of each waste constituent been effectively cleaned up?
 - e. Is the selected remedial action alternative effectively removing waste constituents from the soil, groundwater, and soil vapor, and is the alternative capable of achieving the cleanup levels in the CAP?
 - f. Have the beneficial uses of the groundwater been restored, and are human health and the environment protected?
1. **Storm Drain(s) Evaluation and Monitoring:** The Discharger must sample water from the storm drain inlets (SD1, SD2, SD3, and SD4)¹⁶ near the Site on a quarterly schedule. The Discharger shall notify the City of La Mesa Storm Water Program and Caltrans Storm Water Department (the MS4 owners) of the monitoring and any future results. The Discharger shall determine if the storm drain has caused a potential pathway for migration of hydrocarbons to surface water and if the hydrocarbons cause or threaten to cause a condition of pollution in surface waters.
 2. **Monitoring:** The Discharger must submit monitoring reports on a semi-annual basis. At a minimum, monitoring reports shall include data collected from the following groundwater monitoring wells:

Sampling Frequency	Monitoring Wells
Annual Monitoring	MW-11 and MW-35
Semi-Annual Monitoring	MW-4A, -9A, -10, -18, -19, -24, -25, -26, -27, -41, and -42

¹⁶ KAHL Environmental Services, Quarterly Monitoring Report, Third Quarter 2001, Figure 1 Site Plan, October 29, 2001.

Samples shall be analyzed using U.S. Environmental Protection Agency (USEPA) method 8260b for benzene, toluene, ethylbenzene, xylenes (BTEX), and oxygenates. Monitoring wells with free product must be gauged for depth to water/product on a quarterly basis.

The Discharger may provide a written proposal to change the sampling requirements in this Order. The Discharger shall not implement proposed changes to groundwater monitoring requirements without prior San Diego Water Board approval.

3. **Monitoring Reports:** The Discharger must submit monitoring reports on a semi-annual basis. The first semi-annual monitoring report must be received by the San Diego Water Board **no later than 5:00 PM on July 30, 2011**. Subsequent reports must be received by the San Diego Water Board no later than 30 days following the end of the monitoring period according to the following schedule:

Monitoring Period	Report Due Date
Semi Annual (Jan-Jun)	July 30
Semi Annual (Jul-Dec)	January 30

The San Diego Water Board may consider changing the monitoring requirements based on data submitted, delineation of the groundwater plume, remediation methods, rebound effect, and numerous other conditions that can arise during mitigation and remediation of the groundwater pollution. The Discharger shall not implement proposed changes to the monitoring frequency without San Diego Water Board approval.

The monitoring reports must include the following minimum information:

- a. Transmittal Letter with Penalty of Perjury Statement. The transmittal letter must discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter must be signed by the Discharger's principal executive officer or their duly authorized representative, and must include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
- b. Groundwater Elevations. Groundwater elevation data must be presented in tabular format with: depth to groundwater (in feet below ground surface), top of casing elevations, depths to the top of well screens, length of well screens and total depth for each well included in the monitoring program. A groundwater elevation map must be

prepared for each monitored water-bearing zone with the groundwater flow direction and calculated hydrologic gradients(s) clearly indicated in the figures(s). A complete tabulation of historical groundwater elevations must be included in the annual report each year.

- c. Reporting Groundwater Results. All groundwater monitoring reports must:
- i. Present all groundwater sampling data in tabular format. Isoconcentration map(s) must be prepared for constituents of concern (COCs) for each monitored water-bearing zone, as appropriate. Time versus concentration plots and distance versus concentration plots that also show groundwater elevations must be prepared for all constituents of concern at appropriate wells.
 - ii. Provide a Site plot plan which clearly illustrates the location of storm drains near the Site and storm drain sampling locations.
 - iii. Provide a text discussion and technical interpretations of the storm water data, groundwater elevation data relevant to the depth of the storm drain, describe any significant increases in pollutant concentrations since the last report, any measures proposed to address the increases, and documentation that the MS4 owner was informed of the discharge of hydrocarbons to the storm drain.
 - iv. Provide a Site plot plan which clearly illustrates the locations of monitoring wells, the former location(s) of industrial processes and equipment, and buildings located on the property and immediately adjacent to the property lines of the facility.
 - v. Provide a Site plot plan with the most recent concentrations of chemicals of concern.
 - vi. Provide a text discussion and technical interpretations of the groundwater data, and describe any significant increases in pollutant concentrations since the last report, any measures proposed to address the increases, any changes to the Site conceptual model, and any conclusions and recommendations for future action with each report.

- vii. Describe analytical methods used, detection limits obtained for each reported constituent, and a summary of Quality Assurance/Quality Control (QA/QC) data.
 - viii. Describe sample collection protocol(s), how investigation derived wastes are managed at the facility, and include documentation of proper disposal of contaminated well purge water and/or soil cuttings removed from the facility.
 - ix. List historical groundwater sampling results in tabular form and include them in the annual report each year.
 - d. Remediation. If applicable, the report must include an estimate of the mass of contaminant(s) removed reported in a tabular format, for each extraction well and for the Site as a whole, expressed in units of chemical mass per day and total mass removed during the reporting period. A tabulation of historical annual contaminant mass removal results must be included in the second semiannual report each year.
 - e. Status Report. Each semi annual report must describe relevant work completed during the reporting period (e.g. Site investigation, interim remedial measures) and a description of work planned for the following monitoring period.
4. **Record Keeping:** The Discharger or their agent must retain data generated for the above reports, including laboratory results and QA/QC data, for a minimum of six years after origination and must make them available to the San Diego Water Board upon request.
5. **Monitoring Program Revisions:** The Discharger may request revisions to the MP, however, the revisions may not be implemented until approved by the San Diego Water Board. Prior to making GMP revisions, the San Diego Water Board will consider the burden, including costs, of the groundwater monitoring reports relative to the benefits to be obtained from these reports.
- F. **PENALTY OF PERJURY STATEMENT:** All reports must be signed by the Discharger's responsible corporate officer or its duly authorized representative, and must include the following statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and

evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- G. DOCUMENT SUBMITTALS:** The Discharger shall submit both one paper and one electronic, searchable PDF copy of all documents required under this Order to:

Executive Officer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4353
Attn: Supervisor Central Cleanup Unit

All correspondence and documents submitted to the San Diego Water Board shall include the following Geotracker Site ID in the header or subject line:

T0607303039

- H. ELECTRONIC DATA SUBMITTALS:** The Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 and Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site after July 1, 2005. All information submitted to the San Diego Water Board in compliance with this Order is required to be submitted electronically via the Internet into the Geotracker database <http://geotracker.waterboards.ca.gov/> (Geotracker Site ID. **T0607303039**). The electronic data shall be uploaded on or prior to the regulatory due dates set forth in the Order or addenda thereto. To comply with these requirements, the Discharger shall upload to the Geotracker database the following minimum information.

1. **Laboratory Analytical Data:** Analytical data (including geochemical data) for all soil, vapor, and water samples in Electronic Data File (EDF) format. Water, soil, and vapor data include analytical results of samples collected from: monitoring wells, boreholes, gas and vapor wells or other collection devices, surface water, groundwater, piezometers, stockpiles, and drinking water wells.
2. **Locational Data:** The latitude and longitude of any permanent monitoring well or soil vapor probe for which data is reported in EDF format, accurate to within 1 meter and referenced to a minimum of two

reference points from the California Spatial Reference System (CSRS-H), if available.

3. **Monitoring Well Elevation Data:** The surveyed elevation relative to a geodetic datum of any permanent monitoring well. Elevation measurements to the top of groundwater well casings for all groundwater monitoring wells.
 4. **Depth-to-Water Data:** Monitoring wells need to have the depth-to-water information reported whenever water data is collected, even if water samples are not actually collected during the sampling event.
 5. **Monitoring Well Screen Intervals:** The depth to the top of the screened interval and the length of screened interval for any permanent monitoring well.
 6. **Site Map:** Site map or maps which display discharge locations,¹⁷ streets bordering the facility, and sampling locations for all soil, water, and vapor samples. The Site map is a stand-alone document that may be submitted in various electronic formats.¹⁸ A site map must also be uploaded to show the maximum extent of any groundwater pollution. An update to the site map may be uploaded at any time.
 7. **Boring logs:** Boring logs (in searchable PDF format) prepared by an appropriately licensed professional.
 8. **Electronic Report:** A complete copy (in searchable PDF format) of all workplans, assessment, cleanup, and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.
- I. **VIOLATION REPORTS:** If the Discharger violates any requirement of this Order, then the Discharger must notify the San Diego Water Board office by telephone and fax (FAX 858-571-6972) as soon as practicable once the Discharger have knowledge of the violation. The San Diego Water Board may, depending on violation severity, require the Discharger to submit a separate technical report on the violation within five working days of telephone notification.

¹⁷ Areas related to discharge from former location(s) of: industrial processes and equipment, liquid storage and conveyance systems, and buildings located on the property and immediately adjacent to the property lines of the facility..

¹⁸ Formats include .gif, .jpeg, .jpg, tiff, .tif, .pdf

J. **OTHER REPORTS:** The Discharger must notify the San Diego Water Board in writing prior to implementing any Site activities that have the potential to cause further migration of contaminants or that would provide new opportunities for Site investigation.

K. **PROVISIONS**


1. **No Pollution, Contamination or Nuisance:** The storage, handling, treatment, or disposal of soil containing waste or polluted groundwater must not create conditions of nuisance, as defined in Water Code section 13050(m). The Discharger must properly manage, treat and dispose of wastes and polluted groundwater in accordance with applicable federal, State and local regulations.
2. **Good Operation and Maintenance:** The Discharger must maintain in good working order and operate as efficiently as possible any monitoring system, Site or control system installed to achieve compliance with the requirements of this Order.
3. **Contractor/Consultant Qualifications:** All reports, plans and documents required under this Order shall be prepared under the direction of appropriately qualified professionals. A statement of qualifications and license numbers, if applicable, of the responsible lead professional and all professionals making significant and/or substantive contributions shall be included in the report submitted by the Discharger. The lead professional performing engineering and geologic evaluations and judgments shall sign and affix their professional geologist or civil engineering registration stamp to all technical reports, plans or documents submitted the San Diego Water Board.
4. **Laboratory Qualifications:** All samples must be analyzed by California State-certified laboratories using methods approved by the USEPA for the type of analysis to be performed. All laboratories must maintain QA/QC records for San Diego Water Board review.
5. **Laboratory Analytical Reports:** Any report presenting new analytical data is required to include the complete Laboratory Analytical Report(s). The Laboratory Analytical Report(s) must be signed by the laboratory director and contain:
 - a. a complete sample analytical report,
 - b. a complete laboratory QA/QC report,

- c. a discussion of the sample and QA/QC data, and
 - d. a transmittal letter indicating whether or not all the analytical work was supervised by the director of the laboratory, and contain the following statement, "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services in accordance with current USEPA procedures."
6. **Reporting of Changed Owner or Operator:** The Discharger must provide written notification to the San Diego Water Board **within 30 days** of any changes in property occupancy or ownership associated with the property described in this Order.
 7. **Regulations:** All corrective actions must be in accordance with the provisions of CCR Title 23, Chapter 15, and the Cleanup and Abatement Policy in the Water Quality Control Plan for the San Diego Basin (9).

L. NOTIFICATIONS

1. **Cost Recovery:** Upon receipt of invoices, and in accordance with instructions therein, the Discharger must reimburse the San Diego Water Board for all reasonable costs incurred by the San Diego Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
2. **All Applicable Permits:** This Order does not relieve the Discharger of the responsibility of obtaining permits or other entitlements to perform necessary corrective action. This includes, but is not limited to, actions that are subject to local, state, and/or federal discretionary review and permitting.
3. **Enforcement Notification:** Failure to comply with requirements of this Order may subject the Discharger to enforcement action, including but not limited to administrative enforcement orders requiring you to cease and desist from violations, imposition of administrative civil liability, pursuant to Water Code sections 13268 and 13350, in an amount not to exceed \$5,000 for each day in which the violation occurs referral to the State Attorney General for injunctive relief and referral to the District Attorney for criminal prosecution.
4. **Requesting Administrative Review by the State Water Board:** Any person affected by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with

section 13320 of the Water Code and CCR Title 23 section 2050. The petition must be received by the State Water Board (Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812) within **30 calendar days** of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.



DAVID W. GIBSON
Executive Officer

6-1-2011
June 1, 2011