



California Regional Water Quality Control Board
San Diego Region



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Environmental Protection

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December 6, 2011

Ms. Natasha Molla
Chevron Environmental Management Company
145 S. State College Boulevard
P.O. Box 2292
Brea, California 92822

In reply refer to:
T0605902379:smcclain

Dear Ms. Molla,

**SUBJECT: ADDENDUM NO. 2 TO REVISED CLEANUP AND ABATEMENT
ORDER NO. R9-2009-0124
CHEVRON SERVICE STATION No. 9-3417
32009 CAMINO CAPISTRANO
SAN JUAN CAPISTRANO, CALIFORNIA**

Enclosed is Addendum No. 2 to Revised Cleanup and Abatement Order No. R9-2009-0124 (Addendum). The Addendum modifies the groundwater monitoring program to reduce the frequency and analyses.

In the subject line of any response, please include the requested "in reply refer to" information located in the heading of this letter. If you have any questions, please contact Mr. Sean McClain at (858) 627-3988 or smcclain@waterboards.ca.gov.

Sincerely,

CRAIG L. CARLISLE
Senior Engineering Geologist
Central Cleanup Unit

CLC;jac:sm

Enclosure: Addendum No. 2 to Revised Cleanup and Abatement Order
No. R9-2009-0124

California Environmental Protection Agency



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

**ADDENDUM NO. 2 TO
REVISED CLEANUP AND ABATEMENT ORDER NO. R9-2009-0124**

AN ORDER DIRECTING CHEVRON USA, INC. TO CLEANUP AND ABATE
THE EFFECTS OF POLLUTION AND NUISANCE AND
SUBMIT TECHNICAL REPORTS PERTAINING TO
SITE ASSESSMENT AND CORRECTIVE ACTION

AT

**CHEVRON SERVICE STATION NO. 9-3417
32009 CAMINO CAPISTRANO
SAN JUAN CAPISTRANO, CALIFORNIA**

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

1. Except as contradicted or superseded by the Findings set forth in this Addendum, all of the previous findings in Revised Cleanup and Abatement Order No. R9-2009-0124 (CAO) are incorporated into this Addendum.
2. Chevron USA Inc. (Chevron) submitted recommendations for modifications to the Monitoring and Reporting Program to focus on the current state of remedial progress and account for additional site characterization completed since the issuance of Addendum No. 1 to the CAO.¹
3. Chevron's recommendations to modify the Groundwater Monitoring Program are appropriate to evaluate remedial performance objectives, natural attenuation, and to assess plume delineation.

IT IS HEREBY ORDERED that Addendum No. 1 is replaced by this Addendum and Revised CAO No. R9-2009-0124 is amended as follows.

DIRECTIVE D.2 IS REPLACED WITH THE FOLLOWING:

- A. Chevron shall monitor and sample groundwater monitoring wells per the following schedule:

WELL ID	MONITORING FREQUENCY*	MONITORING QUARTER(S)	MONITORING EXPLANATION
AMW-01	S	1Q,3Q	Semi-annual monitoring
CMW-09	S	1Q,3Q	Semi-annual monitoring
MW-02	A	3Q	Annual for delineation monitoring

¹ HFA, Site Assessment and Groundwater Monitoring Program Evaluation for Chevron Service Station #9-3417, 32001 Camino Capistrano, and Chevron Service Station #9-8719, 26988 Ortega Highway San Juan Capistrano, California, August 24, 2011.

WELL ID	MONITORING FREQUENCY*	MONITORING QUARTER(S)	MONITORING EXPLANATION
CMW-11	Q,S	1Q,3Q	Quarterly during offsite AS/SVE operation, semi-annual thereafter
MW-03	A	3Q	Annual for delineation monitoring
MW-04	A	3Q	Annual for delineation monitoring
MW-05	A	3Q	Annual for delineation monitoring
MW-07A	Q,S	1Q,3Q	Quarterly during onsite AS/SVE operation, S for MNA
MW-07B	A	3Q	Annual for delineation monitoring
MW-07C	A	3Q	Annual for delineation monitoring
MW-08	Q,S	1Q,3Q	Quarterly during onsite AS/SVE operation, semi-annual thereafter
MW-12A	A	3Q	Annual for delineation monitoring
MW-12B	A	3Q	Annual for delineation monitoring
MW-12C	A	3Q	Annual for delineation monitoring
MW-12D	A	3Q	Annual for delineation monitoring
MW-13A	A	3Q	Annual for delineation monitoring
MW-13B	A	3Q	Annual for delineation monitoring
MW-13C	A	3Q	Annual for delineation monitoring
MW-14A	A	3Q	Annual for delineation monitoring
MW-14B	S	1Q,3Q	Semi-annual monitoring
MW-14C	A	3Q	Annual for delineation monitoring
MW-14D	A	3Q	Annual for delineation monitoring
MW-15A	A	3Q	Annual for delineation monitoring
MW-15B	A	3Q	Annual for delineation monitoring
MW-15C	Q,S	1Q,3Q	Quarterly for 1 year following GWRP-GAC startup, semi-annual for delineation monitoring
MW-15D	Q,S	1Q,3Q	Quarterly for 1 year following GWRP-GAC startup, semi-annual for delineation monitoring
MW-16A	A	3Q	Annual for delineation monitoring
MW-16B	A	3Q	Annual for delineation monitoring
MW-16C	Q,S	1Q,3Q	Quarterly for 1 year following GWRP-GAC startup, semi-annual for delineation monitoring
MW-16D	Q,S	1Q,3Q	Quarterly for 1 year following GWRP-GAC startup, semi-annual for delineation monitoring
MW-17C	Q,A	3Q	Quarterly for 1 year following GWRP-GAC startup, annual for delineation monitoring
MW-17D	Q,A	3Q	Quarterly for 1 year following GWRP-GAC startup, annual for delineation monitoring
MW-18C	Q,A	3Q	Quarterly for 1 year following GWRP-GAC startup, annual for delineation monitoring
MW-18D	Q,A	3Q	Quarterly for 1 year following GWRP-GAC startup, annual for delineation monitoring
MW-19A	A	3Q	Annual for delineation monitoring
MW-19B	A	3Q	Annual for delineation monitoring
MW-19C	A	3Q	Annual for delineation monitoring
MW-20A	A	3Q	Annual for delineation monitoring
MW-20B	A	3Q	Annual for delineation monitoring
MW-20C	A	3Q	Annual for delineation monitoring
MW-20D	A	3Q	Annual for delineation monitoring
MW-21	Q,S	3Q	Quarterly during onsite AS/SVE operation, semi-annual thereafter
MW-22D	Q,A	3Q	Quarterly for 1 year following GWRP-GAC startup, annual for delineation monitoring

* A = annual, S = semiannual, Q = quarterly

AS/SVE – air sparge/soil vapor extraction

GWRP-GAC – groundwater recovery program-granular activated carbon

All groundwater samples shall be analyzed for total petroleum hydrocarbons quantified as gasoline using USEPA method 8015 and for petroleum constituents that include benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), 1,2 dichloroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, styrene, and other fuel oxygenates using USEPA method 8260b. The San Diego Water Board may require **additional groundwater monitoring wells to meet the objectives of the groundwater monitoring program.**

DIRECTIVE D.4 IS REPLACED WITH THE FOLLOWING:

- B. Chevron must submit semi-annual groundwater monitoring reports to the San Diego Water Board according to the following schedule:

Monitoring Period	Report Due Date
January through June	July 30
July through December	January 30

The semi-annual groundwater monitoring reports must include:

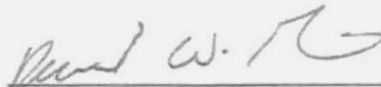
- a. Transmittal Letter with Penalty of Perjury Statement: The transmittal letter must discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter must be signed by Chevron's principal executive officer or their duly authorized representative, and 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. For all wells containing floating "free petroleum product" (A.K.A. light non-aqueous phase liquid or LNAPL) include the measured thickness of LNAPL in a tabular format. 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 each semi-annual report.
- c. Reporting Groundwater Results: All monitoring reports must, at a minimum, include:
 - i. A map showing the location of all wells and other sampling points.

- ii. Tables of current and historic groundwater sampling data (chemical data and depth to groundwater and groundwater elevation data).
 - iii. Isoconcentration map(s) for constituents of concern (COCs) for each monitored water-bearing zone, as appropriate.
 - iv. Time versus concentration plots that also show groundwater elevations for constituents of concern for appropriate wells.
 - v. A site plot plan which clearly illustrates the locations of monitoring wells, former/current UST systems (and product piping) and buildings located on the property and immediately adjacent to the property lines of the facility.
 - vi. A map presenting the most recent concentrations of total petroleum hydrocarbons and volatile aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene, total xylenes, MTBE, TBA, and other fuel oxygenates).
 - vii. Technical interpretations of the groundwater data, and description of 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.
 - viii. A description of the analytical methods used, detection limits obtained for each reported constituent, and a summary of quality assurance/quality control (QA/QC) data.
 - ix. A data validation summary which evaluates the sampling methods, laboratory data, and laboratory QA/QC data to determine whether or not there were deviations in the sampling method or if there are any QA/QC items which did not meet the appropriate standards, and to what degree these noted excursions affect the monitoring data.
 - x. The report must indicate sample collection protocol(s), describe how investigation derived wastes are managed at the facility, and include documentation of proper disposal of contaminated well purge water.
- d. Remediation: If applicable, the report must include soil vapor or groundwater extraction results in tabular form, for each extraction well and for the site as a whole. The report must also include contaminant removal results, from all extraction wells and from other cleanup and abatement

systems, expressed in units of pounds per month and quarter, and cumulative pounds since initiation of the remedial action.

- e. Status Report: The semi-annual report must describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following semi-annual period.

Ordered By:



DAVID W. GIBSON
Executive Officer