

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 90-079

WASTE DISCHARGE REQUIREMENTS
FOR
SHELL OIL COMPANY
Blythe - Riverside County

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

1. Shell Oil Company (hereinafter referred to as the discharger), 511 North Brookhurst Street, Anaheim, California, 92801, submitted a Report of Waste Discharge (ROWD) dated August 27, 1990.
2. The ROWD was submitted to facilitate remediation of petroleum hydrocarbon contaminated ground water at a Shell Service Station located at 8990 Hobson Way, Blythe, California, in the SW $\frac{1}{4}$, NW $\frac{1}{4}$, Section 34, T6S, R23E, SBB&M.
3. As reported on April 17, 1989, the contamination is the result of an unauthorized release of unknown quantities of gasoline from the existing underground storage tank piping system at the site. The leakage was terminated when the product lines were replaced.
4. Site investigations have included a soil gas survey, and the installation and sampling of 11 monitoring wells which were terminated at a depth of 20 ft below grade. An approximately 1.5 ft thick layer of free product (gasoline) was found in three of the wells, but no free product exists in any surrounding wells. The extent of dissolved petroleum hydrocarbon contamination in ground water has been defined except in the southwest direction. Dissolved contamination in ground water ranges from non-detectable to 1800 ppb benzene. The ground water contamination plume extends offsite and is about 50,000 sq ft in area.
5. The discharger proposes to conduct a "pump and treat" remediation program to remove free product and clean up the dissolved petroleum hydrocarbon contamination plume. This program will involve reinjection of treated ground water into the local shallow aquifer. The remediation program will proceed as follows:
 - a. Contaminated ground water (including free product) will be pumped from an extraction well(s) into an oil/water separator (OWS) at a maximum rate of 50 gallons-per-minute (gpm). The OWS will remove oil and grease down to 10 ppm or less; any free product in the separator will be removed by a selective oil skimmer and stored in a 250 gallon above-ground tank.
 - b. Oil-free water will be gravity-fed into a surge tank and then pumped into the first of two activated carbon canisters connected in a series. The first canister removes the bulk of the dissolved hydrocarbons, while the second ensures that the water is treated to the levels required in this Board Order.

*Rescinded
3/26/97*

- c. Treated ground water will then flow from the surge tank through a 4 inch PVC pipe to an injection well located off-site to the northeast of the subject facility. The injection well will be screened such that re-injected treated ground water passes into the shallow aquifer.
6. The site is located in an area of the lower Colorado River Basin, and is underlain by recent flood plain deposits. These deposits consist of gravel, sand, silt, and clay. Ground water at the site occurs approximately 10-12 ft below grade and generally flows southward at a very flat gradient.
7. 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.
8. The beneficial uses of ground waters in the Colorado Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 - c. Agricultural supply (AGR)
9. There are no domestic wells within 500 feet of the proposed treatment site.
10. The Board has notified the discharger and all known interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge.
11. The Board in a public meeting heard and considered all comments pertaining to this discharge.
12. The maximum discharge limitations specified in this permit are based upon State Department of Health Services action levels, primary drinking water standards, the Environmental Protection Agency's Water Quality Criteria, and/or best available technology economically feasible.
13. The issuance of waste discharge requirements for the discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) Division 13, of the Public Resources Code pursuant to Section 13389 of the California Water Code.
14. The issuance of waste discharge requirements for the discharge is categorically exempt from the provisions of Chapter 3 with Section 15000), Division 6, Title 14 (Natural Resources) of the California Code of Regulations pursuant to Section 15107 of that Chapter (Class 8: Actions by Regulatory Agencies for the Protection of the Environment).

IT IS HEREBY ORDERED, that 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(1) and 13050(m) of Division 7 of the California Water Code.
2. The discharge of treated ground water into the ground is limited to the injection well(s) as described in Finding No. 5 of this Board Order, and only includes that ground water which has been extracted and treated at the site.

3. Treated ground water discharged into the ground shall not contain concentrations of benzene, toluene, ethylbenzene, and total xylenes, beyond .7 ppb, 100 ppb, 680 ppb, and 1750 ppb, respectively.

B. Prohibitions

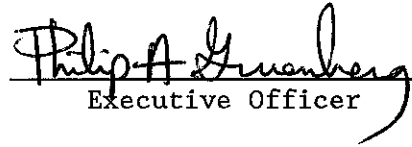
1. The discharge of any wastewaters to any surface waters or surface drainage courses is prohibited.
2. The discharge of wastewater containing any carcinogen or reproductive toxin listed by the Governor, pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986, Proposition 65, Health and Safety Code Section 25249.13, where such chemicals may pass into any source of drinking water is prohibited.

C. Provisions

1. Prior to implementation of the remediation program described in Finding No. 5 of this Board Order, an aquifer/well test(s) shall be conducted in order to determine the following:
 - a. The hydraulic characteristics of the aquifer;
 - b. The number of extraction wells, and performance requirements thereof, necessary to create a capture zone which fully encompasses the ground water contamination plume;
 - c. Whether the performance of the re-injection well(s) is sufficient to discharge all treated ground water at the rate at which it is extracted; and,
 - d. The effects of re-injection on the shallow aquifer gradient.
2. The discharger shall maintain a copy of this Board Order at the site to be available at all times to site operating personnel.
3. The discharger shall comply with "Monitoring and Reporting Program No. 90-079", and future revisions thereto, as specified by the Regional Board's Executive Officer.
4. The discharger shall ensure that all site operating personnel are familiar with the content of this Board Order.
5. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
6. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board.
7. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.

8. The discharger shall notify the Regional Board if any activity by the discharger has occurred or will occur which would result in the discharge of any pollutant which is not limited by this Board Order.

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 November 28, 1990.


Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 90-079
FOR
SHELL OIL COMPANY
Blythe - Riverside County

Location of Discharge: SW $\frac{1}{4}$, NW $\frac{1}{4}$, Section 34, T6S, R23E, SBB&M

EFFLUENT MONITORING

Treated ground water re-injected into the Colorado Hydrologic Unit shall be monitored for the following constituents and the results reported to the Regional Board.

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Re-injection Flow	GPD	-	Continuous flow readings: Report average daily flow based on weekly total
EPA 602 for: Benzene Toluene Ethylbenzene Xylene(s) - total	ppb	Grab	Daily for the first five days of operation; monthly thereafter

INFLUENT MONITORING

Extracted ground water shall be monitored for the following constituents immediately prior to any treatment, and the results reported to the Regional Board.

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	GPD	-	Continuous flow readings: Report average daily flow based on weekly total
EPA 602 for: Benzene Toluene Ethylbenzene Xylene(s) - total	ppb	Grab	Daily for the first 5 days of operation; monthly thereafter

REPORTING

1. Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the succeeding month for the first six months. Thereafter, the monitoring data shall be submitted quarterly by January 15, April 15th, July 15th, and October 15th.
2. Submit monitoring reports to:

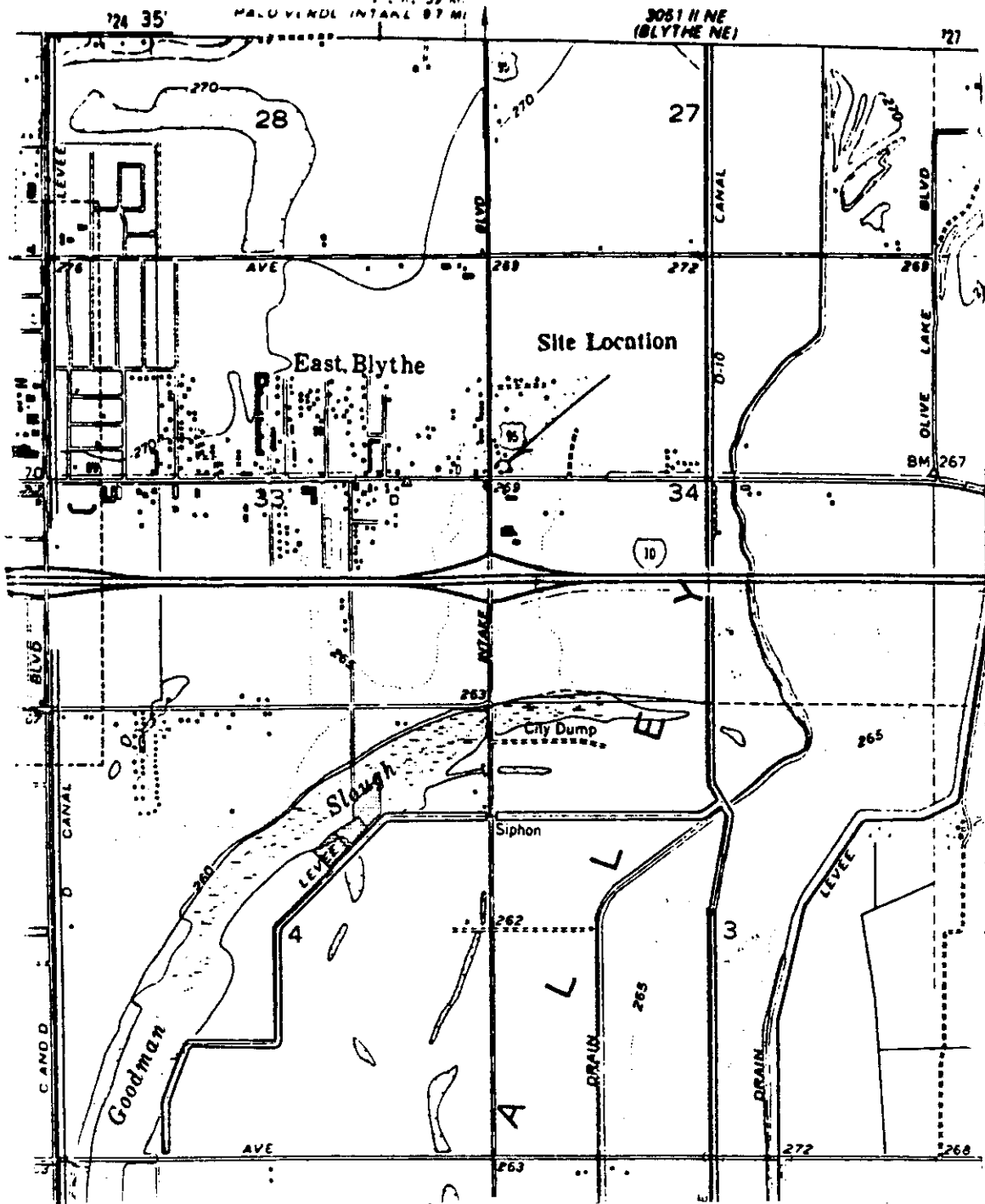
California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

ORDERED BY:

Philip A. Gnanberg
Executive Officer

November 28, 1990

Date



SITE MAP
SHELL OIL COMPANY
BLYTHE - RIVERSIDE COUNTY

SW1/4, NW1/4, SECTION 34, T6S, R23E, SBB&M