

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 99-117

REQUIRING VALLEY ROCK PRODUCTS, INC.
DRILLING MUD DISPOSAL FACILITY
GLENN COUNTY
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Valley Rock Products, Inc. (hereafter Discharger) owns and maintains an inactive drilling mud disposal facility, regulated by Waste Discharge Requirements (WDRs) Order No. 98-162, adopted by the Board on 24 July 1998. The 33-acre facility, comprised of Assessor's Parcel Number 024-33-0-011, is adjacent to Interstate 5, one mile south of Orland, in Section 4, T21N, R3W, MDB&M, on land owned by the Discharger. Waste disposal activities have occurred within approximately 8.4 acres of the facility.
2. The Discharger began operation of the drilling mud disposal facility in 1970, and ceased accepting wastes in September 1991. Over the active life of the facility drilling mud and drill cuttings from gas wells and exploratory holes from throughout Northern California were discharged to the unclassified waste management unit (WMU). The facility initially consisted of one WMU, an unlined gravel pit, used for the disposal of drill cuttings and mud from gas well construction. A lined surface impoundment used to evaporate surface waters pumped from the drilling mud WMU was operated over a period of two wet seasons. The Discharger ceased pumping to the surface impoundment in 1994, and by 1997 the liner had disintegrated and was removed to allow for gravel extraction in the area.
3. As of April 1990, the Discharger estimated that approximately 148,000 cubic yards of waste were in-place at the WMU. Drilling mud wastes are typically composed of water, bentonite clay, and barite, plus various chemical and physical additives. In addition, this type of waste includes rock cuttings, brine, and hydrocarbons from the drill holes. Drilling muds are delivered to WMU's in a semi-solid condition consisting of 58 to 79 percent water, 20 to 30 percent solids, and 1 to 2 percent petroleum fractions. These wastes are typically classified as designated waste due to high salinity, boron, soluble barium and other soluble constituents.
4. Wastes at the facility were initially classified as 'inert waste' based on data supplied with the 1988 Report of Waste Discharge (RWD), using criteria formerly set forth in Title 23, California Code of Regulations (CCR), Chapter 3, Chapter 15 and the 1986 edition of Water Quality Goals and Hazardous and Designated Levels. However, because waste disposal activities have caused a release of pollutants in excess of applicable water quality objectives, the in-place drilling muds were reclassified in the previous WDRs Order No. 97-032 as 'designated' wastes.
5. The gravely, sandy loam soils immediately underlying the WMU are highly permeable and are characteristically gravely or very gravely and coarse textured to moderately-coarse textured. These soils are 40 to 125-feet thick and belong to the Cortina Series of the Stony Creek alluvial fan.

6. The first water bearing formation is approximately 22 feet below the ground surface in the area of the WMU. The hydraulic gradient is generally to the southeast. The quality of this water is good and meets drinking water standards. The regional aquifer exists 200 feet below the site and is of excellent quality and meets drinking water standards. Seasonal changes in water level, gradient, and water quality occur depending on demand and nearby irrigation practices.
7. Thirteen acres of the facility were originally used as a soil borrow pit during the construction of Interstate 5. Based upon historical topographic maps the pit was at least 12 feet below the surrounding ground surface. Ground water monitoring data indicate that historical concentrations of total dissolved solids, sodium, chloride, and sulfate have been reported at elevated concentrations in downgradient monitoring wells. Concentrations have decreased with time but remain elevated above background concentrations. Select constituent data from groundwater samples collected from background monitoring well 1 (MW-1), upgradient of the WMU, and monitoring well 3 (MW-3), downgradient from the WMU, are summarized below:

Constituent	Well	Concentration Range* (mg/l)	WDRs/MRP Order No. 98-162 Concentration Limit
<i>Total Dissolved Solids</i>	MW-1 (Upgradient)	314 - 360	377
	MW-3 (Downgradient)	396 - 750	
<i>Chloride</i>	MW-1	19 - 30	47
	MW-3	44 - 120	
<i>Sodium</i>	MW-1	23 - 28	28
	MW-3	80 - 110	

*March 1996 through March 1998

8. The disposal pit was excavated to an elevation of 206 feet above MSL at the westerly side of the facility tapering to 220 feet MSL along the easterly side. Ground water elevations fluctuate between 204 and 219 feet MSL. A significant portion of the wastes at the bottom of the WMU are in contact with ground water during periods of high ground water. Wastes in the lowest elevations of the pit are in continuous contact with ground water.
9. Groundwater monitoring data have indicated that the natural geologic materials between the base of the WMU and groundwater have not prevented the release of wastes and the impairment of beneficial uses of ground water from the discharge of 'solid wastes' to the WMU during operation, closure, and the post-closure maintenance period. The WMU is unlined and has no leachate collection and recovery system.
10. The Discharger submitted a site evaluation report, dated 13 April 1988; a waste characterization report, dated 13 April 1988; a Report of Waste Discharge (RWD), dated July 1988; and a preliminary closure/post closure plan report, dated 30 April 1990. On 27 February 1997, the Board adopted WDRs Order No. 97-032 prescribing a time schedule for selection of and implementation of a closure alternative.
11. The Discharger submitted a proposal for groundwater investigation and modeling to justify closure alternative dated 5 June 1997, a request for revision to WDRs dated 24 March 1998, and a

technical report on 29 May 1998 outlining an evaluation monitoring program and engineering feasibility study proposal which would support corrective action and selection of a closure alternative. On 24 July 1998, WDRs Order No. 98-162 was adopted by the Board.

12. WDRs Order No. 98-162 required the Discharger to develop and implement an evaluation monitoring program, develop an engineering feasibility study, develop constituent of concern (COC) concentration limits for corrective action, and select and implement a closure alternative in accordance with an established time schedule. WDRs Order No. 98-162, Discharge Provision 10. states:

“The Discharger shall complete the tasks outlined in these WDRs and the attached Monitoring and Reporting Program No. 98-162 in accordance with the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
a. <i>Submit an Evaluation Monitoring Program (EMP) and implementing Report Of Waste Discharge (RWD)</i>	<i>1 November 1998</i>
b. <i>Implement an approved EMP</i>	<i>1 January 1999</i>
c. <i>Submit Engineering Feasibility Study (EFS) and proposed COC concentration limits for Corrective Action (CA)</i>	<i>1 February 1999</i>
d. <i>Submit a Corrective Action Program and implementing Report of Waste Discharge</i>	<i>1 May 1999</i>
e. <i>Submit closure alternative plan</i>	<i>1 May 1999</i>
f. <i>Implement approved closure alternative</i>	<i>1 August 1999</i>
g. <i>Submit updated Closure/Post Closure Maintenance Plans</i>	<i>1 August 1999</i>
h. <i>Complete Waste Management Unit Closure</i>	<i>1 October 1999 ”</i>

On 9 March 1999, the Discharger submitted a *Request for Time Extensions*, proposing a revised schedule for completion of activities identified in Discharge Provision 10 of WDRs Order No. 98-162. On 30 April 1999, a Notice of Violation (NOV) was issued to the Discharger for failure to accomplish tasks for WMU closure activities outlined in Provision 10 of WDRs Order No. 98-162. On 21 May 1999, the Discharger submitted another *Request for Time Extensions*, proposing another revised schedule for completion of closure activity tasks. On 19 August 1999, a second NOV was issued for failure to meet time schedule for WMU closure activities outlined in Provision 10 of WDRs Order No. 98-162. Board staff has, to date, received no preliminary or completed work toward accomplishment of any tasks identified in Discharge Provision 10 of WDRs Order No. 98-162.

13. The California Water Code (CWC) Section 13301 provides as follows:

”When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and may direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in

accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”

14. Issuance of this order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.), in accordance with California Water Code Section 15321(a)(2), Title 14, of the California Code of Regulations.
15. Any person adversely affected by this action of the Board may petition the State Water Resources Control Board (State Board) to review the action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED THAT:

The Discharger shall cease and desist discharging wastes in violation of Waste Discharge Requirements Order No. 98-162 forthwith, and in no case later than as set forth in the following time schedule, established pursuant to the CWC Section 13301:

<u>Task</u>	<u>Date Due</u>
a. <i>Submit an Evaluation Monitoring Program (EMP) and implementing Report Of Waste Discharge (RWD)</i>	30 September 1999
b. <i>Implement an approved EMP</i>	1 November 1999
c. <i>Submit Engineering Feasibility Study (EFS) and proposed COC concentration limits for Corrective Action (CA)</i>	1 December 1999
d. <i>Submit a Corrective Action Program and implementing Report of Waste Discharge</i>	1 March 2000
e. <i>Submit closure alternative plan</i>	1 March 2000
f. <i>Submit updated Closure/Post Closure Maintenance Plans</i>	1 May 2000
g. <i>Establish approved, irrevocable closure and post closure maintenance funds</i>	1 June 2000
h. <i>Implement approved closure alternative</i>	1 June 2000
i. <i>Complete Waste Management Unit Closure</i>	1 October 2000

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If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this order, the Executive Officer may apply to the Attorney General for judicial enforcement or issue a complaint for Administrative Civil Liability.

I, GARY M. CARLTON, 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, Central Valley Region, on 17 September 1999.

GARY M. CARLTON, Executive Officer