

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

**TECHNICAL AND MONITORING REPORT ORDER R5-2010-0049  
FOR  
HOMESTAKE MINING COMPANY, EMMA G. TREBILCOTT TRUST,  
ROBERT LEAL, NBC LEASING, INC.,  
CAL SIERRA PROPERTIES, ROY WHITEAKER AND GLADYS WHITEAKER, DAVID G.  
BROWN, ROY TATE, AND MERCED GENERAL CONSTRUCTION**

**THE WIDE AWAKE MERCURY MINE  
COLUSA COUNTY**

This Order is issued to Homestake Mining Company, Emma G. Trebilcott Trust, Robert Leal, NBC Leasing, Inc., Cal Sierra Properties, Roy Whiteaker and Gladys Whiteaker, David G. Brown, Roy Tate, and Merced General Construction (hereafter collectively referred to as Dischargers) based on provisions of California Water Code (CWC) section 13267, which authorizes the Central Valley Water Quality Control Board (Central Valley Water Board or Board) to require the submittal of technical and monitoring reports.

The Central Valley Water Board finds, with respect to the Dischargers' acts or failure to act, the following:

1. The Wide Awake Mine (hereafter "Mine") is an inactive mercury mine with mining waste that includes in part, mine cuts, waste rock, and tailings that erode, or threaten to erode, into a Sulphur Creek tributary during storm runoff conditions. These wastes have eroded into drainage swales, ditches, and a tributary to Sulphur Creek, which is tributary to Cache Creek. The Mine has discharged and continues to discharge or threatens to discharge mining waste into waters of the state. These discharges have affected water quality, and continuing erosion of mining waste into Sulphur Creek will further affect water quality. .
2. The Mine is located in the Sulphur Creek Mining District (District) of Colusa County, about one mile southwest of the Wilber Springs resort and about 26 miles southwest of Williams. The 100-acre property is described by Assessor's Parcel Numbers 018-200-010-000, 018-200-11-000, and 018-200-12-000 in Sections 28 and 29, Township 14 North, Range 5 West, Mount Diablo Base and Meridian (MDBM), as shown in Attachment A, a part of this Order.
3. Mining waste has been discharged at the Mine since mining activities began in the 1870s. Mining waste has been discharged onto ground surface where it has eroded into Sulphur Creek, resulting in elevated concentrations of metals within the creek. Mining waste discharged onto ground surface has not been evaluated for its potential impact to ground water. The Dischargers either own, lease or operate, or have owned, leased, or operated the mining site where the Mine is located and where mining waste has been discharged. In its current condition, mining waste is causing or threatens to cause a discharge of pollutants to waters of the state.
4. The Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan) states: "By 6 February 2009, the Regional Water Board shall adopt cleanup and abatement orders or take other

appropriate actions to control discharges from the inactive mines (Table IV-6.4) in the Cache Creek watershed.” Basin Plan p. IV-33.05. Mercury levels are already above applicable objectives in Sulphur Creek and Cache Creek, which constitutes a condition of pollution or nuisance.

5. The Prosecution Team conducted a title review of property records from the Colusa County Records Office. The parties named in this Order as Dischargers are known to presently exist or have a viable successor. The basis of liability for each Discharger is addressed below under Dischargers’ Liability.
6. This Order may be revised to include additional Dischargers as they become known, and may include additional current or former owners, leaseholders, and operators.

### **Mining History**

7. Mercury was discovered in the District in the 1870s, and the mine was developed at that time. The Mine was opened in the 1870s and may have been originally known as the Buckeye Mine, a name retained until the 1890s, at which time it was renamed the Wide Awake Mine. This information is described in the *CalFed-Cache Creek Study, Task 5C2: Final Report. Final Engineering Evaluation and Cost Analysis for the Sulphur Creek Mining District*, prepared by Tetra Tech EM Inc., September 2003 (hereafter CalFed Report).
8. Early production was from shallow workings and later, in the 1870s, a 500-foot vertical shaft was sunk with levels at 190, 290, and 390 feet below the ground surface. During shaft dewatering, water flowing to Blank Spring, a small local thermal spring 400 meters to the northwest of the Mine, was intersected. Efforts were made to drain the shaft by driving a drainage tunnel, but operations ceased shortly thereafter. Some ore from the nearby Empire mine was probably processed at the Mine during this period (CalFed Report).
9. The mine was worked extensively for several years in the 1870s with a reported output of approximately 1,800 flasks of mercury (one flask equals 76 pounds). Ore processing facilities in the 1870s included a Knox-Osborne 10-ton furnace and two small retorts. A small amount of production is reported during the 1890s and early 1900s (CalFed Report).
10. In the late 1890s and early 1900s, an effort was made to rehabilitate the vertical shaft and extensive surface facilities were constructed, including a 24-ton Scott furnace, enclosed hoist house, and bunkhouses (CalFed Report).
11. Some work was done in 1932 and 1943, and a moderate production was reported. The production in 1943 may have been in conjunction with mining and processing of ore from the nearby Manzanita mine to the north at a facility that was constructed on the Wide Awake property by the operators of the Manzanita mine (CalFed Report).
12. Total mercury production at the mine was probably not much greater than 1,800 flasks, most of which was produced in the 1870s (CalFed Report).

13. The Wide Awake Mine is intermediate in size and production relative to other mines in the Sulphur Creek Mining District. Remains of the Scott furnace and the rotary furnace with condenser coils remain largely intact on-site (CalFed Report).

### **Mining Waste Description and Characterization**

14. Mining waste at the Mine includes mercury-bearing material from mine cuts, waste rock, tailings, waste around the perimeter of and within the processing facilities, and contaminated sediment within drainage swales, and ditches. Mining waste at the Mine erodes or threatens to erode into a Sulphur Creek tributary with stormwater runoff (CalFed Report).
15. The Mine contains about 20,000 cubic yards (CY) of processed tailings spread over an area of approximately 1.25 acres. An estimated 8,000 CY of waste rock is immediately adjacent to and within the tributary to Sulphur Creek. Another waste rock dump exposed in the eastern stream bank below the rotary furnace may contain up to 11,000 CY. An estimated 400 kilograms (kg) of mercury remains at the Mine, almost entirely within the mixed calcine (tailings) and waste piles (CalFed Report).
16. In 2002, waste extraction tests were conducted on mining waste. The results exceeded water quality objectives for the metals antimony, arsenic, chromium, mercury, and nickel. Maximum concentrations detected were: antimony - 107 micrograms per liter (ug/L), arsenic - 24.6 ug/L, chromium - 33.3 ug/L, mercury - 21 ug/L, and nickel - 102 ug/L. The potential for water-rock interaction to mobilize mercury from tailings is thought to be minimal based on analysis of waste extraction test (WET) leachates. However, water-rock interaction likely mobilizes mercury based on detection of mercury in a WET leachate sample from waste rock approximately 250 feet downstream from the 1940s furnace (CalFed Report). Complete characterization of the soil and mining waste at the site has not been performed.
17. The Mine waste rock and tailings are susceptible to erosion from uncontrolled stormwater runoff. Surface water runoff transports mercury-laden sediment into a tributary to Sulphur Creek, which is tributary to Cache Creek. Approximately 8 tons/year of sediment from the Mine is estimated to erode from mining waste located immediately adjacent to and within the tributary to Sulphur Creek. The estimated mercury lode from this Mine is 0.02 to 0.44 kg/yr or 2.4% of the total mine related mercury lode of 4.4 to 18.6 kg/yr to Sulphur Creek. It is estimated that the Mine contributes 1.53% of the mine related mercury lode from the District (CalFed Report).
18. Mercury concentrations detected in mining waste at the Mine range from 5.0 to 1,040 milligrams per kilogram (mg/kg). Site background concentrations range from 2.37 to 90 mg/kg (CalFed Report).
19. Aqueous mercury concentrations in Sulphur Creek are among the highest in the Cache Creek watershed, and remain elevated during non-peak flow periods. Active hydrothermal springs constantly discharge into Sulphur Creek, with mercury concentrations ranging from 700 to 61,000 nanograms per liter (ng/L) (CalFed Report).

20. Particulate bound mercury in Sulphur Creek comes mostly from sediments and mercury-bearing mine waste mobilized into the creek during storms. All the mines together are estimated to contribute about 78% of the total mercury load. The Wide Awake Mine sub watershed is estimated to contribute about 7 % of the total mercury load. Similar to total and dissolved concentrations, methyl mercury concentrations in Sulphur Creek are among the highest reported for the Cache Creek watershed. Methyl mercury concentrations were as high as 20.64 ng/L in Sulphur Creek above the confluence with Bear Creek. (*Sulphur Creek TMDL for Mercury, Final Staff Report, January 2007.*<sup>1</sup>).
21. Mercury is a toxic substance, which can cause damage to the brain, kidneys, and to a developing fetus. Young children are particularly sensitive to mercury exposure. Methyl mercury, the organic form of mercury that has entered the biological food chain, is of particular concern, as it accumulates in fish tissue and in wildlife and people that eat the fish. Mine waste present at this Mine may also pose a threat to human health due to exposure (dermal, ingestion, and inhalation) through recreational activities (hiking, camping, fishing, and hunting) or work at the site.

### Regulatory Considerations

22. Section 303(d) of the Federal Clean Water Act requires states to identify waters not attaining water quality standards (referred to as the 303(d) list). Since 1990, Sulphur Creek has been identified by the Central Valley Water Board as an impaired water body because of high aqueous concentrations of mercury.
23. The Basin Plan designates beneficial uses of the waters of the state, establishes Water Quality Objectives (WQOs) to protect these uses, and establishes implementation policies to achieve WQOs.
24. Studies were conducted that demonstrated that the municipal and domestic supply (MUN) beneficial use and the human consumption of aquatic organisms beneficial use did not exist and could not be attained in Sulphur Creek from Schoolhouse Canyon to the mouth, due to natural sources of dissolved solids and mercury. The Central Valley Water Board, in Resolution R5-2007-0021, adopted a basin plan amendment that de-designated these uses in Sulphur Creek from Schoolhouse Canyon to the mouth. The remaining beneficial uses for Sulphur Creek, a tributary of Cache Creek, are: agricultural supply; industrial service supply; industrial process supply; water contact recreation and non-contact water recreation; warm freshwater habitat; cold fresh water habitat; spawning, reproduction, and/or early development; and wildlife habitat.
25. The beneficial uses of underlying groundwater, as stated in the Basin Plan, are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

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<sup>1</sup> The report is available at [http://www.swrcb.ca.gov/centralvalley/water\\_issues/tmdl/central\\_valley\\_projects/sulphur\\_creek\\_hg/sulphur\\_creek\\_tmdl.pdf](http://www.swrcb.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/sulphur_creek_hg/sulphur_creek_tmdl.pdf)

26. The Central Valley Water Board adopted site-specific water quality objectives for Sulphur Creek in Resolution R5-2007-0021. The WQOs now listed in the Basin Plan for Sulphur Creek state that waters shall be maintained free of mercury from anthropogenic sources such that beneficial uses are not adversely affected. During low flow conditions, defined as flows less than 3 cfs, the instantaneous maximum total mercury concentration shall not exceed 1,800 ng/L. During high flow conditions, defined as flows greater than 3 cfs, the instantaneous maximum ratio of mercury to total suspended solids shall not exceed 35 mg/kg. Both objectives apply at the mouth of Sulphur Creek. Exceedances of the water quality objective in Sulphur Creek during high flow events are documented in Appendix C (page 24) of the *Staff Report for the Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Determine Certain Beneficial Uses are Not Applicable in and Establish Water Quality Objectives for Sulphur Creek*<sup>2</sup> dated March 2007 which is part of the administrative record of this Order.
27. Sulphur Creek is tributary to Bear Creek, which is tributary to Cache Creek. Beneficial uses of Bear and Cache Creeks are municipal and domestic supply (MUN), agriculture – irrigation and stock watering, contact and non-contact recreation, industrial process and service supply, warm freshwater habitat, spawning – warm and cold, wildlife habitat, cold freshwater habitat, and commercial and sport fishing. Cache Creek is impaired for mercury and therefore has no assimilative capacity. Any discharges of mercury or mercury-laden sediments that reach Cache Creek therefore threaten to cause or contribute to a condition of pollution or nuisance. Cache Creek drains to the Cache Creek Settling Basin, which discharges to the Yolo Bypass and flows into the Sacramento-San Joaquin Delta Estuary. Data documenting exceedances of water quality objectives in Cache and Bear Creeks are found in Table 3.2 (page 9) of the October 2005 staff report entitled *Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Mercury in Cache Creek, Bear Creek, Sulfur Creek, and Harley Gulch*, which is part of the administrative record of this Order.<sup>3</sup>
28. The Cache Creek Watershed Mercury Program, included in the Basin Plan, requires responsible parties to develop plans to reduce existing loads of mercury from mining or other anthropogenic activities by 95% in the Cache Creek watershed (i.e., Cache Creek and its tributaries). The Basin Plan, Chapter IV, page 33.05 states that,

Responsible parties shall develop and submit for Executive Officer approval plans, including a time schedule, to reduce loads of mercury from mining or other anthropogenic activities by 95% of existing loads consistent with State Water Resources Control Board Resolution 92-49. The goal of the cleanup is to restore the mines to premining conditions with respect to the discharge of mercury. Mercury and methylmercury loads produced by interaction of thermal springs with mine wastes from the Turkey Run and Elgin mines are considered to be anthropogenic loading. The responsible parties shall be deemed in compliance with this requirement if cleanup actions

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<sup>2</sup> This report is available at [http://www.swrcb.ca.gov/centralvalley/water\\_issues/tmdl/central\\_valley\\_projects/sulphur\\_creek\\_hg/sulphur\\_creek\\_staff\\_final.pdf](http://www.swrcb.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/sulphur_creek_hg/sulphur_creek_staff_final.pdf)

<sup>3</sup> This report is available at [http://www.swrcb.ca.gov/centralvalley/water\\_issues/tmdl/central\\_valley\\_projects/cache\\_sulphur\\_creek/cache\\_crk\\_hg\\_final\\_rpt\\_oct2005.pdf](http://www.swrcb.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/cache_sulphur_creek/cache_crk_hg_final_rpt_oct2005.pdf)

and maintenance activities are conducted in accordance with the approved plans. Cleanup actions at the mines shall be completed by 2011.

29. The Basin Plan, Chapter IV, page 33.05 states that,

The Sulphur Creek streambed and flood plain directly below the Central, Cherry Hill, Empire, Manzanita, West End and Wide Awake Mines contain mine waste. After mine cleanup has been initiated, the Dischargers shall develop and submit for Executive Officer approval a cleanup and abatement plan to reduce anthropogenic mercury loading in the creek.

30. Under CWC section 13050, subdivision (q)(1), "mining waste" means all solid, semisolid, and liquid waste materials from the extraction, beneficiation, and processing of ores and minerals. Mining waste includes, but is not limited to, soil, waste rock, and overburden, as defined in Public Resources Code section 2732, and tailings, slag, and other processed waste materials...." The constituents listed in Findings No. 14 and 15 are mining wastes as defined in CWC section 13050, subdivision (q) (1).

31. Because the site contains mining waste as described in CWC sections 13050, closure of Mining Unit(s) must comply with the requirements of California Code of Regulations, title 27, sections 22470 through 22510 and with such provisions of the other portions of California Code of Regulations, title 27 that are specifically referenced in that article.

32. Affecting the beneficial uses of waters of the state by exceeding applicable WQOs constitutes a condition of pollution as defined in CWC section 13050, subdivision (l).

33. Under CWC section 13050, subdivision (m) a condition that occurs as a result of disposal of wastes, is injurious to health, or is indecent or offensive to the senses, or is an obstruction to the free use of property, and affects at the same time any considerable number of persons, is a nuisance.

34. Mine waste has been discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance.

35. CWC section 13304(a) states that:

Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a Regional Water Board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any 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, shall upon order of the Regional Water Board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a Regional Water Board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to

comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

36. The State Water Resources Control Board (State Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under CWC Section 13304*. This Resolution sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Board Resolution No. 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution No. 92-49 and the Basin Plan establish cleanup levels to be achieved. Resolution No. 92-49 requires waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with California Code of Regulations, title 23, section 2550.4. Any alternative cleanup level to 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 such water; 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 Board.
37. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Central Valley Water Board's policy for managing contaminated sites. This policy is based on CWC sections 13000 and 13304, California Code of Regulations, title 23, division 3, chapter 15; California Code of Regulations, title 23, division 2, subdivision 1; and State Water Board Resolution Nos. 68-16 and 92-49. The policy addresses site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the basis for establishment of soil and groundwater cleanup levels.
38. The State Board's *Water Quality Enforcement Policy* states in part:
- At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the Central Valley Water Board allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the Order should require the discharger(s) to abate the effects of the discharge (*Water Quality Enforcement Policy*, p. 19).
39. CWC section 13267 states that:
- (a) A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.
  - (b) (1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from

the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

40. Each Discharger named in this Order “has discharged, discharges, or is suspected of having discharged or discharging . . . waste” within the region of the Central Valley Water Board. The Dischargers own, lease, or operate, or have owned leased, or operated the mining sites subject to this Order. Additional findings establishing the liability of each Discharger pursuant to CWC section 13267 are set forth below in Findings 53-62.
41. The technical reports required by this Order are necessary to ensure the protection of the waters of the state, comply with the Basin Plan’s requirement for responsible parties to develop plans to reduce existing loads of mercury from mining or other anthropogenic activities by 95% in the Cache Creek watershed (Basin Plan, Chapter IV, page 33.05, see Finding 28), to further characterize the location of mining wastes, to complete a conceptual site model for the eventual cleanup of the mining sites and determine what cleanup measures are necessary, and to provide additional information about suspected past or future discharges. While no specific cost for the required reports has been estimated, the need for cleanup is well established. (See, e.g., the Basin Plan’s Cache Creek Watershed Mercury Program.) The technical or monitoring report is necessary to accomplish the cleanup. (See, State Water Board Resolution 92-49.) The investigation is as limited as possible, and is consistent with orders requiring investigation or cleanup at other sites.
42. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, section 21000 et seq.), pursuant to California Code of Regulations, title 14, section 15321(a) (2). The implementation of this Order is also an action to assure the restoration of natural resources and/or the environment and is exempt from the provisions of the CEQA, in accordance with California Code of Regulations, title 14 sections 15307 and 15308. The implementation of this Order also constitutes basic data collection, research and/or resource evaluation activities which do not result in a serious or major disturbance to an environmental resource, and is exempt from the provisions of the CEQA, in accordance with California Code of Regulations, title 14 sections 15306.

### **Dischargers’ Liability**

43. The meaning of “discharge” under Porter-Cologne includes not only the initial introduction of waste into the environment, but also the continued migration and spread of the contamination, including the migration of waste from soil to water. (State Board Order WQ 86-2 [*Zocon Corp.*]; State Board Order WQ 92-13 [*Wenwest, Inc., et al.*]; see also 26 Ops.Atty.Gen. 88, Opinion No. 55-116, [1955]). Waste piles at the mining sites have and continue to discharge, and threaten to discharge, mercury and other pollutants to surface waters as stated in Findings 14-21 above.

44. Owners, lessees, and operators of a property that is a source of passive discharge of pollutants are liable for the discharge even if they did not own, lease, or operate the property at the time of initial discharge of pollutants. (State Board Order WQ 86-2 [*Zoecon Corp.*]; State Board Order WQ 92-13 [*Wenwest, Inc., et al.*]; State Board Order WQ 89-8 [*Spitzer et al.*]). An owner, lessee, or operator has the ability to control the passive release of pollutants from the property. The Dischargers may have prevented mine materials and enriched mercury soil from entering surface waters through a number of measures including, but not limited to: relocating material piles away from waterways, placing barriers, such as grass covered berms, between mine materials and waterways, recontouring and revegetating material piles and areas of surface disturbance by mining activity to reduce erosion, redirecting storm runoff around material piles and areas of surface disturbance to reduce erosion, stabilizing of stream banks containing enriched mercury alluvium to minimize erosion during storm events. An owner, lessee, or operator may have knowledge of a passive discharge by notification in a deed or lease, even if the owner, lessee, or operator never observes the discharge. The mining claim was listed on county Assessor's Parcels for the mine property.
45. The Central Valley Water Board has the authority under Water Code section 13267 to require a technical report from any individual or entity "suspected" of having discharged or discharging waste. Each of the owner, leaseholder, or operator Dischargers is subject to the Central Valley Water Board's section 13267 authority because, based on evidence in the record, they have or had an ownership, tenancy, or operation interest in the mining sites during a time period when waste piles were discharging or are suspected of discharging mercury and other pollutants to surface waters.
46. "Evidence" for purposes of CWC section 13267 "means any relevant evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule which might make improper the admission of the evidence over objection in a civil action" (CWC § 13267, subd. (e).) There is adequate evidence in this case that each Discharger had an ownership, leasehold, or operator interest in the property and to suspect that each Discharger discharged waste.
47. As established in Findings 14-21 mercury is mobilized by storm water runoff, slope failure, or water-rock interaction from mine waste. In addition, disturbed sediments can migrate across the property and be deposited where they are later discharged to waters of the state. Each of the Dischargers owned the property in question for at least twelve months. Although the Board did not consider rain data for each year at the Hearing, the Board takes official notice that there are no years on record during the relevant period of time when it did not rain at all.
48. The State Water Board has held that all dischargers are jointly and severally liable for the discharge of waste. (State Board Order WQ 90-2 [*Union Oil Company*]). At this stage, the Board has not determined the relative mercury contributions of various dischargers. Even if the Board was inclined to apportion responsibility, which it is not, apportionment would be premature at this time.

49. The State Water Board has determined that it is inappropriate to require certain dischargers to participate in a cleanup, even though the dischargers have some legal responsibility for cleanup. (See, State Water Board Order WQ 92-13 (*Wenwest*). In *Wenwest*, the State Board held that an interim owner of a property with passive discharge would be released from being named as a responsible party under the specific facts of that case including (1) that the discharger had only owned the property for a short period of time, (2) the ownership was for the limited purpose of conveyance to a transferee, (3) the ownership occurred at a time when there was limited understanding of the problems associated with the passive discharge, (4) the discharger did not conduct any activities which might have exacerbated the problem, (5) clean-up was already proceeding, and (6) there were several additional responsible parties. Several Dischargers named in this Order argue that they should not be liable for clean-up under the *Wenwest* factors. However, this Order is limited to site investigation. Even assuming the *Wenwest* factors apply to site investigations, the Board finds none of the named Dischargers satisfy the *Wenwest* factors because no clean-up is currently proceeding at the mine site and the Dischargers that caused the initial discharges during mining operations are no longer in existence and cannot be held liable for the investigation or clean-up.
50. In the context of clean-up orders (CWC section 13304), the Central Valley Water Board may find certain dischargers to be only secondarily liable for clean-up. (See State Board Order WQ 87-6 [*Prudential Ins. Co.*] and State Board Order WQ 86-18 [*Vallco Park, Ltd.*]). Even if the secondary liability concept can be applied in the section 13267 context, it is not appropriate here. The Central Valley Water Board considered whether any named Dischargers should be secondarily liable and has concluded that all Dischargers should be primarily liable. Here, the investigation and cleanup is not proceeding and the parties that actively engaged in the mining operations at the root of the ongoing discharge are no longer in existence. Accordingly, all named Dischargers to the Order stand on essentially the same footing and should be treated alike. (State Board Order WQ 93-9 [*Aluminum Company of America et al.*])
51. The Board considered whether interim landowners and lessees should be held liable for passive discharges to surface waters even though the specific discharges during the time of interim ownership may have in the intervening years left the Sulphur Creek/Cash Creek watersheds. The Board finds that such interim landowners are liable under this Order. As a preliminary matter, the migration of pollutants from soil in one area of the property to soil in another area, from where it may later be discharged into the surface waters, is a discharge for which an interim owner may be liable. Additionally, in accordance with *City of Modesto Redevelopment Agency v. Superior Court* ((2004) 119 Cal.App.4th 28), the Board may look to the law of nuisance to interpret liability in the context of a section 13304 clean-up order. California Civil Code section 3483, which codified the common law duty of successive owners to abate a continuing nuisance, states that every successive owner of property who neglects to abate a continuing nuisance created by a former owner is liable in the same manner as the one who first created it. In accordance with this principle, interim owners could have been named in a section 13304 order and it is even more appropriate to name them in this section 13267 Order where the Board need only establish that the interim owners are "suspected" of discharging waste.

52. Cal Sierra and Merced Construction asserted that the Order may be barred by the doctrine of laches. In order to prevail on a defense of laches in an administrative proceeding, the defendant must establish an unreasonable delay in bringing the action, “plus either acquiescence in the act about which the complainant complains or prejudice to the party asserting the equitable defense resulting from the delay.” (*Chemical Specialties Manufacturers Assn., Inc. v. Deukmejian* (1991) 227 Cal.App.3d 663, 672). Here, the discharges being investigated are continuous and therefore there is no unreasonable delay in bringing an Order for investigation of the conditions of the ongoing discharge. Furthermore, the Board has been diligently working toward addressing the discharge of mercury in the Cache Creek watershed through several complex and time-intensive regulatory steps, including preparation of the Cal-Fed Report (see Findings 7-21) and two Basin Plan amendments (Findings 24-28). There is no evidence in the record that the Board acquiesced in the discharges, or that Cal Sierra or Merced Construction relied specifically on any inaction on the part of the Board in deciding to purchase, sell, or operate the mine property.
53. The property on which Wide Awake Mercury Mine was located has been identified as Assessor’s Parcel Number 018-200-003-000 until 16 October 1995 and Assessor’s Parcel Numbers 0180-200-010-000, 018-200-011-000, and 018-200-012-000 from 16 October 1995 to the present. The Dischargers named in this Order have owned or leased the relevant parcels as follows in Findings 55-62.
54. At least one Discharger named in this Order has argued that mining waste was not present on the specific parcel it owned. Evidence in the record indicates that all three parcels created after the 16 October 1995 split of Assessor’s Parcel Number 0180-200-003-000 were part of the mine property, but the CalFed Report does not reference individual parcels. There is sufficient evidence before the Board to suspect that each Discharger owned property that discharged mine waste because each Discharger owned, leased, or operated a parcel that constituted part of the mine property. If the Board concludes, based on the technical reports required by this Order that a particular parcel was not a source of waste discharges, the affected Dischargers will have no further responsibility for clean-up. Similarly, affected Dischargers will not have further clean-up responsibility if the timing of waste discharges relative to property ownership or control was such the Discharger(s) did not cause or permit the discharge of waste.
55. EMMA G. TREBILCOTT TRUST: The Emma G. Trebilcott Trust (Trust) owned Assessor’s Parcel Number 018-200-003-000 from 28 March 1988 to 5 December 1989. The property was placed in the Trust by court order following the death of Emma G. Trebilcott, the previous owner of the parcel. At its creation, the Trust did not assume any liabilities that arose during the lifetime of Ms. Trebilcott. Within two months, the Trust entered into a listing agreement with a realty company for sale of the property and held the property pending its eventual sale in December 1989, without developing or improving the property during its ownership. The Trust assets are now held by Wells Fargo Bank, NA, for the benefit of four charities. The Trust retained the mineral rights to the parcel following its sale, leasing the rights during its ownership of the parcel and through 20 May 1993 to Homestake Mining Company. It appears that the mineral rights have been retained by the Trust to date; however, liability under this Order is being imposed due to the Trust’s ownership of the

parcel until its 5 December 1989 sale and not under its retention of the mineral rights because this Order only addresses surface discharges. The Trust, by taking title to the property where mining waste was present, assumed responsibility for appropriately managing the discharges from the waste. As these wastes were eroding or suspected of eroding into surface waters during the time that the Trust held title to the property, the Trust is a person who has discharged, discharges, or is suspected of having discharged or discharging wastes into waters of the state.

56. **HOMESTAKE MINING COMPANY:** Homestake Mining Company (Homestake) was a lessee of the mineral rights to Assessor's Parcel Number 018-200-003-000 from 20 July 1978 to 20 May 1993. Homestake was not an owner of the parcel during this time period and there is no evidence that Homestake operated any mine on the site. Homestake has provided evidence that its activity on the site was limited to mining exploration activity consisting primarily of seven drill pads of dimensions 30 by 50 feet or less, all of which were subsequently reclaimed, and that no road work took place under its lease. However, the lease provided that Homestake had exclusive possession of the property for mining purposes and the lease's scope included control of tailings and waste piles on the mining property. The owner reserved surface rights for livestock grazing and other agricultural uses only and water development incidental to such use. Under the terms of its lease, Homestake exercised control over the property and had the ability to prevent mine materials and enriched mercury soil from entering waterways. Homestake, by holding a leasehold interest giving it control over the property during a time when mining waste was present, assumed responsibility for managing the discharges from the waste. As these wastes were eroding or are suspected of eroding into surface waters during the time that Homestake held a leasehold interest in the property, Homestake is a person who has discharged, discharges, or is suspected of having discharged or discharging wastes into waters of the state.

57. **ROBERT LEAL:** Robert Leal owned the parcel on which the mine was located (variously numbered Assessor's Parcel Number 018-200-03-000 until 16 October 1995, and Assessor's Parcel Numbers 018-200-011-000 and 018-200-012-000 thereafter) from 28 February 1990 to 1 November 1995. Leal owned the mine property during this time period and leased it to another party not named in this order for grazing. Leal did not own the mineral rights to the property. Leal entered an easement agreement with Homestake for Homestake's access to the property. Leal, by taking title to the property where mining waste was present, assumed responsibility for managing the discharges from the waste. As these wastes were eroding or are suspected of eroding into surface waters during the time that Leal held title to the property, Leal is a person who has discharged, discharges, or is suspected of having discharged or discharging waste into waters of the state.

The Board finds that Leal should not be released from this Order under the *Wenwest* factors. In addition to the reasons laid out in Finding 49 (no clean-up is currently proceeding at the mine site and the Dischargers that caused the initial discharges during mining operations are no longer in existence), Leal's ownership extended over several years and was not for a short period of time and his ownership of the property was not for the limited purpose of conveyance to a transferee.

Leal has argued that this Order may constitute a “taking” of property without just compensation. A regulatory action may constitute a taking when it deprives a property owner of all economically beneficial use of that property. (*Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992)). Leal does not currently own the mine property. This Order may impose certain costs on Leal, but does not deprive him of economically beneficial use of any property.

58. CAL SIERRA PROPERTIES, ROY WHITEAKER AND GLADYS WHITEAKER: Cal Sierra Properties (Cal Sierra) held an ownership interest in Assessor’s Parcel Number 018-200-010-000 from 16 October 1995 to 10 September 1999 and Assessor’s Parcel Numbers 018-200-011-000 and 018-200-012-000 from 1 November 1995 to approximately 1 January 2004. Cal Sierra did not own the mineral rights to those parcels. Cal Sierra, by taking title to the property where mining waste was present, assumed responsibility for managing the discharges from the waste. As these wastes were eroding or are suspected of eroding into surface waters during the time that Cal Sierra held title to the property, Cal Sierra is a person who has discharged, discharges, or is suspected of having discharged or discharging waste into waters of the state. Cal Sierra was a general partnership that has been dissolved. Roy and Gladys Whiteaker were general partners, and are therefore personally liable for Cal Sierra’s obligations.
59. NBC LEASING, INC.: NBC Leasing, Inc. (NBC Leasing) held an ownership interest in Assessor’s Parcel Number 018-200-003-000, upon which the mine was located, from 15 August 1990 to 16 October 1995. After that parcel was split into three, NBC Leasing continued to own Assessor’s Parcel Number 018-200-010-000 until 7 March 1996 and has continued in its ownership of parcel numbers 018-200-011-000 and 018-200-012-000 to date. NBC Leasing did not and does not own the mineral rights to the parcels. NBC Leasing, by taking title to the property where mining waste was present, assumed responsibility for appropriately managing the discharges from the waste. As these wastes were eroding or are suspected of eroding and continue to erode into surface waters during the time that NBC Leasing held title and continues to hold title to the property, NBC Leasing is a person who has discharged, discharges, or is suspected of having discharged or discharging waste into waters of the state.
60. DAVID G. BROWN. David G. Brown is a current owner of Assessor’s Parcel numbers 018-200-010-000, 018-200-011-000 and 018-200-012-000. Brown has had an ownership interest in parcel 018-200-010-000 since 10 September 1999 and in parcels 018-200-011-000 and 018-200-012-000 since approximately 1 January 2004. Brown does not own the mineral rights to the parcels. Brown, by taking title to the property where mining waste was present, assumed responsibility for appropriately managing the discharges from the waste. As these wastes were eroding or are suspected of eroding and continue to erode into surface waters during the time that Brown has held title to the property, Brown qualifies a person who has discharged, discharges, or is suspected of having discharged or discharging waste into waters of the state.

61. ROY TATE. Roy Tate is a current owner of Assessor's Parcel numbers 018-200-010-000, 018-200-011-000 and 018-200-012-000. Tate has owned parcel 018-200-010-000 since 10 September 2009 and parcels 018-200-011-000 and 018-200-012-000 since approximately 1 January 2004. Tate does not own the mineral rights to the parcel. Tate, by taking title to the property where mining waste was present, assumed responsibility for appropriately managing the discharges from the waste. As these wastes were eroding or are suspected of eroding and continue to erode into surface waters during the time that Tate has held title to the property, Tate is a person who has discharged, discharges, or is suspected of having discharged or discharging waste into waters of the state.
62. MERCED GENERAL CONSTRUCTION, INC: Merced General Construction, Inc. (Merced General) is a current owner of Assessor's Parcel number 018-200-010-000 and has owned the parcel since approximately 1 January 2005. Merced General does not own the mineral rights to the parcel. Merced General, by taking title to the property where mining waste was present, assumed responsibility for appropriately managing the discharges from the waste. As these wastes were eroding or were suspected of eroding and continue to erode into surface waters during the time that Merced General has held title to the property, Merced General is a person who has discharged, discharges, or is suspected of having discharged or discharging waste into waters of the state.
63. The Executive Officer may add additional responsible parties to this Order without bringing the matter to the Central Valley Water Board for a hearing, if the Executive Officer determines that additional parties are liable for investigation of the mine waste. The Executive Officer may remove Dischargers from this Order if the Executive Officer receives new evidence demonstrating that such Dischargers did not cause or permit the discharge of waste that could affect water quality. All Dischargers named in this Order and any responsible parties proposed to be added shall receive notice of, and shall have the opportunity to comment on, the addition or removal of responsible parties.

**IT IS HEREBY ORDERED** that, the Dischargers, and their agents, assigns and successors, in order to meet the provisions contained in Division 7 of the California Water Code and regulations, plans and policies adopted thereunder,:

1. Conduct all work in conformance with the Regional Board's Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV).

### **Waste Characterization**

2. By **26 July 2010**, submit a *Mining Waste Characterization Work Plan* (hereafter *Characterization Plan*) for the Mine site. The Characterization Plan shall assess the nature and extent and location of mining waste discharged at the site and the potential threat to water quality and/or human health. The Characterization Plan shall describe the methods that will be used to establish background levels for soil, surface water, and ground water at the site, and the means and methods for determining the vertical and lateral extent of the mining waste.

The Characterization Plan shall also address slope stability of the site and assess the need for slope design and slope stability measures to minimize the transport of mining waste-laden soils to surface water and ephemeral streams. The Characterization Plan shall adopt the time schedule as described below in items 3 through 13 below for implementation of the proposed work.

3. Within **30 days** of staff concurrence with the Characterization Plan, but no later than **27 September 2010**, begin implementing the Characterization Plan in accordance with the approved time schedule, which shall become part of this Order.
4. By **27 January 2011**, submit a *Mining Waste Characterization Report* (hereafter *Characterization Report*) for the Mine. The Characterization Report shall include:
  - a. A narrative summary of the field investigation;
  - b. A section describing background soil concentrations, mining waste concentrations, and the vertical and lateral extent of the mining waste;
  - c. Surface water and ground water sampling results;
  - d. A section describing slope stability and erosion potential and recommendations for slope stabilization;
  - e. An evaluation of risks to human health from site conditions, and;
  - f. A map and description of the current or historic location of mining waste, including waste that has eroded or migrated over land to a location where it was, or could be, discharged to waters of the State;
  - g. A work plan for additional investigation, if needed, as determined by staff. If no additional investigation is needed, this report shall be the Final Characterization Report.
5. By **27 January 2011**, submit a *Surface and Ground Water Monitoring Plan* (hereafter *Monitoring Plan*) for the Mine. The Monitoring Plan shall describe the methods and rationale that will be used to establish background levels for surface water and ground water at the site. The Monitoring Plan shall also address long-term monitoring necessary to confirm the effectiveness of the remedies.

### **Water Supply Well Survey**

6. By **27 September 2010**, submit the results of a water supply well survey within one-half mile of the site and a sampling plan to sample any water supply well(s) threatened to be polluted by mining waste originating from the site. The sampling plan shall include specific actions and a commitment by the Dischargers to implement the sampling plans, including obtaining any necessary access agreements. If the Dischargers demonstrate that exceedances of water quality objectives in the water supply well survey discussed above are the result of naturally occurring hydrothermal sources, then the Dischargers may request a waiver of requirements No. 7 and 8 listed below.
7. Within **30 days** of staff concurrence with the water supply well sampling plan, the Dischargers shall implement the sampling plan and submit the sampling results in accordance with the approved time schedule, which shall become part of this Order.

8. Within **30 days** of staff notifying the Dischargers that an alternate water supply is necessary, submit a work plan and schedule to provide an in-kind replacement for any impacted water supply well. The Dischargers shall implement the work plan in accordance with an approved time schedule, which shall become part of this Order.

### **General Requirements**

The Dischargers shall:

9. Pursuant to CWC section 13365, reimburse the Central Valley Water Board for reasonable costs associated with oversight of the investigation of the site. Within **30 days** of the effective date of this Order, the Dischargers shall provide the name and address where the invoices shall be sent. Failure to provide a name and address for invoices and/or failure to reimburse the Central Valley Water Board's oversight costs in a timely manner shall be considered a violation of this Order. If the Central Valley Water Board adopts Waste Discharge Requirements (WDRs), review of reports related to writing of the WDRs and all compliance measures thereafter would be subject to the fees required by issuance of the Order and the reimbursement under this requirement would no longer apply.
10. Submit all reports with a cover letter signed by the Dischargers. In the cover letter, the Dischargers shall express their concurrence or non-concurrence with the contents of all reports and work plans.
11. Notify staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.
12. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning work.
13. Continue any investigation, reporting or monitoring activities until such time as the Executive Officer determines that sufficient work has been accomplished to comply with this Order. The Executive Officer, with concurrence from the Prosecution Team, and after soliciting comments from the remaining named parties, may determine that a party named to this Order has satisfied or will satisfy their obligations under this Order by performing or agreeing to perform substantial work that results in a more complete understanding of the scope of the problems at the Site, consistent with the obligations imposed by this 13267 Order. After such a determination has been made, the Prosecution Team will be directed to compel the remaining named parties to fulfill the remaining obligations under this Order.

### **Investigation of Additional Responsible Parties**

14. The Prosecution Team shall complete its investigation of other entities that are or may be responsible for investigation or cleanup of the Mine. This investigation shall include, without limitation, the Bureau of Land Management. The Prosecution Team may issue subpoenas, or may request the Executive Officer to issue orders under section 13267, as appropriate. This directive is without prejudice to any rights of any person to contest such subpoena(s)

or order(s). Any person may provide evidence relevant to liability (or lack thereof); whether or not that person is the subject of a subpoena or section 13267 order. The Prosecution Team shall report the results of its investigation to the Executive Officer, with a copy to all parties and interested persons, by 30 November 2010. The Executive Officer may extend this deadline.

Any person signing a document submitted under this Order must make the following certification:

*"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments must be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain work plans for, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology must be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Dischargers must contain the professional's signature and, where necessary, his stamp or seal.

The Executive Officer may extend the deadlines contained in this Order if the Dischargers demonstrate that unforeseeable contingencies have created delays, provided that the Dischargers continue to undertake all appropriate measures to meet the deadlines and make the extension request in advance of the expiration of the deadline. The Dischargers shall make any deadline extension request in writing prior to the compliance date. An extension may be denied in writing or granted by revision of this Order or by a letter from the Executive Officer. Any request for an extension not responded to in writing by the Board shall be deemed denied.

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may issue a complaint for administrative civil liability. Failure to comply with this Order may result in the assessment of an Administrative Civil Liability of up to \$1,000 per violation per day pursuant to the California Water Code section 13268. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day.

Copies of the law and regulations applicable to filing petitions may be found on the Internet at:  
[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)  
or will be provided upon request.

I, Pamela Creedon, do hereby certify that the foregoing is a full, true, and correct copy of an Order issued by the Central Valley Water Board on 27 May 2010

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PAMELA C. CREEDON, Executive Officer