

## Lahontan Regional Water Quality Control Board

October 27, 2026

WDID No. 6B360008001

TO: ATTACHED MAILING LIST

### **Revised Waste Discharge Requirements for P-1 Tailings Pond at the Mountain Pass Mine, San Bernardino County**

Enclosed are tentative Waste Discharge Requirements for the subject line facility, located in San Bernardino County. The Lahontan Regional Water Quality Control Board (Water Board) requests that you review the proposed revised Order contained in the enclosed documents and provide us with your written comments no later than **November 25, 2026**. The revised Waste Discharge Requirements update regulatory requirements and permits partial removal action and clean closure and post closure maintenance of the P-1 tailings impoundment. Please send your comments to the Lahontan Water Board's email address at [Lahontan@waterboards.ca.gov](mailto:Lahontan@waterboards.ca.gov) and include ***Revised Waste Discharge Requirements WDID No. 6B360008001 Comments*** in the subject line text. If you do not have access to the internet, you may mail your comments to the Lahontan Water Board's Victorville office at the address shown on this letter to the attention of Andrew Robinson.

The Lahontan Water Board will consider adopting the Revised Waste Discharge Requirements at its regular meeting scheduled for February 10, 2027. As required by the California Code of Regulations, title 27, section 21730, notice of the meeting and the enclosed documents are circulated not less than 45 days before the scheduled meeting. You can view the Lahontan Water Board's meeting agenda 10 days before the meeting on our web site at: [www.waterboards.ca.gov/lahontan](http://www.waterboards.ca.gov/lahontan) (click on Agenda). If you need further information regarding this meeting, please contact our office at (760) 241-6583.

If you need further information regarding this agenda item, please contact Andrew Robinson, Engineering Geologist at (760) 243-2444 or at ([andrew.robinson@waterboards.ca.gov](mailto:andrew.robinson@waterboards.ca.gov)) or Christina Guerra, Senior Engineering Geologist at (760) 241-7333 or ([christina.guerra@waterboards.ca.gov](mailto:christina.guerra@waterboards.ca.gov)).

Enc: Tentative Revised Waste Discharge Requirements MP Mine Operations, LLC  
Mountain Pass Mine, San Bernardino County

JEFF LOUX, CHAIR | BEN LETTON, EXECUTIVE OFFICER

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**BOARD ORDER NO. R6-2027-TENTATIVE  
WDID NO. 6B360008001**

**REVISED WASTE DISCHARGE REQUIREMENTS  
FOR**

**MP MINE OPERATIONS LLC  
MOUNTAIN PASS MINE AND MILL SITE**

**PARTIAL REMOVAL ACTION AND  
CLOSURE AND POST CLOSURE MAINTENANCE  
WEST (OLD) TAILINGS POND P-1**

San Bernardino County

---

The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Discharger

MP Mine Operations, LLC, a wholly owned subsidiary of MP Materials Corporation (hereinafter referred to as the "Discharger"), owns and operates the Mountain Pass Mine (Facility) and West (Old) Tailings Pond P- 1 (P-1). The Discharger has submitted to the Water Board the following reports and information constituting a complete Report of Waste Discharge (ROWD) for a partial removal action and continued post-closure of P-1.

- a. Site Characterization Report and Recommendations for Closure. Volumes I and II, dated March 1995.
- b. Closure and Post-Closure Maintenance Plan West (Old) Tailings Pond P-I. Volume 1: Waste Relocation and Foundation Layer Design, dated August 1995
- c. Closure and Post-Closure Maintenance Plan West (Old) Tailings Pond P-1. Volume 2: Final Cover Design dated May 1997.
- d. Addendum to Closure and Post-Closure Maintenance Plan, West (Old) Tailings Pond P-I, dated February 2000.
- e. P-1 Reclosure Design Permit -Level Design Basis and Design for P-1 Re- Closure, dated July 24, 2026.

2. Facility and P-1

For the purposes of this Order, the “Facility” is the Mountain Pass Mine, and “P-1” is the former West (old) Tailings Pond, which has been closed as a landfill.

Mining operations at the Mountain Pass area began in 1950. The Facility has operated an existing open pit mine with milling, beneficiation, and mineral recovery facilities for the economic extraction of lanthanide elements (bastnaesite), or rare earth elements. Initially, the ore is processed through the crusher and mill. During previous mining/milling operations, some of the finished rare earth products have been discharged to lined and unlined ponds on the mine property. P-1 was an unlined pond that received discharged tailings from 1964 until 1984. The tailings wastewater was reported to have elevated concentrations of total dissolved solids (TDS), sodium, potassium, alkalinity, sulfate, fluoride, barium, iron, lead, manganese, molybdenum, nickel, strontium, and uranium. From 1985 through 1996, Pond P-1 received various mining wastes from other onsite storage ponds as they were clean closed. Pond P-1 remained inactive until final closure activities and post-closure monitoring were implemented in 2006.

3. Location

The Facility encompasses 2,222 acres immediately north of Interstate 15 at Mountain Pass. The site straddles the boundary between the Ivanpah Valley and Amargosa Hydrologic Units within Sections 11, 12, 13, and 14, T16N, R13E, SBB&M (as shown on Attachment A). P-1 is located southwestern portion of the Facility approximately 1,700 feet north of Interstate Highway 15, near the western edge of Section 13 (as shown on Attachment B).

4. Reason for Action

The northeastern portions of P-1 will be removed to accommodate pit expansion. The final cover will be reconstructed at the boundary of the removed wastes and remains of P-1 will continue in post-closure. This Order is being issued to update and revise the Waste Discharge Requirements (WDRs) to reflect existing conditions, partial removal action of P-1, update closure requirements for P-1, and general updates to the Order and Monitoring and Reporting Program (MRP), and to be consistent with CCR, title 27.

5. Order History

The Regional Board previously adopted WDRs for the Discharger applicable to P-1 under the following Board Orders:

- a. Resolution 65-5, dated June 26, 1965, established Industrial WDRs for the disposal of ore beneficiation wastewaters.
- b. Board Order No. 6-75-73, dated July 24, 1975, established WDRs for the Facility.
- c. Board Order No. 6-80-9, dated January 10, 1980, allowed the construction of and evaporation pond near Ivanpah Dry Lake for the disposal of wastewater from the Facility.
- d. Board Order No. 6-81-73 was adopted on September 19, 1981, for the Mountain Pass (Mine and Mill) Operations wastewater disposal system modifications.
- e. Board Order No. 6-91-836 was adopted on June 13, 1991, revising the Facility's WDRs to reflect changes in accordance with Chapter 15, to include modifications to the Discharger's waste management strategy, and to incorporate provisions for a contaminated ground water Corrective Action Plan.
- f. Board Order No. 6-00-74 was adopted on September 14, 2000, creating Closure and Post Closure Monitoring Requirements for the P-1 impoundment.

Additionally, site investigations and cleanup associated with the P-1 release is being required under Cleanup and Abatement Order R6V-2014-0062, dated July 22, 2014, issued to MolyCorp Minerals LLC, for the cleanup and abatement of TDS, strontium, mercury, nitrate, barium, sodium lignin sulfonate, gross alpha, gross beta, uranium, and radium that leaked into groundwater.

6. P-1 History

Discharge of tailings to Pond P-1 ceased in 1985. From 1985 through 1996, Pond P-1 received various mining wastes from other onsite storage ponds as they were clean closed. Final closure and post-closure monitoring was implemented in 2006. The P-1 impoundment is closed in place with the constructed final cover as described in Finding 17, of this Order. Interim corrective action for the leakage from Pond P-1 to groundwater was implemented and has been operating since 2001. In 2004, groundwater monitoring confirmed a release of mercury, a previously undetected constituent of concern, into groundwater. A subsequent site investigation revealed mercury was used in ore processing in the 1980s, and mercury-containing waste streams had been discharged to Pond P-1. The mercury plume has been determined to extend

west outside of mine property, but no farther than monitoring well WD-1, about 4,400 feet west of the mine property boundary. Groundwater is extracted and previously discharged to the onsite evaporation ponds; however, in 2026, the Discharger implemented wastewater recycling such that groundwater extracted from the Pond P-1 system of recovery wells is currently treated at the recently built onsite water treatment plant for recycling and re-use onsite.

7. Land Uses

Land uses in the vicinity of the Facility generally include open space public lands managed by the Bureau of Land Management (BLM) and by the National Park Service (NPS). Land uses surrounding the Facility include the following:

North: Open space, NPS land, and BLM-managed public land.

South: Open space, Interstate 15, NPS land south of Interstate 15, and BLM-managed public land.

East: Open space, and BLM-managed public land.

West: Open space, NPS land, and BLM-managed public land.

A former public elementary school is located at Mountain Pass, approximately 2,000 feet south of the mine pit. The school was closed in 2003. A California Department of Transportation (Caltrans) highway maintenance station and California Highway Patrol (CHP) residences are located south of the Facility and west of the elementary school on BLM leases. There are also several parcels of privately owned land, some with residences, located in the general area.

8. Site Topography

The site slopes generally toward the south and ground surface elevation ranges from approximately 4,700-feet to 4,750-feet elevation.

9. Climate

The climate at Mountain Pass is arid to semi-arid with rainfall varying from 3 to 10 inches per year. The mean annual precipitation at the mine site is 7.9-inches per year. Most precipitation occurs during the winter months. Daytime temperatures during the summer frequently exceed 100°F and may fall to less than 10°F at night during the winter. Estimated annual gross evaporation is 115.5-inches per year.

10. Site Geology

The surficial geology of P-1 is characterized by older gravels and outcropping bedrock. The older (Tertiary-age) gravels (also referred to as older alluvium and debris flows) are comprised of poorly-sorted, pebble- to boulder-sized clasts in a finer-grained matrix. These materials, overlying granitic bedrock, are approximately 800 feet thick and are usually firmly cemented with calcareous mud. This older alluvium is less permeable than the shallow alluvium exhibiting hydraulic conductivities on the order of  $1 \times 10^{-5}$  cm/sec (Environmental Solutions, Inc., October 1994):

Bedrock in the area consists of Precambrian metamorphic and intrusive rocks. The older metamorphic rocks consist primarily of granitic gneiss. The main, igneous body at the mine site, which has intruded into the older metamorphic complex, consists of shonkinite-syenite stock and associated carbonatites.

Regional faulting that may impact the Facility include the Stateline Fault System, the primary regional system.

11. Site Hydrology and Hydrogeology

Groundwater flows southward in the Facility area, and then both east and west along the southern edge of the Facility, generally paralleling surface water flows. Groundwater ultimately flows eastward into the Ivanpah Valley or westward into Shadow Valley.

Groundwater beneath the Facility is found approximately 100 to 120-feet below ground surface. Groundwater levels and flows at the site have been significantly affected by corrective action pumping and pit dewatering activities. These activities have created local "cones of depression" in the groundwater surface due to the capture and extraction of groundwater.

Groundwater velocities are highly variable due to the varying hydraulic conductivities and localized fracturing. Investigations have identified the presence of a high-angle north-northwest trending fault. Investigations are ongoing to assess whether the fault could substantially impede westerly groundwater flow through the bedrock beyond its location. Groundwater permeability within the bedrock is fracture controlled. Typical velocities are estimated to range from four to five feet per day (ft/day) in shallow alluvium and fractured bedrock; from 0.03 to 1.0 ft/day for old alluvium and moderately fractured bedrock; and from negligible to 0.02 ft/day for slightly fractured bedrock.

Surface runoff in the area is primarily by sheet flow within localized drainage courses. As the site is located on a sloping alluvial fan surface, the area is not

prone to flooding and is not located in a flood plain. Review of flood insurance rate map indexes published by the Federal Emergency Management Administration (FEMA), indicates the site has not been mapped for flooding potential.

12. Groundwater Quality

a. Background Water Quality

The source of recharge to the groundwater at the Facility derives from the Clark Mountain Range. Upgradient groundwater monitoring is trending lower, stable water quality with a slow groundwater migration rate. Downgradient groundwater monitoring shows a less dramatic water level decrease, with 2004-3UMW, 2000-1UMW showing values above background, and the migration rate downgradient of P-1 is very slow through the fractured bedrock. Closure of P-1 has led to general improvements in groundwater quality farther downgradient, but some areas still show elevated concentrations.

b. Polluted Groundwater

Groundwater migration is slow due to the growing evidence of geological barriers as shown in Interim Feasibility Study efforts and it remains uncertain whether impacts will reach sentinel wells in the foreseeable future according to measured groundwater migration rates sourced from Annual Monitoring Reports. Groundwater management efforts continue but pumping rates have decreased due to declining groundwater levels. Releases of mining waste from onsite waste management units have impacted groundwater within and downgradient of the Facility. P-1 and P-16 (regulated under a separate Order) former closed tailings ponds are the primary sources of residual groundwater pollution.

Groundwater within the mine pit is impacted from former P-16 seepage and captured by the cone of depression affected by the groundwater sink intersected by the pit area. The pit extraction system captures more than 50 percent of the remnant seepage from P-16 as well as a large portion of the remnant P-1, hydraulically controlling plume migration. The capture zone will expand as the pit is deepened and dewatering activities continue.

13. Water Sources

The Discharger owns two separate well fields that have been used to supply domestic water to the unincorporated community of Mountain Pass. One wellfield

is 10 miles to the west in the Amargosa Hydrologic Unit (Shadow Valley). The other wellfield is 10 miles to the east in the Ivanpah Hydrologic Unit (Ivanpah valley). The well fields have been used to supply water to the Facility, a former school, and residences. There are no active domestic water supply wells within the Facility or within a distance of several miles downgradient of the Facility. The Discharger currently supplies domestic water to the Community of Mountain Pass from the wells in the Amargosa Hydrologic Unit (Shadow Valley).

14. Waste Generation from Partial Removal Action

Northeastern portions of closed P-1 will be disturbed and require removal due to planned pit expansion. Where feasible, materials such as cover soil and vegetative growth medium may be reused in the reconstruction of the closure cover system. Tailings materials will be discharged to the Northwest Tailings Disposal Facility (NWTDF).

15. Waste Management Unit

The P-1 tailings impoundment or surface impoundment meets the criteria for classification as a Class II waste management unit (WMU) for the disposal of mining waste, as defined in CCR, title 27, section 22470.

16. Waste Classification

Mining waste contained in P-1 is composed of the solid residues, sludges and liquids from the refining of ores and mineral commodities at the Facility. The now dry waste meets the definition of a Group B mining waste in that it consists of or contains non-hazardous soluble pollutants (and in this case radionuclides) of concentrations which could (if transported to the water table) exceed water quality objectives for, or could cause degradation of, waters of the State.

17. Description of Final Cover

Once the waste tailings in the northeastern portion of P-1 are removed to accommodate pit expansion, the accepted engineered alternative final cover design will be reconstructed along the disturbed boundary of P-1. The final cover of the re-closed P-1 consists of four layers, from top to bottom:

- a. A vegetative layer a minimum of 6-inches in thickness, to prevent erosion and support vegetation. The material will be sourced from existing topsoil or stripped topsoils from future expansion areas;
- b. A 1.5-foot-thick cover soil layer composed of minus one-inch material screened from onsite soils or mine overburden;

- c. A geosynthetic clay layer (GCL) composed of a layer of sodium bentonite clay sandwiched between, and bonded to, two layers of nonwoven geotextiles. The material will be overlapped and tied into the existing GCL with bentonite chips; and
- d. The foundation layer, 2-feet of material comprised of compacted tailings.

18. Engineered Alternative to Prescriptive Standard for the Waste Management Units

CCR, title 27, includes prescriptive standards for waste management unit closure, but also allows for engineered alternatives to such standards. The prescriptive CCR, title 27 cover, contained in Section 21090, requires an infiltration barrier of 12-inches of compacted clay with a permeability of  $1 \times 10^{-6}$  cm/s (or less) covered by soil (erosion resistant layer) capable of supporting vegetation.

In arid and semi-arid regions, a compacted clay layer would suffer the deleterious effects of desiccation and cracking during the hot dry periods and freezing/thawing during cold wet periods. These cracks in the clay layer would allow infiltration of precipitation through the cover. Furthermore, if used, clay would have to be trucked in making a compacted clay layer prohibitively expensive. Therefore, the Discharger developed an alternative to CCR, title 27 prescriptive requirements.

A GCL is proposed as an alternative to the compacted clay layer. GCL products are less subject to desiccation and freeze/thaw effects and tend to expand and seal when wetted. The GCL contains a minimum thickness of 0.25 inches of bentonite and exhibits an effective hydraulic conductivity of  $5 \times 10^{-8}$  cm/s when tested under low confining stresses.

Calculations of the rate of seepage through the GCL and prescriptive compacted clay layer show the amount of infiltration through the GCL is approximately 10 times less than the prescriptive clay liner.

The Facility is located in a semi-arid environment where natural topsoil is limited. However, the top, 6-inch-thick layer of soil cover is capable of supporting (shallow-rooting) grasses. The 1.5 foot thick select-soil layer is overlying the GCL will protect is from environmental factors such as desiccation, freeze/thaw, and root penetration.

For the reasons listed, the Discharger has met the requirements of CCR, title 27 section 20080(b), allowing an engineered alternative by demonstrating that:

- a. The construction of prescriptive (compacted clay) standard is not feasible;
- b. The proposed alternative is consistent with the performance goal addressed by the prescriptive standard; and
- c. The alternative affords equivalent protection against water quality impairment.

The engineered alternative is approved through the adoption of this Order.

19. Water Quality Protection Standard

The Water Quality Protection Standard (WQPS) consists of monitoring parameters, constituents of concern (COCs), concentration limits, monitoring points, and the point of compliance. The WQPS applies over the active life of the Facility, closure period, post closure maintenance period, and the compliance period. The COCs, monitoring points, and point of compliance for groundwater and unsaturated zone monitoring are described in MRP No. R6-2027-TENTATIVE.

20. Compliance Period

The compliance period is the number of years equal to the active life of the WMU plus the closure period, any post-closure monitoring and maintenance period until the Water Board finds that P-1 no longer poses a threat to water quality. The compliance period is the minimum period during which the Discharger must conduct a water quality monitoring program subsequent to a release. The compliance period must begin anew each time the Discharger initiates an Evaluation Monitoring Program (EMP). If the discharger is engaged in a corrective action program at the scheduled end of the compliance period, the compliance period shall be extended until the Discharger can demonstrate that the WMU has been in continuous compliance with its WQPS for a period of three years as specified in CCR, title 27, section 20410(c).

21. Detection Monitoring Program

Pursuant to CCR, title 27, section 22500, the Discharger must implement a Detection Monitoring Program (DMP) for P-1 as specified in CCR, title 27, sections 20385 and 20420. The DMP for P-1 consists of monitoring groundwater for the presence of COCs. The DMP is specified in MRP No. R6-2027-TENTATIVE.

Pursuant to CCR, title 27, section 20415(b)(B)(1), the Discharger must install a sufficient number of monitoring points downgradient of the WMU, at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer

that represents the quality of water passing the point of compliance and to allow for the earliest possible detection of a release from the WMU. Groundwater monitoring wells 94-13MW and SRK-12 were installed to monitor groundwater downgradient of the impoundment but have been dry for multiple annual monitoring events reflecting the lowering of groundwater elevations of the area. Existing monitoring wells may be used for the purposes of the DMP.

22. Evaluation Monitoring Program

Pursuant to CCR, title 27, section 22500, an EMP may be required, as specified in CCR, title 27, sections 20385 and 20420(k)(6), whenever there is “measurably significant” evidence of a release from the Facility during a DMP or whenever there is significant physical evidence of a release from the Facility. The EMP requires the Discharger to delineate the nature and extent of the release and develop a suite of proposed corrective action measures within 90 days of establishing an EMP, unless the Discharger proposes and substantiates a longer time period for implementing the EMP. If the EMP confirms measurably significant evidence of a release or significant physical evidence of a release, then the Discharger needs to submit an Engineering Feasibility Study for corrective action pursuant to CCR, title 27, section 20425, subdivision (b), and MRP No. R6-2027-TENTATIVE. Previous releases from P-1 have been identified and verified, and are required to be addressed by Cleanup and Abatement Order R6V-2014-0062.

23. Corrective Action Program

Pursuant to CCR, title 27, section 22500, a corrective action program to remediate released wastes from P-1 may be required as specified in CCR, title 27, sections 20385 and 20430, if results of an EMP confirm measurably significant evidence of a release or significant physical evidence of a release from the Facility.

24. Known or Reasonably Foreseeable Release

The Discharger is required to provide financial assurance for corrective action of a known or reasonably foreseeable release as specified in CCR, title 27, section 20080(a)(1). There is a known or reasonably foreseeable release plan submitted for P-1. The Discharger is required to update this plan if/when there is a substantial change in operations, site conditions, or cost estimates to implement the plan. At minimum, the plan must (1) describe those actions necessary to initiate and complete corrective action for a known or reasonably foreseeable release from the P-1, and (2) include a detailed cost estimate of the costs to carry out the actions necessary to perform the corrective action activities identified.

25. Closure and Post Closure Maintenance Plan

This Order approves the P-1 Re-Closure Design , dated July 24, 2026, which describes the proposed pit expansion's extension into the existing footprint of P-1, cover reconstruction, and continued implementation of the previously approved post-closure maintenance plan in accordance with CCR, title 27, section 21090. The northeastern portions of P-1 will be removed to accommodate the pit expansion. Excavated waste tailings will be characterized and discharged to the NWTDF. P-1 will be regraded and the final cover reconstructed at the removal action boundary.

Tailings material in P-1 have dewatered for an extended period. As a result, the tailings are relatively dense and consolidated. Any additional settlement would be due to changes in vertical stress from grading activities and the reconstruction of the final cover.

Post-closure monitoring of P-1 will include monitoring any settlement of the cover system annually; and performing semi-annual inspections and maintenance of the cover system before and after the rainy season, including a leak detection survey to identify any damaged areas, and evaluation of the (re) vegetation.

26. Financial Assurance

The Discharger has provided documentation of financial instruments for closure, post-closure maintenance and monitoring, and for a potential future corrective action of a known or reasonably foreseeable release. This Order requires the Discharger to demonstrate in an annual report that the amount of financial assurance is adequate or to increase the amount of financial assurance, as appropriate, as required under CCR, title 27, sections 22207, 22212, 22510(f), 22510(g), and 20080(a)(1).

27. Storm Water

This Order requires the Discharger to operate the P-1 impoundment to accommodate the 10-year, 24-hour storm event (design storm) in accordance with CCR, title 27, section 22490, subsection (h)(1)(B). The Discharger has demonstrated that the proposed flood protection structures including stormwater diversion channels to redirect upgradient runoff around the P-1 impoundment to nearby natural drainage courses will accommodate the 10-year, 24-hour storm event.

28. Basin Plan

The Water Board adopted a *Water Quality Control Plan for the Lahontan Region* (Basin Plan), which became effective on March 31, 1995. This Order implements the Basin Plan, as amended.

29. Receiving Waters

The receiving waters are the surface waters (ephemeral springs) of the Amargosa Hydrologic Unit and Ivanpah Hydrologic Unit (609.00 and 612.00, respectively, Basin Plan, Plate 1B); and groundwaters of the Upper Kingston Valley and Ivanpah Valley (6-22 and 6-30, respectively, Basin Plan, Plate 2B).

30. Beneficial Uses

The present and potential beneficial uses of groundwaters of the Ivanpah Valley and Upper Kingston Valley Groundwater Basins, as set forth and defined in the Basin Plan, are:

- a. Municipal and domestic supply (MUN);
- b. Agricultural Supply (AGR);
- c. Industrial service (IND); and
- d. Freshwater Replenishment (FRSH).

The present and potential beneficial uses of surface waters (including ephemeral springs) of the Ivanpah and Amargosa Hydrologic Units, as set forth and defined in the Basin Plan are:

- a. Municipal and Domestic Supply (MUN);
- b. Agricultural Supply (AGR);
- c. Groundwater Recharge (GWR);
- d. Freshwater Replenishment (FRSH);
- e. Water Contact Recreation (REC-1);
- f. Non-contact Water Recreation (REC-2);
- g. Warm Freshwater Habitat (WARM);
- h. Cold Water Habitat (COLD);
- i. Wildlife Habitat (WILD);
- j. Water Quality Enhancement (WQE); and
- k. Flood Peak Attenuation/Flood Water Storage (FLD).

31. Statistical and Non-Statistical Methods

Statistical and non-statistical analyses of monitoring data are necessary for the earliest possible detection of a release of waste from the Facility. CCR, title 27, section 20415, subdivision (e)(7), requires statistical data analysis method(s) to

determine when there is "measurably significant" evidence of a release from the Facility. CCR, title 27, section 20415, subdivision (e)(8) allows non-statistical data analysis method(s) that can achieve the goal of the monitoring program at least as well as the most appropriate statistical method. The monitoring parameters listed in MRP No. R6-2027-TENTATIVE are believed to be the best indicators of a release from the Facility.

32. Discharge of Monitoring Well Purge Water

As part of the regularly scheduled groundwater sampling events, groundwater monitoring wells are purged until parameters of electrical conductivity, pH, and temperature are sufficiently stabilized to ensure the collection of a representative sample. To protect surface waters and groundwater, the discharge to the ground of purge water is prohibited from containing concentrations of COCs and monitoring parameters, which exceed the WQPS, as described in MRP No. R6-2027-TENTATIVE.

33. Waste Management Strategy

The Water Board has determined that the partial removal action, closure, and final cover remain consistent with a waste management strategy that prevents additional pollution or contamination of the waters of the state, particularly after closure of the waste management unit for mining waste.

34. California Water Code, Section 13241 Considerations

Pursuant to CWC, section 13241, the requirements of this Order take into consideration:

- a. Past, present, and probable future beneficial uses of water. This Order identifies existing groundwater quality and past, present, and probable future beneficial uses of water, as described in Finding Nos. 12 and 30, respectively. The proposed discharge will not adversely affect present or probable future beneficial uses of water including municipal and domestic supply, agricultural supply, industrial service supply, and freshwater replenishment, because P-1 has been closed as a landfill with a CCR, title 27 final cover constructed and in place since 2006 and this Order requires monitoring to detect any impacts to water quality.
- b. Environmental characteristics of the hydrographic unit under consideration including the quality of water available thereto. Findings No. 11 and 12 describes the environmental characteristics and quality of water available.

- c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area. There are no other industries or activities in the area of the project that would be factors that affect water quality in the area. The Water Board will use its existing authority and this Order to ensure protection of water quality from discharges. Compliance with the requirements of this Order is not expected to further affect surface water or groundwater quality.
- d. Economic considerations. Water Quality Objectives (WQOs) established in the Basin Plan for the Ivanpah and Amargosa Hydrologic Units do not subject the Discharger to economic disadvantage as compared to other similar discharges in the Region. This Order will require the Discharger to submit proposals compliant with the requirements of CCR, title 27.
- e. The need for developing housing within the region. The Discharger is not responsible for developing housing within the region. This Order permits the partial removal action of a closed waste management unit with an engineered alternative final cover.

35. Human Right to Safe, Clean, Affordable, and Accessible Water

CWC, section 106.3, establishes a state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes and directs state agencies to consider this policy when adopting regulations pertinent to those uses of water. Requirements in this Order for drainage controls, monitoring to assess water quality, and corrective action to address impacts to water quality will further promote this policy.

36. California Environmental Quality Act (CEQA) Compliance

These WDRs govern an existing facility. The project consists of a partial removal action and post closure maintenance of P-1 in accordance with a previously approved Closure and Post Closure Maintenance Plan and P-1 Re-Closure Design; and is therefore categorically exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.) in accordance with Section 15301 of the CEQA Guidelines.

37. Antidegradation Analysis

State Water Resources Control Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintenance of High Quality Waters in California") requires that whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective,

such existing high quality must be maintained. Any change in the existing high quality is allowed by that policy only if it has been demonstrated to the Regional Water Board that any change will be consistent with maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies. The policy further requires that Dischargers meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the state will be maintained.

Adequate liner systems, which comply with CCR, title 27 requirements, are needed to prevent an unauthorized release to groundwater and this WDR is expected to prevent degradation of water quality as a result of the partial removal action. A monitoring and maintenance program is needed to ensure that waste discharges are contained within the WMUs at the Facility. As a result, degradation is not expected.

38. Technical and Monitoring Reports

CWC, section 13267(b) provides that: "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 discharge or discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of having discharged or discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. 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."

Technical reports are necessary to ensure compliance with this Order and to assess any water quality impacts due to discharges from the Facility. Therefore, the burden, including costs, of these reports bears a reasonable relationship to the need for the report and the benefits to be obtained from the reports.

39. Right to Petition

Any person aggrieved by this action of the Water Board may petition the State Water Board to review the action in accordance with California Water Code, section 13320, and CCR, title 23, sections 2050 et. seq. 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 in hard copy or electronic format upon request.

40. Notification of Interested Parties

The Water Board notified the Discharger and interested agencies and persons of its intent to adopt revised WDRs for the authorized discharge of wastes to the surface impoundments and has provided them with an opportunity to submit their written views and recommendations.

41. Consideration of Interested Parties

The Water Board, in a public meeting held on February 10, 2026, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED**, pursuant to California Water Code, sections 13263 and 13267, that the Discharger shall comply with the following:

I. RECEIVING WATER LIMITATIONS

The discharge must not cause the existing water quality to be degraded nor shall the discharge cause a violation of any applicable water quality standard.

A. Under no circumstances shall the discharge cause the presence of the following substances or conditions in groundwaters of the Ivanpah and Amargosa Groundwater Basins.

1. Bacteria – Groundwaters designated as MUN, the median concentration of coliform organisms, over any seven-day period, must be less than 1.1 Most Probable Number per 100 milliliters (MPN/100 mL).
2. Chemical Constituents – Groundwaters designated as MUN must not contain concentrations of chemical constituents in excess of the Primary or Secondary MCL based upon drinking water standards specified in the following provisions of CCR, title 22: Table 64431-A of section 64431 (Inorganic Chemicals), Table 64444-A of section 64444 (Organic Chemicals), Table 64449-A of section 64449 (Secondary MCLs – Consumer Acceptance Contaminant Levels), and Table 64449-B of section 64449 (Secondary MCLs – Consumer Acceptance Contaminant Level Ranges). This incorporation-by-reference is prospective including future changes

to the incorporated provisions as the changes take effect.

Groundwaters must not contain concentrations of chemical constituents that adversely affect the water for beneficial uses.

3. Radioactivity – Radionuclides must not be present in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food chain to an extent that it presents a hazard to human, plant, animal, or aquatic life. Groundwater designated MUN must not contain concentrations of radionuclides in excess of limits specified in CCR, title 22, section 64442, Table 64442, and section 64443, Table 64443, including future changes as the changes take effect.
4. Taste and Odors – Groundwaters must not contain taste or odor-producing substances in concentrations that cause a nuisance or that adversely affect beneficial uses. For groundwaters designated as MUN, at a minimum, concentrations must not exceed adopted Secondary MCLs as specified in CCR, title 22, section 64449, Table 64449-A (Secondary MCLs – Consumer Acceptance Contaminant Level) and Table 64449-B (Secondary MCLs – Consumer Acceptance Contaminant Levels Ranges) including future changes as the changes take effect.

B. Under no circumstances shall the Discharger cause the presence of the following substances or conditions in surface waters of the Ivanpah and Amargosa Hydrologic Units.

1. Ammonia – The neutral, un-ionized ammonia species ( $\text{NH}_3$ ) is highly toxic to freshwater fish. The fraction of toxic  $\text{NH}_3$  to total ammonia species ( $\text{NH}_4^+ + \text{NH}_3$ ) is a function of temperature and pH. Tables 3-1 to 3-4 from the Basin Plan were derived from USEPA ammonia criteria for freshwater. Ammonia concentrations must not exceed the values listed for the corresponding conditions in these tables. For temperature and pH values not explicitly in these tables, the most conservative value neighboring the actual value may be used or criteria can be calculated from numerical formulas available on page 3-4 of the Basin Plan.
2. Bacteria – Waters where the salinity is equal to or less than 1 part per thousand (ppt) 95 percent or more of the time during the CALENDAR YEAR must not exceed a six-week rolling GEOMETRIC MEAN of *Escherichia coli* (*E. coli*) of 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and

must not exceed a STATISTICAL THRESHOLD VALUE (STV) of 320 cfu/100 mL by more than 10 percent of the samples collected in a CALENDAR MONTH, calculated in a static manner.

United States Environmental Protection Agency (U.S. EPA) recommends using U.S. EPA Method 1603 or other equivalent method to measure culturable E. coli.

For additional information: *State Water Resources Control Board California Environmental Protection Agency, Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California, Bacteria Provisions and a Water Quality Standards Variance Policy* [2019 ISWEBE Bacteria Provisions](#).

3. Biostimulatory Substances – Waters must not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.
4. Chemical Constituents – Waters designated as MUN must not contain concentrations of chemical constituents in excess of the Primary or Secondary MCL based upon drinking water standards specified in CCR, title 22, chapter 15, article 1, section 64400 et. seq. Waters designated as AGR must not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes). Waters must not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.
5. Chlorine, Total Residual – For the protection of aquatic life, total chlorine residual must not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values must be based on daily measurements taken within any six-month period.
6. Color – Waters must be free of coloration that causes nuisance or adversely affects the water for beneficial uses.
7. Dissolved Oxygen – The dissolved oxygen concentration, as percent saturation, must not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation. The minimum dissolved oxygen concentration must not be less than 4.0 mg/L as a daily minimum, 5.0 mg/L as a 7-day mean, and 6.5 mg/L as a 30-day mean.

8. Floating Materials – Waters must not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses. For natural high-quality waters, the concentrations of floating material must not be altered to the extent that such alterations are discernible at the 10 percent significance level.
9. Oil and Grease – Waters must not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses. For natural high-quality waters, the concentration of oils, greases, or other film or coat generating substances must not be altered.
10. Nondegradation of Aquatic Communities and Populations – All waters must be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life. All waters must be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes.
11. pH – Changes in normal ambient pH levels must not exceed 0.5 pH units. The pH must not be depressed below 6.5 nor raised above 8.5.
12. Radioactivity – Radionuclides must not be present in concentrations which are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life. Waters designated as MUN must not contain concentrations of radionuclides in excess of the limits specified in CCR, title 22.
13. Sediment – The suspended sediment load and suspended sediment discharge rate of surface waters must not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.
14. Settleable Materials – Waters must not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. For

natural high-quality waters, the concentration of settleable materials must not be raised by more than 0.1 milliliter per liter.

15. Suspended Materials – Waters must not contain suspended materials in concentrations that cause nuisance or that adversely affect the water for beneficial uses. For natural high-quality waters, the concentration of total suspended materials must not be altered to the extent that such alterations are discernible at the 10 percent significance level.
16. Taste and Odor – Waters must not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. For naturally high-quality waters, the taste and odor must not be altered.
17. Temperature – The natural receiving water temperature of all waters must not be altered unless it can be demonstrated to the satisfaction of the Water Board that such an alteration in temperature does not adversely affect the water for beneficial uses. For waters designated WARM, water temperature must not be altered by more than five degrees Fahrenheit (5°F) above or below the natural temperature. For waters designated COLD, the temperature must not be altered.
18. Toxicity – All waters must be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
19. Turbidity – Waters must be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.
20. Chronic Aquatic Toxicity – Aquatic toxicity is the adverse response of aquatic organisms from exposure to chemical or physical agents, or their synergistic effects in effluent or ambient water. Chronic aquatic toxicity generally refers to longer exposure duration and measures of both lethal and sub-lethal adverse response.

Ceriodaphnia dubia testing must follow the method for chronic toxicity, Short-term Methods for Estimating the Chronic Toxicity of

Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013).

21. Chronic Toxicity – The chronic aquatic toxicity water quality objective is expressed as a null hypothesis and an alternative hypothesis with a regulatory management decision (RMD) of 0.75, where the following null hypothesis,  $H_0$ , shall be used:

$H_0$ : Mean response (ambient water)  $\leq 0.75 \cdot$  mean response (control)

And where the following alternative hypothesis,  $H_a$ , shall be used:

$H_a$ : Mean response (ambient water)  $> 0.75 \cdot$  mean response (control)

Attainment of the water quality objective is demonstrated by conducting chronic aquatic toxicity testing for *Ceriodaphnia dubia* and rejecting this null hypothesis in accordance with the Test of Significant Toxicity (TST) statistical approach described in the Statewide Toxicity Provisions Section III. B. When the null hypothesis is rejected, the alternative hypothesis is accepted in its place, and there is no exceedance of the chronic aquatic toxicity water quality objective. Failing to reject the null hypothesis (referred to as a “fail”) is equivalent to an exceedance of the chronic aquatic toxicity water quality objective.

## II. REQUIREMENTS AND PROHIBITIONS

### A. General

1. The discharge must not cause or threaten to cause a condition of pollution or nuisance as defined in CWC, section 13050.
2. The discharge of waste, as defined in CWC, section 13050, subdivision (d), must not cause an exceedance of any narrative or numeric WQO contained in the Basin Plan.
3. There must be no discharge, bypass, or diversion of designated wastes from the collection, conveyance, or P-1 to adjacent land areas or surface waters.
4. Where any numeric or narrative WQO contained in the Basin Plan is already being exceeded, any discharge which causes further degradation or pollution is prohibited.

5. Post-closure maintenance must be conducted to ensure the integrity of the final cover and environmental control systems. P-1 must be maintained and monitored for a period of not less than thirty (30) years after the completion of closure. Maintenance and monitoring shall include, but not be limited to: site security; and maintenance as specified in the Final Closure and Post-Closure Maintenance Plans.
6. The Discharger must perform ongoing monitoring and site maintenance to ensure that P-1 does not discharge any waste materials to land areas, groundwaters, or surface waters.
7. All facilities used for the collection, conveyance, or disposal of waste must be adequately protected against overflow, washout, inundation, structural damage, or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.
8. The discharge of solid wastes, leachate, wastewater, or any other deleterious materials to groundwater is prohibited.
9. The discharge must not cause any increases in the concentration of waste constituents in soil-pore liquid, soil, or other geologic materials outside of the P-1 if such waste constituents could migrate to waters of the State – in either liquid or gaseous phase – or cause a condition of nuisance, degradation, contamination, or pollution.
10. The discharge of waste in a manner that does not maintain a five-foot separation between the waste and the seasonal high groundwater table is prohibited as specified in CCR, title 27, section 20240, subdivision (c).
11. Any construction on the P-1 site shall maintain the integrity of the final cover, drainage and erosion control systems, and stormwater control systems. Any proposed modification or replacement of the low permeability layer of the final cover shall not begin until approved by the Water Board.
12. The discharge of pesticides to surface waters or groundwater is prohibited.
13. Water used for dust control must be limited to a minimal amount. A "minimal amount" is defined as that amount which will not result in run-off.

14. The Discharger must maintain in good working order any control system or monitoring device installed to achieve compliance with this Order.
15. The Discharger must at all times maintain adequate and viable financial assurances acceptable to the Water Board Executive Officer for costs associated with closure, post-closure maintenance and monitoring, and for corrective action for all known or reasonably foreseeable releases.

B. Waste Management Unit

1. The P-1 final cover must be constructed and maintained as described in Finding No. 17.
2. P-1 must be effectively sealed to prevent the infiltration of liquids. For P-1, "effectively sealed" is a WMUs that is designed and constructed to meet the requirements of CCR, title 27, sections 20310, 20320, and 20330.
3. Within 90 days following maintenance or reconstruction of an engineered alternative cover liner system, a technical report must be submitted containing at least a construction quality assurance/quality control report; if liner construction occurs, the technical report must also include as-built drawings. The report must contain all field and laboratory data generated during the maintenance and construction activities. The report must also contain certification, signed by a California professional civil engineer, that the final cover was constructed and suitable for operation in accordance with CCR, title 27 requirements.

C. Precipitation and Drainage Controls

All diversion and drainage facilities shall be designed and constructed to accommodate the anticipated volume of precipitation and peak flows from surface runoff as specified in CCR, title 27, section 22490, subsection (h).

D. Electronic Submittal of Information

Pursuant to CCR, title 23, section 3890, the Discharger must submit all reports, including soil and water data, prepared for the purpose of subsurface investigation or remediation of a discharge of waste to land subject to CCR, title 27, electronically over the internet to the State Water

Board's GeoTracker system. This requirement is in addition to, and not superseded by, any other applicable reporting requirement.

III. WATER QUALITY MONITORING AND RESPONSE PROGRAMS

A. Water Quality Protection Standard

1. The WQPS consists of COCs, concentration limits, monitoring points, and the point of compliance. The COCs, concentration limits, monitoring points, and point of compliance for groundwater and unsaturated zone monitoring are described in MRP No. R6-2027-TENTATIVE.
2. The Discharger must submit a revised ROWD to the Water Board at least 120 days before initiating discharge of any new COCs to the WMUs. Before a new discharge commences, the Discharger must estimate the concentration for such constituents within the waste stream and submit written statistical method(s) in order to detect a release of such constituents.
3. At any given time, the concentration limit for each monitoring parameter and COC must be equal to the background data set of that constituent unless a concentration limit greater than background has been established. The background data set for each monitoring point/constituent pair should be comprised of at least eight data points, collected quarterly.
4. If the Discharger or Water Board Executive Officer determines that concentration limits were or are exceeded, the Discharger may immediately institute verification procedures upon such determination as specified in Section III.F of this Order or, within 90 days of such determination, submit a technical report pursuant CWC, section 13267, subdivision (b), proposing an EMP meeting the provisions of CCR, title 27. In the event of a release, the Discharger will have 90 days once the Water Board authorizes the establishment of the EMP to complete the delineation, develop a suite of proposed corrective action measures, and submit a revised ROWD with a proposed corrective action program for adoption by the Water Board.
5. Monitoring of the groundwater must be conducted to obtain background data and to provide the best assurance of the early detection of any releases from the Facility.

B. Detection Monitoring Program

The Discharger must maintain a DMP as specified in CCR, title 27, section 20420.

C. Evaluation Monitoring Program

The Discharger must perform an EMP whenever there is measurably significant evidence and/or significant physical evidence of release as specified in CCR, title 27, section 20385, subdivision (a)(2) or (3). Within 90 days of initiating the EMP, the Discharger must delineate the nature and extent of the release, as well as develop, propose, and support corrective action measures to be implemented in a corrective action program.

D. Corrective Action Program

The Discharger must implement a corrective action program as specified in CCR, title 27, section 20385 and 20430, following completion of an EMP.

E. Data Analysis

Within 45 days after completion of sampling, the Discharger must determine at each monitoring point whether there is measurably significant evidence and/or significant physical evidence of a new release from the Facility. The analysis must consider all monitoring parameters and COCs. The Executive Officer may also make an independent finding that there is measurably significant evidence and/or significant physical evidence of a new release.

1. To determine whether there is "measurably significant" (as defined in CCR, title 27, section 20164) evidence of a new release from the Facility, the Discharger must use approved statistical data analysis methods to evaluate point of compliance groundwater data, as specified in CCR, title 27, section 20415, subdivision (e)(7).
2. To determine whether there is significant physical evidence of a new release from the Facility, the Discharger must also use non-statistical methods. Significant physical evidence may include, but is not limited to, unexplained volumetric changes in the surface impoundments, unexplained stress in biological communities, unexplained changes in soil characteristics, visible signs of spill/release, unexplained water table mounding beneath or

adjacent to the surface impoundments, and/or any other change in the environment that could be reasonably be expected to be the result of a new release from the surface impoundments. Other non-statistical evidence of a release may include trends of increasing concentrations of one or more constituents over time.

3. If there is measurably significant evidence and/or significant physical evidence of a new release, the Discharger must immediately notify the Water Board by telephone as to the monitoring points and constituent(s) or parameters involved followed by written notification sent certified mail within seven days (see "Unscheduled Reports to be Filed With the Water Board," MRP No. R6-2027-TENTATIVE). The Discharger must initiate the verification procedures, as specified in this Order, Section III.F.

F. Verification Procedures

Whenever there is a determination by the Discharger or Executive Officer that there is measurably significant evidence or significant physical evidence of a new release, the Discharger must initiate verification procedures as specified below.

1. The Discharger must either conduct a composite retest using data from the initial sampling event with all data obtained from the resampling event or must conduct a discrete retest in which only data obtained from the resampling event must be analyzed to verify evidence of a release. Alternatively, the Discharger may perform a pass 1-of-3 retesting approach using quarterly samples, as an engineered alternative.
2. The verification procedure need only be performed for the constituent(s) that has shown a measurably significant evidence of a release and must be performed for those monitoring points at which a release is indicated.
3. Within seven days of receiving the results of the last laboratory analyses for the retest, the Discharger must report to the Water Board, by certified mail, the results of the verification procedure, as well as all data collected for use in the retest.
4. If the Discharger or Executive Officer verifies that there is or was evidence of a release, the Discharger is required to submit a technical report to the Water Board within 90 days of such a determination, pursuant to CWC, section 13267, subdivision (b).

The report must propose an EMP (see Section III.C above) or make a demonstration to the Water Board that there is a source other than the WMU that caused evidence of a release (see "Unscheduled Reports to be Filed With the Water Board," MRP No. R6-2027-TENTATIVE).

5. If the Discharger declines to conduct verification procedures, the Discharger must submit a technical report, as specified in this Order, Section III.G.

G. Technical Report Without Verification Procedures

If the Discharger chooses not to initiate verification procedures after there has been a determination made for evidence of a release, a technical report must be submitted pursuant to CWC, section 13267(b). The report must propose an EMP or attempt to demonstrate that the release did not originate from the surface impoundments.

H. Monitoring and Reporting

1. Pursuant to CWC, section 13267, subdivision (b), the Discharger must comply with the monitoring and reporting requirements as established in the attached MRP No. R6V-2027-TENTATIVE and as specified by the Executive Officer. The MRP may be modified by the Water Board Executive Officer.
2. The Discharger must comply with the "General Provisions for Monitoring and Reporting," which is attached to and made part of MRP No. R6-2027-TENTATIVE.

IV. PROVISIONS

A. Rescission of Waste Discharge Requirements

Board Order No. 6-00-74 and MRP No. 6-00-74 are hereby rescinded.

B. Standard Provisions

The Discharger must comply with the "Standard Provisions for Waste Discharge Requirements," in Attachment D, which is attached to and made part of this Order.

C. Final Closure and Post-Closure Maintenance Plan

This Order approves the P-1 Re-Closure Design. The Discharger must submit a report to the Water Board on or before **January 30, 2028**, and by **January 30** every year thereafter, indicating that the site monitoring and maintenance is in conformance with P-1 Reclosure Design and Post-Closure Maintenance Plan. in conformance with updated final closure plan and post-closure maintenance plan approved by the Water Board. This report may be included in the annual monitoring report as required in MRP No. R6-2027-TENTATIVE.

D. Known or Reasonably Foreseeable Release Plan

The known or reasonably foreseeable release plan must be updated if there is a substantial change in operations or in site conditions. The Discharger must submit a report to the Water Board on or before **January 30, 2028**, and by **January 30** every year thereafter, indicating that the known or reasonably foreseeable release plan is in conformance with existing Facility conditions. This report may be included in the annual monitoring report as required in MRP No. R6-2027-TENTATIVE.

E. Financial Assurance

The Discharger must submit to the Water Board a financial assurance report on or before **July 30, 2028**, and by **July 30** every year thereafter, providing evidence that adequate financial assurances have been provided for post-closure maintenance, and for corrective action of all known or reasonably foreseeable releases. Evidence must include the total amount of money available in the fund developed by the Discharger. In addition, the Discharger must either provide evidence that the amount of financial assurance is still adequate or increase the amount of financial assurance by an appropriate amount. An increase may be necessary due to inflation, change(s) in regulatory requirements, change(s) in the accepted preliminary closure and post-closure maintenance plan, or other unforeseen events.

F. Modifications to the Facility

If the Discharger intends to modify the closure of P-1, a report must be filed with the Water Board **no later than 120 days prior** to the anticipated change, containing a detailed plan for the modification. This plan must include but is not limited to, a time schedule for activities and other information needed to document the proposed closure of P-1. Pursuant to CWC, section 13260(k), the discharger must submit a report on the physical and chemical characteristics of the waste that could affect its potential to cause pollution or contamination. The report must evaluate the

potential of the discharge of the mining waste to produce, over the long term, acid mine drainage, the discharge or leaching of heavy metals, or the release of other hazardous substances.

V. TIME SCHEDULE

A. Final Design Plan

**At least 90 days** prior to construction of any proposed changes to the reconstructed final cover, the Discharger must submit design plans for the WMU in accordance with the requirements of CCR, title 27, section 22490, including accepted engineered alternatives with, but not limited to, design and the groundwater monitoring well locations. Any proposed changes are to be accepted by the Water Board.

B. Final Construction Quality Assurance Report

**No later than 180 days** following the construction completion of the partial removal action and reconstructed final cover, a Final Construction Quality Assurance Report, required in CCR, title 27, section 20324, subdivision (d)(1)(C), must be submitted to the Water Board for review and acceptance. The report must be certified by a California professional civil engineer or a California professional engineering geologist. It must contain sufficient information and test results to verify that construction was in accordance with the submitted design plans and specifications and with the accepted engineered alternative to the prescriptive standards and performance goals of CCR, title 27.

C. Monitoring Systems Installations Report

**No later than 30 days** following the construction completion of a monitoring system or monitoring system component, the Discharger must submit a technical report discussing the installation of the monitoring systems or monitoring system component for the closed WMU. The report must summarize all work activities associated with the installation of the final cover and groundwater monitoring systems. The report must be certified by a California professional civil engineer or a California professional geologist. It must contain sufficient information to verify that the construction was in accordance with State and/or County standards.

D. Sampling and Analysis Plan

**No later than 90 days** following the completion of the removal action and final cover reconstruction or modification of P-1, the Discharger must

submit a revised Sampling and Analysis Plan to be accepted by the Water Board, including procedures for sampling and analysis final cover monitoring components and groundwater monitoring wells.

E. Water Quality Protection Standard

**No later than 60 days** following any modification to P-1, the Discharger must propose for acceptance by the Water Board a list of monitoring parameters and constituents of concern for each new monitoring point for which a WQPS has not been established, including a data analysis method, a revised WQPS, which includes concentration limits that define background water quality for all COCs and for each Point of Compliance. A minimum of 8 quarters of monitoring must be conducted to establish a WQPS for a COC. The report must be certified by a California professional civil engineer or a California professional geologist.

F. Financial Assurances

**No later than 30 days** following the Water Board acceptance of the Final CQA Report required in section V.B above, the Discharger must submit Instruments of Financial Assurance acceptable to the Water Board.

1. A Financial Assurance Instrument providing adequate funding for the post-closure monitoring and maintenance activities, as described in the P-1 Re-Closure Design Plan and post-closure maintenance plan, must be submitted to the Water Board, pursuant to CCR, title 27, section 22212.
2. A Financial Assurance Instrument providing adequate funding for corrective action of a known and reasonably foreseeable release must be submitted to the Water Board, pursuant to CCR, title 27, section 20080, subdivision (a)(1).

MP MINE OPERATIONS, LLC  
PARTIAL REMOVAL ACTION  
AND CLOSURE AND POST  
CLOSURE P-1 TAILINGS POND  
SAN BERNARDINO COUNTY

-31-

BOARD ORDER NO. R6-2027-TENT  
WDID NO. 6B360008001

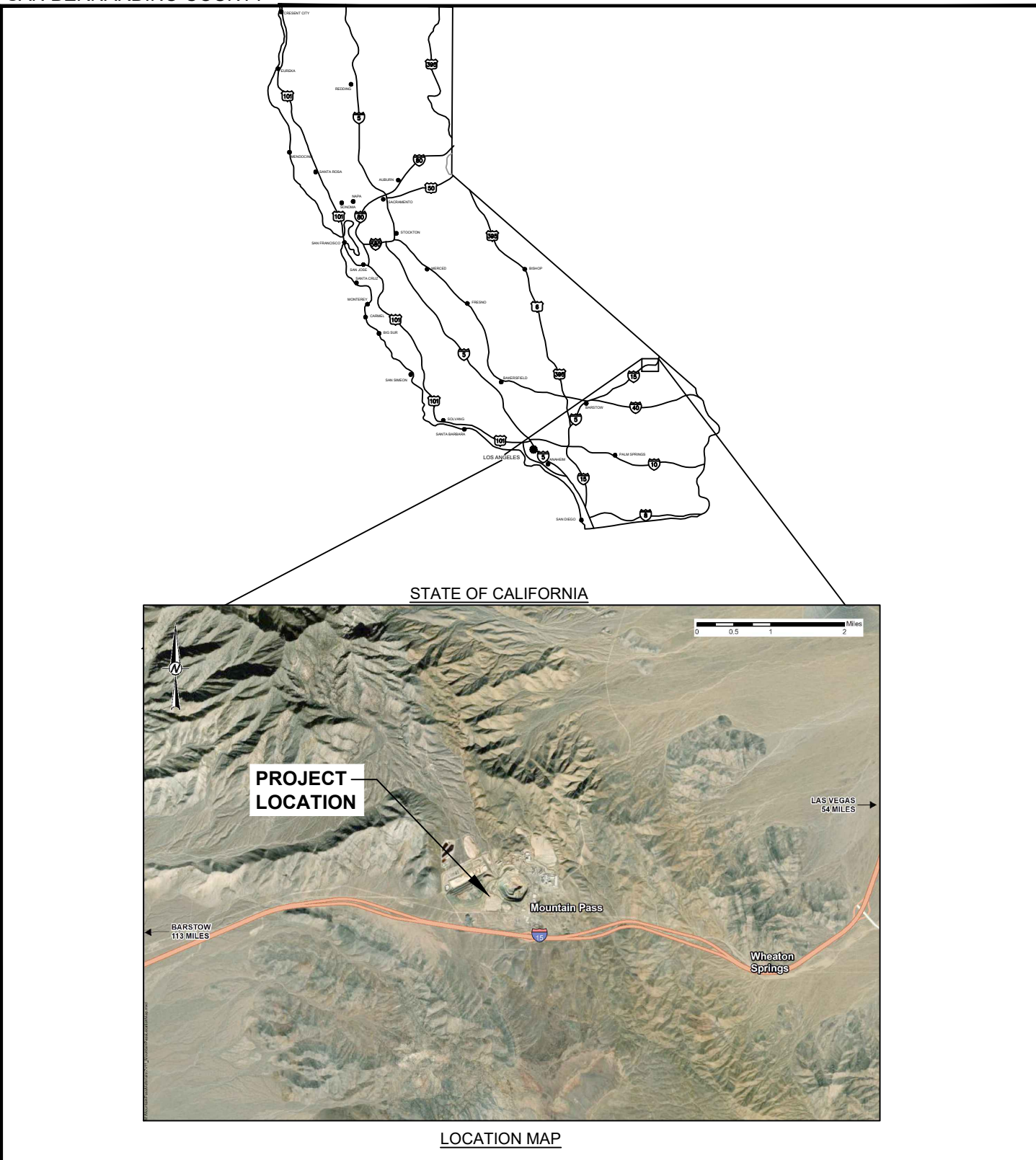
I, Ben Letton, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on February 10, 2027.

---

BEN LETTON  
EXECUTIVE OFFICER

Attachments:

- A. Location Map
- B. Mountain Pass Facility Map
- C. P-1 Impoundment Area Map
- D. P-1 Cross Section Diagram
- E. Standard Provisions for Waste Discharge Requirements



6 Executive Circle  
 Suite 200  
 Irvine, CA 92614  
 Phone: 949.727.9336

PROJECT:

**MP MINE OPERATIONS LLC  
 MOUNTAIN PASS, CALIFORNIA**

TITLE:

**LOCATION MAP FOR P-1 TAILINGS  
 IMPOUNDMENT PARTIAL CLOSURE  
 DESIGN**

DRAWN BY:

R. COLLINS

CHECKED BY:

M. WESTOVER

APPROVED BY:

G. FRY

DATE:

AUGUST 2026

PROJ. NO.:

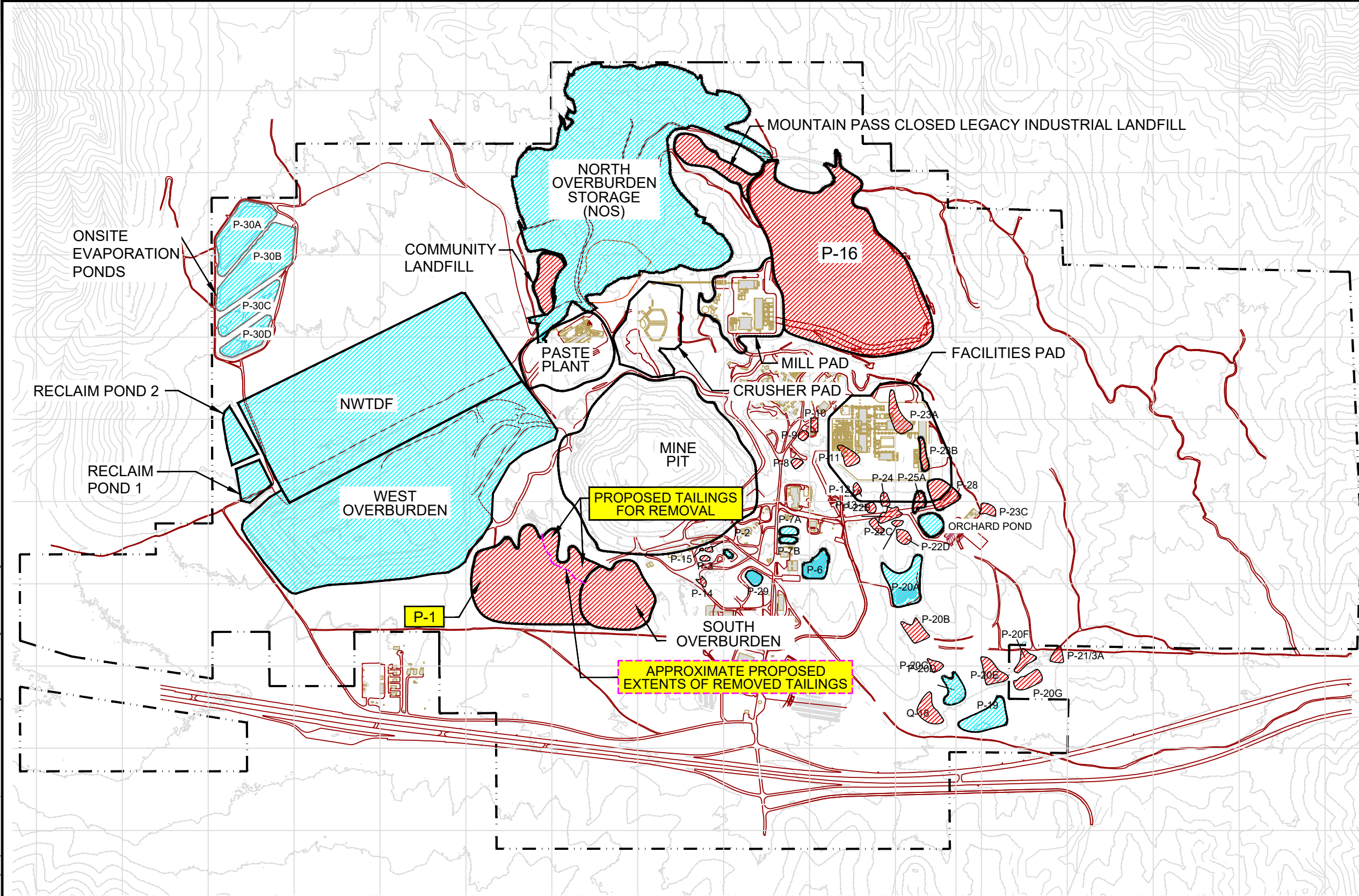
000735877.0000.0000

FILE:

Fig 1\_Location Map.dwg

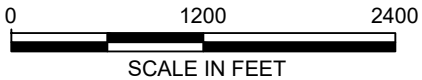
**FIGURE 1**

11417 -- USER: collins -- ATTACHED XREFS: TOPO-2007-WHEATONWASH TOPO-REGION-HISTORIC-PROP TOPO-AREA-2020 NORTH-HARROW PL TDF: BRD: facilities-2024 -- ATTACHED IMAGES: DRAWING NAME: L:\Irvine Office\Graphics\Projects\MP Mine Operations\735877 RWOCBI Fig 2 SP Pond P-1.dwg -- PLOT DATE: August 04, 2026 - 9:55AM -- LAYOUT: layout  
Version: 2017-10-21



| LEGEND |                     |  |
|--------|---------------------|--|
|        | CLOSED IMPOUNDMENT  |  |
|        | ACTIVE IMPOUNDMENT  |  |
|        | KEY MINE FACILITIES |  |
|        | PROPERTY BOUNDARY   |  |

| IMPOUNDMENT DESCRIPTION |                                                    | STATUS |
|-------------------------|----------------------------------------------------|--------|
| P-1                     | TAILINGS AND WASTEWATER                            | Closed |
| P-2                     | MILL CONTAINMENT/STORMWATER                        | Active |
| P-3                     | SOUTH POND (TAILINGS)                              | Closed |
| P-4                     | LEACH THICKENER OVERFLOW                           | Closed |
| P-6                     | OFFICE LANDSCAPE POND                              | Active |
| P-7A                    | PRODUCT STORAGE                                    | Active |
| P-7B                    | PRODUCT STORAGE                                    | Active |
| P-8                     | LEAD POND (FILTER CAKE)                            | Closed |
| P-9                     | PRODUCT STORAGE (Sm/Gd)                            | Closed |
| P-10                    | LEAD POND (FILTER CAKE)                            | Closed |
| P-11                    | PRODUCT STORAGE                                    | Closed |
| P-12                    | PRODUCT STORAGE                                    | Closed |
| P-13                    | PRODUCT STORAGE                                    | Closed |
| P-14                    | MILL CONTAINMENT (TAILINGS WATER)                  | Closed |
| P-15                    | MILL CONTAINMENT (REAGENTS)                        | Closed |
| P-16                    | TAILINGS                                           | Closed |
| P-18                    | SURGE POND (WASTEWATER)                            | Closed |
| P-19                    | SEWAGE LAGOON                                      | Active |
| P-20A                   | STORMWATER RETENTION                               | Active |
| P-20B                   | WASTEWATER                                         | Closed |
| P-20C                   | WASTEWATER                                         | Closed |
| P-20D                   | STORMWATER RETENTION                               | Active |
| P-20E                   | WASTEWATER                                         | Closed |
| P-20F                   | WASTEWATER                                         | Closed |
| P-20G                   | WASTEWATER                                         | Closed |
| P-21/3A                 | WASTEWATER                                         | Closed |
| P-22A                   | WASTEWATER                                         | Closed |
| P-22B                   | WASTEWATER                                         | Closed |
| P-22C                   | WASTEWATER                                         | Closed |
| P-22D                   | WASTEWATER                                         | Closed |
| P-23A                   | TAILINGS SEEPAGE                                   | Closed |
| P-23B                   | TAILINGS SEEPAGE                                   | Closed |
| P-23C                   | TAILINGS SEEPAGE                                   | Closed |
| P-24                    | LEAD POND (FILTER CAKE)                            | Closed |
| P-25A                   | PRODUCT STORAGE                                    | Closed |
| P-25B                   | FRESHWATER STORAGE POND (FORMER P-25B CLOSED POND) | Active |
| P-28                    | PRODUCT STORAGE (La HYDRATE)                       | Closed |
| P-29                    | MILL STORMWATER POND                               | Active |
| P-30A                   | ONSITE EVAPORATION POND                            | Active |
| P-30B                   | ONSITE EVAPORATION POND                            | Active |
| P-30C                   | ONSITE EVAPORATION POND                            | Active |
| P-30D                   | ONSITE EVAPORATION POND                            | Active |
| NWTDF                   | WEST OVERBURDEN DISPOSAL FACILITY                  | Active |



6 Executive Circle  
Suite 200  
Irvine, CA 92614  
Phone: 949.727.9336

PROJECT:

MP MINE OPERATIONS LLC  
MOUNTAIN PASS, CALIFORNIA

TITLE:

SITE PLAN  
SURFACE IMPOUNDMENTS INCLUDING  
WEST (OLD) TAILINGS IMPOUNDMENT P-1

DRAWN BY:

R. COLLINS

CHECKED BY:

M. WESTOVER

APPROVED BY:

G. FRY

DATE:

AUGUST 2026

PROJ. NO.:

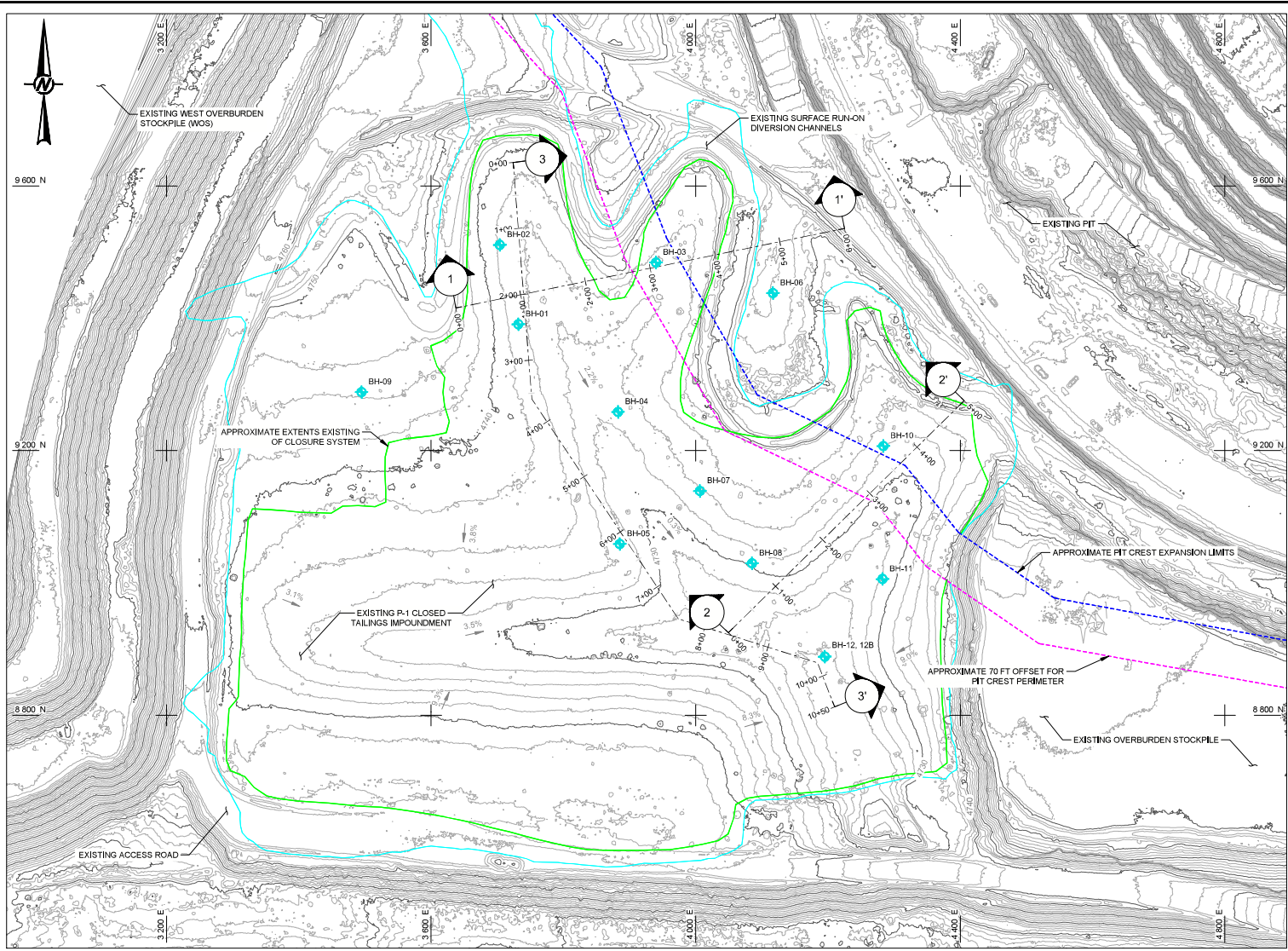
000735877.0000.0000

FILE:

Fig 2\_SP Pond P-1.dwg

FIGURE 2

ATTACHMENT C  
P-1 Impoundment Area Map



- LEGEND**
- EXISTING GROUND TOPOGRAPHY (2 FT CONTOUR INTERVAL) (REF. 1)
  - APPROXIMATE EXTENTS OF TAILINGS PRIOR TO CLOSURE IN 2006
  - APPROXIMATE EXTENTS OF EXISTING COVER GRADING
  - APPROXIMATE EXTENTS OF PIT CREST EXPANSION
  - APPROXIMATE 70 FT OFFSET FOR PIT CREST PERIMETER
  - BORING LOCATION

**NOTE**  
1. APPROXIMATE PIT CREST LIMITS PROVIDED BY MP MATERIALS 26 MARCH 2026.

**REFERENCE**  
1. EXISTING GROUND TOPOGRAPHY DATED 1 AUGUST 2024 PROVIDED BY MP MATERIALS  
AT 1-FT CONTOURS, DATA RECEIVED 26 MARCH 2026.

NOT FOR CONSTRUCTION



|      |            |                                               |          |          |          |          |
|------|------------|-----------------------------------------------|----------|----------|----------|----------|
| 0    | 2026-07-24 | ISSUED TO MP MATERIALS FOR SUBMITTAL TO RWCOB | AH       | KM       | TNW      | CC       |
| REV. | YYYY-MM-DD | DESCRIPTION                                   | DESIGNED | PREPARED | REVIEWED | APPROVED |

CLIENT  
MP MINE OPERATIONS LLC  
67750 BAILEY ROAD  
MOUNTAIN PASS, CALIFORNIA  
CONSULTANT



WSP USA INC.  
7245 W. ALASKA DR., STE. 200  
LAKEWOOD, CO 80226  
USA  
+1 (303) 980-0540

PROJECT  
P-1 TAILINGS IMPOUNDMENT RE-CLOSURE DESIGN

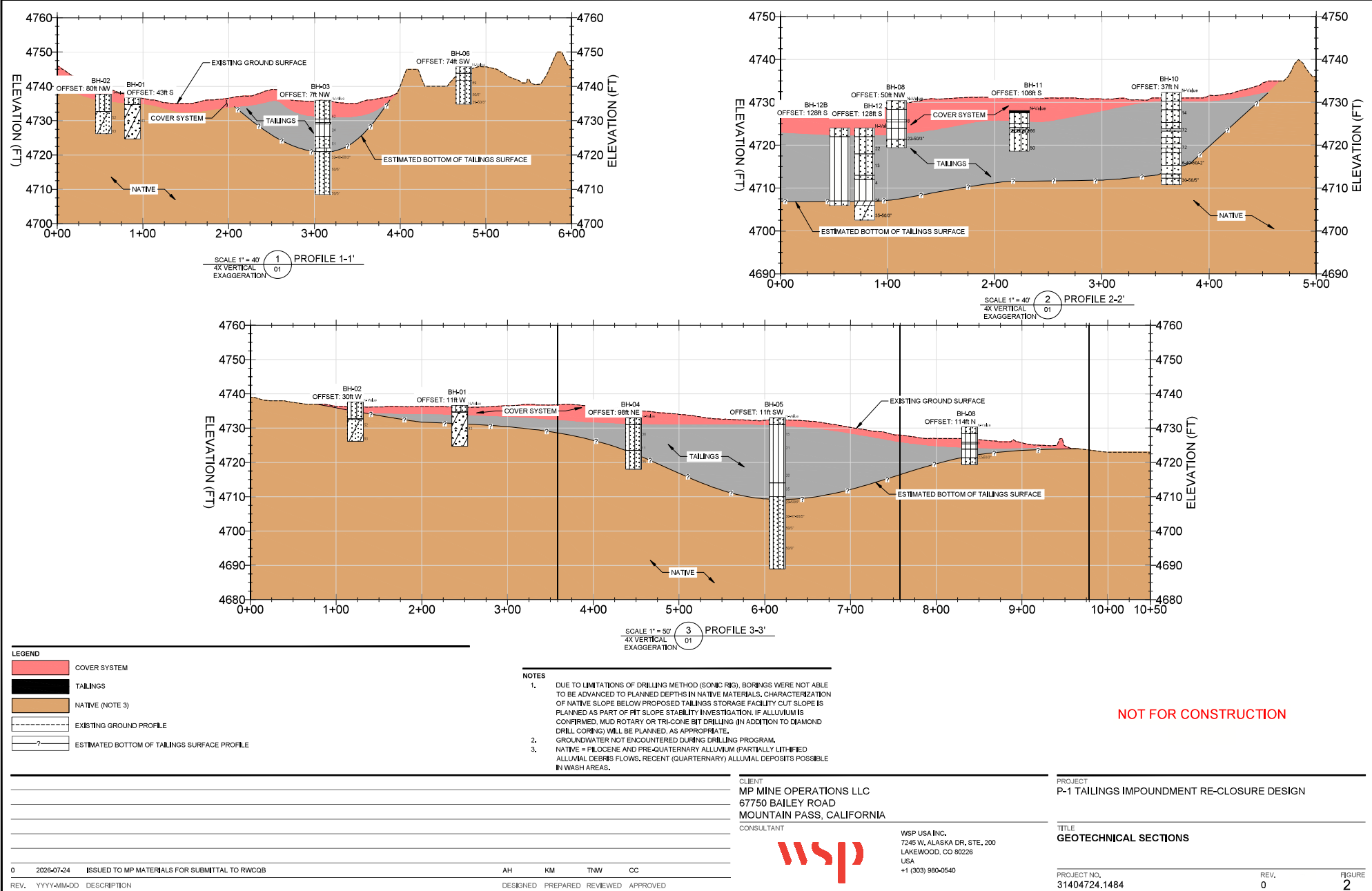
TITLE  
PLAN VIEW - P-1 BOREHOLE LOCATIONS

PROJECT NO.  
31404724.1484

REV.  
0

FIGURE  
1

Attachment D  
P-1 Impoundment Cross Sections



**ATTACHMENT E**  
**STANDARD PROVISIONS**  
**FOR WASTE DISCHARGE REQUIREMENTS**

1. Inspection and Entry

The Discharger must allow Lahontan Water Board staff, upon presentation of credentials, to:

- a. Enter upon premises in which a waste management unit (WMU) or former WMU is located or in which any required records are kept;
- b. Copy any records relating to the discharge or relating to compliance with the waste discharge requirements;
- c. Inspect monitoring and control equipment, practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at this location.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger must report any noncompliance that may endanger human health or the environment. The Discharger must immediately notify the Lahontan Water Board after becoming aware of when an adverse condition occurred as a result of this discharge; a written report shall be provided within ten days of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. A final certified report must be submitted through the online GeoTracker system. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, sanitary sewer overflows, damage to liners, damage to the final cover, nuisance erosion or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material changes in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Lahontan Water Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.

- c. The owner(s) of, and Discharger upon, property subject to waste discharge requirements shall be considered to have a continuing responsibility for ensuring compliance with applicable waste discharge requirements in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the waste discharge requirements shall be reported to the Lahontan Water Board.
- d. If a Discharger becomes aware that any information submitted to the Lahontan Water Board is incorrect, the Discharger shall immediately notify the Lahontan Water Board, in writing, and correct that information.
- e. Reports required by the waste discharge requirements, and other information requested by the Lahontan Water Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1000) for each day of violation.

3. Right to Revise Waste Discharge Requirements

The Lahontan Water Board reserves the privilege of changing all or any portion of the waste discharge requirements upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the waste discharge requirements may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and reissuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the waste discharge requirements which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of waste isolation and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the waste discharge requirements. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the waste discharge requirements.

7. Waste Discharge Requirement Actions

The waste discharge requirements may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the waste discharge requirements conditions.

8. Property Rights

The waste discharge requirements do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the waste discharge requirements including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the waste discharge requirements, monitoring and reporting requirements, and sampling and analysis plan shall be kept and maintained by the Discharger and always be available to operating personnel.

11. Severability

Provisions of the waste discharge requirements are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**MONITORING AND REPORTING PROGRAM  
NO. R6-2027-TENTATIVE  
WDID NO. 6B360008001**

**FOR**

**MP MINE OPERATIONS LLC  
MOUNTAIN PASS MINE AND MILL SITE  
PARTIAL REMOVAL ACTION AND CLOSURE AND POST CLOSURE MAINTENANCE  
WEST (OLD) TAILINGS POND P-1**

San Bernardino County

---

This Monitoring and Reporting Program (MRP) No. R6-2027-TENTATIVE is issued to MP Mine Operations LLC, a wholly owned subsidiary of MP Materials Corporation (Discharger) for the West (Old) Tailings Pond P-1 (P-1) pursuant to California Water Code (CWC), section 13267 and incorporates requirements for groundwater monitoring and reporting; P-1 monitoring, maintenance, and reporting; and financial assurances reporting contained in California Code of Regulations (CCR), title 27, section 20005, et seq. The technical reports required by Board Order No. R6-2027-TENTATIVE and MRP No. R6-2027-TENTATIVE are necessary to ensure compliance with the Waste Discharge Requirements. Therefore, the burden, including costs of these reports, bears a reasonable relationship to the need for the report and the benefits to be obtained from the reports.

**I. WATER QUALITY PROTECTION STANDARD**

A Water Quality Protection Standard (WQPS) is required by CCR, title 27, sections 20390 through 20410, to provide the earliest possible detection of a release from a waste management unit (WMU) to the underlying soil and/or groundwater. The WQPS consists of all constituents of concern (COCs), the concentration limits for each COC, the point of compliance, and all water quality monitoring points. The Lahontan Water Board must review and approve the WQPS, or any modification thereto, for each monitored medium.

A WQPS is necessary to provide the earliest detection of any releases from the P-1.

**A. Constituents of Concern**

The COCs include all the waste constituents, their reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the WMU (tailings impoundment). The COCs for each monitored medium are listed in Attachment A, which is made part of this MRP. The Discharger must monitor all COCs at the sampling frequency and reporting frequency listed in Attachment A.

B. Monitoring Parameters

Monitoring parameters are those COCs that provide a reliable indication of a release from the WMUs. The monitoring parameters for each monitored medium are listed in this MRP, Attachment A. The Discharger must monitor all monitoring parameters at the sampling frequency and reporting frequency listed in Attachment A.

C. Concentration Limits

Concentration limits are established for each COC and are intended to reflect background ambient conditions of surface and subsurface media that are unaffected by a release from the existing WMUs. At any given time, the concentration limit for each COC must be equal to the background data set of that constituent unless a concentration limit greater than background (CLGB) has been established. CCR, title 27, section 20400 allows for various options to determine concentration limits.

1. The Discharger is using the following methodologies to determine concentration limits for the groundwater monitoring program.
  - a. Intrawell Comparisons – The Discharger is using historical water quality data from individual groundwater monitoring wells to develop well-specific concentration limits for inorganic constituents. Intrawell comparisons for these COCs are appropriate because these COCs show spatial variation in water quality across the site.
  - b. Non-Statistical Comparisons – For inorganic COCs either not detected in the background well or only detected at trace concentrations and for man-made organic COCs, the concentration limit is set at the respective practical quantitation limit (PQL) for the analytical method used.

If subsequent sampling of the background monitoring point(s) indicates significant water quality changes due to either seasonal fluctuations or other reasons unrelated to waste management activities at P-1, the Discharger may request modification of the WQPS concentration limits to provide seasonal or reason-specific concentration limits (background data sets) for each COC at each monitoring point.

CLGBs for corrective action may be proposed by the Discharger in accordance with CCR, title 27, section 20430, after proposed corrective action measures reveal that it is technically and economically infeasible to achieve background water quality levels. The Discharger has not proposed CLGBs for P-1.

D. Point of Compliance and Monitoring Points

The point of compliance and monitoring points for the groundwater are shown on Attachment B of this MRP. The Discharger may add monitoring points, as needed, to comply with the DMP, evaluation monitoring program (EMP), requirements contained in Board Order No. R6-2027-TENT and this MRP, and Cleanup and Abatement Order No. R6V-2014-0062, and as approved by the Water Board Executive Officer.

The point of compliance is a vertical surface located at the hydraulically downgradient limit of the tailings impoundment/P-1 that extends through the uppermost aquifer underlying the P-1.

E. Compliance and Post-Closure Maintenance Period

The compliance period is the number of years equal to the active life of the WMUs plus any post-closure monitoring and maintenance period until the Water Board finds that P-1 no longer poses a threat to water quality. The compliance period is the minimum period during which the Discharger must conduct a water quality monitoring program subsequent to a release. The compliance period must begin anew each time the Discharger initiates an EMP. The compliance period may be extended if P-1 is not in compliance with its WQPS.

The post-closure maintenance period means the period after closure of a WMU during which the waste in the unit could have an adverse effect on the quality of the waters of the state. The post-closure maintenance period for P-1 will extend as long as the waste poses a threat to water quality pursuant to CCR, title 27, section 20950(a)(1). The post-closure maintenance period may be extended if measurably significant evidence of a release is detected from the closed WMU, or shortened if the Discharger demonstrates that the waste in P-1 no longer poses a threat to water quality and that the WMU has been on continuous compliance with its WQPS for a period of three consecutive years as specified in CCR, title 27, section 20410(c).

II. MONITORING

The Discharger must comply with the monitoring requirements outlined below. All monitoring and inspection activities must be documented, and all sampling must be conducted in accordance with an accepted Sampling and Analysis Plan (SAP) that includes quality assurance and quality control standards and procedures, as described in the General Provisions for Monitoring and Reporting (Attachment C).

The Discharger must operate and maintain a detection monitoring system that complies with the DMP monitoring provisions contained in CCR, title 27, sections 20380 through 20420. Monitoring of the groundwater must be conducted to provide the best assurance of the early detection of a new release from the P-1. Changes to the existing monitoring systems must be designed and certified by a California-licensed professional geologist or

civil engineer as meeting the requirements of CCR, title 27, section 20415(e)(1). The Discharger must collect, preserve, and transport samples in accordance with the SAP.

All samples collected in accordance with this MRP, except for field parameters, are to be analyzed by a California state-certified laboratory using United States Environmental Protection Agency (USEPA) analytical methods or the most recently approved SW-846 USEPA method or other equivalent USEPA method. An alternate method may be used if acceptable to the Executive Officer.

A. Groundwater

Concentration limits are established for each COC and are intended to reflect background ambient conditions of subsurface media that are unaffected by a release from the waste management unit. At any given time, the concentration limit for each COC must be equal to the background data set of that constituent unless a CLGB has been established. CCR, title 27, section 20415 allows for various options to determine concentration limits including statistical and non-statistical methods.

1. Monitoring Points

Based on the ground water flow direction, the placement and designation of the upgradient and downgradient wells must be verified annually. Annually, a map showing the wells sampled and ground water elevations must be submitted. Groundwater monitoring points are shown on MRP, Attachment A.

2. Depth to Groundwater

Prior to purging and sampling, the Discharger must measure and record the depth below the ground surface of the static groundwater elevation (feet below ground surface [bgs]) in all groundwater monitoring wells. The measurements must be accurate to the nearest 0.01 foot.

3. Groundwater Purging and Sampling

Prior to sampling, all groundwater monitoring wells must be purged using either standard or low-flow techniques until dissolved oxygen (DO), electrical conductivity, pH, temperature, and turbidity of extracted well water have stabilized. These parameters will be considered stable in accordance with the procedures specified in the accepted SAP. If a non-purging method is used, the method proposed must be approved, in advance, by Water Board staff.

4. Constituents of Concern and Monitoring Parameters

The Discharger shall monitor, at each groundwater monitoring well, all

COCs and monitoring parameters in accordance with the frequencies listed in Attachment A. Should any non-monitoring parameter COC exceed their respective concentration limit by a measurably significant amount at any given monitoring point, that non-monitoring parameter COC must become a monitoring parameter at that monitoring point.

5. Field Parameters

The Discharger shall monitor the groundwater in all groundwater monitoring wells for the field parameters in accordance with the frequencies listed in Attachment A.

6. Aquifer Characteristics

The Discharger must calculate, and illustrate on a site plan and/or aerial image, the following aquifer characteristics: the depth to groundwater (feet bgs) in each groundwater monitoring well; the static water level (feet above mean sea level) in each groundwater monitoring well; the slope of the groundwater gradient (feet/feet); the direction of the groundwater gradient beneath and around the WMU; the velocity of groundwater flow (feet/year); and the current groundwater isocontours for that monitoring period.

7. Calibration Documentation

The Discharger must submit documentation of instrument calibration and performance checks to verify proper operation of the field monitoring equipment.

B. P-1 Final Cover Integrity Monitoring and Maintenance Program

The Discharger has constructed an engineered alternative final cover over P-1. Pursuant to CCR, title 27, section 21090, the Discharger must monitor the condition of the cover system as outlined in the P-1 Re-closure Design Plan and Post-Closure Maintenance Plan. The purpose of this monitoring is to ensure the integrity of the cover and to evaluate the cover's capability to promote runoff and prevent ponding.

The following elements must be monitored annually and reported to the Water Board in accordance with the schedule specified in the MRP, Section IV.B.3.a. maintenance and repairs to the cover must be performed in a timely manner following discovery of the problem in accordance with the procedures outlined in the approved P-1 Re-Closure Plan and Post-Closure Maintenance Plan.

1. Settlement Monitoring

Annually, the Discharger must survey, using a licensed survey or other appropriate method, the benchmarks on the final cover to determine the

amount of settlement during the previous year. This information must be submitted in the annual report.

2. Integrity of Final Cover

Annually the Discharger must provide the following information:

- a. An evaluation of the condition of the ET cover surface, including areas requiring revegetation, if needed.
- b. Eroded portions of the cover surface requiring regrading, repair, or (for areas where the problem persistently reoccurs) installation of additional erosion control measures.
- c. An evaluation of the ability of the cover to promote runoff and prevent ponding.
- d. Areas where there is evidence of ponding or lacking free drainage.
- e. An evaluation of the cover thickness, including areas requiring regrading and additional soil cover, to maintain the as-built final cover over the entire surface of the closed WMU.
- f. Areas of the cover surface damaged by equipment operation.
- g. Localized areas identified in the settlement monitoring as having sustained repeated or severe differential settlement.
- h. Prior to conducting periodic grading repairs and maintenance of the cover surface, the Discharger must note on a map of the closed WMU the approximate location and outline of any areas where differential settlement is visually obvious. Map notations and delineations made pursuant to this paragraph need not be surveyed, so long as all areas can be relocated. Such notation and delineation must be made by, or under the supervision of, a California-licensed professional geologist or civil engineer.

3. Storm Events

The Discharger must inspect all precipitation, diversion, and drainage conveyance channels for damage **within 10 days** following major storm events. Any slope stability problems shall be identified and remedied. Necessary repairs must be completed **within 30 days** of the inspection. The Discharger must document the inspection(s) and repair measures

implemented, including photographs of the problem and of the repairs; these inspection documents must be included in the annual report.

### III. DATA ANALYSES

All data analyses methods (statistical and non-statistical) must meet the requirements of CCR, title 27, sections 20415, subdivisions (e)(8) and (9).

#### A. Site-Specific Statistical Analysis Method

To determine whether there is "measurably significant" evidence of any new releases from P-1, evaluation of data will be conducted using statistical methods. For detection monitoring, the Discharger must use statistical methods to analyze COCs and monitoring parameters that exhibit concentrations that equal or exceed their respective concentration limit. The Discharger may propose and use any data analyses that meets the requirements of CCR, title 27, section 20415, subdivision (e)(7). *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (USEPA, 2009) or subsequent versions may also be used to select the statistical test to use for comparing detection monitoring data to background monitoring data.

#### B. Non-Statistical Analysis Methods

To determine if any releases have occurred from P-1, evaluation of data will also be conducted using non-statistical methods. Non-statistical analyses are as follows.

##### 1. Physical Evidence

Physical evidence can include, but is not limited to, unexplained stress in biological communities such as vegetation loss, soil discoloration, or groundwater mounding. Each semi-annual and annual report must comment on such physical elements.

##### 2. Time-Series Plots

Non-statistical evidence of a release may include trends of increasing concentrations of one or more constituents over time, as depicted in time-series plots. Each semi-annual and annual report must include these time-series plots. Time-series plots are not required for parameters that have never been detected above their MDL (as specified by the applicable USEPA method).

### IV. REPORTING REQUIREMENTS

The Discharger must comply with the following reporting requirements.

A. Submittal of Electronic Laboratory Data

All water and soil laboratory data collected during the corresponding reporting period (Table 3), must be submitted electronically to the Water Board by uploading to the State Water Board's GeoTracker system, per the following schedule. The laboratory data must be uploaded in Electronic Data Format (EDF).

**Table 3. Laboratory Reporting Schedule**

| <b>Sampling and Reporting Period</b> | <b>EDF Upload Due Date</b> |
|--------------------------------------|----------------------------|
| January 1 – March 30                 | May 30                     |
| April 1 – June 30                    | August 30                  |
| July 1 – September 30                | November 30                |
| October 1 – December 31              | February 28                |

B. Scheduled Reports to be Filed with the Water Board

The following periodic reports, including all water, soil, soil vapor, solid waste monitoring data collected during the corresponding reporting period, must be submitted electronically to the Lahontan Water Board by uploading to the State Water Board's GeoTracker system, per the schedule presented in Table 4. The laboratory data must be uploaded in Electronic Deliverable Format (EDF).

**Table 4. Monitoring and Reporting Schedule**

| <b>MONITORING REPORTING SCHEDULE</b> |                                             |                                    |
|--------------------------------------|---------------------------------------------|------------------------------------|
| <b>Report Name</b>                   | <b>Sampling and Reporting Period</b>        | <b>Report Due Date<sup>1</sup></b> |
| First Semi-Annual Monitoring Report  | January 1 – June 30                         | August 30                          |
| Second Semi-Annual Monitoring Report | July 1 – December 31                        | March 30                           |
| Annual Monitoring Report             | January 1 – December 31                     | March 30                           |
| Annual Cover Performance Report      | January 1 – December 31                     | March 30                           |
| Five-Year COC Report <sup>2</sup>    | January 1 – June 30<br>July 1 – December 31 | August 30<br>March 30              |

Notes:

<sup>1</sup> Reports with same due dates may be combined.

<sup>2</sup> Sampling and reporting period will alternate between January 1 through June 30 for one five-year sampling event and July 1 through December 31 for the next five-year sampling event. The first five-year report is due August 30, 2032.

1. Semi-Annual Monitoring Reports

Each semi-annual report must include, but not be limited to, the following information.

- a. All data collected during the reporting period in accordance with the accepted SAP for the monitoring systems described in MRP Section II.A.
- b. Tabulated results of sampling and laboratory analyses for each groundwater monitoring point, including historical (last five years at minimum) and current reporting period data, as well as the concentration limit for each COC and an identification of each sample that exceeds its respective concentration limit by a measurably significant amount at any given monitoring point.
- c. A map and/or aerial photograph showing the P-1 perimeter and ancillary facilities as well as locations of all monitoring points, groundwater contaminant plume extents for each COC, settlement observation points, and the surface trace of the point of compliance.
- d. Calculate and illustrate on a map and/or aerial photograph the static groundwater surface elevation (feet above mean sea level) in each groundwater monitoring well, the groundwater gradient (feet/feet) and the direction of the groundwater gradient beneath and around P-1, the velocity of groundwater flow (feet/year), and the current groundwater isocontours for that monitoring period.
- e. Copies of all field monitoring and well sampling data sheets.
- f. Time-series plots of the analytical results from the groundwater at each monitoring point for each COC detected during the monitoring period as well as available historical data (minimum of last ten years of data). Time-series plots must include, as lines, the COCs concentration limit as derived in accordance with the WQPS for the respective COC/monitoring point pair, as well as the PQL and MDL for the analytical method used.
- g. A letter transmitting the essential points of each report, including a discussion of any violations found since the last report was submitted and describing actions taken or planned for correcting those violations.
  - i. If the Discharger has previously submitted a detailed time schedule for correcting violations, a reference to the correspondence transmitting this schedule will suffice.

- ii. If no violations have occurred since the last submittal, this must be stated in the letter of transmittal.

2. Annual Monitoring Reports

Annual monitoring reports must be submitted to the Water Board no later than **February 15** of each year and may be combined with the second semi-annual monitoring report for the same reporting year. The annual monitoring report must include the items described in the General Provisions for Monitoring and Reporting (Attachment C to this MRP), and the following information.

- a. All data collected in accordance with this MRP, Sections II.B through II.C.
- b. A list of all monitoring point/monitoring parameter pairs (pairs), by medium, which have exhibited a verified measurably significant increase, together with the respective date (for each) when that increase occurred. Any pairs that have shown an increase within that (prior) year must be indicated in the table, such as the use of bold-underlining of the data. In addition, by medium, list any non-monitoring parameter COCs that, during testing that year (tested every five years), have exceeded their respective concentration limit by a measurably significant amount and, as a result, have become monitoring parameters, together with the date when the transition occurred.
- c. Two maps, one for each semi-annual monitoring period of the last reporting year, showing the groundwater isocontours determined for that monitoring period, the P-1 and all ancillary facilities, all groundwater monitoring points, groundwater contamination plume extents for each COC, and the surface trace of the point of compliance.
- d. Calibration methods and any discrepancies of any meters used for field parameter evaluations after calibration is performed.
- e. An evaluation of the effectiveness of both the groundwater monitoring programs and any proposed modifications necessary to improve the monitoring programs.
- f. A brief chronological summary of dates of any operational problems and maintenance activities that may impact water quality at the site.
- g. The compliance record and the corrective actions taken or planned, which may be needed to bring the P-1 into full compliance with the discharge requirements.

- h. Evidence that adequate financial assurance for post-closure maintenance, and known and reasonably foreseeable release is still in effect. Evidence may include a copy of the renewed financial instrument or a copy of the receipt for payment of the financial instrument.
- i. Evidence that the financial assurance amount is adequate or increase the amount of financial assurance by an appropriate amount if necessary, due to inflation, a change in the approved closure plan, or other unforeseen events.
- j. The Discharger must review the Final Closure Post-Closure Maintenance Plan annually to determine if significant changes in the operation of P-1 warrant an update to the plan. Proposed changes to the plan must be outlined in the annual report.

3. Final Cover Performance Reports

a. Annual Cover Performance

Annual final cover performance reports must be submitted to the Water Board no later than **February 15** of each year and may be combined with the annual monitoring report. Annual final cover reports must include, but not be limited to, the following information.

- i. All data collected in accordance with the MRP, Section II.C
- ii. A description of the condition of the final cover materials and a discussion regarding any settlement or soil cover erosion, which have occurred, and the capability of the cover to promote runoff and prevent ponding.
- iii. Where settlement, erosion, or other damage to the cover is noted, the report must indicate the actions taken to repair the cover material, the date(s) those actions were taken, and what action are being taken to prevent reoccurrence.

b. Five-Year Settlement Map

Pursuant to CCR, title 27, section 21090(2)(2), at least once every five years, the Discharger must prepare and submit to the Lahontan Water Board a settlement map accurately depicting the estimated total change in elevation of the final cover surface. The five-year settlement map must be submitted to the Water Board no later than **February 15** of the year in which it is due and must be included with the annual final cover performance report due the same reporting year. The first five-year settlement map is scheduled to be submitted

to the Lahontan Water Board no later than **February 15, 2032**. The map must include, at minimum, the following information.

- i. The total lowering of the surface elevation of the final cover, relative to the baseline topographic map prepared at time of closure (as-built condition).
- ii. Indicate all areas where repeated and severe differential settlement has occurred since closure.
- iii. The map shall be drawn to the same scale and contour interval as the baseline as-built topographic map but show the current topography of the final cover and include overprinted isopleths indicating the total settlement to-date.

C. Unscheduled Reports to be Filed with the Lahontan Water Board

The following reports must be submitted to the Lahontan Water Board as specified below.

1. Notice of Tentative Release from the P-1

Should the statistical or non-statistical data analyses indicate, for a given COC, that a release is tentatively identified, the Discharger must follow these requirements.

a. Physical or Measurably Significant Evidence of a Release from P-1

The Discharger must immediately notify the Lahontan Water Board verbally whenever a determination is made that there is significant physical or “measurably significant” evidence of a release from P-1. This verbal notification must be followed by written notification via certified mail within seven days of such determination. Upon such notification, the Discharger may initiate verification procedures or demonstrate that another source other than P-1 caused evidence of a release in accordance with this MRP, Section IV.B.1.b.

The notification must include the following information:

- i. The potential source of the release;
- ii. General information including the date, time, location, and cause of the release;
- iii. An estimate of the flow rate and volume of waste involved;
- iv. A procedure for collecting samples and description of

laboratory tests to be conducted;

- v. Identification of any water body or water-bearing media affected or threatened;
- vi. A summary of proposed actions; and
- vii. For a physical evidence of a release – the physical factors that indicate evidence of a release; or
- viii. For a measurably significant evidence of a release – the monitoring parameters and/or COCs that are involved in the measurably significant evidence of a release from P-1.

b. Other Source That May Cause Evidence of a Release from P-1

The Discharger may make a demonstration that a source other than P-1 caused evidence of a release. For this case, the Discharger must notify the Lahontan Water Board of the intention to make this demonstration. The notification must be sent to the Lahontan Water Board by certified mail within 7 days of determining physical or measurably significant evidence of a release.

2. Evaluation Monitoring

The Discharger must, within 90 days of verifying a release, submit a technical report and amended report of waste discharge to establish an EMP pursuant to CWC, section 13267, subdivision (b), proposing an EMP meeting the provisions of CCR, title 27, section 20420, subdivision (k)(5). If the Discharger decides not to conduct verification procedures or decides not to make a demonstration that a source other than P-1 is responsible for the release, the release will be considered verified. The EMP must include the following information:

- a. COC Concentrations – the maximum concentration of each COC at each monitoring point as determined during the most recent COC sampling event (i.e., under CCR, title 27, section 20420, subdivision (g) or (k)[1]). Any COC that exceeds its concentration limit is to be retested at that monitoring point. Should the results of the retest verify that the COC is above the concentration limit, then that COC will become a monitoring parameter at that monitoring point;
- b. Proposed Monitoring System Changes – any proposed changes to the groundwater and unsaturated zone monitoring systems necessary to meet the provisions of CCR, title 27, section 20425;

- c. Proposed Monitoring Changes – any proposed additions or changes to the monitoring frequency, sampling and analytical procedures or methods, or statistical methods used at P-1 necessary to meet the provisions of CCR, title 27, section 20425; and
- d. Proposed Delineation Approach – a detailed description of the measures to be taken by the Discharger to assess the nature and extent of the release from the P-1.

3. Engineering Feasibility Study Report

Within 180 days of verifying the existence of any new release, the Discharger must submit a revised Engineering Feasibility Study report meeting CCR, title 27, section 20420, subdivision (k)(6), proposing corrective action measures that could be taken to achieve background concentrations for all COCs involved in the release. This report will be the basis for a later expanded Engineering Feasibility Study submitted under the EMP, as specified in CCR, title 27, section 20425, subdivision (b).

4. Monitoring Well Logs

All monitoring wells and all other borings installed to satisfy the requirements of this MRP must be drilled by a licensed drilling contractor and must be logged during drilling under the direct supervision of either a California-licensed professional geologist or civil engineer with expertise in stratigraphic well logging, as indicated in CCR, title 27, section 20415, subdivision (e)(2). Such logs must be submitted to the Lahontan Water Board within 90 days following completion of fieldwork.

5. Significant Earthquake Event

After a significant<sup>1</sup> or greater earthquake event at or near the Facility, the Discharger must notify the Water Board within 48 hours, and within 45 days submit to the Water Board a detailed written post-earthquake report describing any physical damages to the containment features or groundwater and/or unsaturated zone monitoring systems or to report no damage to P-1 was sustained. The Discharger must closely examine the WMU and appurtenant piping, inspect the slope conditions, drainage control system, and surface grading for signs of cracking or

---

<sup>1</sup> A significant earthquake is a seismic event classified according to the United States Geological Survey (USGS) Earthquake Hazard Program as a moderate earthquake measuring between 5 and 5.9 on the Richter scale, or higher. The Discharger may use the Modified Mercalli Intensity Scale VI or higher for equivalent ground shaking generated by a significant earthquake of Richter magnitude 5.0 or higher as contained with the USGS Earthquake Hazard Program Magnitude/Intensity Comparison chart found at <https://earthquake.usgs.gov>.

depressed/settled areas following the earthquake event. If cracking or depressed areas are identified, the Discharger must make repairs to those areas within 30 days from the date of the earthquake event. Repairs and maintenance must be consistent with Board Order No. R6-2027-TENTATIVE.

6. Extreme Weather Event

After an extreme weather event<sup>2</sup> at or near the Facility, the Discharger must notify the Water Board within 48 hours, and within 45 days submit to the Water Board a detailed written post-extreme weather event report describing any physical damages to the containment features or groundwater zone monitoring systems or to report no damage to the P-1 was sustained. The Discharger must closely examine the WMU, inspect the slope conditions, drainage control system, and surface grading for signs of erosion, cracking, or depressed/settled areas following the extreme weather event. If erosion, cracking, or depressed areas are identified, the Discharger must make repairs to those areas within 30 days from the date of the extreme weather event. Repairs and maintenance must be consistent with Board Order No. R6-2027-TENTATIVE.

D. Technical Reports

Pursuant to CWC, section 13267, subdivision (b):

1. Monitoring Systems Installation Report

**No later than 90 days** following completion of construction of a monitoring system or monitoring system component, the Dischargers must submit a technical report discussing the installation of the monitoring system or component. The report must summarize all work activities associated with the installation of the monitoring system or component. The report must be certified by a California professional civil engineer or a California professional geologist. It must contain sufficient information to verify that the construction was in accordance with State and/or County standards.

E. General Provisions

The Discharger must comply with Attachment C, "General Provisions for

---

<sup>2</sup> An extreme weather event refers to a weather phenomenon with enough intensity to cause physical damage to the Facility or any of its infrastructure including containment features or groundwater and/or unsaturated zone monitoring systems or disruption in wastewater conveyance or treatment systems. Extreme weather refers to unusual, severe, or unseasonal weather conditions, and can include extreme heat, excessive or unusual precipitation and flooding, wildfires, severe wind, and extended droughts.

Monitoring and Reporting," which is attached to and made part of this MRP.

F. Failure to Furnish Reports

Any person failing or refusing to furnish technical or monitoring reports or falsifying any information provided therein is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation pursuant to CWC, section 13268.

G. Violations

If monitoring data indicate a violation of a specific requirement in these WDRs, the Discharger must report the violation in the scheduled report for the corresponding reporting period and provide information indicating the cause of violation(s) and the action taken or planned to bring the discharge into compliance.

H. Electronic Reporting Requirements

Pursuant to CCR, title 23, section 3890, the Discharger must submit reports, including soil, soil-gas, and water data, prepared for the purpose of subsurface investigation or remediation of a discharge of waste to land subject to CCR, title 27, Division 2, electronically over the internet to the State Water Resources Control Board's GeoTracker system. This requirement is in addition to, and not superseded by, any other applicable reporting requirement. The Discharger must provide the monitoring report to the Lahontan Water Board, as specified in this MRP, and upload the full monitoring report into GeoTracker, as stipulated by CCR, title 23.

For all other types of documents and correspondence, please send to the Lahontan Water Board's email address at [Lahontan@waterboards.ca.gov](mailto:Lahontan@waterboards.ca.gov) and include the WDID No. and Facility name in the subject line.

Ordered by: \_\_\_\_\_ Dated: \_\_\_\_\_

BEN LETTON  
EXECUTIVE OFFICER

Attachments: A. Water Quality Monitoring Program  
B. P-1 Groundwater Monitoring  
C. General Provisions for Monitoring and Reporting

**ATTACHMENT A – WATER QUALITY MONITORING PROGRAM<sup>1</sup>**

| <b>GROUNDWATER</b>                         |                               |                           |                            |
|--------------------------------------------|-------------------------------|---------------------------|----------------------------|
| <b>Parameter</b>                           | <b>Units</b>                  | <b>Sampling Frequency</b> | <b>Reporting Frequency</b> |
| <b>Field Parameters</b>                    |                               |                           |                            |
| Depth to Groundwater                       | feet below ground surface     | Quarterly                 | Semi-Annual                |
| Groundwater Elevation                      | feet above mean sea level     | Quarterly                 | Semi-Annual                |
| Dissolved Oxygen                           | milligrams/Liter              | Quarterly                 | Semi-Annual                |
| Electrical Conductivity                    | µmhos/cm                      | Quarterly                 | Semi-Annual                |
| pH                                         | pH units                      | Quarterly                 | Semi-Annual                |
| Temperature                                | degrees Fahrenheit or Celsius | Quarterly                 | Semi-Annual                |
| Turbidity                                  | NTU                           | Quarterly                 | Semi-Annual                |
| <b>Constituents of Concern</b>             |                               |                           |                            |
| Calcium <sup>2</sup>                       | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Chloride <sup>2</sup>                      | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Barium <sup>2</sup>                        | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Magnesium <sup>2</sup>                     | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Mercury <sup>2</sup>                       | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Nitrate (as Nitrogen) <sup>2</sup>         | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Potassium <sup>2</sup>                     | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Radium 226 <sup>2</sup>                    | pCi/L                         | Quarterly, Semi-Annual    | Semi-Annual                |
| Radium 228 <sup>2</sup>                    | pCi/L                         | Quarterly, Semi-Annual    | Semi-Annual                |
| Sodium <sup>2</sup>                        | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Strontium <sup>2</sup>                     | pCi/L                         | Quarterly, Semi-Annual    | Semi-Annual                |
| Sulfate <sup>2</sup>                       | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |
| Total Dissolved Solids <sup>2</sup>        | NTU                           | Quarterly, Semi-Annual    | Semi-Annual                |
| Total Alkalinity (as Calcium) <sup>2</sup> | mg/L                          | Quarterly, Semi-Annual    | Semi-Annual                |

| GROUNDWATER            |       |                      |                     |
|------------------------|-------|----------------------|---------------------|
| Parameter              | Units | Sampling Frequency   | Reporting Frequency |
| Uranium 234            | pCi/L | Quarterly,<br>Annual | Semi-Annual         |
| Uranium 235            | pCi/L | Quarterly,<br>Annual | Semi-Annual         |
| Uranium 238            | pCi/L | Quarterly,<br>Annual | Semi-Annual         |
| Gross Alpha/Gross Beta | pCi/L | Annual               | 5 year              |
| Yttrium                | mg/L  | 5 year               | 5 year              |
| Cerium                 | mg/L  | 5 year               | 5 year              |
| Lanthanum              | mg/L  | 5 year               | 5 year              |
| Neodymium              | mg/L  | 5 year               | 5 year              |
| Praseodymium           | mg/L  | 5 year               | 5 year              |
| Antimony               | mg/L  | 5 year               | 5 year              |
| Arsenic                | mg/L  | 5 year               | 5 year              |
| Barium                 | mg/L  | 5 year               | 5 year              |
| Beryllium              | mg/L  | 5 year               | 5 year              |
| Cadmium                | mg/L  | 5 year               | 5 year              |
| Chromium               | mg/L  | 5 year               | 5 year              |
| Cobalt                 | mg/L  | 5 year               | 5 year              |
| Copper                 | mg/L  | 5 year               | 5 year              |
| Lead                   | mg/L  | 5 year               | 5 year              |
| Molybdenum             | mg/L  | 5 year               | 5 year              |
| Nickel                 | mg/L  | 5 year               | 5 year              |
| Selenium               | mg/L  | 5 year               | 5 year              |
| Silver                 | mg/L  | 5 year               | 5 year              |
| Thallium               | mg/L  | 5 year               | 5 year              |
| Vanadium               | mg/L  | 5 year               | 5 year              |
| Zinc                   | mg/L  | 5 year               | 5 year              |

Notes:

<sup>1</sup> Laboratory analytical data is uploaded to GeoTracker in accordance with the sampling frequency.

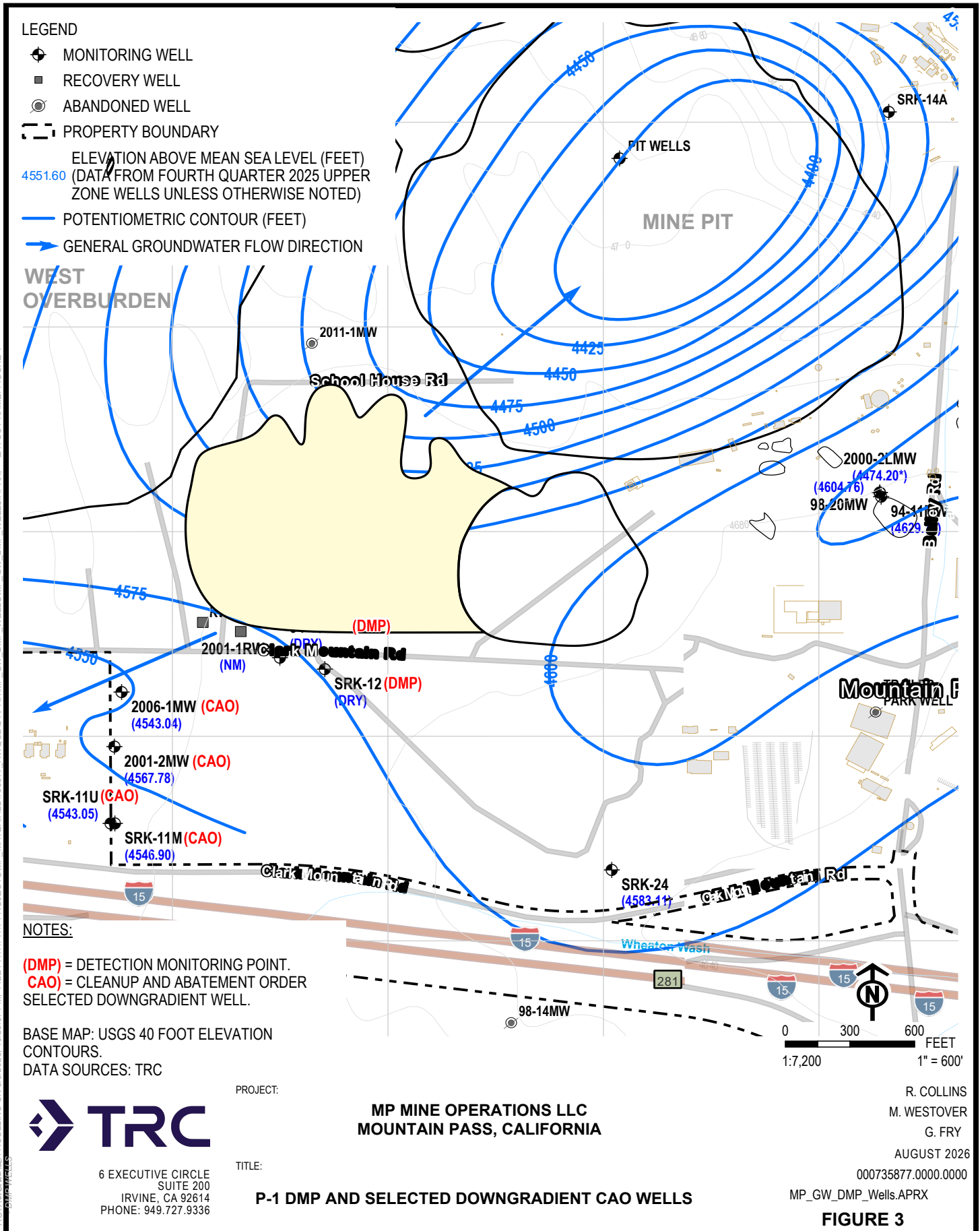
<sup>2</sup> Monitoring Parameters

mg/L=Milligrams per liter

NTU=Nephelometric turbidity units

pCi/L=Pico curies per liter

COORDINATE SYSTEM: NAD 1983 STATEPLANE CALIFORNIA V FIPS 0405 FEET; MAP  
 ROTATION: ROLLINS ON 8/6/2026, 16:25:37 PM; FILE PATH: T:\PROJECTS\MP\_MATERIALS\735877\_RWOCB\B-APR\X\MP\_GW\_DMP\_WELLS.APRX; LAYOUT NAME: FIGURE 1



6 EXECUTIVE CIRCLE  
 SUITE 200  
 IRVINE, CA 92614  
 PHONE: 949.727.9336

PROJECT:

TITLE:

P-1 DMP AND SELECTED DOWNGRADIENT CAO WELLS

R. COLLINS  
 M. WESTOVER  
 G. FRY  
 AUGUST 2026  
 000735877.0000.0000  
 MP\_GW\_DMP\_Wells.APRX

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**GENERAL PROVISIONS**  
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
  - i. Standard Methods for the Examination of Water and Wastewater
  - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed from an Environmental Laboratory Accreditation Program (ELAP) accredited laboratory. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.
- d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

## 2. OPERATIONAL REQUIREMENTS

### a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

### b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

## 3. REPORTING

- a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
  - i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
  - ii. In the case of a partnership, by a general partner;
  - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
  - i. Name and telephone number of individual who can answer questions about the report.
  - ii. The Monitoring and Reporting Program Number.
  - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

#### 4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation under Section 13268 of the Water Code.

x:PROVISIONS WDRS

file: general pro mrp