

**FINAL
Second Five-Year Review Report**

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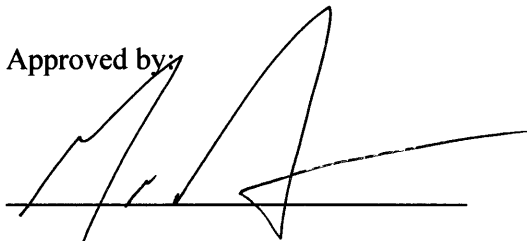
**RIO TINTO COPPER MINE
ELKO COUNTY, NEVADA**

May 18, 2022

Nevada Division of Environmental Protection
Lead Agency

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Approved by:



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May 18, 2022

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ACRONYMS AND ABBREVIATIONS

AOC	Administrative Order on Consent
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
ET	Evapotranspiration
FYR	Five-Year Review
GCL	Geosynthetic Clay Layer
HCP	Hydraulic Control Pond
ID	Identification
LT O&M	Long-Term Operations and Maintenance
MCR	Mountain City Remediation LLC
M&M	Monitoring and Maintenance
mg/L	milligrams per liter
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NPL	National Priorities List
O&M	Operations and Maintenance
RAO	Remedial Action Objectives
ROD	Record of Decision
RTMS	Rio Tinto Mine Site
RTWG	Rio Tinto Working Group
SM	Standard Method
TDG	The Delaney Group
TtEC	Tetra Tech EC, Inc.
UCL	Upper Confidence Limit
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service

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1.0 INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

This FYR report has been prepared by Tetra Tech EC, Inc (TtEC) on behalf of the Nevada Division of Environmental Protection (NDEP) pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (40 CFR Section 300.430(f)(4)(ii)) and considering United States Environmental Protection Agency (USEPA) policy.

This is the second FYR for the Rio Tinto Copper Mine, referred herein as the Rio Tinto Mine Site (RTMS). The triggering action for this FYR was the signing of the previous FYR on May 18, 2017. The site consists of only one operable unit. The FYR has been conducted due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure. The review period for this report is April 2017 through April 2022.

The RTMS is not on the National Priorities List (NPL) but is being addressed under CERCLA, also known as Superfund, under USEPA Superfund Alternative Site Guidance. The NDEP is the lead agency for the implementation of the selected remedy as presented in the Record of Decision (ROD) signed February 2012. The USEPA is a support agency and concurred with the selected remedy. The selected remedy is being undertaken by the Settling Defendants pursuant to the Consent Decree entered by United States District Court for the District of Nevada on May 20, 2013 (USEPA 2013). MCR with support from TtEC as the Supervising Contractor, is performing the work required under the Consent Decree and ROD. The site is identified in the NDEP "Project Tracking" database with the Identification (ID) number of F-001027. The site is listed in the Comprehensive Environmental Response, Compensation, and Liability Information System under the name Rio Tinto Copper Mine with a USEPA ID of NV3141190030.

The RTMS FYR was led by Paul Eckert, NDEP Remedial Project Manager. Participants included Sarah Watson, Remedial Project Manager, with the USEPA. The Rio Tinto Working Group (RTWG) was notified of the initiation of the FYR. The review began on February 3, 2022.

1.1. SITE BACKGROUND

The RTMS is an abandoned copper mine covering approximately 280 acres of private land located approximately 2.5 miles south of Mountain City, in northern Elko County, Nevada (Figure 1). Environmental concerns at the site resulted from mining and mineral processing activities in the upper Mill Creek Valley. Underground mining occurred between 1932 and 1947. Starting in

approximately 1965, there were a number of operations at Area A that involved the re-working of the tailings material in the upper Mill Creek Valley, leaching stockpiles of ore, leaching the underground workings, and exploration for additional mineral deposits. No mining related activities have occurred at the site since the late 1970s.

The 2001 Administrative Order on Consent (AOC) divided the RTMS into two areas of study, designated Area A and Area B. Area A covers the area from the western edge of Pond 1 eastward to the point where Mill Creek flows into the Owyhee River, and is approximately 400 total acres. It encompasses the historic Rio Tinto mine/mill area and the town site, approximately 280 acres (Figure 2).

The specific features of Area A include:

- Abandoned town and mill sites;
- Waste Rock Pile;
- Hillside Tailings Piles 1 and 2, which are located immediately north of the town site;
- Heap Leach Pad, which is located immediately south of the town site;
- Historic Mill Creek channel and associated mine waste materials, which were placed inland along Mill Creek approximately 2,000 feet north of the town site;
- Mill Creek diversion channel; and
- Lower reaches of Mill Creek and Dry Creek drainages, including the area of land between them.

Area B includes upper Mill Creek and upper Dry Creek, which are upstream of the mine site, and the Owyhee River drainage basin from its headwaters, south of Wildhorse Reservoir, north and west to the western boundary of the Duck Valley Reservation. While there was no record of waste disposal or tailings deposition in Area B, the RTWG performed studies that confirmed that mining related activities had not resulted in conditions that would require remediation in this area (NDEP 2012).

Table 1-1. Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: Rio Tinto Copper Mine		
USEPA ID: NV3141190030		
Region: 9	State: NV	City/County: Mountain City/Elko County
SITE STATUS		
NPL Status: Non-NPL		
Multiple OUs? No	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: State <i>[If "Other Federal Agency", enter Agency name]:</i>		
Author name (Federal or State Project Manager): Paul Eckert		
Author affiliation: Nevada Division of Environmental Protection (NDEP)		
Review period: 4//04/2017-4/04/2022		
Date of site inspection: 10/21/2021		
Type of review: Statutory		
Review number: 2		
Triggering action date 5/18/2017		
Due date (five years after triggering action date): 5/18/2022		

2.0 RESPONSE ACTION SUMMARY

2.1. BASIS FOR TAKING ACTION

As documented in the ROD, the historic RTMS was identified as a source of contaminants – acidic, metal-rich waters – to Mill Creek, which is a tributary of the Owyhee River. The metals were released to the surface water from historic mine-related materials deposited on the site during mining and mineral processing activities.

2.2. RESPONSE ACTIONS

Several site investigations, regulatory actions, and remedial construction activities have occurred at the site since the early 1970s and milestones are summarized in Table 2-1. Further details on some of these events are provided in the ROD.

Table 2-1. Milestones for Regulatory Actions and Remedial Activities

Time Period	Regulatory Actions and Remedial Activities
1986	Nevada Mining Association, on behalf of NDEP, developed several suggestions to reduce discharges from the RTMS.
1993	NDEP issued a Finding of Alleged Violation and Order based on conditions at the RTMS and discharges of mining-impacted waters to Mill Creek and the Owyhee River.
1996	NDEP entered into an AOC with the RTWG.
1996-1997	RTWG completed 18 remedial elements specified in the AOC.
2001	NDEP and RTWG signed an AOC to address continuing Owyhee River and Mill Creek water quality concerns. The 2001 AOC divided the RTMS into two areas of study, designated Area A and Area B.
2002	NDEP becomes party to Memorandum of Agreement with the USEPA and the Shoshone-Paiute Tribes that ensures participation of these stakeholders in investigations and planning. Coordination was established with the Nevada Department of Wildlife, the United States Forest Service (USFS), and the Department of Interior on their respective interests in the area of the mine site.
2006	RTWG submitted the Draft Remedial Alternatives Study to the NDEP.
2007	NDEP and RTWG entered into an AOC to implement a final remedy for the hillside tailings, heap leach pads, and waste rock pile upon consultation with USEPA.
2009	The NDEP approved the constructed remedy for the hillside features in January 2009.
2010	Proposed Plan was issued for public review.
2012	Consent Decree between former owners and NDEP and USEPA signed. Contains financial assurances and performance guarantees sufficient for the NDEP, as lead agency, to complete the ROD Remedy.
2012	ROD finalized.
2013	Consent Decree entered.
2013-2016	Remedy construction.
2016	Conducted Remedy Construction Completion Pre-Certification Inspection.

Time Period	Regulatory Actions and Remedial Activities
2017	First FYR completed; Certification of Completion of Remedy Construction attained on June 7, 2017

2.3. REMEDIAL ACTION OBJECTIVES FOR THE REMEDY SELECTED

The selected remedy addresses human health and environmental risks by minimizing potential exposures to low-pH, metal-bearing surface water at the RTMS and downstream receiving waters through removal of mine-related material from impoundments in upper Mill Creek Valley to a new repository at the site.

The following Remedial Action Objectives (RAOs) were established for the selection of the ROD remedy:

- a. Minimize any significant loading of contaminants of concern from the Mill Creek Valley mining material impoundments to Mill Creek and the Owyhee River, and
- b. Minimize potential human, terrestrial biota, and aquatic biota exposures to low-pH, metal-bearing surface water at the Rio Tinto Mine, as well as in downstream receiving waters.

The selected remedy addresses potential ecological threats in the form of dissolved copper. Elevated levels of copper may be toxic to aquatic biota and may adversely affect fish, invertebrates, plants, and amphibians. Acute toxic effects may include mortality of organisms; chronic toxicity can result in reductions in survival, reproduction, and growth. Three Performance Standard analytes were selected through a statistical analysis of surface water data downstream of the former mine. These three analytes are cadmium, copper, and zinc. Achievement of the RAOs is evaluated by comparing surface water quality to the calculated Chronic Performance Standards provided in Table 2-2.

Table 2-2. Compliance Thresholds for Performance Standard Analytes

Thresholds	Dissolved Cadmium (mg/L)	Dissolved Copper (mg/L)	Dissolved Zinc (mg/L)
Calculated 95% UCL¹	0.00024	0.028	0.030
Acute Performance Standard²	$1.136672 - (\ln \text{hardness})$ $[0.041838] X$ $e^{1.0166 (\ln \text{hardness}) - 3.924}$ [0.0018]	$0.960 X$ $e^{0.9422 (\ln \text{hardness}) - 1.700}$ [0.012]	$0.978 X$ $e^{0.8473 (\ln \text{hardness}) + 0.884}$ [0.107]
Chronic Performance Standard²	$1.101672 - (\ln \text{hardness})$ $[0.041838] X$ $e^{0.7409 (\ln \text{hardness}) - 4.719}$ [0.00023]	$0.960 X$ $e^{0.8545 (\ln \text{hardness}) - 1.702}$ [0.008]	$0.986 X$ $e^{0.8473 (\ln \text{hardness}) + 0.884}$ [0.108]

[bolded numbers are calculated standards at 90 milligrams per liter (mg/L) hardness, for reference purposes].

1. 95% Upper Confidence Limits (UCLs) calculated from SW-4 water quality monitoring database for January 2005 to March 2010.

2. Chronic Performance Standards are based on the aquatic life standards in Nevada Administrative Code (NAC) 445A.144.

2.4. REMEDY COMPONENTS

In 2007, after consultation with the USEPA, the NDEP and RTWG companies entered into an AOC to implement a final remedy for the hillside tailings, heap leach pads, and waste rock pile. These cleanup actions were determined to be appropriate for implementation independent of the other decisions to be made for the final remedy in the Mill Creek Valley. Consistent with State of Nevada requirements for the reclamation of mine sites, the remedy for these features included regrading the waste rock pile; the addition of cover material to 18 inches in thickness for the hillside tailings piles, heap leach pad, and waste rock pile; and reseeding the covers with native vegetation. The NDEP approved the constructed remedy for the hillside features in January 2009 (NDEP 2010).

The selected remedy for RTMS presented in the ROD (NDEP 2012) is as follows:

***Alternative 3A (Selected Remedy)-Partial Removal of Mine-Related Materials from Mill Creek Valley to On-site Repository and Seasonal Water Treatment or Management During Remedy Construction** Alternative 3A will remove mining materials from Ponds 3 and 4 and some amount of underlying materials to the hillside repository to the east and south of the former town site. Pond 2 (Sludge Pond) will remain in place, behind an engineered berm to ensure the pond's long-term stability. During construction activities a temporary, seasonal water treatment system or other appropriate practices will be utilized to manage water associated with the removal of Ponds 3 and 4 and underlying materials. The water treatment technology to be applied will be determined during design of the selected remedy. Conventional water treatment to address metals would likely consist of mixing in lime to adjust the water's pH and promote the precipitation of metals. Following the removal, an average three-foot-thick layer of clean, on-site soils will be placed within the footprints of Ponds 3 and 4. Mill Creek will then be realigned to the center of Mill Creek Valley east of Pond 2. Attenuation of metals in the Mill Creek alluvium will be achieved through the removal of Ponds 3 and 4 and the placement of a liner in Mill Creek post-removal to isolate alluvial groundwater from surface water and allow for neutralization in alluvial soils. Water quality in Mill Creek and the Owyhee River will be monitored for several years after completion of the remedy to measure progress toward meeting water quality standards.*

The ROD remedy also calls for institutional controls, defined as follows:

“Additional perimeter fencing and signs will be installed where needed to control site access. Fencing will consist of steel posts and 4-strand barbed wire and will be installed around the private property boundaries at the beginning of site remedial activities. The fencing will prevent unauthorized livestock grazing, which will reduce the potential for erosion of new and existing vegetated covers. Gates will be installed, as needed, to allow continued public use of the Forest Service road.”

2.5. STATUS OF IMPLEMENTATION

The remedy consisted of removal and containment of contaminant source areas, stream channel reconstruction, surface soil reclamation, and construction of fish passage, combined with

institutional controls that limit access to site and monitoring of downgradient surface water to ensure that the RAOs and Performance Standards are met. The Certification of Completion of Remedy Construction was attained on June 7, 2017, and O&M activities are currently underway.

The remedy components are presented along with brief description and status in Table 2-3. Figure 3 shows the constructed remedy and the post-remedy site conditions. Figure 4 shows the surface water compliance monitoring locations.

Environmental covenants or other land use controls are in place to prevent future use of the property that would be inconsistent with the remedial action (Attachment 2). Existing land use and proprietary controls include: the access provisions and easement restrictions established in the 1996 Property Agreement (ARCC Law 1996) with respect to the portion of the site owned by Doris Widerburg; USEPA’s March 2014 Administrative Order Directing Compliance with Request for Access (CERCLA Docket No. 9-2014-05), which prohibits the landowner from disturbing or interfering with the physical elements of the remedy on the Widerburg property; an Environmental Covenant (recorded August 3, 2013) with respect to property owned by MCR within Area A, which prohibits activities that would damage or interfere with the remedy; and access agreements entered into with other owners of property within Area A, which ensure access for remedy implementation and similarly prohibit or limit activities that would disturb or interfere with the effectiveness of the remedy.

Table 2-3. ROD Remedy Status

ROD Remedy Component	Description and Purpose	Status/Comments
Removal of Materials and Restoration of Upper Mill Creek Valley	Removal of mine-related materials, cover material, and embankments from Ponds 3 and 4, additional underlying alluvial soils and other associated impacted materials in the upper Mill Creek Valley, and disposal of these materials in on-site repository. The depth of excavation into the alluvium was based on the extent of observable impacts. Visibly discolored alluvial materials or materials with a pH of ≤ 4.5 were removed. If impacts to the underlying alluvium were detected at a depth greater than 2 feet, further assessment was done to determine the need for excavation below that depth. The excavation area was backfilled and areas disturbed during remedy construction were revegetated.	Removal completed and mine-related materials contained in repository as of October 20, 2015. Backfill and revegetation were completed on August 29, 2016.
On-Site Repository	The on-site repository for impacted materials is located on the hillside, to the east and south of the former town site and to the east of the reclaimed Heap Leach Pad.	On-site repository completed on September 29, 2016. Access was restricted with fencing as of August 5, 2016.

ROD Remedy Component	Description and Purpose	Status/Comments
Temporary Water Treatment Plant	Used for treatment of drained water from the disturbance and removal of Ponds 3 and 4, underlying materials, and the Hydraulic Control Pond (HCP) seasonally collected and treated during construction.	Operated through September 2015. System dismantled and removed on October 22, 2015.
Upper Mill Creek Reconstruction, including Fish Passage	The excavated portion of the upper Mill Creek channel reconstructed to include a liner system and features intended to facilitate opportunistic non-resident fish (Redband trout) movement through the site during favorable flow conditions.	Reconstruction completed and fish passage in place as of July 12, 2016.
Lower Mill Creek Valley Reclamation	Surface soil reclamation performed in the lower Mill Creek Valley to enhance vegetation; includes removal of tailings, any collected tailings were transported to the onsite repository, placement of backfill, incorporation and tilling of soil amendments, and planting of appropriate seed-mix.	Soil preparation completed and areas seeded on September 29, 2015.
Hydraulic Control Pond Excavation	The extent of the HCP was delineated by the rock filled basin that composed it. Prior to rock and gravel removal, the water within the HCP was pumped out and treated at the Water Treatment Plant (WTP). There was no tailing material located within the HCP. The HCP was removed down to a depth of 3 feet beyond the horizontal and vertical limits of the HCP and all material placed in the repository.	Excavation and backfill completed on September 30, 2015.
Heap Leach Pad Evaporation Pond	Construct a lined pond with an overflow infiltration trench, for evaporation of seepage from the Heap Leach Pad.	Construction completed on November 10, 2016.
Compliance Monitoring	Quarterly surface water monitoring in accordance with established Water Quality Compliance Protocol in the East Fork Owyhee River and Mill Creek.	Ongoing, per Water Quality Compliance Protocols provided as Attachment 1.
Operations and Maintenance	Routine monthly inspections will be conducted to identify repair and maintenance needs for remedy components, including repository, Mill Creek channel, cover, fences, gates, and access roads.	Ongoing, with O&M reports submitted annually.

Table 2-4. IC Summary Table

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Engineered Control	No, IC is in place	Yes	Sitewide	Prevent unauthorized livestock grazing which will reduce the potential for erosion of new and existing vegetative covers.	Perimeter Fencing
Engineered Control	No, IC is in place	Yes	Sitewide	Allow continued public use of the Forest Service Road	Locked Access Road Gates
Engineered Control	No, IC is in place	Yes	Sitewide	Prevent unauthorized livestock grazing which will reduce the potential for erosion of new and existing vegetative covers.	Repair and Replacement of Cattle Guards
Engineered Control	No, IC is in place	Yes	Sitewide	Limit wildlife from entering the evaporation pond area.	Wildlife Fence Barrier Surrounding the Evaporation Pond
Engineered Control	No, IC is in place	Yes	Sitewide	Control Site Access.	Signage
Land Use Control	No, IC is in place	Yes	Sitewide	Limit future use of the property. See Attachment 2 for a copy of the Property Use and Access Restrictions.	Environmental Covenants

2.5.1 Summary of Monitoring and Maintenance Activities

The O&M activities conducted to maintain the effectiveness of the remedy after Certification of Completion of Remedy Construction are divided into two separate periods: Maintenance and Monitoring (M&M) and Long-Term Operations and Maintenance (LT O&M). The two Operations and Maintenance (O&M) activities periods are described in the Consent Decree (USEPA 2013), and are further described as follows:

- M&M activities are all activities conducted to maintain the effectiveness of the remedy after certification of remedy construction and before certification of achievement of Performance Standards
- LT O&M activities are all activities conducted to maintain the effectiveness of the remedy after certification of achievement of the Performance Standards.

The Certification of Completion of Remedy Construction was attained on June 7, 2017, which marked the beginning of the M&M phase of this project which consists of site inspections and as-needed maintenance activities. TtEC began conducting M&M activities for the first season beginning in June 2017 (The Delany Group [TDG] 2018). M&M activities were conducted in accordance with the Final Design Analysis Report (TDG 2013a), in particular, the Final Health

and Safety Plan (Appendix C of the Final Remedial Design) and the Final O&M Plan (Appendix I of the Final Remedial Design).

M&M activities performed included monthly inspections of site features, maintenance activities, and quarterly surface water sampling and analysis of two locations within the East Fork Owyhee River and two locations within Mill Creek. The Final O&M Maintenance Plan (TDG 2013a) requires monthly inspections between the period of April and October and within 24 hours of a rainfall event of 0.5 inches or greater occurring within a 24-hour period. The table below shows the dates of each inspection.

Table 2-5. Monthly Inspection Dates

Season	Inspection Dates
2017	June 28, July 31, August 23, September 22, and October 25
2018	April 30, May 19, June 30, July 31, August 13, September 1, September 29, and October 24
2019	April 14, May 31, June 19, July 28, August 16, September 27, and October 23
2020	April 30, May 21, June 30, July 23, August 26, September 29, and October 28
2021	April 13, May 17, June 15, July 23, August 19, September 6, and October 21
2022	May 12

O&M activities were documented in annual operations and maintenance reports (TDG 2018, TDG 2019, TDG 2020, TtEC 2021a, TtEC 2021b) The annual reports include site inspection reports and photographs. A summary of inspection activities is provided in Table 2-5 and notable maintenance activities for the review period are described in Table 2-6, below.

Table 2-6. Site Inspection Summary

Feature	Findings
Signs, Fences, and Gates	Monthly inspections of the signs, fences and gates and routine maintenance were performed during the review period. A section of the perimeter fence was damaged by the South Sugarloaf Wildfire in 2018 and the fencing was repaired in 2019.
Repository Envirotranspiration Cover Surfaces and Channel	The Envirotranspiration (ET) cover system remains in excellent condition. Monthly inspections completed during the review period verified that all drainage is directed into the perimeter channels, indication of seepage or discoloration was not noticed, indications of ponding and/or differential settlement do not exist, surface cracking is not present, erosion and rilling was not present except where indicated above and has been repaired, perimeter channel lining was not displaced or damaged, excessive buildup of silt and/or debris was not observed, no indication of drainage overtopping the terrace channels was observed, terrace channels remain at least 18-inches deep, and excessive growth of vegetation was not observed in the perimeter or terrace channels.

Feature	Findings
Repository ET Soil Cover Vegetation	In 2018, due to sparse vegetation observed on the upper side slope, additional hydroseeding was performed and the sparse areas are continuing to fill in. The vegetation was observed to be in excellent condition during the 2021 monitoring season.
Pond 2	The Pond 2 east slope had material added and graded. In addition, due to impact from South Sugarloaf Wildfire in 2018, a small area was hydroseeded during the fall of 2019. The slope is stable and in good condition. The Pond 2 berm remains in good condition. A cut made through this area, for the installation of the infiltration trench into Pond 3, was graded and hydroseeded during the fall of 2019. During the 2021 monitoring season, drilling and scouring were not observed, there were no indications of ponding, no evidence of current or past seepage, no evidence of displaced rock armor material and this area continued to show positive vegetation growth in the hydroseeded areas.
Pond 3	Due to sparse vegetation growth, the area was hydroseeded in 2019. During the 2021 monitoring season, the area that was hydroseeded had vegetation present. No ponding or erosion was noted with the exception of sediment from rainstorms in late July, early August and early October 2021 that had crossed the lower seep management trench. This sediment will be removed in Spring 2022 following winter runoff.
Pond 4	Healthy vegetation was observed across entire Pond 4 area. No ponding or erosion was noted with the exception of sediment from rainstorms in late July, early August and early October 2021 that had crossed Pond 4 and entered the realigned Mill Creek channel. This sediment will be removed in Spring 2022 following winter runoff.
Site Ditches and Channels	Minimal erosion within the site ditches and channels was observed during the review period. In 2018, 2019, and 2020, sediment that had accumulated behind site drainage check dams was removed using a backhoe. Riprap making up the check dams was rearranged following sediment removal to prepare for inclement weather. During the 2021 inspections, no excessive growth of vegetation or displaced rock dams were observed. The site drainage ditches and channels were in excellent working order with no major sediment build-up or pooling of water.
Culverts	During the review period, the culverts were observed to be in good condition with no sign of damage, no buildup of sediment or debris present, and no excessive growth of vegetation or weeds were noted. During the Fall 2021 inspection season erosion from recent storms was observed around the culvert outlet under the USFS access road. This culvert is located below the reclaimed Hillside Tailings Pile 2 and drains into the Mill Creek diversion channel above Pond 3. The erosion was noted as

Feature	Findings
	having no effect on the road or culvert and will be continued to be monitored.
USFS Access Road	The USFS Access Road was monitored during the review period for evidence of stormwater running across the road, rutting or other erosion, and sediment buildup in adjacent ditches and shoulders. Minor erosion was observed in 2020 and in 2021, the roadside drainage ditch along the western edge of the USFS access road was observed to have breached its intended flow path and flowed onto the access road. The breach eventually flows back into the western channel but has caused minor damage along the access road. The road will be repaired Spring 2022 following winter runoff.
Vegetation Covers for Non-Repository Areas	During the review period vegetation growth continued to progress. Areas where vegetation was observed to be sparse were hydroseeded during the fall of 2019. Vegetation in the borrow areas (Borrow Site 1, Borrow Site 2 & Rock Armor Borrow Source Area) was observed to be in excellent condition. Minimal to no vegetation was present on the excavation slopes surrounding the Heap Leach Pad Evaporation Pond; however, no vegetation has been observed in this area since construction began.
Heap Leach Pad Evaporation Pond	A bypass system was installed in 2017 at the overflow pipe to help mitigate possible pond overflow events and additional overflow events were not observed during the review period. During the review period, the following observations were made: no excessive accumulation of sediment on east, south or west slopes; no evidence of current or past seepage at toe of north embankment; no evidence of liner damage; no evidence of wildlife intrusion; the valve on inflow pipe continued to be operational; the overflow pipe to infiltration trench was not blocked; evidence of flow in the overflow pipe; evidence of seepage from infiltration trench; and no evidence of seepage or erosion at piping connections to Heap Leach Pad. The depth of water measured in the pond during the review period varied between dry and 3.3 feet. Depth of water will continued to be monitored.
Realigned Upper Mill Creek	During the review period, the constructed Realigned Upper Mill Creek was observed to be in good condition. There were no signs of excessive erosion or buildup of silt/debris; the Rock Armor Layer Material was not displaced; the Protective Soil Layer or Geosynthetic Clay Layer (GCL) was not exposed or damaged. Fish-resting pool boulders and fish-resting place boulders were not displaced, and fish have been observed. No evidence of discolored water in pools in Realigned Upper Mill Creek were noted. Construction of a seep management system was completed in 2019. Riparian vegetation along Mill Creek was monitored during the review period and the larger

Feature	Findings
	vegetation noted during the 2021 monitoring season was treated to prevent potential rooting in the GCL surface.
Hillside Remedy Features	During the review period, while vegetation remains sparse in some areas, the established vegetation remains in good condition. In addition, no evidence of scouring or erosion was observed; rock berms remain in-place; there was no evidence of current or past seepage; no evidence of differential settlement or surface cracking; and no excessive sediment accumulation within run-on control channels.

2.5.2 Notable Maintenance Activities

The majority of the as-needed maintenance activities performed during the review period consisted of sediment removal, additional hydroseeding in areas with sparse vegetation, and the repair of gates and fences. The following notable maintenance activities were completed during the review period.

Prevention of Overflow of the Heap Leach Pad Evaporation Pond. A bypass system was installed in 2017 at the overflow pipe to help mitigate possible pond overflow events. A 4-inch pipe was installed around the 1-inch pipe which runs through the flowmeter residing between the Heap Leach Pad Evaporation Pond and the overflow infiltration trench. It was possible that this 1-inch pipe was constricting overflow drainage and causing possible overflow observed early in the 2017 season.

Mill Creek Valley Seepage. There was evidence of seepage observed during 2017, originating from the south sidewall south of Pond 3. The seep had a rusty color and was ponding on the Mill Creek Valley floor eventually draining toward Mill Creek. TtEC collected soil samples on August 8, 2017 (samples MV-1 and MV-2). Samples were analyzed for total metals, Acid/Base Accounting – Nevada Modified Sobek Procedure, and Meteoric Water Mobility Procedure – column test. The paste pH results for these samples were 4.58 and 6.63. Because one of the sample results was below 6.0, TtEC collected an additional sample at the same location in June of 2018 as agreed upon with the NDEP. The results of the June 2018 sample showed a paste pH of 6.59, although evidence of discolored seepage continued to be present within this area.

During the 2018 site visit with TtEC, Mountain City Remediation LLC (MCR), NDEP, and the USEPA, a path forward was discussed for managing the discolored seepage issue. Further investigation was required, during 2019, in order to determine a plan forward. On June 3, 2019, TtEC collected four seep samples. The pH results were 7.6, 3.1, 2.7, and 7.9. Due to the results of these seep samples, TtEC proposed a plan to install two separate seep management trenches (see Figure 6). The west trench was designed to infiltrate an area which did not have a low pH value. This trench was constructed of filter fabric and riprap and drains directly into the realigned Mill Creek. The east trench was designed to infiltrate low pH seeps. The east trench was constructed of filter fabric, 1-foot of limestone at the bottom of the trench, and approximately 2-feet of riprap on

top of the limestone. TtEC presented the seep management plan to NDEP, USEPA, and MCR on August 20, 2019 during a conference call. It was determined that construction of the seep management system would be completed during the 2019 season. Construction began September 9, 2019 and was completed October 22, 2019. Since installation of the seep management trenches, ponded water has not been observed on Mill Creek Valley floor.

South Sugarloaf Wildfire. The South Sugarloaf Wildfire began Friday, August 17, 2018, and spread through the Rio Tinto Mine Remediation Site on Thursday August 23, 2018. The South Sugarloaf Wildfire damaged much of the perimeter site fencing which required repair. A minimal amount of vegetation within some areas of Pond 2 was burned but did not require re-vegetation. The fire did not cause any adverse impact to the repository cap. Fence repair was conducted between June 17, 2019, and July 8, 2019, when site conditions were dry and feasible for work activities.

Deep-rooted Riparian Plant Removal. During the July 15, 2021 M&M monthly inspection, larger plants, brush, and shrubs growing within the channel banks of realigned Mill Creek were observed. In order to prevent the potential for deep-rooting, on July 23, 2021, this vegetation was sprayed by Slater Seeding. During the following inspection periods the sprayed vegetation was observed to be wilted and/or dead.

2.5.3 Summary of Surface Water Monitoring

Following completion of remedy construction, surface water sampling was initiated on a quarterly basis at SW-1, SW-2, SW-3, and SW-4 (see Figure 4) in accordance with the Water Quality Compliance Protocol (Attachment 1) and Compliance Monitoring Field Sampling and Analysis Plan (TDG 2013b). During each quarterly sampling event, surface water field water quality measurements and area-velocity surface water flow measurements were collected as follows:

Samples were collected from downstream locations first, then upstream, in the order:

- SW-4: East Fork Owyhee River below the confluence with Mill Creek.
- SW-3: East Fork Owyhee River above the Mill Creek confluence.
- SW-2: Lower Mill Creek near the discharge point into the East Fork Owyhee River, and downstream from Rio Tinto remediation activities.
- SW-1: Mill Creek above the Rio Tinto remediation activities.

A multi-parameter water quality meter was used to measure surface water geochemical parameters. The instrument was successfully calibrated to a standard solution in the morning prior to the day's sampling. The instrument was carefully lowered into flowing water at the side of the stream. Field water quality measurements included dissolved oxygen, temperature, pH, specific conductance, and turbidity.

At a location slightly downstream from the water quality measurements, field personnel collected water samples. A new, disposable one-quart poly sampling container and a new, one-gallon

distilled water container were triple-rinsed with stream water. The poly container was then dipped into the stream in at least five locations across the stream profile and approximately equal volumes of water were poured into the distilled water container to obtain a composite sample for water quality measurements and laboratory analyses. The distilled water container was used to fill the laboratory-provided sample containers. Laboratory preservatives, where required, were placed into the sampling containers by the laboratory prior to delivery to the project. The containers used to collect stream water were used only once at each location. Therefore, no equipment decontamination was necessary.

Following sample collection, area-velocity surface water flow measurements were taken. Except as described below, a velocity meter mounted on a depth-calibrated staff was used to measure stream velocity and depths across the profile of the stream. The stream was divided into several approximately equal width areas. Water depth and water velocity were recorded in the center of each area. Water flow in cubic feet per second was calculated for each area, and the area flows were summed to calculate total stream flow. Water flows in the East Fork Owyhee River were compared to the United States Geological Survey gauging station, located north of Mountain City and downstream from the measuring points. Only one tributary enters the Owyhee River between the measured sections and the gauging station.

Following sample collection, samples were analyzed by the laboratory for the following:

- Total iron and total aluminum by USEPA Method 6010C
- Hardness by Standard Method (SM) 2340C
- Total dissolved solids by SM 2540C
- Total suspended solids by SM 2540D
- Dissolved metals (cadmium, copper, zinc) by USEPA Method 6020A

Analytical and field parameter measurement results from each monitoring event were reported quarterly in Post-Construction Sampling and Analysis Surface Water reports and summarized in the Annual Operations and Maintenance Reports (TDG 2018, TDG 2019, TDG 2020, TtEC 2021a, TtEC 2021b) A summary of field water quality and flow measurements and laboratory analytical results completed during the review period are provided in Section 4 and presented in Tables 4-1 and 4-2.

3.0 PROGRESS SINCE THE LAST REVIEW

3.1 PREVIOUS FIVE-YEAR REVIEW PROTECTIVENESS STATEMENT AND RECOMMENDATIONS

The 2017 FYR included the following protectiveness statement:

“The remedy at RTMS is protective of human health and the environment as the contaminant sources that previously impacted the Owyhee River have been excavated and contained and access to the site is controlled with fences and gates. Surface water samples from the Owyhee River met the requirements established in the Water Quality Compliance Protocol for the remedy construction phase of the project. Institutional controls are in place to ensure long-term effectiveness.”

The 2017 FYR did not identify any issues that could impact the protectiveness of the remedy.

4.0 FIVE-YEAR REVIEW PROCESS

The USEPA's Comprehensive Five-Year Review Guidance (USEPA 2001) outlines the FYR process and elements required. This section of the document describes the process and presents the data reviewed. Tasks associated with the FYR include community notification, data review, site inspections, technical assessments, and the development of the FYR Report and review. This Second FYR is conducted to document remedy status five years following the completion of the First FYR (NDEP 2017).

All parties defined in the Consent Decree (USEPA 2013) as the State of Nevada, the United States, the Tribes and Settling Defendants have been notified of the FYR via email. These parties are as follows:

- Nevada Division of Environmental Protection
- United States Department of Justice
- United States Environmental Protection Agency
- Tribes
- United States Forest Service
- United States Fish and Wildlife Service
- Mountain Cities Remediation LLC

The following FYR members participated in the preparation of this report:

- John Shulz, MCR
- Paul Eckert, NDEP
- Sarah Watson, USEPA
- Raymond Seamons, TtEC

4.1 COMMUNITY NOTIFICATION AND SITE INTERVIEWS

Public notification will be placed in the Elko Daily Free Press to inform the community about the Second FYR and how to access the Second FYR Report. Copies of the Second FYR will be provided to the NDEP offices in Carson City, NV and the Environmental Office of the Shoshone-Paiute Tribes, Duck Valley Reservation in Owyhee, NV. The public notice is provided as Attachment 4.

Interviews were conducted between April 8-25, 2022, to document any perceived problems or successes with the remedy that has been implemented to date. The interviews were conducted with

representatives from the Tribes (TyRee Lee) and nearby residents. Information obtained during each interview is included in Attachment 3.

4.2 DATA REVIEW

Quarterly compliance monitoring in the East Fork Owyhee River and Mill Creek was initiated in 2017 following Certification of Completion of Remedy Construction as required by the Water Quality Compliance Protocol and detailed in the Compliance Monitoring Field Sampling and Analysis Plan (TDG 2013b).

4.2.1 Summary of Field Measurement Results

A summary of field water quality and flow measurements collected during this review period is provided in Table 4-1. Field measurements were collected quarterly except as noted. A Horiba U-50 series multi-parameter water quality meter (Horiba) was used to measure surface water geochemical parameters during sampling events. Field measurement procedures were similar for each sampling location. The Horiba was carefully lowered into flowing water at the side of the stream. Field water quality measurements included dissolved oxygen (DO), temperature, pH, specific conductance, and turbidity.

In addition, stream flow in Mill Creek and the Owyhee River was determined using the area-velocity method. A Hach Model FH950 velocity meter mounted on a depth-calibrated staff was used to measure stream velocity and depths across the profile of the stream. Multiple point velocity measurements were recorded at selected intervals along the stream cross-section. The velocity was observed at each point for a period ranging from 40–70 seconds. The total flow at a location was calculated using the products of each point velocity and the cross-sectional area of each subsection. If flow readings were not calculated, the flow was estimated. Results of flow measurements are found on Table 4-1.

4.2.2 Summary of Analytical Results

The analytical results for surface water samples collected during quarterly monitoring for this review period are summarized in Table 4-2. For all events, the laboratory received samples in good condition and within temperature requirements. Laboratory reports were reviewed, and quality control samples met acceptable laboratory requirements.

As specified in the Water Quality Compliance Protocol, following Certification of Completion of Remedy Construction, the Performance Standards for the East Fork Owyhee River at Station SW-4 are the greater of either the prevailing upstream water quality condition at SW-3 or the applicable Chronic Performance Standards and the Performance Standards at Mill Creek are the Chronic Performance Standards as summarized in Table 4-3. The Chronic Performance Standards for dissolved cadmium, copper, and zinc are provided in Table 2-2.

4.2.3 East Fork Owyhee River Compliance Monitoring

During the review period, in April 2019, one exceedance of the Chronic Performance Standard was reported for copper at location SW-3, which is above the confluence with Mill Creek. This was the only exceedance at East Fork Owyhee monitoring locations observed during the review period and was likely associated with spring melt mobilization of bedrock-derived materials during the high precipitation year experienced locally in 2019 (four-inches above average).

No exceedances above the prevailing upstream water quality condition at SW-3 or the Chronic Performance Standard were reported at SW-4 during the review period. In accordance with the Water Quality Compliance Protocol, quarterly sampling is required for a minimum of five years following certification of completion of Remedy Construction and after the initial 5-year period, compliance monitoring at Stations SW-3 and SW-4 may be discontinued if no more than one exceedance is observed at SW-4 over 3 consecutive years, but not prior to the fifth year. This condition has been met.

Table 4-1. Summary of Field Parameter Results

Sample ID	Collection Date	Water Quality Parameters ¹					
		DO (mg/L)	Flow (cfs)	pH (pH units)	Specific Conductance (mS/cm)	Temperature (Celsius)	Turbidity (NTU)
SW-1	6/27/2017	13.1	5.9	7.4	0.153	17.3	1.9
SW-1	8/22/2017	NA	0	NA	NA	NA	NA
SW-1	10/19/2017	16.07	0.46	7.4	0.243	11.86	0.0
SW-1	3/22/2018	50	10.09	7.01	1.09	3.19	7.6
SW-1	5/31/2018	46.96	10.09	7.7	0.12	11.69	5.3
SW-1	6/29/2018	46.75	3.5	7.65	0.176	15.17	0.5
SW-1	9/21/2018	NA	0	NA	NA	NA	NA
SW-1	10/23/2018	50	0.05	7.31	0.299	12.73	0.4
SW-1	4/15/2019	NA	15.0	7.47	0.117	3.19	22.7
SW-1	6/25/2019	5.30	6.76	7.40	0.121	17.81	2.1
SW-1	8/27/2019	NA	0	NA	NA	NA	NA
SW-1	10/23/2019	6.03	0.34	8.26	0.206	9.62	0.3
SW-1	5/11/2020	5.38	13.28	7.39	0.096	14.08	5.3
SW-1	6/30/2020	5.27	12.08	7.48	0.148	8.91	3.2
SW-1	8/26/2020	NA	0	NA	NA	NA	NA
SW-1	10/28/2020	5.54	0.50	8.63	0.227	8.40	0.0
SW-1	4/14/2021	11.24	15.5	7.41	0.100	1.80	4.4
SW-1	6/15/2021	8.61	4.65	8.08	0.151	20.40	4.8
SW-1	8/19/2021	NA	0	NA	NA	NA	NA
SW-1	10/21/2021	7.24	0.28	6.22	0.272	11.13	0.4
SW-2	6/27/2017	12.6	8.4	7.4	0.175	18.2	1.2
SW-2	8/22/2017	18.2	0.03	7	0.433	13.6	0.2
SW-2	10/19/2017	15.47	0.5	7.72	0.335	11.72	0.1
SW-2	3/22/2018	49.89	11.65	6.97	0.153	3.16	11.9
SW-2	5/31/2018	46.52	11.65	7.61	0.145	12.52	3.0
SW-2	6/29/2018	48.38	5.0	7.49	0.283	14.35	0.1
SW-2	9/21/2018	NA	0	NA	NA	NA	NA
SW-2	10/23/2018	50	0.13	7.08	0.394	11.38	0.1
SW-2	4/15/2019	NA	15.0	7.50	0.154	3.22	52.3
SW-2	6/25/2019	7.33	5.56	7.13	0.137	15.39	NA
SW-2	8/27/2019	7.02	0.8	7.6	0.304	19.07	0.1
SW-2	10/23/2019	6.72	0.2	8.46	0.278	9.51	0.5
SW-2	5/11/2020	5.21	8.21	7.62	0.108	12.63	4.7
SW-2	6/30/2020	5.36	11.29	7.39	0.163	9.03	4.4
SW-2	8/26/2020	NA	0	NA	NA	NA	NA
SW-2	10/28/2020	5.66	0.38	9.00	0.279	8.22	0.0
SW-2	4/14/2021	11.08	15.57	7.57	0.112	2.26	3.7
SW-2	6/15/2021	9.36	1.91	7.93	0.175	20.32	5.0
SW-2	8/19/2021	NA	0	NA	NA	NA	NA
SW-2	10/21/2021	8.63	0.07	6.67	0.315	9.52	0.8
SW-3	6/27/2017	*	51.6	7.5	0.259	17.6	2.6
SW-3	8/22/2017	8.6	68.9	7.5	0.216	14.1	1.7
SW-3	10/19/2017	11.89	12.96	7.8	0.336	11.53	0.7
SW-3	3/22/2018	50	211	7.05	0.200	3.97	49.9
SW-3	5/31/2018	*	66.4	7.62	0.231	12.85	0.9
SW-3	6/29/2018	45.56	206	7.24	0.227	13.21	1.7
SW-3	9/21/2018	50	13.8	7.81	0.234	11.97	1.8

Sample ID	Collection Date	Water Quality Parameters ¹					
		DO (mg/L)	Flow (cfs)	pH (pH units)	Specific Conductance (mS/cm)	Temperature (Celsius)	Turbidity (NTU)
SW-3	10/23/2018	50	43.89	7.71	0.205	8.87	7.7
SW-3	4/15/2019	NA	721	6.91	0.095	3.21	17.2
SW-3	6/25/2019	6.12	94.77	7.22	0.207	13.77	4.2
SW-3	8/27/2019	9.08	111	7.07	0.217	13.69	2.1
SW-3	10/23/2019	8.23	5.58	7.67	0.325	7.42	1.9
SW-3	5/11/2020	5.49	226	7.14	0.189	12.49	7.2
SW-3	6/30/2020	4.94	213	7.42	0.235	11.07	3.8
SW-3	8/26/2020	4.36	78.55	7.99	0.221	15.26	1.1
SW-3	10/28/2020	5.96	63.41	9.14	0.226	7.90	0.0
SW-3	4/14/2021	11.32	103	7.75	0.186	3.03	4.3
SW-3	6/15/2021	9.80	115.16	7.35	0.234	14.92	5.7
SW-3	8/19/2021	8.95	16.36	8.06	0.251	13.79	1.0
SW-3	10/21/2021	11.02	20.47	6.85	0.288	7.97	2.6
SW-4	6/27/2017	9.5	63.7	7.5	0.202	16.6	1.5
SW-4	8/22/2017	11.3	78.5	7.4	0.221	13.2	1.3
SW-4	10/19/2017	12.08	13.98	7.69	0.349	9.22	1.5
SW-4	3/22/2018	32.82	219	7.08	0.171	3.59	34.4
SW-4	5/31/2018	*	66.4	7.45	0.196	12.76	1.9
SW-4	6/29/2018	38.32	206	7.1	0.288	13.15	0.4
SW-4	9/21/2018	50	13.4	7.45	0.195	9.98	0.2
SW-4	10/23/2018	50	51.67	7.18	0.324	6.98	0.9
SW-4	4/15/2019	NA	712	7.54	0.081	2.94	15.1
SW-4	6/25/2019	12.90	115.67	7.20	0.182	13.84	3.5
SW-4	8/27/2019	13.34	109	9.08	0.218	13.21	2.0
SW-4	10/23/2019	6.82	5.5	7.39	0.316	7.43	1.2
SW-4	5/11/2020	6.06	223	7.02	0.143	12.08	5.7
SW-4	6/30/2020	6.66	207	7.46	0.215	10.5	4.1
SW-4	8/26/2020	3.86	83.48	8.26	0.220	15.70	1.1
SW-4	10/28/2020	9.74	87.83	9.15	0.230	7.59	0.0
SW-4	4/14/2021	12.18	104	8.16	0.159	2.61	4.1
SW-4	6/15/2021	10.31	102	7.47	0.226	14.93	6.4
SW-4	8/19/2021	10.13	18.05	8.57	0.253	13.01	0.6
SW-4	10/21/2021	11.30	18.63	7.09	0.293	6.94	3.0

Notes:

1. Water Quality Parameters measured with Horiba U-50 series multi-parameter meter

Unable to measure flow. Flows estimated.

mg/L - milligrams per liter

cfs - cubic feet per second

DO - dissolved oxygen

NA - Not available since no flow.

NTU - Nephelometric Turbidity Units

mS/cm - millisiemens per centimeter

* Recorded value was outside the range of measureable values for DO and is not reported.

Table 4-2. Summary of Water Quality Compliance and Ambient Monitoring Protocols

Sample ID	Collection Date	Performance Standard Analytes						Supplemental Analytes				
		EPA 6020A						EPA 6010C		SM 2340C	SM 2540C	SM 2540D
		Dissolved Cadmium (mg/L)	Chronic Performance Standard for Dissolved Cadmium ¹	Dissolved Copper (mg/L)	Chronic Performance Standard for Dissolved Copper ¹	Dissolved Zinc (mg/L)	Chronic Performance Standard for Dissolved Zinc ¹	Total Aluminum (mg/L)	Total Iron (mg/L)	Hardness (mg/L)	TDS (mg/L)	TSS (mg/L)
SW-1	6/27/2017	0.00027 U	0.00018	0.00076 J	0.006	0.0020 U	0.080	0.37	0.41 B	63	100	5.6
SW-1	8/22/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-1	10/19/2017	0.00027 U	0.00026	0.00056 U	0.010	0.0020 U	0.128	0.018 U	0.040 J	110	170	1.6 J
SW-1	5/31/2018	0.00027 U	0.00016	0.00071 J	0.005	0.0020 U	0.070	1.1	0.96	54	89	16
SW-1	6/29/2018	0.00027 U	0.00021	0.00056 U	0.007	0.0020 U	0.098	0.18	0.26	80	130	3.2 J
SW-1	9/21/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-1	10/23/2018	0.00027 U	0.00030	0.00056 U	0.011	0.0031 J	0.148	0.018 U	0.030 J	130	200	1.1 U
SW-1	4/15/2019	0.00027 U	0.00012	0.014	0.004	0.0067 J	0.050	1.8	1.5	36	110 B	54
SW-1	6/25/2019	0.00027 U	0.00017	0.00066 J	0.006	0.0043 JB	0.076	0.26	0.21 B	59	120	10 U
SW-1	8/27/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-1	10/23/2019	0.00027 U	0.00026	0.00056 U	0.010	0.0032 JB	0.128	0.026 J	0.15	110	130	1.1 U
SW-1	5/11/2020	0.00027 U	0.00015	0.00092 J	0.005	0.0020 U	0.065	1.1	0.87	49	92	10
SW-1	6/30/2020	0.00027 U	0.00018	0.00089 J ^	0.006	0.0022 JB	0.083	0.37	0.51 B	66	140	8.8 B *
SW-1	8/26/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-1	10/28/2020	0.00027 U ^	0.00025	0.00056 U	0.009	0.0020 U	0.118	0.018 JB	0.071 JB	100	160	1.6 J
SW-1	4/14/2021	0.00027 U	0.00013	0.0014 J	0.004	0.0029 J	0.056	1.8	1.3	41	91	2.4 J
SW-1	6/15/2021	0.00027 U	0.00018	0.00056 J	0.006	0.0020 U *	0.080	0.40	0.47	63	100	6.4
SW-1 SPLIT	6/15/2021	0.00031 U	--	0.001329 U	--	0.00273 U	--	0.3	0.45	--	--	--
SW-1	8/19/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-1	10/21/2021	0.00027 U	0.00028	0.00065 J	0.010	0.0020 U	0.138	0.025 J	0.033 JB ^	120	160	1.1 U
SW-2	6/27/2017	0.00027 U	0.00020	0.0038	0.007	0.0029 J	0.094	0.28	0.36 B	76	120	4.0
SW-2	8/22/2017	0.00027 U	0.00037	0.0091	0.015	0.020 B	0.194	0.046 J	0.098 JB	180	280	1.1 U
SW-2	10/19/2017	0.00027 U	0.00033	0.012	0.013	0.014	0.167	0.018 U	0.094 J	150	200	1.1 U
SW-2	5/31/2018	0.00027 U	0.00019	0.0034	0.007	0.0025 J	0.086	0.69	0.56	69	110	6.0
SW-2	6/29/2018	0.00027 U	0.00028	0.0059	0.010	0.0029 J	0.138	0.085 J	0.12	120	190	1.1 U
SW-2	9/21/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-2	10/23/2018	0.00027 U	0.00037	0.0084	0.015	0.0095 J	0.194	0.057 J	0.088 J	180	260	2.4 J
SW-2	4/15/2019	0.00027 U	0.00016	0.00066 J	0.005	0.0020 U	0.071	3.2	3.1	55	130 B	100
SW-2	6/25/2019	0.00027 U	0.00019	0.0031	0.006	0.0049 JB	0.084	0.20	0.16 B	67	120	28
SW-2	8/27/2019	0.00027 U	0.00028	0.0015 J	0.010	0.0020 U	0.138	0.018 U	0.040 J	120	200	1.1 U
SW-2	10/23/2019	0.00027 U	0.00026	0.0069	0.010	0.0083 JB	0.128	0.024 J	0.058 J	110	160	1.1 U
SW-2	5/11/2020	0.00027 U	0.00017	0.0024	0.006	0.0020 U	0.077	0.97	0.79	60	95	6.0
SW-2	6/30/2020	0.00027 U	0.00019	0.0016 J	0.006	0.0020 U	0.085	0.43	0.70 B	68	120	12 B *
SW-2	8/26/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-2	10/28/2020	0.00027 U ^	0.00030	0.0052	0.011	0.0055 J	0.148	0.028 JB	0.085 JB	130	200	1.2 J
SW-2	4/14/2021	0.00027 U	0.00015	0.0033	0.005	0.0031 J	0.065	1.6	1.1	49	110	3.2 J

Sample ID	Collection Date	Performance Standard Analytes						Supplemental Analytes				
		EPA 6020A						EPA 6010C		SM 2340C	SM 2540C	SM 2540D
		Dissolved Cadmium (mg/L)	Chronic Performance Standard for Dissolved Cadmium ¹	Dissolved Copper (mg/L)	Chronic Performance Standard for Dissolved Copper ¹	Dissolved Zinc (mg/L)	Chronic Performance Standard for Dissolved Zinc ¹	Total Aluminum (mg/L)	Total Iron (mg/L)	Hardness (mg/L)	TDS (mg/L)	TSS (mg/L)
SW-2	6/15/2021	0.00027 U	0.00021	0.0030	0.007	0.0020 U *	0.097	0.41	0.53	79	4.7 U	7.6
SW-2 SPLIT	6/15/2021	0.00031 U	--	0.001329 U	--	0.00273 U	--	0.33	0.51	--	--	--
SW-2	8/19/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW-2	10/21/2021	0.00027 U	0.00030	0.0074	0.011	0.0028 J	0.148	0.023 J	0.075 JB ^	130	190	1.1 U
SW-3	6/27/2017	0.00027 U	0.00028	0.00062 J	0.010	0.0020 U	0.138	0.13	0.33 B	120	180	3.2 J
SW-3 FD	6/27/2017	0.00027 U	0.00028	0.00064 J	0.010	0.0020 U	0.138	0.13	0.31 B	120	180	3.6 J
SW-3	8/22/2017	0.00027 U	0.00022	0.00059 J	0.008	0.0024 JB	0.102	0.25	0.76 B	84	160	5.6
SW-3	10/19/2017	0.00027 U	0.00034	0.00056 U	0.013	0.0020 U	0.176	0.041 J	0.26	160	210	3.2 J
SW-3	5/31/2018	0.00027 U	0.00023	0.00056 U	0.008	0.0020 U	0.109	0.22	0.37	91	150	6.0
SW-3	6/29/2018	0.00027 U	0.00025	0.00056 U	0.009	0.0020 U	0.118	0.17	0.39	100	150	5.6
SW-3	9/21/2018	0.00027 U	0.00024	0.00056 U	0.009	0.0025 JB	0.115	0.059 J	0.17	97	150	1.2 J
SW-3 FD	9/21/2018	0.00027 U	0.00023	0.00056 U	0.008	0.0022 JB	0.108	0.067 J	0.18	90	150	1.1 U
SW-3	10/23/2018	0.00027 U	0.00030	0.00056 U	0.011	0.0032 J	0.148	0.095 J	0.33	130	250	2.0 J
SW-3	4/15/2019	0.00027 U	0.00010	0.021	0.003	0.011	0.041	2.6	2.0	29	100 B	36
SW-3 FD	4/15/2019	0.00027 U	0.00011	0.020	0.003	0.011	0.044	2.0	1.5	31	110 B	26
SW-3	6/25/2019	0.00027 U	0.00025	0.00080 J	0.009	0.0037 JB	0.118	0.095 J	0.20 B	100	190	11
SW-3 FD	6/25/2019	0.00027 U	0.00025	0.00067 J	0.009	0.0042 JB	0.118	0.10	0.18 B	100	170	11
SW-3	8/27/2019	0.00027 U	0.00021	0.00056 U	0.007	0.011 B	0.096	0.14	0.48	78	160	4.8
SW-3 FD	8/27/2019	0.00027 U	0.00020	0.00056 U	0.007	0.0038 JB	0.092	0.13	0.49	74	140	3.2 J
SW-3	10/23/2019	0.00027 U	0.00031	0.00056 U	0.012	0.0036 JB	0.157	0.051 J	0.17	140	170	1.1 U
SW-3 FD	10/23/2019	0.00027 U	0.00031	0.00056 U	0.012	0.0032 JB	0.157	0.053 J	0.19	140	200	2.4 J
SW-3	5/11/2020	0.00027 U	0.00022	0.00056 U	0.008	0.0020 U	0.103	0.80	0.88	85	140	21
SW-3	6/30/2020	0.00027 U	0.00023	0.00056 U ^	0.008	0.0021 JB	0.110	0.16	0.45 B	92	220	16 B *
SW-3	8/26/2020	0.00027 U	0.00022	0.00058 J	0.008	0.0020 U	0.103	0.15	0.49	85	160 B	13
SW-3	10/28/2020	0.00027 U ^	0.00022	0.00056 U	0.008	0.0020 U	0.102	0.13 B	0.21 B	84	160	7.2
SW-3	4/14/2021	0.00027 U	0.00019	0.00056 U	0.007	0.0020 U	0.086	0.41	0.53	69	120	5.6
SW-3	6/15/2021	0.00027 U	0.00023	0.00056 U	0.008	0.0027 JB	0.108	0.29	0.45	90	150	10
SW-3 SPLIT	6/15/2021	0.00031 U	--	0.001329 U	--	0.00273 U	--	0.24	0.41	--	--	--
SW-3	8/19/2021	0.00027 U	0.00025	0.00056 U	0.009	0.0020 U	0.118	0.082 J	0.32 B	100	150	1.6 J
SW-3	10/21/2021	0.00027 U	0.00030	0.00056 U	0.011	0.0020 U	0.148	0.16	0.28 B	130	150	1.1 U
SW-4	6/27/2017	0.00027 U	0.00026	0.0011 J	0.010	0.0032 J	0.128	0.16	0.37 B	110	180	3.2 J
SW-4	8/22/2017	0.00027 U	0.00023	0.00056 U	0.008	0.0020 U	0.108	0.25	0.60 B	90	160	5.6
SW-4	10/19/2017	0.00027 U	0.00036	0.00056 U	0.014	0.0020 U	0.185	0.18	0.40	170	210	8.4
SW-4	5/31/2018	0.00027 U	0.00023	0.00087 J	0.008	0.0020 U	0.109	0.33	0.44	91	130	6.4
SW-4	6/29/2018	0.00027 U	0.00023	0.00062 J	0.008	0.0020 U	0.109	0.13	0.25	91	140	6.0

Sample ID	Collection Date	Performance Standard Analytes						Supplemental Analytes				
		EPA 6020A						EPA 6010C		SM 2340C	SM 2540C	SM 2540D
		Dissolved Cadmium (mg/L)	Chronic Performance Standard for Dissolved Cadmium ¹	Dissolved Copper (mg/L)	Chronic Performance Standard for Dissolved Copper ¹	Dissolved Zinc (mg/L)	Chronic Performance Standard for Dissolved Zinc ¹	Total Aluminum (mg/L)	Total Iron (mg/L)	Hardness (mg/L)	TDS (mg/L)	TSS (mg/L)
SW-4	9/21/2018	0.00027 U	0.00024	0.00056 U	0.008	0.0027 JB	0.112	0.070 J	0.18	94	180	1.2 J
SW-4	10/23/2018	0.00027 U	0.00031	0.00056 U	0.012	0.0028 J	0.157	0.070 J	0.23	140	210	1.1 U
SW-4	4/15/2019	0.00027 U	0.00011	0.0019 J	0.003	0.0035 J	0.044	3.2	2.5	31	94 B	26
SW-4	6/25/2019	0.00027 U	0.00022	0.0011 J	0.008	0.0038 JB	0.105	0.15	0.27 B	87	160	11
SW-4	8/27/2019	0.00027 U	0.00021	0.00056 U	0.007	0.0022 JB	0.096	0.13	0.47	78	140	4.8
SW-4	10/23/2019	0.00027 U	0.00031	0.00056 U	0.012	0.0032 JB	0.157	0.045 J	0.16	140	180	1.2 J
SW-4	5/11/2020	0.00027 U	0.00019	0.0018 J	0.007	0.0020 U	0.086	0.84	0.87	69	110	14
SW-4	6/30/2020	0.00027 U	0.00022	0.065 ^	0.008	0.0020 U	0.103	0.34	0.55 B	85	200	15 B *
SW-4 FD	6/30/2020	0.00027 U	0.00023	0.00056 U	0.008	0.0020 U	0.106	0.46	0.68 B	88	210	16 B *
SW-4	8/26/2020	0.00027 U	0.00021	0.00056 U	0.007	0.0020 U	0.099	0.23	0.58	81	160 B	8.4
SW-4	10/28/2020	0.00027 U ^	0.00022	0.00062 J	0.008	0.0020 U	0.105	0.10 B	0.18 B	87	140	6.4
SW-4 FD	10/28/2020	0.00027 U ^	0.00023	0.00061 J	0.008	0.0020 U	0.107	0.11 B	0.19 B	89	150	8.0
SW-4	4/14/2021	0.00027 U	0.00018	0.0014 J	0.006	0.0020 U	0.079	0.93	0.79	62	110	4.0
SW-4 FD	4/14/2021	0.00027 U	0.00017	0.0013 J	0.006	0.0020 U	0.077	0.97	1.1	60	110	5.2
SW-4	6/15/2021	0.00027 U	0.00022	0.00075 J	0.008	0.0027 J *	0.102	0.30	0.47	84	140	12
SW-4 FD	6/15/2021	0.00027 U	0.00022	0.00072 J	0.008	0.0020 U *	0.105	0.30	0.46	87	140	11
SW-4 SPLIT	6/15/2021	0.00031 U/M	--	0.001329 U	--	0.00273 U	--	0.28	0.47	--	--	--
SW-4	8/19/2021	0.00027 U	0.00023	0.00056 U	0.008	0.0020 U	0.111	0.077 J	0.30 B	93	160	2.8 J
SW-4 FD	8/19/2021	0.00027 U	0.00023	0.00056 U	0.008	0.0020 U	0.108	0.085 J	0.32 B	90	150	2.8 J
SW-4	10/21/2021	0.00027 U	0.00028	0.00067 J	0.010	0.0020 U	0.138	0.19	0.30 B	120	150	1.6 J
SW-4 FD	10/21/2021	0.00027 U	0.00026	0.00056 U	0.010	0.0020 U	0.128	0.19	0.29 B	110	160	2.8 J

Notes

Concentrations in **BOLD** exceed the chronic performance standards.

1. Formulas for Chronic Performance Standard are found on Table 2 of the Final Rio Tinto Mine Site Water Quality Compliance Protocol, December 2011.

mg/L - milligrams per liter

^ Instrument related QC is outside acceptance limits.

* Laboratory control sample is outside acceptance limits.

B - Compound was found in the method blank and in the sample; therefore, result is approximate.

J - Result is less than the reporting limit but greater than or equal to the method detection limit; therefore, concentration is approximate.

NA - Not available since sample was not able to be collected.

SPLIT - Split samples collected by NDEP contractor and analyzed by EPA method 6020B and 6010B; concentration before the U is the method detection limit

TDS - total dissolved solids

TSS - total suspended solids

U - Result is not detected above value listed.

Table 4-3. Compliance Protocols

Water Quality Compliance Protocol		Ambient Monitoring Protocol
East Fork Owyhee River	<ul style="list-style-type: none"> Monitoring Stations: SW-3 and SW-4 Quarterly monitoring for a minimum of five years. Compliance Monitoring will be terminated following three consecutive years of compliance with the Performance Standards at SW-4 or five years following certification of construction completion, whichever occurs later. Quarterly monitoring results at SW-4 are compared to the greater of the water conditions at SW-3 or the Chronic Performance Standard. 	<ul style="list-style-type: none"> Will commence after compliance with Performance Standards is achieved at SW-4. Monitoring Stations: SW-2, SW-3, SW-4, SW-9, SW-10A, CC-1. If achieved prior to July 1, Ambient Monitoring Protocol will begin in July. If achieved after July 1, Ambient Monitoring Protocol will begin the next year in July. Initial sampling: Two consecutive years of sampling in low flow months (July, August, September, October, and November). Five-step processes for identifying anomalies. If no statistically significant anomalies are identified, then protocol is complete.
Mill Creek	<ul style="list-style-type: none"> Monitoring Stations: SW-1 and SW-2 Quarterly monitoring for a minimum of five years after remedy complete. After the minimum five year period compliance monitoring may be terminated following three consecutive years of compliance with the Chronic Performance at SW-2 with no more than one exceedance in the three consecutive year period. 	<ul style="list-style-type: none"> Not applicable.

As there were no exceedances at SW-4 for the review period, the water quality compliance monitoring data at SW-4 demonstrate that the Performance Standards for the East Fork Owyhee River were met at SW-4 for a minimum of five years after remedy completion with a minimum of three consecutive years of compliance. Based on this, in accordance with the Water Quality Compliance Protocol, Ambient Monitoring Protocol sampling for the East Fork Owyhee River will commence in July 2022 and is expected to continue through at least 2024.

The Ambient Monitoring Protocol, included in Attachment 1, commences after compliance with Performance Standards is achieved at Station SW-4, as set forth in the Water Quality Compliance Protocol. Surface water monitoring locations for ambient monitoring are included in Figure 5. If this occurs prior to July 1 of any year, then the ambient monitoring will commence in July of that same calendar year. If compliance with Performance Standards is achieved at Station SW-4 after July 1 of any year, then the ambient monitoring will commence in July of the following calendar

year. Two successive years of monthly sampling will be conducted in the five low-flow months of July, August, September, October, and November. The Ambient Monitoring Protocol presents a five-step process for identifying anomalies. If no statistically significant anomalies are identified, then the protocol is complete.

4.2.4 Mill Creek Compliance Monitoring

During the review period, in April 2019, one exceedance of the Chronic Performance Standard was reported for copper at location SW-1, which is upstream of the RTMS. No exceedances of the Chronic Performance Standard were reported at SW-2 during the review period. During the review period, water quality compliance monitoring data at SW-2 demonstrate that the Chronic Performance Standards were met for three consecutive years within the minimum of five years after remedy completion. Because the Chronic Performance Standards have been met, no additional quarterly monitoring for Mill Creek at SW-1 and SW-2 is required.

4.3 SITE INSPECTION

The Final O&M Maintenance Plan (TDG 2013c) requires monthly site inspections between the period of April and October and within 24 hours of a rainfall event of 0.5 inches or greater occurring within a 24-hour period and are documented in Annual Operations and Maintenance Reports (TDG 2018, TDG 2019, TDG 2020, TtEC 2021a, TtEC 2021b). The October 2019 Site Inspection was attended by representatives from NDEP, USEPA, and the Tribes. The purpose of the inspections is to assess the protectiveness of the remedy.

A FYR Site Inspection planned to take place summer 2021 was postponed due to COVID-19 restrictions, and last minute change of the NDEP Project Manager. A Site Inspection planned for April 26, 2022 was cancelled due to inclement weather and has been rescheduled for June 1, 2022 with representatives from NDEP, USEPA, the Tribes, MCR, and TtEC anticipated to attend.

5.0 TECHNICAL ASSESSMENT

The assessment of the RTMS remedy is focused on the three performance questions provided in the Comprehensive Five-Year Review Guidance (USEPA 2001) presented below.

Question A: Is the Remedy Functioning As Intended:

As documented in the Annual Operations and Maintenance Reports (TDG 2018,2019, 2020; TtEC 2021a, 2021b), based on the quarterly surface water compliance monitoring data from the East Fork Owyhee River and Mill Creek and results from monthly O&M site inspections, the remedy is functioning as intended by the ROD.

There have been no exceedances of the Chronic Performance Standards in downstream surface water compliance monitoring samples from the East Fork Owyhee River and Mill Creek which demonstrates that the remedy has been successful in reducing the mobility of contaminants by removing the materials to a repository designed to limit infiltration of meteoric water and eliminate the generation of acidic, metal-bearing discharges. The reconstruction of the upper Mill Creek channel has successfully facilitated opportunistic, seasonal passage of non-resident redband trout through Mill Creek during optimal flow conditions. Institutional controls that include fences and gates for access restrictions are functioning as intended. Additional proprietary controls (administrative order, property use and access restrictions) that provide legally enforceable mechanisms to ensure access to the site and prohibit or limit activities that would disturb or interfere with the protectiveness of the remedy remain in place. Operation and maintenance of the remedy is being performed in accordance with the O&M Plan for the site (TDG 2013a).

Question B: Are the exposure assessments, toxicity data, cleanup levels and RAOs still valid:

The RAOs were established to minimize any significant loading of contaminants of concern from the Mill Creek Valley mining material impoundments to Mill Creek and the Owyhee River, and to minimize potential human, terrestrial biota, and aquatic biota exposures to low-pH, metal-bearing surface water at the Rio Tinto Mine, as well as in downstream receiving waters. Achievement of the RAOs is evaluated by comparing surface water quality to the Performance Standards. The three Performance Standard Analytes copper, zinc, and cadmium were selected through a statistical analysis of surface water data downstream of the former mine. Surface water monitoring results collected quarterly from locations downstream of the remedy at SW-4 (East Fork Owyhee River) and SW-2 (Mill Creek) since the Certification of Construction Remedy have consistently reported concentrations below upstream monitoring results and the Performance Standards. All the objectives, underlying assumptions and criteria used in developing the remedy are still valid.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No new information has been identified. At the time of this report, NDEP and the USEPA have not requested any corrective actions.

6.0 ISSUES/RECOMMENDATIONS

No issues or recommendations have been identified that would affect either current and/or future protectiveness.

6.1 OTHER FINDINGS

- Because remedy construction is complete and the Performance Standards were achieved at Station SW-4, the Ambient Monitoring Protocol will commence for the East Fork Owyhee River in June 2022. The purpose of the Rio Tinto Ambient Monitoring Protocol is to generate and analyze specific surface water data in the East Fork Owyhee River drainage to determine if persistent water quality anomalies in the East Fork Owyhee River mainstem exists, and if so, are likely attributable to releases from the underground mine workings at the site.
- Because remedy construction is complete and the Performance Standards for Mill Creek were achieved, quarterly compliance monitoring is no longer needed at SW-1 and SW-2.
- The ROD (NDEP 2012) requires that riparian vegetation along the banks of the reconstructed upper Mill Creek channel be actively managed during, and following, the completion of construction of the channel to prevent deep-rooting riparian vegetation from potentially impacting the buried geosynthetic clay liner. Active riparian vegetation management was required to continue for a minimum of five years following the receipt of the Certification of Completion of Remedial Action. Because results of the surface water samples in Mill Creek remain below the Chronic Performance Standard, active riparian vegetation management may be discontinued; however, the vegetation will continue to be inspected and evaluated on yearly basis for potential removal.

7.0 PROTECTIVENESS STATEMENTS

The remedy at RTMS is protective of human health and the environment as the contaminant sources that previously impacted the Owyhee River and Mill Creek have been excavated and contained and access to the site is controlled with fences and gates. Surface water quality samples from the East Fork Owyhee River and Mill Creek met the requirements established in the Water Quality Compliance Protocol. Institutional controls are in place to ensure long-term effectiveness.

8.0 NEXT REVIEW

The next FYR will occur no more than five years from finalization of the current review.

9.0 REFERENCES

ARCC Law

1996 (Nov) Property Agreement in Support of Cleanup Activities at the Rio Tinto Mine Site.

NDEP (Nevada Division of Environmental Protection)

2010 (Oct) Proposed Plan for Rio Tinto Mine Site.

2012 (Feb) Record of Decision for Rio Tinto Mine Site. Final.

2017 (May) Five Year Review Report, First Five-Year Review. Final.

TtEC (Tetra Tech EC, Inc.)

2021a (Mar) 2020 Annual Operations and Maintenance Report, Rio Tinto Mine Remediation.

2021b (Dec) 2021 Annual Operations and Maintenance Report, Rio Tinto Mine Remediation.

TDG (The Delaney Group)

2013a (Jun) Rio Tinto Mine Site Final Design Analysis Report (includes Final O&M Maintenance Plan)

2013b (Jun) Compliance Monitoring Field Sampling and Analysis Plan.

2018 (Mar) 2017 Annual Operations and Maintenance Report, Rio Tinto Mine Remediation.

2019 (Mar) 2018 Annual Operations and Maintenance Report, Rio Tinto Mine Remediation.

2020 (Mar) 2019 Annual Operations and Maintenance Report, Rio Tinto Mine Remediation.

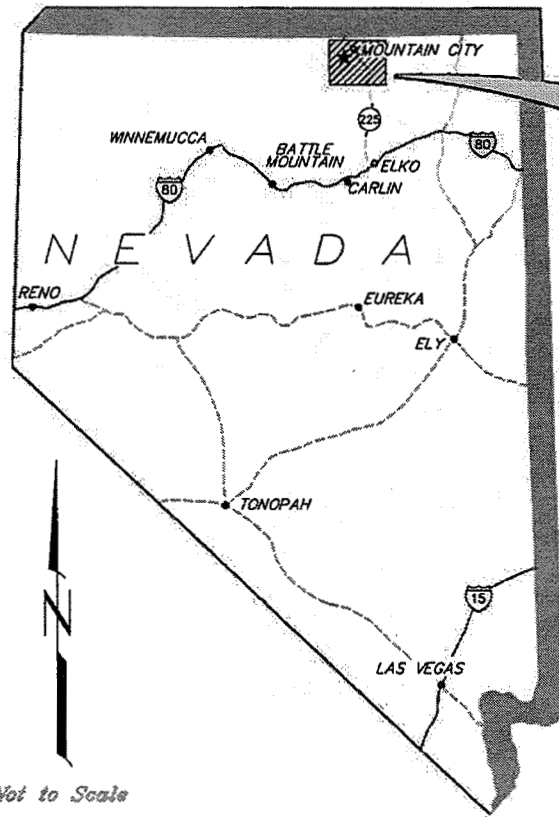
USEPA (United States Environmental Protection Agency)

2001 (Jun) Comprehensive Five-Year Review Guidance.

2013 (May) Consent Decree for the Rio Tinto Mine Site. Final. Case 3:12-cv-00524-RCJ-WGC, United States District Court, District of Nevada (entered May 20, 2013).

FIGURES

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Not to Scale

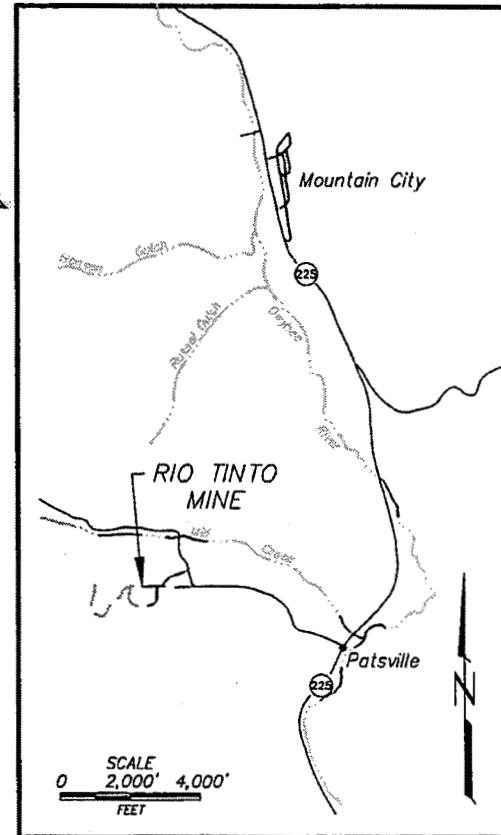


FIGURE 1

PROJECT NAME		
RIO TINTO MINE SITE		
TITLE		
SITE LOCATION MAP		
DAO FILE:	DATE	FIGURE
110830_FIGURE 1.DWG	08.30.2011	1

P:\RIO TINTO\ENGINEERING\ROD\FIGURES

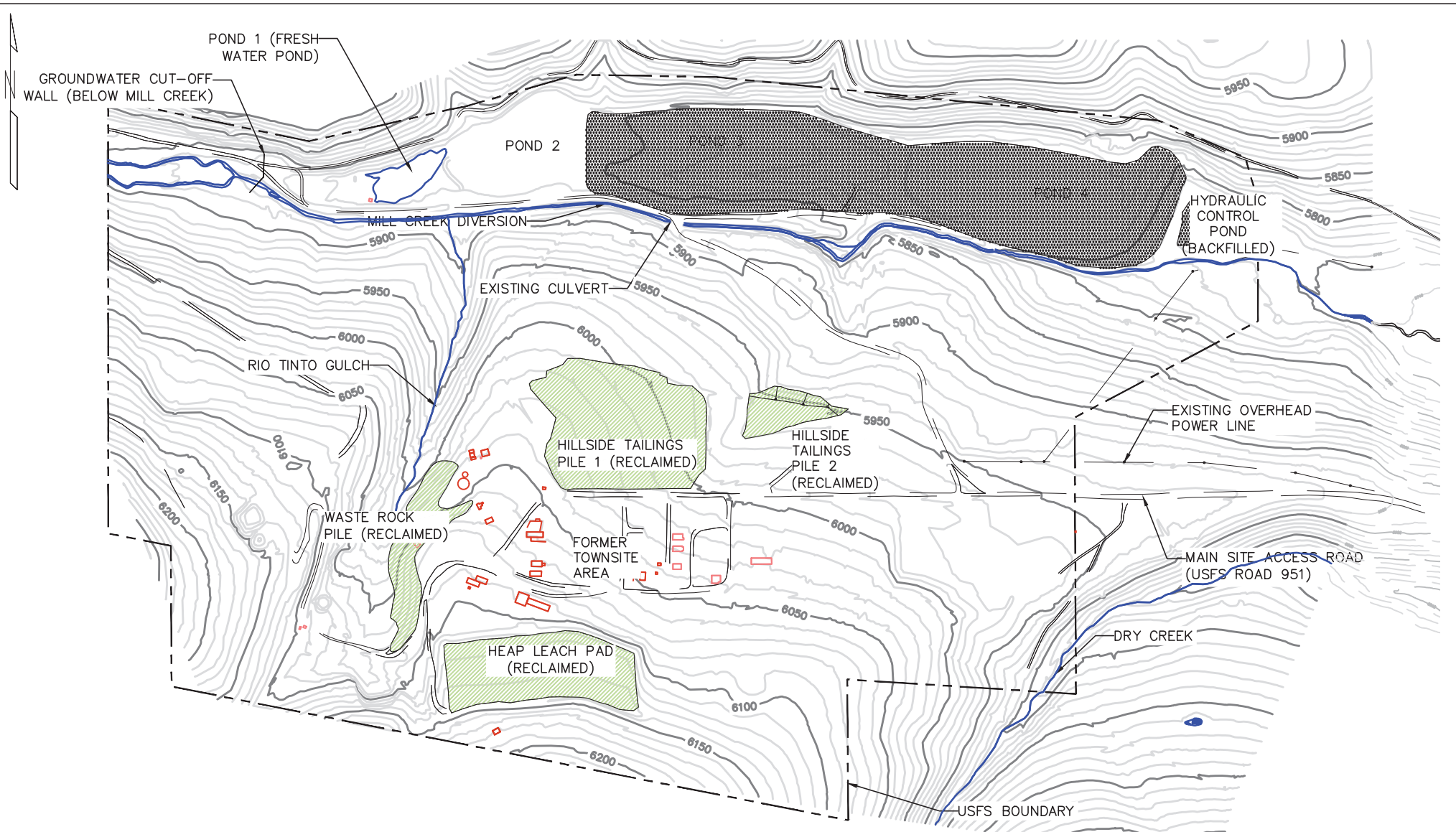
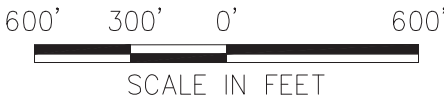



FIGURE 2



 THE DELANEY GROUP		
PROJECT NAME RIO TINTO FIVE YEAR REVIEW		
TITLE PRE-REMEDY		
CAD FILE: 20170217 PRE REMEDY AND REMEDY CONSTRUCTION AT COMPLETION FIGURE.DWG	DATE 02.15.2017	FIGURE 2

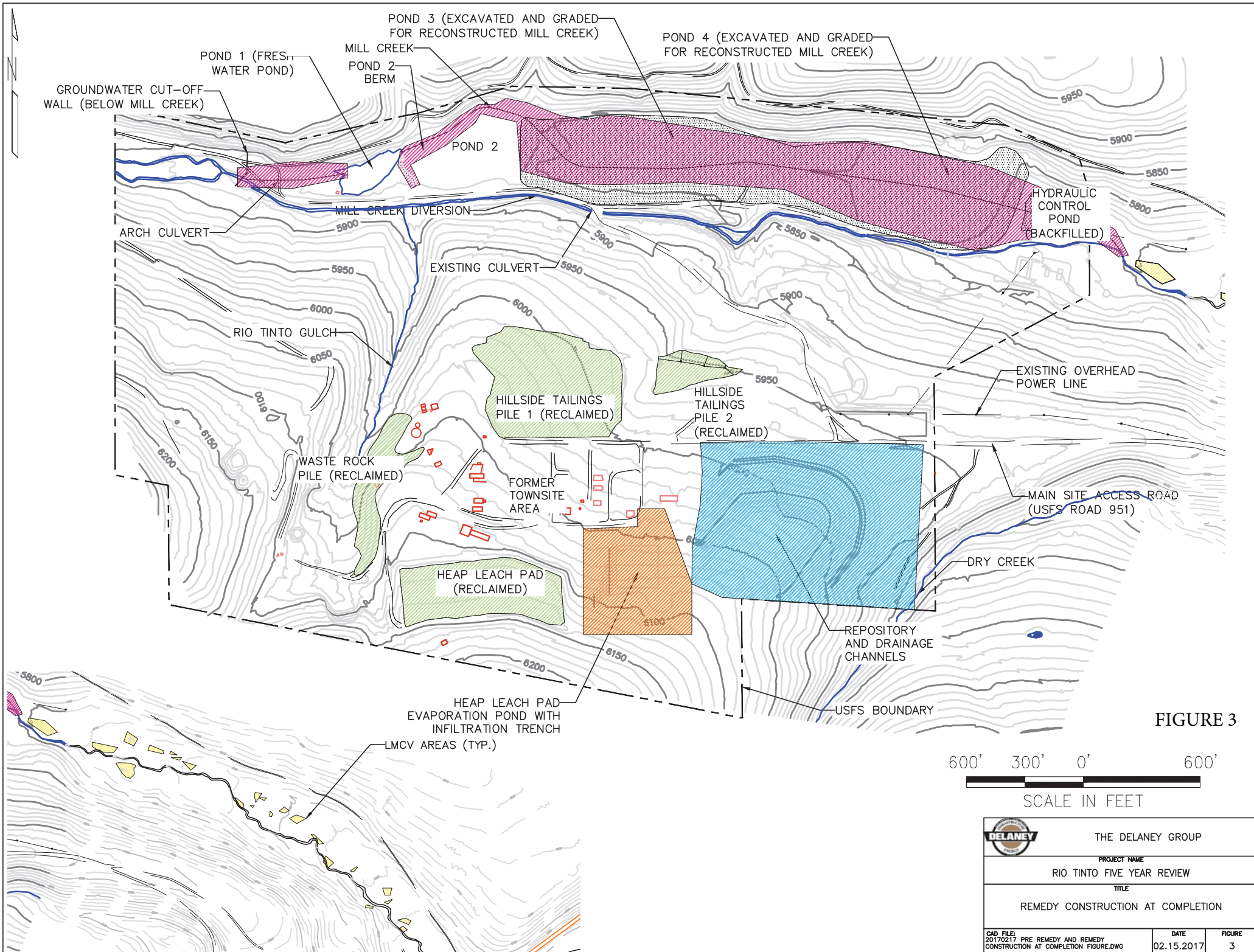


FIGURE 3

WATER QUALITY COMPLIANCE PROTOCOL MONITORING LOCATIONS

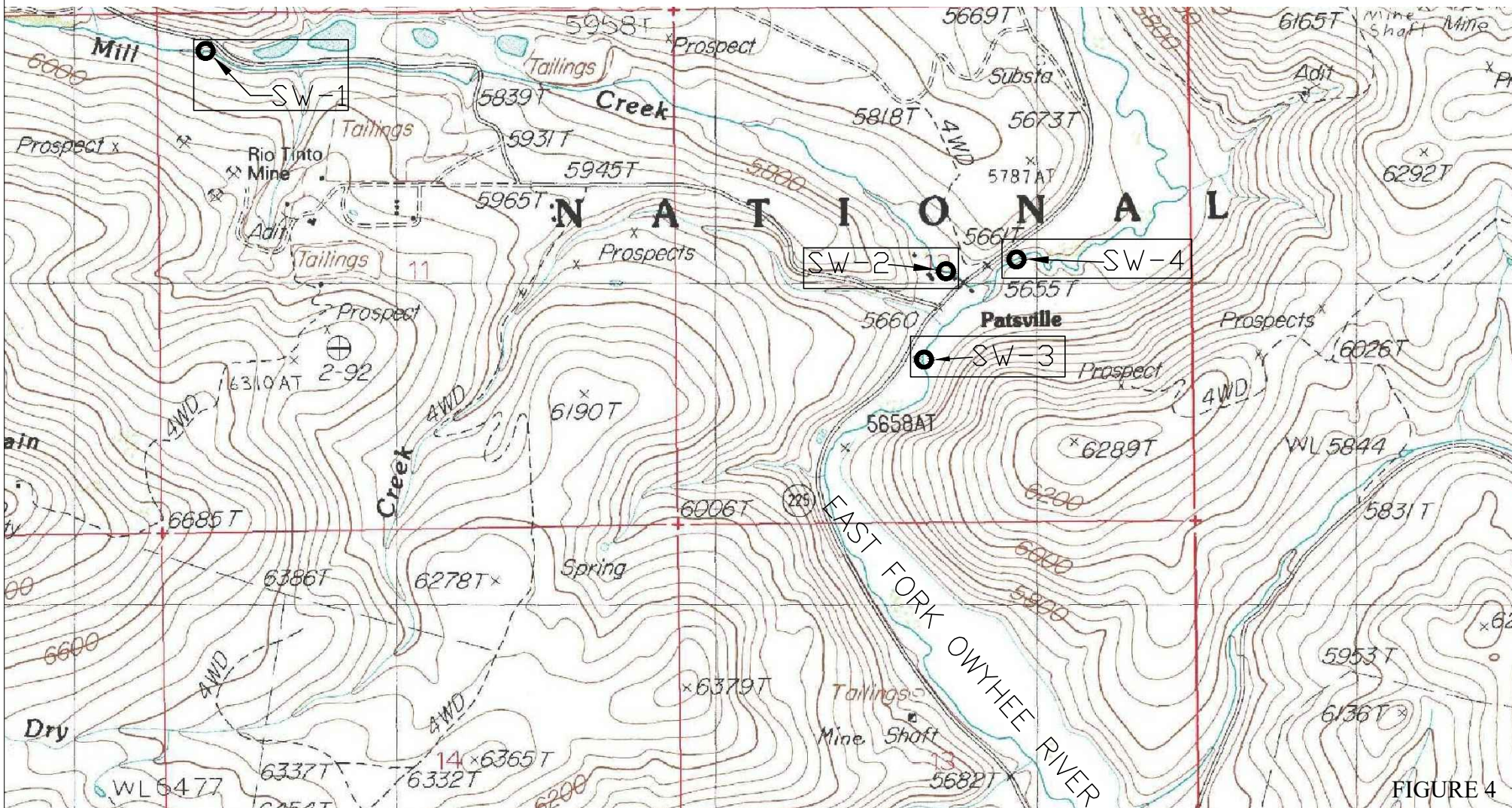



FIGURE 4

	THE DELANEY GROUP	
	PROJECT NAME RIO TINTO REMEDIATION PROJECT	
	TITLE WQCP SURFACE WATER MONITORING LOCATIONS	
CAD FILE: 20170214_WATER QUALITY COMPLIANCE PROTOCOL MONITORING LOCATIONS.DWG	DATE 02.14.2017	FIGURE 4

AMBIENT PROTOCOL MONITORING LOCATIONS

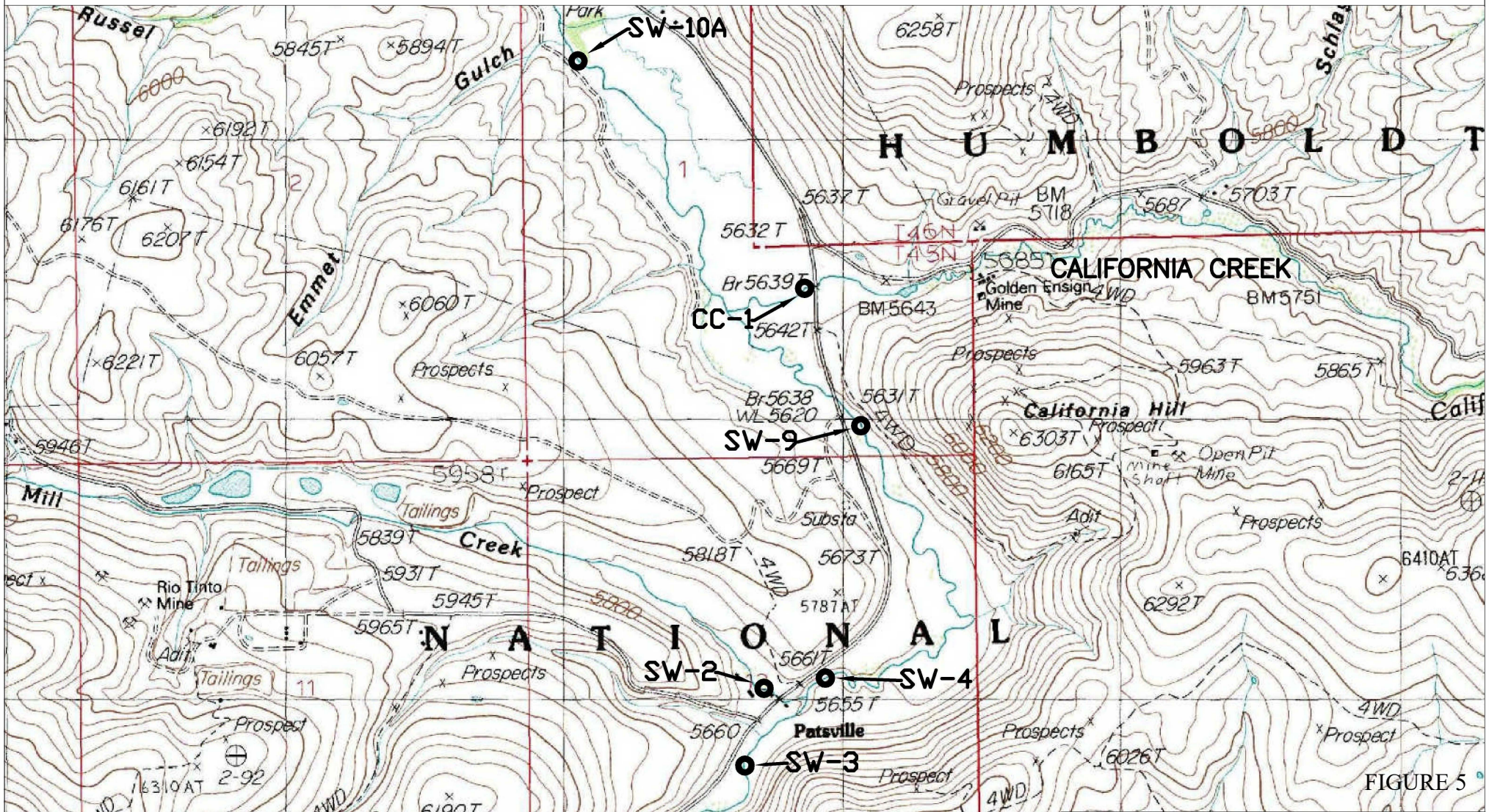

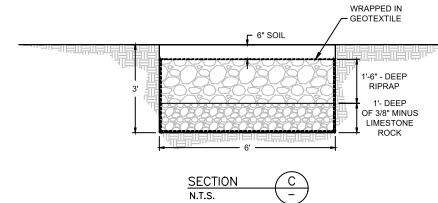
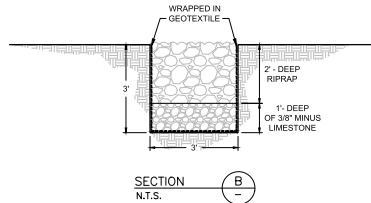
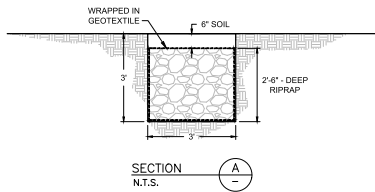
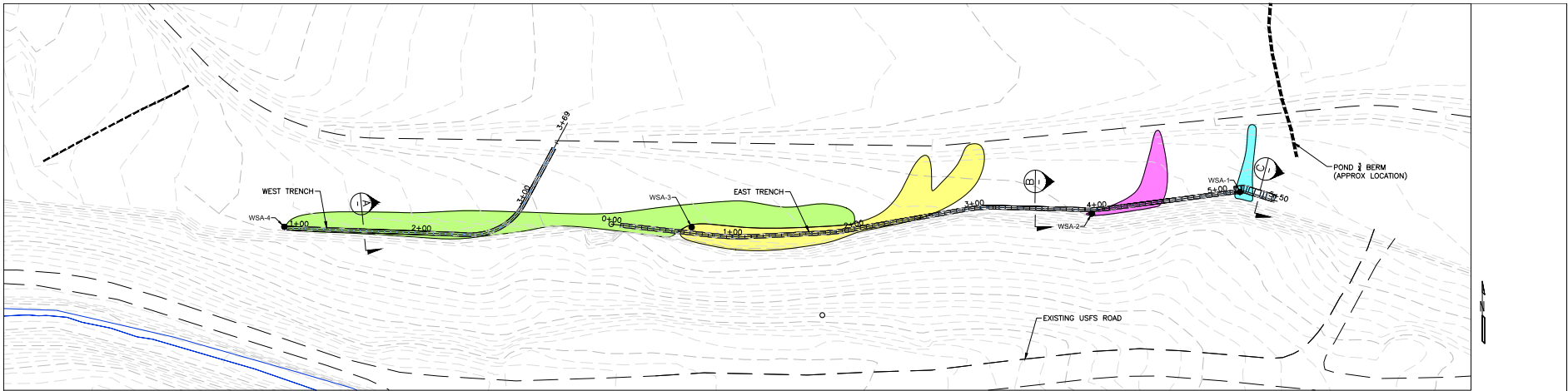


FIGURE 5

	THE DELANEY GROUP	
	PROJECT NAME RIO TINTO REMEDIATION PROJECT	
	TITLE AMP SURFACE WATER MONITORING LOCATIONS	
CAD FILE: 121005_AMBIENT PROTOCOL MONITORING LOCATIONS.DWG	DATE 10.5.2012	FIGURE 5



LEGEND

- WSA-1 SEEP DRAINAGE AREA (APPROXIMATE)
- WSA-2 SEEP DRAINAGE AREA (APPROXIMATE)
- WSA-3 SEEP DRAINAGE AREA (APPROXIMATE)
- WSA-4 SEEP DRAINAGE AREA (APPROXIMATE)
- WSA-1 ● SEEP AND ID SAMPLE LOCATION (APPROXIMATE)

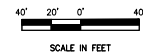



FIGURE 6

	ISSUE FOR REVIEW	JLS/8-26-19	JLS/8-26-19	RS/8-26-19	
A	REVISION DESCRIPTION	DRN BY/DATE	DWG CHK/DATE	DSGN CHK/DATE	APPVD/DATE
<p>ORIGINAL STAMPED DRAWING ON FILE RONALD E VERSAW PE 6054 STATE OF NEVADA NOVEMBER 4, 2015</p>		RIO TINTO WORKING GROUP			
		RIO TINTO MINE SITE ELKO COUNTY, NEVADA			
		MILL CREEK VALLEY SEEP CONTROL TRENCHES			
					
		<small>THE ORIGINAL DRAWING AND SUBSEQUENT REVISIONS THEREOF WITH APPROVAL NAMES, INITIALS AND PE SEAL, IF APPLICABLE, ARE MAINTAINED IN THE FILES OF THE DELANEY GROUP.</small>			
SIZE: DI	CONTRACT NO.	DRAWING NO.		REV A	
SCALE: AS NOTED	FILE NAME: P:\Work\Title\WMS\WORKING\0-6032-C-TL.dwg	Figure 6			

ATTACHMENT 1

**WATER QUALITY COMPLIANCE PROTOCOL
AND RIO TINTO AMBIENT MONITORING PROTOCOL**

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Record of Decision—Appendix 1
Rio Tinto Mine Site
Water Quality Compliance Protocol
Final
December, 2011

I. Introduction

A. Purpose

This Water Quality Compliance Protocol (Protocol) for the Rio Tinto Mine Site (Site) establishes the Performance Standards for the Remedial Action for the Site as selected in the Record of Decision (ROD) for the Site. The Protocol establishes methods for monitoring water quality to demonstrate achievement of these Performance Standards and State and Federal requirements. The Protocol contains provisions that apply during and after Remedy Construction for the East Fork Owyhee River and for Mill Creek. The Protocol provides for achievement of Performance Standards along a timeline determined to be appropriate by the Nevada Division of Environmental Protection (NDEP) and the US Environmental Protection Agency (EPA). The Protocol also provides for consideration of specified additional actions at certain times if sufficient progress has not been made.

B. Definitions

This Protocol is an Appendix to the ROD. All terms presented in capital letters or acronyms, unless they are defined herein, shall have the meaning provided in the ROD. All references to sampling locations (SW stations) are to the sampling locations identified on the map attached as Figure 1.

II. Reporting

Monitoring conducted under this Protocol shall be reported according to the following schedule and to the extent possible shall be consolidated with any other reporting requirements for the Site. During remedy construction, all then available data from biweekly (every other week) monitoring activities will be reported monthly in a periodic progress report, by the 10th of each month. Activities conducted between construction periods will be summarized in a progress report preceding the commencement of the next construction period. After certification of completion of Remedy Construction, quarterly monitoring activities will be reported yearly in a periodic progress report, by a date determined to be appropriate by the NDEP at the time of certification.

Benchmarks for achievement of Performance Standards in this Protocol have been established using a 5-year remedy review schedule as a framework. To ensure that the benchmarks in this Protocol coincide with the five-year remedy protectiveness reviews conducted by the NDEP, the NDEP will perform the first review of remedy protectiveness at the certification of completion of Remedy Construction, which is anticipated to occur several years after initiation of the remedy; if Remedy Construction lasts for a period greater than five years, the NDEP will conduct a remedy review at Year 5 of construction and an additional remedy review will be conducted at certification of completion.

III. Analytes

The analyte list provided in Table 1 consists of Performance Standard Analytes, Supplemental Analytes and Field Parameters. Three Performance Standard Analytes (dissolved cadmium, dissolved copper, and dissolved zinc) were selected as representative parameters for the purpose of monitoring downstream water quality both in Mill Creek and the East Fork Owyhee River. These analytes were selected because they are the most significant in terms of risk to ecological receptors, and because statistical analysis shows they are predictive of mine site constituent concentrations in the East Fork Owyhee River. Supplemental Analytes (total iron, total aluminum, hardness, total dissolved solids, and total suspended solids) and Field Parameters (pH, temperature, specific conductance, dissolved oxygen, turbidity, stream discharge) will also be measured to assist in evaluating the Selected Remedy as set forth in the ROD. See Table 1 for the list of Performance Standard Analytes, Supplemental Analytes, and Field Parameters. All samples will be collected and all laboratory analysis of the analytes will be conducted in accordance with an approved Quality Assurance Project Plan or any approved revisions to the Plan.

IV. Performance Standards

Compliance shall be determined by comparing measured concentrations of the Performance Analytes at the specified sampling location (either SW-2 or SW-4 as specifically identified in this Protocol) with the appropriate acute and chronic Performance Standard concentrations identified in Table 2 (base upon Nevada Administrative Code (NAC) 445A.144), and additionally in the case of monitoring conducted during Remedy Construction with the calculated 95% Upper Confidence Limit (UCL) concentrations derived from the historical data set for water quality downstream of the Site. See Table 2.

The Performance Standards for the Performance Standard Analytes have the specific numeric values established for compliance purposes for each stage of the Remedy as shown in Table 2. The Federal Clean Water Act, the implementing authorities of the Nevada Water Pollution Control Law, and other authorities, provide various mechanisms for accommodating site-specific conditions in protecting water quality and designating water quality criteria, water quality standards, beneficial uses, and mixing zones. Depending on site conditions over time, these authorities may also be appropriately applied to evaluate and insure the protectiveness of the mine site remedy. The existing numeric values and Performance Standards that have been established at this time are summarized below:

A. During Remedy Construction: the Performance Standards for the Performance Standard Analytes in the East Fork Owyhee River at station SW-4 are the greater of either

- (1) the prevailing upstream water quality condition at Station SW-3;
- (2) the 95% Upper Confidence Limit (“UCLs”) calculated from SW-4 water quality monitoring database for January, 2005 to March, 2010, as set forth in Table 2; or
- (3) the applicable Chronic Performance Standard, as set forth in Table 2.

B. Following Certification of Completion of Remedy Construction, the Performance Standards for the East Fork Owyhee River at station SW-4 are the greater of either

- (1) the prevailing upstream water quality condition at Station SW-3; or
- (2) the applicable Chronic Performance Standard, as set forth in Table 2.

C. Ten years following Certification of Completion of Remedy Construction, the Performance Standards for Mill Creek at station SW-2 are:

- (1) the applicable Acute Performance Standard as set forth in Table 2; or
- (2) no acute toxicity observed for relevant organisms at Station SW-2.

D. Fifteen years following Certification of Completion of Remedy Construction, the Performance Standards for Mill Creek at Station SW-2 are the applicable Chronic Performance Standards, as set forth in Table 2.

Details of how compliance is to be measured and achieved during Remedy Construction and after Remedy Construction in both the East Fork Owyhee River and in Mill Creek are described in their respective sections below.

V. Monitoring During Remedy Construction

1. During Remedy Construction, monitoring will be conducted biweekly (every other week) during active construction periods at SW-1, SW-2, SW-3 and SW-4 locations, to the extent measurable flow is present. Construction is anticipated to occur between May and October. No monitoring will be conducted between construction periods, although Site inspections will be performed to verify the adequacy of best management practices (BMPs). Upon certification of completion of Remedy Construction, sampling will be conducted quarterly as described in subsequent sections of this protocol.
2. During Remedy Construction, including Mill Creek channel realignment, Baseline Water Quality will be maintained at SW-4 as described, below.
3. Baseline Water Quality is defined based upon the historical mine site data for specified analytes at station SW-4 during the period of January 2005 to March 2010. During Remedy Construction, antidegradation compliance shall be determined by comparing the monthly mean concentrations measured during construction compared to the greater of:
a) the prevailing upstream water quality condition at Station SW-3; b) the applicable Chronic Performance Standard in Table 2; or c) the calculated 95% Upper Confidence Limit (UCL) concentrations in Table 2. Antidegradation compliance shall be achieved through implementation of relevant BMPs in construction areas near Mill Creek as necessary.

4. If compliance with Baseline Water Quality is not maintained during Remedy Construction, additional actions may be required, including:
 - implementation of additional BMPs if monitoring identifies a controllable Site-related source; and/or
 - additional monitoring to evaluate the protectiveness of the stream for designated uses.

VI. Long Term Monitoring / East Fork Owyhee River

1. Quarterly compliance monitoring will continue for a minimum of five years following certification of completion of Remedy Construction. East Fork Owyhee River (EFOR) compliance monitoring of stations SW-3 and SW-4 will be terminated following three consecutive years of compliance with Performance Standards at SW-4 with no more than one exceedance in the three consecutive year period, but not prior to the fifth year following certification of completion of Remedy Construction. Monitoring for individual analytes will be terminated following three years of compliance with the Performance Standard for that analyte, even if monitoring for other analytes continues. The basis for termination of compliance monitoring or termination of monitoring of individual analytes shall be documented in the yearly progress report for the year in which compliance with the Performance Standard was achieved. Applicable water quality exceedance thresholds for Performance Standard Analytes will be the greater of the prevailing upstream water quality condition at Station SW-3 or the applicable Performance Standard concentration in Table 2.
2. Quarterly monitoring results at Station SW-4 will be compared to the greater of the prevailing upstream water quality conditions at Station SW-3 or the Chronic Performance Standard in Table 2. If compliance with Performance Standards is not achieved within five years after certification of completion of Remedy Construction as specified above, additional actions may be required, including the following:
 - implementation of additional BMPs, if monitoring identifies a controllable Site-related source;
 - examination of factors necessary to determine whether the Biotic Ligand Model results in a more appropriate determination of protectiveness of copper concentrations than the existing hardness-based standard; and/or
 - additional monitoring to evaluate the protectiveness of the stream for designated uses.
3. If compliance with Performance Standards is not achieved within 10 years after certification of the completion of Remedy Construction as specified above, additional actions may be required, including but not limited to the following:

- evaluation of water quality data to determine whether data indicated promising trends toward meeting standards (in which case additional time may be granted to achieve compliance);
- additional monitoring to evaluate the protectiveness of the stream for designated uses;
- implementation of additional BMPs, if monitoring identifies a controllable Site-related source;
- examination of factors necessary to determine whether the Biotic Ligand Model or other methodologies for development of site-specific criteria results in a more appropriate determination of protectiveness;
- a site-specific, quantitative risk analysis; and/or
- implementation of additional remedial measures, including groundwater capture/treatment, if technically feasible, but only after other options have been evaluated for feasibility and effectiveness and, if appropriate, implemented. Selection and implementation of additional remedial measures may require an explanation of significant difference or amendment to the Record of Decision.

VII. Long Term Monitoring / Mill Creek

1. The analyte list (Table 1) shall be the same as developed for the EFOR monitoring described above.
2. Water quality monitoring will only be conducted during periods of measurable flow at Station SW-2. Upon certification of completion of Remedy Construction, monitoring will be conducted on a quarterly basis.
3. During Remedy Construction, BMPs will be implemented in order to comply with antidegradation requirements in Mill Creek.
4. Mill Creek compliance monitoring of stations SW-1 and SW-2 will continue for a minimum of five years following certification of completion of Remedy Construction. After this period, Mill Creek compliance monitoring will be terminated following three consecutive years of compliance with the Chronic Performance Standards (Table 2) at SW-2 with no more than one exceedance in the three consecutive year period. Monitoring for individual analytes will be terminated following three years of compliance for that analyte, even if monitoring for other analytes continues. Termination of monitoring of individual analytes shall be presented in the yearly progress report for the year in which compliance with the Performance Standard was achieved.

5. During the five-year period following certification of completion of Remedy Construction, concentrations of Performance Standard Analytes are expected to be improving at SW-2. If after five years, available monitoring data do not indicate these trends, further monitoring may be required to evaluate instream biological conditions.

6. By Year 10 after certification of completion of Remedy Construction, the Acute Performance Standards shall be met at SW-2 as outlined in Table 2, or no acute toxicity shall be observed for relevant organisms at SW-2. In addition and consistent with Mill Creek's intermittent flow patterns and geomorphological characteristics, benthic macroinvertebrate community metrics at SW-2 are expected to indicate improved conditions for intermittent stream fauna during late spring/early summer flowing water periods. If the above described conditions are not achieved by Year 10, additional actions may be required, including the following:
 - more detailed monitoring of benthic macroinvertebrate community metrics and/or evaluation of toxicological conditions;
 - examination of factors necessary to determine whether the Biotic Ligand Model results in a more appropriate determination of protectiveness of copper concentrations than the existing hardness-based standard; and/or
 - additional monitoring to evaluate the protectiveness of the stream for designated uses.

7. By Year 15 after certification of completion of Remedy Construction, compliance with the Chronic Performance Standards, as outlined in Table 2, shall be demonstrated at SW-2 (no more than one exceedance in a 3-year monitoring period). If compliance is not demonstrated at this time, additional actions may be required, including the following:
 - implementation of additional BMPs, if monitoring identifies a controllable site-related source;
 - examination of factors necessary to determine whether the Biotic Ligand Model or other methodologies for development of site-specific criteria results in a more appropriate determination of protectiveness; and/or
 - additional monitoring to evaluate the protectiveness of the stream for designated uses.

8. By Year 20 after certification of completion of Remedy Construction, compliance with Chronic Performance Standards, as outlined in Table 2, shall be demonstrated at SW-2 (no more than one exceedance in a 3-year monitoring period). If compliance is not demonstrated at this time, additional actions may be required, including but not limited to the following:

- evaluation of water quality data to determine whether data indicated promising trends toward meeting standards (in which case additional time may be granted to achieve compliance);
- additional monitoring to evaluate the protectiveness of the stream for designated uses;
- implementation of additional BMPs, if monitoring identifies a controllable site-related source;
- examination of factors necessary to determine whether the Biotic Ligand Model or other methodologies for development of site-specific criteria results in a more appropriate determination of protectiveness;
- a site-specific, quantitative risk analysis be conducted; and/or
- implementation of additional remedial measures, including groundwater capture/treatment, if technically feasible, but only after other options have been evaluated for feasibility and effectiveness and, if appropriate, implemented. Selection and implementation of additional remedial measures may require an explanation of significant differences or an amendment to the Record of Decision.

9. If at any point following five years after certification of completion of Remedy Construction, a statistically significant trend indicating an increase in contaminant concentrations or a decrease in pH is detected that may be attributable to the Site and that impairs water quality, additional investigation or analysis may be required to identify possible sources or causes for the worsening of water quality in order to supplement the information available for evaluation at the benchmarks established in this Protocol.

Table 1. Performance Standard Analytes, Supplemental Analytes and Field Parameters for the Rio Tinto compliance monitoring program.

<u>Performance Standard Analytes</u> Dissolved cadmium (Cd), dissolved copper (Cu) and dissolved zinc (Zn)
<u>Supplemental Analytes</u> Total iron (Fe) and total aluminum (Al), Hardness, total dissolved solids (TDS), total suspended solids (TSS)
<u>Field Parameters</u> pH, temperature, specific conductance, dissolved oxygen, turbidity, stream discharge

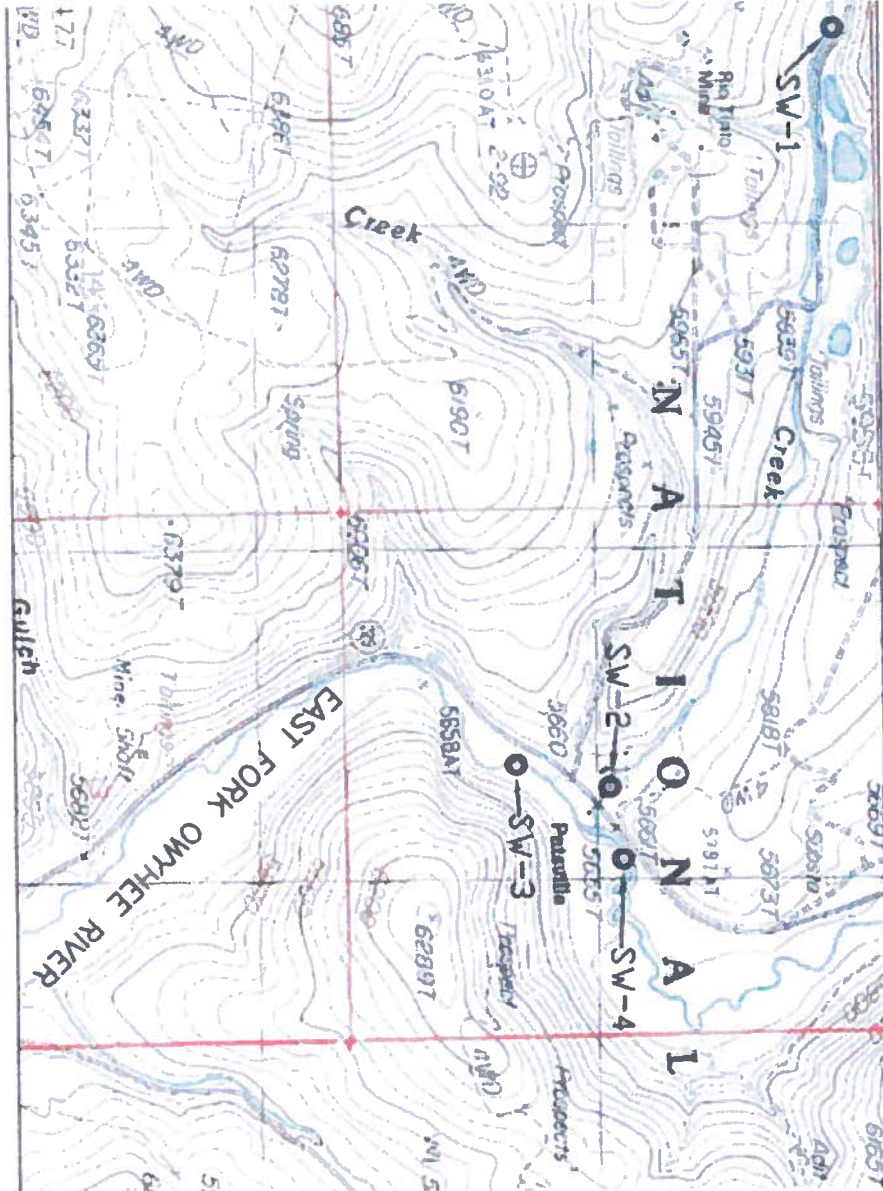
Table 2. Compliance thresholds for Performance Standard Analytes (dissolved Cd, Cu and Zn [**bolded numbers** are calculated standards at 90 mg/L hardness, for reference purposes]).

Thresholds	Dissolved Cd (mg/L)	Dissolved Cu (mg/L)	Dissolved Zn (mg/L)
Calculated 95% Upper Confidence Limit (UCL) ¹	0.00024	0.028	0.030
Acute Performance Standard ²	$[1.136672 - (\ln(\text{hardness})) \times (0.041838)] \times e^{(1.0166(\ln(\text{hardness})) - 3.924)}$ [0.0018]	$0.960 \times e^{(0.9422(\ln(\text{hardness})) - 1.700)}$ [0.012]	$0.978 \times e^{(0.8473(\ln(\text{hardness})) + 0.884)}$ [0.107]
Chronic Performance Standard ²	$[1.101672 - (\ln(\text{hardness})) \times (0.041838)] \times e^{(0.7409(\ln(\text{hardness})) - 4.719)}$ [0.00023]	$0.960 \times e^{(0.8545(\ln(\text{hardness})) - 1.702)}$ [0.008]	$0.986 \times e^{(0.8473(\ln(\text{hardness})) + 0.884)}$ [0.108]

¹ 95% UCLs calculated from SW-4 water quality monitoring database for January, 2005 to March, 2010.

² Acute and Chronic Performance Standards are based on the aquatic life standards in NAC 445A.144.

WATER QUALITY COMPLIANCE PROTOCOL MONITORING LOCATIONS



PROJECT NAME	910 TINTO MINE
WATER QUALITY COMPLIANCE MONITORING LOC	
CAD FILE	110101_010101_010101.dwg
DATE	12/15/11

Record of Decision—Appendix 2

Final

Rio Tinto Ambient Monitoring Protocol

(December 15, 2011)

A. Purpose

Generate and analyze specific surface water quality data in the East Fork Owyhee River (EFOR) drainage to determine if persistent water quality anomalies in the EFOR mainstem exist after construction of the Remedy for the Rio Tinto Mine Site and achievement of Performance Standards on the Owyhee River, and if so, are likely attributable to releases from the underground mine workings at the Site.

B. Sampling Stations

The sampling stations, as shown on the attached Figure 1, are identified as lower Mill Creek (SW-2), EFOR upstream from Mill Creek confluence (SW-3), EFOR downstream from Mill Creek confluence (SW-4), EFOR downstream from Station SW-4 (SW-9), EFOR at Mountain City (pre-2012, SW-10, and post January 1, 2012, SW-10A), and California Creek (CC-1).

C. Rationale for Analysis

Statistical sensitivity analyses (*retrospective power analyses*) were conducted on the preconstruction 2009 sampling station data sets to determine the magnitude of concentration differences that would be required, within expected standard deviations, to determine statistical significance from triplicate sampling station data. The results of these analyses indicated that there was approximately an 80% probability of detecting as little as a 1.5 µg/L difference in concentrations (preconstruction 2009 SW-3 data) or as much as a 4.75 µg/L difference in concentrations (preconstruction 2009 SW-10 data).

Based on site-specific geologic controls, if releases from the underground mine workings at the Site are causing or will cause a Persistent Anomaly, as defined in Section F(4) below, in the EFOR mainstem, such anomaly is expected to appear in the EFOR between Stations SW-4 and SW-10A, but especially between Stations SW-9 and SW-10A.

D. Parameters

The list of parameters described below was selected to include anions, cations, metals and metalloids which could be helpful in identifying water quality conditions potentially attributable to mine workings discharges to the EFOR, if any.

Field Parameters: Six parameters including river/stream discharge, turbidity, dissolved oxygen, temperature, pH, and specific conductance.

Laboratory Parameters: Twenty-three parameters including hardness, total dissolved solids, pH, sulfate, dissolved organic carbon, total and dissolved aluminum, arsenic, cadmium, calcium, copper, iron, magnesium, manganese, and zinc.

Diagnostic Parameters: Dissolved copper, cadmium and zinc (consistent with the *Performance Standard* analytes identified in the Water Quality Compliance Protocol).

Triplicate samples will be collected and analyzed for Laboratory Parameters and Diagnostic Parameters.

E. Initial Sampling Schedule

Ambient monitoring under this Protocol will commence after compliance with Performance Standards is achieved at Station SW-4, as set forth in the Water Quality Compliance Protocol. If this occurs prior to July 1 of any year, then the ambient monitoring will commence in July of that same calendar year. If compliance with Performance Standards is achieved at Station SW-4 after July 1 of any year, then the ambient monitoring will commence in July of the following calendar year.

Two successive years of monthly sampling will be conducted in the five low-flow months of July, August, September, October and November. These low-flow months were selected in order to reduce EFOR dilution effects and thereby enhance analytical sensitivity to water quality variations in the mainstem during this monitoring period.

F. Decision Process for Identification of Water Quality Anomalies

Step 1. Determining whether there is a Potential Anomaly.

(a) If the monthly mean concentrations of all of the Diagnostic Parameters at Station SW-10A are less than or equal to the monthly mean concentrations for the same Diagnostic Parameters at Station SW-9, then there is no anomaly and the protocol is complete. If there are any instances where the monthly mean concentration of a Diagnostic Parameter at Station SW-10A is greater than at Station SW-9, then the analysis will proceed to Step (1)(b).

(b) If the monthly mean concentration of one or more Diagnostic Parameters at Station SW-10A exceeds the Chronic Performance Standard (see Table 1 of the Water Quality Compliance Protocol) for that Diagnostic Parameter, then there is a "Potential Anomaly," and the analysis will proceed to Step 2. If not, then the protocol is complete.

Step 2. Determining whether any Potential Anomaly is Statistically Significant.

For any Potential Anomaly identified in Step (1)(b), if the monthly mean concentration of a Diagnostic Parameter at Station SW-10A exceeds the monthly mean concentration of the same Diagnostic Parameter at Station SW-9, and the exceedance is statistically significant (determined by Analysis of Variance [ANOVA] or other appropriate statistical methodology consistent with applicable regulatory guidance and standard industry practice), then there is a "Statistically Significant Anomaly," and the analysis will proceed to Step 3. If not, then the protocol is complete.

Step 3. Additional Sampling.

(a) If a Statistically Significant Anomaly identified in Step 2 is confirmed to occur in two or more consecutive months in either of the initial two years of the sampling program, then a third year of five-month, low-flow monitoring will be conducted, and the analysis will proceed to Step 4. If not, then the protocol is complete.

(b) Should the analysis under Step 2 identify that a Statistically Significant Anomaly exists in November but not October of monitoring years 1, 2 or 3 (if a third year of sampling is required pursuant to Step (3)(a)), then follow up sampling will be conducted in December of that same year, subject to the ability to safely access the sampling stations. To facilitate same year November/December sampling, if indicated, sampling shall be undertaken early in November to allow extended sampling opportunities in December. If safety concerns prohibit the collection of a sample in December at any sampling station, grab samples can be collected to meet the December sampling requirement at an agreed upon alternative sample location or at the original sample station as soon as safe sampling conditions are present.

Step 4. Determining whether there is any Persistent Anomaly.

If a Statistically Significant Anomaly occurs in two or more consecutive months during any two years of the sampling program, then there is a "Persistent Anomaly," and the analysis will proceed to Step 5. If not, then the protocol is complete.

Step 5. Evaluation of a Persistent Anomaly.

If a Persistent Anomaly is identified pursuant to Step 4, then the Settling Defendants will submit a report to NDEP and EPA by April 1 of the year following the final year of ambient protocol monitoring, which summarizes and evaluates the data collected pursuant to this protocol. NDEP and EPA will evaluate the report and determine whether or not the Persistent Anomaly is attributable to conditions or circumstances other than a release from the mine workings, such as loading from California Creek, irrigation withdrawals or returns, or other non-mine-site related differences between the sampling stations. If NDEP and EPA both determine that the Persistent Anomaly is attributable to such other conditions or circumstances, then the protocol is complete. Otherwise, further investigation may be required by NDEP or EPA pursuant to the terms of the Consent Decree.

ATTACHMENT 2
PROPERTY USE AND ACCESS RESTRICTIONS

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D a v i s G r a h a m & S t u b b s L L P

September 17, 2013

Via E-Mail and Federal Express

Jeryl R. Gardner, P.E., C.E.M.
Abandoned Mine Lands Program Coordinator
Bureau of Corrective Actions, NDEP
901 South Stewart Street, Suite 4001
Carson, City, Nevada 89701
jgardner@ndep.nv.gov

David Seter
Remedial Project Manager
United States Environmental Protection Agency Region IX
75 Hawthorne Street
San Francisco, California 94105
Seter.David@epamail.epa.gov

Re: In the Matter of the Rio Tinto Mine Site Consent Decree
United States District Court, Dist. of Nev., Civ. Action No. 3:12-cv-00524-RCJ-WGC
NDEP Facility No. F001027; SSID #09BY
Final/Recorded Environmental Covenant and Title Insurance Policy

Dear Mr. Gardner and Mr. Seter:

This letter is being submitted on behalf of Mountain City Remediation, LLC ("Mountain City"), as one of the Settling Defendants identified in the above-referenced Consent Decree. Mountain City is the owner of a parcel of real property located within Area A, as defined in the Consent Decree. In accordance with Paragraph 39.e of the Consent Decree, Mountain City is providing NDEP and EPA with the enclosed copies of the recorded Environmental Covenant and title insurance policy with respect to the Mountain City parcel.

On June 26, 2013, Mountain City submitted the Environmental Covenant and a title report for the Mountain City parcel to NDEP and EPA for review and approval. NDEP provided notice of its approval by letter dated August 13, 2013. NDEP also signed the Environmental Covenant on August 5, 2013. EPA provided notice of its approval of the Environmental Covenant by email dated August 19, 2013. On August 26, 2013, Mountain City received the results of an updated title search for the parcel, which confirmed that nothing had occurred since the date of the prior title report that adversely affected title. As shown on the attached copy, Mountain City recorded the Environmental Covenant with the Elko County Recorder's Office on August 30, 2013. Finally, Stewart Title has now issued the enclosed Title Insurance Policy for

Adam S. Cohen . 303 892 7321 . adam.cohen@dgsllaw.com

1550 Seventeenth Street • Suite 500 • Denver, Colorado 80202 • 303 892 9400 • fax 303 893 1379

www.dgsllaw.com

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Jeryl R. Gardner and David Seter
September 17, 2013
Page 2

the Mountain City parcel with an effective date of September 17, 2013. As required under Paragraph 39.e, Mountain City is submitting the enclosed documents to NDEP and EPA within 30 days of recording the approved Environmental Covenant.

Please contact Robert Wenzlau, Project Coordinator, at 650-227-3251 (admin@mountaincityllc.com), or me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'AS Cohen', with a long horizontal flourish extending to the right.

Adam S. Cohen
for

Davis Graham & Stubbs LLP

cc: Robert Wenzlau, MCR Administrator (via email)

DOC# 677904

08/30/2013

10:40AM

Official Record

Requested By

STEWART TITLE OF NEVADA RENO

Elko County - NV

D Mike Smales - Recorder

Page: 1 of 16

Fee: \$29.00

Recorded By ST

RPTT: \$0.00

APN: 005-400-008 (Elko County)
Recording Requested by and Return to:
Adam S. Cohen, Esq.
Davis Graham & Stubbs LLP
1550 17th Street, Suite 500
Denver CO 80202



677904

**ACCOMMODATION ONLY
NO LIABILITY ASSUMED**

ENVIRONMENTAL COVENANT

APN: 005-400-008 (Elko County)
Recording Requested by and Return to:
Adam S. Cohen, Esq.
Davis Graham & Stubbs LLP
1550 17th Street, Suite 500
Denver CO 80202

Recorded Electronically	
ID	077907
County	ELKO
Date	8/30/13
Time	10:40 AM
Simplifile.com 800.460.5657	

ACCOMMODATION ONLY
NO LIABILITY ASSUMED

ENVIRONMENTAL COVENANT

ENVIRONMENTAL COVENANT

Mountain City Remediation, LLC (hereafter "Grantor") this 27th day of August, 2013, grants this Environmental Covenant (hereafter the "Covenant") to the State of Nevada Department of Conservation and Natural Resources, Division of Environmental Protection (hereafter "Holder" or "NDEP"), and to the United States of America acting by and through the United States Environmental Protection Agency ("EPA") as Third Party Beneficiary of the Covenant, hereinafter collectively referred to as the "Parties" or individually as a "Party."

RECITALS:

WHEREAS, Grantor is the record owner of certain property located in Elko County, Nevada, and more particularly described in the Quitclaim Deed recorded at DOC# 666094, Elko County, a true and correct copy of which is attached hereto as Exhibit A and incorporated herein by reference (hereafter the "Property"); and

WHEREAS, the Property lies within the area commonly referred to as Area A of the Rio Tinto Mine Site ("Site"), and as more specifically defined by the Record of Decision, referenced below; and

WHEREAS, portions of the Site and the Property are the subject of an environmental response project, as defined by Nevada Revised Statutes ("NRS") 445D.070, and pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601, et. seq. (hereafter "CERCLA"); and

WHEREAS, NRS Chapter 445D, titled *Environmental Covenants (Uniform Act)* (hereafter the "Act"), sets forth the procedure for executing and recording an environmental covenant to provide notice to the public of activity and use limitations with respect to real property that is the subject of an environmental response project; and

WHEREAS, the purpose of the Covenant is to promote protection of human health and the environment by notifying the public that the Property is located within an area designated by the NDEP as an environmental response project under CERCLA. Historic mining activities and/or mining-related activities at the Site resulted in the deposition of mining related materials which remain on-site and may include tailings, water treatment sludges, waste rock, heap leach pads, and residual impacts to groundwater with mining contaminants ("mining related materials"); and

WHEREAS, studies conducted by government agencies and former Site operators identified mining related impacts at the Property. The studies relied on, among other things, historic operating documents; analytic samples of mine related materials, groundwater, surface water, and soils; and pilot studies of remedial approaches. Certain former Site operators, pursuant to three administrative orders issued by the NDEP, dated 1996, 2001, and 2007, have conducted various remedial activities on and around the Property that have improved on-site conditions and downstream surface water quality; and

WHEREAS, in February 2012, the NDEP issued the Record of Decision for the Rio Tinto Mine Site remedial action (the "Remedy"). The Remedy will, among other things, eliminate or reduce the release of metals by excavating mining related materials from the Mill Creek Valley for disposal in an on-site repository on the ridge to the south of Mill Creek. Pursuant to a Consent Decree entered by the United States District Court for the District of Nevada on May 20, 2013 (Civ. Action No. 3:12-cv-00524-RCJ-WGC), a consortium consisting of the Atlantic Richfield Company, the Cleveland-Cliffs Iron Company, E.I. DuPont de Nemours and Company, and Teck American Incorporated, collectively known as the Rio Tinto Working Group ("RTWG"), as well as Grantor, have agreed to implement the Remedy under NDEP oversight, thereby requiring access to the Property by NDEP, EPA, the Rio Tinto Working Group, Grantor, and Grantor's contractors, including but not limited to Tetra Tech Construction, Inc., dba The Delaney Group ("**Delaney**"); and

WHEREAS, Grantor desires to provide notice of the existing conditions and covenants and to bind all parties now and in the future having any right, title or interest in the Property, or any portion of it, their heirs, successors and assigns and any persons using the Property; and

WHEREAS, it is recognized by all parties that it is in the interest of the Grantor and the Holder to establish a mechanism to advise any user of the Property as to the nature and extent of the Remedy implemented on the Property, and to allow access to the Holder, the RTWG, and Grantor's contractors to implement and maintain the Remedy on the Property; and

WHEREAS, Grantor desires to subject the Property to certain covenants and restrictions as provided in the Act, which covenants and restrictions shall burden the Property and bind the Grantor and all parties having any right, title, or interest in the Property, or any part thereof, their heirs, successors and assigns, and any persons using the land, as described herein, for the benefit of the Holder.

COVENANT AND AGREEMENT

NOW THEREFORE, Grantor hereby grants this Environmental Covenant pursuant to the Act to the Holder and declares that the Property as described in Exhibit A shall hereinafter be bound by, held, sold, and conveyed subject to the following requirements set forth in paragraphs 1 through 12, below, which shall run with the Property in perpetuity and be binding on Grantor and all parties having any right, title, or interest in the Property, or any part thereof, their heirs, successors and assigns, and any persons using the land, as described herein.

1) Owner(s). As used in the Covenant, the term "**Owner**" means the record owner of the Property and, if any, any other person or entity otherwise legally authorized to make decisions regarding the transfer of the Property or placement of encumbrances on the Property, other than by exercise of eminent domain.

2) Holder(s). The following persons and/or entities are holders of the Covenant:
The NDEP.

3) Rights of the Holder. This Covenant creates in Holder a real property interest to the extent provided for in the Act. To accomplish the purpose of this Covenant, the following rights are conveyed to the Holder by this Covenant:

a. Inspections: The Holder shall have the right of entry to the Property at reasonable times with prior written notice for the purpose of determining compliance with the terms of this Covenant and the Consent Decree. Nothing in the Covenant shall impair any other authority the Holder may otherwise have to enter and inspect the Property.

b. Access for Implementing the Remedy: The Holder, and, at the Holder's direction, the RTWG, Grantor, and Grantor's contractors, including but not limited to Delaney, shall have the right of entry to the Property at reasonable times for the purpose of implementing the Remedy set for the in the Record of Decision and any activities related to the Consent Decree, as such may be modified in the future.

4) Third Party Beneficiary. The following persons and/or entities are third party beneficiaries of the Covenant: EPA.

5) Third Party Beneficiary Rights.

a. The Superfund Division of Region IX, EPA shall have a right of entry to the Property at reasonable times with prior written notice for the purpose of determining the effectiveness of the Remedy, including but not limited to, access necessary to conduct annual inspections, remedy completion review, and 5-year reviews, and at such other times as are necessary for purpose of determining the completion of construction and the effectiveness of the Remedy.

b. The Director of the Superfund Division of Region IX, EPA (the "Director") or her or his agents, successors or assigns, on behalf of the United States, may exercise the right of enforcement under any authority available under State or Federal law if the Holder fails to enforce any terms of the Covenant, as determined in the sole discretion of the Director. Upon such determination the Director shall provide written notice of such failure to Holder by certified mail delivered to Holder's address, in which notice the Director shall set forth the enforcement action required to be taken by Holder to correct such failure. If Holder fails to take such corrective action within 60 days after its receipt of such notice, the Director shall be allowed to take enforcement action in accordance with the procedures set forth in Section 10 of this Covenant.

c. The Director may proceed immediately to seek emergency relief in accordance with CERCLA, without first providing Holder notice and an opportunity to take such action, if the Director determines that such action is necessary to address imminent threat to the public health and the environment.

6) Modifications: The Covenant runs with the land and is perpetual, unless modified or terminated pursuant to this paragraph or the Act. Owner may request that the Holder approve a modification or termination of the Covenant. The request shall contain information showing that the proposed modification or termination shall, if implemented, ensure protection of human health and the environment. The Holder shall review any submitted information, and may request additional information. The Holder shall approve a proposal to modify or terminate the Covenant only if it determines that the proposal maintains an equal or greater level of protection of human health and the environment as has been

established by means of the Covenant, otherwise it shall deny the proposal. If the Holder denies a proposal, it shall provide a written explanation of its decision. No modification or termination of the Covenant shall be effective unless the Holder has approved such a modification or termination in writing, including an explanation of its decision. Information to support a request for modification or termination may include one or more of the following:

- a. a proposal to perform additional remedial work;
- b. new information regarding the risks posed by the residual contamination;
- c. information demonstrating that residual contamination has diminished;
- d. information demonstrating that the proposed modification would not adversely impact the Remedy and is protective of human health and the environment; and
- e. other appropriate supporting information.

7. Notice to Lessees: Owner agrees to incorporate either in full or by reference the restrictions in the Covenant in any leases, licenses, or other instruments granting a right to use the Property.

8. Activity and Use Limitations: Unless modified in accordance with paragraph 6, the Property shall be subject to the following activity and use limitations:

a. the Owner shall not use, or permit the use of, the Property in any way that interferes with the implementation, effectiveness, protectiveness, or operation and maintenance of the Remedy, including, but not limited to, any of the following uses or activities, unless the activity is required as part of the work required under the Consent Decree, or by the ROD, the RD/RA Work Plan attached as Appendix B to the Consent Decree, the Remedial Design approved pursuant to the Consent Decree, or undertaken with prior notification to and prior written approval of the NDEP:

(i) The Owner shall not disturb or modify, or permit the disturbance or modification of, any engineering control constructed or installed on the Property, including covers, caps, diversion channels, slope stabilizers, or any other control that is intended to keep mine related materials in place and away from water;

(ii) The Owner shall not use, or permit the use of, the Property in any way that will promote or otherwise lead to the erosion or deterioration of any engineering control;

(iii) The Owner shall not use, or permit the use of, the Property in any way that damages or interferes in any way with the maintenance, operation, or monitoring of any engineered control, any monitoring well, or any other monitoring equipment installed on the Property;

(iv) The Owner shall not use, or permit the use of, the Property in any way that results in access to or disturbance of any existing underground mine workings at the Property or the Site.

(v) The Owner shall not use, or permit the use of, the Property in any way that alters or disturbs the flow of surface water in, or modifies the bed or banks of Mill Creek through the Property in a manner that is inconsistent with the ROD and the Consent Decree.

9) No Liability: The Holder does not acquire any liability under Nevada law by virtue of accepting the Covenant.

10) Enforcement: The Holder may enforce the terms of the Covenant pursuant to the Act. Included in the statutory rights and remedies afforded to the Holder under the Act, is the ability to file in district court to enjoin actual or threatened violations of the Covenant.

11) Administrative Record. The administrative record of the environmental response project, including the Record of Decision referenced in the Covenant, is located at:

Nevada Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Corrective Actions
901 South Stewart Street, Suite 4001
Carson City, NV 89701-5249

12) Notices: Any development that would reasonably be expected to disturb the groundwater or mine related materials, if any, on the Property, requires notice to the NDEP. Any documentation or communication required under this Covenant shall be sent or directed to:

Nevada Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Corrective Actions
901 South Stewart Street, Suite 4001
Carson City, NV 89701-5249

ATTN: Rio Tinto Project Manager
Reference: Project # F001027

And to


United States Environmental Protection Agency Region IX
Superfund Division
75 Hawthorne Lane
San Francisco, CA 94105

ATTN: Remedial Project Manager for Rio Tinto Mine
Reference: SSID # 09BY

The parties have caused the Covenant to be executed this 27th day of August, 2013.

MOUNTAIN CITY REMEDIATION, LLC

**THE STATE OF NEVADA,
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES,
DIVISION OF ENVIRONMENTAL
PROTECTION**

By: 
Name: Robert M. Trull
Title: Vice President

By: 
Name: Colleen Cripps, PhD.
Title: Administrator

The parties have caused the Covenant to be executed this ____ day of _____, 2013.

MOUNTAIN CITY REMEDIATION, LLC

**THE STATE OF NEVADA,
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES,
DIVISION OF ENVIRONMENTAL
PROTECTION**

By: _____

Name: Robert M. Trull

Title: Vice President

By:  _____

Name: Colleen Cripps, PhD..

Title: Administrator

STATE OF ~~NEVADA~~ ^{Texas})
COUNTY OF Harris) ss:

This instrument was acknowledged before, a Notary Public, by Robert M. Trull,
as Vice President of MOUNTAIN CITY REMEDIATION, LLC, this 27th day of
August, 2013.

Robyn A. Whiteford
Notary Public for said County and State
Commission Expires: 12-12-2016



STATE OF NEVADA)
) ss:
COUNTY OF Carson City)

This instrument was acknowledged before, a Notary Public, by COLLEEN CRIPPS, PhD, Administrator of THE STATE OF NEVADA, DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL PROTECTION, this 5th day of August, 2013.

Karen Howard
Notary Public for said County and State
Commission Expires: March 24, 2017



**EXHIBIT A
TO ENVIRONMENTAL COVENANT**

**QUITCLAIM DEED
DOC# 666094
ELKO COUNTY, NEVADA**

DOC# 666094
12/31/2012 02:51PM

Official Record

Requested By
STEWART TITLE OF NEVADA RENO
Elko County - NV

D Mike Smales - Recorder

Page: 1 of 4 Fee: \$17.00
Recorded By ST RPTT: \$60.45



666094

APN: 005-400-008 (Elko County)

Recording requested by, and
after recording return to:

Linda A. Bowman, Esq.
P.O. Box 10306
Reno, NV 89510

Mail Tax Statements To:
Randal Coil
Mountain City Remediation, LLC
201 Helios Way
Helios Plaza 6th Floor
Houston, Texas 77079

**ACCOMMODATION ONLY
NO LIABILITY ASSUMED**

QUITCLAIM DEED

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, OLD DOG, LLC, a Nevada limited liability company ("Grantor") hereby remises, releases, and forever quitclaims to MOUNTAIN CITY REMEDIATION, LLC, a Delaware limited liability company ("Grantee"), whose address is 201 Helios Way, Helios Plaza 6th Floor, Houston, Texas 77079, and its successors and assigns forever, all of the real property situate in Elko County, State of Nevada described on Exhibit A attached hereto and by this reference incorporated herein, together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, to have and to hold the same unto Grantee and its successors and assigns forever, subject to all matters of record.

In witness whereof, the Grantor has signed this deed this 28th day of December, 2012.

OLD DOG, LLC,
a Nevada limited liability company

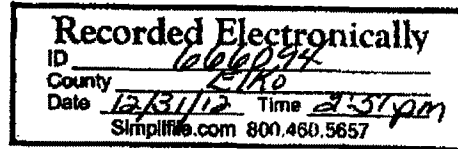
by: Gary D. Aho
Gary D. Aho, its Manager

[Notary certificate appears on the following page.]

APN: 005-400-008 (Elko County)

Recording requested by, and
after recording return to:

Linda A. Bowman, Esq.
P.O. Box 10306
Reno, NV 89510



Mail Tax Statements To:
Randal Coil
Mountain City Remediation, LLC
201 Helios Way
Helios Plaza 6th Floor
Houston, Texas 77079

**ACCOMMODATION ONLY
NO LIABILITY ASSUMED**

QUITCLAIM DEED

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, OLD DOG, LLC, a Nevada limited liability company ("Grantor") hereby remises, releases, and forever quitclaims to MOUNTAIN CITY REMEDIATION, LLC, a Delaware limited liability company ("Grantee"), whose address is 201 Helios Way, Helios Plaza 6th Floor, Houston, Texas 77079, and its successors and assigns forever, all of the real property situate in Elko County, State of Nevada described on Exhibit A attached hereto and by this reference incorporated herein, together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, to have and to hold the same unto Grantee and its successors and assigns forever, subject to all matters of record.

In witness whereof, the Grantor has signed this deed this 28th day of December, 2012.

OLD DOG, LLC,
a Nevada limited liability company

by: Gary D. Aho
Gary D. Aho, its Manager

[Notary certificate appears on the following page.]

Notary certificate - Quitclaim Deed

STATE OF NEVADA)
) ss.
COUNTY OF WASHOE)

This instrument was acknowledged before me on 12/28/12 by Gary D. Aho as Manager of Old Dog, LLC, a Nevada limited liability company.

Linda A. Bowman
Notary Public

(SEAL)

My commission expires: 7-15-14

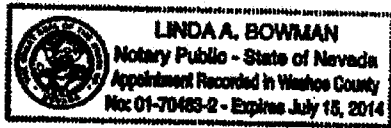


Exhibit A

Property Description

The land referred to herein is situated in the State of Nevada, County of Elko, described as follows:

Westerly part of H. E. Survey No. 63 being in Section 12, TOWNSHIP 45 NORTH, RANGE 53 EAST, M.D.B.&M.

Beginning at Corner No. 11 of said patent and running thence along line 11-12 South 45°40' East 24.53 chains (1,618.98') more or less to the Easterly end of portion herein described;

THENCE South 55°14' West 7.24 chains (477.84 feet) to a point on line 7-8;

THENCE along line 7-8 North 41°11' West 21.21 chains (1,399.86 feet), more or less to Corner No. 8;

THENCE North 63°55' West 22.56 chains (1,488.96 feet) to Corner No. 9;

THENCE North 0°05' East 6.08 chains (401.28 feet) to Corner No. 10;

THENCE South 64°42' East 25.02 chains (1,651.32 feet) to Corner No. 11, the point of beginning.

EXCEPTING THEREFROM that parcel conveyed to Chauncey Olson which is more particularly described as follows:

[Continued on the following page.]

Beginning at the southeast corner of said tract a point on line 7-8 of said K.E. Survey No. 63 at South 41°11' East, 1,404.68 feet more or less from Corner No. 8 of said K.E. Survey No. 63 and running thence North 54°09' East, 80.00 feet to the northeast corner;

THENCE North 27°43' West 594.30 feet to the northwest corner;

THENCE South 56°30' West 220.00 feet to the southwest corner, a point on said line 7-8;

THENCE along said line 7-8 South 41°11' East 600.00 feet, more or less to the southeast corner, the place of beginning.

FURTHER EXCEPTING that parcel conveyed to Robert L. Montrose, et ux, which is more particularly described as follows:

Commencing at Corner No. 7 of Homestead Entry Survey No. 63, thence North 41°11' West 569.58 feet;

THENCE North 54°09' East 80.00 feet to Corner No. 1, the point of beginning;

THENCE North 27°43' West 594.30 feet to Corner No. 2;

THENCE North 56°30' East 212.28 feet to Corner No. 3;

THENCE South 45°40' East 595.86 feet to Corner No. 4;

THENCE South 55°14' West 397.84 feet to Corner No. 1, the point of beginning.

ALTA Owner's Policy (6-17-06)

OWNER'S POLICY OF TITLE INSURANCE ISSUED BY



Any notice of claim and any other notice or statement in writing required to be given the Company under this Policy must be given to the Company at the address shown in Section 18 of the Conditions.

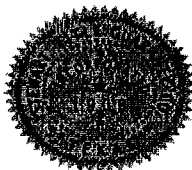
COVERED RISKS

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B, AND THE CONDITIONS, STEWART TITLE GUARANTY COMPANY, a Texas corporation (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:

- 1. Title being vested other than as stated in Schedule A.
2. Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from (a) A defect in the Title caused by: (i) forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation; (ii) failure of any person or Entity to have authorized a transfer or conveyance; (iii) a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered; (iv) failure to perform those acts necessary to create a document by electronic means authorized by law; (v) a document executed under a falsified, expired, or otherwise invalid power of attorney; (vi) a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or (vii) a defective judicial or administrative proceeding. (b) The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid. (c) Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
3. Unmarketable Title.
4. No right of access to and from the Land.
5. The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to (a) the occupancy, use, or enjoyment of the Land; (b) the character, dimensions, or location of any improvement erected on the Land; (c) the subdivision of land; or (d) environmental protection if a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.
6. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.
7. The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.
8. Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.

Countersigned by:

Authorized Countersignature
Stewart Title Company-Northeastern Division



Senior Chairman of the Board

Chairman of the Board

President

Part 1 of Policy Serial No. O-93012653451

COVERED RISKS (Continued)

9. Title being vested other than as stated in Schedule A or being defective
- (a) as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or
 - (b) because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records
- (i) to be timely, or
 - (ii) to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.
10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.
- The Company will also pay the costs, attorneys' fees, and expenses incurred in defense of any matter insured against by this Policy, but only to the extent provided in the Conditions.

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to:
- (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
- or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
- (a) created, suffered, assumed, or agreed to by the Insured Claimant;

- (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
- (a) a fraudulent conveyance or fraudulent transfer; or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

CONDITIONS

1. DEFINITION OF TERMS

The following terms when used in this policy mean:

- (a) "Amount of Insurance": The amount stated in Schedule A, as may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.
- (b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.
- (c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.
- (d) "Insured": The Insured named in Schedule A.
 - (i) The term "Insured" also includes:
 - (A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;
 - (B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;
 - (C) successors to an Insured by its conversion to another kind of Entity;
 - (D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title
 - (1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,
 - (2) if the grantee wholly owns the named Insured,
 - (3) if the grantee is wholly-owned by an affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or
 - (4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the

Insured named in Schedule A for estate planning purposes.

- (ii) With regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.
- (e) "Insured Claimant": An Insured claiming loss or damage.
- (f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.
- (g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.
- (h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.
- (i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.
- (j) "Title": The estate or interest described in Schedule A.
- (k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.

CONDITIONS (Continued)

2. CONTINUATION OF INSURANCE

The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.

3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.

4. PROOF OF LOSS

In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.

5. DEFENSE AND PROSECUTION OF ACTIONS

- (a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.
- (b) The Company shall have the right, in addition to the options contained in Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.
- (c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.

6. DUTY OF INSURED CLAIMANT TO COOPERATE

- (a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending

the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.

- (b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.

7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY

In case of a claim under this policy, the Company shall have the following additional options:

- (a) To Pay or Tender Payment of the Amount of Insurance. To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay. Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.
- (b) To Pay or Otherwise Settle With Parties Other Than the Insured or With the Insured Claimant.
 - (i) To pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this policy. In addition, the Company will pay any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or
 - (ii) To pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

8. DETERMINATION AND EXTENT OF LIABILITY

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

- (a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of
 - (i) the Amount of Insurance; or
 - (ii) the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.
- (b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,
 - (i) the Amount of Insurance shall be increased by 10%, and
 - (ii) the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.
- (c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

9. LIMITATION OF LIABILITY

- (a) If the Company establishes the Title, or removes the alleged defect, lien, or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.
- (b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.
- (c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

11. LIABILITY NONCUMULATIVE

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

12. PAYMENT OF LOSS

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT

- (a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies.

If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.

- (b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

14. ARBITRATION

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT

- (a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured and the Company. In interpreting any provision of this policy, this policy shall be construed as a whole.
- (b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim shall be restricted to this policy.
- (c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.
- (d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

16. SEVERABILITY

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

17. CHOICE OF LAW; FORUM

- (a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefor in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located. Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of law principles to determine the applicable law.
- (b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

18. NOTICES, WHERE SENT

Any notice of claim and any other notice or statement in writing required to be given the Company under this policy must be given to the Company at Claims Department, P.O. Box 2029, Houston, Texas 77252-2029.

SCHEDULE A

Prepared by: Nevada RPC
Title Officer: Annette Scates/as

Name and Address of Title Insurance Company: Stewart Title Company-Northeastern Division, 810 Idaho Street, Elko, NV 89801

File No.: 1040365

Policy No.: 0-9301-2653451

Loan No.:

*Address Reference:

Amount of Insurance: \$15,219.00

Premium: \$625.00

Date of Policy: 12/31/2012 2:51:00 PM

(or the date of recording of the insured deed, whichever is later)

1. Name of Insured:

Mountain City Remediation, LLC

2. The estate or interest in the Land that is insured by this policy is:

Fee Simple

3. Title is vested in:

Mountain City Remediation, LLC, a Delaware limited liability company

4. The Land referred to in this policy is described as follows:

The land referred to herein is situated in the State of Nevada, County of Elko, described as follows:

Westerly part of H. E. Survey No. 63 being in Section 12, TOWNSHIP 45 NORTH, RANGE 53 EAST, M.D.B.&M.

Beginning at Corner No. 11 of said patent and running thence along line 11-12 South 45°40' East 24.53 chains (1,618.98') more or less to the Easterly end of portion herein described;

THENCE South 55°14' West 7.24 chains (477.84 feet) to a point on line 7-8;

THENCE along line 7-8 North 41°11' West 21.21 chains (1,399.86 feet), more or less to Corner No. 8;

THENCE North 63°55' West 22.56 chains (1,488.96 feet) to Corner No. 9;

THENCE North 0°05' East 6.08 chains (401.28 feet) to Corner No. 10;

THENCE South 64°42' East 25.02 chains (1,651.32 feet) to Corner No. 11, the point of beginning.

EXCEPTING THEREFROM that parcel conveyed to Chauncey Olson which is more particularly described as follows:

Beginning at the southeast corner of said tract a point on line 7-8 of said H.E. Survey No. 63 at South 41°11' East, 1,404.68 feet more or less from Corner No. 8 of said H.E. Survey No. 63 and running thence North 54°09' East, 80.00 feet to the northeast corner;

THENCE North 27°43' West 594.30 feet to the northwest corner;

THENCE South 56°30' West 220.00 feet to the southwest corner, a point on said line 7-8;

THENCE along said line 7-8 South 41°11' East 600.00 feet, more or less to the southeast corner, the place of beginning.

FURTHER EXCEPTING that parcel conveyed to Robert L. Montrose, et ux, which is more particularly described as
*FOR COMPANY REFERENCE PURPOSE ONLY, NOT AN INSURING PROVISION.

SCHEDULE A

follows:

Commencing at Corner No. 7 of Homestead Entry Survey No. 63, thence North 41°11' West 569.58 feet;

THENCE North 54°09' East 80.00 feet to Corner No. 1, the point of beginning;

THENCE North 27°43' West 594.30 feet to Corner No. 2;

THENCE North 56°30' East 212.28 feet to Corner No. 3;

THENCE South 45°40' East 595.86 feet to Corner No. 4;

THENCE South 55°14' West 397.84 feet to Corner No. 1, the point of beginning.

FURTHER EXCEPTING THEREFROM one-half (1/2) of all coal, oil, gas, minerals and geothermal resources of every kind, nature and description, lying in and under said land, as reserved by Marjorie Prunty, et al, in Deed recorded September 2, 1993 in Book 829, Page 380, Official Records, Elko County, Nevada.

SCHEDULE B

File No.: 1040365

Policy No.: 0-9301-2653451

GENERAL EXCEPTIONS

THIS POLICY DOES NOT INSURE AGAINST LOSS OR DAMAGE (AND THE COMPANY WILL NOT PAY COSTS, ATTORNEYS' FEES, OR EXPENSES) THAT ARISE BY REASON OF:

1. TAXES OR ASSESSMENTS WHICH ARE NOT NOW PAYABLE OR WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE RECORDS OF ANY TAXING AUTHORITY THAT LEVIES TAXES OR ASSESSMENTS ON REAL PROPERTY OR BY THE PUBLIC RECORDS; PROCEEDINGS BY A PUBLIC AGENCY WHICH MAY RESULT IN TAXES OR ASSESSMENTS, OR NOTICES OF SUCH PROCEEDINGS, WHETHER OR NOT SHOWN BY THE RECORDS OF SUCH AGENCY OR BY THE PUBLIC RECORDS.
2. ANY FACTS, RIGHTS, INTEREST, OR CLAIMS WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS BUT WHICH COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR WHICH MAY BE ASSERTED BY PARTIES IN POSSESSION, OR CLAIMING TO BE IN POSSESSION, THEREOF.
3. EASEMENTS, LIENS OR ENCUMBRANCES, OR CLAIMS THEREOF, WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS.
4. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGE IN AREA, ENCROACHMENTS, OR ANY OTHER FACTS WHICH A CORRECT SURVEY WOULD DISCLOSE, AND WHICH ARE NOT SHOWN BY PUBLIC RECORDS.
5. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL THERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
6. COMMUNITY PROPERTY, DOWER, CURTESY, SURVIVORSHIP, OR HOMESTEAD RIGHTS, IF ANY, OF ANY SPOUSE OF THE INSURED.
7. (A) UNPATENTED MINING CLAIMS, (B) RESERVATIONS OR EXCEPTIONS IN PATENTS OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF; (C) WATER RIGHTS, CLAIMS OR TITLE TO WATER; WHETHER OR NOT THE MATTERS EXCEPTED UNDER (A), (B) OR (C) ARE SHOWN BY THE PUBLIC RECORDS, (D) INDIAN TRIBAL CODES OR REGULATIONS, INDIAN TREATY OR ABORIGINAL RIGHTS, INCLUDING EASEMENTS OR EQUITABLE SERVITUDES.
8. ANY SERVICE, INSTALLATION, CONNECTION, MAINTENANCE, CONSTRUCTION, TAP OR REIMBURSEMENT CHARGES/COSTS FOR SEWER, WATER, GARBAGE OR ELECTRICITY.
9. ANY TITLES OR RIGHT ASSERTED BY ANYONE INCLUDING BUT NOT LIMITED TO PERSONS, CORPORATIONS, GOVERNMENTS OR OTHER ENTITIES, TO TIDE LANDS, OR LANDS COMPRISING THE SHORES OR BOTTOMS OF NAVIGABLE RIVERS, LAKES, BAYS, OCEAN OR GULF, OR LANDS BEYOND THE LINE OF THE HARBOR OR BULKHEAD LINES AS ESTABLISHED OR CHARGED BY THE UNITED STATES GOVERNMENT OR RIPARIAN RIGHTS, IF ANY.

END OF GENERAL EXCEPTIONS

SCHEDULE B

File No.: 1040365

Policy No.: 0-9301-2653451

SPECIAL EXCEPTIONS:

This policy does not insure against loss or damage (and the Company will not pay costs, attorney's fees or expenses) which arise by reason of:

1. THE FACT THAT RECORD ACCESS TO AND FROM A REGULARLY DEDICATED ROAD IS NOT REFLECTED IN THE PUBLIC RECORDS OF ELKO COUNTY, NEVADA.
2. Taxes for the fiscal year 2012 - 2013 have been paid full, in the amount of \$387.75. APN: 005-400-008.
3. The lien, if any, of supplemental taxes, assessed pursuant to provisions adopted by the Nevada Legislature, and as disclosed by the Nevada Revised Statutes.
4. Rights incidental to the ownership and development of the mineral interests excepted from the land described herein.
5. The fact that said land was approved for agricultural use assessment for taxation purposes by the Elko County Assessor and lien for any deferred taxes which may be levied against said land by reason of a change in use of said land for purposes other than agricultural, as evidenced by document

Recorded August 6, 2002 in Book 2 Page 27233 Official Records of Elko County, Nevada.

6. Any deferred taxes, interest and penalties which may be due or become due upon the conversion of said land from agricultural or open space use to any other designated use, as per Nevada Revised Statutes.
7. Reservations and exceptions contained in Patent from THE UNITED STATES OF AMERICA, Recorded December 15, 1923 in Book 7, Page 588, Patent Records, Elko County, Nevada.

Said reservation and exception recites as follows:

". . .subject to any vested and accrued water rights for mining, agricultural, manufacturing or other purposes, and rights to ditches and reservoirs used in connection with such water rights, as may be recognized and acknowledged by the local customs, laws and decisions of courts; and there is reserved from the lands hereby granted a right of way thereon for ditches or canals constructed by authority of the United States."

8. Rights of way for any existing roads, trails, canals, ditches, flumes, conduits, pipe, pole or transmission lines on, under, over, through or across said premises.

STG Privacy Notice (Rev 01/26/09) Stewart Title Companies

WHAT DO THE STEWART TITLE COMPANIES DO WITH YOUR PERSONAL INFORMATION?

Federal and applicable state law and regulations give consumers the right to limit some but not all sharing. Federal and applicable state law regulations also require us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand how we use your personal information. This privacy notice is distributed on behalf of the Stewart Title Guaranty Company and its affiliates (the Stewart Title Companies), pursuant to Title V of the Gramm-Leach-Bliley Act (GLBA).

The types of personal information we collect and share depend on the product or service that you have sought through us. This information can include social security numbers and driver's license number.

All financial companies, such as the Stewart Title Companies, need to share customers' personal information to run their everyday business--to process transactions and maintain customer accounts. In the section below, we list the reasons that we can share customers' personal information; the reasons that we choose to share; and whether you can limit this sharing.

For our everyday business purposes- to process your transactions and maintain your account. This may include running the business and managing customer accounts, such as processing transactions, mailing, and auditing services, and responding to court orders and legal investigations.	Yes	No
For our marketing purposes- to offer our products and services to you.	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes- information about your transactions and experiences. Affiliates are companies related by common ownership or control. They can be financial and nonfinancial companies. <i>Our affiliates may include companies with the Stewart name; financial companies, such as Stewart Title Company</i>	Yes	No
For our affiliates' everyday business purposes- information about your creditworthiness	No	We don't share
For our affiliates to market you	Yes	No
For nonaffiliates to market to you- Nonaffiliates are companies not related by common ownership or control. They can be financial and nonfinancial companies.	No	We don't share

We may disclose your personal information to our affiliates or to nonaffiliates as permitted by law. If you request a transaction with a nonaffiliate, such as a third party insurance company, we will disclose your personal information to that nonaffiliate. [We do not control their subsequent use of information, and suggest you refer to their privacy notices.]

How often do the Stewart Title Companies notify me about their practices?	We must notify you about our sharing practices when you request a transaction.
How do the Stewart Title Companies protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal and state law. These measures include computer, file, and building safeguards.
How do the Stewart Title Companies collect my personal information?	<p>We collect your personal information, for example, when</p> <ul style="list-style-type: none"> • request insurance-related services • provide such information to us <p>We also collect your personal information from others, such as the real estate agent or lender involved in your transaction, credit reporting agencies, affiliates or other companies.</p>
What sharing can I limit?	Although federal and state law give you the right to limit sharing (e.g., opt out) in certain instances, we do not share your personal information in those instances.

If you have any questions about this privacy notice, please contact us at: Stewart Title Guaranty, 1980 Post Oak Blvd., Privacy Officer, Houston, Texas 77056.

ENDORSEMENT
ATTACHED TO AND MADE A PART OF POLICY NUMBER O-9301-2653451
ISSUED BY

STEWART TITLE
GUARANTY COMPANY
HEREIN CALLED THE COMPANY

Order Number: 1040365

Charge: \$156.25

1. Schedule A of the above policy is hereby amended in the following particulars:

The effective Date of Policy is hereby extended to September 17, 2013

2. Schedule B of the above commitment is hereby amended in the following particulars:

The following numbered exceptions are hereby deleted: 2

The following exceptions are hereby added:

Taxes for the fiscal year 2013 - 2014 have been paid in full, in the amount of \$987.75.
APN: 005-400-008

Notice Of Remedial Action Given By Mountain City Remediation, LLC, recorded July 2, 2013, as Document No. 674280, Official Records of Elko County, Nevada.

This endorsement is made a part of the policy and is subject to all of the terms and provisions thereof and of any prior endorsements thereto. Except to the extent expressly stated, it neither modifies any of the terms and provisions of the policy and any prior endorsements, nor does it extend the effective date of the policy and any prior endorsements, nor does it increase the face amount thereof.

Dated: 9/17/2013

Signed under seal for the Company, but this endorsement is to be valid only when it bears an authorized countersignature.

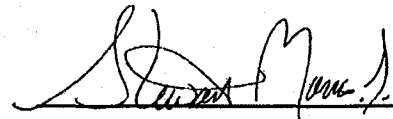
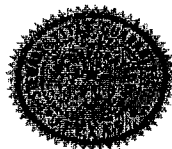
Countersigned by:



Authorized Countersignature

Stewart Title Company-Northeastern Division

stewart
title guaranty company



Senior Chairman of the Board



Chairman of the Board



President

ATTACHMENT 3
SITE INTERVIEWS

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INTERVIEW DOCUMENTATION FORM

The following is a list of individuals interviewed for this Five-Year Review. See the following contact records for a detailed summary of the interviews.

Name	Title/Position	Organization	Date
Tyree Lee	Water Quality Coordinator	Shoshone-Paiute Tribes	April 25, 2022
Dennis Bieroth	Resident	Public	April 8, 2022
Butch Durrett	Resident	Public	April 20, 2022
Charlene Chambers	Resident	Public	April 20, 2022
Voda Koberstein	Resident	Public	April 20, 2022

Interview Record

SITE IDENTIFICATION			
Site Name: Rio Tinto Copper Mine, Elko County, Nevada		EPA ID: NV3141190030	
Subject: Five Year Review Interview		Time: 1700	Date: April 25, 2022
Type:	Telephone	Visit	<input checked="" type="checkbox"/> Email
Other			
Location of Visit: NA			
CONTACT MADE BY:			
Name: Ray Seamons	Title: Project Manager		Tetra Tech EC, Inc.
INDIVIDUAL CONTACTED:			
Name: TyRee Lee	Title: Water Quality Coordinator		Organization: Shoshone-Paiute Tribes
Telephone: 775-385-3032	Address: PO Box 219		
Fax: NA	City: Owyhee	State: NV	Zip: 89832
E-mail address: tyree.lee@shopai.org			

SUMMARY OF INTERVIEW

1. What is your overall impression of the project?

My overall impression of the project is its successful and necessary. Since coming aboard in 2018, Tetra Tech & outfits involved have since made learning of the project and implementing remediation practices enjoyable and at the least, very interesting. I look forward to continuing split sampling events with tetra Tech. The Shoshone-Paiute Tribes TEPP Department plans on continuing sampling events under the CWA106 grant.

2. What effects have site operations had on the surrounding community?

Effects of Rio Tinto remediation on the community improved the waters of the states and reservation by testing and sampling of water and soil. Also, by visual monitoring of the remediation of the tailings and leaching operations.

3. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

Community concerns of operation are still a concern due to lack of communication of remedial efforts and progress reports.

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

No known vandalism or trespassing at the site.

5. Do you feel well informed about the site's activities and progress?

The Tribal Environmental Protection Program is aware of the water quality downstream of the site and knows which closeout phase is being conducted.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations?

Report of the progress and phases of the project at site, before and after pictures and graphs. Report in layman terms would be great.

Interview Record

SITE IDENTIFICATION			
Site Name: Rio Tinto Copper Mine, Elko County, Nevada		EPA ID: NV3141190030	
Subject: Five Year Review Interview		Time: 1700	Date: April 25, 2022
Type:	Telephone	<input checked="" type="checkbox"/> Visit	Email Other
Location of Visit: Mountain City, NV			
CONTACT MADE BY:			
Name: Jasmine Koberstein	Title: Operator	Tetra Tech EC, Inc.	
INDIVIDUAL CONTACTED:			
Name: Dennis Bieroth	Title: Resident	Organization: Public	
Telephone: NA	Address: NA		
Fax: NA	City: Mountain City	State: NV	Zip: 89831

SUMMARY OF INTERVIEW

1. What is your overall impression of the project?

As long as my cows don't go through the fences it's fine

2. What effects have site operations had on the surrounding community?

None known

3. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

No.

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

We have seen some vandalism where gate locks and fence gets cut.

5. Do you feel well informed about the site's activities and progress?

I am able to ask Rodney or Jasmine when I have questions.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations?

Make sure the fences are good and that my cattle have access to get into and out of water.

Interview Record

SITE IDENTIFICATION			
Site Name: Rio Tinto Copper Mine, Elko County, Nevada		EPA ID: NV3141190030	
Subject: Five Year Review Interview		Time: 1700	Date: April 25, 2022
Type:	Telephone	<input checked="" type="checkbox"/> Visit	Email Other
Location of Visit: Mountain City, NV			
CONTACT MADE BY:			
Name: Jasmine Koberstein	Title: Operator	Tetra Tech EC, Inc.	
INDIVIDUAL CONTACTED:			
Name: Butch Purrett	Title: Resident	Organization: Public	
Telephone: NA	Address: NA		
Fax: NA	City: Mountain City	State: NV	Zip: 89831

SUMMARY OF INTERVIEW

1. What is your overall impression of the project?

Well done.

2. What effects have site operations had on the surrounding community?

Contributed lots of money.

3. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

No issues.

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Someone dumped barbed wire on site and never cleaned it up.

5. Do you feel well informed about the site's activities and progress?

(not answered)

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations?

Keep the road passable.

Interview Record

SITE IDENTIFICATION			
Site Name: Rio Tinto Copper Mine, Elko County, Nevada		EPA ID: NV3141190030	
Subject: Five Year Review Interview		Time: 1700	Date: April 25, 2022
Type:	Telephone	<input checked="" type="checkbox"/> Visit	Email Other
Location of Visit: Mountain City, NV			
CONTACT MADE BY:			
Name: Jasmine Koberstein	Title: Operator	Tetra Tech EC, Inc.	
INDIVIDUAL CONTACTED:			
Name: Charlene Chambers	Title: Resident	Organization: Public	
Telephone: NA	Address: NA		
Fax: NA	City: Mountain City	State: NV	Zip: 89831

SUMMARY OF INTERVIEW

1. What is your overall impression of the project?

Favorable.

2. What effects have site operations had on the surrounding community?

Big economic boost when they're here and working.

3. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

Community glad to have it done.

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

No.

5. Do you feel well informed about the site's activities and progress?

Yes, when they were here, they kept us well-informed. They had public meetings we haven't heard much since but that's okay because there's not much going on.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations?

Keep up the good work!

Interview Record

SITE IDENTIFICATION			
Site Name: Rio Tinto Copper Mine, Elko County, Nevada		EPA ID: NV3141190030	
Subject: Five Year Review Interview		Time: 1700	Date: April 25, 2022
Type:	Telephone	<input checked="" type="checkbox"/> Visit	Email Other
Location of Visit: Mountain City, NV			
CONTACT MADE BY:			
Name: Jasmine Koberstein	Title: Operator	Tetra Tech EC, Inc.	
INDIVIDUAL CONTACTED:			
Name: Voda Koberstein	Title: Resident	Organization: Public	
Telephone: NA	Address: NA		
Fax: NA	City: Mountain City	State: NV	Zip: 89831

SUMMARY OF INTERVIEW

1. What is your overall impression of the project?

It was much needed and has been very well done.

2. What effects have site operations had on the surrounding community?

Restored faith in toxic water rehabilitation.

3. Are you aware of any community concerns regarding the site or its operation and administration? If so, please give details.

No.

4. Are you aware of any events, incidents, or activities at the site such as vandalism, trespassing, or emergency responses from local authorities? If so, please give details.

Someone tore down the "Long-term Remediation" sign at the bottom of the hill.

5. Do you feel well informed about the site's activities and progress?

Moderately informed. There is no public forum for that. I know because of Rodney.

6. Do you have any comments, suggestions, or recommendations regarding the site's management or operations?

No if its working, I think it's great!

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ATTACHMENT 4
PUBLIC NOTICE OF SECOND FIVE-YEAR REVIEW

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Public Notice of Second Five-Year Review

The Nevada Division of Environmental Protection (NDEP) announces the Second Five-Year Review for the Rio Tinto Mine Site (RTMS)

The Nevada Division of Environmental Protection (NDEP) announces publication of the Second Five-Year Review for the Rio Tinto Mine Site (RTMS). The RTMS is not on the National Priorities List (NPL) but is being addressed under CERCLA, also known as Superfund, under United States Environmental Protection Agency (USEPA) Superfund Alternative Site Guidance. The NDEP is the lead agency for the implementation of the selected remedy as presented in the Record of Decision (ROD) signed February 2012.

The historic RTMS was identified as a source of contaminants – acidic, metal-rich waters – to Mill Creek, which is a tributary of the Owyhee River. The metals were released to the surface water from historic mine-related materials deposited on the site during mining and mineral processing activities.

The selected remedy addresses human health and environmental risks by minimizing potential exposures to low-pH, metal-bearing surface water at the RTMS and downstream receiving waters through removal of mine-related material from impoundments in upper Mill Creek Valley to a new repository at the site.

Construction of the selected remedy was conducted between 2012 and 2016. The Certification of Completion of Remedy Construction was attained on June 7, 2017, which marked the beginning of the operations and maintenance (O&M) phase of this project, consisting of surface water compliance monitoring, site inspections, and as-needed maintenance activities.

Five-Year Review Process and Schedule

The Second Five-Year Review provides a progress report on cleanup activities at the Rio Tinto Mine Site since 2017. The document summarizes the following:

- RTMS background and historical use
- Details the Five-Year Review process
- Reviews current data and information
- Assesses on-going technical remedies and other protective measures
- Presents site inspection findings and interview findings
- Identifies issues and potential problems
- Provides recommendations and follow-up actions and schedule for implementation

The Second Five-Year Review Report was submitted to the NDEP, USEPA, and Mountain City Remediation Inc for review and comment. The comments were addressed and incorporated into the document. The final report document was signed on May 18, 2022.

Community Involvement

Another goal of the Five-Year Review is to invite members of the community to review and discuss cleanup plans and progress reports. The Five-Year Review and other documents related to the RTMS cleanup actions are available in the Information Repository at NDEP (contact information below).

FOR MORE INFORMATION

If you have questions, comments, and/or concerns about the Five-Year Review, you may contact the following:

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INFORMATION REPOSITORY

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