INDEX SHEET FOR MINE PERMIT AMENDMENTS OR REVISIONS

Page 1 of 1

Date 10-7-2011 **TFN** 46/628

MINE COMPANY NAME: Lost Creek ISR, LLC

MINE NAME: Lost Creek ISR Project

PERMIT NO.: NA

, an authorized representative of Lost Creek ISR, LLC declare that only the items listed on this and all Statement: I. Steven Hatten consecutively numbered Index Sheets are intended as revisions to the current permit document. In the event that other changes inadvertently

2) List all revision or change elements in sequence by volume number; number index sheets sequentially as needed.

| VOLUME NUMBER | PAGE, MAP OR OTHERPAGE, MAP OR OTHERPERMIT ENTRY TO BEPERMIT ENTRY TO BEREMOVEDADDED | | DESCRIPTION OF CHANGE |
|---------------------------------------|--|---|--|
| Vol. 1 of 5 Ops Plan & Rec Plan | N/A | Attachment ADJ - Other | "Attachment ADJ–Other" to immediately follow "Attachment ADJ-4". Includes aquifer reclassification approval letter from US EPA Region 8 and Figure II-1, Proposed HJ Aquifer Exemption for Lost Creek. |
| Vol. 5 of 5 Ops Plan & Rec Plan | N/A | Surety Estimate Assumptions, Construction Schedule 2011-12 Table RP-4 Supplement (p 1-37) Table RP-5 Supplement (p 1-11) | Insert all after Table RP-3 and before Table RP-4 in Reclamation Plan, Tab "Tables RP". |

Index Sheet for LQD Permitting Changes Updates: SF²/RV 7/95; RC 9/99; RC 09/00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8 1595 Wynkoop Street DENVER, CO 80202-1129 Phone 800-227-8917 http://www.epa.gov/region08

AUG 2 3 2011

Ref: 8P-W-GW

Mr. Kevin Frederick Wyoming Department of Environmental Quality Water Quality Division 122 West 25th Street Cheyenne, Wyoming 82002

> Re: Lost Creek ISR, LLC Project HJ Horizon Aquifer Exemption Sweetwater County, Wyoming

Dear Mr. Frederick:

Based on a review of the revised application and additional supporting information provided by Lost Creek ISR, LLC and the Wyoming Department of Environmental Quality, the U.S. Environmental Protection Agency, Region 8 has no objection with the WDEQ's proposed reclassification of a portion of the HJ Formation of the Battle Spring Formation as Class V (Mineral Commercial) Groundwater of the State, pursuant to Wyoming Water Quality Rules and Regulations Chapter 8.

This proposed groundwater reclassification is consistent with aquifer exemption criteria established at 40 CFR §146.4. This response on reclassification of the referenced portion of the HJ Formation of the Battle Spring Formation, and the EPA approval of that area as an exempted aquifer, will be considered a final non-substantial revision of the WDEQ Underground Injection Control Program pursuant to 40 CFR §144.7(b)(3), §145.32 and Ground Water Protection Branch Guidance 34.

BACKGROUND

In conjunction with a Class III UIC in-situ recovery (ISR) uranium mining permit, an aquifer exemption is required to inject into and mine the HJ Formation of the Battle Spring Formation because this aquifer meets the definition of an Underground Source of Drinking Water. The HJ Formation of the Battle Spring Formation produces sufficient quantity of ground water to supply a public water system and the total dissolved solids ranges from 236 to 706 mg/L.

The HJ Formation of the Battle Spring Formation contains uranium mineralization and is the production zone in the Lost Creek ISR Project. Currently, there are no known domestic drinking water wells completed into the proposed exemption area of the HJ Formation of the Battle Spring Formation.

Based on a review of the information provided, the EPA concurs with the WDEQ's conclusions concerning the aquifer exemption criteria listed below:

- it does not currently serve as a source of drinking water, and
- it is mineral producing and can be demonstrated to contain minerals that considering their quantity and location are expected to be commercially producible.

DESCRIPTION OF THE EXEMPTED AQUIFER

The depth and extent of the aquifer reclassification/exemption is as follows:

HJ Formation of the Battle Spring Formation with average thickness of 120 feet, located approximately 285 to 650 feet below ground surface (elevation range is greater than 120 feet because of displacement caused by Lost Creek fault), and horizontally described by the monitor well ring plus an additional 120 feet beyond the monitor well ring as shown in the July 29, 2011, Figure II-1 which was received by the EPA on August 17, 2011.

Please contact Wendy Cheung of my staff at (303)312-6242, with questions or concerns regarding this matter.

Sincerely,

Ar

Stephen S. Tuber Assistance Regional Administrator Office of Partnerships and Regulatory Assistance

cc:

Nancy Nuttbrock, WDEQ Bob Smith, OGWDW



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| | UpEnergy |
| emption Boundary HJ (proposed) ization | Figure II-1 Proposed HJ Aquifer Exemption |
| Locations | Lost Creek Project |
| 0 500 1,000 feet | Sweetwater County, Wyorning |
| feet | July 29, 2011 |

Lost Creek Project, Surety Estimate Assumptions in Conjunction With

The Surety Estimate in Tables RP-4 Supplement and RP-5 Supplement

The following Tables RP-4 Supplement and RP-5 Supplement are intended to supplement the Surety Estimate provided in Tables RP-4 and RP-5. The original Surety Estimate (\$6.2 million, November 2010) assumed concurrent receipt of the WDEQ Permit to Mine, The NRC Source Material License and the BLM Plan of Operations. The original Estimate allowed for installation of the Plant, construction of half of Mine Unit 1 as well as operation of the same all during a one year period. The Supplemental Surety Estimate is based on receipt of the NRC Source Material License on August 17, 2011, the WDEQ Permit to Mine on October 15, 2011 and the BLM Plan of Operations prior to July 16, 2012. The supplemental basis allows for only 3 months of construction and no production operations as detailed in the attached Figure "Surety Estimate Schedule". Therefore, the resultant Supplemental Surety Estimate is \$1.75 million. The assumptions used in generating this Supplemental Surety Estimate are as follows:

- WDEQ Permit to Mine Receipt October 15, 2011
- WDEQ Surety Estimate Timeframe October 15, 2011 through October 14, 2012
- Lost Creek Start of Construction July 16, 2012 (following Sage Grouse restrictions)
- Existing Reclamation Requirements as of Permit to Mine Receipt (to be removed from DN-334):
 - 188 Monitor / Water Wells: See Table RP-4 Supplement, Worksheet 5, "Site Wells"
 - 1 Waste Disposal Well: See Table RP-4 Supplement, Worksheet 1, "Restoration Capital Requirements"
 - Reclamation on 41 Well and Drill Hole Sites: See Table RP-4 Supplement, Worksheet 7, "Other"
 - Revegetation Retainer for Existing Drill Sites: 990 drill sites (between 2005 and 2010) less the 90 drill sites under the patterns to be installed between July 16, 2012 and October 14, 2012 = 900 drill sites. Table RP-4 Supplement, Worksheet 7, "Section III Wellfields" accounts for the 90 holes within the 9 acres allotted for revegetation. See Table RP-4 Supplement, Worksheet 8, "Revegetation Retainer for Prior Year's Drilling"
 - See Table RP-4 Supplement, Worksheet 8, "Revegetation Retainer for Prior Year's Drilling"
 - Reclamation on Drill Access Roads, Office Trailer Site, Met Station and Microwave Tower: See Table RP-4 Supplement, Worksheet 7, "Other"
- Anticipated Construction Activities (July 16, 2012 through October 14, 2012):
 - o Site Access Roads
 - Powerline to Plant and Mine Unit 1
 - Waste Disposal Wells 1 and 2
 - Trunklines from Plant to Mine Unit 1

- o Drill Shed
- o Plant Area
 - Segregate topsoil and grade
 - Install Storage Ponds 1 and 2
 - Install Fence
 - Pour Concrete Foundation
 - Set Tanks and Pressure Vessels
 - Install Structural Steel and Building Outer Shell
- o Shop
 - Pour Concrete Foundation
 - Install Structural Steel and Building Outer Shell
- o Mine Unit 1
 - Drill 25 Delineation Holes
 - Install 177 Wells
 - Install 1 Header House Building and Begin Piping to Wells
- o Other Mining Areas
 - No additional drilling planned outside of Mine Unit 1 during the period in question.

| | | Co | nstruction Sc | hedule for H | | | reek Project per 2011 to C | | 2012 | | | | | | | | |
|----------|--|----------|---------------|--|----------|---------------------------------|-------------------------------|----------|--------------------|-------------------------------------|------------------|----------|--|---------------------------|---|-----------------------------------|-------|
| D | Task Name | Duration | Start | Finish | 7/15 | 7/22 | August 7/29 8/5 | 8/12 | 8/19 | 8/26 | September 9/2 | 9/9 | 9/16 | 9/23 | October 9/30 | 10/7 | 10/1 |
| | LC WDEQ Bond Timeline Oct 11 to Oct 12 | 106 days | Mon 7/16/12 | Thu 12/13/12 | | 1122 | | 0/12 | 0/19 | 0/20 | 9/2 | 9/9 | 9/10 | 9/23 | 9/30 | 10/7 | 10/14 |
| 2 | Access Road | 61 days | Мол 7/16/12 | Tue 10/9/12 | G | | | | | a na shi an an an an an an an an an | | | | intra jaandama kanagadang | al V in a prior of the a bound a boundary | | |
| 3 | Survey | 5 days | Mon 7/16/12 | Fri 7/20/12 | | | : | | | . : | | | | | : | | |
| 5 | Phase 1 | 56 days | Mon 7/23/12 | Tue 10/9/12 | | | | | | | | | | | - | | |
| 9 | Site - Phase 1 | 33 days | Wed 7/25/12 | Mon 9/10/12 | | T | | | | ÷ | | | | | | | |
| 0 | Survey | 2 days | Wed 7/25/12 | Thu 7/26/12 | | | : | | | ÷ | | | | | ; | | |
| 12 | Grading | 5 days | Fri 7/27/12 | Thu 8/2/12 | | | | | | ; | | | | | | | |
| 15 | Utilities | 5 days | Fri 8/3/12 | Thu 8/9/12 | | | | | | . : | | | | | ; | | |
| 18 | Storage Ponds | 28 days | Frl 7/27/12 | Wed 9/5/12 | | | | a | | | | | | | ; | | |
| 19 | Survey | 2 days | Frl 7/27/12 | Mon 7/30/12 | 1 | <u> </u> | \$. | | | - | | | | | 3 | | |
| 21 | Storage Pond 1 | 16 days | Tue 7/31/12 | Tue 8/21/12 | 1 | - | | | | : | | | | | 5 | | |
| 22 | Grading | 16 days | Tue 7/31/12 | Tue 8/21/12 | | | <u> </u> | | | : | | | | | : | | |
| 25 | Liner System | 10 days | Tue 8/7/12 | Mon 8/20/12 | | | | | | : | | | | | : | | |
| 27 | Storage Pond 2 | 21 days | Tue 8/7/12 | Wed 9/5/12 | | | - | | | 1 | | | | | | | |
| 28 | Grading | 21 days | Tue 8/7/12 | Wed 9/5/12 | | | | | | | - | | | | 1 | | |
| 31 | Liner System | 10 days | Tue 8/21/12 | Tue 9/4/12 | | | | | Contraction of the | | - | | | | | | |
| 33 | Fencina | 29 days | Tue 7/31/12 | Mon 9/10/12 | | | | | | | | | | | | | |
| 37 | Process Building | 101 days | Mon 7/23/12 | Thu 12/13/12 | 1 | upped and the random water to a | V. | | | : | | - | | | | | |
| 38 | Foundations | 39 days | Mon 7/23/12 | Fri 9/14/12 | | | | | | : | | | | | ÷. | | |
| 52 | Liner System | 23 days | Tue 8/7/12 | Frl 9/7/12 | -1 | • | | | | أي عد عد | X H ¹ | • | | | | | |
| 55 | Slab On Grade | 10 days | Mon 9/10/12 | Fri 9/21/12 | 1 | | • | | | | • | (0) | the second state in the second state is a second state in the second state is a second state in the second state is a se | | | | |
| 61 61 | Pre-Engineered Building - Process | 60 days | Wed 9/19/12 | Thu 12/13/12 | { | | : | | | 1 | | • | and the second second | | - | | |
| 32 | Structural Steel | 36 days | Wed 9/19/12 | Wed 11/7/12 | 1 | | : | | | : | | | | | | | |
| 37 | Masonry | 5 days | Thu 10/25/12 | Wed 10/31/12 | 4 | | | | | : | | | • | | ; | | |
| 39 | Process Equipment | 60 days | Wed 9/19/12 | Thu 12/13/12 | | | | | | - | | | | | | | |
| 10 | Structural Steel | 8 days | Wed 10/10/12 | Fri 10/19/12 | | | | | | | | | ~ | | : | | |
| 73 | Piping | 35 days | Wed 10/10/12 | Thu 11/29/12 | | | | | | | | | | | | | |
| 15 | Mechanical | 30 days | Wed 9/19/12 | Tue 10/30/12 | 1 | | : | | | 1 | | | | | 1. | | |
| 78 | Electrical | 45 days | Wed 10/10/12 | Thu 12/13/12 | 1 | | | | | ; | | | | | ; | No. | |
| 80 | Shop Building | 31 days | Mon 9/24/12 | Mon 11/5/12 | | | | | | • | | | | | 1 | | |
| | Foundations | 16 days | Mon 9/24/12 | Mon 10/15/12 | 1 | | | | | | | | | ~ | : | | - |
| 81 89 | Slab On Grade | | Tue 10/16/12 | Thu 10/18/12 | 1 | | | | | - | | | | ~ | | | |
| | | 3 days | Fri 10/19/12 | Mon 11/5/12 | 1 | | • | | | | | | | | : ' | | |
| 2 | Pre-Engineered Building - Shop | 12 days | | the second second second second second | - 1 | | : | | | * | | | | | | | |
| 3 | Structural Steel | 12 days | Fri 10/19/12 | Mon 11/5/12 | -1 | | | | | | | | | | | | |
| 97 | Field Activities | 86 days | Mon 7/16/12 | Tue 11/13/12 | | | | | | : | | | | | | | |
| 38 | Waste Disposal Wells | 67 days | Mon 7/16/12 | Wed 10/17/12 Fri 8/10/12 | { • | | | | | | | | | | : | | |
| 99 | WDW-1 | 20 days | Mon 7/16/12 | | | | | , | | | | | | | | | |
| 11 | WDW-2 | 67 days | Mon 7/16/12 | Wed 10/17/12 | 1. | | | | | | | | | | : | | |
| 30 | Powerline | 45 days | Mon 7/16/12 | Mon 9/17/12 | | | | | | 1 | | | | | : | | |
| 38 | Pipeline | 70 days | Mon 7/16/12 | Mon 10/22/12 | | | | | | | | | | | : ' | | |
| 46 | Drilling Shed | 17 days | Mon 7/16/12 | Tue 8/7/12 | 1. | | | | | | | | | | | | |
| 52 | Drilling | 86 days | Mon 7/16/12 | Tue 11/13/12 | | | | | | | | | | | | | |
| 53 | Mine Unit 1 | 86 days | Mon 7/16/12 | Tue 11/13/12 | | | | | | | | | | | 1 | | |
| 54 | Delineation | 34 days | Mon 7/16/12 | Thu 8/30/12 | | | | | | | | | | | : ; | | |
| 59 | Production Drilling | 86 days | Mon 7/16/12 | Tue 11/13/12 | | | | | | | | | | | : | | |
| 60 | Header House 1-2 | 71 days | Mon 7/16/12 | Tue 10/23/12 | | | | _ | | | | | | | | | |
| 68 | Header House 1-3 | 63 days | Tue 8/14/12 | Fri 11/9/12 | 1 | | | W | | | | | | | | | |
| 74 | Header House 1-1 | 43 days | Thu 9/13/12 | Mon 11/12/12 | 1 | | • | | | : | | V | | | : | 1 N (1) - N (1) N (1) N (1) N (1) | |
| 79 | Header House 1-4 | 23 days | Fri 10/12/12 | Tue 11/13/12 | -1 | | : | | | : | | | | | : | - | |
| 83 | Production Construction | 7 days | Tue 10/23/12 | Wed 10/31/12 | 2 | | : | | | r 1 | | | | | : | | |
| 84 | Header House 1-2 | 7 days | Tue 10/23/12 | Wed 10/31/12 | 2 | | : | | | : | | | | | : | | |

| LOST CREEK ISR, LLC SUMMARY OF RECLAMATION/RESTORATI | ON BOND ESTIMATE |
|--|---------------------------------|
| | |
| I GROUNDWATER RESTORATION - Worksheet 1 | \$388,580 |
| II DECOMMISSIONING AND SURFACE RECLAMATION | \$966,364 |
| A. Plant Equipment Removal and Disposal - Worksheet 2 | \$10,169 |
| B. Plant Building Demolition and Disposal - Worksheet 3 | \$527,913 |
| C. Storage Pond Sludge and Liner Handling - Worksheet 4 | \$26,418 |
| D. Well Abandonment - Worksheet 5 | \$229,840 |
| E. Wellfield Equipment Removal and Disposal - Worksheet 6 | \$28,921 |
| F. Topsoil Replacement and Revegetation - Worksheet 7 | \$80,692 |
| | \$62,412 |
| G. Miscellaneous Reclamation Activities - Worksheet 8 SUBTOTAL RESTORATION AND RECLAMATION | \$1,354,944 |
| | |
| SUBTOTAL RESTORATION AND RECLAMATION | \$1,354,944 |
| SUBTOTAL RESTORATION AND RECLAMATION | \$1,354,944 \$392,934 |
| SUBTOTAL RESTORATION AND RECLAMATION III TOTAL CONTINGENCY Miscellaneous Items (Footnote 1.) 25% | \$1,354,944 \$392,934 |
| SUBTOTAL RESTORATION AND RECLAMATION III TOTAL CONTINGENCY Miscellaneous Items (Footnote 1)) 25% Project Design | \$1,354,944 \$392,934 |
| SUBTOTAL RESTORATION AND RECLAMATION III TOTAL CONTINGENCY Miscellaneous Items (Footnote 1) Project Design Contractor Profit & Mobilization | \$1,354,944 \$392,934 |
| SUBTOTAL RESTORATION AND RECLAMATION III TOTAL CONTINGENCY Miscellaneous Items (Footnote 1) 25% Project Design Contractor Profit & Mobilization Pre-Construction Investigation Project Management On-Site Monitoring | \$1,354,944 \$392,934 |
| SUBTOTAL RESTORATION AND RECLAMATION III TOTAL CONTINGENCY Miscellaneous Items (Footnote 1) 25% Project Design Contractor Profit & Mobilization Pre-Construction Investigation Project Management On-Site Monitoring Site Security & Liability Assurance | \$1,354,944 \$392,934 |
| SUBTOTAL RESTORATION AND RECLAMATION III TOTAL CONTINGENCY Miscellaneous Items (Footnote 1) 25% Project Design Contractor Profit & Mobilization Pre-Construction Investigation Project Management On-Site Monitoring | \$1,354,944 \$392,934 |

Footnote 1: In accordance with WDEQ-LQD Guideline 12, Section II, B, 12. Footnote 2: In accordance with WDEQ-LQD Guideline 12, Section II, B, 13.

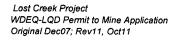


 Table RP-4 Supplement
 Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 2 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| sumptions/items | Mine Unit No. 1 | Explanation | Source |
|--------------------------------------|--------------------|--|--|
| chnical Assumptions: | | | |
| Wellfield Area (Square Feet) | 442,489 | Proposed area | Data |
| Wellfield Area (Acres) | . 10.16 | | Calculated |
| Affected Ore Zone Area (Square Feet) | 442,489 | Proposed area affected | Data |
| Average Completed Thickness (Feet) | 12.0 | Proposed thickness | Data |
| Affected Volume: | | | ······································ |
| Factor For Vertical Flare | 20% | Vertical flare estimate | Estimated |
| Factor For Horizontal Flare | 20% | Horizontal flare estimate | Estimated |
| Total Volume (Cubic Feet) | 7,646,210 | = Area * Thickness * Vertical flare * Horizontal flare | Calculated |
| Porosity | 26.0% | Typical value for host sand | Data |
| Gallons Per Cubic Foot | 7.48 | Conversion factor | Constant |
| Gallons Per Pore Volume | 14,870,349 | = Volume * Porosity * gal/ft ³ | Calculated |
| Number of Wells in Unit(s) | | | |
| Production Wells | 59 | Proposed well count | Data |
| Injection Wells | 118 | Proposed well count | Data |
| Average Well Spacing (Feet) | 95 | Proposed well spacing | Data . |
| Average Well Depth (Feet) | 425 | Proposed well depth | Data |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 3 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

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| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
|--|--------------------|--|-------------------|
| I GROUNDWATER SWEEP | | | |
| A. PLANT & OFFICE | | | |
| Operating Assumptions: | | | |
| Flow Rate (Gallons per Minute) | 120 | Planned flow | Data |
| Pore Volumes Required | 0.0 | No Restoration Required | Data |
| Total Gallons For Treatment | 0 | = Galions per Pore Volume * Number of Pore Volumes | Calculated |
| Total Kilogallons for Treatment | 0 | Not Applicable, No restoration required | Calculated |
| Cost Assumptions: | | | |
| Power | | | |
| Average Connected Horsepower | 20 | Proposed pump horsepower | Data |
| Kilowatt-hours per Horsepower | 0.746 | | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 120 | Planned rate | Data |
| Gallons per Hour | 7200 | | Calculated |
| Cost per Hour | \$0.90 | | Calculated |
| Cost per Gallon | \$0.00012 | | Calculated |
| Cost per Kilogallon | \$0.124 | | Calculated |
| Chemicals | | | |
| Antiscalent (Cost per Kilogallon) | \$0.120 | Based on required dosage/estimated cost | Unit Rate |
| Repair & Maintenance (Cost per Kilogallon) | \$0.035 | Estimate | Unit Rate |
| Analysis (Cost per Kilogallon) | \$1.782 | From Table RP-5 | Unit Rate |



LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
|---------------------------------|--------------------|---|--------------|
| 1 GROUNDWATER SWEEP (continued) | | | |
| A. PLANT & OFFICE (continued) | | | · · · · · |
| Total Cost per Kilogallon | \$2.061 | | Calculated |
| Total Treatment Cost | \$0 | | Calculated |
| Utilities | | | |
| Power (Cost per Month) | \$225 | Estimate | Unit Rate . |
| Propane (Cost per Month) | \$225 | Estimate | Unit Rate |
| Time for Treatment | | | |
| Minutes for Treatment | 0 | =Total Gallons for Treatment Divided by Flow Rate (gpm) | Calculated · |
| Hours for Treatment | 0 | | Calculated |
| Days for Treatment | C | | Calculated |
| Average Days per Month | 30.4 | | Calculated |
| Months for Treatment | 0.0 | | Calculated |
| Utilities Cost | \$0 | | Calculated |
| TOTAL PLANT & OFFICE COST | \$0 | Not Applicable, No restoration required | • |

Lost Creek Project WDEQ-LQD Permit to Mine Application Original Dec07; Rev11, Oct11

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LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
|--|--------------------|---|-------------------|
| I GROUNDWATER SWEEP (continued) | | | |
| B. WELLFIELD | | | |
| Cost Assumptions: | | <u> </u> | |
| Power | | | |
| Average Flow per Pump (Gallons per Minute | 32 | Estimate from pumping | Data |
| Average Horsepower per Pump | | Estimate from pumping | Data |
| Average Number of Pumps Required | 3.8 | Estimate from pumping | Data |
| Average Connected Horsepower | 33,1 | Pumps plus 5 horsepower for HH | Data |
| Kilowatt-hours per Horsepower | 0.746 | | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 120 | Planned flow | Data |
| Gallons per Hour | 7200 | | Calculated |
| Cost per Hour | \$1.48 | | Calculated |
| Cost per Gallon | \$0.0002 | | Calculated |
| Cost per Kilogallon | 0.206 | · · · · · · · · · · · · · · · · · · · | Calculated |
| Repair & Maintenance (Cost per Kilogallon) | \$0.115 | Estimate | Unit Rate |
| Total Cost per Kilogallon | \$0.321 | | Calculated |
| TOTAL WELLFIELD COST | \$0 | Not Applicable, No restoration required | Calculated |
| TOTAL GROUNDWATER SWEEP COST | \$0 | Not Applicable, No restoration required | Calculated |



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 Table RP-4 Supplement
 Reclamation/Restoration Bond Estimate, October 2011 - October 2012
 (Page 6 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| | | 1 | |
|---|--------------------|--|-------------------|
| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
| II REVERSE OSMOSIS | | | |
| A. PLANT & OFFICE | | | |
| Operating Assumptions: | | | |
| Flow Rate (Gallons per Minute) | 760 | Estimate from pumping | Data |
| Pore Volumes Required | 0.0 | Not Applicable, No Restoration at this Time | Data |
| Total Gallons for Treatment | 0 | = Gallons per Pore Volume * Number of Pore Volumes | Calculated |
| Total Kilogallons for Treatment | 0 | | Calculated |
| Feed to Reverse Osmosis Unit (Gallons per Minute) | 760 | Planned flow | Data |
| Permeate Flow (Gallons per Minute) | 570 | = Planned Flow * Average Reverse Osmosis Recovery | Calculated |
| Brine Flow (Gallons per Minute) | 190 | = Planned Flow - Permeate Flow | Calculated |
| Average Reverse Osmosis Recovery | 75.0% | Reverse Osmosis Design | Data : |
| Cost Assumptions: | | | |
| Power | | _ | |
| Average Connected Horsepower | | Average value for each area | Data |
| Kilowatt-hours per Horsepower | 0.746 | | Conversion Factor |
| Cost per Kilowatt-hour | | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 760 | Planned flow | Data |
| Gallons per Hour | 45600 | | Calculated |
| Cost per Hour | \$13.43 | | Calculated |
| Cost per Gallon | \$0.00029 | | Calculated |
| Cost per Kilogallon | \$0.294 | | Calculated |
| Chemicals | | | |
| Sulfuric Acid (Cost per Kilogallon) | | Estimate | Unit Rate |
| Caustic Soda (Cost per Kilogallon) | | Estimate | Unit Rate |
| Reductant (Cost per Kilogallon) | | Estimate | Unit Rate |
| Antiscalent (Cost per Kilogallon) | | Based on required dosage/estimated cost | Unit Rate |
| Repair & Maintenance (Cost per Kilogallon) | | Estimate | Unit Rate |
| Sampling & Analysis (Cost per Kilogallon) | \$0.474 | From Table RP-5 | Unit Rate |

 Table RP-4 Supplement
 Reclamation/Restoration Bond Estimate, October 2011 - October 2012
 (Page 7 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
|--------------------------------|--------------------|---|------------|
| II REVERSE OSMOSIS (continued) | | · · · · · · · · · · · · · · · · · · · | |
| A. PLANT & OFFICE (continued) | | | |
| Total Cost per Kilogallon | \$1.186 | | Calculated |
| Total Pumping Cost | \$0 | Not Applicable, No restoration required | Calculated |
| Utilities | | | |
| Power (Cost per Month) | \$560 | Estimate | Unit Rate |
| Propane (Cost per Month) | \$225 | Estimate | Unit Rate |
| Time for Treatment | | | |
| Minutes for Treatment | 0 | | Calculated |
| Hours for Treatment | 0 | | Calculated |
| Days for Treatment | 0 | | Calculated |
| Average Days per Month | 30.4 | | Calculated |
| Months for Treatment | 0.0 | | Calculated |
| Utilities Cost | \$0 | | Calculated |
| TOTAL PLANT & OFFICE COST | \$0 | Not Applicable, No restoration required | Calculated |



Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 8 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
|--|--------------------|---|-------------------|
| II REVERSE OSMOSIS (continued) | | | |
| B. WELLFIELD | <u> </u> | | |
| Cost Assumptions: | | | |
| Power | | | |
| Average Flow per Pump (Gallons per Minute | 32.00 | Average value for each area | Data |
| Average Horsepower per Pump | | Average value for each area | Data |
| Average Number of Pumps Required | 23.8 | Average value for each area | Data |
| Average Connected Horsepower | 188.1 | Pump horsepower plus 10 horsepower | Calculated |
| Kilowatt-hours per Horsepower | 0.746 | | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 760 | Planned flow | Data |
| Gallons per Hour | 45,600 | | Calculated |
| Cost per Hour | \$8.42 | | Calculated |
| Cost per Gallon | \$0.0002 | | Calculated |
| Cost per Kilogallon | \$0.185 | | Calculated |
| Repair & Maintenance (Cost per Kilogallon) | \$0.115 | Estimate | Unit Rate |
| Total Cost per Kilogallon | \$0.300 | | Calculated |
| TOTAL WELLFIELD COST | \$0 | | Calculated |
| TOTAL REVERSE OSMOSIS COST | \$0 | Not Applicable, No restoration required | Calculated |

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LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/items | Mine Unit No. 1 | Explanation | Source |
|--|--------------------|---|-------------------|
| III RECIRCULATION | | | |
| A. WELLFIELD | | · · · | |
| Cost Assumptions: | | | |
| Power | | ······································ | |
| Average Flow per Pump (Gallons per Minute | 32 | Estimate from pumping | Data |
| Average Horsepower per Pump | | Estimate from pumping | Data |
| Average Number of Pumps Required | 59.0 | Estimate from pumping | Data |
| Average Connected Horsepower | 447.5 | Pumps plus 5 horsepower for HH | Data |
| Kilowatt-hours per Horsepower | 0.746 | | Conversion Factor |
| Cost per Kilowatt-hour | 0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 1888 | Planned flow | Data |
| Gallons per Hour | 113280 | | Calculated |
| Cost per Hour | \$20.03 | | Calculated |
| Cost per Gallon | \$0.0002 | | Calculated |
| Cost per Kilogallon | 0.177 | | Calculated |
| Repair & Maintenance (Cost per Kilogallon) | \$0.115 | Estimate | Unit Rate |
| Analysis (Cost per Kilogallon) | \$0.000 | From Table RP-5 | Unit Rate |
| Total Cost per Kilogalion | \$0.292 | | Calculated |
| TOTAL WELLFIELD RECIRCULATION COST | \$0 | Not Applicable, No restoration required | Calculated |

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 | Explanation | Source |
|--|--------------------|---|-------------------|
| IV WASTE DISPOSAL WELL | | | • |
| Operating Assumptions: | | | |
| Annual Evaporation Capacity (Gallons) | 0 | | Data |
| Average Monthly Evaporation Capacity (Gallons) | 0 | | Calculated |
| Total Disposal Requirement | | | · · · · · · |
| RO Brine and GWS (Total Gallons) | 0 | =Treatment Gallons * (1- Reverse Osmosis Recovery) + GWS | Calculated |
| RO Brine and GWS (Total Kilogalions) | 0 | | Calculated |
| Brine Concentration Factor | 50% | Reverse Osmosis Design | Data |
| Total Concentrated Brine (Gallons) | 0 | = Reverse Osmosis Brine Gallons * Brine Concentration Factor | Calculated |
| Months of RO and GWS Operation | 0.0 | | Calculated |
| Average Monthly Requirement (Gallons) | 0 | =Total Concentrated Brine / Months of Reverse Osmosis Operation | Calculated |
| Monthly Balance for DDW (Gallons) | 0 | =Average Monthly Requirement - Average Monthly Evaporation | Calculated |
| Total WDW Disposal (Gallons) | 0 | | Calculated |
| Total WDW Disposal (Kilogallons) | Ó | Not Applicable, No restoration required | Calculated |
| Cost Assumptions: | | | |
| Power | | | |
| Average Connected Horsepower | 100.0 | Estimate | Data |
| WDW Average Connected Horsepower | 300.0 | Estimate | Data |
| Kilowatt-hours per Horsepower | 0.746 | | Conversion Factor |
| Cost per Kilowatt-hour | \$0.060 | Estimate based on supplier | Unit Rate |
| Gallons per Minute | 115.0 | Planned flow | Data |
| Gallons per Hour | 6900 | | Calculated |
| Cost per Hour | \$17.90 | | Calculated |
| Cost per Gallon | \$0.0026 | | Calculated |
| Cost per Kilogallon | \$2.595 | | Calculated |

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

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| umptions/items | Mine Unit No. 1 | Explanation | Source |
|--|-----------------------|---|--|
| WASTE DISPOSAL WELL (continued) | | | |
| Chemicals | | | |
| Reverse Osmosis Antiscalent (Cost per Kilogallon) | \$0.225 | Based on required dosage and cost | Unit Rate |
| WDW Antiscalent (Cost per Kilogallon) | \$0.254 | Based on required dosage and cost | Unit Rate |
| Sulfuric Acid (Cost per Kilogallon) | \$0.315 | Estimate | Unit Rate |
| Corrosion Inhibitor | \$0.244 | Estimate | Unit Rate |
| Repair & Maintenance (Cost per Kilogallon) | \$0.130 | Estimate | Unit Rate |
| Total Cost per Kilogallon | \$3.762 | | Calculated |
| TOTAL WASTE DISPOSAL WELL COST | \$0 | Not Applicable, No restoration required | Calculated |
| Operating Assumptions: Time of Stabilization (Months) | 0 | Time frame required | Data |
| | | Required sampling | Data |
| Frequency of Analysis (Months) Total Sets of Analysis | | Required sampling | |
| | <u>`</u> | | Data |
| Cost Assumptions: | | • | Data |
| | \$1,125 | Estimate | Data Unit Rate |
| Cost Assumptions: Power (Cost per Month) Total Power Cost | \$1,125 \$0 | Estimate | |
| Power (Cost per Month) | \$0 | Estimate From Table RP-5 | Unit Rate |
| Power (Cost per Month) Total Power Cost | \$0 | | Unit Rate Calculated |
| Power (Cost per Month) Total Power Cost Sampling & Analysis (Cost per Set) | \$0 \$8,178 \$0 | From Table RP-5 | Unit Rate Calculated Unit Rate |
| Power (Cost per Month) Total Power Cost Sampling & Analysis (Cost per Set) Total Sampling & Analysis Cost | \$0 \$8,178 \$0 | From Table RP-5 From Table RP-5 | Unit Rate Calculated Unit Rate Calculated |

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Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 12 of 37)

LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Impt | ions/Items | | | | Mine Unit No. 1 | Explanation | Source | |
|------|------------|---------|-------|---------------------------------------|--------------------|-----------------------------|--------|---|
| .AB | OR | | | | | | | |
| Cost | t Assumpti | ons | | | | · · | | - |
| | | | | · · · · · · · · · · · · · · · · · · · | | | | |
| | Crew | Cost | | | | | | |
| | Numbers | per | Hours | Crew | Cost | | | |
| | Rumbers | Hour | | | | | | |
| | 1 | \$50.00 | 700 | Project Manager | \$35,000 | Anticipated operations crew | Data | |
| | 1 | \$40.00 | 0 | Supervisor/RSO | \$0 | na | Data | |
| | 1 | \$30.00 | 0 | EHS Tech | \$0 | na | Data | |
| | 1 | \$30.00 | 0 | Sampler | \$0 | na · | Data | |
| | 8 | \$30.00 | 0 | Plant and Field Operators | \$0 | na | Data | |
| | 1 | \$30.00 | 700 | Maintenance | \$21,000 | Anticipated operations crew | Data | |
| | 1 | \$30.00 | 700 | Office Support | \$21,000 | Anticipated operations crew | Data | - |
| | 1 | \$30.00 | 700 | Equipment Operator | \$21,000 | Anticipated operations crew | Data | |
| | 2 | \$30.00 | 700 | Reclamation Laborer | \$42,000 | Anticipated operations crew | Data | |
| | 1 | \$35.00 | 700 | Foreman | \$24,500 | Anticipated operations crew | Data | |
| : | 1 | \$40.00 | 0 | Lab Chemist | \$0 | na | Data | |
| | 2 | \$13.50 | 700 | Vehicles | \$18,900 | | Data | |
| OT | AL REST | RATION | LABO | RCOST | \$183,400 | | | |

| VII | RESTORATION CAPITAL REQUIREMENTS | | |
|-----|----------------------------------|---|------|
| | I Plug and Abandon DDW (2) | \$205,180 \$104,090 for well 1 and \$101,090 for well 2 | Data |
| : | TOTAL | \$205,180 | |



LOST CREEK ISR, LLC GROUNDWATER RESTORATION - WORKSHEET 1

| Assumptions/Items | Mine Unit No. 1 Explanation | Source |
|------------------------------------|--------------------------------|--------|
| SUMMARY: | | |
| I GROUNDWATER SWEEP | \$0 | |
| II REVERSE OSMOSIS | \$0 | |
| III RECIRCULATION | \$0 | |
| IV WASTE DISPOSAL WELL | \$0 | |
| V STABILIZATION | \$0 | |
| VI LABOR | \$183,400 | |
| VII CAPITAL | \$205,180 | |
| TOTAL GROUNDWATER RESTORATION COST | \$388,580 | |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 14 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: A. Plant Equipment Removal and Disposal - WORKSHEET 2

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| Volume per Truck Load (Cubic Yards) 20 20 20 20 20 Typical load for shipping | |
|---|--------------|
| Volume per Truck Load (Cubic Yards) 20 20 20 20 20 7pical load for shipping Number of Truck Loads 0.8 1.6 0.8 4.6 0.3 8.2 I DECONTAMINATION Image: Contamination Cost per Truck Load \$620 \$620 \$520 \$520 Estimated average decontaminate Percent Requiring Decontamination 0.0% 0.0% 0.0% 0.0% Percent Requiring Decontamination 0.0% 0.0% 0.0% Percent Requiring Decontaminate ID DISMANTLING & LOADING ID SIMANTLING & LOADING COST \$600 \$805 \$805 \$805 Estimated average dismantle cost ID OVERSIZE TOTAL DISMANTLING & LOADING COST \$600 \$10.0% 10.0% <t< th=""><th>Source</th></t<> | Source |
| Number of Truck Loads 0.8 1.6 0.8 4.6 0.3 8.2 I DECONTAMINATION Decontamination Cost per Truck Load \$620 \$620 \$620 Estimated average decontaminate Percent Requiring Decontamination 0.0% 0.0% 0.0% 0.0% Percent expected TOTAL DECONTAMINATION COST \$0 <td>Data</td> | Data |
| Number of Truck Loads 0.8 1.6 0.8 4.6 0.3 8.2 I DECONTAMINATION Decontamination Cost per Truck Load \$620 \$620 \$620 Fercent Requiring Decontamination 0.0% 0.0% 0.0% Percent Requiring Decontamination 0.0% 0.0% 0.0% 0.0% Percent Requiring Decontamination 0.0% 0.0% 0.0% 10.0% <td< td=""><td>Data</td></td<> | Data |
| Decontamination S620 S620 S620 S620 S620 Estimated average decontaminate Percent Requiring Decontamination 0.0% 0.0% 0.0% 0.0% 0.0% Percent expected ID TOAL DECONTAMINATION COST \$0 | Calculated |
| Decontamination S620 S620 S620 S620 S620 Estimated average decontaminate Percent Requiring Decontamination 0.0% 0.0% 0.0% 0.0% 0.0% Percent expected ID TOTAL DECONTAMINATION COST \$0 | |
| Percent Requiring Decontamination 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Percent expected TOTAL DECONTAMINATION COST \$0< | Unit Rate |
| TOTAL DECONTAMINATION COST \$0 <th< td=""><td>Data</td></th<> | Data |
| II DISMANTLING & LOADING Cost per Truck Load \$805 | Calculated |
| TOTAL DISMANTLING & LOADING COST \$620 \$1,290 \$676 \$3,735 \$242 \$6,562 III OVERSIZE Percent Requiring Permits 0.0% 100.0% 100.0% | Calcolated |
| III OVERSIZE Percent Requiring Permits 0.0% 10.0% 10.0% 10.0% Cost per Truck Load \$367 \$367 \$367 \$367 TOTAL OVERSIZE COST \$0 \$59 \$31 \$170 \$11 \$271 IV TRANSPORTATION & DISPOSAL \$0 \$00 \$00.0% 100.0% 100.0% Percent acceptable at landfill Percent to be Shipped 100.0% 100.0% 100.0% 100.0% Percent acceptable at landfill Distance (Miles) 48 48 48 48 Distance to landfill Cost per Mile \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$107 \$223 \$117 \$646 \$42 Disposal Fee per Cubic Yard \$13.50 \$13.50 \$13.50 \$13.50 \$13.50 Landfill fee Disposal Cost \$315 \$656 \$344 \$1,253 \$81 523 B. Licensed Site | Unit Rate |
| Percent Requiring Permits 0.0% 10.0% 10.0% 10.0% 10.0% Cost per Truck Load \$367 </td <td>Calculated</td> | Calculated |
| Cost per Truck Load \$367 \$367 \$367 \$367 \$367 TOTAL OVERSIZE COST \$0 \$59 \$31 \$170 \$11 \$271 IV TRANSPORTATION & DISPOSAL ************************************ | |
| TOTAL OVERSIZE COST \$0 \$59 \$31 \$170 \$11 \$271 IV TRANSPORTATION & DISPOSAL A. Landfill | Data |
| IV TRANSPORTATION & DISPOSAL A. Landfill Percent to be Shipped 100.0% 100.0% 100.0% 100.0% Percent acceptable at landfill Distance (Miles) 48 48 48 48 0 Distance to landfill Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 Current transport transport rate Disposal Fee per Cubic Yard \$13.50 \$13.50 \$13.50 \$13.50 Landfill fee Disposal Cost \$208 \$433 \$227 \$1,253 \$81 \$11 Total Cost \$315 \$656 \$344 \$1,898 \$123 \$11 B. Licensed Site ************************************ | Unit Rate |
| A. Landfill Percent to be Shipped 100.0% 100.0% 100.0% 100.0% Percent acceptable at landfill Distance (Miles) 48 48 48 48 0istance to landfill Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current transport ate Transportation Cost \$107 \$223 \$117 \$646 \$42 Disposal Fee per Cubic Yard \$13.50 \$13.50 \$13.50 \$13.50 Landfill fee Disposal Cost \$208 \$433 \$227 \$1,253 \$81 Total Cost \$208 \$433 \$227 \$1,253 \$81 B. Licensed Site \$315 \$656 \$344 \$1,898 \$123 Ost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current requiring disposal at licensed sit Distance (Miles) 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate <tr< td=""><td>Calculated</td></tr<> | Calculated |
| Percent to be Shipped 100.0% 100.0% 100.0% 100.0% 100.0% 100.0% Percent acceptable at landfill Distance (Miles) 48 48 48 48 48 48 0istance to landfill Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$107 \$223 \$117 \$646 \$42 | |
| Distance (Miles) 48 | |
| Cost per Mile \$2.90 | Data |
| Transportation Cost \$107 \$223 \$117 \$646 \$42 Disposal Fee per Cubic Yard \$13.50 \$13.50 \$13.50 \$13.50 \$13.50 \$13.50 Landfill fee Disposal Cost \$208 \$433 \$227 \$1,253 \$81 \$81 Total Cost \$315 \$656 \$344 \$1,898 \$123 \$656 B. Licensed Site \$105 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$0 \$0 \$0 \$0 \$0 \$0 \$0 Disposal Cost per Cubic Foot \$12.38 | Data |
| Disposal Fee per Cubic Yard \$13.50 \$13.50 \$13.50 \$13.50 \$13.50 \$13.50 Landfill fee Disposal Cost \$208 \$433 \$227 \$1,253 \$81 Image: state stat | Unit Rate |
| Disposal Cost \$208 \$433 \$227 \$1,253 \$81 Total Cost \$315 \$656 \$344 \$1,898 \$123 B. Licensed Site | Calculated |
| Total Cost \$315 \$656 \$344 \$1,898 \$123 B. Licensed Site Percent to be Shipped 0.0% 0.0% 0.0% 0.0% Percent requiring disposal at licensed sit Distance (Miles) 105 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$0 \$0 \$0 \$0 \$0 \$0 Disposal Cost per Cubic Foot \$12.38 \$12.38 \$12.38 \$12.38 Licensed site fee Volume per Truck Load (Cubic Yards) 20.0 20.0 20.0 20.0 Typical load for shipping Volume per Truck Load (Cubic Feet) 540 540 540 540 540 | Unit Rate |
| B. Licensed Site Percent to be Shipped 0.0% 0.0% 0.0% 0.0% Percent requiring disposal at licensed sit Distance (Miles) 105 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$0 \$0 \$0 \$0 \$0 Disposal Cost per Cubic Foot \$12.38 \$12.38 \$12.38 \$12.38 \$12.38 \$12.38 Licensed site fee Volume per Truck Load (Cubic Yards) 20.0 20.0 20.0 20.0 Typical load for shipping Volume per Truck Load (Cubic Feet) 540 540 540 540 540 | Calculated |
| Percent to be Shipped 0.0% 0.0% 0.0% 0.0% 0.0% Percent requiring disposal at licensed sit Distance (Miles) 105 105 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$0 \$0 \$0 \$0 \$0 Disposal Cost per Cubic Foot \$12.38 \$12.38 \$12.38 \$12.38 \$12.38 \$12.38 Licensed site fee Volume per Truck Load (Cubic Yards) 20.0 20.0 20.0 20.0 Typical load for shipping Volume per Truck Load (Cubic Feet) 540 540 540 540 540 | Calculated |
| Distance (Miles) 105 105 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$0 < | |
| Distance (Miles) 105 105 105 105 105 Distance to Shirley Basin Cost per Mile \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 \$2.90 Current transport rate Transportation Cost \$0 < | e Calculated |
| Transportation Cost \$0 \$0 \$0 \$0 \$0 Disposal Cost per Cubic Foot \$12.38 \$12.38 \$12.38 \$12.38 \$12.38 Licensed site fee Volume per Truck Load (Cubic Yards) 20.0 20.0 20.0 20.0 Typical load for shipping Volume per Truck Load (Cubic Feet) 540 540 540 540 540 | Data |
| Disposal Cost per Cubic Foot \$12.38 \$12.38 \$12.38 \$12.38 \$12.38 Licensed site fee Volume per Truck Load (Cubic Yards) 20.0 20.0 20.0 20.0 7pical load for shipping Volume per Truck Load (Cubic Yards) 540 540 540 540 540 | Unit Rate |
| Volume per Truck Load (Cubic Yards) 20.0 20.0 20.0 20.0 Typical load for shipping Volume per Truck Load (Cubic Feet) 540 540 540 540 540 | Calculated |
| Volume per Truck Load (Cubic Feet) 540 540 540 540 540 | Unit Rate |
| | Data |
| Disposal Cost \$0 \$0 \$0 \$0 \$0 \$0 | Calculated |
| | Calculated |
| Total Cost Licensed Site \$0 \$0 \$0 \$0 \$0 | Caiculated |
| TOTAL TRANSPORTATION & DISPOSAL COST \$315 \$656 \$344 \$1,898 \$123 \$3,336 | Calculated |
| TOTAL PLANT EQUIPMENT REMOVAL AND DISPOSAL COST \$935 \$2,005 \$1,050 \$5,803 \$376 \$10,169 | Calculated |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 15 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: B. Plant Building Demolition and Disposal - WORKSHEET 3

| Assumptions/Items | | | | | | | Plant | Header Houses | Drill Shed | Total | Explanation | Source |
|-------------------|------------|--------------------|------------------|--------------------------|--|--------------------------------|-------------|------------------|------------|-----------|---|-------------|
| I STRUCTURE DEMC | LITION & | & DISPO | SAL | | | | | | | | | |
| Structural Charac | tor | | | | | | 2-Story | 1-Story | 1-Story | | | |
| Siluciulai Charac | | | | | | | Steel Frame | Pre-Fab. (1) | Pole Barn | | | |
| Demolition Volum | e (Cubic | Feet) | | | | | 1,248,000 | 3,270 | 22,400 | | Estimated volume of structures | Data |
| Demolition Cost p | er Cubic | Foot | | | | | \$0.2500 | \$0.2500 | \$0.2500 | | | Unit Rate |
| Demolition Cost | | | _ | | | | \$312,000 | \$818 | \$5,600 | \$318,418 | | Calculation |
| Factor For Guttin | g | | | | | | 10.0% | 10.0% | 10.0% | | | Data |
| Gutting Cost | | | | | • | | \$31,200 | \$82 | \$560 | \$31,842 | | Calculation |
| Weight (Pounds) | | | | | | | 196,750 | 16,500 | 15,000 | | Estimated weight of building components | Data |
| | Quantity | Height (Feet) | Length (Feet) | Area (Square Feet) | Density (Pounds per Square Foot) | Building Weight (Pounds) | | | | | | |
| Ends | 2 | 1 | 4800 | 9600 | 2.5 | 24000 | | | | | | |
| Roof | 2 | 82.5 | 260 | 42900 | 2.5 | 107250 | | | | | | |
| Sidewall | 2 | | 260 | 10400 | 2.5 | 26000 | | | | | | • |
| Internal Wall | 1 | 20 | 460 | 9200 | 2.5 | 23000 | | | | | | |
| Internal Wall | 1 | 30 | 220 | 6600 | 2.5 | 16500 | | | | | | |
| Total 2-Story | Steel Fram | e Welght | | | | 196750 | | | | | | |
| Weight per Truck | | | | | | | 40,000 | 40,000 | 40,000 | | Typical load for shipping | Data |
| Number of Truck | Loads | | | | ···· | | 4.9 | 0.4 | 0.4 | | | Calculation |
| Distance to Land | ill | | - | | | | 48 | 48 | 48 | | Distance to landfill | Data |
| Cost per Mile | | | | | | | \$2.90 | \$2.90 | \$2.90 | | Current transport rate | Unit Rate |
| Transportation Co | | · · · · | | | | | \$685 | \$57 | \$52 | \$794 | | |
| Disposal Cost pe | Ton | | | | | | \$40.20 | \$40,20 | \$40.20 | | Landfill fee | Unit Rate |
| Disposal Cost | | | | | | | \$3,955 | \$332 | \$302 | \$4,588 | | Calculation |
| TOTAL STRUCTURE | DEMOL | ITION & | DISPOS | AL COST | • | | \$347,839 | \$1,288 | \$6,514 | \$355,641 | | Calculation |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 16 of 37)

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| Assumptions/Items | Plant | Header Houses | Drill Shed | Total | Explanation | Source |
|--|-----------|------------------|------------|-----------|---------------------------------------|-------------|
| II CONCRETE DECONTAMINATION, DEMOLITION & DISPOSAL | | | | | | |
| Area (Square Feet) | 30,050 | 283 | 565 | | Building concrete area | Data |
| Average Thickness (Feet) | 1 | 1.0 | 0.3 | | | Data |
| Volume (Cubic Feet) | 30,050 | 283 | 141 | | | Calculation |
| Percent Requiring Decontamination | 0.0% | 0.0% | 0.0% | | | Data |
| Percent Decontaminated | 0.0% | 0.0% | 0.0% | | | Data |
| Decontamination (Cost per Square Foot) | \$0,191 | \$0,191 | \$0,191 | | | Unit Rate |
| Decontamination Cost | \$0 | \$0 | \$0 | \$0 | | Calculation |
| Demolition (Cost per Square Foot) | \$2.124 | \$2.124 | \$0.100 | | | Unit Rate |
| Demolition Cost | \$63,826 | \$601 | \$57 | \$64,484 | | Calculation |
| Transportation & Disposal | | | | | | |
| A. Landfill Disposal | | | | | | |
| Percent to be Disposed at Landfill | 100% | 100% | 100% | | · · · · · · · · · · · · · · · · · · · | Data |
| Concrete Weight (Pounds per Cubic Foot) | 150 | 150 | 150 | | | Data |
| Concrete Weight (Pounds) | 4,507,500 | 42,450 | 21,188 | | | |
| Weight per Truck Load (Pounds) | 40,000 | 40,000 | 40,000 | | | |
| Number of Truck Loads | 112.7 | 1.1 | 0.5 | _ | | • |
| Distance to Landfill (Miles) | 48 | 48 | 48 | | | |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | | Current transport rate | |
| Transportation Cost | \$15,686 | \$148 | \$74 | \$15,908 | | Data |
| Disposal Cost per Ton | \$40.20 | \$40.20 | \$40.20 | | | Unit Rate |
| Disposal Cost | \$90,601 | \$853 | \$426 | \$91,880 | | Calculation |
| B. Licensed Site | | | | | | |
| Percent to be Shipped | 0% | 0% | 0% | | | Calculation |
| Distance (Miles) | 105 | 105 | 105 | | | Data |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | | Current transport rate | Unit Rate |
| Transportation Cost | \$0 | \$0 | \$0 | \$0 | | Calculation |
| Disposal Cost per Cubic Foot | \$4.16 | \$4.16 | \$4.16 | | | Unit Rate |
| Volume per Truck Load (Cubic Yards) | 20 | 20 | 20 | | | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | 540 | | | Calculation |
| Disposal Cost | \$0 | \$0 | \$0 | \$0 | | Calculation |
| TOTAL CONCRETE DECONTAMINATION, DEMOLITION & DISPOSAL COST | \$170,113 | \$1,602 | \$556 | \$172,271 | | Calculation |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: B. Plant Building Demolition and Disposal - WORKSHEET 3

| Assumptions/items | Plant | Header Houses | Drill Shed | Total | Explanation | Sourcé |
|--|-----------|------------------|------------|-----------|--------------------------------------|------------|
| III SOIL REMOVAL & DISPOSAL | | | | | | |
| Front End Loader Cost per Hour | \$50 | \$50 | \$50 | \$50 | | |
| Time with Front End Loader (Hours) | 0 | 0 | 0 | 0 | | , |
| Cost of Front End Loader | \$0 | \$0 | \$0 | \$0 | Assume removal of 3" of Contaminated | Data |
| Volume to be Shipped (Cubic Feet) | 0 | 0 | 0 | | Soil Under Headers, 1" under Plant, | Data |
| Distance (Miles) | 105 | 105 | 105 | | Disposal at a Licensed Facility | Data |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | | | Unit Rate |
| Transportation Cost | \$0 | \$0 | \$0 | \$0 | | Calculatio |
| Disposal Fee per Cubic Foot | \$4.16 | \$4.16 | \$4.16 | | | Unit Rate |
| Quantity per Truck Load (Cubic Feet) | 540 | 540 | 540 | | | Data 📜 |
| Disposal Cost | \$0 | \$0 | \$0 | \$0 | | Calculátio |
| TOTAL SOIL REMOVAL & DISPOSAL COST | \$0 | \$0 | \$0 | \$0 | | Calculatio |
| / RADIATION SURVEY | | | | | · | , |
| Area Required (Acres) | 0.00 | 0.00 | 0.00 | | | Data |
| Survey Cost per Acre | \$653.00 | \$653.00 | \$653.00 | | | Unit Rate |
| TOTAL RADIATION SURVEY COST | \$0 | \$0 | \$0 | \$0 | | Calculatio |
| OTAL PLANT BUILDING DEMOLITION AND DISPOSAL COST | \$517,952 | \$2,890 | \$7,070 | \$527,913 | | Calculatio |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: B. Plant Building Demolition and Disposal - WORKSHEET 3



LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: C. Storage Pond Sludge and Liner Handling - WORKSHEET 4

| ssumptions/Items | Pond 1 Storage | Pond 2 Storage | Total | Explanation | Source |
|--|-------------------|-------------------|-------|-------------|------------|
| I POND SLUDGE | | | | | |
| Average Sludge Depth (Feet) | 0.000 | 0.000 | | | Data |
| Average Sludge Area (Square Feet) | 40,300 | 40,300 | | | Data |
| Sludge Volume (Cubic Feet) | - | - | | | Calculated |
| Sludge Volume (Cubic Yards) | 0 | 0 | | | Calculated |
| Sludge Volume per Truck Load (Cubic Yards) | 20.0 | 20.0 | | | Data |
| Number of Sludge Truck Loads | 0.0 | 0.0 | | | Calculated |
| Sludge Handling Cost Per Load | \$268.00 | \$268.00 | | | Unit Rate |
| Total Sludge Handling Cost | \$0 | \$0 | \$0 | | Calculated |
| Transportation & Disposal | | | | | |
| Percent to be Shipped | 100.0% | 100.0% | | | Data |
| Distance (Miles) | 105 | 105 | | | Data |
| Cost per Mile | \$2.90 | \$2.90 | | | Unit Rate |
| Transportation Cost | \$0 | \$0 | | | Calculated |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | | | Unit Rate |
| Volume per Truck Load (Cubic Yards) | 20.0 | 20.0 | | | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | | | Calculated |
| Disposal Cost | \$0 | \$0 | | | Calculated |
| Total Transportation & Disposal Cost | \$0 | \$0 | \$0 | | Calculated |
| TOTAL POND SLUDGE COST | \$0 | \$0 | \$0 | | Calculated |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: C. Storage Pond Sludge and Liner Handling - WORKSHEET 4

| Assumptions/Items | Pond 1 Storage | Pond 2 Storage | Total | Explanation | Source |
|------------------------------------|-------------------|-------------------|-------|-------------|------------|
| II POND LINER | | | | | |
| Total Pond Area (Acres) | 0.93 | 0.93 | | | Data |
| Total Pond Area (Square Feet) | 40,300 | 40,300 | | | Calculated |
| Factor For Sloping Sides | 20.0% | 20.0% | | | Data |
| Total Liner Area (Square Feet) | 48360 | 48360 | | | Calculated |
| Liner Thickness (Mils) | 30 | 30 | | | Data |
| Liner Thickness (Inches) | 0.0300 | 0.0300 | | | Calculated |
| Liner Thickness (Feet) | 0.0025 | 0.0025 | | | Calculated |
| "Swell" Factor | 0.0% | 0.0% | | | Data |
| Liner Volume (Cubic Feet) | 121 | 121 | | | Calculated |
| Truck Loads of Liner | 0.2 | 0.2 | | | Calculated |
| Liner Handling Cost | | | | | |
| Labor Crew Cost per Hour | \$135 | \$135 | | | Unit Rate |
| Hours per Load | 2.0 | 2.0 | | | Unit Rate |
| Liner Handling Cost per Load | \$270.00 | \$270.00 | | | Calculated |
| Total Liner Handling Cost | \$54 | \$54 | \$108 | | Calculated |
| Transportation & Disposal | | | | | |
| Percent to be Shipped | 100.0% | 100.0% | | | Data |
| Distance (Miles) | 48 | 48 | | | Data |
| Cost per Mile | \$2.90 | \$2.90 | | | Unit Rate |
| Transportation Cost | \$28 | \$28 | | | Calculated |
| Disposal Cost per Cubic Foot | \$0.50 | \$0.50 | | | Unit Rate |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | | | Data |
| Disposal Cost | \$54 | \$54 | | | Calculated |
| Total Transportation & Disposal | \$82 | \$82 | \$164 | | Calculated |
| TOTAL POND LINER COST | \$136 | \$136 | \$272 | | Calculated |

Lost Creek Project WDEQ-LQD Permit to Mine Application Original Dec07; Rev11, Oct11

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LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: C. Storage Pond Sludge and Liner Handling - WORKSHEET 4

 Table RP-4 Supplement
 Reclamation/Restoration Bond Estimate, October 2011 - October 2012

| Assumptions/Items | Pond 1 Storage | Pond 2 Storage | Total | Explanation | Source |
|--|-------------------|-------------------|----------|-----------------|--------------------|
| III POND BACKFILL | | | | | |
| Backfill Required (Cubic Yards) | 10,448 | 10,448 | | | Data |
| Backfill Cost per Cubic Yard | \$1.13 | \$1.13 | | | Unit Rate |
| TOTAL POND BACKFILL COST | \$11,806 | \$11,806 | \$23,612 | | Calculated |
| V RADIATION SURVEY | | | | | |
| Areal required (Acres) | 0.00 | 0.00 | | | Data |
| Survey Cost per Acre | \$653.00 | \$653.00 | | | Unit Rate |
| TOTAL RADIATION SURVEY COST | \$0 | \$0 | \$0 | | Calculated |
| V LEAK DETECTION SYSTEM REMOVAL | | | | | |
| Gravel and Piping Volume (Cubic Feet) | 1008 | 1008 | | Assume 3 inches | Data |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | | | Data |
| Loads to be Shipped | 1.9 | 1.9 | | | Calculated |
| Distance (Miles) | 48 | 48 | | | Data |
| Cost per Mile | \$2.90 | \$2.90 | | | Unit Rate |
| Transportation Cost | \$260 | \$260 | | | Calculated |
| Handling Cost | \$504 | \$504 | | | Unit Rate (Imbedde |
| Disposal Fee per Cubic Foot | \$0.50 | \$0.50 | | | Unit Rate |
| Disposal Cost | \$504 | \$504 | | | Calculated |
| TOTAL LEAK DETECTION SYSTEM REMOVAL COST | \$1,267 | \$1,267 | \$2,534 | | Calculated |
| | | <u> </u> | | | |

| TOTAL POND RECLAMATION COST | \$13,209 | \$13,209 | \$26,418 | Calculated |
|-----------------------------|---|----------|----------|------------|
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Lost Creek Project WDEQ-LQD Permit to Mine Application Original Dec07; Rev11, Oct11

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Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 21 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: D. Well Abandonment - WORKSHEET 5

| Assumptions/Items | Mine Unit No. 1 | Site Wells | Explanation | Source |
|---------------------------|--------------------|------------|--|--------|
| Number of Wells | 177 | 188 | n an | Data |
| Average Depth (Feet) | 425 | 533 | | Data |
| Average Diameter (Inches) | 4.328 | 4.328 | | Data |

| Class G Neat Cement Required (Cubic Feet per Well) | 43.4 | 54.5 | | Data |
|--|------------|----------|--|------------|
| Cement Sacks Required per Well | 33.9 | 42.5 | 15 ppg Class G cement requires 6 gallons water per sack cement and 1-1/2% bentonite by weight | Data |
| Cement Sack Cost | \$14.43 | \$14.43 | | Unit Rate |
| Cement Cost per Well | \$489.49 | \$613.88 | | Calculated |
| Bentonite Sacks Required per Well | 1.0 | 1.2 | | Data |
| Bentonite Bag Cost | \$2.90 | \$2.90 | | Unit Rate |
| Bentonite Cost per Well | \$2.77 | \$3.48 | | Calculated |
| TOTAL MATERIALS COST PER WELL | \$492.27 | \$617.36 | | Calculate |
| LABOR (INCLUDED IN WORKSHEET 1) | | | na popular seneral sen Na 1999 de seneral de la constant de | |
| Hours Required per Well | 0.0 | 0.0 | n mananan mananan kanang sana kanang mananan sa sana kanan kanan mananan sana kanan kanan sana kanan kanang ma Tang sana sa sa sa sa sana kanang saya kana kanang sa sanang sana kanang sana kanang sana sanang sana sana kana Tang sana sana sana sana sana sana sana s | Data |
| Labor Cost per Hour | \$0.00 | \$0.00 | an a | Unit Rate |
| TOTAL LABOR COST PER WELL | \$0.00 | \$0.00 | | Calculated |
| I EQUIPMENT RENTAL | | | | |
| Hours Required per Well | 1.0 | 1.0 | | Data |
| Backhoe with Operator Cost per Hour | \$48.00 | \$48.00 | an a | Unit Rate |
| Cementer Cost per Hour | \$25.00 | \$25.00 | | Unit Rate |
| Total Equipment Cost per Well | \$73.00 | \$73.00 | | Calculated |
| OTAL ABANDONMENT COST PER WELL | \$565.27 | \$690.36 | | Calculate |
| UBTOTAL WELL ABANDONMENT COST | 100.052 \$ | 129,788 | | |

| TOTAL WELL ABANDONMENT COST | \$ 229,840 | Calculate |
|-----------------------------|--|-----------|
| | the second s | |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 22 of 37)

Assumptions/Items MU-1 Site Wells Source WELLFIELD PIPING A. Removal Surface Length per Well (Feet) 250 0 Downhole Length per Well (Feet) 350 0 **Total Number of Wells** 100 0 Total Length (Feet) 0 0 Calculated Cost of Removal per Foot \$0,109 \$0.109 Unit Rate Cost of Removal \$0 \$0 Calculated Chipping Rate (feet per hour) 1500 1500 Estimate Chipper Cost per Hour \$30 \$30 Unit Rate **Chipping Cost** \$0 \$0 Calculated Average OD (Inches) 1.6 1.6 Chipped Volume Reduction (Cubic Feet per Foot) 0.008 0.008 Unit Rate Chipped Volume (Cubic Feet) 0 Calculated 0 Volume per Truck Load (Cubic Feet) 540 540 0.0 0.0 Calculated Total Number of Truck Loads B. Survey & Decontamination Percent Requiring Decontamination 0% 0% Number of Decontamination Loads 0.0 0.0 Calculated \$620.00 \$620.00 Unit Rate Decontamination Cost per Load **Decontamination Cost** \$0 \$0 Calculated C. Transport & Disposal Landfill Transportation Percent to be Shipped 0.0% 100.0% Loads to be Shipped 0.0 0.0 Calculated Distance (Miles) 48 48 Transportation Cost per Mile \$2.90 \$2.90 Unit Rate \$0 Calculated \$0 **Transportation Cost** Landfill Disposal **Disposal Fee per Cubic Yard** \$13,50 Unit Rate \$13.50 Load Volume (Cubic Yards) 0 0 \$0 \$0 Calculated **Disposal Cost** \$0 \$0 Calculated **Total Landfill Cost**

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6



| LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6 | R, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6 |
|--|---|
|--|---|

| | | | _ |
|--|----------|------------|------------|
| Assumptions/Items | MU-1 | Site Wells | Source |
| WELLFIELD PIPING (continued) | | | |
| C. Transport & Disposal (continued) | ···· | | |
| Licensed Site | | ····· | |
| Transportation | | | |
| Percent to be Shipped | 0.0% | 0.0% | Calculated |
| Loads to be Shipped | 0.0 | 0.0 | Calculated |
| Distance (Miles) | 105 | 105 | |
| Transportation Cost per Mile | \$2.90 | \$2.90 | Unit Rate |
| Transportation Cost | \$0 | \$0 | Calculated |
| Disposal | | | |
| Disposal Fee per Cubic Foot | \$12.38 | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | \$334.26 | Calculated |
| Load Volume (Cubic Yards) | 0 | 0 | |
| Disposal Cost | \$0 | \$0 | Calculated |
| Total Licensed Site Cost | \$0 | \$0 | Calculated |
| Total Transport & Disposal Cost | \$0 | \$0 | Calculated |
| TOTAL WELLFIELD PIPING REMOVAL & DISPOSAL COST | \$0 | \$0 | Calculated |
| II WELL PUMPS | | | |
| A. Pump and Tubing Removal | | | |
| Number of Wells with Pumps | 0 | 100 | |
| Removal Cost per Well | \$12.07 | \$12.07 | Unit Rate |
| Removal Cost | \$0 | \$1,207 | Calculated |
| Number of Pumps per Truck Load | 180 | 180 | |
| Number of Truck Loads (Pumps) | 0.0 | 0.6 | Calculated |
| B. Survey & Decontamination (Pumps) | | | |
| Percent Requiring Decontamination | 0.0% | 0.0% | |
| Number of Decontamination Truck Loads | 0.0 | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | | Unit Rate |
| Decontamination Cost | \$0 | \$0 | Calculated |

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Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 24 of 37)

MU-1 Site Wells Source Assumptions/Items II WELL PUMPS (continued) C. Tubing Volume Reduction & Loading Length per Well (Feet) 375 450 Total Length (Feet) 45,000 Calculated 0 \$0.014 Unit Rate Removal Cost per Foot \$0.014 Removal Cost \$608 Calculated \$0 Average OD (Inches) 2.0 2.0 Chipped Volume Reduction (Cubic Feet per Foot) 0.012 0.012 Chipped Volume (Cubic Feet) 0 540 Calculated Volume per Truck Load (Cubic Feet) 540 540 Number of Truck Loads 0.0 1.0 Calculated D. Transport & Disposal Landfill Transportation Percent to be Shipped (Pumps) 100.0% 100.0% Loads to be Shipped 0.0 0.6 Calculated Distance (Miles) 48 48 \$2.90 Unit Rate Cost per Mile \$2.90 \$84 Calculated **Transportation Cost** \$0 Disposal \$13.50 Unit Rate Disposal Fee per Cubic Yard \$13.50 Load Volume (Cubic Yards) 0 0 **Disposal** Cost \$0 \$0 Calculated \$0 **Total Landfill Cost** \$84 Calculated Licensed Site Transportation Percent to be Shipped (Pumps) 0.0% 0.0% 0.0% Percent to be Shipped (Tubing) 0.0% 0.0 1.0 Calculated Loads to be Shipped 105 105 Distance (Miles) Cost per Mile \$2.90 \$2.90 Unit Rate **Transportation Cost** \$0 \$305 Calculated

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 25 of. 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| As | sumptions/items | MU-1 | Site Wells | Source |
|----------|--|----------|------------|------------|
| _ | WELL PUMPS (continued) | | | |
| <u> </u> | D. Transport & Disposal (continued) | <u> </u> | | |
| | Licensed Site (continued) | | | <u> </u> |
| | Disposal | | | |
| | Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | Unit Rate |
| | Disposal Fee per Cubic Yard | \$334.26 | \$334.26 | Calculated |
| | Load Volume (Cubic Yards) | 0 | 0 | |
| | Disposal Cost | \$0 | \$0 | Calculated |
| | Total Licensed Site Cost | \$0 | \$305 | Calculated |
| | Total Transport & Disposal Cost | \$0 | \$388 | Calculated |
| | TOTAL WELL PUMP REMOVAL & DISPOSAL COST | \$0 | \$2,202 | Calculated |
| 111 | SURFACE TRUNKLINE PIPING | | | |
| | A. Removal | · . | | |
| | Total Length (Feet) | 0 | 0 | |
| | Removal Cost per Foot | \$0.081 | \$0.081 | Unit Rate |
| | Removal Cost | \$0 | \$0 | Calculated |
| | Average OD (Inches) | 8.750 | 0.000 | |
| | Chipped Volume Reduction (Cubic Feet per Foot) | 0.088 | 0.088 | Unit Rate |
| | Chipped Volume (Cubic Feet) | 0 | : 0 | Calculated |
| | Volume per Truck Load (Cubic Feet) | 540 | 540 | |
| | Total Number of Truck Loads | 0.0 | 0.0 | Calculated |
| | B. Survey & Decontamination | | | |
| | Percent Requiring Decontamination | 0.0% | 0.0% | |
| | Number of Decontamination Truck Loads | 0.0 | 0.0 | Calculated |
| | Decontamination Cost per Load | \$0.00 | \$0.00 | Unit Rate |
| | Decontamination Cost | \$0 | \$0 | Calculated |

| sumptions/items | MU-1 | Site Wells | Source | |
|--|----------|------------|------------|--|
| SURFACE TRUNKLINE PIPING (continued) | | | | |
| C. Transport & Disposal | | | | |
| Landfill | | | | |
| Transportation | | | | |
| Percent to be Shipped | 100.0% | 100.0% | 1 | |
| Loads to be Shipped | 0.0 | 0.0 | Calculated | |
| Distance (Miles) | 48 | 48 | | |
| Cost per Mile | \$2.90 | \$2.90 | Unit Rate | |
| Transportation Cost | \$0 | \$0 | Calculated | |
| Disposal | | | | |
| Disposal Fee per Cubic Yard | \$13.50 | \$13.50 | Unit Rate | |
| Load Volume (Cubic Yards) | 0 | 0 | | |
| Disposal Cost | \$0 | \$0 | Calculated | |
| Total Landfill Cost | \$0 | \$0 | Calculated | |
| Licensed Site | | | | |
| Transportation | | | | |
| Percent to be Shipped | 0.0% | 0.0% | Calculated | |
| Loads to be Shipped | 0.0 | 0.0 | Calculated | |
| Distance (Miles) | 105 | 105 | • | |
| Cost per Mile | \$2.90 | \$2.90 | Unit Rate | |
| Transportation Cost | \$0 | \$0 | Calculated | |
| Disposal | | | | |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | Unit Rate | |
| Disposal Fee per Cubic Yard | \$334.26 | \$334.26 | Calculated | |
| Load Volume (Cubic Yards) | 0 | 0 | | |
| Disposal Cost | \$0 | \$0 | Calculated | |
| Total Licensed Site Cost | \$0 | \$0 | Calculate | |
| Total Transport & Disposal Cost | \$0 | \$0 | Calculate | |
| TOTAL SURFACE TRUNKLINE PIPING REMOVAL & DISPOSAL COST | \$0 | \$0 | Calculated | |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

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Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 27 of 37)

Assumptions/Items MU-1 Site Wells Source IV BURIED TRUNKLINE A. Removal Total Length (Feet) 24,304 0 Removal Cost per Buried Foot \$1.58 \$1.58 Unit Rate Removal Cost \$19,139 \$0 Calculated Chipping Rate (feet per hour) 150 150 Estimate Chipper Cost per Hour \$30 Unit Rate \$30 **Chipping Cost** \$4,861 \$0 Calculated Average OD (Inches) 9.635 9.635 Chipped Volume Reduction (Cubic Feet per Foot) 0.309 Unit Rate 0.309 Chipped Volume (Cubic Feet) 7,510 0 Calculated Volume per Truck Load (Cubic Feet) 540 540 Number of Truck Loads 13.9 0.0 Calculated B. Survey & Decontamination Percent Requiring Decontamination 0.0% 0.0% Number of Decontamination Truck Loads 0.0 0.0 Calculated Decontamination Cost per Load \$0.00 \$0.00 Unit Rate Decontamination Cost \$0 \$0 Calculated C. Transport & Disposal Landfill Transportation Percent to be Shipped 100.0% 100.0% Loads to be Shipped 13.9 0.0 Calculated Distance (Miles) 48 48 \$2.90 Unit Rate Cost per Mile \$2.90 \$1,935 \$0 Calculated **Transportation Cost** Disposal Disposal Fee per Cubic Yard \$13.50 \$13.50 Unit Rate Load Volume (Cubic Yards) 0 n \$0 \$0 Calculated **Disposal Cost** \$1.935 \$0 Calculated **Total Landfill Cost**

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6

| Assumptions/Items | MU-1 | Site Wells | Source |
|--|----------|------------|------------|
| IV BURIED TRUNKLINE (continued) | | | |
| C. Transport & Disposal (continued) | | | |
| Licensed Site | | | |
| Transportation | | | |
| Percent to be Shipped | 0.0% | 0.0% | Calculated |
| Loads to be Shipped | 0.0 | 0.0 | Calculated |
| Distance (Miles) | 105 | 105 | |
| Cost per Mile | \$2.90 | \$2.90 | Unit Rate |
| Transportation Cost | \$0 | \$0 | Calculated |
| Disposal | | | |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | \$334:26 | Calculated |
| Load Volume (Cubic Yards) | 0 | 0 | |
| Disposal Cost | \$0 | \$0 | Calculated |
| Total Licensed Site Cost | \$0 | \$0 | Calculated |
| Total Transport & Disposal Cost | \$1,935 | \$0 | Calculated |
| TOTAL BURIED TRUNKLINE REMOVAL & DISPOSAL COST | \$25,935 | \$0 | Calculated |
| V MANHOLES | | | |
| A, Removal | | | |
| Total Quantity | 9 | 0 | |
| Removal Cost per Manhole | \$73.16 | \$73:16 | Unit Rate |
| Removal Cost | \$658 | \$0 | Calculated |
| Quantity per Truck Load | 10 | 10 | |
| Number of Truck Loads | 0.9 | 0.0 | Calculated |
| B. Survey & Decontamination | | | |
| Percent Requiring Decontamination | 0.0% | 0.0% | |
| Number of Decontamination Truck Loads | 0.0 | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | \$0.00 | Unit Rate |
| Decontamination Cost | \$0 | \$0 | Calculated |



Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 29 of 37)

Assumptions/Items MU-1 Site Wells Source V MANHOLES (continued) C. Transport & Disposal Landfill . Transportation Percent to be Shipped 100.0% 100.0% Loads to be Shipped 0.9 0.0 Calculated Distance (Miles) 48 48 Unit Rate Cost per Mile \$2.90 \$2.90 Calculated \$125 \$0 Transportation Cost Disposal Disposal Fee per Cubic Yard \$13.50 Unit Rate \$13.50 Load Volume (Cubic Yards) 0 0 **Disposal Cost** \$0 \$0 Calculated **Total Landfill Cost** \$125 \$0 Calculated Licensed Site Transportation Percent to be Shipped 0.0% 0.0% Calculated Loads to be Shipped 0.0 0.0 Calculated 105 Distance (Miles) 105 Cost per Mile \$2.90 \$2.90 Unit Rate **Transportation Cost** \$0 \$0 Calculated Disposal **Disposal Cost per Cubic Foot** \$12.38 \$12.38 Unit Rate \$334.26 Calculated **Disposal Fee per Cubic Yard** \$334.26 Load Volume (Cubic Yards) 0 0 **Disposal Cost** \$0 \$0 Calculated **Total Licensed Site Cost** \$0 \$0 Calculated **Total Transport & Disposal Cost** \$125 \$0 Calculated TOTAL MANHOLE REMOVAL & DISPOSAL COST \$784 \$0 Calculated SUBTOTAL WELLFIELD EQUIPMENT REMOVAL AND DISPOSAL COS \$26,719 \$2.202 TOTAL WELLFIELD EQUIPMENT REMOVAL AND DISPOSAL COST \$28,921 Calculated

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: E. Wellfield Equipment Removal and Disposal - WORKSHEET 6



Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 30 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| Assumptions/Items | Plant Site and Mine Unit No. 1 | Site Wells | Source |
|---|--------------------------------------|------------|---------------------------------------|
| I PLANT | | | · · · · · · · · · · · · · · · · · · · |
| A. Topsoil Handling & Grading | | | |
| Affected Area (Acres) | 5.0 | 0.0 | |
| Average Affected Thickness (Inches) | 12.0 | 12.0 | |
| Topsoil Volume (Cubic Yards) | 8,067 | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$9,115 | \$0 | Calculated |
| Grading Cost per Acre | \$56.28 | \$56.28 | Unit Cost |
| Grading Cost | \$281 | \$0 | Calculated |
| Total Topsoil Handling & Grading Cost | \$9,397 | \$0 | Calculated |
| B. Radiation Survey & Soil Analysis | | | • |
| Survey & Analysis Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Total Survey & Analysis Cost | \$0 | \$0 | Calculated |
| C. Revegetation | | | |
| Fertilizer Cost per Acre | \$52.33 | \$52.33 | Unit Cost |
| Seeding Preparation & Seeding Cost per Acre | \$189.85 | \$189.85 | Unit Cost |
| Mulching & Crimping Cost per Acre | \$311.25 | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | \$553.43 | Calculated |
| Total Revegetation Cost | \$2,767 | \$0 | Calculated |
| TOTAL PLANT COST | \$12,164 | \$0 | Calculated |

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Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 31 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| sumptions/Items | Plant Site and Mine Unit No. 1 | Site Wells | Source |
|---|--------------------------------------|------------|------------|
| PONDS | | | |
| A. Topsoil Handling & Grading | | | |
| Affected Area (Acres) | 5.0 | 0.0 | · |
| Average Affected Thickness (Inches) | 20 | 20 | |
| Topsoil Volume (Cubic Yards) | 13,444 | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$15,192 | \$0 | Calculated |
| Grading Cost per Acre | \$56.28 | \$56.28 | Unit Cost |
| Grading Cost | \$281 | \$0 | Calculated |
| Total Topsoil Handling & Grading Cost | \$15,474 | \$0 | Calculated |
| B. Radiation Survey & Soil Analysis | | | |
| Survey & Analysis Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Total Survey & Analysis Cost | \$0 | \$0 | Calculated |
| C. Revegetation | | | |
| Fertilizer Cost per Acre | \$52.33 | \$52.33 | Unit Cost |
| Seeding Preparation & Seeding Cost per Acre | \$189.85 | \$189.85 | Unit Cost |
| Mulching & Crimping Cost per Acre | \$311.25 | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | \$553.43 | Calculated |
| Total Revegetation Cost | \$2,767 | \$0 | Calculated |
| TOTAL POND COST | \$18,241 | \$0 | Calculated |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 32 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

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| ssumptions/Items | Plant Site and Mine Unit No. 1 | Site Wells | Source |
|---------------------------------------|--------------------------------------|------------|------------|
| I WELLFIELDS | | | |
| A. Topsoil Handling & Grading | | | |
| Affected Area (Acres) | 8.0 | 0.0 | |
| Average Affected Thickness (Inches) | 0.0 | 0.0 | |
| Topsoil Volume (Cubic Yards) | 0 | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$0 | \$0 | Calculated |
| Grading Cost per Acre | \$56.28 | \$56.28 | Unit Cost |
| Grading Cost | \$450 | \$0 | Calculated |
| Total Topsoil Handling & Grading Cost | \$450 | \$0 | Calculated |
| B. Radiation Survey & Soil Analysis | | | |
| Survey & Analysis Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Total Survey & Analysis Cost | \$0 | \$0 | Calculated |
| C: Spill Cleanup | | | |
| Affected Area (Acres) | - | - | Calculated |
| Affected Area (Square Feet) | | - | |
| Average Affected Thickness (Feet) | 0.25 | 0.25 | |
| Affected Volume (Cubic Feet) | _ | _ | Calculated |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | |
| Number of Truck Loads | 0.0 | 0.0 | Calculated |
| Distance (Miles) | 105 | 105 | |
| Cost per Mile | \$2.90 | \$2.90 | Unit Cost |
| Transportation Cost | \$0 | \$0 | Calculated |
| Handling Cost per Truck Load | \$238 | \$238 | Unit Cost |
| Handling Cost | \$0 | \$0 | Calculated |
| Disposal Fee per Cubic Foot | \$4.16 | \$4.16 | Unit Cost |
| Disposal Cost | \$0 | \$0 | Calculated |
| Total Spill Cleanup Cost | \$0 | \$0 | Calculated |

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 33 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| • • • • | | | | Plant Site | | 1. | |
|-----------------|----------------|---------------|------------------------------|------------------------|------------|------------|--|
| Assumptions/Ite | ms | | | and Mine Unit No. 1 | Site Wells | Source | |
| III WELLFIEL | DS (continu | ed) | | | | | |
| D. Reveg | etation | | | | | | |
| Fer | tilizer Cost p | per Acre | | \$52.33 | \$52.33 | Unit Cost | |
| Se | eding Prepa | ration & Seed | ing Cost per Acre | \$189.85 | \$189.85 | Unit Cost | |
| Mu | Iching & Crir | nping Cost pe | er Acre | \$311.25 | \$311.25 | Unit Cost | |
| Tot | al Revegeta | tion Cost per | Acre | \$553.43 | \$553.43 | Calculated | |
| Tot | al Revegeta | tion Cost | | \$4,427 | \$0 | Calculated | |
| TOTAL WE | ELLFIELDS | COST | | \$4,878 | \$0 | Calculated | |
| IV ROADS | | | | | | | |
| A. Topsoi | I Handling & | Grading | | | | | |
| Affe | ected Area (| Acres) | | 10.6 | 0.0 | | |
| | Main Road | Secondary | | | | | |
| | Lengths | Road Lengths | | | | | |
| | (ft) | (ft) | | | | | |
| | 1,556 | | | | | | |
| | 594 | | | | | | |
| | 228 356 | | | | | | |
| | 300 | | | | | | |
| | 211 | | | | | | |
| | 2,309 | | | | | | |
| | 1,260 | | | | | | |
| | 244 | | | | | | |
| | 1,029 | | | | | | |
| | 5,049 | | | | | | |
| | 13,198 | 1 900 | Total Road Lengths (Feet) | | | | |
| | 20 | | Road Width (Feet) | | | | |
| | 12 | | Road Borrow (Feet) | | | | |
| | 32 | | Road Width and Borrow (Feet) | | | | |
| | 9.7 | | Road Area (Acres) | | | | |
| | | 0.6 | Total Road Area (Acres) | | | | |
| | | | | • | | | |



ALL R MATTERIAL AND ADDRESS AN

Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 34 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| sumptions/Items | Plant Site and Mine Unit No. 1 | Site Wells | Source |
|---|--------------------------------------|------------|------------|
| / ROADS (continued) | | | |
| A. Topsoil Handling & Grading (continued) | | | |
| Average Affected Thickness (Inches) | 15 | 0 | |
| Topsoil Volume (Cubic Yards) | 21,312 | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$24,082 | \$0 | Calculated |
| Grading Cost per Acre | \$56.28 | \$56.28 | Unit Cost |
| Grading Cost | \$595 | \$0 | Calculated |
| Scarify Compacted Area per Acre | \$53.83 | \$53.83 | Unit Cost |
| Scarify Cost | \$569 | \$0 | Calculated |
| Total Topsoil Handling & Grading Cost | \$25,246 | \$0 | Calculated |
| B. Radiation Survey & Soil Analysis | | | |
| Survey & Analysis Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Total Survey & Analysis Cost | \$0 | \$0 | Calculated |
| C. Revegetation | | | |
| Fertilizer Cost per Acre | \$52.33 | \$52.33 | Unit Cost |
| Seeding Preparation & Seeding Cost per Acre | \$189.85 | \$189.85 | Unit Cost |
| Mulching & Crimping Cost per Acre | \$311.25 | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | \$553.43 | Calculated |
| Total Revegetation Cost | \$5,849 | \$0 | Calculated |
| TOTAL ROADS COST | \$31,095 | \$0 | Calculated |



Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 35 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| ssumptions/items | Plant Site and Mine Unit No. 1 | Site Wells | Source |
|---|--------------------------------------|------------|------------|
| / OTHER | | | |
| A. Topsoil Handling & Grading | | | |
| Affected Area (Acres) | 1.0 | 1.0 | |
| Average Affected Thickness (Inches) | 15.0 | 15.0 | |
| Topsoil Volume (Cubic Yards) | 2016.67 | 2067.08 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$2,279 | \$2,336 | Calculated |
| Grading Cost per Acre | \$56.28 | \$56.28 | Unit Cost |
| Grading Cost | \$56 | \$58 | Calculated |
| Total Topsoil Handling & Grading Cost | \$2,335 | \$2,393 | Calculated |
| B. Radiation Survey & Soil Analysis | | | |
| Survey & Analysis Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Total Survey & Analysis Cost | \$0 | \$0 | Calculated |
| C. Revegetation | | | • |
| Fertilizer Cost per Acre | \$52.33 | \$52.33 | Unit Cost |
| Seeding Preparation & Seeding Cost per Acre | \$189.85 | \$189.85 | Unit Cost |
| Mulching & Crimping Cost per Acre | \$311.25 | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | \$553.43 | Calculated |
| Total Revegetation Cost | \$553 | \$567 | Calculated |
| TOTAL OTHER COST | \$2,889 | \$2,961 | Calculated |



LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: F. Topsoil Replacement and Revegetation - WORKSHEET 7

| umptions/Items | Plant Site and Mine Unit No. 1 | Site Wells | Source |
|--|--------------------------------------|------------|------------|
| REMEDIAL ACTION | | | |
| A. Topsoil Handling & Grading | | | |
| Affected Area (Acres) | 14.8 | 0.5 | |
| Average Affected Thickness (Inches) | 0.0 | 0.0 | |
| Topsoil Volume (Cubic Yards) | 0 | 0 | Calculated |
| Hauling/Placement Cost per Cubic Yard | \$1.13 | \$1.13 | Unit Cost |
| Topsoil Handling Cost | \$0 | \$0 | Calculated |
| Grading Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Grading Cost | \$0 | \$0 | Calculated |
| Total Topsoil Handling & Grading Cost | \$0 | \$0 | Calculated |
| B. Radiation Survey & Soil Analysis | | | |
| Survey & Analysis Cost per Acre | \$0.00 | \$0.00 | Unit Cost |
| Total Survey & Analysis Cost | \$0 | \$0 | Calculated |
| C. Revegetation | | | |
| Fertilizer Cost per Acre | \$52.33 | \$52.33 | Unit Cost |
| Seeding Preparation & Seeding Cost per Acre | \$189.85 | \$189.85 | Unit Cost |
| Mulching & Crimping Cost per Acre | \$311.25 | \$311.25 | Unit Cost |
| Total Revegetation Cost per Acre | \$553.43 | \$553.43 | Calculated |
| Total Revegetation Cost | \$8,182 | \$284 | Calculated |
| TOTAL REMEDIAL ACTION COST | \$8,182 | \$284 | Calculated |
| SUBTOTAL TOPSOIL REPLACEMENT AND REVEGETATIO | \$77,447 | \$3,244 | |

| TOTAL TOPSOIL REPLACEMENT AND REVEGETATION COST | \$80,692 | |
|---|----------|--|
| | | |

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Table RP-4 Supplement Reclamation/Restoration Bond Estimate, October 2011 - October 2012 (Page 37 of 37)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: G. Miscellaneoues Reclamation Activities - WORKSHEET 8

| ssumptions/Items | Quantity | Source |
|---|--|----------------|
| I FENCE REMOVAL & DISPOSAL | •••••••••••••••••••••••••••••••••••••• | |
| Length (Feet) | 9,500 | |
| Removal & Disposal Cost per Foot | \$0.34 | Unit Cost |
| TOTAL FENCE REMOVAL AND DISPOSAL COST | \$3,230 | Calculated |
| II CULVERT REMOVAL & DISPOSAL | | |
| Length (Feet) | 200 | |
| Removal & Disposal Cost per Foot | \$1.74 | Unit Cost |
| TOTAL CULVERT REMOVAL & DISPOSAL COST | \$348 | Calculated |
| III UTILITIES | | |
| Number of Months | 3 | 4 |
| Cost per Month | \$2,380 | Unit Cost |
| TOTAL UTILITIES COST | \$7,140 | Calculated |
| IV DDW PIPELINE REMOVAL AND DISPOSAL | | |
| Length (Feet) | 13,080 | |
| Removal & Disposal Cost per Foot | \$0.86 | Unit Cost |
| TOTAL DDW PIPELINE REMOVAL & DISPOSAL COST | \$11,194 | Calculated |
| V REVEGETATION RETAINER FOR PRIOR YEAR'S DRILLING | | |
| Drill Holes Requiring Retainer | 900 | yrs 2005 - 201 |
| Revegetation Retainer | \$45.00 | Unit Cost |
| TOTAL REVEGETATION RETAINER FOR PRIOR YEAR'S DRILLING | \$40,500 | Calculated |

TOTAL MISCELLANEOUS RECLAMATION ACTIVITIES COST \$62,412 Calculated

Table RP-5 Supplement Analyses, Equipment, and Tank List for Bond Estimate, October 2011 - October 2012 (Page 1 of 11)

| | | Gro | undwater Sw | eep | | |
|---|-----------------------|-----------------------------|--|---|----------------------|------|
| Sample Type # | # of Sample Points | Frequency (Rounds/ Year) | Length of Time (years) | Analytes | Cost per Sample | Tota |
| UCL Monitoring (Monitor Well Ring) | 0 | 24 | 0.17 | Cl, HCO ₃ , Conductivity ⁽¹⁾ | \$30.00 | \$0 |
| Monitoring of Pattern Area including Production & MP Wells | - | ~ | _ | - | - | - |
| Production Composite (2) | | | | | - | - |
| Disposal Stream to Deep Well(s) and Local Water Supply Well | 0 | 12 | 0.17 | TDS, U, Ra | \$115.00 | \$0 |
| Storage Ponds | 0 | 4 . | . 0.17 | See Table RP-1b. | \$337.00 | \$0 |
| Storage Pond Wells | 0 | 12 | 0.17 | CI, HCO₃, Conductivity, U | \$55.00 | \$0 |
| | | | | | | \$0 |
| | | R | everse Osmos | is | | |
| Sample Type # | # of Sample Points | Frequency (Rounds/ Year) | Length of Time (years) | Analytes | Cost per Sample | Tota |
| UCL Monitoring (Monitor Well Ring) | 0 | 24 | 0.53 | CI, HCO ₃ , Conductivity | \$33.00 | \$0 |
| Monitoring of Pattern Area including Production & MP Wells | 0. | 52 | 0.53 | U, Conductivity | \$35.00 | \$0 |
| Production Composite | 0 | 12 | 0.53 | See Table RP-1b. | \$337.00 | \$0 |
| Disposal Stream to Deep Well(s) and Local Water Supply Well | 0 | 12 | 0.53 | TDS, U, Ra | \$115.00 | \$(|
| Storage Ponds | 0 | 44 | 0.53 | See Table RP-1b. | \$337.00 | \$0 |
| Storage Pond Wells | 0 | 12 | 0.53 | Ci, HCO ₃ , Conductivity, U | \$55.00 | \$0 |
| | | | | | L | \$(|
| | | | Recirculation | , <u></u> | | |
| | # of Sample Points | Frequency (Rounds/ Year) | Length of Time (years) | Analytes | Cost per Sample | Tota |
| UCL Monitoring (Monitor Well Ring) | 0 | 24 | 0.08 | CI, HCO ₃ , Conductivity | \$33.00 | \$0 |
| Monitoring of Pattern Area including Production & MP Wells | | - | _ | | - | |
| Production Composite | 0 | 12 | 0.08 | See Table RP-1b. | \$337.00 | \$ |
| Disposal Stream to Deep Well(s) | 0 . | 12 · | 0.08 | TDS, U, Ra | \$115.00 | \$(|
| and Local Water Supply Well Storage Ponds | 0 | 4 | 0.08 | See Table RP-1b. | \$337.00 | \$ |
| Storage Pond Wells | 0 | 12 | 0.08 | Cl, HCO ₃ , Cl, HCO ₃ , Conductivity, U | \$55.00 | \$(|
| | | | | | ┼┈──┼ | \$ |
| | | | CALL III - ALL | | | |
| Sample Type # | # of Sample Points | Frequency (Rounds/ Year) | Stabilization Length of Time (years) | Analytes | Cost per Sample | Tot |
| UCL Monitoring (Monitor Well Ring) | 0 | 6 | 1 | CI, HCO₃, Conductivity | \$33.00 | \$ |
| Monitoring of Pattern Area | 0 | 5 | 1 | See Table RP-1b. | \$337.00 | \$ |
| including Production & MP Wells | | | | | <u>├-</u> + | - |
| | - | | | <u>├</u> | 1 | |
| including Production & MP Wells | - 0 | 12 | 1 | TDS, U, Ra | \$115.00 | \$ |
| including Production & MP Wells Production Composite Disposal Stream to Deep Well(s) | | | 1 | TDS, U, Ra See Table RP-1b. | \$115.00 \$337.00 | \$0 |
| including Production & MP Wells Production Composite Disposal Stream to Deep Well(s) and Local Water Supply Well | 0 | 12 | | | | |

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⁽²⁾ Combination of flows from all the wells being pumped in a given mine unit, i.e., plant inflow.



Table RP-5 Supplement Analyses, Equipment and, Tank List for Bond Estimate, October 2011 - October 2012 (Page 2 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank List

| | Quantity | Length (Feet) | Width or Area (Feet or Square Feet) | Thickness (Feet) | Volume (Cubic Feet) | | Contamination | Contaminated Volume (Cubic Yards) | Percent Contamination |
|------------------------|----------|------------------|---|---------------------|---------------------------|-------|---------------|---|--------------------------|
| P / LAB / OFFICE | | | | | | | | | |
| Concrete | | | | | | | | | |
| Shop Floor | 1 | 180 | 40 | 0.5 | 3600 | 133.3 | N | 0.0 | 0.0% |
| Lab Floor | 1 | 40 | 40.5 | 0.5 | 810 | 30.0 | N | 0.0 | 0.0% |
| Office Floor | 1 | 40 | 80 | 0.5 | 1600 | 59.3 | N | 0.0 | 0.0% |
| Perimeter Beam | 1 | 340 | 1 | 4 | 1360 | 50.4 | N | 0.0 | 0.0% |
| Internal Perimeter | 1 | 300 | 1 | 2 | 600 | 22.2 | N | 0.0 | 0.0% |
| Total Concrete | | | | | 7970.0 | 295.2 | | 0.0 | 0.0% |
| Equipment | | | | | | | | | |
| Lab Tables | 0 | 1 | 435 | 3 | 0 | 0.0 | N | 0.0 | 0.0% |
| Air Compressor | 0 | 3 | 3 | 2 | 0 | 0.0 | N | 0.0 | 0.0% |
| Water Heater | 0 | 3 | 3 | 6 | 0 | 0.0 | N | 0.0 | 0.0% |
| Generator | 1 | 6 | 4 | 4 | 96 | 3.6 | N | 0.0 | 0.0% |
| MCC | 1 | 20 | 2 | 8 | 320 | 11.9 | N | 0.0 | 0.0% |
| Total Equipment | | | | | 416 | 15.4 | | 0.0 | 0.0% |
| AL SHOP / LAB / OFFICE | | | | | 8386 | 310.6 | | 0.0 | 0.0% |

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Table RP-5 Supplement Analyses, Equipment and, Tank List for Bond Estimate, October 2011 - October 2012 (Page 3 of 11)

| | | Quantity | Length (Feet) | Width or Area (Feet or Square Feet) | | Volume (Cubic Feet) | Volume (Cubic Yards) | Contamination | Contaminated Volume (Cubic Yards) | Percent Contamination |
|---------|----------------------|----------|------------------|---|-----|---------------------------|----------------------------|---------------|---|--------------------------|
| RECIPII | TATION SECTION | | | | | | | | | |
| С | Concrete | | | | | | | | | |
| | Precip Floor | 1 | 180 | 40 | 0.5 | 3600 | 133.3 | N | 0.0 | 0.0% |
| | Perimeter Beam | 1 | 40 | 1 | 4 | 160 | 5.9 | N | 0.0 | 0.0% |
| Г | Internal Perimeter | 1 | 400 | 1 | 2 | 800 | 29.6 | N | 0.0 | 0.0% |
| Г | Tank Base | 6 | 1 | 140 | 1 | 840 | 31.1 | N | 0.0 | 0.0% |
| Г | Pump Base | 4 | 5 | 5 | 1 | 100 | 3.7 | N | 0.0 | 0.0% |
| | Total Concrete | | | | | 5500 | 203.7 | | 0.0 | 0.0% |
| E | quipment | | | | | | | | | |
| | Filter Press | 2 | 12 | . 3 | 4 | 288 | 10.7 | N | 0.0 | 0.0% |
| ы. Г | YC Slurry Tank | 2 | 1 | 89.1 | 1 | 178.2 | 6.6 | N | 0.0 | 0.0% |
| | YC Slurry Trailer | 0 | 1 | 189 | 1 | 0 | 0.0 | N | 0.0 | 0.0% |
| | Precip. Tank | 4 | 1 | 91.8 | 1 | 367.2 | 13.6 | N | 0.0 | 0.0% |
| | Pumps | 8 | 2 | 2 | 1 | 32 | 1.2 | N | 0.0 | 0.0% |
| | Total Equipment | | | | | 865 | 32.1 | | 0.0 | 0.0% |
| OTAL P | RECIPITATION SECTION | | | | | 6365 | 235.8 | | 0.0 | 0.0% |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank List

Lost Creek Project WDEQ-LQD Permit to Mine Application Original Dec07; Rev11, Oct11

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Table RP-5 Supplement Analyses, Equipment and, Tank List for Bond Estimate, October 2011 - October 2012 (Page 4 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank List

| | Quantity | Length (Feet) | Width or Area (Feet or Square Feet) | Thickness (Feet) | Volume (Cubic Feet) | | Contamination | Contaminated Volume (Cubic Yards) | Percent Contamination |
|--------------------|----------|------------------|---|---------------------|---------------------------|-------|---------------|---|--------------------------|
| ICAL STORAGE | | | | | | | | | |
| Concrete | | | | | | | | | |
| Chem. Floor | 1 | 80 | 40 | 0.5 | 1600 | 59.3 | N | 0.0 | 0.0% |
| Perimeter Beam | 1 | 120 | 1 | 4 | 480 | 17.8 | N | 0.0 | 0.0% |
| Internal Perimeter | 1 | 120 | . 1 | 2 | 240 | 8.9 | N | 0.0 | 0.0% |
| Acid Floor | 2 | 16 | 16 | 1 | 512 | 19.0 | N | 0.0 | 0.0% |
| Acid Perimeter | 2 | 64 | 1 | 2 | 256 | 9.5 | N | 0.0 | 0.0% |
| Tank Base | 4 | 1 | 140 | 1 | 560 | 20.7 | N | 0.0 | 0.0% |
| Pump Base | 4 | 5 | 5 | 1 | 100 | 3.7 | N | 0.0 | 0.0% |
| Total Concrete | | | | | 3748 | 138.8 | | 0.0 | 0.0% |
| Equipment | | | | | | | | | |
| Soda Ash Tank | 1 | 1 | 81 | 1 | 81 | 3.0 | N | 0.0 | 0.0% |
| Bicarb Tank | 1 | 1 | . 56.7 | 1 | 56.7 | 2.1 | N | 0.0 | 0.0% |
| NaOH Tank | 1 | 1 | 81 | 1 | 81 | 3.0 | N | 0.0 | 0.0% |
| NaCl Saturator | 1 | 1 | 75.6 | 1 | 75.6 | 2.8 | N | 0.0 | 0.0% |
| Peroxide Tank | 1 | 1 | 18.9 | 1 | 18.9 | 0.7 | N | 0.0 | 0.0% |
| HCI Tank | 1 | 1 | 2.7 | 1 | 2.7 | 0.1 | N | 0.0 | 0.0% |
| Acid Tank | 2 | 1 | 56.7 | 1 | 113.4 | 4.2 | N | 0.0 | 0.0% |
| Pumps | 6 | 2 | 2 | 1 | 24 | 0.9 | N | 0.0 | 0.0% |
| Total Equipment | | | | | 453 | 16.8 | | 0.0 | 0.0% |
| L CHEMICAL STORAGE | | | | | 4201 | 155.6 | | 0.0 | 0.0% |



Table RP-5 Supplement Analyses, Equipment and, Tank List for Bond Estimate, October 2011 - October 2012 (Page 5 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank List

| | Quantity | Length (Feet) | Width or Area (Feet or Square Feet) | Thickness (Feet) | Volume (Cubic Feet) | | Contamination | Contaminated Volume (Cubic Yards) | Percent Contaminatior |
|-----------------------|----------|------------------|---|---------------------|----------------------------------|-------|---------------|---|--------------------------|
| XCHANGE SECTION | | | | | 1997 2017 1.5 M 4 11 10 10 10 10 | | • ••••••• | | |
| Concrete | | | | | | | | | |
| IX Floor A | 1 | 180 | 80 | 0.5 | 7200 | 266.7 | N | 0.0 | 0.0% |
| IX Floor B | 1 | 40 | 40 | 0.5 | 800 | 29.6 | N | 0.0 | 0.09 |
| Perimeter Beam | 1 | 300 | . 1 | 4 | 1200 | 44.4 | N | 0.0 | 0.0 |
| Tank Base | 12 | 1 | 140 | 1 | 1680 | 62.2 | N | 0.0 | 0.0 |
| IX Base | 56 | 1 | 1 | 2 | 112 | 4.1 | N | 0.0 | 0.0 |
| Pump Base | 8 | 5 | . 5 | 1 | 200 | 7.4 | N | 0.0 | 0.0 |
| Total Concrete | | | | | 11192 | 414.5 | | 0.0 | 0.0 |
| Equipment | | | • | | | | | ······································ | |
| IX Column | 10 | 1 | 86.4 | 1 | 864 | 32.0 | N | 0.0 | 0.09 |
| Guard Column | 2 | 1 | 64.8 | 1 | 129.6 | 4.8 | N | 0.0 | 0.0 |
| Elution Vessel | 2 | 1 | 86.4 | 1 | 172.8 | 6.4 | N | 0.0 | 0.0 |
| Fresh Eluate Tank | 2 | 1 | 91.8 | 1 | 183.6 | 6.8 | N | 0.0 | 0.0 |
| Eluate Tank | 2 | 1 | 91.8 | 1 | 183.6 | 6.8 | N | 0.0 | 0.0 |
| Rich Eluate Tank | 2 | 1 | 99.9 | 1 | 199.8 | 7.4 | N | 0.0 | 0.0 |
| Fresh Water Tank | 2 | 1 | 91.8 | 1 | 183.6 | 6.8 | N | 0:0 | 0.09 |
| Resin Water Decant | 1 | 1 | 35.1 | 1 | 35.1 | 1.3 | N | 0.0 | 0.0 |
| Resin Water Tank | 1 | 1 | 91.8 | 1 | 91.8 | 3.4 | N | 0.0 | 0.0 |
| Waste Water Tank | 2 | 1 | 91.8 | 1 | 183.6 | 6.8 | N | 0.0 | 0.0 |
| RW Sand Filter | 0 | 1 | 13.5 | 1 | 0 | 0.0 | N | 0.0 | 0.0 |
| RW Bag Filter | 4 | 1 | 0.8 | 1 | 3.2 | 0.1 | N | 0.0 | 0.0 |
| RW Element Filter | 4 | 1 | 0.8 | 1 | 3.2 | 0.1 | N | 0.0 | 0.0 |
| Eluate Sump Filter | 4 | 1 | 0.8 | 1 | 3.2 | 0.1 | N | 0.0 | 0.0 |
| Eluate Bag Filter | 6 | 1 | 0.8 | 1 | 4.8 | 0.2 | N | 0.0 | 0.0 |
| Eluate Element Filter | 4 | 1 | 0.8 | 1 | 3.2 | 0.1 | N | 0.0 | 0.0 |
| Resin Screen | 4 | 8 | 4 | 1 | 128 | 4.7 | N | 0.0 | 0.0 |
| RO Unit | 0 | 20 | 4 | 6 | 0 | 0.0 | N | 0.0 | 0.0 |
| RO Pump | 1 | 1 | 3.7 | 1 | 3.7 | 0.1 | N | 0.0 | 0.0 |
| IC/PC Pump | 12 | 1 | 3.7 | 1 | 44.4 | 1.6 | N | 0.0 | 0.0 |
| WDW Pump | 1 | 4 | 6 | 2 | 48 | 1.8 | N | 0.0 | 0.0 |
| Sump Pump | 4 | 1 | 1 | 3 | 12 | 0.4 | N | 0.0 | 0.0 |
| Pumps | 6 | 2 | 2 | 1 | 24 | 0.9 | N | 0.0 | 0.0 |
| Total Equipment | | | | | 2505 | 92.8 | | 0.0 | 0.0 |
| ION EXCHANGE SECTION | | | 1 | | 13697 | 507.3 | r | 0.0 | 0.0 |

Table RP-5 Supplement Analyses, Equipment and, Tank List for Bond Estimate, October 2011 - October 2012 (Page 6 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank List

| | Quantity | Length (Feet) | Width or Area (Feet or Square Feet) | 1 (FAAT) | Volume (Cubic Feet) | | Contamination | Contaminated Volume (Cubic Yards) | Percent Contamination |
|---------------------------|----------|------------------|---|----------|---------------------------|------|---------------|---|--------------------------|
| RESTORATION SECTION | | | | | | | | | |
| Concrete | | | | | _ | | | | |
| Rest. Floor | 1 | 40 | 80 | 0.5 | 1600 | 59.3 | N | 0.0 | 0.0% |
| IX Base | 8 | 1 | 1 | 2 | 16 | 0.6 | N | 0.0 | 0.0% |
| Pump Base | 1 | 5 | 5 | 1 | 25 | 0.9 | N | 0.0 | 0.0% |
| Total Concrete | | | | | 1641 | 60.8 | | 0.0 | 0.0% |
| Equipment | | | | | | | | | |
| Rest. Column | 2 | 1 | 75.6 | 1 | 151.2 | 5.6 | N | 0.0 | 0.0% |
| RO Unit | 0 | 20 | 4 | 6 | 0 | 0.0 | N | 0.0 | 0.0% |
| RO Pump | 0 | 1 | 3.7 | 1 | 0 | 0.0 | N | 0.0 | 0.0% |
| Sump Pump | 1 | 1 | 1 | 3 | 3 | 0.1 | N | 0.0 | 0.0% |
| Pumps | 2 | 2 | 2 | 1 | 8 | 0.3 | Ň | 0.0 | 0.0% |
| Total Equipment | | | | | 162.2 | 6.0 | | 0.0 | 0.0% |
| TOTAL RESTORATION SECTION | | | | | 1803.2 | 66.8 | | 0.0 | 0.0% |

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Table RP-5 Supplement Analyses, Equipment, and Tank Calculations for Bond Estimate, October 2011 - October 2012 (Page 7 of 11)

| | Quantity | Туре | Material | ID (Feet) | Height (Feet) | Unit Volume (Cubic Feet) | Total Volume (Cubic Feet) | Thickness (Inches) | Unit Dry Weight (Pounds) | Total Dry Weight (Pounds) | Unit Crushed Volume (Cubic Yards) | Total Crushed Volume (Cubic Yards) | Vessel Numbers |
|-----------------------|----------|----------|----------|--------------|------------------|-----------------------------------|------------------------------------|-----------------------|--------------------------------|---------------------------------|---|--|-------------------|
| essure Vessels | | | * | | | | | | | | | | |
| Ion Exchange Columns | 10 | Ellip Hd | CS | 11.5 | 9 | 3739 | 37393 | 0.750 | 25000 | 250000 | 3.2 | 32.3 | IX-1 to 10 |
| Guard Columns | 2 | Ellip Hd | ĊS | 6.5 | 9 | 1195 | 2389 | 0.500 | 9200 | 18400 | 2.4 | 4.8 | IX-11, 12 |
| Restoration Columns | 2 | Ellip Hd | CS | 10 | 8 | 2513 | 5027 | 0.625 | 13700 | 27400 | 2.8 | 5.6 | IX-13, 14 |
| Elution Vessels | 2 | Ellip Hd | CS | 11.5 | 9 | 3739 | 7479 | 0.750 | 25000 | 50000 | 3.2 | 6.5 | E-1, 2 |
| nks | | | | | | | | | | | | | • |
| Fresh Eluate Tanks | 2 | Flat Btm | FRP | 14 | 18 | 11084 | 22167 | 1.000 | 10,450 | 20,900 | 3.4 | 6.8 | T-210A, B |
| Eluate Tanks | 2 | Flat Btm | FRP | 14 | 18 | 11084 | 22167 | 1.000 | 10,450 | 20,900 | 3.4 | 6.8 | T-211A, B |
| Rich Eluate Tanks | 2 | Flat Btm | FRP | 14 | 20 | 12315 | 24630 | 1.000 | 11,286 | 22,572 | 3.7 | 7.3 | T-212A; B |
| Fresh Water Tanks | 2 | Flat Btm | FRP | 14 | 18 | 11084 | 22167 | 1.000 | 10,450 | 20,900 | 3.4 | 6.8 | T-200A, B |
| Resin Water Decant | 1 | Cone Btm | FRP | 12 | 8.5 | 3845 | 3845 | 0.750 | 3,896 | 3,896 | 1.3 | 1.3 | T-201 |
| Resin Water Tank | 1 | Flat Btm | FRP | 14 | 18 | 11084 | 11084 | 1.000 | 10,450 | 10,450 | 3.4 | 3.4 | T-202 |
| Waste Water Tanks | 2 | Flat Btm | FRP | 14 | 18 | 11084 | 22167 | 1.000 | 10,450 | 20,900 | 3.4 | 6,8 | T-203A, B |
| Precipitation Tanks | 4 | Flat Btm | FRP | 14 | 18 | 11084 | 44334 | 1.000 | 10,450 | 41;801 | 3.4 | 13.6 | T-213A - D |
| Y/C Slurry Storage | 2 | Cone Btm | CS - RL | 12.5 | 15 | 7363 | 14726 | 0.500 | 8,242 | 16,484 | 3.3 | 6.6 | T-220A, B |
| Soda Ash Tank | 1. | Flat Btm | FRP | 12 | 20 | 9048 | 9048 | 1.000 | 9,316 | 9,316 | 3.0 | 3.0 | T-214 |
| Bicarb Mix Tank | 1 | Flat Btm | FRP | 12 | 12 | 5429 | 5429 | 1.000 | 6,449 | 6,449 | 2.1 | 2.1 | T-215 |
| NaCl Saturator | 1 | Flat Btm | FRP | 12 | 18 | 8143 | 8143 | 1.000 | 8,599 | 8,599 | 2.8 | 2.8 | T-216 |
| NaOH Tank | 1 | Flat Btm | FRP | 12 | 20 | 9048 | 9048 | 1.000 | 9,316 | 9,316 | 3.0 | 3.0 | T-219 |
| H2O2 Tank | 1 | Hor Tank | Alum | 9 | 16.5 | 4199 | 4199 | 0.375 | 2,396 | 2,396 | 0.7 | 0.7 | T-220 |
| Acid Day Tank | 1 | Flat Btm | CS | 5.5 | 6 | 570 | 570 | 0.250 | 773 | 773 | 0.1 | 0.1 | T-217 |
| Acid Tanks | 2 | Flat Btm | FRP | 12 | 12 | 5429 | 10857 | 1.000 | 6,449 | 12,899 | 2.1 | 4.2 | T-218A, B |
| tration | | | | _ | | | | | | | | | |
| RW Sand Filter | 0 | Ellip Hd | ĊS | 6 | 12.5 | 1414 | 0 | 0.500 | 7,450 | 0 | 0.5 | 0.0 | |
| RW Bag Filter | 2 | | 316ss | 2 | 3 | 38 | 75 | 0.375 | 175 | 351 | 0.03 | 0.1 | |
| RW Element Filter | 2 | | 304ss | 2 | 3 | 38 | 75 | 0.375 | 175 | 351 | 0.03 | 0.1 | |
| Eluate Sump Filter | 2 | | 316ss | 2 | 3 | 38 | 75 | 0.375 | 175 | 351 | 0.03 | 0.1 | |
| Eluate Bag Filter | 6 | | 316ss | 2 | 3 | 38 | 226 | 0.375 | 175 | 1,052 | 0.03 | 0.2 | |
| Eluate Element Filter | 2 | | 304ss | 2 | 3 | 38 | 75 | 0.375 | 175 | 351 | 0.03 | 0.1 | |
| Slurry Filter Press | 2 | | | | | | 0 | | | 0 | 0.00 | 0.0 | |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank Calculations



Table RP-5 Supplement Analyses, Equipment, and Tank Calculations for Bond Estimate, October 2011 - October 2012 (Page 8 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Equipment and Tank Calculations

| | Quantity | Турө | Material | ID (Feet) | Height (Feet) | Unit Volume (Cubic Feet) | Total Volume (Cubic Feet) | Thickness (inches) | weight | Total Dry Weight (Pounds) | Unit Crushed Volume (Cubic Yards) | Total Crushed Volume (Cubic Yards) | Vessel Numbers |
|---------------------------------------|----------|------|----------|--------------|------------------|-----------------------------------|------------------------------------|-----------------------|--------|---------------------------------|---|--|----------------------|
| Pumps | | | | | | | | ····· | | | | | _ |
| IC Pumps (75 hp submersible) | 6 | | SS | | | 3.7 | 22 | Γ | 560 | 3,360 | | | P-206A - F |
| PC Pumps (75 hp submersible) | 6 | | SS | | | 3.7 | 22 | | 560 | 3,360 | | | P-207A - F |
| RO Pumps (75 hp horizontal) | 6 | | CS/SS | | | 3.7 | 22 | | 560 | 3,360 | | | |
| Waste Water Pumps (25 hp centrifugal) | 2 | | SS | | | | 0 | | 100 | 200 | | | P-203A/B |
| Resin Water Pumps (20 hp centrifugal) | 4 | | SS | | | | 0 | | 265 | 1,060 | | | P-201A/B, 202A/B |
| Waste Disposal Pump (Plunger) | 0 | | CS/SS | | | 23 | 0 | | 2,400 | 0 | | | |
| Sump Pumps (5 hp) | 4 | | SS | | | | 0 | | 295 | 1,180 | | | |
| Reverse Osmosis | | | | | | | | | | | | | - |
| 200 GPM Unit | 0 | | T | Ι | | | 0 | | | 0 | | | |
| Other | | | • | | | | | | | | | | |
| Resin Screens | 5 | | CS/SS | | | | 0 | | | 0 | | | S-1A, B, S- 2A, B |
| Water Heater | | | | | | | 0 | | | 0 | | | |
| Air Compressor | | | | | | | 0 | | | 0 | | | |
| Slurry Trailer | 0 | | CS | | | | 0 | 0.375 | 15,000 | 0 | 7 | 0.0 | TR-1, 2 |
| Generator | 2 | | | | | | 0 | | | 0 | | | |
| MCC | | | | | | | 0 | | | 0 | | | |

| FRP:= | 89 A.C.I | 21 H H L | 1. i i i i i i | 0.06 |
|-------|-----------|----------|----------------|-------|
| CS = | 1.12 | | | 0.28 |
| SS = | 1.12.6.18 | 1.72.10 | 1945.00 | 0.29 |
| Al = | (r. 6. j | 149.241 | | 0.097 |



Table RP-5 Supplement Analyses, Equipment, and Tank List for Bond Estimate, October 2011 - October 2012 (Page 9 of 11)

| ssumptions/Items | Deep Disposal Well No. 1 | Deep Disposal Well No. 2 | Deep Disposal Weli No. 3 | Total | Source |
|--|--------------------------------|--------------------------------|--------------------------------|---------|-----------|
| IPELINE | | | | | |
| A. Removal | | | | | |
| Total Length (Feet) | 11,850 | 1,230 | 0 | 13,080 | 1 |
| Removal Cost per Foot | \$1.58 | \$1.58 | \$1.58 | | Unit Rate |
| Removal Cost | \$9,362 | \$972 | \$0 | , | Calculate |
| Average OD (Inches) | 4.500 | 4.500 | 4.500 | | |
| Chipped Volume Reduction (Cubic Feet per Foot) | 0.309 | 0.309 | 0.309 | | Unit Rate |
| Chipped Volume (Cubic Feet) | 3,662 | 380 | 0 | 4,042 | Calculate |
| Volume per Truck Load (Cubic Feet) | 540 | 540 | 540 | | |
| Number of Truck Loads | 6.8 | 0.7 | 0.0 | 7.5 | Calculate |
| B. Survey & Decontamination | | | | | |
| Percent Requiring Decontamination | 0.0% | 0.0% | 0.0% | | |
| Number of Decontamination Truck Loads | 0.0 | 0.0 | 0.0 | 0.0 | Calculate |
| Decontamination Cost per Load | \$0.00 | \$0.00 | \$0.00 | | Unit Rate |
| Decontamination Cost | \$0 | \$0 | \$0 | \$0 | Calculate |
| C. Transport & Disposal | | | | | |
| Landfill | | | | | |
| Transportation | | | | | |
| Percent to be Shipped | 100.0% | 100.0% | 0.0% | | 1 |
| Loads to be Shipped | 6.8 | 0.7 | 0.0 | 7.5 | Calculate |
| Distance (Miles) | 48 | 48 | 48 | | |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | | Unit Rate |
| Transportation Cost | \$947 | \$97 | \$0 | \$1,044 | Calculate |
| Disposal | | | | | • |
| Disposal Fee per Cubic Yard | \$13.50 | \$13.50 | \$13.50 | | Unit Rate |
| Load Volume (Cubic Yards) | 20 | | 20 | | |
| | \$1,836 | \$189 | \$0 | \$2.025 | Calculate |
| Disposal Cost | \$1,030 | \$286 | \$0 \$0 | | Calculate |

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Deep Disposal Pipeline Calculations

Lost Creek Project WDEQ-LQD Permit to Mine Application Original Dec07; Rev11, Oct11

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Table RP-5 Supplement Analyses, Equipment, and Tank List for Bond Estimate, October 2011 - October 2012 (Page 10 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Deep Disposal Pipeline Calculations

| .ssumptions/items | Deep Disposal Well No. 1 | Deep Disposal Well No. 2 | Deep Disposal Well No. 3 | Total . | Source |
|--|--------------------------------|--------------------------------|--------------------------------|-----------------|------------|
| PPELINE (continued) | | | | | |
| C. Transport & Disposal (continued) | | | | · · · · · · · · | |
| Licensed Site | | | | | |
| Transportation | | | | | |
| Percent to be Shipped | 0.0% | 0.0% | 0.0% | | Calculated |
| Loads to be Shipped | 0.0 | 0.0 | 0.0 | 0.0 | Calculated |
| Distance (Miles) | 105 | 105 | 105 | | 1 |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | ********** | Unit Rate |
| Transportation Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| Disposal | | | | | |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | \$12.38 | | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | \$334.26 | \$334.26 | | Calculated |
| Load Volume (Cubic Yards) | 20 | 20 | 20 | | |
| Disposal Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| Total Licensed Site Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| Total Transport & Disposal Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| TOTAL PIPELINE REMOVAL & DISPOSAL COST | \$9,362 | \$972 | \$0 | \$10,333 | Calculated |
| IANHOLES | | | | | |
| A. Removal | | | | | |
| Total Quantity | 1 | 1 | 0 | 2 | |
| Removal Cost per Manhole | \$146.32 | \$146.32 | \$146.32 | | Unit Rate |
| Removal Cost | \$146 | \$146 | \$0 | \$293 | Calculated |
| Quantity per Truck Load | 10 | 10 | 10 | | |
| Number of Truck Loads | 0.1 | 0.1 | 0.0 | 0.2 | Calculated |
| B. Survey & Decontamination | | | | | |
| Percent Requiring Decontamination | 0.0% | 0.0% | 0.0% | | |
| Number of Decontamination Truck Loads | 0.0 | 0.0 | 0.0 | 0.0 | Calculated |
| Decontamination Cost per Load | \$0.00 | \$0.00 | \$0.00 | | Unit Rate |
| Decontamination Cost | \$0 | \$0 | \$0 | \$0 | Calculated |

Lost Creek Project WDEQ-LQD Permit to Mine Application Original Dec07; Rev11, Oct11

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Table RP-5 Supplement Analyses, Equipment, and Tank List for Bond Estimate, October 2011 - October 2012 (Page 11 of 11)

LOST CREEK ISR, LLC DECOMMISSIONING AND SURFACE RECLAMATION: Deep Disposal Pipeline Calculations

| sumptions/Items | Deep Disposal Well No. 1 | Deep Disposal Well No. 2 | Deep Disposal Well No. 3 | Total | Source |
|---------------------------------------|---------------------------------------|--------------------------------|--------------------------------|---------|------------|
| ANHOLES (continued) | | | | | <u></u> |
| C. Transport & Disposal | | | | | |
| Landfill | · · · · · · · · · · · · · · · · · · · | | | | |
| Transportation | | | | | |
| Percent to be Shipped | 100.0% | 100.0% | 0.0% | | 1 |
| Loads to be Shipped | 0.1 | 0.1 | 0.0 | 0.2 | Calculated |
| Distance (Miles) | 48 | 48 | 48 | | Unit Rate |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | | Calculated |
| Transportation Cost | \$14 | \$14 | \$0 | \$28 | |
| Disposal | | | | | 4 |
| Disposal Fee per Cubic Yard | \$13.50 | \$13.50 | \$13.50 | | Unit Rate |
| Load Volume (Cubic Yards) | 20 | 20 | 20 | | |
| Disposal Cost | \$270 | \$270 | \$0 | \$540 | Calculated |
| Total Landfill Cost | \$284 | \$284 | \$0 | \$568 | Calculated |
| Licensed Site | | | | | |
| Transportation | | | <u></u> | | |
| Percent to be Shipped | 0.0% | 0.0% | 100.0% | | Calculated |
| Loads to be Shipped | 0.0 | 0.0 | 0.0 | 0.0 | Calculated |
| Distance (Miles) | 105 | 105 | 105 | · | |
| Cost per Mile | \$2.90 | \$2.90 | \$2.90 | | Unit Rate |
| Transportation Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| Disposal | ~~~~~ | | | | |
| Disposal Cost per Cubic Foot | \$12.38 | \$12.38 | \$12.38 | | Unit Rate |
| Disposal Fee per Cubic Yard | \$334.26 | \$334.26 | \$334.26 | | Calculated |
| Load Volume (Cubic Yards) | 20 | 20 | 20 | | |
| Disposal Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| Total Licensed Site Cost | \$0 | \$0 | \$0 | \$0 | Calculated |
| Total Transport & Disposal Cost | \$284 | \$284 | \$0 | \$568 | Calculated |
| TOTAL MANHOLE REMOVAL & DISPOSAL COST | \$430 | \$430 | \$0 | \$860 | Calculated |
| | \$9,792 | \$1,402 | \$0 | ¢44.404 | Calculated |