Official Draft Public Notice Version **September 24, 2020**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

FACT SHEET STATEMENT OF BASIS
UTAH AMERICAN ENERGY, INC. - LILA CANYON MINE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)
MINOR INDUSTRIAL FACILITY RENEWAL DISCHARGE PERMIT
UTAH DIVISION OF WATER QUALITY (DWQ)
UPDES PERMIT NUMBER: UT0026018

FACILITY CONTACTS

Facility Contact:	Karin Madsen	Responsible Official:	David Hibbs
Position:	Engineering Tech.	Position:	President & CEO
Phone:	(435) 888-4026	Phone:	(435) 888-4000

DESCRIPTION OF FACILITY

Facility Name:	Utah American Energy, Inc. - Lila Canyon Mine
Mailing Address:	P.O. Box 910 East Carbon, Utah 84520
Physical Location:	23415 N. Lila Canyon Road Emery County, Utah
Standard Industrial Classifications (SIC):	*1222 - Bituminous Coal Underground Mining (NAICS 212112) and 4952 – Collection and Disposal of Wastes Transported through a Sewer System (NAICS 221320)*

The Utah American Energy, Inc. - Lila Canyon Mine (Mine) is an active underground coal mining facility located in Lila Canyon, Emery County, Utah and discharges to ephemeral tributaries within the Price River watershed. The Mine currently holds this individual UPDES permit for its sanitary sewage and grey water system, which was newly constructed as part of the initial permit issuance in 2015. The Mine also has been historically covered under the UPDES Coal Mining General Permit No. UTG040024 for its mine water and sedimentation pond discharges, but has requested combining both permits into one UPDES Permit going forward. The Mine requested this combination permit because of increased flooded mine works which require increased dewatering, and thereby are no longer able to meet the flow limit requirement in the Coal Mining General Permit. The Mine currently has a total of three permitted Outfalls between the two UPDES permits that will now be combined into one UPDES permit making it more efficient to manage. Upon issuance of this combined permit, coverage under the Coal Mining General Permit No. UTG040024 will automatically cease as appropriate.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

There are three significant changes being proposed in this renewal permit.

1. As mentioned above, the permit will now have a total of three outfalls as the two outfalls from UPDES Permit No. UTG040024 have been combined into this permit, including all

applicable limits for the mine water and sedimentation pond discharges (Outfalls 002 & 003, respectively).

2. Quarterly monitoring of the mine water discharges for the following total recoverable metals have been added; aluminum, arsenic, boron, cadmium, chromium, copper, lead, mercury, nickel, silver, selenium and zinc. The additional metals monitoring is described further in the Reasonable Potential section of this Fact Sheet; and,
3. The addition of turbidity monitoring has been included as described in the Self-Monitoring & Reporting Requirements table of this Fact Sheet.

DESCRIPTION OF DISCHARGES

Outfalls	Description
001	Located at latitude 39° 25' 37" north and longitude 110° 21' 1" west. Discharge is from a sanitary wastewater package plant to an unnamed ditch to Lila Canyon Wash.
002	Located at latitude 39° 25' 26.97" north and longitude 110° 20' 55.24" west. Mine water discharge southeast of sedimentation pond to Grassy Wash.
003	Located at latitude 39° 25' 28" north and longitude 110° 20' 53" west. Sedimentation pond discharge to Grassy Wash.

RECEIVING WATERS AND STREAM CLASSIFICATION

Both Lila Canyon Wash and Grassy Wash are tributaries to the Price River, which is approximately ten miles downstream of the Mine. Per *Utah Administrative Code (UAC) R317-2-13.1b*, the beneficial uses for the Price River and tributaries, from confluence with the Green River to Carbon Canal Diversion at Price City Golf Course are 2B, 3C and 4 as defined below:

Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

Class 3C -- Protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

BASIS FOR EFFLUENT LIMITATIONS

In accordance with regulations promulgated in *40 Code of Federal Regulations (CFR) Part 122.44* and in *UAC R317-8-4.2*, effluent limitations are derived from technology-based effluent limitations guidelines, Utah Secondary Treatment Standards (*UAC R317-1-3.2*) and Utah Water Quality Standards (*UAC R317-2*) as applicable. In cases where no limits have been developed, Best Professional Judgment (BPJ) may be used where applicable. "Best Professional Judgment" refers to a discretionary, best professional decision made by the permitting authority based upon precedent, prevailing regulatory standards or other relevant information.

Permit limits can also be derived from the Wasteload Analysis (WLA), which incorporates Secondary Treatment Standards, Water Quality Standards, including Total Maximum Daily Load (TMDL) impairments as appropriate, Antidegradation Reviews and designated uses into a water quality model that projects the effects of discharge concentrations on receiving water quality. Effluent limitations are those that the model demonstrates are sufficient to meet State Water Quality Standards in the receiving waters. During this UPDES permit development, a WLA and ADR were completed. An ADR Level I review was performed and concluded that an ADR Level II review was required since there is a proposed increase in total flows from the previous permit. The Level II ADR was previously completed and approved and has been included hereto for reference. The WLA indicates that the effluent limitations will be sufficiently protective of water quality, in order to meet State water quality standards in the receiving waters. The WLA and ADR are attached as an addendum to this FSSOB.

The following outline lists the basis for the effluent limitations for all Outfalls unless stated otherwise;

1) Daily minimum and maximum limitations for pH are derived from the Utah Secondary Treatment Standards and the Water Quality Standards as cited above.
2) The dissolved oxygen (DO) minimum limitations are based upon the State Water Quality Standard (*UAC R317-2 Table 2.14.2*) and the WLA.
3) Regarding *E. coli*, biochemical oxygen demand (BOD_5), and total suspended solids (TSS); the 30-day and 7-day averages, along with BOD_5 and TSS percent removal requirements, are all derived from the Utah Secondary Treatment Standards as well (Outfall 001 only).
4) The seasonal limits for ammonia as nitrogen (NH_3-N) for Outfall 001 are derived from the WLA.
5) Since the Mine discharge meets the EPA definition of "alkaline mine drainage," the permittee is subject to the technology based effluent limitations in *40 CFR Part 434.45*. Applicable technology based limits included in the permit are as follows for Outfalls 002 and 003 as appropriate:

    a. Total suspended solids (TSS) daily maximum limit of 70 mg/L.

    b. For discharges composed of surface water or mine water commingled with surface water, *40 CFR Part 434.63* allows alternate effluent limits to be applied when discharges result from specific runoff events, detailed below and in the permit. The

Mine has the burden of proof that the described runoff event occurred as described in the permit. This applies at surface water runoff pond outfalls only (Outfall 003).

i. For runoff events (rainfall or snowmelt) less than or equal to a 10-year 24-hour precipitation event, settleable solids may be substituted for TSS and shall be limited to 0.5 milliliters per liter (ml/L). All other effluent limitations must be achieved concurrently, as described in the permit.

6) Total dissolved solids (TDS) are limited by both mass loading and concentration requirements as described below:

a. Since discharges from the Mine would eventually reach the Colorado River, TDS mass loading is limited according to policies established by the Colorado River Basin Salinity Control Forum (Forum), as authorized in *UAC R317-2-4* to further control salinity in the Utah portion of the Colorado River Basin. On February 28, 1977 the Forum produced the *"Policy For Implementation of Colorado River Salinity Standards Through the NPDES Permit Program"* (Policy), with the most current subsequent triennial revision dated October 2017. Based on Forum Policy, provisions have previously been approved by DWQ for salinity-offset projects to account for any TDS loading in excess of the 1 ton/day requirement as a sum of all outfalls at the Mine. Salinity-offset provisions have now been included in the Mine's permit as the facility remains current on the requirements included therein to account for all excess TDS loading above the 1 ton/day requirement. If the concentration of TDS at any Outfall is less than or equal to 500 mg/L as a thirty day average, then no loading limit applies for that Outfall. These provisions and requirements, as described further in both the permit and in a latter section of this Fact Sheet, have been included in the permit as appropriate.

b. For TDS concentration limitations, the water quality standards include a Site Specific Standard of 3,000 mg/L, which was developed by the Division of Water Quality for the Price River and tributaries from confluence with Green River to the confluence with Soldier Creek. Based on this site specific standard, the Lila Mine can discharge up to, but not exceed, an effluent concentration of 3,000 mg/L TDS for Outfalls 002 and 003. Outfall 001 previously had a TDS concentration limit of 1,500 mg/L, because the water supplied to the bathhouse is treated by reverse osmosis and meets drinking water standards making it unlikely that the TDS in the effluent will ever exceed 1,500 mg/L. Therefore, the TDS limitation for Outfall 001 shall remain 1,500 mg/L as a daily maximum value. This is based upon BPJ of the permitting authority in conjunction with Mine personnel.

7) The iron limitation for Outfalls 002 & 003 are based upon the State Water Quality Standard of 1.0 mg/L for dissolved iron (*UAC R317-2 Table 2.14.2*) and the WLA limitation of 1.0 mg/L for total recoverable iron. Total recoverable iron is a more stringent limit than dissolved iron since the dissolved component is a part of the total recoverable component. This is consistent with other coal mine permits statewide.

8) Oil and Grease concentrations are limited to 10 mg/L based upon BPJ of the permitting authority to be consistent with other industrial facilities statewide.

REASONABLE POTENTIAL ANALYSIS

Since January 1, 2016, DWQ has conducted reasonable potential analysis (RP) on all new and renewal applications received after that date. RP for this permit renewal was conducted following DWQ's September 10, 2015 Reasonable Potential Analysis Guidance (RP Guidance). There are four outcomes defined in the RP Guidance: Outcome A, B, C, or D. These Outcomes are described further in the attached RP analysis and provide a frame work for what routine monitoring or effluent limitations are required.

A qualitative RP analysis was performed on the parameters of concern, as derived from the current permit and WLA, to determine if there was reasonable potential for the mine water discharges to exceed the applicable water quality standards. Based on the RP analysis, only Total Iron for Outfall 002 exceeded the water quality standard or was determined to have a reasonable potential to exceed the standard. However, an RP analysis could not be completed on any other metals because metals monitoring has not been included in previous permits (except for iron which is already in the permit with a limit). Therefore, this renewal permit will require that the permittee obtain additional metals data by monitoring the mine water discharges on a quarterly basis for total recoverable concentrations of aluminum, arsenic, boron, cadmium, chromium, copper, lead, mercury, nickel, silver, selenium and zinc, so that a more thorough RP analyses can be performed in the future. The RP analysis is included as an attachment at the end of this FSSOB.

The permittee is expected to be able to comply with the permit limitations as follows:

OUTFALL 001

Parameter, Units	Effluent Limitations *a				
	Maximum Monthly Avg	Minimum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
Total flow, MGD, *b	0.004375	--	--	--	0.00875
BOD_5, mg/L BOD_5 Min. % Removal, *c	25 85	-- --	35 --	-- --	-- --
TSS, mg/L TSS Min. % Removal, *c	25 85	-- --	35 --	-- --	-- --
E-Coli, No./100mL	126	--	158	--	--

Ammonia (NH_3-N), mg/L:					
Summer (July – Sept.)	4.1	--	--	--	8.4
Fall (Oct. – Dec.)	5.1	--	--	--	8.4
Winter (Jan. – March)	5.8	--	--	--	8.4
Spring (April – June)	5.1	--	--	--	8.4
TDS, mg/L, *d	Report	--	--	--	1500
TDS, tons/day, *d	Report	--	--	--	--
Oil & Grease, mg/L, *e	--	--	--	--	10
DO, mg/L	--	5.0	--	3.0	--
pH, Standard Units	--	--	--	6.5	9

MGD - million gallons per day; mg/L - milligrams per liter

OUTFALL 001

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b	Continuous	Recorder/Measured	MGD
BOD_5, Influent *c	Monthly	Composite/Grab	mg/L
Effluent	Monthly	Composite/Grab	mg/L
TSS, Influent *c	Monthly	Composite/Grab	mg/L
Effluent	Monthly	Composite/Grab	mg/L
E. Coli	Monthly	Grab	No./100mL
pH	Monthly	Grab	SU
TDS, *d	Monthly	Grab	mg/L & lbs/day
DO	Monthly	Grab	mg/L
Ammonia (NH_3-N)	Monthly	Composite/Grab	mg/L
Oil and Grease *e	Monthly	Visual/Grab	mg/L

There shall be no visible sheen or floating solids or visible foam in other than trace amounts upon any discharges and there shall be no discharge of any sanitary wastes at any time.

OUTFALLS 002 & 003 (Unless stated otherwise)

Parameter, Units	Effluent Limitations *a			
	Maximum Monthly Average	Minimum Monthly Average	Daily Minimum	Daily Maximum
Total Effluent Flow, MGD, *b	3.0	--	--	Report
Total Iron, mg/L	--	--	--	1.0

Total Suspended Solids (TSS), mg/L	--	--	--	70
Total Dissolved Solids (TDS), mg/L, *d	Report	--	--	3000
Total Dissolved Solids (TDS), tons/day, *d	Report	--	--	--
Dissolved Oxygen, mg/L	--	5.0	3.0	--
pH, Standard Units(SU)	--	--	6.5	9.0
Oil & Grease, mg/L, *e	--	--	--	10
Turbidity, NTU, *f	--	--	--	Report
Total Recoverable Metals, mg/L (002 only), *g	--	--	--	Report

MGD - million gallons per day; mg/L - milligrams per liter

OUTFALLS 002 & 003 (Unless stated otherwise)

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow, *b	Continuous/Monthly	Recorder/Measured	MGD
Total Iron	Monthly	Grab	mg/L
TSS	Monthly	Grab	mg/L
TDS, *c	Monthly	Grab	mg/L & tons/day
pH	Twice Monthly	Grab	SU
Oil & Grease, *e	Monthly Monthly	Grab Visual	mg/L, Yes/No
Turbidity, *f	Twice Monthly	Grab	NTU
Dissolved Oxygen	Twice Monthly	Grab	mg/L
Total Recoverable Metals (Outfall 002 only), *g	Quarterly	Grab	mg/L

There shall be no visible sheen or floating solids or visible foam in other than trace amounts upon any discharges and there shall be no discharge of any sanitary wastes at any time.

*a See Permit *Part VI* for definition of terms.

*b If the rate of discharge is controlled, such as from intermittent discharging outfalls, the rate and duration of discharge shall be reported. Flow measurements of effluent volumes from all outfalls shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained. Outfall 002 only shall have a

monthly maximum average flow limitation of 3.0 MGD and shall be continuously measured.

*c In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

*d No tons per day loading limit will be applied if the concentration of TDS from each outfall is equal to or less than 500 mg/L as a thirty-day average. However, if the 30-day average concentration exceeds 500 mg/L, then the permittee cannot discharge more than 1 ton per day as a sum from all discharge points. Upon previous determinations by the Director, if the permittee is not able to meet the 500 mg/L 30-day average or the 1 ton per day loading limit, then the permittee is required to continue to participate in and/or fund a salinity offset project to include the TDS offset credits as appropriate.
The salinity-offset project shall include TDS credits on a ton-for-ton basis for which the permittee is over the 1 ton per day loading limit. The tonnage reduction from the offset project must be calculated by a method similar to one used by the NRCS, Colorado River Basin Salinity Control Forum, and/or other applicable agency.

A monitoring and adjustment plan to track the TDS credits shall continue to be submitted to the Director for each monthly monitoring period during the life of this permit. Any changes to the monitoring and adjustment plan must be approved by the Director and upon approval shall be appended to this permit.

*e Oil & grease monitoring for Outfall 001 shall initially be a visual inspection performed at least once per month. If any oil and /or grease sheens are observed visually, then a sample of the effluent must be taken and this sample shall not exceed 10 mg/L. Monthly oil & grease sample analyses shall be conducted at outfalls 002 & 003 when discharging. In addition to monthly sampling for oil and grease, a visual inspection for oil and grease shall be performed at least once per month at outfalls 002 & 003. If any oil and/or grease sheens are observed visually, or there is any other reason to believe that oil and/or grease may be present in the discharge, then a sample of the effluent must be immediately taken and this sample shall not exceed 10 mg/L.

*f Turbidity monitoring shall be conducted twice monthly whenever possible upon discharging from Outfalls 002 & 003 to ensure that there is not an increase of more than 10 NTU over the receiving waters, if applicable.

*g Total Recoverable Metals monitoring required for mine water discharges from Outfall 002 only and includes; aluminum, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc.

BIOSOLIDS MANAGEMENT PROGRAM

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. The sanitary treatment system at Lila Canyon is a small package plant, known as an Orenco system. Sewage will be sent from the bath house to a septic tank (approx. 18000 gallons) where most of the solids will be retained and the liquid pumped to the Orenco System. Solids will have to be disposed of as required by the 503 requirements. The Lila Canyon Mine plans to have the septic tank pumped out when needed and the solids disposed of as septage at a treatment plant for disposal.

STORM WATER REQUIREMENTS

Based on the type of industrial activities occurring at the facility, the permittee is required to maintain separate permit coverage, or an appropriate exclusion, under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities (UTR000000). If the facility has not already done so, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation. This can be accomplished online at: https://deq.utah.gov/water-quality/general-multi-sector-industrial-storm-water-permit-updes-permits.

In addition, separate permit coverage under the Construction General Storm Water Permit (CGP) may be required for any non-mining related construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction. This can also be accomplished online at: https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits.

PRETREATMENT REQUIREMENTS

This facility does not discharge process wastewater to a sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as a direct discharge or as a hauled waste, is subject to federal, state, and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable federal general pretreatment regulations promulgated, found in 40 CFR 403, the state's pretreatment requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

In addition, in accordance with *40 CFR 403.12(p)(1)*, the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under *40 CFR 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring) dated February 2018.* Authority to require effluent biomonitoring is provided in Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and UAC R317-2-7.2.

The permittee is not classified as a major facility or a significant minor facility and any discharges to date from the Mine are from intercepted ground water only, in which toxicity has previously not been identified as an existing or a potential concern. Discharges are to ephemeral drainages and do not normally reach the downstream waters of the Price River. Outfall 001 discharges are from a sanitary waste package plant that will receive only domestic wastes from a bath house associated with Lila Canyon Mine. Outfall 003 discharges are from a sedimentation pond that collects surface water runoff from the active mining area. Outfalls 001 & 003 have not discharged to date and will likely only discharge intermittently if at all in the near future. Regarding Outfall 002 and upon request from DWQ during the development of this permit, the permittee performed a chronic biomonitoring whole effluent toxicity (WET) test on the mine water from Outfall 002, using the appropriate test species and methods, which resulted in no toxicity.

Based on these considerations, there is no reasonable potential for toxicity in the Mine's discharge. As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit at any time in the future so that WET testing and WET limitation requirements can be incorporated should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

It is recommended that this permit be effective for five (5) years, as per *UAC R317-8-5.1(1)*.

Drafted and reviewed by

Jeff Studenka, Discharge & Colorado River Basin Salinity Control
Lonnie Shull, Biomonitoring
Dan Griffin, Biosolids

Lisa Stevens, Storm Water
Jen Robinson, Pretreatment
Amy Dickey, Watershed/TMDL
Nick Von Stackleberg, Wasteload Analysis & ADR

Utah Division of Water Quality, (801) 536-4300
September 15, 2020

PUBLIC NOTICE INFORMATION (to be updated later)

Began:
Ended:

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Notice of the draft permit will be published on DWQ's website for at least 30 days as per *Utah Administrative Code (UAC) R317-8-6.5.*

During the public comment period provided under *UAC R317-8-6.5*, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in *UAC R317-8-6.12*.

ADDENDUM TO FSSOB

ATTACHMENTS (2): I. Wasteload Analysis and Antidegradation Reviews
II. Reasonable Potential Analysis Summary

DWQ-2020-016553

This Page Intentionally Left Blank

ATTACHMENT 1

Wasteload Analysis and
Antidegradation Reviews

This Page Intentionally Left Blank

ATTACHMENT 2

Reasonable Potential Analysis

REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by utilizing an EPA approved method and guidance document. As a result, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available online. There are four resulting outcomes for the RP Analyses[1]. They are;

Outcome A: A new effluent limitation will be placed in the permit.
Outcome B: No new effluent limitation. Routine monitoring requirements will be placed or increased from what they are in the permit,
Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit,
Outcome D: No limitation or routine monitoring requirements are in the permit.

The Initial RP Screening RP Table is included below for the parameters of concern (POCs), as derived from the previous permits, TMDL and/or WLA. Note that the full RP analysis model could not be utilized at this time due to the lack of metals data.

RP Initial Screening Table for Lila Mine Water (UTG040024)
2015-2019 Data Summary Results & RP Analysis (Outfall 002)
(Outfalls 001 & 003 did not discharge)

Parameter	No. of Samples	MEC* mg/L	Water Quality Standards MAC**			Result
			WLA mg/L	Acute mg/L	Chronic mg/L	
Total Iron	60	**1.78**	1.0	NA	NA	**MEC > MAC = RP**
TSS	60	70	NA	70	NA	MEC ≤ MAC
pH	60	7.57	6.5-9.0	NA	NA	MEC ≤ MAC
Dissolved Oxygen	2	6.7/6.8	3.0/5.0 (min)	3.0 (min)	5.0 (min)	MEC ≤ MAC

Notes: NA = not applicable.

*MEC = Maximum expected effluent concentration as determined from existing data set.

**MAC = Maximum allowable concentration from Water Quality Standards and/or Wasteload Analysis.

MEC > MAC = Reasonable Potential identified.

MEC less than or equal (≤) to MAC, No Acute or Chronic limits required.

Result: **Outfall 002** (mine water discharge) the above result of the RP analysis is **MEC > MAC = Reasonable Potential identified** for total iron, which already has a specific effluent limit. This equates to *RP Outcome B: No new effluent limitation. Routine monitoring requirements will be*

[1] See Reasonable Potential Analysis Guidance for further definitions of terms

placed or increased from what they are in the permit. Additional metals monitoring has been added in the permit however, so that a complete RP analysis model can be completed in the future.

Outfalls 001 & 003, since there are no discharges to date, the result of the RP analysis by default is MEC less than or equal (≤) to MAC with No Acute or Chronic limits required, which equates to *RP Outcome C: No new effluent limitation. Routine monitoring requirements maintained as they are in the permit.*

Summary:

Based upon the policy "Reasonable Potential Analysis Guidance" developed by the Utah Division of Water Quality on September 10, 2015 and subsequently implemented beginning January 1, 2016 for all new and renewal permits; it was determined not to include any additional effluent limits in the 2020 renewal permit. This is because all the data points reviewed did not exceed the applicable Water Standards and/or method detection limits, excepting for total iron which already has specific effluent limitations as derived from the WLA and permit development to be most protective of the receiving waters (see table above). Therefore, no RP currently exists at the facility for the identified POCs, except for total iron at Outfall 002 and a more quantitative RP analysis was not applicable at this time. However, monitoring for the additional metals (Aluminum, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, and Zinc) will be included as detailed in the Fact Sheet and permit for the mine water discharging from Outfall 002, so that a more thorough RP analysis can be conducted in the future. This will be re-evaluated in subsequent years as appropriate.