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NI 43-101 Technical Report
Preliminary Economic Assessment
Gas Hills Uranium Project
Fremont and Natrona Counties, Wyoming, USA

Effective Date: June 28, 2021
Report Date: August 10, 2021

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1.0 EXECUTIVE SUMMARY

1.1 Background

This report titled "NI 43-101 TECHNICAL REPORT, PRELIMINARY ECONOMIC ASSESSMENT, GAS HILLS URANIUM PROJECT, FREMONT AND NATRONA COUNTIES, WYOMING, USA" (the "Report") was prepared in accordance with National Instrument 43-101, Standards of Disclosure for Mineral Projects ("NI 43-101 Standards"). The Mineral Resources are in accordance with Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards Mineral Resources and Mineral Reserves, May 10, 2014 ("CIM Definition Standards"). The effective date of this report is June 28, 2021.

The Gas Hills Uranium Project (the "Project") is owned by UColo Exploration Corp. ("UColo"), a Utah corporation, and a wholly owned subsidiary of URZ Energy Corp. ("URZ"). URZ is a wholly owned subsidiary of Azarga Uranium Corp. ("Azarga"). Surface land ownership at the Project is managed by the U.S. Bureau of Land Management (BLM) and the minority of the land is privately owned.

A NI 43-101 Technical Report Resource Report, Gas Hills Uranium Project, Fremont and Natrona Counties, Wyoming, USA was previously prepared by Roughstock Mining Services (Roughstock) with an effective date of March 29, 2021 (Roughstock 2021). Roughstock and WWC Engineering (WWC) were retained by Azarga to prepare this independent Preliminary Economic Assessment (PEA) for the in-situ recovery (ISR) amenable resources of the Project. The purpose of this PEA is to provide a mineral resource estimate and capital (CAPEX) and operating (OPEX) cost estimates and economic analysis with the most recent market information. This report is authored by Steve Cutler, P.G. of Roughstock and Ray Moores, P.E. of WWC (The Authors) as independent qualified persons under NI 43-101 Standards.

Between 1953 and 1988 many companies explored, developed, and produced uranium in the Gas Hills, including on lands now controlled by Azarga. Three uranium mills operated in the district and two others nearby were also fed by ore mined from Gas Hills. Cumulative production from the Gas Hills is in excess of 100 million pounds of uranium, mainly from open-pit mining, but also from underground mining and ISR. (Beahm, 2017)

Available data utilized in this Report includes pre-2007 exploration and production on Azarga's Gas Hills Uranium Project, and drilling completed by a previous owner, Strathmore Minerals Corporation, from 2007 to June 2013. In August 2013, Strathmore Minerals Corporation was acquired by Energy Fuels, who subsequently sold the Project to URZ in October 2016. Azarga acquired the Project when it merged with URZ in July 2018.

Data sources for the estimation of uranium mineral resources for the Project include radiometric equivalent data (eU_3O_8) for 4,569 drill holes, and eU_3O_8 and Prompt Fission Neutron ("PFN") logging data for 272 drill holes. The intent of recent drilling between 2007 and 2013 included verification of earlier data for drill holes and exploration.

Metallurgical studies were completed on recovered materials including bulk samples from reverse circulation drilling and cored sections. Bottle roll and column leach tests indicate uranium recoveries of ~90 percent and sulfuric acid consumption of ~55 pounds per ton treated, which is consistent with past mining results.

1.2 Mineral Resources

The mineral resource estimation method utilized in this Report is the Grade Thickness ("GT") contour method. This method is considered appropriate for this type of deposit.

Mineral resources were estimated using a cutoff grade of 0.02% eU_3O_8. Estimated mineral resources are summarized in Table 1.1 using both 0.1 GT and 0.2 GT cutoffs. The 0.1 GT base case cutoffs were selected by meeting economic criteria for both ISR and open pit/heap leach methods differentiated on the relative location to the water table. Resources labeled "ISR" meet the criteria of being sufficiently below the water table to be amenable for extraction by ISR methods and as well as also meeting other hydrogeological criteria. "Non-ISR" resources include those generally above the natural water table, which would typically be mined using open pit methods.

Additionally, 0.2 GT cutoffs were included for ISR resources for additional comparison purposes only as this is a typical uranium industry standard ISR cutoff. However, average grade of ISR resources in this estimate at a 0.1 GT cutoff compare favorably to other ISR projects in region, met economic criteria for ISR extraction, and thus is considered the base case for this Report.

Section 14.0 provides additional details regarding the determination of cutoff grade, GT cutoff, and the assessment of reasonable prospects for eventual economic extraction of the mineral resource.

1.3 Project

The Project consists of four resource areas that contain ISR amenable resources named by Azarga as the West Unit, Central Unit, South Black Mountain, and Jeep. There is an additional non-ISR amenable resource area at the Project named the Rock Hill Unit was as well as other shallow with resources located above the water table that were not considered in the economic assessment portion of this PEA. For the purposes of this PEA, uranium recovery was estimated at 6,507,000 lbs at a production rate of 1.0 million pounds U_3O_8 per year with a long-term uranium price of USD $55.00/lb using a low pH lixiviant.

Table 1.1. Mineral Resource Summary

March 29, 2021 (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	2,051,065	993,928	0.103%	5.35	0.552
Indicated	8,714,126	6,031,224	0.072%	6.13	0.443
Inferred	490,072	514,393	0.048%	6.16	0.293
Total M&I	10,765,191	7,025,152	0.077%	6.05	0.463
March 29, 2021, ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	2,051,065	993,928	0.103%	5.35	0.552
Indicated	5,654,545	2,835,339	0.100%	4.92	0.491
Inferred	427,817	409,330	0.052%	5.94	0.310
Total M&I	7,705,610	3,829,267	0.101%	4.99	0.502
March 29, 2021, Non-ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	3,059,581	3,195,885	0.048%	8.60	0.412
Inferred	62,256	105,063	0.030%	7.01	0.208
Total M&I	3,059,581	3,195,885	0.048%	8.60	0.412
March 29, 2021, ISR Only (GT cutoff 0.20)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	1,887,847	847,570	0.111%	5.94	0.661
Indicated	4,872,128	2,143,763	0.114%	5.74	0.653
Inferred	290,007	260,544	0.056%	8.44	0.470
Total M&I	6,759,975	2,991,333	0.113%	5.77	0.653

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Labor for the Project will likely come from the nearby population centers of Jeffery City, Casper, and Riverton, WY. The Project is accessible via gravel roads and year-round access should not be a problem. The Project is situated near electric transmission lines and access to power is not anticipated to be a problem. As discussed in Section 18, appropriate resources, manpower, and access are available to provide services to the Project.

The proposed wellfields consist of a combination of 5-spot and 7-spot well patterns with an average pattern area of approximately 17,000 ft^2. Header houses will be installed in the wellfields and each header house will operate approximately 75 wells. A satellite ion exchange (IX) plant will be located at the West Unit and be connected to the other resource area by high density polyethylene (HDPE) pipelines to transport the lixiviant to the satellite plant for processing. The

IX resin will be transported to Azarga's Dewey-Burdock Uranium Project in South Dakota for processing. A discussion of wellfields and header houses is located in Section 16 and the discussion of the satellite plant is located in Section 17.

Production will generally occur at each resource area consecutively and the production period will occur over a period of approximately seven years. Groundwater restoration, decommissioning, and reclamation will be implemented at each resource area immediately following the production period. The overall life of mine is approximately 11 years from initiation of construction activities to the completion of surface reclamation. The mine schedule is discussed in Section 16.

1.4 Economic Analysis

This PEA indicates a pre-tax NPV of $120.9 million at an 8 percent discount rate with an IRR of 116 percent compared to an after-tax NPV of $102.6 million at an 8 percent discount rate with an IRR of 101 percent.

The mine plan and economic analysis are based on the following assumptions:

- NI 43-101 compliant estimate of Mineral Resources and a recovery factor of 80 percent,
- A U_3O_8 sales price of $55.00/lb,
- A mine life of 11 years,
- A pre-income tax cost including royalties, state and local taxes, operating costs, and capital costs of $28.20/lb, and
- Initial capital costs of $26.0 million.

Costs for the Project are based on economic analyses for similar ISR uranium projects in the Wyoming region as well as WWC's in house experience with mining and construction costs. All costs are in U.S. dollars (USD). To date, no detailed design work has been completed for the wellfields or the satellite plant. The Authors believe that general industry costs from similar projects adequately provide a ± 30 percent cost accuracy which is in accordance with industry standards for a PEA. As additional data are collected for the Project and the wellfield and plant designs are advanced, estimates can be refined.

This analysis is based on measured, indicated, and inferred mineral resources which do not have demonstrated economic viability. Given the speculative nature of mineral resources, there is no guarantee that any or all of the mineral resources included in this PEA will be recovered. This PEA is preliminary in nature and there is no certainty that the Project will be realized.

1.5 Conclusions and Recommendations

The Authors conclude that the ISR amenable mineral resources as determined by this report show sufficient economic and technical viability to move to the next stage of development. The Authors recommend that Azarga consider initiating permitting of the Project, especially as much of the work was previously completed for a mine application prepared for the Project in 2013 by Strathmore Minerals Corporation. The Authors' recommendations for additional work programs are described in Section 26.0.

1.6 Summary of Risks

The Project is located in a brownfield district where the geology is well-known and past mining and milling have successfully been completed.

The Project does have some risks similar in nature to other mineral projects and uranium projects in particular. Some risks are summarized below and are discussed in detail in Section 25:

- Variance in the grade and continuity of mineralization from what was interpreted by drilling and estimation techniques,
- Environmental, social and political acceptance of the Project could cause delays in conducting work or increase the costs from what is assumed,
- Risk associated with delays or additional requirements for regulatory authorizations,
- Risk associated with the uranium market and sales contract,
- Risk associated with uranium recovery and processing,
- Changes in the mining and mineral processing recovery, and
- Due to limited testing and operation of ISR throughout the Project, ISR operations may not be able to be successfully implemented due to hydrogeological, environmental, or other technical issues.

With regard to the socio-economic and political environment of the Gas Hills Uranium Project area, Wyoming mines have produced over 200 million pounds of uranium from both conventional and ISR mine and mill operations. Production began in the early 1950's and continues to the present. The state has ranked as the number one US producer of uranium since 1994. Wyoming is considered generally favorable to mine development and provides a well-established environmental regulatory framework for ISR which has been conducted in the state since the 1960's.

To the Authors' knowledge there are no other significant risks that could materially affect the PEA or interfere with the recommended work programs.

2.0 INTRODUCTION

This report titled "NI 43-101 TECHNICAL REPORT, PRELIMINARY ECONOMIC ASSESSMENT, GAS HILLS URANIUM PROJECT, FREMONT AND NATRONA COUNTIES, WYOMING, USA" (the "Report") was prepared in accordance with National Instrument 43-101, Standards of Disclosure for Mineral Projects ("NI 43-101 Standards"). The Mineral Resources are in accordance with Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards Mineral Resources and Mineral Reserves, May 10, 2014 ("CIM Definition Standards"). The effective date of this Report is June 28, 2021.

This independent PEA was prepared for Azarga by Roughstock and WWC under the supervision of Steve Cutler, P.G. and Ray Moores P.E. A NI 43-101 Technical Report was previously prepared by Roughstock with an effective date of March 29, 2021 (Roughstock 2021). This PEA is intended to state the mineral resource estimate and calculate the capital and operating cost estimates and economic analysis with the most recent market information.

Data sources for the estimation of uranium mineral resources for the Project include radiometric equivalent data (eU_3O_8) for 4,569 drill holes (4,056 pre-2007), and eU_3O_8 and PFN logging data for 272 drill holes completed between 2007 and 2013.

Units of measurement unless otherwise indicated are feet (ft), miles, acres, pounds (lbs), and short tons (2,000 lbs). Uranium production is expressed as pounds U_3O_8, the standard market unit. ISR refers to in-situ recovery, sometimes also termed in-situ leach (ISL). Unless otherwise indicated, all references to dollars ($) refer to United States currency. Table 2.1 provides a brief list of the terms, abbreviations, and conversion factors used in this Report.

Steve Cutler, P.G. is the independent qualified person responsible for the preparation of this Report and the mineral resource estimates herein. Mr. Cutler is a Qualified Person (QP) under NI 43-101 Standards responsible for the content of this Report and a Professional Geologist with 34 years of professional and managerial experience. Mr. Cutler is responsible for development of sections 1-15 and 23-27 of this report.

Ray Moores, P.E. is the independent qualified person responsible for the preparation for this Report and the technical and economic analysis herein. Mr. Moores is a QP under NI 43-101 Standards with 19 years of industry experience including 13 years direct experience with ISR uranium mining, permitting, and licensing. Mr. Moores is responsible for development of sections 1-5, 16-22, and 24-27 of this report.

Steve Cutler, P.G. and Ray Moores P.E. conducted a site visit on May 24, 2021. Steve Cutler also previously visited the site on October 7, 2020. The purpose of the visit was to observe the geology of the site, review current site activities, observe potential locations of Project infrastructure, understand the location of historic exploration and mining activities, and gain knowledge on existing site infrastructure.

Table 2.1. Terms and Abbreviations

Uranium Specific Terms and Abbreviations				
Grade	parts per million	ppm U_3O_8	weight percent	% U_3O_8
Radiometric Equivalent Grade		ppm eU_3O_8		% eU_3O_8
Thickness	meters	m	feet	ft
Grade Thickness Product	grade x meters	GT(m)	grade x feet	GT(ft)

General Terms and Abbreviations					
	Metric		US		Metric to US Conversion
	Term	Abbreviation	Term	Abbreviation	
Area	Square Meters	m^2	Square Feet	ft^2	10.76
	Hectare	Ha	Acre	Ac	2.47
Volume	Cubic Meters	m^3	Cubic Yards	Cy	1.308
Length	Meter	m	Feet	ft	3.28
	Meter	m	Yard	Yd	1.09
Distance	Kilometer	km	Mile	mile	0.6214
Weight	Kilogram	kg	Pound	Lb	2.20
	Metric Tonne	Tonne	Short Ton	Ton	1.10

3.0 RELIANCE ON OTHER EXPERTS

The Authors have fully relied upon information on uranium commodity price forecasts from CIBC Global Mining Group, "Analyst Consensus Commodity Price Forecasts", November 2, 2020. This information is used in Section 19.0 of this Report. WWC Engineering received this information on May 7, 2021.

In addition, the Authors relied on the following mineral and surface ownership rights material provided by Azarga: location information, agreements, leases, and claims which are summarized in Section 4.0. This information was transmitted to Roughstock on September 24, 2020 and WWC Engineering on May 7, 2021. This information remains current to the effective date of this PEA.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Description and Location

Azarga's 100 percent owned Gas Hills Uranium Project is located approximately 45 miles east of Riverton, Wyoming in the historic Gas Hills Uranium District. The Project and the Gas Hills Uranium District are located along the southern extent of the Wind River Basin, near the northern edge of the Granite Mountains. The company's Project properties, including the West Unit, Central Unit, Rock Hill, South Black Mountain, and Jeep properties, consist of 628 unpatented lode mining claims, one State of Wyoming mineral lease, one private mineral lease, and one private surface use agreement. Together the properties encompass approximately 1,280 surface acres and 12,960 mineral acres. As shown on Figure 4.1 Location/Property Map, the properties are located in Townships 32 and 33 North, Ranges 89, 90 and 91 West, 6th Principal Meridian, Fremont and Natrona Counties, Wyoming.

The US federal government owns the minerals associated with the mining claims, the State of Wyoming owns the minerals and surface associated with the State lease, the South Pass Land and Livestock Company owns the minerals associated with the private mineral lease, and the Philp Sheep Company owns the surface associated with the private surface use agreement. The US Bureau of Land Management, Wyoming State Office ("US BLM") manages the claims on behalf of the US federal government.

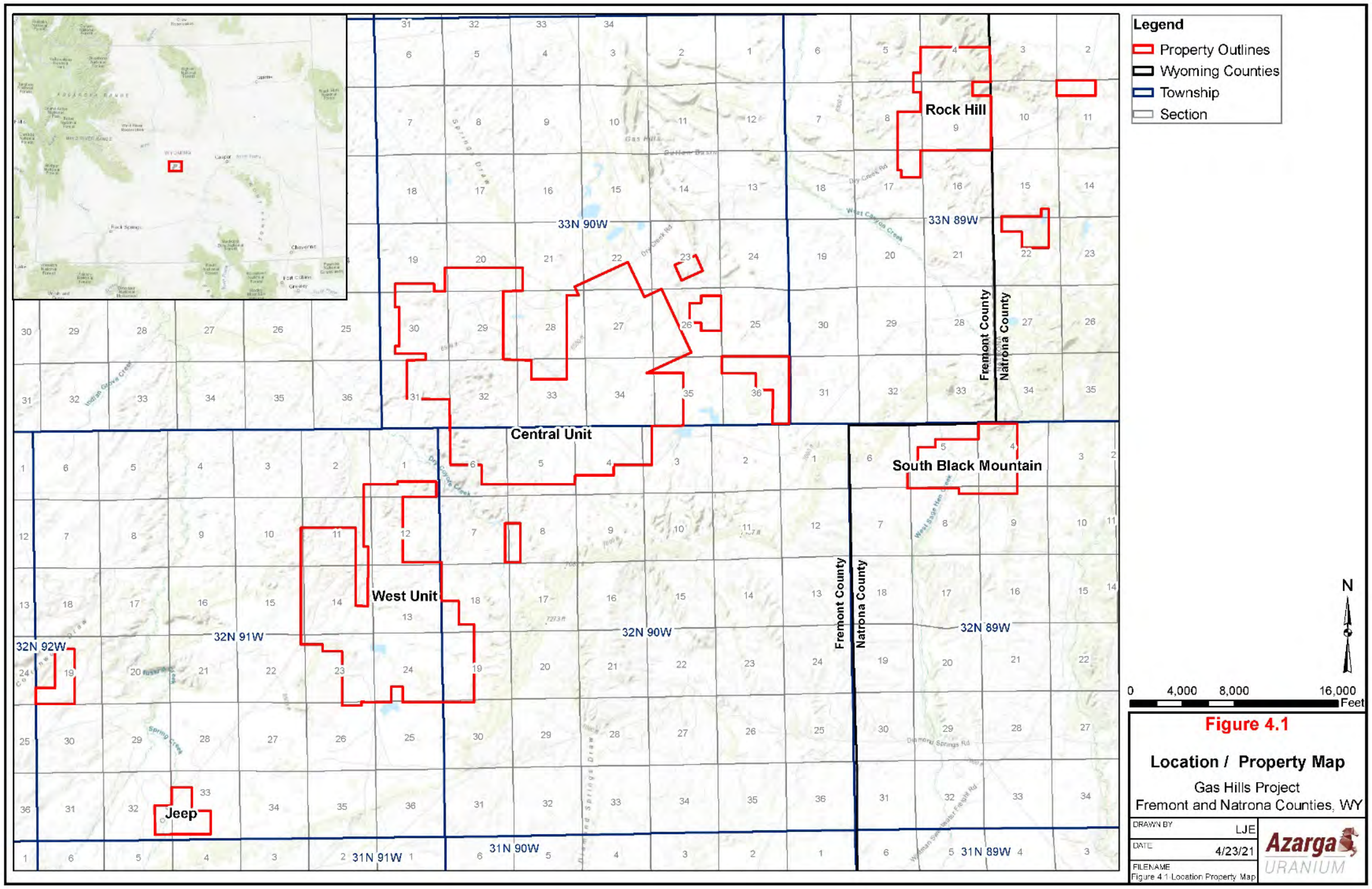
The mining claims, State lease, private mineral lease, and surface use agreement were assembled by Strathmore Resources (US) Ltd. ("Strathmore") between April 2006 and September 2012 and sold to UColo on October 31, 2016. Title has remained in UColo's name since that date. UColo is a subsidiary of URZ. URZ is a subsidiary of Azarga.

4.2 Azarga Acquisition of the Gas Hills Uranium Project

On September 9, 2016, URZ's subsidiary, UColo, entered into an Asset Purchase and Sale Agreement ("APA") with Strathmore, a wholly owned subsidiary of Energy Fuels, whereby URZ purchased all of Strathmore's interest in the Project. In addition to the Project, the APA transaction included URZ's purchase of Strathmore's claims and State mineral leases for the Juniper Ridge and Shirley Basin Properties, however, these two properties are not discussed in this Report. The transaction closed on October 31, 2016.

On May 7, 2018, Azarga and URZ announced an agreement to merge under a plan of arrangement. On June 29, 2018, the shareholders of both URZ and Azarga approved the merger and on July 5, 2018 the merger was completed. As a result, URZ became a wholly owned subsidiary of Azarga.

Figure 4.1. Location/Property Map



4.3 Mining Claims

Approximately 12,560 mineral acres are encompassed by the Project claims. A 5 percent net proceeds royalty applies to 172 of the 628 claims as follows:

- A net proceeds royalty of 5 percent on 155 claims was granted by Quit Claim Deed from Strathmore to Elmhurst Financial Group, Inc. on October 31, 2007. One of the claims was relinquished during Strathmore's ownership. The surviving 154 claims were sold to UColo and remain subject to the 5 percent net proceeds royalty.

- A 5 percent net proceeds royalty was granted by Assignment from Strathmore to Blue Rock on October 31, 2007 on nine full claims and on the southern 720 feet of nine additional claims. The 18 claims were sold to UColo and remain subject to the 5 percent net proceeds royalty.

The other 456 claims are not subject to royalties or other encumbrances.

UColo has possessory right to explore, develop and produce from the unpatented lode mining claim areas and must pay an annual maintenance fee to the US BLM of $165.00 per claim on or before September 1 each year. Surface use at the location of the mining claims on US BLM lands is allowed subject to Title 43 of the US Code of Federal Regulations Subpart 3809 and requires permitting by both the US BLM and the State of Wyoming Department of Environmental Quality, Land Quality Division ("WDEQ-LQD").

4.4 State of Wyoming Lease, Private Mineral Lease, and Private Surface Use Agreement

State of Wyoming Lease

Strathmore entered into a ten-year lease with the State of Wyoming for Mineral Lease #0-42121 on April 2, 2007. The lease was subsequently transferred by Assignment from Strathmore to UColo on October 31, 2016. UColo renewed the lease before its 10-year expiration, extending the lease an additional ten years to April 1, 2027. The lease can be renewed, at UColo's option, for unlimited additional 10-year periods as long as the terms and conditions of the lease have been met up to the time of applying to the State of Wyoming for renewal. The lease encompasses approximately 320 surface acres and 320 mineral acres in the NE¼, N½NW¼, and E½SE¼ of Section 36, Township 33 North, Range 90 West, 6th Principal Meridian, Fremont County, Wyoming. The lease grants to the State a royalty of 4 percent of the gross selling price of U_3O_8 or $5.00 per leased acre per year, whichever is more. No Mineral Resources in this Report are located on this lease.

Private Mineral Lease

Strathmore entered into a private mineral lease with South Pass Land and Livestock Company on July 28, 2010 for rights to minerals on the following two parcels of land: 40 mineral acres in the Jeep area in the SE¼SE¼ of Section 32, Township 32 North, Range 91 West, 6th Principal Meridian, Fremont County, Wyoming and 40 mineral acres in the West Unit area in the SW¼SW¼ of Section 19, Township 32 North, Range 90 West, 6th Principal Meridian, Fremont County, Wyoming. The mineral lease was transferred by Assignment and Assumption of Mineral Lease from Strathmore to UColo on October 31, 2016. UColo exercised its option to renew the lease for an additional 10 years in July 2020 by making the required payment. Unlimited 10-year renewals are available at UColo's option for additional payments. The lease grants a 5 percent net proceeds royalty to the owner of the mineral properties. The surface is owned separately from South Pass Land and Livestock Company. An agreement for surface access at the West Unit is described below. Presently, there is no agreement for surface access at the Jeep parcel.

Private Surface Use Agreement

Strathmore entered into a private surface use and access agreement with Philp Sheep Company on June 21, 2011 to access approximately 960 surface acres at the following four parcels: the 40-acre West Unit parcel described above, the W½ and W½E½ of Section 13, Township 32 North, Range 91 West, the S½ of Section 4, Township 33 North, Range 89 West, and the NW¼NE¼ and S½NE¼ of Section 9, Township 33 North, Range 89 West, 6th Principal Meridian, Fremont County, Wyoming. The agreement allows entry onto the parcels to maintain claims, construct up to 25 exploratory boreholes, and to carry out geological, environmental, and wildlife studies associated with permitting. The agreement was transferred by Assignment and Assumption Agreement from Strathmore to UColo on October 31, 2016. It is a paid-up agreement. No further payments or royalties are due pursuant to the terms of the agreement. Philp Sheep Company does not own the minerals in the parcels covered by the agreement. The minerals in the 40-acre West Unit are owned by the South Pass Land and Livestock Company described above. The US federal government owns the minerals at the three remaining parcels and, for the most part, UColo maintains claims covering the US minerals. The exception regarding claim coverage is in the N½S½ of Section 4, Township 33 North, Range 89 West where claims were located by Strathmore in October 2007 but later relinquished in September 2014.

4.5 Permitting

URZ has a Drilling Notification ("DN") approved by the WDEQ-LQD and the BLM that allows surface use for the purposes of exploration by drilling.

Although not required at this stage, mine development would require a number of permits depending on the type and extent of development, the most significant permits being the Permit to Mine, the Source Materials License issued by the WDEQ-LQD as required for mineral processing of natural uranium, and an approved Plan of Operations issued by the BLM. Any injection or pumping operations for in situ mining operations will require permits from the WDEQ which has authority under the Safe Water Drinking Act that stems from a grant of primacy from the US Environmental Protection Agency for administering underground injection control programs in Wyoming.

4.6 Environmental Liabilities

To the Author's knowledge, no specific environmental liabilities are known to exist. There is a DN bond for exploration previously held by URZ in the amount of $63,000 which has been assumed by Azarga. This bond is subject to annual renewal and updating.

There are significant previous surface disturbances adjacent to the properties including drill roads, drill sites, haul roads, spoil dumps, reclaimed mill sites, and mined open pits.

Several legacy reclamation programs are ongoing in the Gas Hills, including on lands controlled by Azarga. These programs are authorized under the Surface Mining and Reclamation Control Act of 1977 and carried out by the Wyoming Department of Environmental Quality/Abandoned Mine Lands Division ("WDEQ-AML") with cooperation of the US BLM. In addition, several former mill tailings sites on adjacent lands have been or will be reclaimed and transferred to the US Department of Energy (the "US DOE") for long-term care and maintenance.

All of this reclamation activity is currently being performed at the sole cost of the state and federal government agencies. State of Wyoming mining regulations will require Azarga to reclaim any new mining activities but excludes Azarga from any environmental liability associated with historical mining on Azarga's controlled lands. The AML fund is financed by a tax of 31.5 cents per ton for surface mined coal, 15 cents per ton for coal mined underground, and 10 cents per ton for lignite. An estimated 80 percent of AML fees are distributed to states with an approved reclamation program to fund reclamation activities (see https://www.osmre.gov/programs/aml.shtm).

Strathmore submitted a Permit to Mine application with the WDEQ-LQD on August 28, 2013. The Permit to Mine application was subsequently withdrawn by Energy Fuels following their acquisition of Strathmore. It is possible that much of this data can be utilized in a new Permit to Mine application should that be considered in the future.

4.7 Encumbrances and Risks

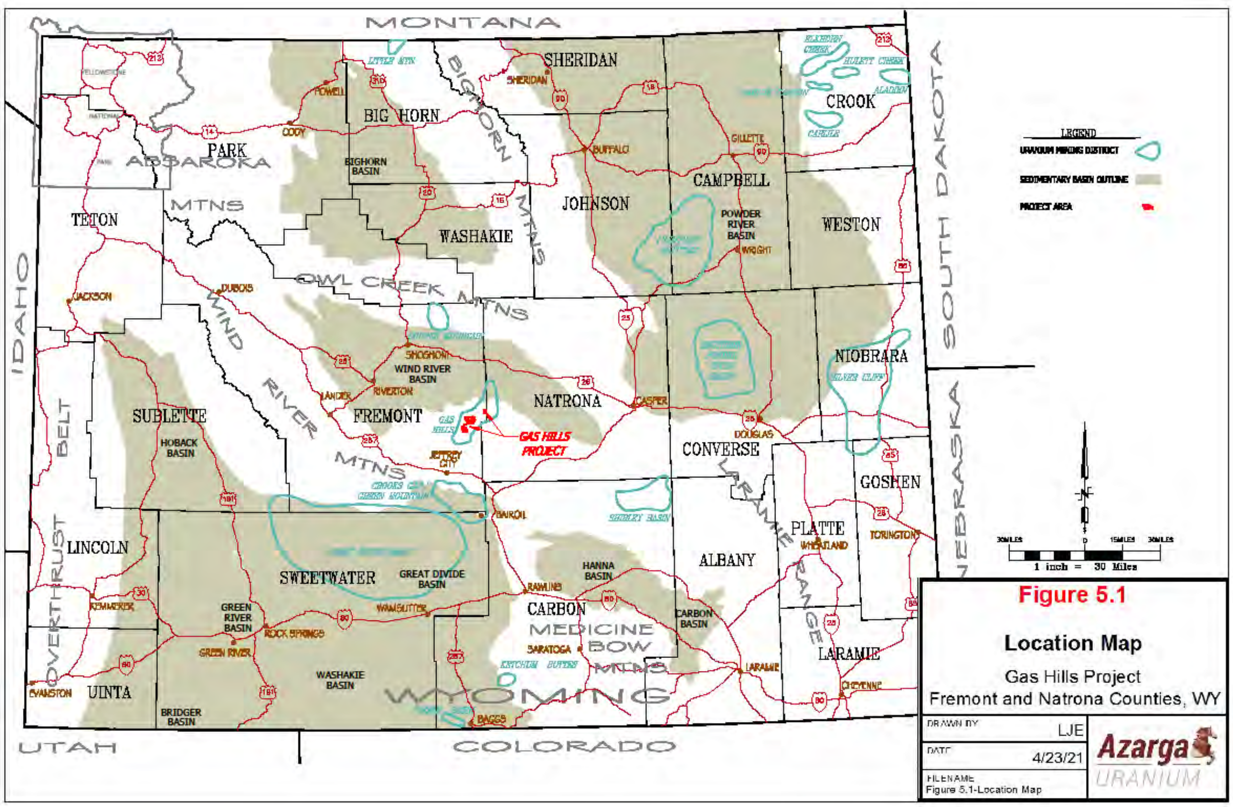
The unpatented lode mining claims will remain the property of Azarga provided it adheres to required filing and annual payment requirements with Fremont and Natrona Counties and the US BLM. Legal surveys of unpatented lode mining claims are not required and are not known to have been completed. Mining claims are subject to the Mining Law of 1872. Changes in the mining law could affect the Project.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The Gas Hills Uranium District can be accessed by traveling southeast of Riverton 45 miles along Wyoming State Highway 136 (Gas Hills Road) to the junction of Fremont County Road #5 (Ore Haul Road). From Casper, one travels ~47 miles west on US Highway 20/26 until the Waltman Junction. Turning south onto Natrona County Road 212 (Gas Hills Road) one travels ~22 miles to the northeast corner of the district. From the south, the Gas Hills is accessible from US Highway 287 at Jeffrey City by traveling north along Fremont County Road #5 ~15 miles to the southwestern corner of the District. Refer to Figure 5.1.

Figure 5.1. Project Location and Wyoming Basins



5.2 Topography, Elevation, Physiography

The Project is located within the Wyoming Basin physiographic province (Figure 5.1) along the southern flank of the Wind River Basin which is a northwest-southeast trending, intermountain, structurally-bounded basin. The basin is bounded on the west by the Wind River Range, on the east by the Casper Arch, and on the north by the Owl Creek, Washakie and Big Horn Mountains. In the Gas Hills, Beaver Rim, the southern escarpment of the Wind River Basin, is located at the northern margin of Sweetwater Plateau, separating the drainages between the Wind and Sweetwater Rivers. Elevations in the Gas Hills vary from a low of ~6,300 feet at the northwestern extent to a high in excess of 7,400 feet atop Beaver Rim.

5.3 Climate, Vegetation and Wildlife

Climate in the Gas Hills is continental semi-arid, with annual precipitation of 8-12 inches, mostly falling in the form of late autumnal to early spring snows. The summer months are usually hot with temperature occasionally exceeding 100°F, dry and clear except for infrequent rains. Winter conditions can be severe and can include sub-zero temperatures and ground blizzards. Most drainages in the area are ephemeral, flowing only during storm events or spring snow melt. Year round open-pit mining operations were successfully carried out previously in the Gas Hills district. The principal access to the Project is Wyoming Highway 135 which is paved and maintained year-round. The secondary access is the Gas Hills Road which is a gravel county road. Portions of the Gas Hills Road are not currently maintained on a year-round basis but have been in the past. In sum year-round operations can be conducted at the Project. The climate in the Gas Hills is most similar to that of Casper Wyoming, some 60 miles to the northeast for which a brief summary of weather conditions is provided in Table 5.1.

Table 5.1. Climate Data

Measurement	Climate Data
Average annual high temperature	59°F
Average annual low temperature	31°F
Average annual precipitation - rainfall	12.42 inches
Average annual precipitation - snowfall	75 inches

(Climate Casper - Wyoming and Weather averages Casper (usclimatedata.com))

Most common native vegetation is sage brush and prairie grasses and to a lesser extent, rabbit brush. No threatened or endangered plants are known in the area. Limited upland areas have juniper and limber pine trees on north facing slopes.

Mule deer and pronghorn antelope are common, as are nesting raptors. Small rodents and rabbits are common. A coyote was observed during the October 7, 2020 site visit. The Greater Sage Grouse, present in the general area of the Project, has been considered for listing as a threatened or endangered species. Successful and ongoing mitigation efforts by the State of Wyoming have significantly decreased the probability of regulatory listing of the sage grouse.

5.4 Infrastructure

Extensive production in Wyoming of minerals (coal, trona, uranium) and oil/gas has provided a highly skilled labor force in the region. Population centers within two hours of the Project include Casper, Riverton, Lander and Rawlins, where equipment and supplies may be obtained. Paved roads from these towns and cities extend to the edge of the Project area. Access and haul roads within the Project are graded gravel and are maintained by the State, County and mining companies operating in the area. Functioning power lines, natural gas lines, telephone lines and fiber optic cable are present on and near the Azarga's properties. Several wells producing water for domestic and industrial use are also on or close to Azarga's properties. It is the Author's opinion that the Property area controlled by Azarga is more than adequate to provide areas for potential mining operations and associated facilities and for mineral processing operations.

5.5 Surface Rights

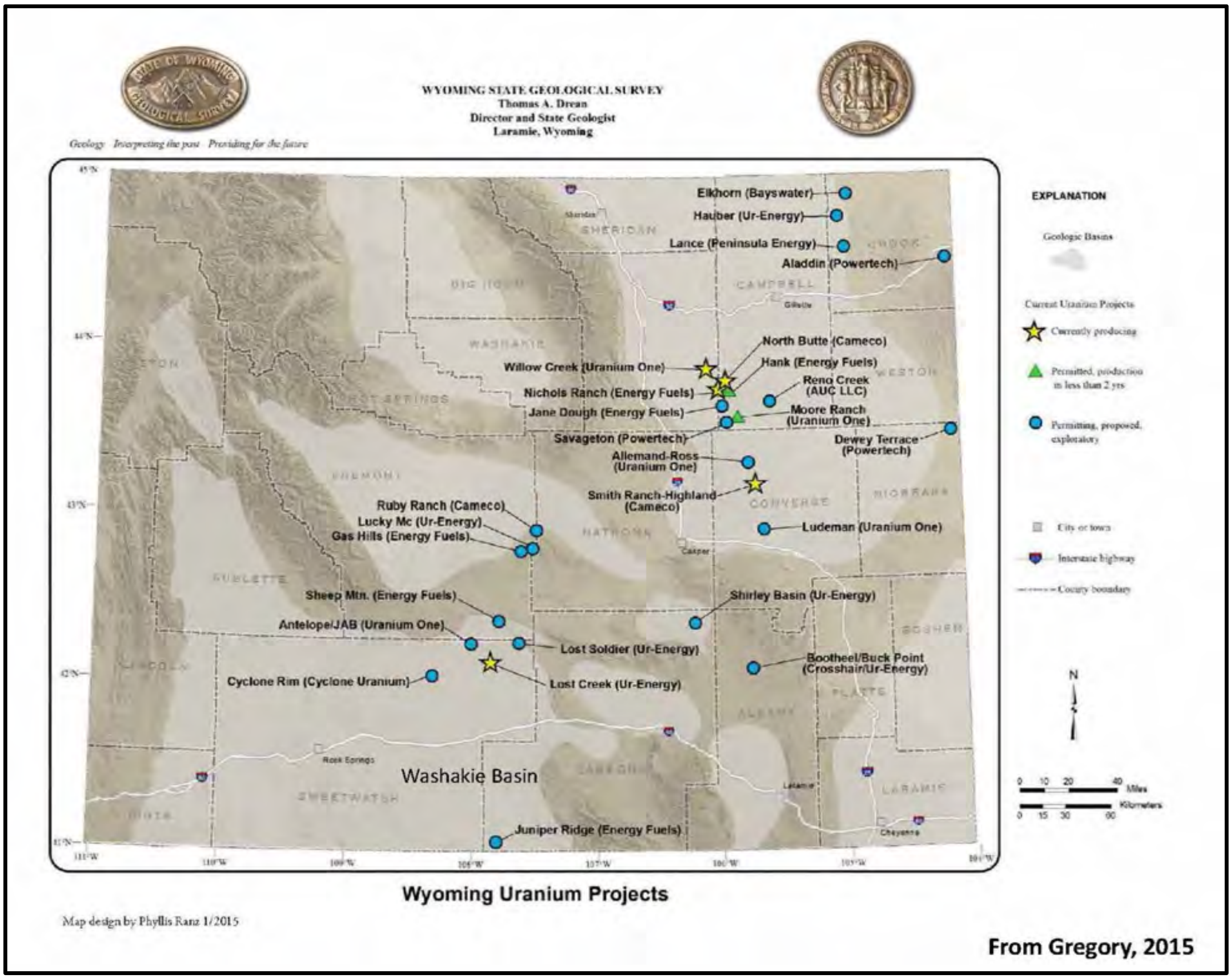
The 1872 Mining Law grants certain surface rights along with the right to mine provided the surface use is incident to the mine operations. In order to exercise those rights, the operator must comply with a variety of State and Federal regulations (refer to Section 20.0). For areas of private surface ownership appropriate surface-owner agreements would be required.

The Code of Federal Regulations 43 CFR 3715 governs the use and occupancy under the mining laws for Federal Lands. Under these regulations, 3715.05, states "Mining operations means all functions, work, facilities, and activities reasonably incident to mining or processing of mineral deposits." For future mining and mineral processing, the Author concludes that Azarga through UColo has, or can obtain through permitting and licensing of site activities, sufficient surface rights for possible future mining operations, including potential waste disposal areas, heap leach pads, ISR wellfields, and potential plant sites as was common with previous mine and mineral processing operations in the vicinity.

6.0 HISTORY

The Gas Hills Uranium District ("Gas Hills") was one of the major uranium mining and production regions in the USA. Figure 6.1 shows the relationship of the Gas Hills to other uranium districts and the major basins of Wyoming. Between 1953 and 1988 many companies explored, developed, and produced uranium in the Gas Hills, including on lands now controlled by Azarga. Three uranium mills operated in the district and two others nearby were also fed by ore mined from Gas Hills. Cumulative production from the Gas Hills is in excess of 100 million pounds of uranium, mainly from open-pit mining, but also from underground mining and ISR.

Figure 6.1. Wyoming Uranium Projects



Gas Hills is shown near the eastern boundary of Fremont County.

Mine production did occur adjacent to and in the vicinity of the Project; however, the areas for which mineral resources are defined are unmined. Uranium was discovered in the Gas Hills in September 1953 by both ground and airborne radiometric surveys. Early exploration in the district exposed numerous near surface oxidized deposits and small shipments of ore were shipped out of state for processing. In 1955, the Atomic Energy Commission ("AEC" now the US DOE) constructed an ore buying station in Riverton where ore was stockpiled and eventually milled. In the Gas Hills area, when the AEC approved purchase allotments in 1956, Utah Construction (later Pathfinder and then Areva) began the Lucky Mc Mill in the central Gas Hills and Lost Creek Oil and Uranium (later Western Nuclear) began the Split Rock Mill 15 miles south at Jeffrey City. By 1959 the AEC authorized three additional mills in the county: Fremont Minerals' (Susquehanna Mining) mill in Riverton, Federal-Radorock-Gas Hills Partners' (later Federal American Partners) central Gas Hills mill, and Globe Uranium Company's (later Union Carbide) east Gas Hills mill.

With the rapid decline in uranium price in the early to mid-1980's production slowly halted. The last mill production in the Gas Hills occurred in 1988 at Lucky Mc. Extensive mill site and mine reclamation occurred from the late 1980s through to the present time in the Gas Hills. However, Wyoming remains the largest current uranium producer in the USA and there are several uranium projects in the state as shown of Figure 6.1. (Beahm, 2017)

6.1 Ownership and Control

The present Project area was acquired by URZ's subsidiary UColo from Strathmore on October 31, 2016 and subsequently the Project area was acquired by Azarga through a merger with URZ in July 2018. The minerals were originally acquired by staking and purchasing unpatented mining claims, and by acquiring the State of Wyoming Mineral Lease and the private South Pass Land and Livestock Company mineral lease.

6.2 Historical Exploration and Mineral Resource Estimates

Historical mineral resources were generated by several sources including data from mining companies and/or their consultants that were active in the area historically including American Nuclear Corporation, 1985, Anonymous report, 1979, Dames & Moore, 1976, David Robertson & Associates, 1979, Energy Fuels, 1978, and Mullen Mining, 1977. This Report did not review all of these historical estimates but focused on more recent estimates including those prepared by Beahm, 2017 and CAM, 2013.

More than 100,000 exploration and development holes were drilled in the Gas Hills from the mid-1950s to the mid-1980s. Since 1990, a few hundred holes have been drilled, nearly all by Strathmore and Cameco. Strathmore acquired exploration data for several of its Gas Hills properties; all of which are now controlled by Azarga.

The most recent previous resource estimate was completed by Roughstock in the report "NI 43-101 TECHNICAL REPORT, MINERAL RESOURCE REPORT, GAS HILLS URANIUM

PROJECT, FREMONT AND NATRONA COUNTIES, WYOMING, USA" dated effective March 29, 2021.

Previous resource estimates are not relevant since there is a current Mineral Resource estimate on the Project which is described in Section 14.0 of this Report.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Gas Hills Uranium District is located in the south-central portion of the Wind River Basin (Refer to Figure 5.1). The District occupies approximately 100 square miles along the south-central flank of the Wind River Basin in central Wyoming. The Wind River Basin is marked by a northwest-trending topographic depression surrounded by mountains on all but the eastern side. The southern margin of the basin, in the area of the Gas Hills, is defined by a 500-to 1,000-foot-high erosional escarpment, known as Beaver Rim. This topographic feature forms a boundary between the Wind River Basin to the north and the Sweetwater Basin and Granite Mountains to the south.

Most of Wyoming's uranium deposits are found in medium to coarse grained sandstone deposits within or on the margins of sedimentary basins. Figure 6.1 from Gregory, 2015, shows the major Wyoming Basin in relationship to known areas of uranium mineralization both historic and current. The Gas Hills is located in the Wind River Basin near the eastern boundary of Fremont County. The host rocks are about 40 million to 55 million years old, but the uranium mineralization contained in them is much younger.

South of Beaver Rim is the southward sloping Sweetwater Plateau which is underlain by upper Tertiary and older strata. Rising from the middle of the Sweetwater Plateau are the scattered knobs of Precambrian granitic rocks, known as the Granite Mountains. East of the Gas Hills District is a northwest-trending structural high, known as the Rattlesnake Hills Anticline. Rocks ranging in age from the Precambrian to the Paleocene are exposed along the northeastern flank of this feature. Mountain ranges around the Wind River Basin were uplifted during the late Cretaceous to early Tertiary Laramide orogeny. Erosion from these basement-cored uplifts deposited terrestrial clastic sediments of the Eocene Wind River Formation unconformably upon tilted and deformed Paleozoic-Mesozoic rocks. Arkosic sandstones and conglomerates are common in the Wind River Formation, indicative of their alluvial fan depositional setting. The Tertiary coarse clastic rocks are up to 1,800 feet thick in the Gas Hills area and pinch out against Paleozoic/Mesozoic rocks south of the Gas Hills.

The Wind River Formation is covered with generally conformable layers of tuffaceous sedimentary rocks derived from volcanoes active in the region during Oligocene to Miocene times. Regional uplift occurred in Pliocene times. Sometime during late Tertiary time, the Granite Mountain block dropped down along east-west faults that lie between the mountains and the Gas Hills and associated faults near the Green Mountain-Crook Mountains south of Jeffrey City, forming the Split Rock syncline. This down dropping resulted in a southward regional tilt of the Wind River sedimentary rocks of 2-6° in the Gas Hills. (Beahm, 2017)

7.2 Regional Stratigraphy

The Cenozoic basin-fill deposits of the Wind River Basin are chiefly flood-plain and stream channel materials, with generally greater amounts of lacustrine and pyroclastic sediments toward the top of the sequence. The Eocene formations generally consist of lenticular, poorly sorted sediments, whereas the younger Tertiary formations are commonly better sorted and less lenticular in nature. The majority of the volcanic debris was derived from the Yellowstone-Absaroka volcanic field in northwestern Wyoming and to a much lesser extent from the Rattlesnake Hills volcanic field immediately east of the Gas Hills (Van Houten, 1964). The sedimentary strata dip gently a few degrees to the south, having been tilted by Late Tertiary collapse of the Granite Mountains and formation of the Split Rock syncline.

The Cenozoic basin-fill deposits exposed in the Gas Hills are, from oldest to youngest, the Wind River Formation, Wagon Bed Formation, White River Formation, and the Split Rock Formation. The arkosic sandstones of the Wind River Formation are the host rocks for all economically significant quantities of uranium mineralization in the Gas Hills. They were deposited during the period following uplift of the ranges surrounding the Wind River Basin and are composed of debris eroded from these highland areas. Deposited in alluvial fans, stream channels, lakes, flood plains, and swamps, the Wind River Formation varies in thickness from a few feet at the basin margins to several thousand feet thick in the central part of the basin to the north of the Gas Hills. Depositional processes were influenced by the Eocene climate, which was mostly humid, warm-temperate to sub-tropical in nature (Seeland, 1978). The younger basin-fill sediments (Wagon Bed, White River, Split Rock) are increasingly finer-grained than those arkosic sands of the Wind River Formation, in addition to having substantially more volcanic detritus. (Beahm, 2017)

7.3 Local Geologic Setting of the Gas Hills

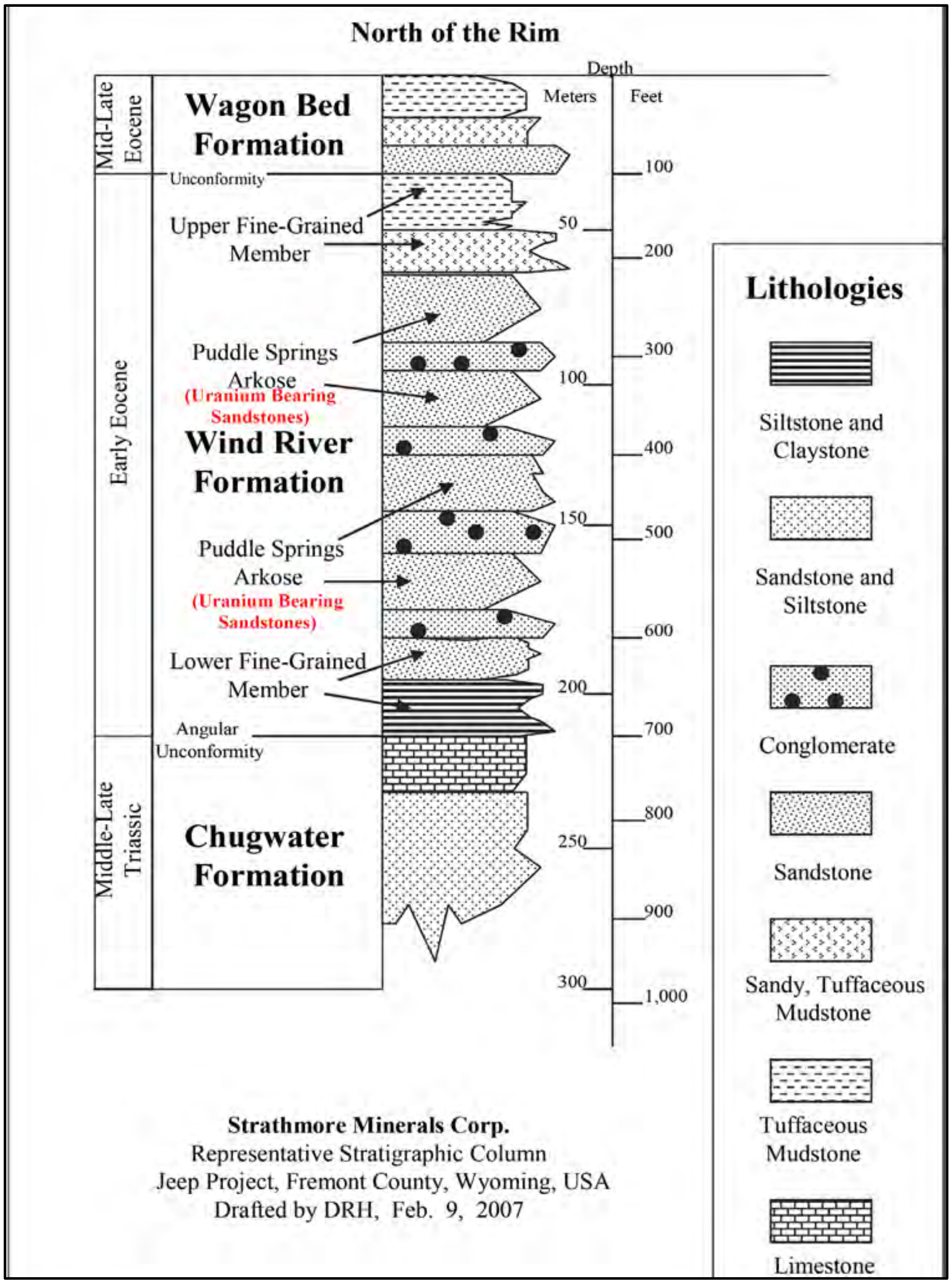
Much of the following information is abstracted from work by the U.S Geological Survey (Armstrong, 1970). Very little has been published on the geology of the district since the collapse of the nuclear industry in 1979.

In the Gas Hills district, lower Tertiary rocks unconformably overlie folded and faulted Mesozoic and older rocks (Figure 7.1). The Wind River Formation, 400 to 800 feet thick, is conformably overlain by tuffaceous sandstones of the Eocene Wagon Bed Formation, which is 300 to 700 feet thick.

Soister (1968, p.9) in studying a larger area, divided the Wind River Formation into three units: (1) the lower fine-grained member, (2) the Puddle Springs arkose member, and (3) the upper fine-grained transition member.

The Puddle Springs arkose member is the host rock for the uranium deposits. It consists of poorly consolidated arkosic sandstone and conglomerate with thin discontinuous interbeds of mudstone. The Puddle Springs arkose was deposited rapidly by northward-flowing braided streams to form coalescing piedmont alluvial fans (Soister, 1968). Mudstone interbeds are probably overbank deposits on floodplains. The provenance was the Granite Mountains a short distance to the south.

Figure 7.1. Representative Stratigraphic Column: North of Beaver Rim



The full thickness of the Wind River is present from just north of the base of Beaver Rim Divide southward for a few miles. North of the contact between Wind River and post-Wind River rocks, erosion has cut across strata at a low angle and the formation progressively thins to a feather edge at its northern margin, where basal beds lie unconformably on older rocks.

The pre-Cenozoic strata exposed, or buried at depth, in the Gas Hills are from Cambrian to Cretaceous in age. The Paleozoic sediments, averaging 2,000 feet thick, include rocks of Cambrian, Mississippian, Pennsylvanian and Permian ages; they consist of mostly sandstone, limestone and dolomite. The Mesozoic sedimentary rocks, averaging 10,000 feet thick, include rocks of Triassic, Jurassic and Cretaceous ages; they consist of mostly shale and some sandstone. All of the pre-Cenozoic rocks were extensively deformed during the Early Eocene faulting, uplift and basin development associated with the Laramide Orogeny. The pre-Cenozoic rocks are exposed sporadically throughout the Gas Hills. The area of greatest exposure is along the flanks of the Dutton Basin anticline. The anticline is exposed at the surface one mile east of the George-Ver Property; deposits from the Cody Shale downward to the Chugwater Formation outcrop. (Beahm, 2017)

7.4 Local Mineralization in the Gas Hills

The Gas Hills uranium deposits are present in an arkosic sandstone facies, the Puddle Springs member of the Wind River formation (e.g. King and Austin, 1966; Armstrong, 1970). Knowledge of the distribution of this member is of great importance in the search for uranium deposits, as permeability determines whether a rock is a favorable or unfavorable host. Fine-grained, only slightly permeable rocks are unfavorable hosts. Highly porous conglomerates, on the other hand, appear to be too permeable to be a good host rock.

Drilling in the west Gas Hills indicates that the favorable arkosic sandstone host passes westward into unfavorable silty facies. A local sandstone facies has been found within the silty facies, and a small area containing uranium (Jeep deposit) has been found in the sandy facies. Thus, the favorable host for mineralization in the above-mentioned deposits (Figure 7.1) is bounded on the north by an erosional pinch out; on the east by a change of facies to an unfavorable silty sandstone host; on the south by a subsurface onlap pinch out; and on the west by change of facies to an unfavorable silty sandstone host.

Uranium mineralization in the Gas Hills is present in bodies usually referred to as “rolls” (e.g. King and Austin, 1966; Armstrong, 1970). In vertical cross section they are irregularly crescent or “C” shaped (Figure 7.2, Figure 7.3 and Figure 7.4). Rolls are the result of oxidized and soluble uranium being transported by ground water to a location within a permeable sandstone host where a reaction within a reducing environment occurs and insoluble reduced, uranium minerals are deposited. The contact between oxidized and reduced conditions is the “roll front”.

Figure 7.2. Typical C-Shaped Uranium Roll-Front System

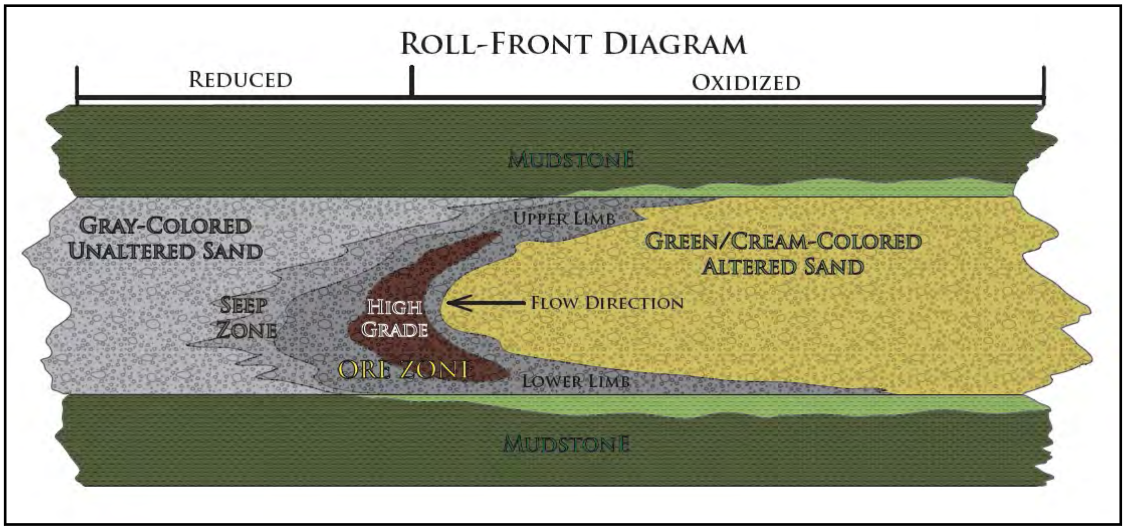
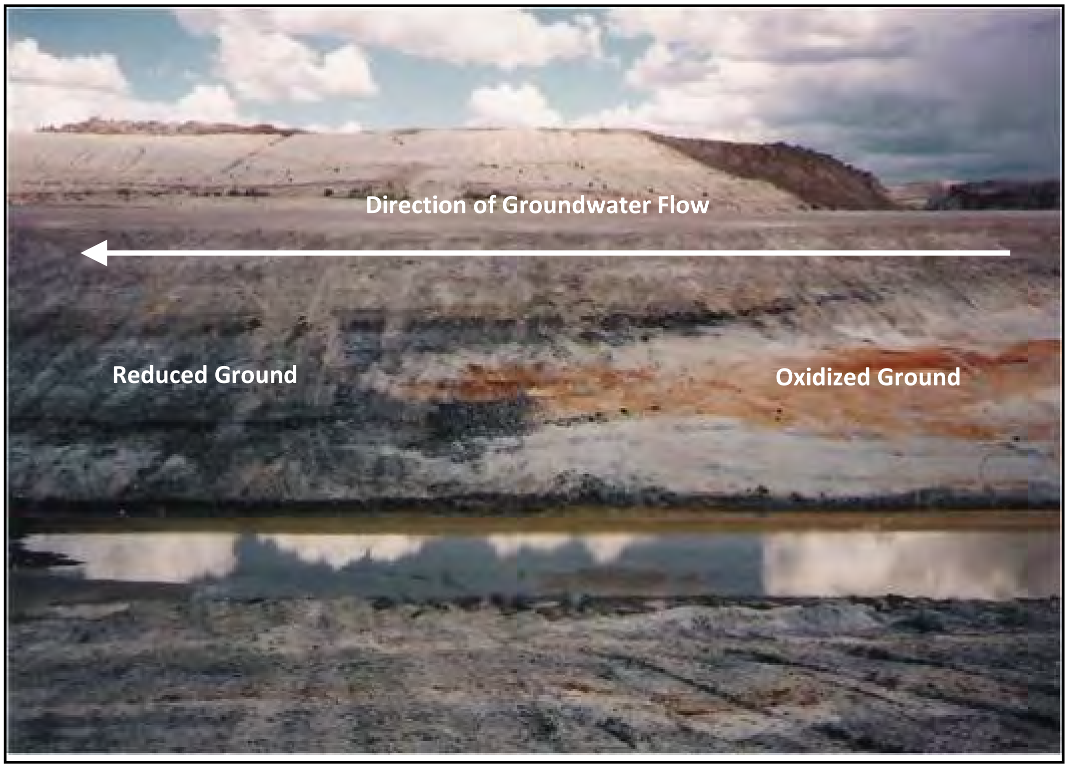


Figure 7.3. Roll Front Exposed in Reclamation Channel, George-Ver Deposit



This photograph shows classic Wyoming-type uranium roll-fronts exposed during construction of a reclamation channel on the Central Unit.

Figure 7.4. View of High-Grade Mineralization in Exposed Roll Front

This photograph is by Strathmore, circa 1996. It shows a view of dark black uranium mineralization in the "nose" of a classic Wyoming-type uranium roll-front exposed during construction of a reclamation channel in the Central Unit. This deposit has not been mined. The view is to the south.

In the body of the crescent, individual rolls range from a few inches to many feet in vertical thickness. Average thickness of a well mineralized roll is 10 to 15 feet; many rolls thicker than 20 feet have been mined. The upper and lower tails of the crescent thin away from the body of the crescent. In the Gas Hills the lower tail normally is greatly extended and thins gradually, whereas the upper tail is typically short and thins abruptly.

On the concave side of a crescent-shaped mineralized body, relatively light gray colored altered host rock is present. The contact is a slightly irregular narrow zone, and the change from uranium-bearing to bleached or altered rock normally takes place within a short distance (Figure 7.2, Figure 7.3 and Figure 7.4). On the convex side of a crescent shape mineralized body, relatively dark greenish-gray unbleached (unaltered) rock is present. The contact between uranium-bearing and unbleached or unaltered rock is irregular interfingering, mostly gradational feature but the contact between individual fingers of mineralized rock and unbleached host may be moderately sharp. The fingers of mineralized rock point in the direction of unbleached rock.

Upper-limb mineralization dies out away from the body of the crescent in an abrupt manner somewhat similar to that of the contact between uranium-bearing and bleached rock on the concave side of the crescent. In contrast, lower limb mineralization normally terminates gradually in the way that mineralization terminates on the convex side of a roll.

The crescent-shaped contact between bleached rock and uranium mineralization is commonly referred to as a “front”. In mapping a front, the point of maximum advance of the altered rock is indicated. In plan-view, the trace of a front is extremely sinuous.

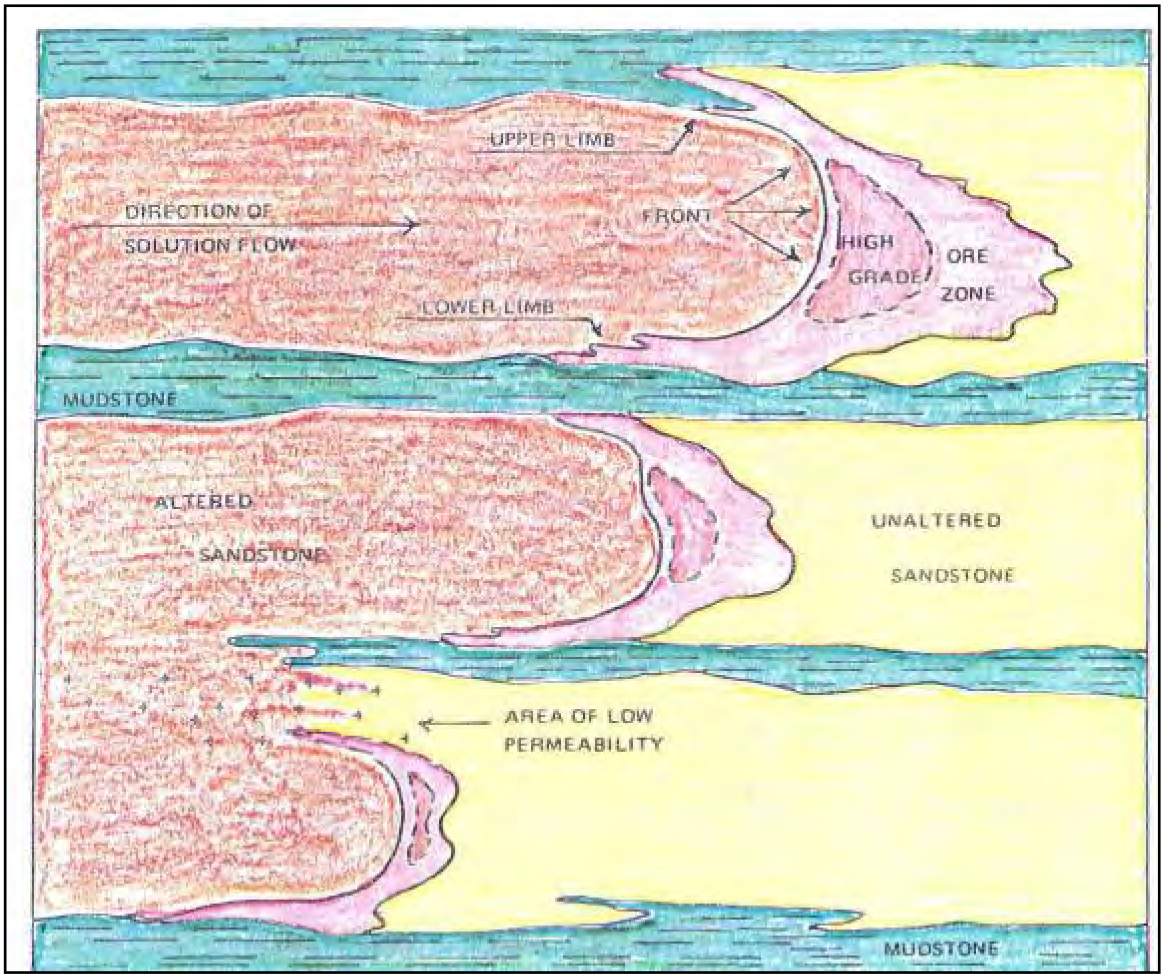
Rolls ordinarily are stacked *en echelon* (Figure 7.5), forming multiple mineralized bodies. A series of stacked rolls can be thought of as a frontal system. The number of rolls and vertical separation between them can be large or small, and as a result, mineralization may occur through a large stratigraphic interval. In the Central Gas Hills, uranium mineralization has been found in a stratigraphic interval almost 300 feet thick. Most rolls are stacked so that each successively higher roll is displaced in the direction of convexity and the volume of bleached rock narrows with depth. Each roll in a stack has its own front and each front in plan-view has its own sinuosity. The different fronts occur in the same general area, but the detailed sinuosity of one roll is independent of the sinuosity of other rolls.

Rolls and lower-limb mineralized bodies normally are underlain by a mudstone layer. In many places a mudstone layer also overlies the roll. The upper limbs of some mineralized bodies end in sandstone and the next higher roll rests on a mudstone layer that is separated from the lower roll by un-mineralized sandstone.

Un-oxidized mineralization is dark and usually the darker, the higher the grade. The uranium minerals are very fine grained uraninite and a little coffinite. The only non-silicate gangue minerals present in significant amounts are fine-grained pyrite and marcasite, and they are intimately mixed with uranium minerals. These minerals coat detrital sand grains and fill interstices of the host rock. Oxidized mineralization is present near surface and was mined when production in the district first started. Most production came from un-oxidized mineralization and essentially all present mineralization of potential economic interest is contained in un-oxidized mineralization.

Uranium is not distributed uniformly throughout the roll; rather, it is normally concentrated in the body of the crescent close to the concave side. High-grade mineralization locally contains several percent U_3O_8. The grade progressively decreases away from the high-grade zone. In the direction of bleached rock, the grade decreases abruptly and there is a sharp break between mineralization and waste rock. In the direction of unbleached rock, grade decreases gradually. The high- grade zone in the body of the crescent and the area immediately adjacent to it contains most of the total uranium in the body. Most of the uranium produced from the Gas Hills has come from this location in rolls, and therefore most future production can logically be expected to come from similar positions in other rolls.

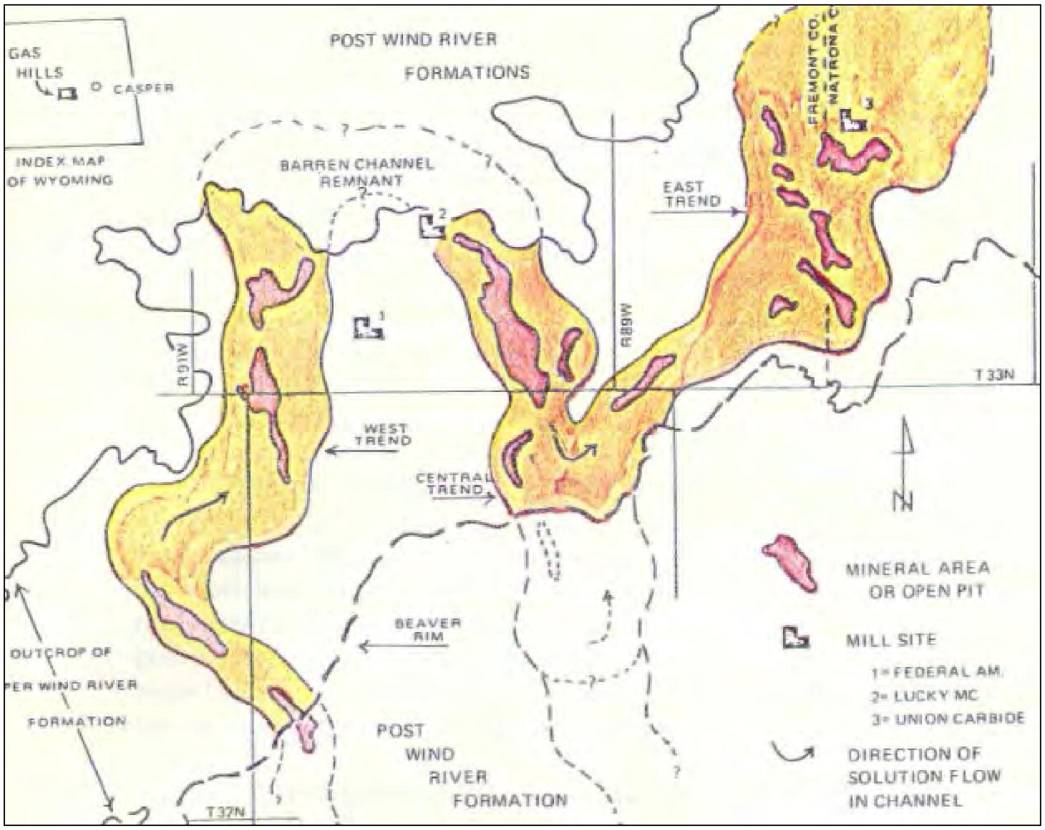
Figure 7.5. Depiction of Multiple Stacked, En Echelon Uranium Deposits (EFR, 1979)



Uranium was discovered in the Gas Hills near the center of the district at the north end of what later became known as the Central Gas Hills. As exploration continued, uranium was found at widely scattered localities and after a while it became evident that uranium occurrences were concentrated in three separate areas: the western, central and eastern trends. Each trend was considered to be a separate entity until about 1963, when it was realized that the different trends appear to be parts of a single complex, geologic feature (Armstrong, 1970).

In the Gas Hills the lateral extent of the host sandstone and favorable environment for uranium mineralization is continuous on the order of miles along trend (direction of solution flow in channels) and hundreds of feet across trend. Refer to Figure 7.6 for an illustration in plan-view. (Beahm, 2017)

Figure 7.6. Gas Hills Uranium District



Map View of Connected Roll-Front Trends (EFR, 1979)
Note: The distance between the vertical grid lines (Range Lines) is 6 miles.

7.5 Hydrogeology

The primary groundwater aquifer and the ore-bearing formation in the Project area is the Wind River Aquifer. The general direction of groundwater flow in the Project area is to the north or northwest, with local deviation resulting from faulting and geologic structure. The Wind River Formation is made up of south dipping sand and clay layers with the more transmissive intervals of the Wind River Aquifer found within the upper member of this formation in medium to coarse sands. Within the areas of past mining and the resource areas in the Project area, the Wind River Formation functions as a single aquifer.

The Beaver Rim (or Beaver Divide) and the associated geologic structure profoundly impact the regional groundwater recharge and discharge in the Gas Hills area. Faulting and a series of anticlines north of Beaver Rim create barriers and partial divides within the groundwater basin. The majority of groundwater recharge to the Wind River Aquifer results from snowmelt southeast of and above Beaver Rim. Local recharge below and to the north of the Beaver Rim is limited by the low annual precipitation. The Wind River Aquifer generally discharges to springs or to local alluvial systems associated with major surface drainages north of Beaver Rim. The underlying Cody Shale has a very small transmissivity, and because the Wind River Formation pinches out north of the area of the mining units, the groundwater conveyance capacity gradually diminishes to the north of the Project area until the formation is no longer is present.

Groundwater quality and water level data have been monitored for more than three decades by Pathfinder and others. Strathmore initiated a monitoring program in 2007 which was operated through 2011 in preparation for its 2013 mine permit application. The groundwater quality of the Wind River Aquifer is usually hard with sulfate, calcium, sodium, and bicarbonate being the most prevalent major ions.

The potentiometric surface in the Project area has been significantly impacted by past mining and reclamation activities. Pit dewatering and drainage diversions during mining have the potential to profoundly affect the potentiometric surface. The construction of reclamation reservoirs and permanent reclamation diversions also affects the hydrologic system. These activities have been ongoing for more than four decades in the Gas Hills Uranium Project area. The recent water-level elevation contouring (Hydro-Engineering, 2018) was developed from data collected for Strathmore's 2013 mine permit application, though also includes measurements taken by others primarily for the WDEQ-AML up to current time. Water-level elevation south and east of the site is also measured in wells installed by Cameco Resources as part of planned ISR operations. These wells generally reflect the potentiometric surface for the Wind River Aquifer between the historic Central Gas Hills area and Beaver Rim. There has been and still is a general trend showing recovery of the water table throughout the area since mining ended in the 1980s; though this is variable through the Project, with the largest recovery shown in the southernmost portion of the West Unit relatively adjacent to the Beaver Rim at a rate of about 1 foot per year.

The aquifer properties were characterized by Hydro-Engineering (2013, 2018) based on data collected from aquifer stress tests (generally referred to as pump tests). Results from single and multi-well pump tests, along with recovery tests were conducted by Pathfinder in the late 1970's and early 1990's, have been compiled by Hydro-Engineering with recent pump tests performed by Strathmore performed in 2008.

In 2021, Hydro-Engineering developed a MODFLOW-2005 numerical groundwater flow model within the major proposed ISR resource areas within the Central Unit. The objective of the modeling was to evaluate the magnitude and extent of predicted drawdown that would occur within in the potential ISR mining area and utilized data previously assembled by Hydro-Engineering from previous studies of the Project as detailed above Results of the model indicated that for a life-of-mine production scenario ISR operations could be sustained, with a suitable but minor depression of the water table within the ISR pattern area and with the majority of water column above the immediate mining zone intact during ISR extraction. The analysis included stresses based on a life-of mine ISR wellfield design parameters designed to achieve approximately 1 million pounds U_3O_8 per year production. The simulation included a constant withdrawal from the aquifer during ISR operations at an operational bleed rate of 1 percent, which is the resulting difference between slightly greater overall production flowrate than overall injection flowrates that creates a constant inward flow necessary for controlling ISR mining solutions.

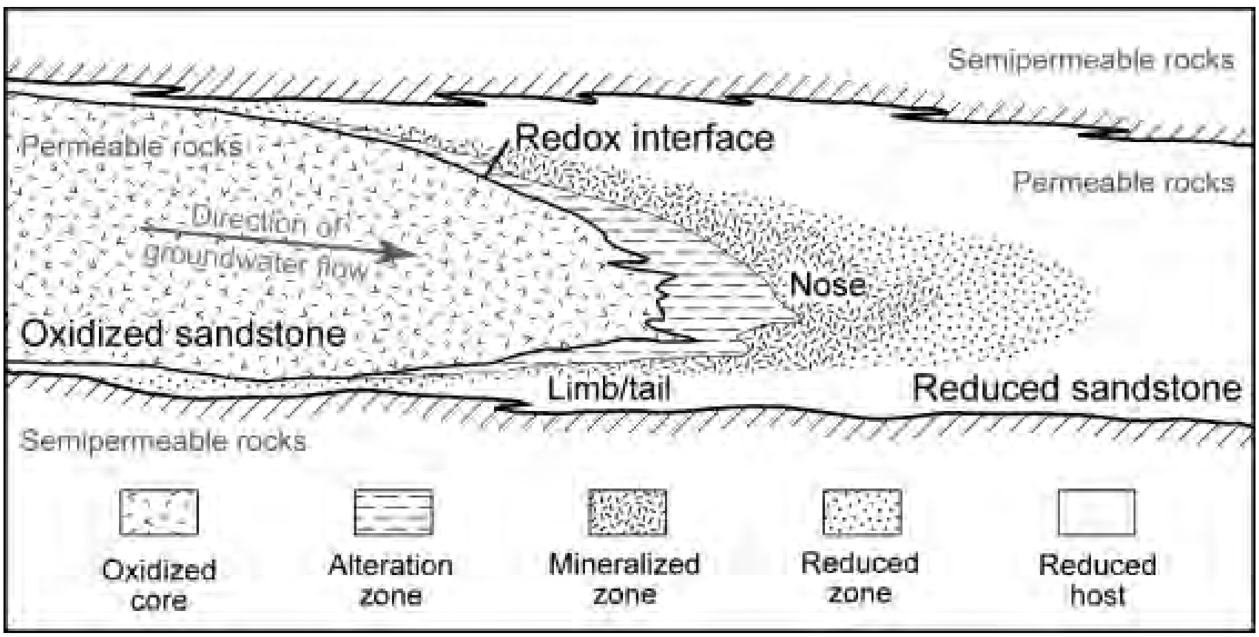
The general surface water conditions include numerous ephemeral drainage channels with significant alteration of local drainages by past mining activity. Perennial surface water bodies in the Project area have resulted from reclamation of mine pits to create several reservoirs, and from blockage of natural drainages fed by springs. There are limited reaches of perennial streams fed by natural springs, but the majority of natural and reclamation drainage channels are highly ephemeral with relatively infrequent flow.

8.0 DEPOSIT TYPES

Wyoming uranium deposits are roll-front uranium deposits as defined in the "World Distribution of Uranium Deposits (UDEPO) with Uranium Deposit Classification", (IAEA, 2009).

Uranium deposits in the Gas Hills were formed by the classic Wyoming-type roll-fronts. Roll-fronts are irregular in shape, roughly tabular and elongated, and range from thin pods and a few feet in width and length, to bodies several hundred or thousands of feet in length. The deposits are roughly parallel to the enclosing beds but may form rolls that cut across bedding. Roll-front deposits are typified by a C-shaped morphology in which the outside of the C extends down-gradient in the direction of historic groundwater flow and the tails extend up-gradient of historic groundwater flow. The tails are typically caught up in the finer sand and silt deposits that grade into over and underlying mudstones, whereas the heart of the roll-front (higher grade mineralization) lies within the more porous and permeable sandstones toward the middle of the fluvial deposits (Figure 8.1).

Figure 8.1. Idealized Cross-Section of a Sandstone-Hosted Roll Front Uranium Deposit



Modified from Granger and Warren (1974) and De Voto (1978).

9.0 EXPLORATION

9.1 Past Exploration

The Project is located within a brownfield site which has experienced extensive exploration, development drilling, and mine and mill site production. The initial discoveries were based on both ground and aerial radiometric surveys in 1953. The initial discovery of the Gas Hills is credited to Neil MacNeice who located a mineralized outcrop using a handheld radiometric counter while Antelope hunting in the area on September 13, 1953 (Snow, 1978). During approximately the same time aerial radiometric surveys conducted on behalf of the Globe Mining Company identified radiometric anomalies in Gas Hills area as well. Initial exploration focused on the northern portions of the Gas Hills where the host formation and mineralization were exposed by erosion. Exploration methods included geological mapping, surface radiometric scanning, sampling of outcrops, and exploration by dozing to expose mineralization. As the Gas Hills district matured major mining companies were attracted to the area and drilling programs down-dip of the outcrops discovered significant uranium mineralization. Since that time, exploratory work has been primarily by rotary drilling with downhole gamma logging, which quantitatively determines the radiometric equivalent uranium concentration. Radiometric data has been supplemented by coring and/or other downhole geophysical logging techniques which quantitatively analyze for chemical uranium. The ownership of the past and recent exploration files passed from Strathmore to Energy Fuels in August 2013, from Energy Fuels to URZ in October 2016, and were then acquired by Azarga through a merger with URZ in 2018.

10.0 DRILLING

10.1 Drilling Methods

Currently available drill data consists of radiometric equivalent data (eU_3O_8) for 4,569 drill holes (4,056 pre-2007), and eU_3O_8 data and PFN assay data for 272 drill holes completed from 2007 to 2013. 2007-2013 drilling completed monitoring wells and exploration holes. Some pre-2007 drill holes were also re-drilled or washed-out for comparison of results to newer logging tools by previous operators as discussed in Section 11.0. Table 10.1 summarizes the drilling and geophysical data available for this resource estimate. Average depth of drilling for the entire Project is approximately 330 ft and ranges in depth from approximately 80 ft to 1,280 ft.

Table 10.1. Drilling Summary by Area

Area	Pre-2007 Drill Holes	2007-2013 Drill Holes	PFN logged	Core Collected
Central Unit	1204	195	75	14
West Unit	1956	201	146	12
Jeep	296	40	0	0
South Black Mountain	41	20	3	0
Rock Hill	41	57	48	4
Total	4056	513	272	30

The vast majority of the drilling (pre and post 2007) was conducted by air and/or mud rotary drilling (vertical) with limited core drilling for evaluation of radiometric equilibrium conditions. The principal data collected for mineral resource estimation by drilling was downhole radiometric equivalent assays. Geologic data collected included lithologic descriptions of drill cuttings and interpretation of geophysical logs (SP and Resistivity).

Similar lithological and downhole radiometric equivalent assay data was collected during the 2011 and 2012 drilling campaign. Downhole PFN geophysical logs were also run on some holes to provide an in-situ uranium assay for comparison to the radiometric equivalent data. As shown in Table 10.1, a small portion of the drill holes were completed using reverse circulation methods to collect bulk samples for metallurgical testing along with limited core drilling. Drill hole coordinates and elevations are in state plane coordinates.

As no current drilling was being undertaken at the time of the October 7, 2020 and May 24, 2021 site visits, no physical check of work practices was possible. After review of available documentation and discussions with Azarga site personnel, the Authors concludes that the previous drilling procedures were in line with industry standard practice and acceptable for use in resource estimation.

10.2 Drilling Length Versus True Thickness

Downhole drift surveys are available only for the 2011 and 2012 drilling. These surveys show random deviation from vertical of 1 to 3°. No deviation of the drill holes was assumed in the mineral resource estimation and this is considered reasonable as explained in following.

The dip of the Wind River Formation within the Project varies from 2 to 6°. If the combination of dip and downhole deviation resulted in an effective deviation of 5° from vertical, the true thickness of mineralization would vary by approximately 0.4 percent, i.e., a 10-foot apparent thickness would equate to a true thickness of 9.96 feet. The Authors concludes that this possible variation is well within the accuracy of the resource estimate.

Core recovery is not an issue as uranium grade is determined primarily by geophysical methods in an open drill hole.

10.3 Summary and Interpretation of Relevant Drill Results

Drill hole locations are shown on maps in Section 14.0. The Author has reviewed the available drill data and considers the information suitable for the purposes of this Report. See Section 12.0 for details on drill data verification.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Radiometric Equivalent Geophysical Log Calibration

The US DOE supports the development, standardization, and maintenance of calibration facilities for environmental radiation sensors. Radiation standards at the facilities are primarily used to calibrate portable surface gamma-ray survey meters and borehole logging instruments used for uranium and other mineral exploration and remedial action measurements. This is an important quality control measure used by the geophysical logging equipment operators. The Authors have reviewed the geophysical logs and they have annotation of the calibration parameters necessary for the accurate conversion of gamma measurements recorded by the logging units to radiometric equivalent uranium grade. Azarga has acquired exploration files for the Project which includes original geophysical logs and data. This data is securely stored at their facility in Edgemont, South Dakota.

Calibration facilities are located at the US DOE sites at Grand Junction Regional Airport in Grand Junction, Colorado; Grants, New Mexico; Casper, Wyoming; and George West, Texas (https://energy.gov/lm/services/calibration-facilities). These calibration facilities were first established by the AEC in the 1950's to support the domestic uranium exploration and development programs of that era.

Early geophysical logs were analog which required manual interpretation. The standard method for estimation of the grade and thickness or uranium was the half-amplitude method. In the late 1960's this method was gradually replaced with computer processing. Dodd et al. (1967) state that borehole logging is the geophysical method most extensively used in the US for the exploration and evaluation of uranium deposits and that gamma-ray logging at that time supplied 80 percent of the basic data for ore reserve calculations and much of the subsurface geologic information. At that time calibration and correction factors were established for each logging unit and probe in the full-scale model holes established by the AEC. GAMLOG and RHOLOG computer programs (Fortran II) were used to quantitatively analyze gamma-ray logs to obtain radiometric equivalent grade and thickness of mineralized intercepts (Dodd et al., 1967).

In 1942 Century Geophysical Corporation, now Century Wireline Services (Century) began research and development of geophysical logging techniques in the US and introduced analog geophysical logging equipment for the uranium industry by 1960. In the late 1970's Century pioneered digital logging and continues to provide these services (Century, 2017). Century's geophysical logging equipment is and has been calibrated at US facilities operated by the AEC, its successor the Energy Research and Development Administration ("ERDA"), and the successor to AEC and ERDA, the US DOE. Tools used for uranium logging are calibrated and assigned dead times and K-factor values at government provided uranium calibration pits. At the same time Century logs field calibration test sleeves which may then be used for daily tool calibration checks to verify that K-factor and dead times have not changed (Century, 2017 and Century, 1975).

Calibration procedures and standards for the geophysical logging equipment used in the determination of radiometric equivalent uranium grade has been consistent through the various drilling campaigns and has relied on calibration facilities maintained by the US government. It is standard practice for Century and other geophysical logging companies to rely on these calibration facilities. Century calibrates to the primary standards located at ERDA facilities in Grand Junction, Colorado where a family of calibration models are maintained. These models consist of a barren zone bored in concrete and a mineralized zone constructed of a homogenous concentration of uranium at a known grade followed by and underlying barren zone. There are different grade models to reflect the range on uranium concentrations typically found in the US. In addition, the models can be flooded to determine a water factor and there are models which are cased for the determination of a casing factor. Each of the models are approximately 9 feet deep consisting of a 3-foot mineralized zone with 3-foot barren zones above and below. The facilities are secure. Logging unit operators logs the holes, provide the geophysical log data in counts per second (CPS) to the facility which in turn processes the data and provides the company with standard calibration values including, dead time, K Factor, and water and casing factors (Century, 1975).

11.2 Pre-2007 Drilling Analyses

Pre-2007 drillhole logging in the Gas Hills was done by the mining and exploration companies themselves, using their own equipment and was also performed by Century Geophysical, Scinti-Log, Frontier Logging, Rocky Mountain Logging, and Geoscience Associates. These independent geophysical logging companies are and/or were well-known, well respected, and considered to have operated well within industry standards of the time. It was then, and still is standard industry practice to routinely calibrate downhole geophysical logging equipment at the facilities operated by the DOE.

Standard electric logs consisted of recordings of gamma, self-potential, and resistivity. Self-potential and resistivity data are useful in defining bedding boundaries and for correlation of sandstone units and mineralized zones between drill holes. At the time of the pre-2007 drilling, equivalent U_3O_8 content was calculated from gamma logs using industry-standard methods developed by the AEC (now the US DOE), using either manual or computer methods. The manual method is as follows:

For zones greater than 2 feet thick, first pick an upper and lower boundary of mineralization by choosing points approximately one-half height from background to peak of gamma anomaly. Then determine counts per second (cps) for each half-foot interval between the points, convert cps to GT (grade times thickness) using the appropriate dead-time, k-factor and water factor for the specific logging unit utilized, and divide GT by thickness to obtain grade % eU_3O_8.

These gamma log interpretations are the basis from which quantities of mineralization could be calculated. These interpretations were industry standard at the time (1950s through 1980s) and, in the case of the Gas Hills Uranium Project, validated by more recent drilling and logging, and therefore considered appropriate for use in the mineral resource estimates reported in Section 14.0.

The AEC published information the calibration standards for geophysical logging and on gamma log interpretation methods (Dodd et al., 1967). The standard manual log interpretation method was the half-amplitude method (Century, 1975). The AEC and its successor agency the ERDA conducted workshops on gamma-ray logging techniques and interpretation as did private companies including Century Geophysical.

11.3 Post-2007 Drilling

Starting in 2007, Strathmore implemented a program of exploration and confirmation drilling utilizing standard gamma logging, and from 2011 to 2013, both PFN and gamma logging. This program served as a check on the pre-2007 drilling results in that it confirmed the grade and thickness of uranium for those holes drilled and allowed comparison of results to nearby or adjacent holes from pre-2007 drilling. In 2011 limited reverse circulation drilling was completed to provide bulk material for metallurgical testing. In 2012, Strathmore implemented core drilling at the Bullrush, Day Loma, George-Ver, Loco-Lee and Rock Hill properties for chemical assay determinations to compare the results of their gamma and PFN logging, see Table 10.1 for a summary of core holes completed.

Drill core was typically split and sampled in half-foot or one-foot intervals and sent to various laboratories for uranium analysis. These analyses typically included: fluorometric chemical analysis and closed-can radiometric analysis.

Core assays (2011/2012) were performed by either Chemical and Geological Laboratories of Casper, Wyoming or Skyline Laboratories of Wheat Ridge, Colorado. Both laboratories were independent commercial laboratories. Specific core handling procedures and laboratory certifications for historic analyses are not known.

The PFN is a specialized logging tool with neutron activation to determine the uranium concentrations in drilled holes. The PFN logging utilizes two different tools used one after the other; a standard gamma tool followed by the PFN tool. Disequilibrium was evaluated by using direct comparisons of uranium grades determined PFN and radiometric equivalent uranium grades gamma logs.

The PFN tool creates neutron-induced fission reactions with U235 atoms present in the host rocks. The U235 atoms emit delayed neutrons which reactivate and are counted by the probe’s detector. This delay cycle is repeated a number of times to accumulate a statistically acceptable number of delayed neutron counts. If uranium is present, the “decay” times of the delayed neutrons is proportional to the uranium content and is independent of disequilibrium or changes in density. This method can be used to determine the direct content of uranium in the host rocks.

For 2011 and 2012 drilling security practices involved: awareness of chain-of-custody issues, limited access to logging tools through locked storage as approved by the US Nuclear Regulatory

Commission ("US NRC"), and continuing calibration of logging tools to assure that no tampering has occurred. All drill hole samples were in locked storage until sent out for laboratory testing.

Beginning in May 2012, third-party independent PFN and gamma logging provided by GAA Wireline Inc. of Casper, Wyoming was also employed. GAA operated their own logging equipment and at times provided loggers who operated Strathmore's company-owned PFN logging truck. GAA provided calibration documentation of test pit runs, which were reviewed.

11.4 Security

For 2011 and 2012 drilling security practices involved: awareness of chain-of-custody issues, limited access to logging tools through locked storage as approved by US NRC, and continuing calibration of logging tools to assure that no tampering has occurred. All drill hole samples were in locked storage until sent out for laboratory testing. Drill cutting samples were generally not preserved and it was typical for the mine operators to assay drill samples at their on-site laboratories.

11.5 Summary

The Authors reviewed the available drill data and independently correlated mineralized horizons and reviewed appropriate composite intervals for use in mineral resource estimation. It is the Authors' opinion that the available drill data is reliable and adequate for the estimation of Measured, Indicated and Inferred Mineral Resources.

12.0 DATA VERIFICATION

Data sources reviewed for the estimation of uranium mineral resources for the Project include radiometric equivalent data (eU_3O_8) for 4,569 drill holes (4,056 pre-2007), and eU_3O_8 and PFN logging data for 272 drill holes completed between 2007 to 2013. For the 2011-2012 drilling programs, downhole geophysical logging using the PFN tool was completed with Strathmore's PFN logging truck and independently confirmed by GAA Wireline Services.

Extensive verification work was previously completed for holes drilled pre-2007 in the previous 2017 mineral estimate (Beahm, 2017). This Report used the results of the 2007 to 2013 drilling as part of the verification procedures on the pre-2007 drilling. The Authors reviewed this analysis as well as post-2007 drilling raw data including electronic copies of geophysical logs, PFN logging data, and core data. There has been no additional drilling since 2013.

12.1 Verification of Radiometric Database

The pre-2007 drill data was originally collected by several operators including American Nuclear Corporation (ANC), Federal American Partners (FAP), Pathfinder Mines/Areva (PMC), Western Nuclear (WNC), Energy Fuels (EF), Union Carbide Corporation (UCC), Adobe-Vinpoint (Adobe), Power Resources Inc. (PRI), and others. These companies either utilized their own geophysical logging equipment, commercial logging services, or a combination of the two. The pre-2007 drill data includes geophysical logs from Century Geophysical, Scinti-Log, Rocky Mountain Logging, Frontier Logging Services, and Geoscience Associates. It was standard industry practice at the time, and it is the current practice, to maintain calibration of geophysical logging equipment through use of the AEC/ERDA (now the US DOE) standard calibration pits located at Casper, Wyoming and Grand Junction, Colorado for quality control and assurance with respect to radiometric equivalent data.

Electronic copies of geophysical logs are in possession of Azarga and were reviewed by the Authors. The pre-2007 drill logs contain header information for essentially all of the drill holes including K Factor, Dead Time, and Water Factor. Several of the drill holes headers also included notes as to the date of calibration of the logging unit at the ERDA test pits. Pre-2007 drill data generally consists of geophysical logs of drill holes including of copies (blueprints) of original drill logs and copies of digital printouts of depth and counts per second (CPS) in ½ foot increments within the mineralized zones. The geophysical logs include natural gamma, resistivity, and spontaneous potential (SP). All drill holes were drilled with fluid and logged in the open hole with no casing. All drill holes were vertical with no drift data.

Radiometric equivalent data is available for essentially all the pre-2007 holes and is incorporated into the drill hole database.

The post-2007 drill data, both electronic and hard copy, includes, original geophysical log prints and digital Log Assay Standard (LAS) files, hard copy printouts and digital ½ foot radiometric equivalent data, gamma calibration data files from the US DOE test pits, and hard copy and scans of field lithologic logs. The same type and form of data is available for drill holes logged with the PFN logging unit. Core data includes chain of custody and laboratory certificates.

Beahm reviewed 46 PFN logs which have both radiometric equivalent data and PFN uranium assay data, checked this data against the electronic database, and prepared the correlations of this data for evaluation of disequilibrium.

The pre-2007 drill data was combined with data from 2007-2013 drilling by Azarga in an electronic database. During the preparation of this Report, the available electronic data was reviewed for each of the mineral resource areas. This process included:

- Plotting of the drill hole locations and comparing these to drill maps prepared by previous operators.
- Screening the drill hole data and preparing a subset of the data containing mineralized intercepts meeting grade, thickness and GT cutoff criteria.
- Correlating the mineralized intercept data such that mineral resource estimates reflected only continuous horizons.
- Excluding any spurious mineralized horizons (laterally or by depth from the continuous horizons) from the mineral resource estimate.
- Examining any mineralized intercepts which were either substantially higher or lower than the surrounding values to ensure the data was considered reliable and therefore suitable to be used.
- Confirmation of vertical correlation between mineralized zones of pre-2007 and 2007-2013 data.

All intercept data from the electronic database and ACAD GT-contours initially generated by Azarga were loaded into Vulcan software by Roughstock for the auditing purposes. Using Vulcan, Roughstock was able to verify the mapped resource contours as well as compare and verify the internal consistency of the electronic database.

12.2 Verification of Disequilibrium Factor

Radioactive isotopes decay until they reach a stable non-radioactive state. The radioactive decay chain isotopes are referred to as daughters. When all the decay products are maintained in close association with the primary uranium isotope U238 for the order of a million years or more, the daughter isotopes will be in equilibrium with the parent isotope (McKay et al., 2007).

Disequilibrium occurs when one or more decay products are dispersed as a result of differences in solubility between uranium and its daughters.

Disequilibrium is considered positive when there is a higher proportion of uranium present compared to daughters and negative where daughters are accumulated, and uranium is depleted. The disequilibrium factor ("DEF") is determined by comparing radiometric equivalent uranium grade eU_3O_8 to chemically measured uranium grade. Radiometric equilibrium is represented by a DEF of 1, positive radiometric equilibrium by a factor greater than 1, and negative radiometric equilibrium by a factor of less than 1.

Except in cases where uranium mineralization is exposed to strongly oxidized conditions, most of the sandstone roll front deposits reasonably approximate radiometric equilibrium. The nose of a roll front deposit tends to have the most positive DEF and the tails of a roll front would tend to have the lowest DEF (Davis, 1969).

Radiometric versus chemical data are available throughout the Project. Extensive data, analysis, and discussion of the comparability of PFN data with chemical assays from core was previously completed which concluded that the PFN assays were reliable (CAM, 2013). Beahm reviewed this information, completed independent calculations, and found the CAM conclusions to be reasonable and appropriate. Overall, the calculated DEF was positive averaging 1.2:1 which means the actual grade of uranium mineralization is higher than the radiometric equivalent grade. The DEF was found by Beahm to vary by area, ranging from 0.80:1 to 1.5:1 (Beahm, 2017).

Although available data indicates an overall positive DEF, a DEF of 1 is applied in this estimate and no correction to the radiometric equivalent data relative to % eU_3O_8 is used in this estimate. The Authors have reviewed the previous DEF analysis and deems this to approach to be a conservative, since a positive correction would result in an overall higher % eU_3O_8 values and an overall higher quantity resource estimate. The Authors also find this approach to be consistent with typical industry practice for uranium ISR projects.

12.3 Verification of Pre-2007 Drilling by Re-Logging

In 2011 and 2012 some pre-2007 drill holes were re-entered and re-probed using modern gamma and PFN logging tools. Where available, the pre-2007 gamma logs were scanned and displayed adjacent to the modern gamma/PFN logs. These holes compare favorably with respect to depth, thickness, grade and GT.

12.4 Density of Mineralized Material

The density of mineralization used in the Gas Hills for resource estimation was 16 cubic feet per ton. This is the most common figure used for sandstone hosted, roll-front uranium deposits in Wyoming and Colorado, as noted extensively throughout the literature on these deposits. Density studies were completed on core retrieved in March and December 2012. The studies were completed by Intermountain Labs of Sheridan, Wyoming and DOWL-HKM of Lander, Wyoming, respectively. The overall average of the 26 samples was 16.49 ft^3/ton.

Based on the limited number of core sampled for density, and the overall average being very similar to the 16 ft^3/ton average used historically, this Report has assumed a density factor of 16 ft^3/ton for the mineral resource estimates reported in Section 14.0. The Authors find this value to be representative and also slightly conservative.

12.5 Summary

Based on the outcomes of the above data verification, the Authors consider the Project data sufficiently reliable for mineral resource estimation and related work. No deficiencies were found in the verification and audit of this information.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Ore from past mining within the Gas Hills was processed using conventional milling, recovery, and extraction methods including the Union Carbide, Pathfinder, and Federal American Partners mills located in the Gas Hills. As well, ore from the Gas Hills was shipped to the Susquehanna mill in Riverton, Wyoming and the Western Nuclear mill near Jeffery City, Wyoming (Snow, 1978). Heap leach recovery operations were also successively conducted by Union Carbide at their East Gas Hills facility (Woolery et al., 1978) and at the West Unit by Western Nuclear Corporation.

One of the previous operators, Strathmore, conducted preliminary metallurgical testing in 2011 on bulk samples collected from reverse circulation drill holes. The results are consistent those experienced when the mines were in production (Beahm, 2017).

In May 2011, Strathmore commissioned Lyntek Inc. of Lakewood, Colorado, an experienced firm in uranium engineering and processing research, to carry out preliminary metallurgical studies and investigate the proposed Gas Hills uranium heap leach recovery plans. These studies included bottle-roll testing, three separate column leach studies, and testing of Ion Exchange Resin. Results of these studies were included in following reports summarized in the "Preliminary Metallurgical Testing Summary, Agitation Test Work – Report 1, Uranium Heap Leach, Gas Hills Project" (Lyntek, 2013), "Preliminary Metallurgical Test Summary, Winter 2011, Column Leach Report (Lyntek, 2013) "Preliminary Metallurgical Test Summary – Summer 2012, Column Leach Test Report III, Uranium Heap Leach Gas Hills Project" (Lyntek, 2013) "Gas Hills Uranium Recovery Project, Metallurgical Investigations, Ion Exchange Testing" (Lyntek and Alexander, B, 2013).

Uranium Extraction Bottle Roll Testing

Lyntek completed 11 total bottle roll tests using core ranging in mineral grade from 0.069% - 0.258% U. Using all of the metallurgical tests to evaluate recovery showed that recoveries ranged between 55.8 percent and 97.9 percent and typically had acid consumptions ranging from 8.6 to 230 pounds per ton. The average recovery of all eleven leach tests was 90.0 percent with an average acid consumption of 55.4 pounds per ton. The individual bottle roll tests consisted of each of the following: 2 cores from the West Unit, 4 cores and 1 duplicate from the Central Unit, 2 cores from Rock Hill, and 1 blended core sample and 1 blended core sample duplicate.

Uranium Extraction Column Testing

Lyntek completed two initial column leach tests with two blended samples from cores collected from the West Unit, Central Unit, and Rock Hill configured to be a high-grade composite with an average grade of 0.135%U and a low-grade composite with an average grade of 0.023%U. Lyntek also conducted a third column leach test using a sample of stockpile ore from the Central Unit with an average grade of 0.137%U that was highly oxidized due to prolonged exposure to the atmosphere. Though the tests were all run well past reaching an asymptotic recovery point, all three results appear to confirm a suitable target of 90 percent recovery. Results of the initial two blended core samples showed what was deemed a "quick" extraction with maximum recovery of 98.4 percent reached in approximately 21 days in the high-grade sample and a maximum recovery of 98.9 percent recovery of the low-grade sample in approximately 9 days. In the third test, 90 percent recovery was reached in approximately 65 days.

IX Testing

Preliminary ion exchange extraction tests showed that uranium could be successfully loaded by this method and that Dowex 21K resin was a favorable resin choice for use in processing recovery solutions from the site.

Summary

In summary, while the history of uranium production in the Gas Hills demonstrates that uranium is recoverable from mineralized material and recent metallurgical testing indicates favorable results, Lyntek recommended additional metallurgical testing be conducted. Specifically, Lyntek recommended that metallurgical studies to further expand the understanding of the range of metallurgical conditions and process variables that may be incorporated into mine plans, and which further simulate the proposed mineral processing method, be performed. This includes both heap leach and ISR extraction scenarios.

The Authors have reviewed the studies by Lyntek and finds them to be supportive that both assumed mining methods of this Mineral Resource estimate have reasonable prospects for economic extraction.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Mineral Resource Definitions

A technical review and resource estimation was completed by Roughstock for this resource update using Vulcan V. 10.0 software. Mineral Resources reported in this Report are classified as Measured, Indicated, and Inferred in accordance with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practice Guidelines" (November 29, 2019). Classification of the resources reflects the relative confidence of the grade estimates. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve. The effective date of the Mineral Resource estimate is March 29, 2021.

This section describes the resource estimation methodology and summarizes key assumptions considered by the Authors. In the opinion of the Authors, the resource evaluation is a reasonable representation of the uranium resources found in the Gas Hills.

The database, GT-contours, and calculations used to estimate the Gas Hills Uranium Project Mineral Resources was audited by Roughstock and it is the opinion of the Authors that the current drilling information is sufficiently reliable to interpret the extents of the pods and the assay data are sufficiently reliable to support mineral resource estimation.

14.2 Basis of Mineral Resource Estimates

14.2.1 Methodology

The mineral resource estimates are based on radiometric equivalent uranium grades % eU_3O_8. A minimum 0.02% eU_3O_8, minimum 1.0-foot thickness, and minimum GT of 0.10 was used in the estimations along with a bulk dry density of 16 cubic feet per ton. Resources were estimated using the GT contour method, which is industry standard for this type of deposit. The GT was determined for each drillhole by major stratigraphic horizon, then the GT was summed separately for each mineralized sub-horizon for intercepts meeting the cutoff criteria. Contours were drawn in two-dimensional space around horizon intercepts, allowing projection up to 100 feet across a mineralized trend and up to 600 feet along the mineralized trend. The GT contour maps provided in Section 14.5 provide a graphical representation of the mineralization reflecting the location, quality, GT, and continuity of the mineralization.

Average GT for each contour was calculated one of two ways depending on if the contour was the highest GT contour or if it contained another, higher GT contour. If the contour was the highest GT contour, all GT values within the contour were averaged, then averaged with the value of that GT contour. For example, a 1.0 GT contour with two GT values of 1.20 and 1.47 and no higher contour within would be (((1.20+1.47)/2)+1.0)/2 = 1.17 average GT. If the contour contained another higher contour, the average GT was the average of the upper and lower GT contour values.

For example, a 1.0 GT contour with a 2.0 GT contour within would be (1.0+2.0)/2 = 1.5 average GT.

Pounds of uranium for each contour were calculated by multiplying the contour area by GT and applying the density factor (Area x Avg GT x 1.25 = Pounds). Tonnage was calculated by multiplying composited contour thickness by contour area to get cubic feet, then converting to tonnage by applying the density factor (Thickness x Area/16).

The drillhole database was provided as an Excel database and imported into Vulcan's ISIS format in order to verify drillhole collar locations and any errors corrected.

The 0.1 GT base case cutoffs were selected by meeting economic criteria for both ISR and open pit/heap leach methods differentiated on the relative location to the water table. Resources labeled "ISR" meet the criteria of being sufficiently below the water table to be amenable by ISR methods and as well as also meeting other hydrogeological criteria. "Non-ISR" resources include those generally above the natural water table, which would typically be mined using open pit methods.

14.3 Key Assumptions and Parameters

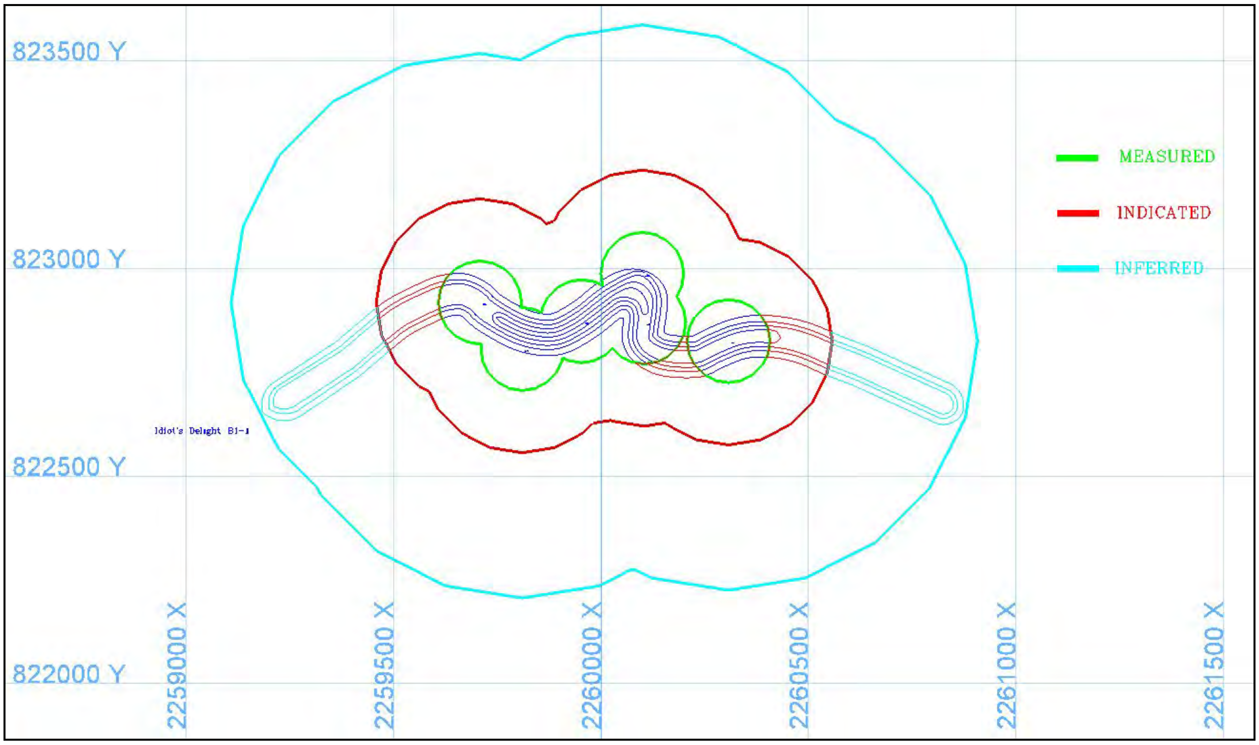
Mineral resources were classified as Measured, Indicated, and Inferred based on the distance to the nearest drilling intercept to measure drilling density. To be classified as measured resource, the contour must fall within 100 feet of a mineralized drillhole intercept in that horizon. Indicated resource must fall between 100 and 250 feet from the nearest mineralized intercept in that horizon. Inferred resource must be within 600 feet of a mineralized intercept in that horizon.

Using Vulcan software, boundaries at 100, 250, and 600 feet from each drillhole collar were generated. The GT contours were then divided and classified based on area contained within each of the distance boundaries from drillhole intercepts. Figure 14.1 shows contours for an example pod within the Central Unit that shows how categories were allocated within each mineralized pod for resource classification with respect to drilling density.

After classifying resources based on distance from drilling, further consideration was given to applicable mining methods for each pod. Reclassification of resource was determined based on local water table levels at each resource pod and the level of detail of hydrogeologic understanding.

At this time, only the Central Unit has had groundwater flow modeling completed. All other ISR resource which met the measured criteria for ISR drilling density were classified as indicated resource until more detailed hydrologic studies to support ISR are conducted on these resource areas.

Figure 14.1. Resource Classification Boundaries



14.3.1 Cutoff Criteria

The cutoff used for mineral resource classification was a minimum 0.02% eU_3O_8, minimum 1.0-foot thickness, and minimum 0.10 GT. These criteria were determined to meet the criteria for "reasonable prospects for economic extraction" for both ISR and open pit heap/leach mining methods as described in Section 12.2.4. The GT cutoff of 0.1 GT is also consistent with previous historic resource estimation in the area. Additionally, 0.2 GT cutoffs were included for ISR resources for additional comparison purposes only as this is a typical uranium industry standard ISR cutoff. However, average grade of ISR resources in this resource estimate at a 0.1 GT cutoff compares favorably to other ISR projects in region, meet economic criteria for ISR extraction, and thus were considered the base case for this Report.

When drawing GT contours, the maximum allowable GT was set at 7.0. Any drilling intercept with a higher GT was included in the 7.0 GT contour and assigned that value.

14.3.2 Bulk Density

The bulk density value of 16 cubic feet per ton was used to calculate the resource estimate. Verification of the use of this value can be found in Section 12.4.

14.3.3 Radiometric Equilibrium

Evaluation of radiometric equilibrium is discussed on Section 12.0 of this Report. While the average disequilibrium factor for the five Project areas was greater than 1 (1.20), the disequilibrium factor varied by area, ranging from 0.80 to 1.50. For the purposes of assessing the overall mineral resources for the Project, it is recommended that no correction for radiometric equilibrium be applied for this level of study. Based on the available data and the geological setting of the mineral deposits, the Authors consider it appropriate to assume a DEF factor of 1 for all mineral resource estimates.

14.4 Mineral Resource Summary

Mineral Resources for the Project are estimated by classifications meeting CIM standards and definitions as indicated or inferred mineral resources, at a 0.10 GT cutoff, as summarized in Table 14.4. Subsequent Sections 14.4.1 through 14.4.5 provide specific summaries for the West Unit, Central Unit, Rock Hill, South Black Mountain, and Jeep areas, respectively.

Table 14.4. Mineral Resource Summary

March 29, 2021 (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	2,051,065	993,928	0.103%	5.35	0.552
Indicated	8,714,126	6,031,224	0.072%	6.13	0.443
Inferred	490,072	514,393	0.048%	6.16	0.293
Total M&I	10,765,191	7,025,152	0.077%	6.05	0.463
March 29, 2021, ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	2,051,065	993,928	0.103%	5.35	0.552
Indicated	5,654,545	2,835,339	0.100%	4.92	0.491
Inferred	427,817	409,330	0.052%	5.94	0.310
Total M&I	7,705,610	3,829,267	0.101%	4.99	0.502
March 29, 2021, Non-ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	3,059,581	3,195,885	0.048%	8.60	0.412
Inferred	62,256	105,063	0.030%	7.01	0.208
Total M&I	3,059,581	3,195,885	0.048%	8.60	0.412
March 29, 2021, ISR Only (GT cutoff 0.20)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	1,887,847	847,570	0.111%	5.94	0.661
Indicated	4,872,128	2,143,763	0.114%	5.74	0.653
Inferred	290,007	260,544	0.056%	8.44	0.470
Total M&I	6,759,975	2,991,333	0.113%	5.77	0.653

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.4.1 West Unit

There are a total of 2157 drill holes in the database for the West Unit. Depth of mineralization varies within two horizons for ISR Mineralized Resources averaging in depth between approximately 200 to 350 feet below surface each and up to approximately 550 feet in depth. Non-ISR Mineralized Resources range in depth from surface to approximately 290 feet in depth with an average depth of approximately 150 feet. Additionally, several pods were identified in the northern portion of the West Unit that were located near a significant fault. Due to uncertainty of the hydrogeologic conditions and the lack of groundwater modeling in proximity to the fault, ISR resources that met measured or indicated contours of drilling density were classified as inferred. Indicated and Inferred Mineral resources for the West Unit are shown in Table 14.5 as follows:

Table 14.5. West Unit Mineral Resource Summary

March 29, 2021 (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	5,272,398	2,985,281	0.088%	5.75	0.507
Inferred	300,591	295,277	0.051%	6.87	0.350
Total M&I	5,272,398	2,985,281	0.088%	5.75	0.507
March 29, 2021, ISR Only (GT Cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	3,711,720	1,547,368	0.120%	4.92	0.591
Inferred	292,689	283,629	0.052%	6.76	0.349
Total M&I	3,711,720	1,547,368	0.120%	4.92	0.591
March 29, 2021, Non-ISR Only (GT Cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	1,560,678	1,437,914	0.054%	8.02	0.435
Inferred	7,901	11,649	0.034%	8.00	0.271
Total M&I	1,560,678	1,437,914	0.054%	8.02	0.435
March 29, 2021, ISR Only (GT Cutoff 0.20)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	3,291,530	1,208,058	0.136%	5.71	0.778
Inferred	211,601	198,222	0.053%	9.37	0.500
Total M&I	3,291,530	1,208,058	0.136%	5.71	0.778

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.4.2 Central Unit

The Central Unit contains the George-Ver and Frazier Lamac mine complex located within the Central Gas Hills. These two historic areas were extensively mined in the past predominantly by open pit methods. The majority of the George-Ver and Frazier Lamac areas have been drilled on 100-foot centers or less. Data from 1399 drill holes was available and utilized in the estimation of mineral resources. ISR Mineralized Resources range in depth from 130 feet to approximately 280 feet and average approximately 210 feet below surface. Non-ISR Mineralized Resources range in depth from surface to approximately 310 feet with an average depth of approximately 110 feet. The depth to ore horizons varies widely based on surface topography. A detailed groundwater model (see Section 7.5) was conducted in the Central Unit specifically on the George Ver/Frazier Lamac deposit to demonstrate that conditions for extraction were suitable to sustain sufficient water levels over a life-of-mine operating scenario (Hydro-Engineering, 2021). Some ISR resources in the George Ver/Frazier Lamac areas are classified as Measured Resource because of the combination of drilling density, high-level hydrologic study, and supporting metallurgical analysis. Measured, Indicated, and Inferred Mineral resources for the Central Unit are shown in Table 14.6 as follows:

Table 14.6. Central Unit Mineral Resource Summary

March 29, 2021 (GT Cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	2,051,065	993,928	0.103%	5.35	0.552
Indicated	1,109,575	1,037,599	0.053%	5.86	0.313
Inferred	127,998	139,997	0.046%	5.23	0.239
Total M&I	3,160,640	2,031,527	0.078%	5.62	0.437
March 29, 2021, ISR Only (GT Cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	2,051,065	993,928	0.103%	5.35	0.552
Indicated	595,029	474,364	0.063%	5.92	0.371
Inferred	92,414	88,210	0.052%	4.46	0.233
Total M&I	2,646,094	1,468,292	0.090%	5.49	0.495
March 29, 2021, Non-ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	514,546	563,236	0.046%	5.84	0.267
Inferred	35,585	51,787	0.034%	5.82	0.200
Total M&I	514,546	563,236	0.046%	5.84	0.267
March 29, 2021, ISR Only (GT cutoff 0.20)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Measured	1,887,847	847,570	0.111%	5.94	0.661
Indicated	506,146	391,010	0.065%	7.64	0.494
Inferred	54,667	44,847	0.061%	5.78	0.352
Total M&I	2,393,993	1,238,580	0.097%	6.29	0.608

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.4.3 Rock Hill

Mineralized Resources at Rock Hill are shallow, averaging approximately 40 feet in depth from surface, and have, at least in part, been re-distributed by surface oxidation. Data from close spaced drilling (50 foot) is available. Table 14.7 summarizes the Indicated and Inferred Mineral Resources estimated for Rock Hill, which are entirely Non-ISR resources.

Table 14.7. Rock Hill Mineral Resource Summary

March 29, 2021, Non-ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	984,357	1,194,736	0.041%	15.83	0.652
Inferred	18,770	41,627	0.023%	10.40	0.234
Total M&I	984,357	1,194,736	0.041%	15.83	0.652

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.4.4 South Black Mountain

South Black Mountain drill data consists of 20 drillholes from relatively recent drilling (2007-2013) and 41 drillholes from Pre 2007. Two mineralized horizons are present in the area occurring at depths of approximately 980 feet and 1100 feet. South Black Mountain is located south of the Beaver Rim and contains the deepest mineralization of the Project. The area has been untouched by historic mining. Table 14.8 summarizes the Indicated and Inferred Mineral Resources estimated for South Black Mountain, which are entirely ISR resources.

Table 14.8. South Black Mountain Mineral Resource Summary

March 29, 2021, ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	858,761	525,730	0.082%	4.43	0.362
Inferred	35,456	30,889	0.057%	3.48	0.200
Total M&I	858,761	525,730	0.082%	4.43	0.362
March 29, 2021, ISR Only (GT cutoff 0.20)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	662,415	333,681	0.099%	5.11	0.507
Inferred	17,971	12,323	0.073%	4.80	0.350
Total M&I	662,415	333,681	0.099%	5.11	0.507

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.4.5 Jeep

The Jeep area drill data consists of 40 drillholes (2007-2013) and 296 drill holes from Pre 2007 drilling. A single mineralized horizon is present in the area occurring at an approximate depth of 270 feet. Table 14.9 summarizes the Indicated and Inferred Mineral Resources estimated for the Jeep area, which are entirely ISR resources.

Table 14.9. Jeep Mineral Resource Summary

March 29, 2021, ISR Only (GT cutoff 0.10)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	489,034	287,877	0.085%	5.10	0.433
Inferred	7,258	6,603	0.055%	3.75	0.206
Total M&I	489,034	287,877	0.085%	5.10	0.433
March 29, 2021, ISR Only (GT cutoff 0.20)					
	Pounds	Tons	Avg. Grade	Avg. Thickness	Avg. GT
Indicated	412,038	211,014	0.098%	5.88	0.575
Inferred	5,768	5,152	0.056%	4.95	0.277
Total M&I	412,038	211,014	0.098%	5.88	0.575

Note: Mineral resources that are not mineral reserves do not have demonstrated economic viability.

14.5 GT Contour Maps

GT contour maps for the five mineral resource areas: Central Unit, West Unit, Rock Hill, South Black Mountain, and Jeep are provided as Figures 14.2 through 14.9. The GT Contour maps provide a graphical representation or model of the mineralization reflecting the location, quality represented by GT, and continuity of the mineralization.

14.6 Discussion on Mineral Resources

Mineral resources do not have demonstrated economic viability, but they have had technical and economic constraints applied to them to establish reasonable prospects for eventual economic extraction. The geological evidence supporting Measured and Indicated Mineral Resources is derived from adequately detailed and reliable exploration, sampling and testing, and is sufficient to reasonably assume geological and grade continuity. The Measured and Indicated Mineral Resources are estimated with sufficient confidence to allow the application of technical, economic, marketing, legal, environmental, social and governmental factors to support mine planning and economic evaluation of the economic viability of the deposit.

The tons and grade of the Inferred Mineral Resources are estimated on the basis of limited geological evidence and sampling, but the information is sufficient to imply, but not verify, geological and grade continuity. The Author expects the majority of the Inferred could be upgraded to Indicated Mineral Resources with additional drilling.

Figure 14.2. West Unit A Sand GT Contour Map

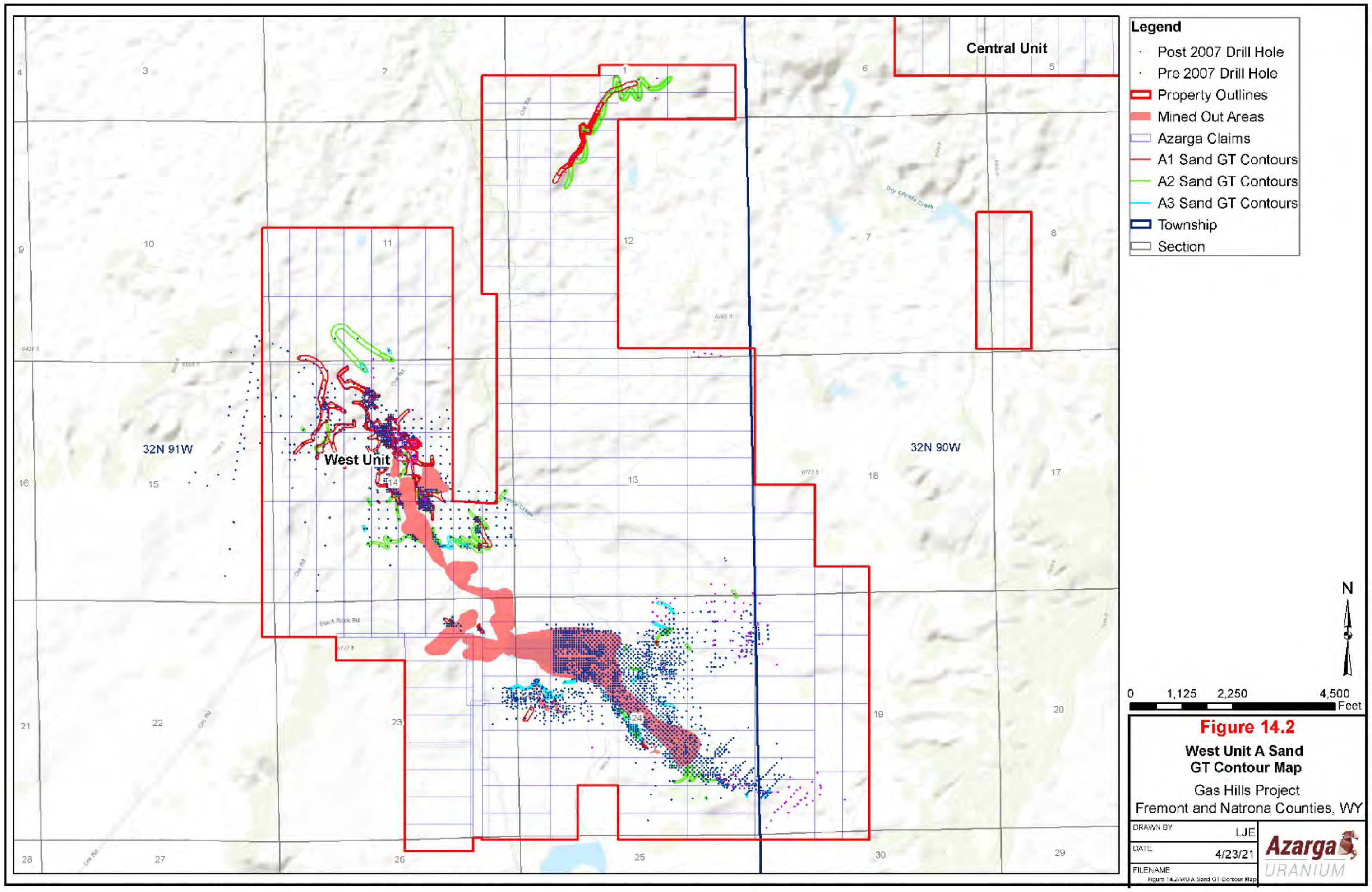


Figure 14.3. West Unit B Sand GT Contour Map

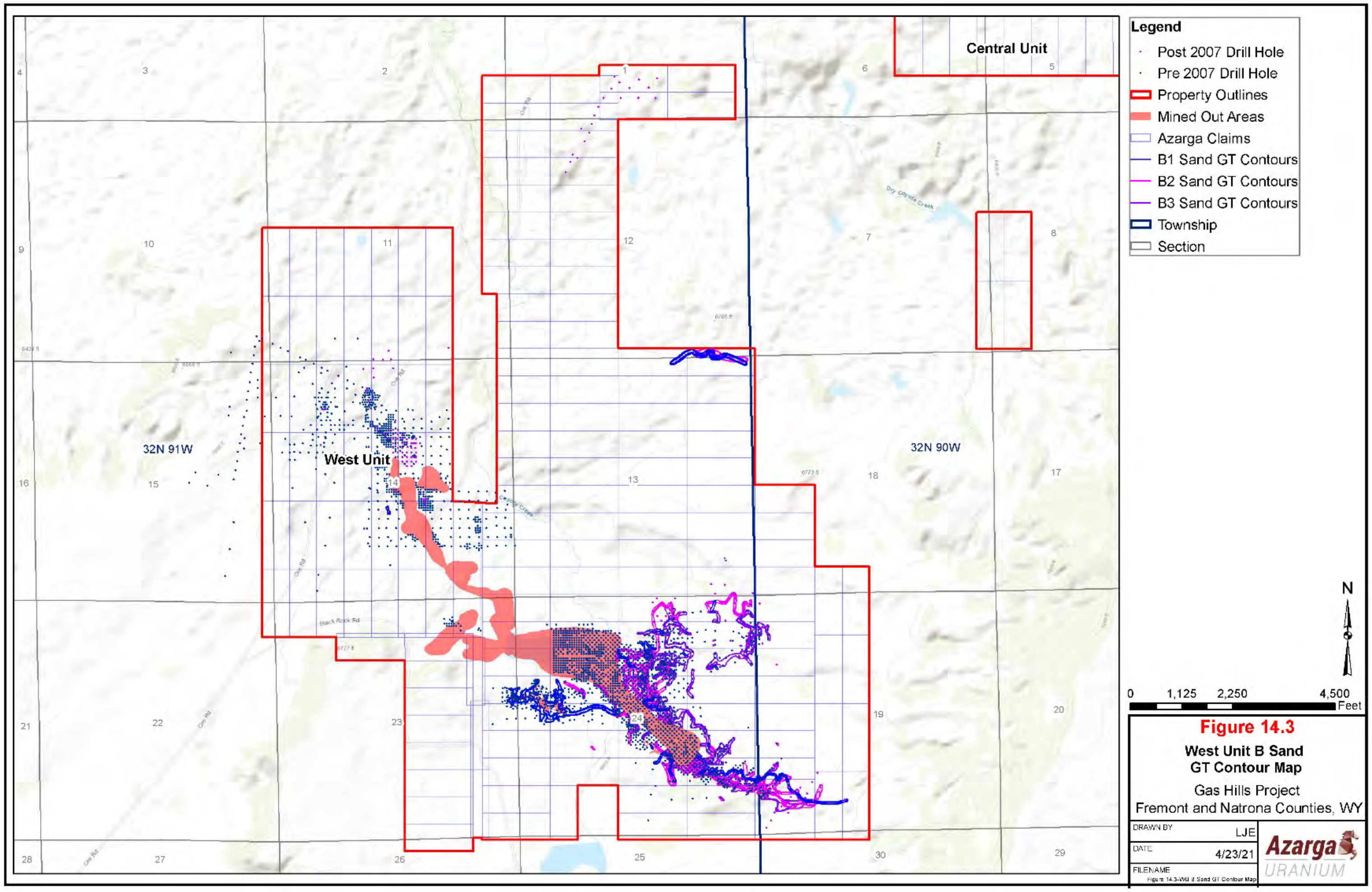


Figure 14.4. Central Unit A Sand GT Contour Map

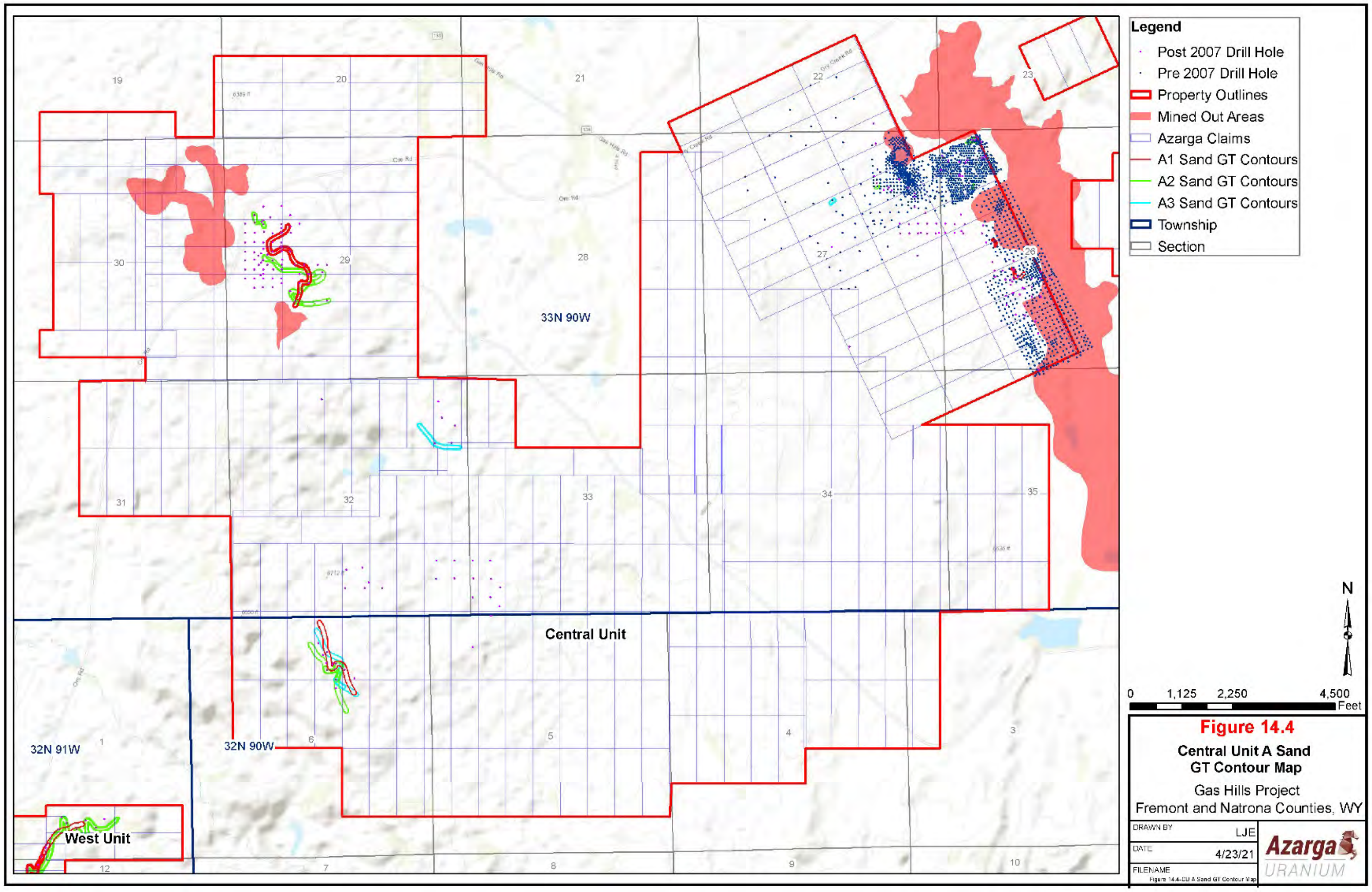


Figure 14.5. Central Unit B Sand GT Contour Map

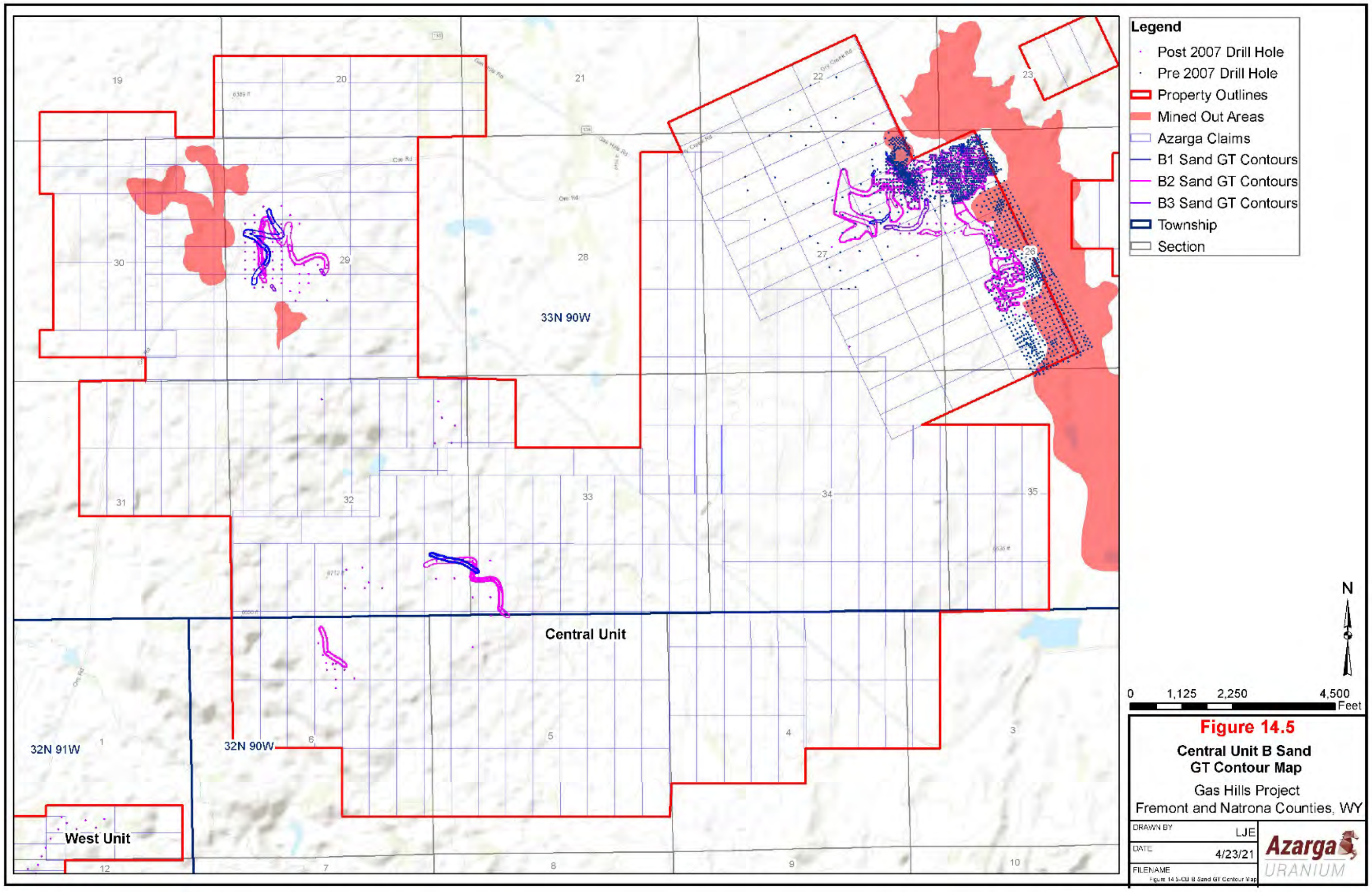


Figure 14.6. Rock Hill GT Contour Map

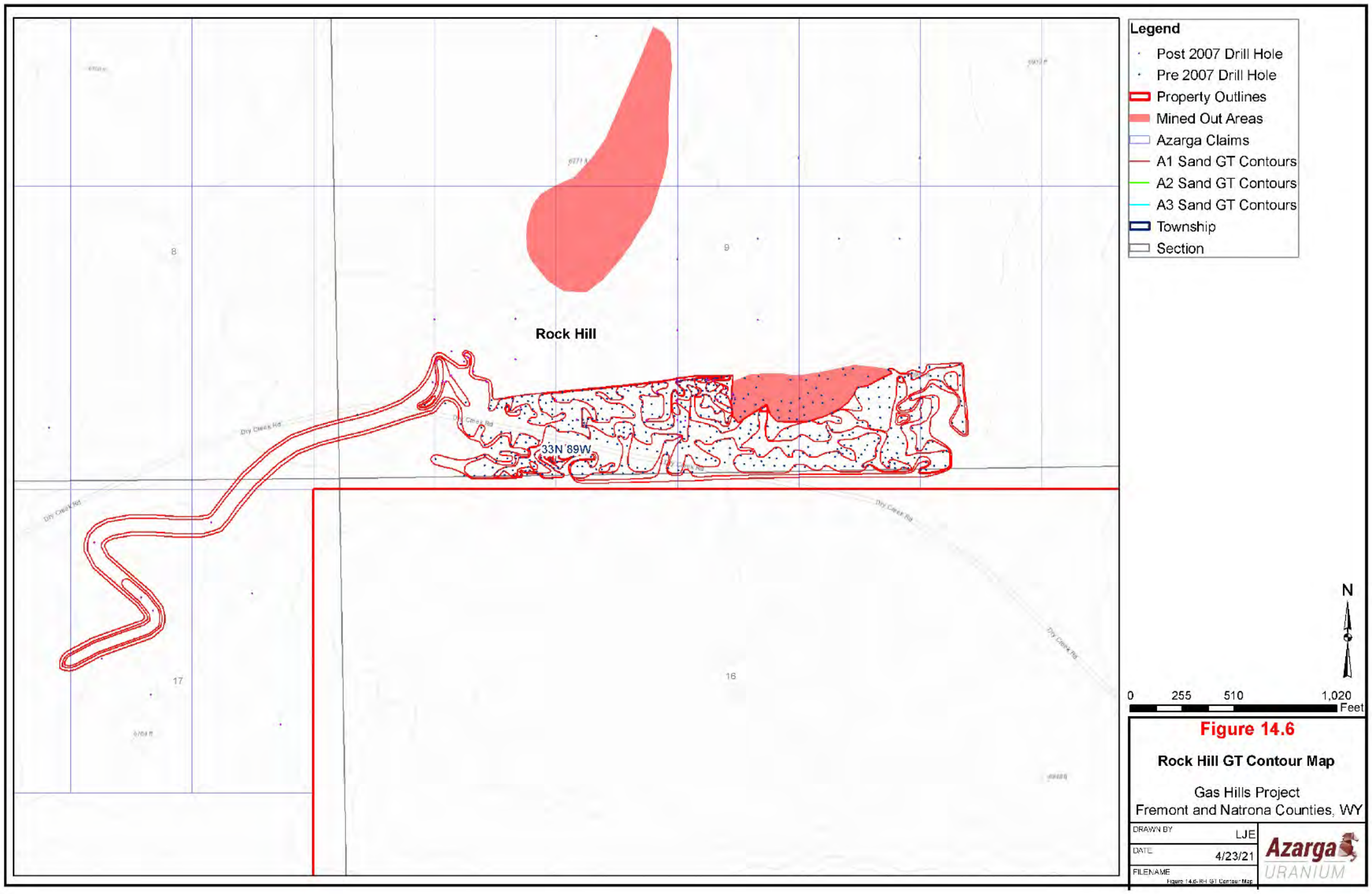


Figure 14.7. South Black Mountain A Sand GT Contour Map

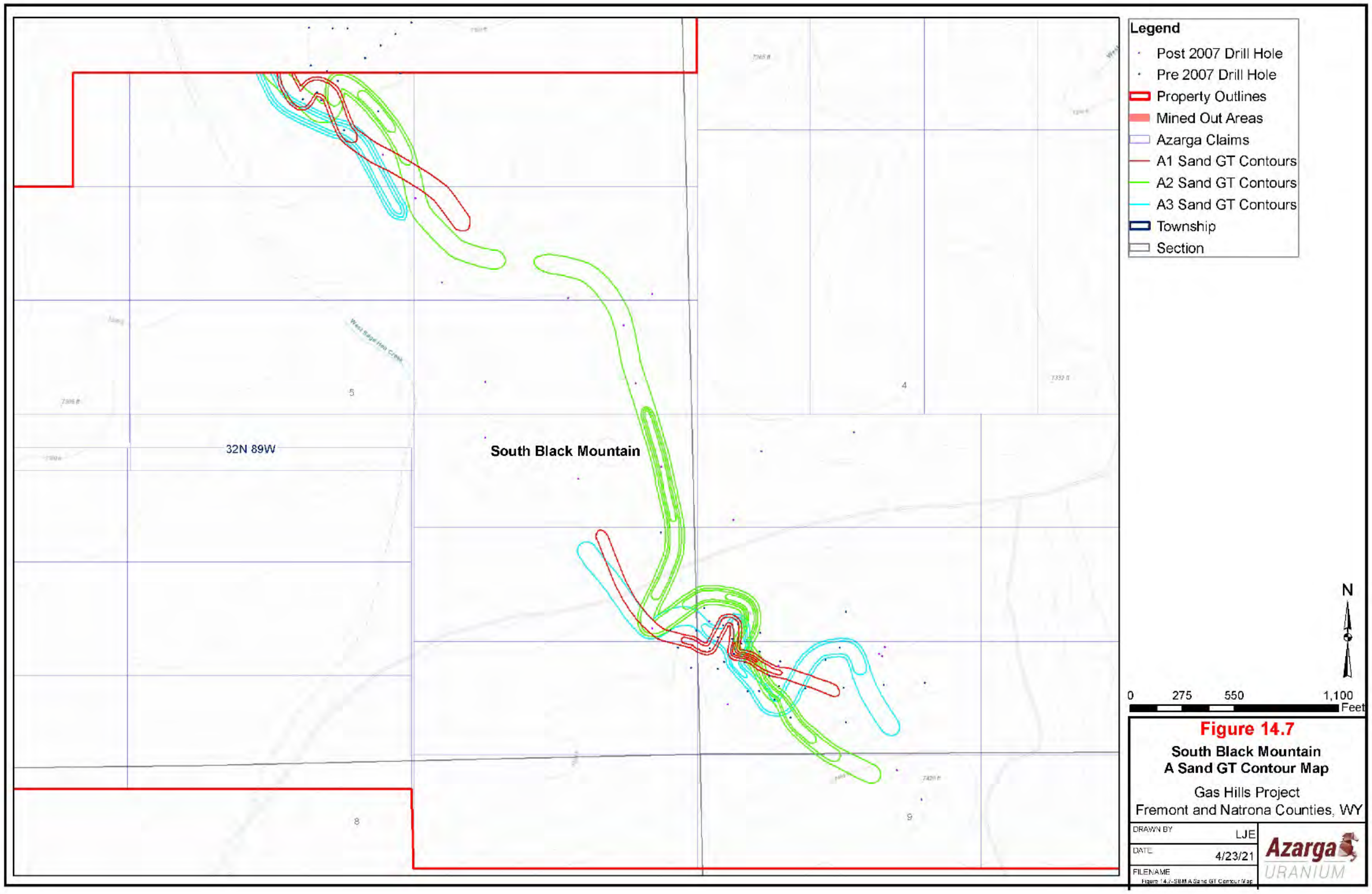


Figure 14.8. South Black Mountain B Sand GT Contour Map

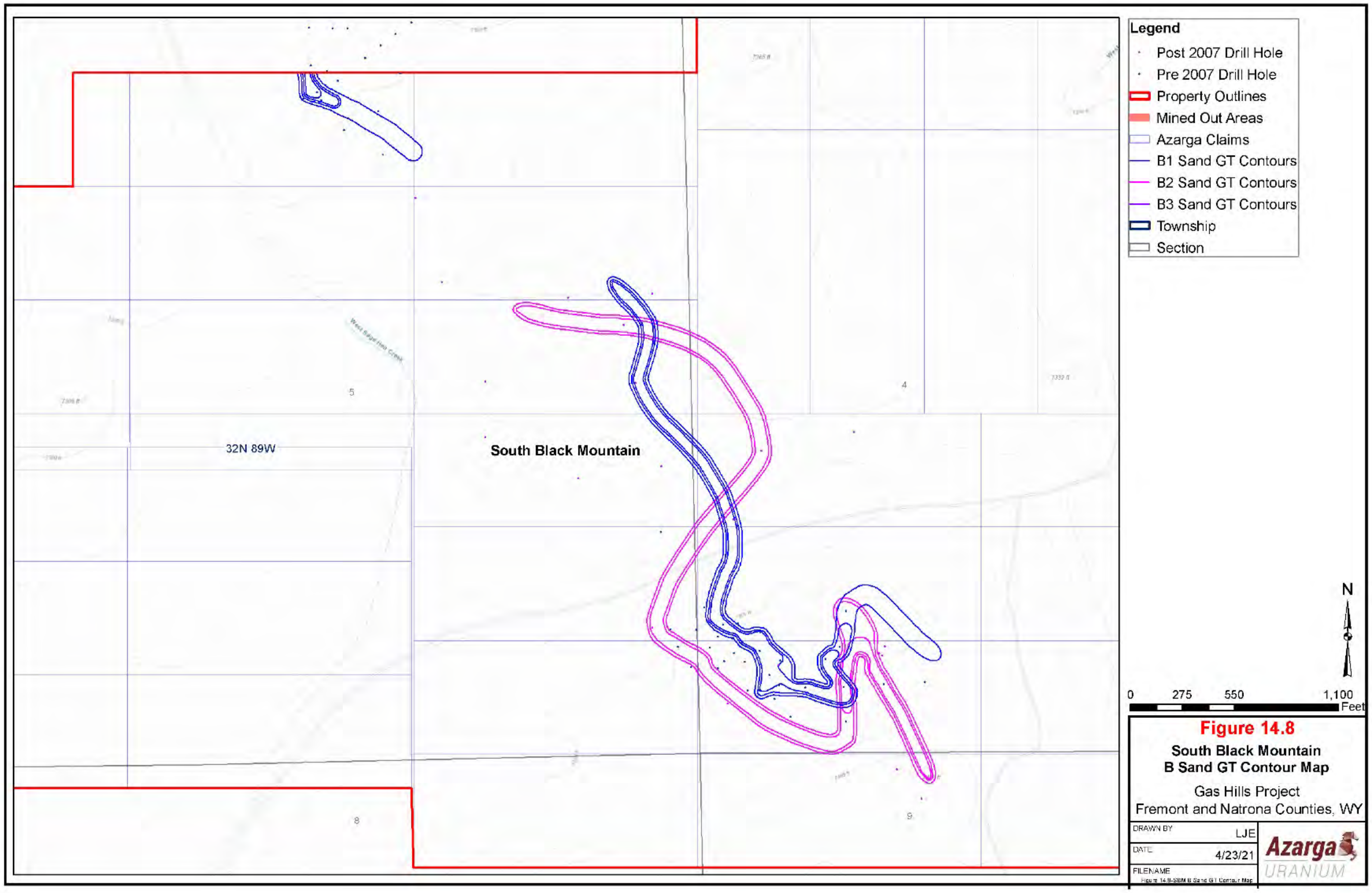
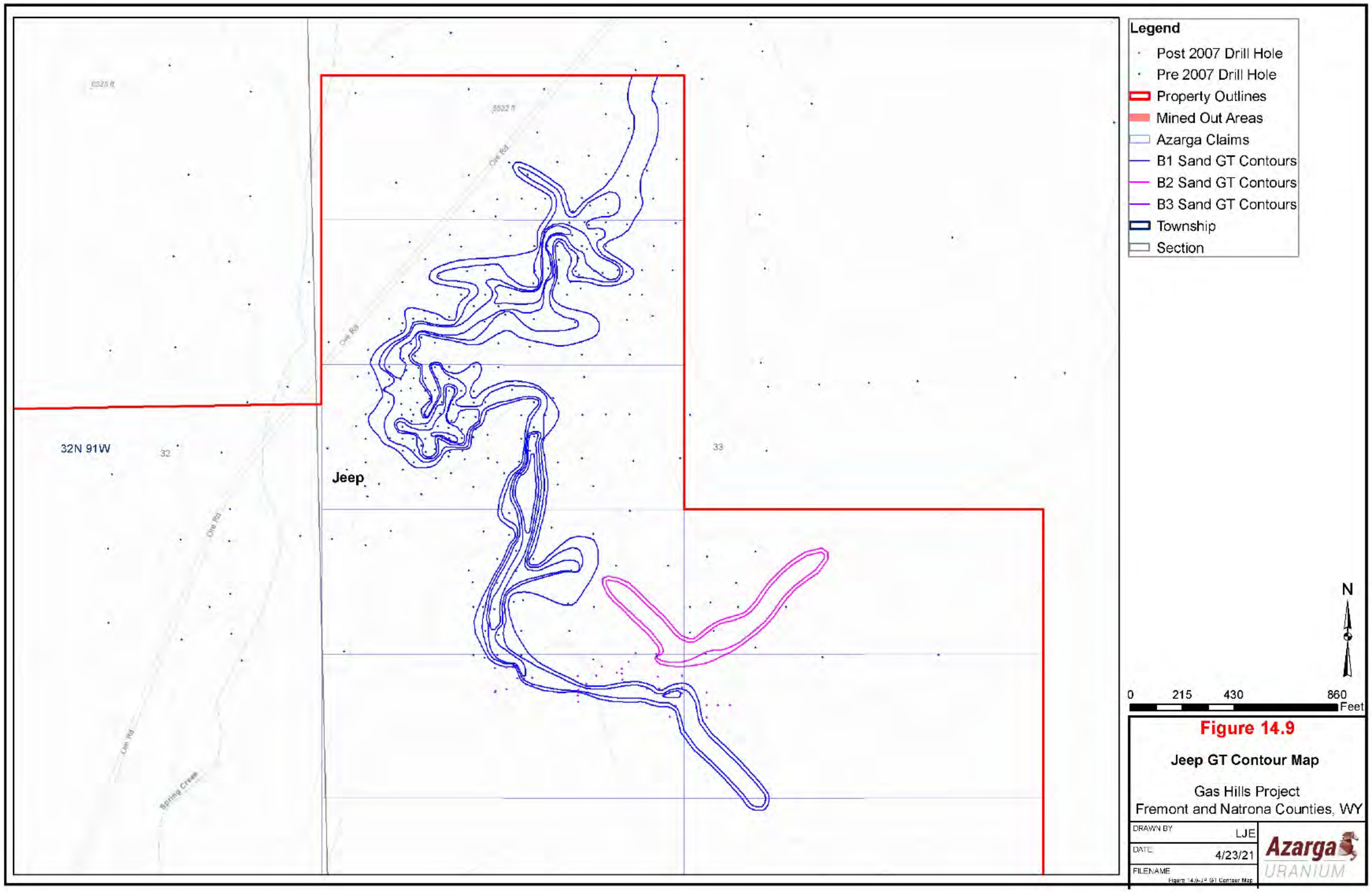


Figure 14.9. Jeep GT Contour Map



15.0 MINERAL RESERVES

Mineral reserves were not estimated for this PEA.

16.0 MINING METHODS

This section of the PEA describes extraction and uranium processing, the cost estimate approach and assumptions used to develop the capital costs and operating costs. The mining method addressed in this PEA is uranium ISR. There is no excavation of ore and no mining dilution with this method. Only minerals that can be taken into solution are recovered.

16.1 Mineral Deposit Amenability

Azarga plans to use the ISR mining technique with a low pH lixiviant at the Project. As discussed in Section 6.0, the Gas Hills was one of the major uranium mining and production regions in the USA with cumulative production in excess of 100 million pounds of uranium, mainly from open-pit mining, but also from underground and ISR mining methods. This historical production demonstrated the host Wind River Formation sandstones and the hydrological conditions to be suitable for ISR production.

ISR is employed because this technique allows for the low cost and effective recovery of roll front mineralization. An additional benefit is that ISR is relatively environmentally benign when compared to conventional open pit or underground recovery techniques. ISR does not require the installation of tailings facilities or require significant surface disturbance.

This mining method utilizes injection wells to introduce a lixiviant into the mineralized zone. This PEA assumes that a low pH lixiviant will be utilized in the ISR process. Low pH ISR lixiviants have technical and economic advantages over alkaline lixiviants in formations that have relatively low carbonate content and amenable geology. These advantages include potential for higher recovery, shorter leaching duration, lower lixiviant and oxidant requirements, constituent-specific advantages during groundwater restoration, and a higher degree of natural attenuation than alkaline lixiviant. The lixiviant is made of native groundwater fortified with a complexing agent such as sulfuric acid. The complexing agent bonds with the uranium to form uranyl sulfate, which is then recovered through a series of production wells and piped to a processing plant where the uranyl sulfate is removed from solution using ion exchange. The groundwater is re-fortified with the complexing agent and recirculated to the wellfield to recover additional uranium.

In order to use the ISR technique, the mineralized body must be saturated with groundwater, transmissive to water flow, and amenable to dissolution by an acceptable lixiviant. While not a requirement, it is beneficial if the production zone aquifer is relatively confined by overlying and underlying aquitards in order to maintain control of the mining lixiviant. Available geophysical data indicate that there are confining intervals between the targeted sands and vertically adjacent aquifers. As described in Section 14, mineralization has been mapped in two different sand intervals, referred to as the A Sand and the B Sand each of which was further divided into three sub-sands (A1, A2, A3, B1, B2, B3). Based on drilling logs, each individual mineralized sand is generally bounded on top and bottom by a lower permeability layer. As such, for the purposes of this analysis it was assumed that each sand lens would be separately mined with its own set of wells. As discussed in Section 7.5, groundwater quality and water level data have been monitored at the Project for more than three decades. A 2021 numerical groundwater flow model developed within the ISR resource areas in the Central Unit indicated ISR operations could be sustained in a life-of-mine production scenario with much of the water column above the immediate mining zone remaining intact during ISR operations (Hydro-Engineering, 2021). See Sections 7.5 and 16.2 for additional discussion.

Several agitation leach (bottle-roll) and column leach tests have been carried out on core samples from the Project to ensure leachability with an acceptable lixiviant. Test results in Section 13.0 show that recoveries of approximately 90 percent are technically possible; however, this PEA assumes a recovery of 80 percent of the uranium in each wellfield pattern. See Section 13.0 for a complete discussion of leach test results.

16.2 Hydrology

16.2.1 Hydrogeology

The regional geology and Project stratigraphy are discussed in detail in Section 7.0 of this report and are not repeated here. What follows is a discussion of the hydrologic regime and its relevance to ISR mining.

Within the Project area, the Wind River Formation is the primary aquifer system containing mineralization. The relatively large distance between mining units means that each individual mine unit is, for all practical purposes, hydrologically independent. Each individual mineralized sand lens is generally bounded on top and bottom by strata with lower permeability. In effect, this means that at a local scale the uranium bearing sand lenses have varying levels of hydraulic separation from other overlying and underlying sands which are also located within the Wind River Formation. These areas of local confinement do not extend across the entire Project and sands within the Wind River Formation are regionally in the same aquifer. Based on available water level monitoring data, groundwater levels within the Project area are still recovering from historical mining activities which ceased circa 1980. The water levels with respect to ISR targeted mineralized sands in each mine unit are summarized as follows:

- West Unit, available water level information indicates there is between 16 and 333 feet of head over the top of the West Unit ISR resources. Within the West Unit there are three ore bodies located adjacent to or spanning across the section line between Sections 11 and 14 (T32N R91W). In this area geology is complicated with a fault likely passing through one of the delineated ore bodies and a horst located to the east of the ore bodies. Wells north and south of the fault show a steep water level gradient. Similarly, the fault likely impacts ore bodies to the east located along the eastern portion of the section line between Sections 12 and 13 of T32N, R91W. Available data suggests that there is at least 34 feet of head above these ore bodies (Michel, 2021). The presence of the fault raises some uncertainties in the estimated water level elevation in this area. As such, additional characterization of the aquifer properties will be required to verify conditions at these ore bodies. As noted in Section 14, resources in these areas were put into the inferred category due to uncertainty in aquifer conditions.

- Central Unit, water level information indicates that within the three portions of the unit where orebodies have been mapped, minimum water levels over the shallowest ISR ore bodies range from 10 to 40 feet (Michel, 2021) with the deeper ore bodies having 93 feet or more of available head (Hydro-Engineering, 2021). Hydro-Engineering conducted their ISR modeling study within the George-Ver Mine area which is located within the Central Unit.

- South Black Mountain, available water level and aquifer properties information is very limited in the South Black Mountain area. However, projection of water level information from available data to the north indicates that water levels will generally be in the range of 230 feet to 410 feet above the ore bodies (Michel, 2021).

- Jeep, available water level and aquifer properties information is not available in the Jeep area. Projections of water levels from the West Unit to Jeep indicate that water levels are sufficiently high enough to provide adequate head for ISR operations (Michel, 2021).

Groundwater flow modeling conducted by Hydro-Engineering was performed to predict water level elevation changes that may result from ISR mining operations. The modeling predicted drawdowns could range from two to seven feet (Michel 2021). Comparing available water level information with modeling results indicates there is likely sufficient head for ISR operations to be successful at the ISR targeted resources in the West Unit and Central Unit. While it is currently assumed sufficient head is available, additional evaluations will be necessary to confirm water level assumptions within Jeep, South Black Mountain and portions of the West Unit and Central Unit.

In 2018 Hydro-Engineering analyzed Wind River aquifer hydraulic properties using available aquifer testing data for historic mining areas within the West Unit (Day Loma and Loco Lee), Central Unit (Bullrush and George-Ver), and Cameco's properties to the south and east of the central unit. However, there is no aquifer testing data available within either the Jeep or the South Black Mountain areas. Aquifer properties are described in the 2018 Hydro-Engineering report as follows:

- West Unit. Within the West Unit, aquifer testing was conducted in 2010 in the historic Day Loma mining area which is in the southeast portion of the Unit. Aquifer testing results indicate that expected hydraulic conductivities range from 1.8 to 2.9 ft/day within the Wind River aquifer in the Day Loma area.

- Central Unit. Within the historic George-Ver mining area located in the northeast portion of the Central Unit, aquifer tests have been conducted in 1979, 1990, and 2008. The tests demonstrated that hydraulic conductivities in the range of 2.3 to 4.1 ft/day are considered representative. Within the historic Bullrush mining area located in the northwest portion of the Central Unit, hydraulic conductivities ranged from 0.8 to 13.4 ft/day based on results of tests conducted in 2010 and 2011. Hydro-Engineering speculates the Sagebrush fault running through the Bullrush area may have affected the results on both the high and the low side and it is plausible that the typical range of hydraulic conductivities in the Bullrush area is more likely to be between 1.0 and 5.7 ft/day outside of the influence of the fault.

- Cameco Mine area. A number of aquifer tests have been conducted in the Cameco Mine Area located to the southeast of the Central Unit. Hydro-Engineering evaluated aquifer test results which were submitted to regulatory agencies and a large number of results were in the range of 0.5 to 6 ft/day. Hydro-Engineering determined that a typical hydraulic conductivity within the Cameco Area is between 1 to 2 ft/day.

The results of the available testing are reasonably consistent from one property to another over an area some 6-8 miles across. While no actual test data is available in the Jeep or South Black Mountain units, it is not unreasonable that hydraulic properties in these areas are consistent with those in the areas where test data is available. Aquifer test results conducted within the West Unit, Central Unit and Cameco properties demonstrate that, while there is some heterogeneity in aquifer properties, typical hydraulic conductivities are high enough to allow for ISR mining. Hydraulic conductivities of 1.0 ft/day or greater are expected within the proposed mining areas based on test results to date. For comparison Hydro-Engineering (2018) evaluated typical hydraulic conductivities within Ur Energy's Lost Creek Project (approximately 50 miles south of the Gas Hills) and found that the hydraulic conductivities, which averaged between 0.66 ft/day to 1.69 ft/day, are slightly lower than those that could be expected the Gas Hills. Given the success of the Lost Creek Project, it is reasonable to assume that aquifer conditions in the Wind River aquifer within the Gas Hills are generally sufficient for ISR operations.

16.2.2 Historical Drill Holes

Due to the extensive exploration and ore deposit delineation in the Gas Hills Uranium District, there are a large number of historical drill holes within the Project area. Most of the drillholes date back to the 1950's through the 1970's and much of the historical drilling can be poorly documented. Additionally, due to open pit mine reclamation efforts and regrading of the ground surface it may not be possible to locate many of these historic drill holes on the surface. From an ISR mining perspective, historical drill holes can be problematic if the drill holes have not been plugged nor naturally collapsed and sealed off, they can represent a potential path for ISR mining fluids to migrate vertically into other aquifers. In this case, migration would be coming from ISR mining fluids within the Wind River Formation. However, this project is unique in that the targeted aquifer for mining is also the uppermost aquifer in all mine units except possibly South Black Mountain. Within the South Black Mountain unit, the Split Rock Formation may overlie the ore bearing aquifer. The Split Rock Formation is known to be a water bearing aquifer in the region.

Given the proximity to the outcrop, it is likely that the Split Rock Formation is dry within the South Black Mountain unit. Nevertheless, additional evaluations will be required to verify whether there is an overlying aquifer to protect at South Black Mountain. Generally, within this Project, there is no additional overlying aquifer between the aquifer to be mined and the surface, though this is often common in many ISR projects. Therefore, there is no aquifer to be potentially impacted by vertical migration of ISR mining fluids upwards into an overlying aquifer. However, protection of aquifers underlying the Wind River Formation is also a consideration. Historically, the Gas Hills deposits were targeted by historical drilling that was focused on what could be economically mined with open pit methods. All of this historic mining activity was within the Wind River Formation. As a result, there are no currently known historic drill hole data possessed by Azarga that indicates any holes penetrate past the Wind River Formation nor through the underlying Cody Shale. The Cody Shale is relatively impermeable and considered an aquitard providing underlying confinement for ISR mining fluids with Wind River Formation. This means that historic drilling did not penetrate any underlying aquifer, such as the Chugwater Formation, the next formation underlying the Cody Shale. Because of these features, historic drill holes are not anticipated to present a problem with containment of ISR mining fluids and no plugging program is assumed to be necessary. Should the existence of boreholes that are not sealed at the time of ISR operations be present, they are not expected to provide a pathway to impact any overlying or underlying aquifers. Additional aquifer tests are expected to be conducted in each mine area prior to mining to further evaluate the potential for historical drill holes to impact mining operations or their potential to impact aquifers outside of proposed ISR operations within the Wind River Formation.

16.3 Conceptual Wellfield Design

The most fundamental component of ISR mine development and production is the production pattern. A pattern consists of one production well and multiple injection wells which feed lixiviant back to the production well. Injection wells are commonly shared by multiple production wells. Header houses serve multiple patterns and function as both distribution points for injection flow and collection points for production flow. The processing or satellite plant feeds injection lixiviant to the header houses for distribution to the injection wells and also receives and processes production flow from the header houses.

16.3.1 ISR Amenable Resources

The total resource base was evaluated based on physiographic and depth criteria to judge whether it is minable with current ISR mining methods. The evaluation determined that portions of the total mineral resource are not minable using current ISR methods for the purpose of this PEA, those portions of the mineral resource were excluded from economic consideration. These excluded resources are still available to non-conventional ISR techniques and other mining methods.

For ISR mining operations, it is necessary that the uranium resources be located below the static water table. Resources that are generally above the water table are not considered amenable by ISR methods and classified as Non-ISR in the mineral resource summary tables. The resources available for ISR mining in each unit are summarized in Section 14. As discussed in Section 16.2.1, available data indicates there is likely sufficient head for successful ISR mining operations in the ISR resources described in Section 14.

16.3.2 Wellfield Patterns

The Project will be developed using both 5-spot and 7-spot wellfield patterns. The planned 5-spot wellfield pattern configuration consists of four injection wells 100 ft apart squarely placed around a central production well, resulting in a pattern area of approximately 10,000 ft^2. The planned 7-spot wellfield pattern configuration consists of six injection wells spaced 115 ft apart in a hexagonal configuration around a central production well resulting in a pattern area of approximately 34,360 ft^2. Actual pattern geometry may vary depending on field conditions. Based on preliminary wellfield designs, it is anticipated that incorporating both 5-spot and 7-spot patterns into the wellfield design will result in an average pattern size of approximately 17,000 ft^2 for the Project. The pattern size was used in conjunction with the total acreage associated with the resources that may potentially be mined with ISR methods to estimate the total number of patterns necessary for the Project. This approach to estimating preliminary wellfield infrastructure requirements is comparable to the work conducted at other ISR mines in Wyoming.

In plan-view, patterns will be designed to overlay mapped roll fronts. Well completion intervals in each pattern will be carefully evaluated using available data to optimize lixiviant flow paths through targeted resources. In some areas, there are multiple stacked roll fronts in the same vicinity. Operational experience has demonstrated the optimum injection/production well completion thickness to be between 10 and 25 ft. Consequently, the multitude of individually mapped fronts in portions of the Project results in the “stacking” of wellfield areas. This occurs when two or more mining completions are planned for the same pattern area in an overlapping fashion. This is due to multiple mineralized horizons or the presence of more mineralized thickness than can be efficiently mined with a single well completion. For the purposes of this analysis, it was assumed that none of the wells would target more than one roll front. As such, where there are multiple stacked roll fronts in the same pattern area a separate pattern will be planned for each roll front and each well completion will only target one roll front.

The Project-wide wellfield area has been divided into four resource areas with ISR amenable mineralization as described in Section 14.4: Figures 14.2-14.5 and 14.7-14.9 illustrate the distribution of resources within the resource areas. The dimensions of each resource area are summarized on Table 16.1. Based on an average pattern area of approximately 17,000 ft^2 the Project would require an estimated 863 patterns. Within these mine units, 1,726 injection wells and 863 production wells are estimated, using a 2:1 injection to production well ratio, for a total of 2,589 wells (Table 16.1). The number of wells in each unit are based the assumption that 100 percent of South Black Mountain wellfields are 5-spot patterns, 50 percent of Jeep wellfields are 5 spot patterns, 20 percent of Central Unit wellfields are 5 spot patterns, and 36 percent of the West Unit wellfields are 5 spot patterns. The average estimated well depth and completion thickness for the Project are approximately 380 ft. and 7.5 ft., respectively. The number of patterns estimated for each resource area is then used to calculate an average resource per pattern and an average recoverable resource per pattern, as shown in Table 16.1. The Project is estimated to have an overall average under pattern resource of 9,475 lbs./pattern and an average recoverable resource of 7,580 lbs./pattern.

Table 16.1. Development Summary by Resource Area

Resource Area	Resource (lbs. x 1000)[1]	Recoverable Resource (lbs. x 1000)	Average lbs./Pattern	Average Recoverable lbs./Pattern	Injection Wells	Production Wells	Wellfield area (ac)	Average Well Depth (ft.)[2]
South Black Mountain	894	715	3,888	3,110	460	230	53	1,047
Jeep	496	397	7,520	6,016	132	66	23	285
Central	2,739	2,191	12,979	10,383	422	211	111	208
West	4,004	3,204	11,248	8,999	712	356	148	284
Project Total	**8,133**	**6,507**	**9,475**	**7,580**	**1,726**	**863**	**335**	**380**

[1] Sum of pounds may not add to the reported total due to rounding.
[2] Project totals reflect weighted average.

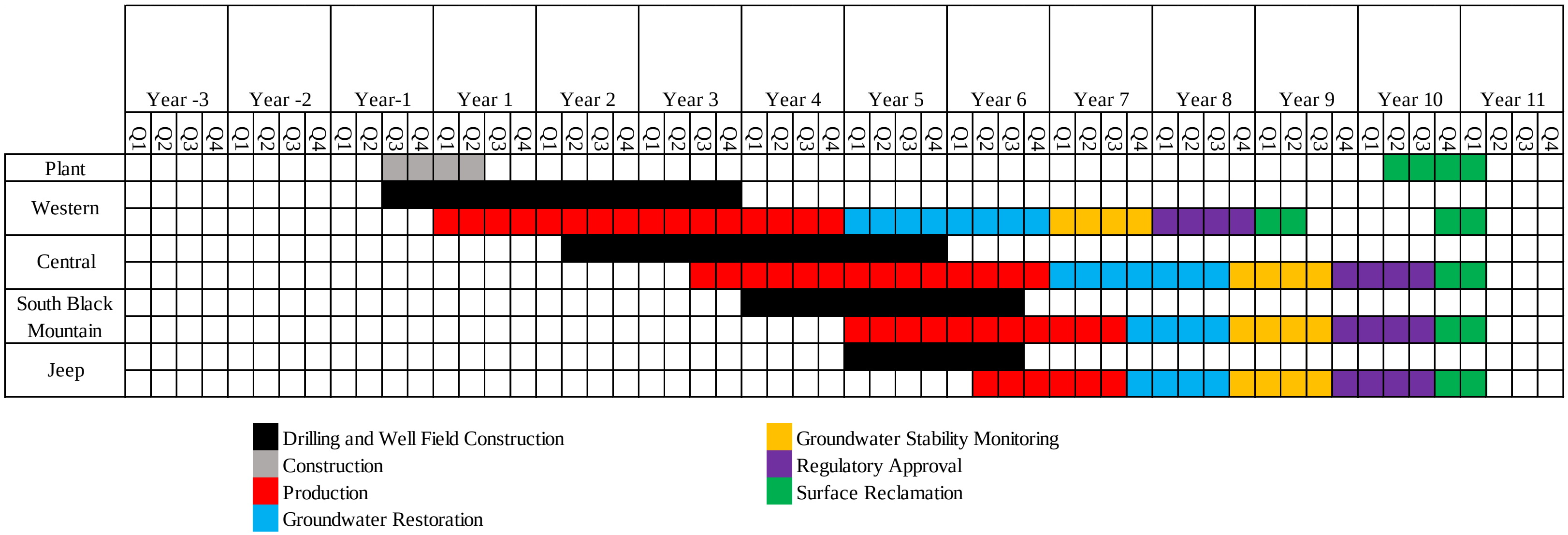
16.3.3 Monitor Wells

To meet regulatory requirements, perimeter monitor wells will surround each mine unit at a spacing no greater than 500 ft. from each other and no greater than 500 ft. from the nearest production pattern. Monitor wells interior to the wellfield are also required on a one well per 4-acre spacing within areas covered by patterns. These interior wells typically consist of monitor wells completed in the overlying aquifer, the underlying aquifer and the production zone. However, the Wind River production zone is the uppermost aquifer. Therefore, the interior monitor wells are assumed to consist of only underlying and production zone monitor wells. These wells will be placed in clusters evenly distributed through each mine unit, with each cluster composed of one of each type of well. For the purposes of this PEA, no detailed analysis of the number and locations of the monitor wells was completed. Rather wellfield costing numbers were taken from the Shirley Basin PEA prepared for Ur Energy in 2015. The monitor well depths and density in the Shirley Basin Project are expected to be similar to those in the Gas Hills project. The one difference is that the Shirley Basin Uranium project had no underlying monitor wells while the Gas Hills Project has no overlying monitor wells.

16.3.4 Mining Schedule

The mine life sequence can be described as development, production and groundwater restoration followed by surface reclamation (Figure 16.1). Construction activities which include delineation drilling, deep disposal test well investigation and installation of initial monitor wells are planned to begin after permitting is complete which is estimated to be in the third quarter of Year -1.

Figure 16.1. Life of Mine Schedule



Production is estimated to begin in Year 1 and continue into Year 7. Annual production is estimated to be approximately one million pounds per year. Restoration and reclamation activities are scheduled to start soon after production is completed in a mine unit. Final decommissioning will occur simultaneously with reclamation of the last production area.

16.4 Piping

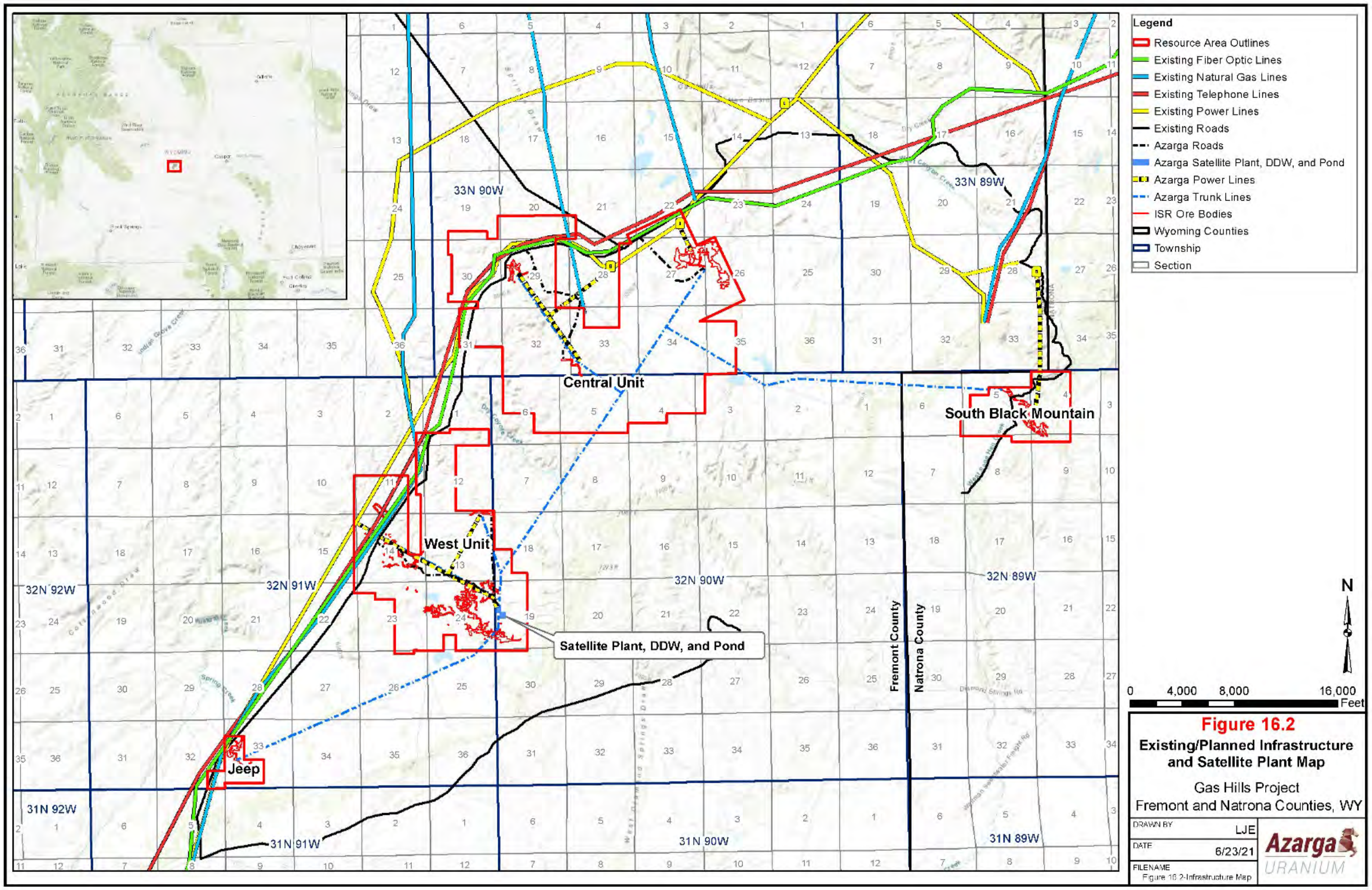
Pipelines transport the wellfield solutions to and from the planned satellite IX plant at the Central Unit and to the disposal well. The flow rates and pressures of the individual well lines are monitored in the header houses. Flow and pressure of the field production systems are also monitored and controlled as appropriate at the header houses. High density polyethylene (HDPE), PVC, stainless steel, or equivalent piping is used in the wellfields and will be designed and selected to meet designed operating conditions. The pipelines from the satellite IX plant, header houses, and individual well lines will be buried for freeze protection and to minimize pipe movement. Generally, the pipelines within the wellfields are relatively small diameter pipes designed to carry flows in the range of 10 to 50 gpm. These pipelines are typical of most comparable ISR projects, and the costs associated with installing them are included in the wellfield installation costs. The Gas Hills Project is unique in that there is a large distance between each unit. Several larger diameter pipelines will transfer water between mine units Figure 16.2 shows the general schematic of the pipeline layout for the project. These pipelines were considered separately in this analysis because of their uniqueness to this project. The larger diameter transfer pipelines will likely be constructed using HDPE and include the following:

- 2-12-inch-diameter pipelines running between the West Unit and the Jeep Unit. Pipeline lengths are estimated at 24,000 feet.
- 4-16-inch-diameter pipelines running between the West Unit and Central Unit. Pipeline lengths are estimated at 25,400 feet.
- 2-16-inch diameter pipelines between the South Black Mountain unit and the Satellite plant in the West Unit. Pipeline lengths are estimated at 27,400 feet.
- Booster pump stations will be installed as necessary to maintain adequate pressure in the pipelines.

16.5 Header Houses

Header houses are used to distribute lixiviant injection fluid to injection wells and collect pregnant solution from production wells. Each header house is connected to two trunk lines, one for receiving barren lixiviant from the satellite IX plant and one for conveying pregnant solutions to the satellite IX plant. The header houses include manifolds, valves, flow meters, pressure gauges, and instrumentation. Each header house is assumed to service approximately 75 wells (injection and production).

Figure 16.2. Pipeline Infrastructure Map



16.6 Wellfield Reagents and Electricity

The evaluation presented in this report assumes flowrates at the satellite plant/wellfield will be very similar to those in the Dewey-Burdock facility. Given the similarities in operational details reagent and electricity use costs will be similar to those calculated for the Dewey-Burdock PEA. The one difference is that the low pH recovery will use sulfuric acid rather than oxygen and sodium bicarbonate or similar. The sulfuric acid is expected to increase the chemical costs by up to $2.66/lb of U_3O_8 produced.

16.7 Mining Fleet Equipment and Machinery

Equipment and machinery will be required to support the installation and operation of wellfields, a satellite IX plant and post-mining reclamation activities. Given the preliminary state of the Gas Hills project design, a detailed list of the equipment needs has not yet been developed. Rather costs for the equipment are estimated based on costs developed for the Dewey-Burdock Project for which designs are further advanced. It is assumed that a similar level of equipment and machinery will be required for the Gas Hills Project.

17.0 RECOVERY METHODS

ISR operations consist of four major solution circuits, ion exchange to extract uranium from the mining solution, an elution circuit to remove uranium from the IX resin, a yellowcake precipitation circuit, and a dewatering, drying, and packaging circuit. Because the Project will be a satellite facility to Azarga's Dewey-Burdock Project, only the first major solution circuit (the IX circuit) will be located at the Project. Loaded resin will be transported to the Dewey-Burdock Project, where the uranium will be eluted, precipitated, dried, and packaged.

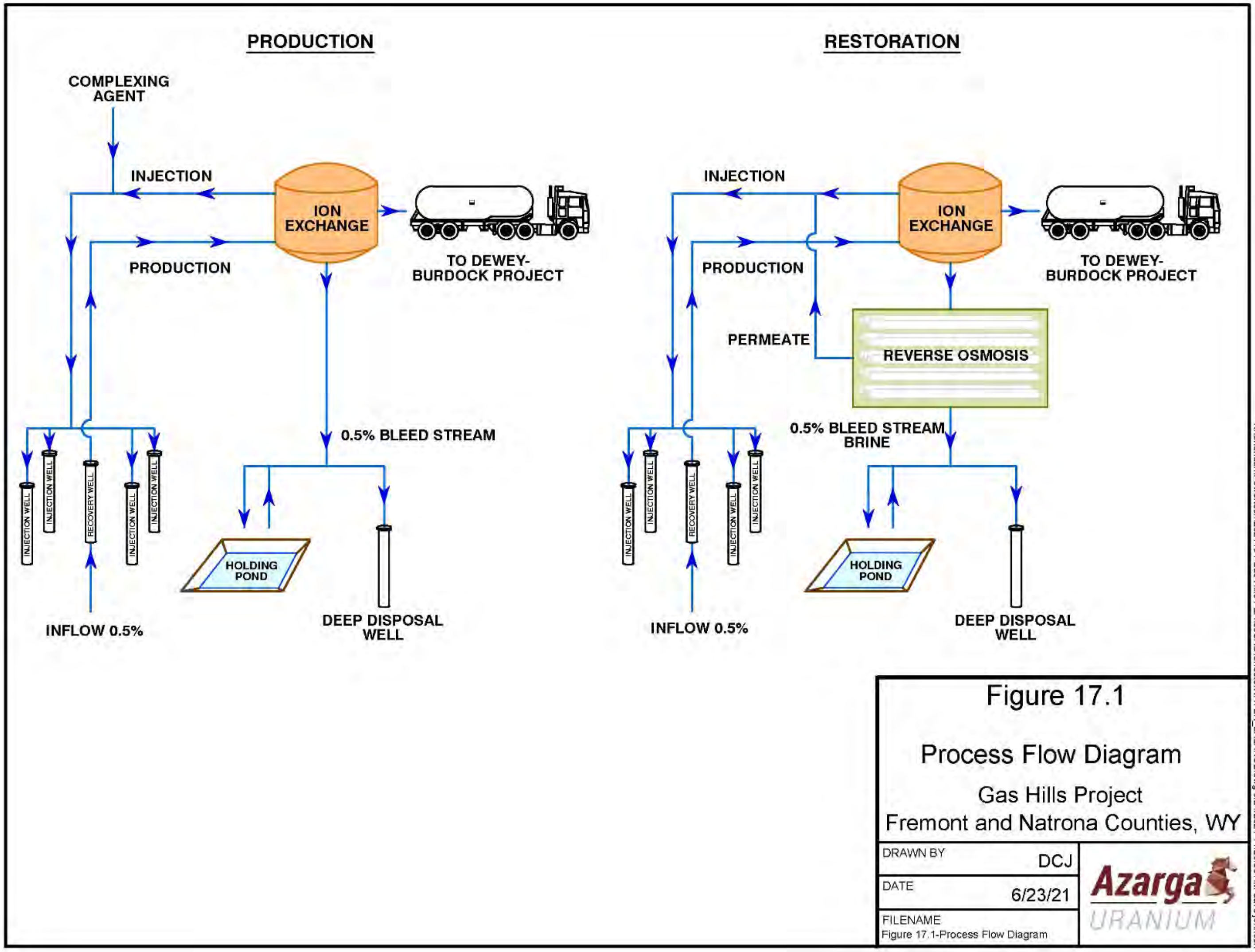
Figure 17.1 presents a simplified process flow diagram illustrating the relationship between the Project satellite facility and the Dewey-Burdock Project.

17.1 Satellite Operations

Production fluid containing dissolved uranyl sulfate from the wellfields is pumped to the satellite IX plant for beneficiation as described below. The satellite plant considered in this PEA will have an available flow rate of 4,400 gpm. However, the planned average production flow rate for the Project is approximately 2,400 gpm.

IX Circuit – The IX circuit will be housed in a metal building which will also house the resin transfer equipment as well as the restoration circuit. Uranium liberated from the underground deposits is extracted from the pregnant solution in the IX circuit. Subsequently, the barren lixiviant is reconstituted, as needed, and pH is corrected prior to being pumped back to the wellfield for

Figure 17.1. Process Flow Diagram



reinjection. A low-volume bleed is permanently removed from the lixiviant flow to maintain an inward gradient within the wellfields. The wellfield bleed is disposed of by injection into an Underground Injection Control (UIC) Class I Deep Disposal Well (DDW). See Section 17.4 for a detailed description of the planned wastewater management system.

During groundwater restoration activities, the bleed is treated by reverse osmosis (RO) to remove metals and salts (e.g., calcium, sodium, sulfate) and the clean permeate is reused in the process. This clean permeate is of better quality than the native groundwater. The RO brine is then disposed of by injection into the DDW.

Associated with the satellite operation will be office, construction, maintenance, warehouse and drilling support buildings. Satellite construction is expected to commence in Year -1 upon the receipt of the last required permit.

17.2 Transportation

Once the IX resin is loaded to a point where it is no longer economically capturing uranium from the production solution, the IX resin column is taken offline and the loaded resin is moved to a trailer. The resin typically will be shipped in 1,000 cu. ft. loads and will have the majority of the water drained off prior to shipping. Bulk pneumatic trailers will transport loaded resin to and unloaded resin from the Dewey-Burdock processing plant on the Wyoming-South Dakota border between Dewey and Burdock SD. A contract carrier licensed to haul radioactive materials in the states of Wyoming and South Dakota will be used to transport the resin.

There are two possible routes from the Project to the Dewey-Burdock Project. The preferred route is north on the Gas Hills Road, east on U.S. Highway 20/26 continuing east on Interstate 25, northeast on U.S. Highway 18/85, then east on a series of gravel roads to the Dewey-Burdock Project. The total length for this route is approximately 250 miles. The alternate route is north on the Gas Hills Road, east on Wyoming Highway 20/26, continuing north on Interstate 25, east on Wyoming Highway 259, 387, and 450, south on the U.S. Highway 85, then east on a series of gravel roads to the Dewey-Burdock Project. The total length for this route is approximately 290 miles.

Once the truck delivers the loaded trailer to Dewey-Burdock Project, an empty trailer will be immediately returned to the Project.

For the purposes of this PEA, it has been assumed that after processing at the Dewey-Burdock Project, drummed yellowcake will be shipped via truck approximately 1,200 miles to the conversion facility in Metropolis, Illinois. This conversion facility is the first manufacturing step in converting the yellowcake into reactor fuel.

17.3 Energy, Water and Process Materials

As discussed in Section 16.6, the Gas Hills satellite plant will generally be identical in flow rates and operation as the planned satellite plant at the Dewey-Burdock facility for which the design is much further advanced. Except for the change to sulfuric acid, energy and reagent use will generally be identical to the costs associated with Dewey-Burdock. For the purposes of this PEA costs and assumptions developed for Dewey-Burdock were used to prepare cost estimates herein and adjusted as necessary for increased sulfuric acid costs and inflation. The low pH recovery methods are expected to result in higher headgrades and lower water flow rates than the alkaline recovery methods considered in Dewey Burdock. No reductions in operational costs were made to adjust for this change.

17.4 Liquid Disposal

Typical ISR mining operations generate limited quantities of wastewater that cannot be returned to the production aquifers. The wastewater will be derived from two sources: wellfield production bleed and satellite processes. The production bleed is a net withdrawal of water that generates an area of low hydrostatic pressure within the mining zone. Water surrounding the mining zone flows toward the area of low pressure thereby preventing mining solutions from migrating away from the mining zone toward protected waters. The wellfield production bleed rate is estimated at 0.5 to 1.0 percent of the total mine flow rate. The wastewater flow rate from satellite processes will be minimal, on the order of 1 gpm, because the facilities will house only the IX circuit. The rate of liquid wastes generated from the facility at the planned average production flow rate of 2,400 gpm facility will be approximately 22 gpm for deep disposal. One DDW is planned for the Project, with a surge pond with a capacity to hold 30 days of wellfield bleed as a backup to the DDW. The CAPEX and OPEX estimates for this PEA assume that this well will support the production and restoration operations.

Restoration wastewater treatment will entail passing portions of the fluid through a RO system. Permeate from the RO will return to the wellfield, while the brine (RO reject fluid) will be injected into the DDW.

17.5 Solid Waste Disposal

Solid wastes consist of empty packaging, miscellaneous pipes and fittings, tank sediments, used personal protective equipment and domestic trash. These materials are classified as contaminated or non-contaminated based on their radiological characteristics.

Non-contaminated solid waste is waste which is not contaminated with radioactive material or contaminated waste which can be decontaminated and re-classified as non-contaminated waste. This type of waste may include trash, piping, valves, instrumentation, equipment and any other items which are not contaminated, or which may be successfully decontaminated. Current estimates from similar uranium ISR facilities are that the site will produce approximately 700 cubic yards of non-contaminated solid waste per year. Non-contaminated solid waste will be collected in designated areas at the Project site and disposed of within an approved industrial solid waste landfill.

Contaminated solid waste consists of solid waste contaminated with radioactive material that cannot be decontaminated. This waste will be classified as 11e.(2) byproduct material as defined by NRC regulations. This byproduct material consists of filters, personal protective equipment, spent resin, piping, etc. 11e.(2) byproduct material will be shipped by truck for disposal at a licensed disposal site which is capable of handling these materials. It is estimated that the Project will produce approximately 90 cubic yards of 11e.(2) byproduct material as waste per year. This estimate is based on the waste generation rates of similar uranium ISR facilities.

18.0 PROJECT INFRASTRUCTURE

18.1 Roads

Four types of roads will be used for access to the Project and its production areas. They include primary access roads, secondary access roads, temporary wellfield access roads, and well access roads. The Project area is served by County Road 212 (Gas Hills Road). Gas Hills Road is a county maintained, two-lane, gravel road providing year around access. Access to the Project from the north (Casper) is via US Highway 20/26, access from the west (Riverton) is from Wyoming Highway 136, and access from the south (Lander or Rawlins) is via US Highway 287. The proposed access to the ISR production areas will require upgrading existing all-weather access roads which are reached by the Gas Hills Road.

Snow removal and periodic surface maintenance will be performed as needed. The secondary access roads are used at the Project to provide access to the wellfield header houses. The secondary access roads are constructed with limited cut and fill construction and may be surfaced with small sized aggregate or other appropriate material.

The temporary wellfield access roads are for access to drilling sites, wellfield development, or ancillary areas assisting in wellfield development. When possible, Azarga will use existing two-track trails or designate two-track trails where the land surface is not typically modified to accommodate the road. The temporary wellfield access roads will be used throughout the mining areas and will be reclaimed at the end of mining and restoration.

18.2 Electricity

Electrical power for the satellite plant on the West Unit will be provided by an existing 3-phase transmission line along the western edge of the unit and electrical power for the Central Unit satellite plant will be provided by an overhead 3-phase power line feeding an existing substation at the historic George Ver facility site. Overhead 3-phase power is also available immediately adjacent to the Jeep project. To get overhead power to the South Black Mountain project approximately 1.5 miles of powerline will need to be constructed. Power lines from header houses to production wells will be placed underground using direct burial wire.

18.3 Holding Pond

One holding pond will be used to contain process wastewater when the DDW is shut down for maintenance and annual testing. The earthen banked pond will be designed to hold 30 days' worth of wastewater (approximately 3 acre-feet). The pond will have a double lined containment system with leak detection between the liners. The same rigorous designs have been established to ensure proper inspection, operation, and maintenance of the holding ponds at other similar projects in Wyoming, and it is anticipated that they will be applied at the Project as well.

19.0 MARKET STUDIES AND CONTRACTS

Unlike other commodities, uranium does not trade on an open market. Contracts are negotiated privately between buyers and sellers. Sales contracts vary in quantity and duration from spot market transactions, typically one-time, near-term deliveries involving as little as 25,000 lbs. U_3O_8, to long term sales agreements covering deliveries over multiple future years with quantities in the hundreds of thousands to millions of pounds of U_3O_8. Industry accepted practice is to use "Consensus Prices" obtained by collecting publicly available commodity prices from credible sources. While the analyst's forecasts vary, a median value of $55.00 per pound U_3O_8 over the life of the Project is considered reasonable and was used for this study. This price forecast is based on a combination of projections from expert market analysts at institutions as shown on Table 19.1.

Table 19.1. Analyst Consensus Uranium Price Forcast

Analyst	Date Reported	2021	2022	2023	Long Term
CIBC	10/27/20	$ 44.00	$ 46.00	$ 49.00	$ 56.80
BMO	10/23/20	$ 32.50	$ 37.50	$ 43.80	$ 55.00
RBC	10/20/20	$ 35.00	$ 40.00	$ 40.00	$ 65.00
UBS	10/20/20	$ 35.00	$ 40.00	$ 50.00	$ 55.00
Eight Capital	10/14/20	$ 55.00	$ 60.00	-	$ 60.00
Scotia	10/13/20	$ 35.00	$ 38.00	$ 40.00	$ 50.00
Investec	10/06/20	$ 32.50	$ 35.00	$ 40.00	$ 50.00
TD	10/5/20	$ 36.00	$ 37.50	$ 40.00	$ 45.00
Raymond James	9/23/20	$ 42.50	$ 45.00	-	$ 50.00

Source: CIBC Global Mining Group, "Analyst Consensus Commodity Price Forecasts", November 2, 2020

Azarga has not entered into any uranium supply contracts that are tied to production from the Project. The anticipated sales price is considered within the sensitivities in this PEA (Section 25.2). The income from estimated production at the anticipated sales price is included in the cash flow estimate.

The marketability of uranium and acceptance of uranium mining is subject to numerous factors beyond the control of Azarga. The price of uranium may experience volatile and significant price movements over short periods of time. Factors known to affect the market and price of uranium include economic viability of nuclear power; political and economic conditions in uranium mining, producing and consuming countries; costs; interest rates, inflation and currency exchange fluctuations; governmental regulations; availability of financing of nuclear plants, reprocessing of spent fuel and the re-enrichment of depleted uranium tails or waste; sales of excess civilian and military inventories (including from the dismantling of nuclear weapons) by governments and industry participants; production levels and costs of production in certain geographical areas such as Asia, Africa and Australia; and changes in public acceptance of nuclear power generation as a result of any future accidents or terrorism at nuclear facilities. The economic analysis and associated sensitivities are within the range of current market variability.

During the construction phase of the plant, several contracts will be required with various construction related venders. No construction contracts have been entered into at the date of this PEA. Operational purchasing agreements will be required with the primary chemical suppliers. None of these agreements has been entered. Finally, agreements will be required with a transportation company for the transport of loaded resin from the Project to the Dewey-Burdock Project for processing of yellowcake and transport of the yellowcake to the conversion facility.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Studies

Extensive environmental studies, including geology, surface hydrology, sub-surface hydrology, geochemistry, wetlands, air quality, vegetation, wildlife, archeology, meteorology, background radiometrics, and soils will be required as part of the permitting process. Prior to acquiring this project, the previous owner, Strathmore Resources (US) Ltd., had developed and submitted a mine permit application for these properties to the WDEQ. The mine permit application was for open pit mining operations and not ISR. Nevertheless, much of the work completed in support of the previous permitting action will support future permitting actions. At this time, no baseline environmental studies are being performed by Azarga. With the exception of possible sage grouse protection stipulations which could be implemented at South Black Mountain and Jeep areas, there are no known environmental factors which could materially impact the permitting process or the ability to recover uranium resources.

The Project is located immediately adjacent to areas designated by the Wyoming Game and Fish Department as a core sage grouse habitat. The West Unit and Central Unit lie wholly outside of the sage grouse core area whereas portions of Jeep and South Black Mountain lie within the sage grouse core area (Wyoming Game and Fish, 2021). The regulatory agencies may place stipulations or limitations on the portions of the Project that are within the sage grouse core area. The limitations may result in areas that cannot be mined, or mining activities may be limited to certain times of year.

20.2 Waste Disposal and Monitoring

20.2.1 Waste Disposal

Non-household waste generated from an ISR uranium mine generally consists of water from the wellfield and processing plant and solid waste generated from the plant, which is described in detail in Section 17. Both types of waste are classified as 11e.(2) byproduct material pursuant to the Atomic Energy Act. During production, wellfield bleed will be injected into a UIC Class I DDW.

Cameco Resources has an authorized UIC Class I DDW (Permit No. 13-262) in Section 3, T32N, R90W less than one mile to the southeast of the Central Unit as well as two additional wells east of the Central Unit and north of the South Black Mountain Unit. Permit documentation included with the permit indicates that these wells are permitted to receive up to 150 gallons of water per minute. Assuming that conditions are similar within Azarga's permit area, one DDW would be sufficient to handle projected wastewater from this facility. At this time, there are no known factors which could materially impact the feasibility of a DDW capable of disposing of the maximum estimated disposal rate necessary at the Project.

The solid 11e.(2) waste generated at the site will consist of personal protective equipment, filters, and other used process equipment. The solid 11e.(2) byproduct material will be disposed of at an approved facility.

20.2.2 Site Monitoring

Once mining begins there will be considerable site monitoring to ensure protection of the environment and also protection of employees and the public from radionuclide effluent. Each mine unit will be surrounded laterally and vertically with a series of monitor wells to ensure mining solutions do not migrate out of the mining zone. The wells will be sampled twice per month with the results compared against pre-determined upper control limits.

Significant environmental monitoring for radionuclide effluents will also take place during mining and reclamation as required by the source and byproduct material license.

Finally, wildlife monitoring will continue throughout the life of the mine and will cover a variety of species including greater sage-grouse, big game, migratory birds, fish, lagomorphs, songbirds and other species deemed to be of concern by permitting agencies. Third-party contractors will be utilized to perform wildlife monitoring.

20.3 Permitting

Prior to significant construction and mining, several permits/licenses from federal, state, and local agencies will be required as follows:

Federal

- EPA – Aquifer Exemption for UIC Class III wells and disposal wells (as necessary) and Subpart W Pond Construction Permit for the holding pond.
- BLM – Environmental Assessment (EA) and Approval of the Plan of Operation.

State

- Wyoming Department of Environmental Quality Uranium Recovery Program (WDEQ-URP) – Source and Byproduct Material License.
- WDEQ Land Quality Division (WDEQ-LQD) – Permit to Mine.
- WDEQ Water Quality Division (WDEQ-WQD) – UIC Class I Permit for deep well injection of wastewater generated from wellfield bleed and other plant processes, and Storm Water Discharge Permit which allows for surface discharge of storm water.

- WDEQ-Air Quality Division (WDEQ-AQD) – Air Quality Division, Chapter 6, Section 2, New Source Permit Authorization to Construct.

- Wyoming State Engineer's Office (SEO) – Various groundwater appropriation permits for ISR of uranium.

Local

- Fremont County –Septic systems.

Since a large portion of the project lies over federal surface, the BLM will complete the National Environmental Protection Act (NEPA) analysis for this project which will be required to approve the BLM Plan of Operation. Since the footprint of this project is less than 640 acres, BLM regulations indicate that the NEPA analysis should be an Environmental Assessment (EA) level review. For the purposes of this PEA, it was assumed that the BLM would elect to do an EA level of analysis. Should BLM decide to pursue a full Environmental Impact Statement (EIS) a much more detailed analysis of the project area will be required.

WDEQ-URP review will likely take two years. The review will include an opportunity for public comment. WDEQ-LQD, will complete an independent review of an amendment application pursuant to Chapter 11 of its Rules and Regulations and will provide opportunities for public comment. The LQD review will likely take about two years. If LQD determines that a Permit to Mine should be issued, they will seek an aquifer exemption from the Region 8 EPA. The EPA will review the LQD's request against UIC Program requirements found in 40 CFR Parts 144 and 146 to ensure compliance. If the EPA determines the operation will be in compliance, the agency will issue an aquifer exemption which allows mining within a defined portion of the aquifer.

20.4 Social or Community Impact

The Project is proximate to the communities of Jeffrey City, Casper, and Riverton. Jeffrey City is approximately 15 miles south of the Project and has an estimated population of 29 people (world population review, 2021). The Casper metropolitan area is approximately 60 miles east of the Project and has an estimated 2021 population of 81,224 people (world population review, 2021). Riverton is 40 miles from the site with an estimated population of 10,612 (world population review, 2021). Azarga expects to hire site personnel from these communities as well as from other small communities in the region. Employment will likely have a positive impact on these communities not only through direct payroll, but through primary and secondary purchases of goods and services.

The immediate area around the facility is very sparsely populated. The nearest home is approximately 10 miles from the Project. The next nearest home is greater than 14 miles away.

A surety bond will be in place to ensure the proper restoration and reclamation of the project. The surety will be updated annually during the life of the Project to account for changes in reclamation liability. Nuisance and hazardous conditions which could affect local communities are not expected to be generated by the facility. The level of traffic in the region will increase slightly but the impact to local roads is expected to be minor.

20.5 Project Closure

20.5.1 Byproduct Disposal

The 11e.(2) or non-11e.(2) byproduct disposal methods are discussed in detail in Section 17. Deep disposal wells, landfills, and licensed 11e.(2) facilities will be used depending on waste classification and type.

20.5.2 Well Abandonment / Groundwater Restoration

Groundwater restoration will begin as soon as practicable after uranium recovery in each wellfield is completed. If a depleted wellfield is near an area that is being recovered, a portion of the depleted area's restoration may be delayed to limit interference with the on-going recovery operations. Groundwater restoration will require the circulation of native groundwater and extraction of mobilized ions through RO treatment. The intent of groundwater restoration is to return the groundwater quality parameters consistent with that established during the pre-operational sampling required for each wellfield. Restoration completion assumes up to three pore volumes of groundwater extracted and treated by reverse osmosis. Following completion of successful restoration activities and regulatory approval, the injection and recovery wells will be plugged and abandoned in accordance with WDEQ regulations. Monitor wells will also be abandoned following verification of successful groundwater restoration.

20.5.3 Demolition and Removal of Infrastructure

Simultaneous with well abandonment operations, the trunk and feeder pipelines will be removed, tested for radiological contamination, segregated as either solid 11e.(2) or non-11e.(2) byproduct material, then chipped on-site and disposed of on-site in appropriate disposal facilities. The header houses will be disconnected from their foundations, decontaminated, segregated as either solid 11e.(2) or non-11e.(2) by product material, and disposed of in appropriate disposal facilities or recycled. The processing equipment and ancillary structures will be demolished, tested for radiological properties, segregated and either scrapped or disposed of in appropriate disposal facilities based on their radiological properties.

20.5.4 Site Grading and Revegetation

Following the removal of wellfield and plant infrastructure, site roads will be removed and the site will be re-graded to approximate pre-development contours and the stockpiled topsoil placed over disturbed areas. The disturbed areas will then be seeded.

20.6 Financial Assurance

Throughout the life of the mine Azarga will be required to annually assess the reclamation liability and submit the estimate to WDEQ-URP and WDEQ-LQD for review and approval. The Project will be secured for the estimated amount of total closure costs which include groundwater restoration, facility decommissioning and reclamation with a bond provided by a broker. For the purposes of this PEA, it was assumed that the bond cost charged by the broker would be 3 percent of the surety amount until positive cash flow is achieved then reducing to a rate of 2 percent thereafter. The annual financial surety amount is based on the estimated amount of annual development that would require closure in the case of default by the owner. The costs for financial assurance are included in the economic analysis presented herein.

21.0 CAPITAL AND OPERATING COSTS

Capital Costs (CAPEX) and Operating Costs (OPEX) are based on the geological evaluation of the ISR amenable resource as described in Section 14.0 and the installation of conceptual production patterns, header houses, pipelines, powerlines, fences, roads, and other infrastructure to produce 80 percent of the resource as described in Section 16.3.1. Estimated costs for the Project are based on current costs for materials and services developed for the Dewey-Burdock Project (Graves and Cutler, 2019) as well as Ur Energy's Shirley Basin Project (WWC, 2015). As currently envisioned, Azarga would install a satellite plant at the Project with a capacity of 4,400 gpm that is nearly identical to the planned satellite plant in the Dewey-Burdock facility. Planning, permitting, and design is much further advanced in the Dewey-Burdock facility so the costs developed in the Dewey-Burdock PEA are reliable. Many aspects of the Gas Hills Project are similar to the Shirley Basin Project, including well depths, proximity to historic open pit uranium mines, the project being operated as a satellite facility, and location (the Shirley Basin Project is only 80 miles east/southeast of the Gas Hills Project). As with the Dewey-Burdock Project, design and planning for the Shirley Basin Project is also further advanced with reliable costs. Costs and capital purchases were escalated against either the Consumer Price Index (CPI, 2021) or the gross domestic product: implicit price deflator (FRED, 2021) adjusted to 2021 dollars. OPEX costs include all operating costs such as chemicals, labor, utilities and maintenance for the wellfield and the Satellite plant. OPEX costs are most sensitive to wellfield operation costs which may increase if well spacing needs to be reduced or additional injection/production wells are required. In addition, the increasing costs of materials, chemicals, and resin transportation costs could also lead to increased OPEX costs.

21.1 Capital Cost Estimation (CAPEX)

CAPEX costs were developed based on the current designs, quantities, and unit costs. The cost estimates presented herein are based on personnel and capital equipment requirements, as well as wellfield layouts, process flow diagrams, tank and process equipment and buildings at Azarga's Dewey-Burdock Project in western South Dakota as well as other similar uranium projects identified by the Authors. The Project has pre-mining development and capital costs of $26.0 million, which are detailed on Table 21.1.

After the start of mining, the CAPEX category will include subsequent mine unit drilling and wellfield installation costs as well as construction of transfer pipelines to move water from the Jeep, South Black Mountain, and Central Units to the Satellite plant location in the West Unit. Wellfield development costs used in this analysis were developed based on costs estimated in the Shirley Basin PEA. The average well depth in the Gas Hills Project is just under 60 ft. deeper than the average well in the Shirley Basin project and the monitor wells will target the underlying rather than an overlying aquifer. As such, the costs were escalated to account for these factors. The costs were adjusted for inflation using the gross domestic product: implicit price deflator to the first quarter of 2021. No additional contingency was applied to the CAPEX costs for the purposes of this report.

Table 21.1. CAPEX Cost Summary

CAPEX Costs	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Totals	$/lb
	($000s except cost per pound data)															
Satellite plants/ General Facilities	$ -	$ -	$ (11,125.6)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (11,125.6)	**$ (1.71)**
Disposal wells	$ -	$ (250.0)	$ (2,250.0)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (2,500.0)	**$ (0.38)**
Evaporation/Surge Pond	$ -	$ (100.0)	$ (400.0)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (500.0)	**$ (0.08)**
Transfer Pipelines	$ -	$ -	$ -	$ -	$ -	$ (3,000.0)	$ (2,000.0)	$ (1,000.0)	$ -	$ -	$ -	$ -	$ -	$ -	$ (6,000.0)	**$ (0.92)**
Well Fields	$ -	$ (4,805.0)	$ (4,805.0)	$ (9,610.0)	$ (9,610.0)	$ (9,610.0)	$ (9,723.0)	$ (9,610.0)	$ (4,872.3)	$ -	$ -	$ -	$ -	$ -	$ (62,645.3)	**$ (9.63)**
Permitting, Claim Maintenance, and Administrative (G&A)	$ (579.8)	$ (829.8)	$ (830.3)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (2,239.9)	**$ (0.34)**
Total	**$ (579.8)**	**$ (5,984.8)**	**$ (19,410.9)**	**$ (9,610.0)**	**$ (9,610.0)**	**$ (12,610.0)**	**$ (11,723.0)**	**$ (10,610.0)**	**$ (4,872.3)**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ (85,010.8)**	**$ (13.06)**

Notes:

1. Satellite plants/General Facilities costs are based on similar sized satellite facility at Dewey-Burdock and includes all costs to develop and construct satellite facility.
2. Disposal well costs assume only one disposal well will be necessary.
3. Includes costs for large diameter pipelines to transfer fluids between mine units. Pipelines incidental to the wellfield are included in wellfield construction costs.
4. Wellfield costs include all costs and equipment required to drill wells, install pipelines, header houses, etc.
5. G&A costs only included during pre-production period. After production starts, costs are considered operational costs.

As discussed in Section 16.0, the first series of header houses will be brought online sequentially until the planned plant throughput (approximately 2,400 gpm) is attained. In the event headgrades at the plant falls below projected values, the satellite plant has additional capacity (up to 4,400 gpm) to allow for flows to be increased to meet the production target of 1 million pounds of U_3O_8 per year. The remainder of the additional mine units will be developed in such a way as to allow for plant capacity/production targets to be maintained.

The wellfield development costs include both wellfield drilling and wellfield construction activities and were estimated based on the assumption that the wellfields in this Project will be similar in design to those in the Shirley Basin PEA (WWC, 2015). The wellfield costs include wells, header houses, and the hydraulic conveyance (piping) system associated with the wellfields. Additionally, trunk and feeder pipelines, electrical service, roads and wellfield fencing are included in the costs.

21.2 Operating Cost Estimation (OPEX)

The OPEX costs have been developed by evaluating and including each process unit operation and the associated required services (power, water, air, waste disposal), infrastructure (offices, shops and roads), salary and benefit burden, and environmental control (heat, air conditioning, monitoring). The annual OPEX and closure cost summary for the plant is provided in Table 21.2. Total OPEX costs, including selling, production and operating costs have been estimated at $74.9 million, or approximately $11.52 per pound. The costs are based on Azarga's estimated costs at the Dewey-Burdock Project and have no additional contingency attached. The prices for the major items identified in this report have been sourced in the United States. Major cost categories considered when developing OPEX costs include wellfield, plant, resin processing, and site administration costs as detailed in Table 21.2.

Table 21.2. Annual Operating Costs (OPEX) Summary

Life of Mine Operating costs	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Totals	$/lb
	($000s except cost per pound data)															
Satellite Plants, Disposal wells, Overflow pond	$ -	$ -	$ -	$ (4,123.2)	$ (4,123.2)	$ (4,123.2)	$ (4,123.2)	$ (4,123.2)	$ (4,123.2)	$ (2,090.4)	$ -	$ -	$ -	$ -	$ (26,829.6)	**$ (4.12)**
IX Resin Processing and Transportation	$ -	$ -	$ -	$ (2,546.7)	$ (2,546.7)	$ (2,546.7)	$ (2,546.7)	$ (2,546.7)	$ (2,546.7)	$ (1,291.2)	$ -	$ -	$ -	$ -	$ (16,571.4)	**$ (2.55)**
Well Field Operation	$ -	$ -	$ -	$ (1,710.0)	$ (1,710.0)	$ (1,710.0)	$ (1,710.0)	$ (1,710.0)	$ (1,710.0)	$ (867.0)	$ -	$ -	$ -	$ -	$ (11,127.0)	**$ (1.71)**
Aquifer Restoration and Decommissioning.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (1,360.1)	$ (1,805.8)	$ (1,805.8)	$ (1,581.2)	$ (670.2)	$ (1,243.0)	$ (500.0)	$ (8,966.1)	**$ (1.38)**
U3O8 Conversion and Shipping fees	$ -	$ -	$ -	$ (390.0)	$ (390.0)	$ (390.0)	$ (390.0)	$ (390.0)	$ (390.0)	$ (197.7)	$ -	$ -	$ -	$ -	$ (2,537.7)	**$ (0.39)**
Permitting, Claim Maintenance, and Administrative (G&A)	$ -	$ -	$ -	$ (711.1)	$ (710.9)	$ (710.9)	$ (710.9)	$ (710.9)	$ (722.1)	$ (717.1)	$ (717.1)	$ (767.1)	$ (767.1)	$ (773.4)	$ (8,018.6)	**$ (1.23)**
Reclamation Bonding Surity Costs	$ -	$ -	$ (26.0)	$ (55.1)	$ (84.2)	$ (112.8)	$ (139.8)	$ (137.2)	$ (116.7)	$ (86.3)	$ (54.7)	$ (41.3)	$ (23.4)	$ -	$ (877.5)	**$ (0.14)**
Bond collatoral	$ -	$ -	$ (454.7)	$ (233.8)	$ (363.7)	$ (358.4)	$ (336.8)	$ 32.5	$ 255.7	$ 380.5	$ 395.3	$ 167.6	$ 223.3	$ 292.5	$ -	**$ -**
Total	**$ -**	**$ -**	**$ (480.7)**	**$ (9,769.9)**	**$ (9,928.7)**	**$ (9,952.0)**	**$ (9,957.4)**	**$ (10,945.6)**	**$ (11,158.8)**	**$ (6,675.0)**	**$ (1,957.7)**	**$ (1,311.0)**	**$ (1,810.2)**	**$ (980.9)**	**$ (74,927.9)**	**$ (11.52)**

Notes:

1. Satellite plants, Disposal wells, and Overflow Pond costs include power, labor, maintenance, chemicals and other costs associated with operation of the facilities.
2. Resin Processing and Transportation costs include transportation costs to Dewey-Burdock processing plant and costs associated with processing resin to a finished product ready for shipment to the conversion facility. Costs do not include any allowance for additional profit at Dewey-Burdock and exclude any Dewey-Burdock overhead costs except for those directly related to processing the ion exchange resin and product from the Gas Hills Project.
3. Wellfield operation costs include labor, equipment, power, maintenance, chemicals and other wellfield operation costs.
4. Decommissioning costs assume no salvage value for materials and equipment.
5. Conversion and shipping fees assume shipments from Dewey-Burdock to conversion facility in Metropolis, Illinois
6. Reclamation bonding surety costs assume a 3% premium on the bond estimate prior to positive cashflow and 2% premium after positive cashflow.
7. Bond collateral assumed to be equal to 35% of the bond estimate prior to positive cashflow and then 25% of the bond estimate after positive cashflow.

22.0 ECONOMIC ANALYSIS

Cautionary statement: this Preliminary Economic Assessment is preliminary in nature and includes mineral resources. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The estimated mineral recovery used in this PEA is based on site-specific laboratory recovery data as well as Azarga personnel and industry experience at similar facilities. There can be no assurance that recovery of the mineral resources at this level will be achieved. There is no certainty that the Preliminary Economic Assessment will be realized.

22.1 Assumptions

The economic assessment presented in this PEA is based on geological evaluation and mapping of production areas, determining which areas are not viable for production activities due to hydrologic features and obtaining an 80 percent recovery of the remaining resources, as described in Section 16.3.1.

A cash flow statement has been developed based on the CAPEX, OPEX, and closure cost estimates and the production schedule. As noted in Section 19, the sales price for the produced uranium is assumed at $55.00 per pound for the life of the Project. This price is based on a combination of projections from expert market analysts at institutions as shown on Table 19.1. Sensitivities to uranium price are discussed in Section 25.2.

The production rate assumes an average solution uranium grade (headgrade) of approximately 97 mg/L. The sales for the cash flow are developed by applying the recovery factor to the Project resource estimate. The total uranium production over the life of the Project is estimated to be 6.5 million lbs.

22.2 Cash Flow Forecast and Production Schedule

The production estimates and OPEX distribution used to develop the cash flow are based on the production and restoration models developed by Azarga and incorporated in the cash flow (Tables 22.1 and 22.2). The cash flow assumes no escalation, no debt interest or capital repayment. It also does not include depreciation. The estimated payback in the post federal tax cash flow model is near the beginning of the second year of production. Net cash flow before income tax over the life of the Project is estimated to be $174.4 million and the net after-tax cash flow is estimated at $149.6 million. It is estimated that the Project has a pre-tax Internal Rate of Return (IRR) of 116 percent and a Net Present Value (NPV) of $120.9. The after-tax IRR and NPV are estimated at 101 percent and $102.6 million, respectively (Table 22.3). The NPV was calculated assuming an 8 percent discount rate. The NPV assumes cash flows take place in the middle of each period. The NPV and IRR calculations are based on Year-1 through Year 11 and includes costs

Table 22.1. Pre U.S.-Income Tax Cash Flow Statement

Description	Units	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Totals	$/lb
Uranium Production as U3O8	lbs 000s	0	0	0	1000	1000	1000	1000	1000	1000	507	0	0	0	0	6507	
Uranium Price for U3O8	US$/lb				$ 55	$ 55	$ 55	$ 55	$ 55	$ 55	$ 55						
Uranium Gross Revenue	**US$000s**	**$ -**	**$ -**	**$ -**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 27,885**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 357,885**	**$ 55.00**
Royalty (0.7%/year LOM average)	US$000s	$ -	$ -	$ -	$ (95.5)	$ (95.7)	$ (95.7)	$ (95.7)	$ (97.1)	$ (97.8)	$ (51.2)	$ -	$ -	$ -	$ -	$ (628.7)	$ (0.10)
Net Sales Less Royalties	**US$000s**	**$ -**	**$ -**	**$ -**	**$ 54,904.5**	**$ 54,904.3**	**$ 54,904.3**	**$ 54,904.3**	**$ 54,902.9**	**$ 54,902.2**	**$ 27,833.8**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 357,256**	**$ 54.90**
State of Wyoming Severance Tax	US$000s	$ -	$ -	$ -	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (611.2)	$ -	$ -	$ -	$ -	$ (7,844.8)	$ (1.20)
Fremont County Ad Valorem Tax	US$000s	$ -	$ -	$ -	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (1,104.1)	$ -	$ -	$ -	$ -	$ (14,170.9)	$ (2.18)
Natrona County Ad Valorem Tax	US$000s	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (292.8)	$ (292.8)	$ -	$ -	$ -	$ -	$ (585.6)	$ (0.09)
County Property Taxes	US$000s	$ -	$ -	$ -	$ (46.2)	$ (41.6)	$ (37.4)	$ (33.7)	$ (30.3)	$ (27.3)	$ (24.6)	$ (22.1)	$ (19.9)	$ (17.9)	$ (16.1)	$ (317.1)	$ (0.05)
OPEX costs	US$000s	$ -	$ -	$ (480.7)	$ (9,769.8)	$ (9,928.6)	$ (9,951.9)	$ (9,957.3)	$ (10,945.5)	$ (11,158.8)	$ (6,675.0)	$ (1,957.7)	$ (1,311.1)	$ (1,810.3)	$ (980.9)	$ (74,927.6)	$ (11.52)
CAPEX costs	US$000s	$ (579.8)	$ (5,984.8)	$ (19,410.9)	$ (9,610.0)	$ (9,610.0)	$ (12,610.0)	$ (11,723.0)	$ (10,610.0)	$ (4,872.3)	$ -	$ -	$ -	$ -	$ -	$ (85,010.8)	$ (13.06)
Subtotal OPEX, CAPEX, tax costs	US$000s	$ (579.8)	$ (5,984.8)	$ (19,891.6)	$ (22,809.4)	$ (22,963.6)	$ (25,982.7)	$ (25,097.4)	$ (24,969.2)	$ (19,734.6)	$ (8,707.7)	$ (1,979.8)	$ (1,331.0)	$ (1,828.2)	$ (997.0)	$ (182,856.8)	$ (28.10)
Pretax Cashflow	**US$000s**	**$ (579.8)**	**$ (5,984.8)**	**$ (19,891.6)**	**$ 32,095.1**	**$ 31,940.7**	**$ 28,921.6**	**$ 29,806.9**	**$ 29,933.7**	**$ 35,167.6**	**$ 19,126.1**	**$ (1,979.8)**	**$ (1,331.0)**	**$ (1,828.2)**	**$ (997.0)**	**$ 174,399.5**	**$ 26.80**

Notes:

1) Production is based on an assumed 80% recovery of the resource described in Section 14.

2) Wyoming severance tax rate varies based on uranium price. @$55/lb the severance tax rate is 4% of the taxable portion see Section 22 for details.

3) Ad Valorem taxes are estimated at 7.2255% and 6.789% for Fremont and Natrona counties, respectively. The taxes are assessed on the taxable portion as described in Section 22.

2) See OPEX and CAPEX summary tables for details on those costs.

Table 22.2. Post U.S.-Income Tax Cash Flow Statement

Description	Units	Year -3	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Totals	$/lb
Uranium Production as U3O8	lbs 000s	0	0	0	1000	1000	1000	1000	1000	1000	507	0	0	0	0	6507	
Uranium Price for U3O8	US$/lb				$ 55	$ 55	$ 55	$ 55	$ 55	$ 55	$ 55						
Uranium Gross Revenue	**US$000s**	**$ -**	**$ -**	**$ -**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 55,000**	**$ 27,885**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 357,885**	**$ 55.00**
Royalty (0.7%/year LOM average)	US$000s	$ -	$ -	$ -	$ (95.5)	$ (95.7)	$ (95.7)	$ (95.7)	$ (97.1)	$ (97.8)	$ (51.2)	$ -	$ -	$ -	$ -	$ (628.7)	$ (0.10)
Net Sales Less Royalties	**US$000s**	**$ -**	**$ -**	**$ -**	**$ 54,904.5**	**$ 54,904.3**	**$ 54,904.3**	**$ 54,904.3**	**$ 54,902.9**	**$ 54,902.2**	**$ 27,833.8**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 357,256**	**$ 54.90**
State of Wyoming Severance Tax	US$000s	$ -	$ -	$ -	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (1,205.6)	$ (611.2)	$ -	$ -	$ -	$ -	$ (7,844.8)	$ (1.21)
Fremont County Ad Valorem Tax	US$000s	$ -	$ -	$ -	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (2,177.8)	$ (1,104.1)	$ -	$ -	$ -	$ -	$ (14,170.9)	$ (2.18)
Natrona County Ad Valorem Tax	US$000s	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (292.8)	$ (292.8)	$ -	$ -	$ -	$ -	$ (585.6)	$ (0.09)
County Property Taxes	US$000s	$ -	$ -	$ -	$ (46.2)	$ (41.6)	$ (37.4)	$ (33.7)	$ (30.3)	$ (27.3)	$ (24.6)	$ (22.1)	$ (19.9)	$ (17.9)	$ (16.1)	$ (317.1)	$ (0.05)
OPEX costs	US$000s	$ -	$ -	$ (480.7)	$ (9,769.8)	$ (9,928.6)	$ (9,951.9)	$ (9,957.3)	$ (10,945.5)	$ (11,158.8)	$ (6,675.0)	$ (1,957.7)	$ (1,311.1)	$ (1,810.3)	$ (980.9)	$ (74,927.6)	$ (11.52)
CAPEX costs	US$000s	$ (579.8)	$ (5,984.8)	$ (19,410.9)	$ (9,610.0)	$ (9,610.0)	$ (12,610.0)	$ (11,723.0)	$ (10,610.0)	$ (4,872.3)	$ -	$ -	$ -	$ -	$ -	$ (85,010.8)	$ (13.06)
Subtotal OPEX, CAPEX, tax costs	US$000s	$ (579.8)	$ (5,984.8)	$ (19,891.6)	$ (22,809.4)	$ (22,963.6)	$ (25,982.7)	$ (25,097.4)	$ (24,969.2)	$ (19,734.6)	$ (8,707.7)	$ (1,979.8)	$ (1,331.0)	$ (1,828.2)	$ (997.0)	$ (182,856.8)	$ (28.10)
Net Before U.S. Federal Income Cashflow	**US$000s**	**$ (579.80)**	**$ (5,984.80)**	**$ (19,891.60)**	**$ 32,095.10**	**$ 31,940.70**	**$ 28,921.60**	**$ 29,806.90**	**$ 29,933.70**	**$ 35,167.60**	**$ 19,126.10**	**$ (1,979.80)**	**$ (1,331.00)**	**$ (1,828.20)**	**$ (997.00)**	**$ 174,399.5**	**$ 26.80**
Less Federal income tax	US$000s	$ -	$ -	$ -	$ (3,456.02)	$ (4,521.24)	$ (4,322.79)	$ (4,087.95)	$ (3,675.17)	$ (3,633.91)	$ (1,145.10)	$ -	$ -	$ -	$ -	$ (24,842.2)	$ (3.82)
After Tax Cashflow	US$000s	**$ (579.8)**	**$ (5,984.8)**	**$ (19,891.6)**	**$ 28,639.1**	**$ 27,419.5**	**$ 24,598.8**	**$ 25,718.9**	**$ 26,258.5**	**$ 31,533.7**	**$ 17,981.0**	**$ (1,979.8)**	**$ (1,331.0)**	**$ (1,828.2)**	**$ (997.0)**	**$ 149,557.3**	$ 22.98

Notes:
1) Production is based on an assumed 80% recovery of the resource described in Section 14.
2) Wyoming severance tax rate varies based on uranium price. @$55/lb the severance tax rate is 4% of the taxable portion see Section 22 for details.
3) Ad Valorem taxes are estimated at 7.2255% and 6.789% for Fremont and Natrona counties, respectively. The taxes are assessed on the taxable portion as described in Section 22.
2) See OPEX and CAPEX summary tables for details on those costs.

escalated by 8 percent per year from Year -3 and Year -2 treated as if the escalated costs occurred in Year-1. The pre income tax estimated cost of uranium produced is $28.20 per pound including royalties, severance taxes, ad valorem taxes, plus all operating and capital costs. The pre-tax and post-tax NPV for three discount rates has been calculated and is presented in Table 22.3. The estimated IRR is also presented.

Table 22.3. NPV Versus Discount Rate and IRR

Discount Rate	Pre-tax NPV ($US 000s)	Post-tax NPV ($US 000s)
5%	$137,990	$117,599
8%	$120,880	$102,624
10%	$110,927	$93,918
IRR	116%	101%

22.3 Taxation

The current Wyoming severance tax for uranium is set on a sliding scale based on the current spot market price of uranium, below $30 per pound the severance tax rate is 0 percent, from $30.00 to $36.67 the tax rate is 1 percent, from $36.68 to $43.34 the tax rate is 2 percent, from $43.35 to $50.00 the tax rate is 3 percent, from $50.01 to $60.00 the tax rate is 4 percent, and at a spot price of more than $60.01 the tax rate is 5 percent. Based on this sliding scale, the severance tax rate at the Project for a price of $55 per pound will be 4 percent. Wyoming does not calculate the severance taxes based on gross sales. Rather the valuation used to calculate the severance tax is reduced by an industry factor calculated by the state which takes into account the cost of production. In this PEA the industry factor was estimated at 54.8 percent.

Additionally, an ad valorem (gross products) tax is assessed at the county level on uranium sold. The ad valorem taxes are essentially a de facto property tax on production and are based on the mill levy in the jurisdiction of the mine. The ad valorem tax is 7.2255 percent in Fremont County and 6.789 percent in Natrona County. As with the severance tax, the ad valorem tax is not assessed on the gross sales but rather on a reduced valuation based on the same industry factor used for the severance tax calculations. In aggregate and based on the taxable portion of the product, the combined severance and ad valorem tax averages approximately 6.5 percent of gross sales.

County property taxes will be assessed on mine improvements such as the IX plant and buildings. Most of the project infrastructure will be in Fremont County. Fremont County will assess property taxes based on the value of the improvements. The assessed value of the mine improvements will be multiplied by an 11.5 percent valuation factor. The resulting valuation will then be multiplied by the mill levy (.072255) to calculate property taxes. The State of Wyoming has no corporate income tax.

At the federal level, profit from mining ventures is taxable at corporate income tax rates. For mineral properties, depletion tax credits are available on a cost or percentage basis, whichever is greater. To illustrate the potential impact of federal taxes, two economic models have been developed for this PEA, one that includes an estimate of U.S. federal income tax and one that does not. It is important to note that the estimate of U.S. federal income taxes included herein is not based on past operational history for this Project or this company and are strictly estimates at this time. For the purposes of this PEA the federal taxes were estimated at 21 percent of the taxable income. The taxable income was calculated by subtracting estimated depletion credits, depreciation, and carryforward loss deductions from the net cashflow. Only deductions from this Project were considered in the tax estimates and no other corporate losses or deductions were considered. It is possible that the tax liability presented herein is overstated because the tax estimate does not account for the potential offsetting tax deductions from other debts incurred in an overall corporate financial structure. This could be particularly true where other projects or expansions are likely to be funded from revenue from this project. The taxes calculated for this analysis are based on current tax laws and rates in 2021. Future changes to the U.S. tax code or the financial condition of the company will affect actual taxes paid during production.

23.0 ADJACENT PROPERTIES

The Project is generally surrounded by mineral properties held by others, including Cameco, Ur-Energy and others. However, all of the data used to evaluate the Project is from the Project and all of the mineral resources and mineral potential described herein lie entirely within the Project.

Over the past decade, Cameco has been observed conducting exploration drilling on their claims in the Gas Hills District and has permitted an ISR operation in the Gas Hills to extract uranium. Cameco has a Permit to Mine from the WDEQ-LQD (Permit #687) and a Source Materials License (SUA-1548) from the US Nuclear Regulatory Commission (NRC). The US BLM completed a Final EIS in October 2013 and on February 13, 2014, announced a “Record of Decision” authorizing Cameco to proceed with development of their project using ISR techniques. Production was slated to begin in 2014 (Wyoming Business Report, February 22, 2011); however, with the decline in spot uranium prices over the past few years, Cameco has delayed their project. The Cameco property borders the Project on Cameco’s western, northeastern and southern extents. Table 23.1 summarizes the Mineral Resources for the Gas Hills Project from Cameco’s website (Cameco, 2020a & 2020b).

Table 23.1. Cameco Peach Project Mineral Resources

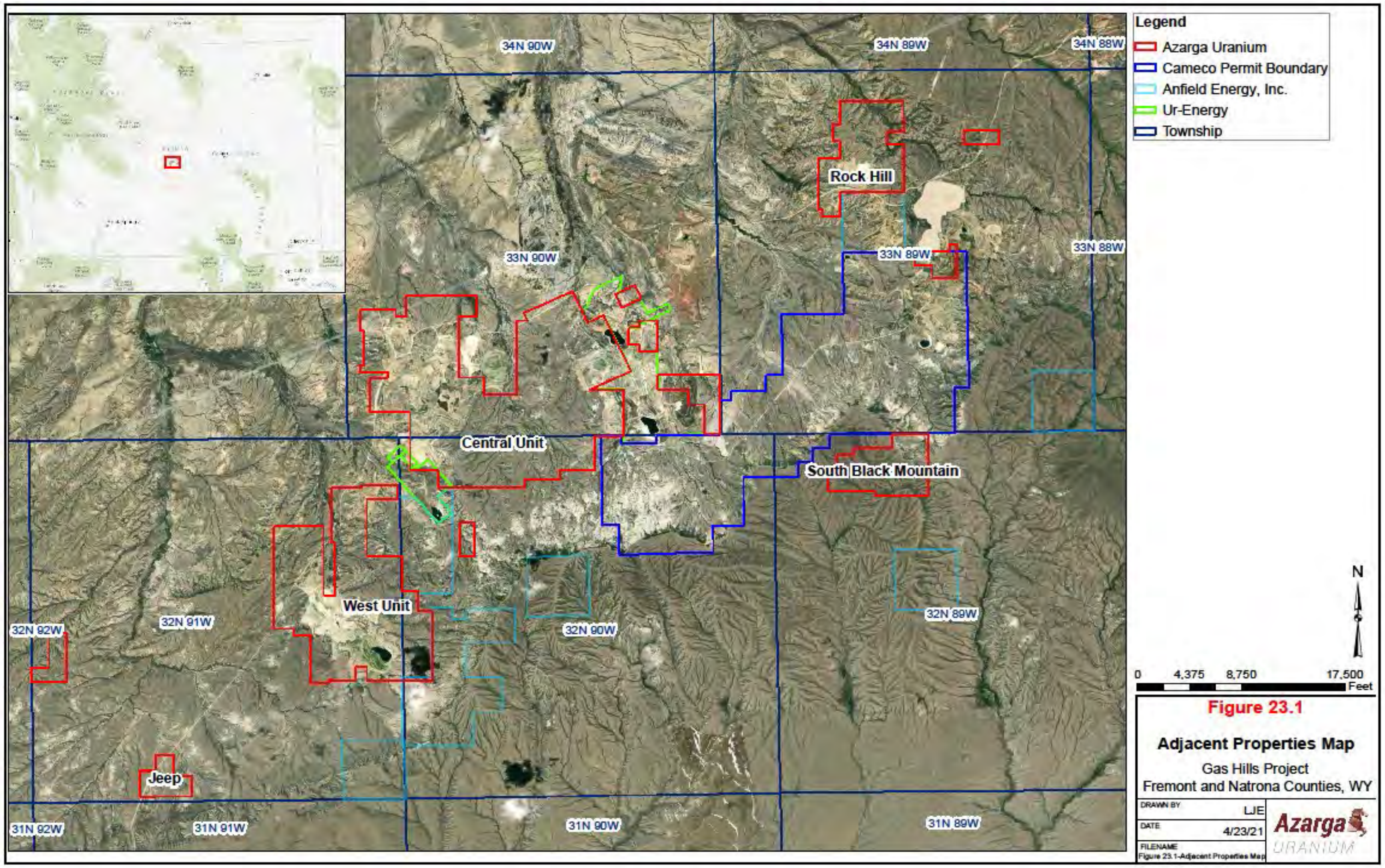
Classification	Tonnes (x1000)	Grade % eU_3O_8	Pounds
Measured Resource	687.2	0.11	1,700,000
Indicated Resource	3,626.1	0.15	11,600,000
Inferred Resource	3,307.5	0.08	6,000,000

Sources: Cameco, 2020a & 2020b

It should be noted that the Authors have not verified the information on Cameco’s properties and the information may not be indicative of the mineralization that is present on the Project.

Other companies with significant mineral property holdings in the Gas Hills District include Ur Energy who acquired the previous holdings of Pathfinder Mines Corporation and Anfield Energy Inc. who acquired the previous holdings of Uranium One. Figure 23.1 shows the relative position of other adjacent properties.

Figure 23.1. Adjacent Properties



Source: Modified from Gregory, 2019.

24.0 OTHER RELEVANT DATA AND INFORMATION

To the Authors' knowledge there is no additional information or explanation necessary to make this Report understandable and not misleading.

25.0 INTERPRETATIONS AND CONCLUSIONS

This independent PEA for the Project has been prepared in accordance with the guidelines set forth in NI 43-101. Its objective is to disclose the potential viability of ISR operations at the Project.

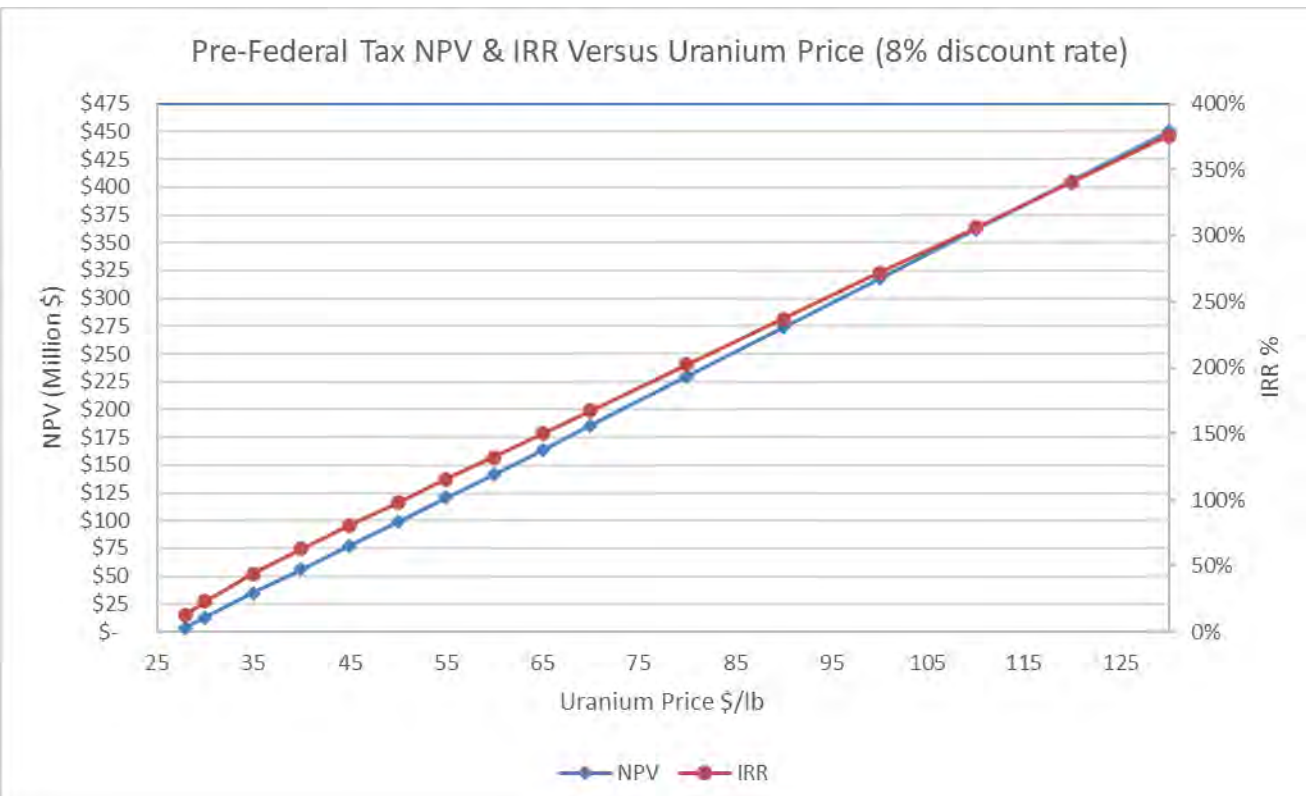
25.1 Conclusions

The Authors have weighed the potential benefits and risks presented in this report and have found the Project to be potentially viable and meriting further evaluation and development.

25.2 Sensitivity Analysis

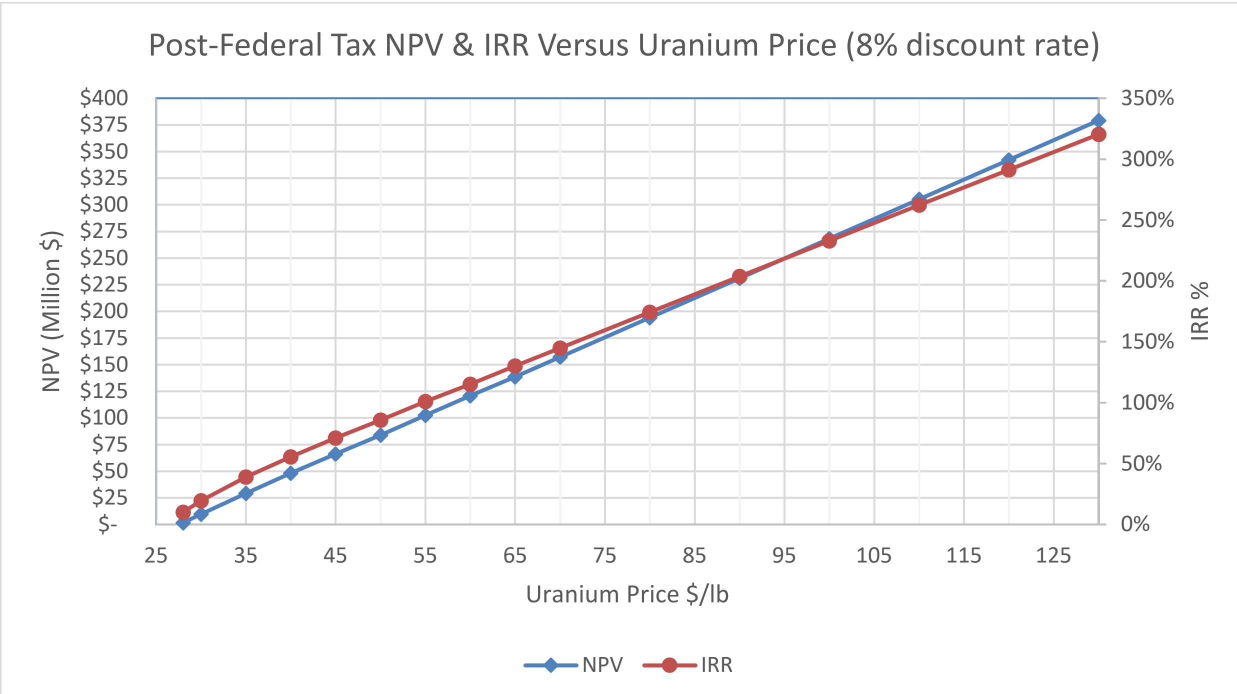
A sensitivity analysis was developed to evaluate the sensitivity of the NPV and IRR to changes in uranium prices. Both the pre-federal income tax and the post-federal income tax cashflow models were evaluated. Figure 25.1 shows pre-federal income tax sensitivity to changes in uranium prices and Figure 25.2 shows the post-federal income tax price sensitivity.

Figure 25.1. Pre-Federal Income Tax NPV and IRR Sensitivity to Price



The Project is sensitive to changes in the price of uranium. Assuming an 8 percent discount rate, a $5.00 per pound change in the uranium price adjusts the pre-federal income tax NPV by just over $20 million and the post-federal tax NPV by just over $18 million. Similarly, a $5.00 per pound increase in uranium price adjusts the pre-tax and post-tax IRR by approximately 14 percent.

Figure 25.2. Post-Federal Income Tax NPV Sensitivity to Price



Assuming an 8 percent discount rate and a constant uranium price of $55.00 per pound of U_3O_8, CAPEX and OPEX costs were varied in both the pre- and post-federal income tax cashflow models to evaluate effects on NPV and IRR. Figures 25.3 and 25.4 show effects of variable OPEX and CAPEX costs on the pre-federal tax NPV and IRR respectively. Figures 25.5 and 25.6 show post-federal tax NPV and IRR changes with respect to variable CAPEX and OPEX costs. The evaluation demonstrates the NPV and IRR is sensitive to changes in both CAPEX and OPEX costs. A 5 percent change in CAPEX and OPEX costs can impact the NPV by approximately $3.5 million and $2.6 million in the pretax cashflow model, respectively. The IRR is also affected by changes in CAPEX and OPEX costs. A 5 percent change in OPEX costs adjusts the IRR by approximately 2 percent in the pre-tax cashflow model. The IRR change with respect to CAPEX cost changes is less linear and a 5 percent decrease in the CAPEX increases the IRR by approximately 7.5 percent while a 5 percent increase in the CAPEX cost decreases the IRR by approximately 8.2 percent in the pre-tax cashflow model.

Figure 25.3. Pre-Federal Income Tax NPV Sensitivity CAPEX and OPEX

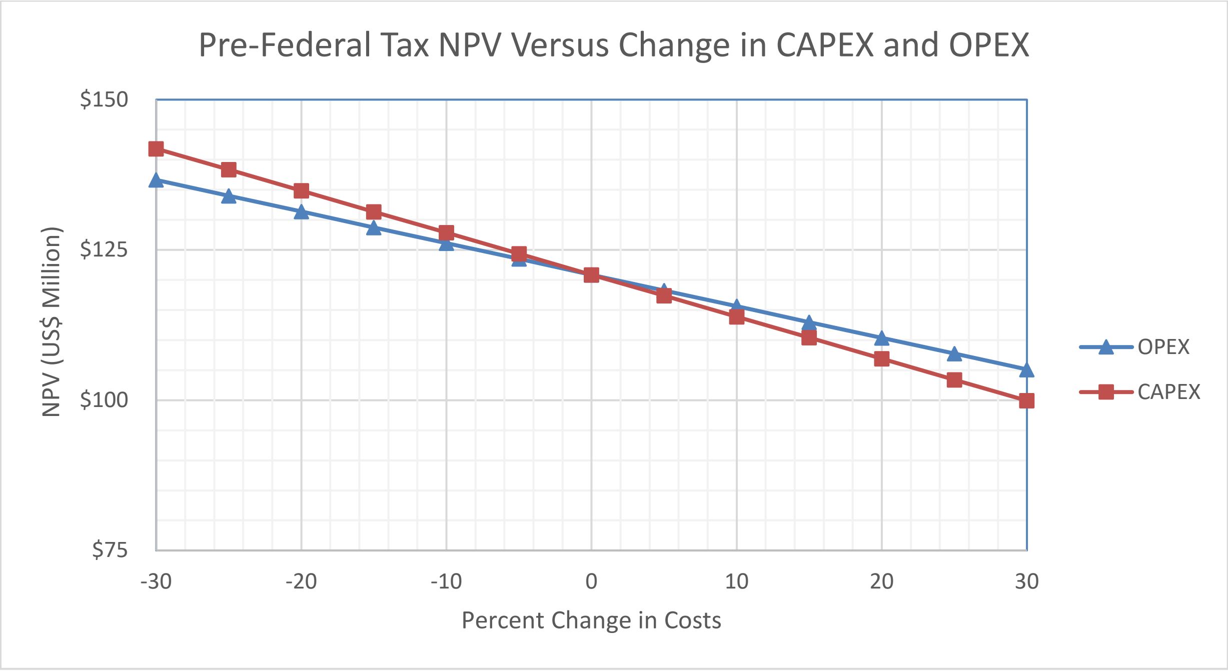


Figure 25.4. Pre-Federal Income Tax IRR Sensitivity CAPEX and OPEX

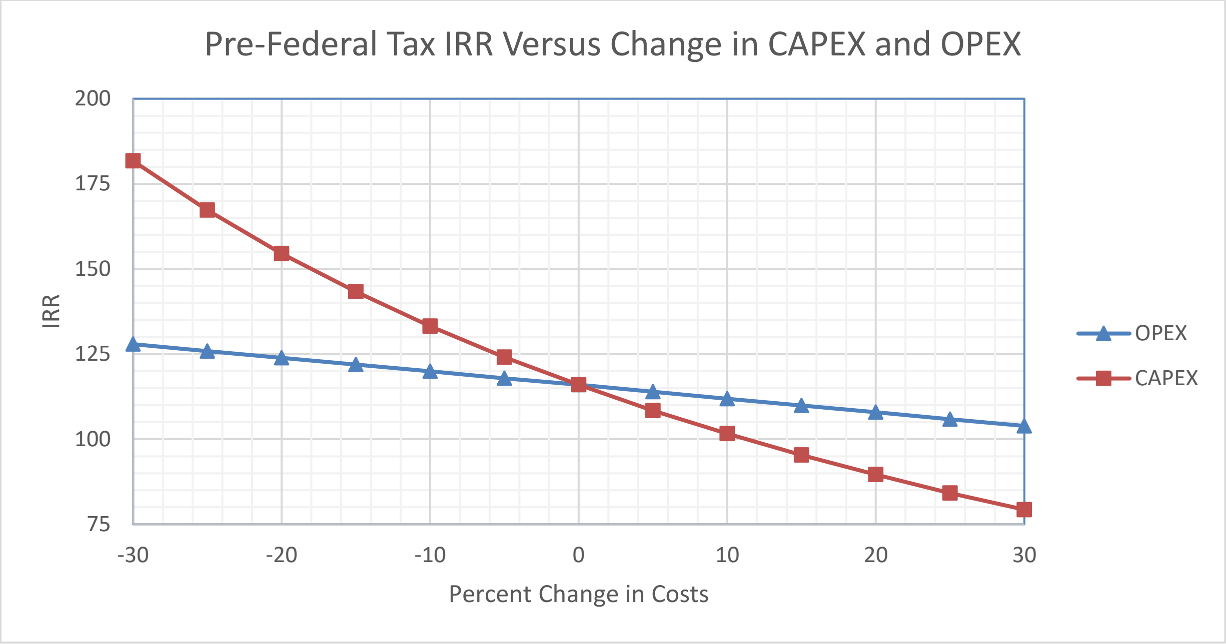


Figure 25.5. Post-Federal Income Tax NPV Sensitivity CAPEX and OPEX

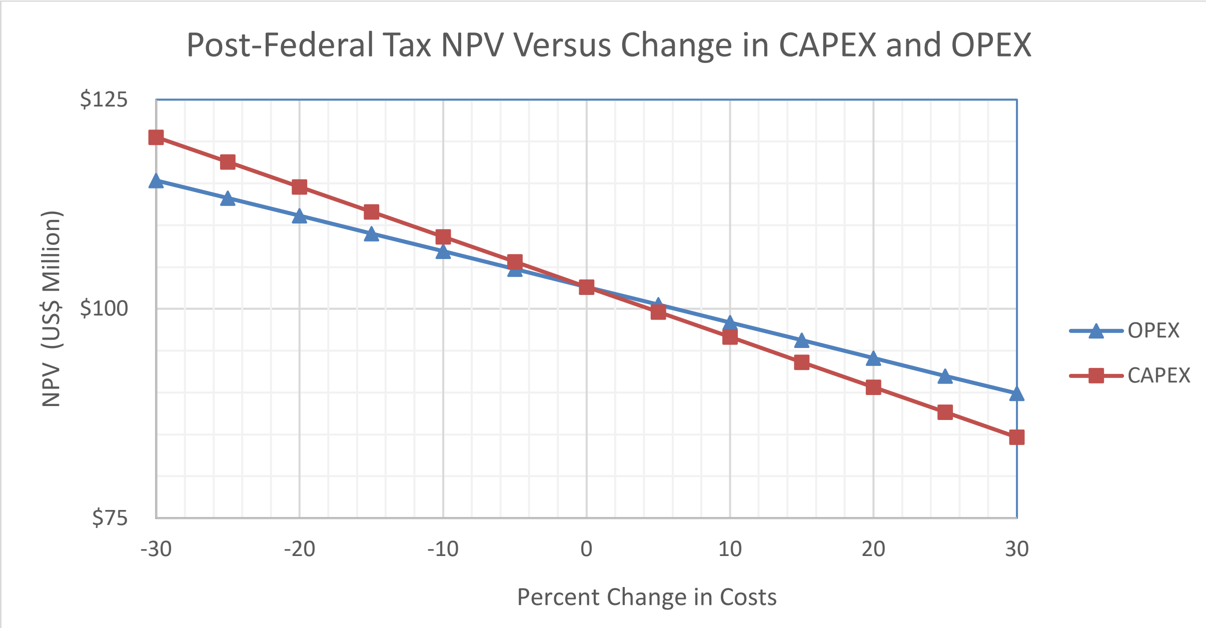
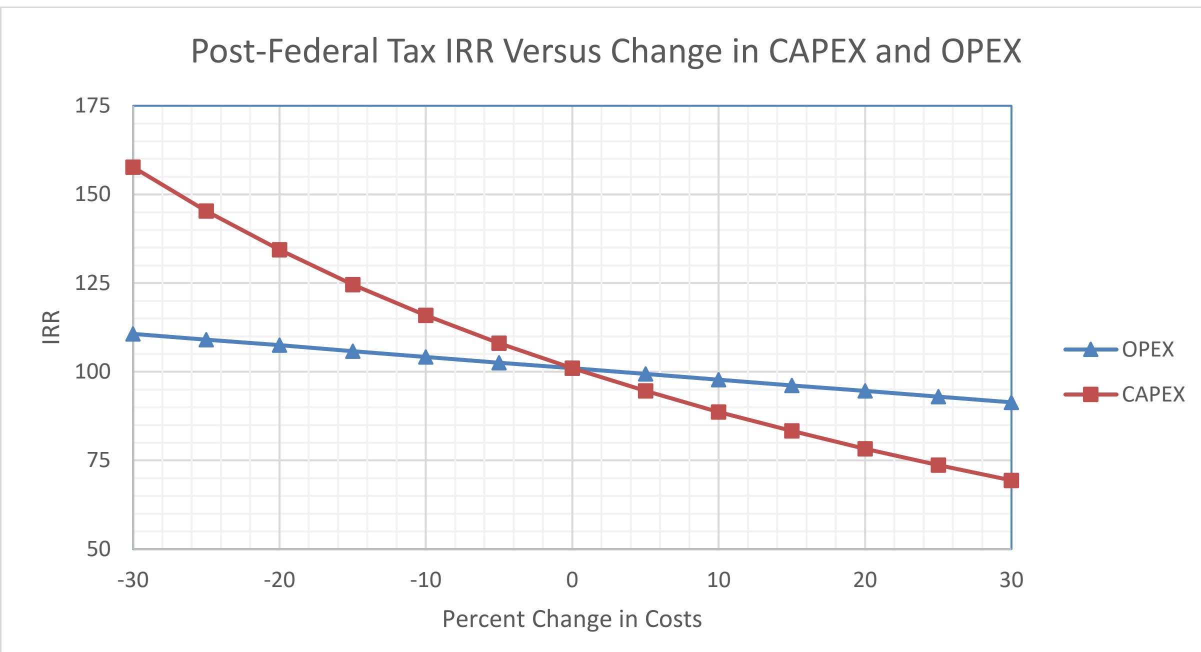


Figure 25.6. Post-Federal Income Tax IRR Sensitivity CAPEX and OPEX



A 5 percent change in the CAPEX and OPEX costs can have an impact to the NPV of approximately $3.0 million and $2.1 million in the post-tax cashflow model, respectively. The IRR is also affected by changes in CAPEX and OPEX costs. A 5 percent change in the OPEX costs adjusts the IRR by approximately 1.6 percent in the post-tax cashflow model. The IRR change with respect to CAPEX cost adjustments is less linear and a 5 percent increase in the CAPEX drops the IRR by approximately 6.4 percent while a 5 percent decrease in the CAPEX cost increases the IRR by approximately 7.1 percent in the pre-tax model.

25.3 Risk Assessment

25.3.1 Resource and Recovery

It should be noted that recovery is based on both site-specific laboratory recovery data as well as the experience of Azarga personnel and other industry experts at similar facilities. This PEA is preliminary in nature and includes mineral resources which may not be recoverable at the rates indicated herein.

This PEA is based on the assumptions and information presented herein. The QPs can provide no assurance that recovery of the resources presented herein will be achieved. Bench-scale tests have been performed on various core samples from the Project, as discussed in Section 13.0. The most significant potential risks to meeting the production results presented in this PEA will be associated with the success of the wellfield operation and recovery of uranium from the targeted host sands. The estimated quantity of recovered uranium used in this PEA is based primarily on the recovery data from site-specific, bench-scale testing of mineralized samples. The recovery factor of 80 percent, used herein, is relatively typical of industry experience for wellfield recovery. A potential problem that could occur in the wellfield recovery process is unknown or variable geochemical conditions resulting in uranium recovery rates from the mineralized zones that are significantly different from previous bench-scale tests.

In terms of recovery, this PEA assumes that 80 percent of all resources whether measured, indicated, or inferred will be recovered. Given the low confidence in inferred resources it is sometimes common to provide a larger discount for the inferred resources. A larger discount was not applied to the inferred resources in this PEA. However, only a small portion of the resource is in the inferred category (5.5 percent). If the inferred resources are not able to be upgraded through further wellfield delineation, it could affect the total amount of U_3O_8 recovered.

This PEA assumes acid consumption rates will average 55 lb/ton based on bottle roll tests discussed in Section 13.0. If actual acid consumption rates are higher than 55 lb/ton, this could negatively affect project economics.

This PEA assumes that the average headgrade will be around 97 ppm. If the average headgrade is less than 97 ppm, flowrates would have to be increased by bringing on additional patterns, header houses or mine units as necessary. In addition, the mining period will have to be extended in each wellfield to account for slower recovery rates. This scenario will increase both OPEX and CAPEX costs. To account for this potential risk, the satellite plant has extra capacity to accept higher flows which will help in the event headgrades are lower than anticipated.

This PEA assumes that up to three pore volumes of groundwater will be extracted and treated by reverse osmosis during restoration of the wellfields. There is a risk that more than three pore volumes of treatment will be required during restoration which may increase aquifer restoration costs.

The hydrologic conditions in the South Black Mountain area and Jeep area are largely unknown. There is a risk that unknown conditions such as faults, low hydraulic conductivities, or lower than anticipated water levels could limit ISR mining in these areas. Additional hydraulic studies in these areas would help minimize the potential risk of unknown conditions in these areas.

Faults, such as the Sagebrush fault identified within the Central Unit, have been noted adjacent to some of the resources included in this PEA. There is the potential that inconsistent aquifer conditions near these features may limit recovery of the resources immediately adjacent to the faults.

Other potential concerns are reduced hydraulic conductivity in the formation due to chemical precipitation during production, lower natural hydraulic conductivities than estimated, high flare and/or recovery of significant amounts of groundwater, the need for additional injection wells to increase uranium recovery rates, variability in the uranium concentration in the host sands and discontinuity of the mineralized zone confining layers. The risks associated with these potential issues can be minimized to the extent possible by extensive delineation and hydraulic studies of the site which will occur during wellfield development.

The historic drill holes discussed in Section 16.2.2 present a small risk of connection between the mineralized aquifer and the underlying aquifer. There is a possibility an additional aquifer may overlie the ore bearing aquifer within the South Black Mountain area. It was assumed for the purposes of this PEA there is no overlying aquifer to protect at South Black Mountain. In the event further analysis demonstrates there is an overlying aquifer there is a risk that open boreholes could allow water to migrate into the overlying aquifer. This risk will be evaluated through the required aquifer pump tests that would likely show the presence of any excursion pathway when permitting mine units. Any historic boreholes that present a problem would need to be located and abandoned or mining operations will need to be modified to ensure overlying or underlying aquifers are not impacted. No costs for borehole abandonment were included in this PEA.

The resources in the South Black Mountain area are significantly deeper than the resources in the other three areas. While the average well depth used for this PEA factored in the deeper South Black Mountain wells, there will be a noticeable increase in wellfield costs for recovery of the South Black Mountain resources as compared to the other areas.

Some of the resources are near historic open pits where previous mining has occurred. The steep terrain presented by these open pits may be problematic for installation of perimeter monitor wells and wellfield patterns which may potentially limit resources that can be placed under pattern.

The pipelines that connect the resource areas to the satellite IX plant must cross land that is not controlled by Azarga, there is risk that this will result in additional costs to analyze and acquire permits. Pipeline lengths in this analysis assume the pipelines will be relatively straight. Right of way negotiations may result in longer pipeline lengths which could increase the pipeline costs.

Adequate disposal capacity for wastewater is always a risk when planning a uranium ISR facility. However, Cameco has applied for and obtained permit authorization from WDEQ to install deep disposal wells associated with their Gas Hills ISR Project (WDEQ, 2014). Cameco's authorization allows for installation of up to three DDW's which are located between 0.25 and 5.00 miles of the Central Unit. The wells are authorized for a maximum flow rate of 150 gallons per minute. Assuming actual disposal capacities compare favorably with the capacities estimated in the Cameco's permit, DDW capacity will not be considered a risk to Project economics.

25.3.2 Markets and Contracts

The marketability of uranium and acceptance of uranium mining are subject to numerous factors beyond the control of Azarga. History has shown that the price of uranium can experience volatile and significant price movements over short periods of time. Factors known to affect the market and the price of uranium include economic viability of nuclear power; political and economic conditions in uranium mining, producing and consuming countries; costs; interest rates, inflation and currency exchange fluctuations; governmental regulations; availability of financing of nuclear plants, reprocessing of spent fuel and the re-enrichment of depleted uranium tails or waste; sales of excess civilian and military inventories (including from the dismantling of nuclear weapons) by governments and industry participants; production levels and costs of production in certain geographical areas such as Asia, Africa and Australia; and changes in public acceptance of nuclear power generation as a result of any future accidents or terrorism at nuclear facilities.

Unlike other commodities, uranium does not trade on an open market. Contracts are negotiated privately by buyers and sellers. Changes in the price of uranium can have a significant impact on the economic performance of the Project. As discussed in Section 25.2, a $5.00 change in the spot commodity price results in a $20 million change to the pre-federal tax NPV at a discount rate of 8 percent. This PEA assumes U_3O_8 production is sold at $55.00 per pound for the life of the Project. This price is based on a combination of projections from expert market analysts at institutions as noted in Section 19.0. There is a risk that uranium prices will be lower than the market analysts predict which would negatively affect the economics of this project.

25.3.3 Operations

Some operational risks such as reagents, power, labor and/or material cost fluctuations due to inflation, increasing demand, decreasing supply, or other market forces exist and could impact the OPEX and Project economic performance. These potential risks are generally considered to be addressable either though wellfield modifications or plant optimization. The satellite plant risk is minimized in that it is only an IX plant used to capture the uranium. Any issues with precipitation and drying will be dealt with at the Dewey-Burdock Project.

There is a risk that the Dewey-Burdock processing plant may not completed when the Project goes into operation. This potential risk is addressable through toll milling at a different facility such as Ur Energy's Lost Creek Project or other processing plants in Wyoming. However, toll milling by a third party will likely increase costs and impact the OPEX and Project economic performance.

Bonding costs and required collateral have been estimated in this PEA based on costs encountered by other companies on reasonably sound financial footing. Bonding costs and/or collateral required as part of the bonding effort may increase for a number of reasons including poor performance in the future by Azarga; uncertainty in market conditions; volatility in uranium prices; and changes in bonding practices implemented by the regulatory authorities.

The IX capture, trucking of resin and elution processes have been, and are being used at other ISR facilities in Wyoming and Texas. The process does not use any unusual methods and the reagents for the process are readily available from regional sources. Initial process optimization will be required to minimize the use of reagents, minimize loss of product and ensure proper product quality.

Health and safety programs will be implemented to control the risk of on-site and off-site exposures to uranium, operational incidents and/or process chemicals. Standard industry practices exist for this type of operation and novel approaches to risk control and management will not be required.

This PEA minimizes fixed operational costs by assuming a relatively short duration and constant production rate. If the production rate is lower than estimated in this PEA, the OPEX costs will be increased.

Minimal wellfield design or layout has been completed for this project. Wellfield costs have been estimated based on similar projects. There is a chance that wellfield costs could vary due to well spacing, monitor well location constraints or other factors not yet considered. As this project advances, increasingly detailed wellfield design will improve wellfield cost estimates.

The satellite plant location, DDW location, pipeline alignments and other facilities have been placed on the map for pre-planning purposes. No engineering studies or right-of-way agreements have been completed to ensure that the locations are adequate. Additional design will be required to verify the costs presented in this PEA.

25.3.4 Permitting

The WDEQ-LQD and WDEQ-WQD will be one of several key regulatory authorities of the Project. This PEA assumes the project will be permitted with low pH recovery, which is typical of mining operations around the world, including the United States, where uranium ISR mines have operated using low pH lixiviant since the early 1960’s. In 2019, Peninsula Energy, Ltd. amended the Ross ISR Project source and byproduct license along with Permit to Mine No. 802 in Wyoming to include low pH recovery. This has provided the WDEQ-URP with familiarity and comfort level with low pH recovery methods as a recovery option. Low pH field test operations were initiated at the Ross ISR Project in 2018 (Peninsula Energy, 2019). Established uranium ISR using low pH recovery methods in the state of Wyoming minimizes the risk that low pH recovery will require significant additional regulatory expense.

A large portion of the Project lies on BLM managed surface. Any development on federal land of this magnitude will require an approved plan of operations from the BLM and associated NEPA analysis. The BLM will be the primary lead federal agency for the NEPA analysis. This PEA assumes that the BLM will require only an EA level of impact analysis in support of the approval process. However, there is a possibility that the BLM may require a more robust EIS. If the BLM evaluation requires the more robust EIS level of analysis, the pre-production permitting costs increase. Development of an EIS may increase the review and approval time as well though this cost was not addressed herein.

Certain areas of the Project are located immediately adjacent to areas designated by the Wyoming Game and Fish Department as a core sage grouse habitat. The West Unit and Central Unit lie wholly outside of the sage grouse core area whereas portions of Jeep and South Black Mountain lie within the sage grouse core area (Wyoming Game and Fish, 2021). The regulatory agencies may place stipulations or limitations on the portions of the Project that are within the sage grouse core area. The limitations may result in timing stipulations associated with some surface disturbance or areas that cannot be mined. In the event sage grouse restrictions prevent placement of patterns over mineralization it could affect the total amount of U_3O_8 recovered. Timing stipulations have the potential to increase OPEX costs.

25.3.5 Social and/or Political

As with any uranium project in the USA, there will undoubtedly be some social/political/environmental opposition to development of the Project. The Gas Hills is relatively remote and there are no residences within the immediate vicinity of the project. As such, there are very few people that could be directly impacted by the Project. In addition, the Gas Hills is the site of extensive historical uranium mining with significant long-term impacts. Wyoming is known to be relatively friendly to mining which will help with permitting. The relative success of other similar ISR projects to obtain permits to operate in Wyoming indicates that, while it is ever present, social, political, or environmental opposition to the Project is not likely to be a major risk.

The Federal income taxes estimated in this analysis are based on tax codes and rates in 2021. The federal tax code is subject to change. Changes in the tax code could negatively affect the project economics.

26.0 RECOMMENDATIONS

The QPs find the Project is potentially viable based on the assumptions contained herein. The Project is located in an area of extensive historical mining and the scale and quality of the ISR Mineral Resources indicate favorable conditions for future extraction from the Project. There is no certainty that the mineral recovery or the economic analyses presented in this PEA will be realized. In order to realize the full potential benefits described in this PEA, the following activities are recommended, at a minimum.

- Complete all activities required to obtain necessary licenses and permits required to operate an in-situ uranium mine in the Gas Hills of Wyoming. The approximate cost for this is $1.2 million and is included in the cash flow statement as a regulatory cost.

- Confirm hydrogeologic conditions are suitable for ISR operations within the Jeep and South Black Mountain Units. Aquifer testing at Jeep and South Black Mountain has been included in the regulatory costs above since this work would be necessary for mine planning purposes in addition to supporting licensing.

- Complete additional metallurgical testing to further verify and confirm the headgrade, estimated acid usage, lixiviant composition, and overall resource recovery used in this analysis is appropriate. This work should also evaluate and help identify approaches to avoid potential operational issues such as gypsum precipitation and restorability of the groundwater. Estimated costs for this work is $300,000.

- Either advance the Dewey-Burdock CPP or develop toll milling agreements with a processing facility to process loaded resin. Costs to develop agreements would be minimal. Costs to advance the Dewey-Burdock CPP are outside the scope of this PEA.

- Advance wellfield design to verify the assumptions included herein are appropriate and that all the pounds in this PEA can be put under pattern. Approximate cost for the first stage of this would be $25,000. Subsequent stages of design would tier off the results of the initial stage of design.

- Advance the satellite plant, pipeline, containment pond, and deep disposal well designs to permit level designs. Approximate cost for permit level designs and details are estimated at $150,000.

- Develop agreements for pipeline right-of-ways. Costs may vary depending on specific ownership and agreements but are initially estimated at $25,000.

- With favorable market conditions, conduct additional exploratory drilling to evaluate not fully explored mineral trends throughout the Project area. Approximate costs for a moderately scaled exploration drilling program are estimated at $200,000 and could be combined with a core drilling program to support additional metallurgical testing.

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APPENDIX A:

CERTIFICATE OF QUALIFIED PERSONS

I, Ray B. Moores, P.E., do certify that:

1. This certificate applies to the Preliminary Economic Assessment (PEA) entitled "NI 43-101 Technical Report Preliminary Economic Assessment Gas Hills Uranium Project Fremont and Natrona Counties, Wyoming, USA" prepared for Azarga Uranium Corp. with an effective date of June 28, 2021.

2. I am a Civil Engineer/Project Manager employed by Western Water Consultants Inc, dba, WWC Engineering at 1849 Terra Ave. Sheridan, WY 82801.

3. I am a licensed Professional Engineer in the state of Wyoming. My registration number is 10702. I am a graduate of the University of Wyoming, Laramie, Wyoming in 2000 with a Bachelor of Science degree in Civil Engineering, and in 2002 with a Master of Science degree in Civil Engineering.

4. Since 2002 I have practiced continuously as a Consulting Engineer and Project Manager for WWC Engineering. This work encompasses over 13 years of direct experience with ISR uranium mining, uranium mine permitting, groundwater modeling, mine infrastructure design and construction, and economic modelling.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of Sections 1-5, 16-22, and 24-27 of this PEA.

7. I completed a person inspection of the Gas Hills Uranium Project site on May 24, 2021 for a duration of approximately 4 hours.

8. As defined in Section 1.5 of NI 43-101, I am independent of the issuer, Azarga Uranium Corp.

9. To the best of my knowledge, information, and belief, at the effective date of June 28, 2021, the PEA contains all scientific and technical information that is required to be disclosed to make the PEA not misleading.

10. I have read NI 43-101 and Form 43-101F1, and the PEA has been prepared in compliance with both.

Effective Date: June 28, 2021
Signed Date: August 10, 2021

Signed: /s/ R. Moores
Ray B. Moores, P.E.
WWC Engineering

I, Steven E. Cutler. P.G., of 250 Blue Sky Trail, Bozeman, Montana 59718 do hereby certify that:

1. This certificate applies to the Preliminary Economic Assessment (PEA) entitled "NI 43-101 Technical Report Preliminary Economic Assessment Gas Hills Uranium Project Fremont and Natrona Counties, Wyoming, USA" prepared for Azarga Uranium Corp. with an effective date of June 28, 2021.

2. I am a Consulting Geologist, affiliated with Roughstock Mining Services, LLC at 250 Blue Sky Trail, Bozeman, Montana 59718, USA. I am Professional Geologist, AIPG #11103, in good standing.

3. I was awarded a B.S. in Geology from Montana State University, Bozeman, Montana in 1984, and an M.S. Degree in Economic Geology from the University of Alaska-Fairbanks, Fairbanks, Alaska in 1992.

4. Since 1984 I have practiced continuously as a Geologist, Supervisor, Chief Mine Engineer, Technical Services Manager, and Consultant for mining firms, and other mining consulting firms. My previous experience encompassed a wide variety of mining and metal types, resource and reserve estimation evaluations, mining planning, equipment selection, and cost analyses. I am the Author of several publications on subjects relating to the mining industry.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of Sections 1-15 and 23-27 of this PEA.

7. I completed a person inspection of the Gas Hills Uranium Project site on October 7, 2020 for a duration of 4 hours, and May 24, 2021 for a duration of approximately 4 hours.

8. As defined in Section 1.5 of NI 43-101, I am independent of the issuer, Azarga Uranium Corp.

9. To the best of my knowledge, information, and belief, at the effective date of June 28, 2021, the PEA contains all scientific and technical information that is required to be disclosed to make the PEA not misleading.

10. I have read NI 43-101 and Form 43-101F1, and the PEA has been prepared in compliance with both.

Effective Date: June 28, 2021
Signed Date: August 10, 2021

Signed: /s/ S. Cutler
Steven E. Cutler, P.G.
Roughstock Mining Services