NI 43-101 Technical Report
Preliminary Economic Assessment
Dewey-Burdock Project

Effective Date: April 17, 2012

Report date April 17, 2012

Report Prepared for:

Powertech Uranium Corp.

Report Prepared by

srk consulting

SRK Consulting (U.S.), Inc.
194300.030
April 2012

NI 43-101 Technical Report
Preliminary Economic Assessment
Dewey-Burdock Project
Custer and Fall Counties, South Dakota

Powertech Uranium Corp.

5575 DTC Parkway
Suite #140
Greenwood Village, CO 80111

SRK Consulting (U.S.), Inc.
Suite 3000, 7175 West Jefferson Avenue
Lakewood, CO 80235

Endorsed by QP(s):

Allan V. Moran, R.G., CPG – SRK Consulting
Frank A. Daviess, MAusIMM
John I. Kyle, P.E., Lyntek Incorporated

SRK Project Number 194300.030

April 2012

Summary (Item 1)

The Dewey-Burdock Project is an advanced-stage uranium exploration project located in South Dakota, controlled 100% by Powertech Uranium Corp. (Powertech). Powertech conducted confirmatory drilling to verify the results of extensive historic drilling, established current Indicated and Inferred classified resources, and conducted hydrogeologic tests to evaluate the project as an in situ leach and recovery (ISR) mining and uranium production operation. Powertech, conceptually designed well fields and a uranium recovery processing facility, and developed cost estimates for a proposed ISR operation that would be similar to existing uranium ISR operations currently in production nearby in Nebraska and Wyoming. Lyntek Inc. reviewed and confirmed the designs and cost estimates as part of preparing this report.

SRK reviewed and compiled all project information into this Preliminary Assessment NI 43-101 technical report document.

The Dewey-Burdock uranium mineralization is comprised of “roll-front” type uranium mineralization hosted in several sandstone stratigraphic horizons that are hydrogeologically isolated and therefore amenable to ISR technology. The deposits, in the Dewey and adjacent Burdock areas contain Indicated resources totaling 1.56 million tons @ 0.214% eU_3O_8 for 6.68 million contained pounds U_3O_8, and an additional Inferred resource of 1.26 million tons @ 0.179% eU_3O_8 for 4.53 million contained pounds U_3O_8, at a 0.5GT cutoff.

The project has undergone additional evaluation such that an updated report is necessary. Changes in the project include advanced permit and license application work, additional hydrogeologic work and new county property tax incentives. These changes support modification of the mine planning sequence, operating philosophy, new capital expenditures, and refinement of the project economic analysis.

The proposed ISR project envisions a 1.0 million pound per year U_3O_8 yellowcake production rate, and a 75% ultimate recovery; generating a nine year mine life. The base case project economics for this Preliminary Assessment at a long-term uranium price of USD65/lb U_3O_8 are positive, and indicate a pre-tax NPV of USD109.0 million at an 8% discount rate, with an IRR of 48%. Initial capital costs are estimated at USD54.3million and cash operating costs of USD33.31/lb U_3O_8. The Dewey uranium ISR project is sufficiently attractive from a technical and economic perspective that it justifies pursuit by Powertech toward completion of project permitting and project development. Using data from TradeTech’s “Long Term Uranium Price Indicator” as published in http://www.uranium.info, a three year trailing average of monthly long term prices from the period January 2009 to December 2012 was calculated to be USD64.33. A sales price of USD65.00 was used in the base case economic analysis.

Property Description and Ownership

The Dewey-Burdock project is located in southwest South Dakota and forms part of the northwestern extension of the Edgemont Uranium Mining District, a former open-pit uranium-producing district on the southwest flank of the Black Hills. The project area has been extensively explored by drilling prior to acquisition by Powertech. The project is located in Townships 6 and 7 South Range 1 East of the Black Hills Prime Meridian, Custer and Fall River counties. The nearest population center to the Dewey-Burdock Project is Edgemont, South Dakota (population 900) located on US Highway 18, 14 miles east from the Wyoming-South Dakota state line.

Powertech controls approximately 17,800 acres of mineral rights and 14,500 acres of surface rights in the project area. Powertech acquired leases from the various landowners with several levels of payments and obligations. In the portions of the project area where Powertech seeks to develop an ISR uranium operation, both surface and minerals are leased. Generally, Powertech granted the mineral owners an approximate 5% overriding royalty payment out of sales of the product. The surface owners will be paid an approximate 2% overriding royalty. In addition, surface owners are paid an annual rental to cover the cost of surface use and damage. The eventual payments of royalty to the surface owners are reduced by the amount of bonuses and rentals to be paid. The basic terms of the leases are a five-year initial term and are renewable two times for five years. In the case of production, all leases will be held as long as minerals are produced.

In December 2008, Powertech purchased a large block of properties in South Dakota and Wyoming from Bayswater Uranium Corporation (Bayswater). There were 37 mining claims (740 acres) located adjacent to Powertech properties within the Dewey-Burdock Project. Bayswater (and others) retained a Yellowcake Royalty of 5% on these properties.

Geology and Mineralization

Uranium deposits in the Dewey-Burdock Project are sandstone, roll-front type. This type of deposit is usually “C”-shaped in cross section, with the down gradient center of the “C” having the greatest thickness and highest tenor. These “roll fronts” are typically a few tens of feet wide and often can be thousands of feet long. Uranium minerals are deposited at the interface of oxidizing solutions and reducing solutions. As the uranium minerals precipitate, they coat sand grains and partially fill the interstices between grains. Thickness of the deposits is generally a factor of the thickness of the sandstone host unit. Mineralization may be 10 to 15ft thick within the roll front while being inches to feet thick in the trailing tail portions. Deposit configuration determines the geometry of the well field and is a major economic factor in ISR mining.

The tectono-stratigraphic setting for roll-front uranium ores is in arkosic and fluvial sandstone formations deposited in sedimentary basins. Host rocks are continental fluvial and near-shore sandstone. The principal ages of the host rocks at Dewey-Burdock are Early Cretaceous (144–97 Ma); the uranium host units are the marginal marine Lakota and Fall River sandstone units within the Inyan Kara Group of earliest Cretaceous Age.

Ore mineralogy consists of uraninite, pitchblende, coffinite, with associated vanadium in some deposits. Typical alteration in the roll-front sandstone deposit includes oxidation of iron minerals up-dip from the front and reduction of iron minerals down-dip along advancing redox interface boundaries.

The primary ore control of uranium mineralization in the Dewey-Burdock Project is the presence of permeable sandstone within a major sand channel system that is also a groundwater aquifer. The source rock for uranium that infiltrated the aquifer is considered the uranium-rich tuffaceous ash White River formation, which was originally deposited unconformably on top of the sub-cropping sandstone units of the Lakota and Fall River formations. The source of reductant that effected a precipitation of the uranium is postulated to be carbon and carbon trash that occurs in varying quantities throughout the Inyan Kara group sedimentary rocks, and/or hydrocarbons, which are also regionally present in these formations.

Exploration

Historic exploration drilling for the project area was extensive and is discussed in Section 4 (History). In 2007 and 2008, Powertech conducted confirmatory exploration drilling, including 155 holes. In addition, Powertech installed water wells for water quality testing and for aquifer testing. This work confirmed and replicated the historic drill data and provided some in-fill definition of uranium roll-fronts. In addition, the hydrogeologic investigations defined the pre-mining water quality and determined the capacity for the uranium-bearing aquifers to allow for circulation of ISR recovery fluid, and confinement of the fluids to the aquifer.

Mineral Resource Statement

Powertech used the verified historic drill data, and its own confirmatory drilling results to estimate in situ uranium resources for the Dewey Burdock Project. Powertech resources were estimated by an independent consultant, Jerry Bush, and audited by SRK. The Powertech-reported resources are shown in Table ES.1, and further described in Section 12 of this report.

Table ES.1: 2010 Dewey-Burdock Resources – 0.50 GT Cut-off (Bush 2010)

Classification	Tons	Average Grade	Pounds (U_3O_8)
Indicated Resources	1,561,560	0.214 % U_3O_8	6,684,285
Inferred Resources	1,259,438	0.179 % U_3O_8	4,525,500

Mineral resources that are not mineral reserves do not have demonstrated economic viability. This preliminary assessment is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary assessment will be realized.

The Dewey-Burdock mineralization is located at depths of 500 to 800ft below surface at Dewey and 300 to 550ft below surface at Burdock, as several stacked horizons, which are sinuous and narrow but extend over several miles along trend of mineralization. The deposits are planned for ISR mining by development of individual well fields for each mineralized horizon. A well field will be developed as a series of injection and recovery wells, with a pattern to fit the mineralized horizon, typically a five spot well pattern on 70 to 100ft drillhole spacing. Hydrogeological work suggests that an average 100ft pattern will be acceptable for the Dewey-Burdock project.

The Dewey-Burdock project has two distinct locations, Dewey, and Burdock, which conceptually will be ISR-mined sequentially, with the Burdock site being mined first. The Burdock site is planned for a central uranium recovery and processing plant with Dewey being the location of a satellite plant. Loaded uranium-bearing resin will be trucked from the Dewey satellite Ion-Exchange (IX) facility to the Burdock central processing plant. Confined groundwater aquifers containing the uranium are locally artesian to the surface or near surface. This characteristic is highly favorable for ISR and will aid in the dissolution of oxygen in the lixiviant that is used in the recovery process.

Total recovery of uranium from the mineral deposits is projected at 75%. This value is an estimate based on similar existing operations in Powertech's experience profile. Leaching studies have been conducted on the mineralization in a lab setting to support this estimate of recovery. Therefore, the overall potential yellowcake production is estimated to be 8.41 million pounds U_3O_8. Considering the well field development and production schedule, the life of mine, at a production rate of 1,000,000 pounds per year U_3O_8 is nine years.

Project Infrastructure

The Dewey-Burdock area is well supported by nearby towns and services. Major power lines are located across the project and can be accessed for electrical service for the mining operation. A major rail line (Burlington Northern-Santa Fe) cuts diagonally across the project area. A major railroad siding occurs at Edgemont and will assist in shipment of materials and equipment for development of the producing facilities.

Market Studies

The uranium commodity markets are volatile. Due to the increased focus on nuclear energy, and the potential for uranium supply issues related to expansion of the industry, long-term contract prices are higher than the spot price. Long-term contact prices have some variance due to individual pricing terms and potential for adjustment over the sales period.

Revenue from U_3O_8 sales are based upon a market price of USD65.00/lb. Using data from TradeTech's "Long Term Uranium Price Indicator" as published in http://www.uranium.info, a three year trailing average of monthly long term prices from the period January 2009 to December 2012 was calculated to be USD64.33. A sales price of USD65.00 was used in the base case economic analysis. This pricing approach is consistent with industry financial practices for commodity pricing at this stage in resource development. Freight charges are estimated to be USD0.15/lb.

Environmental Studies, Permitting and Social or Community Impact

Jurisdiction of the permitting process for Dewey-Burdock falls to the U.S. Nuclear Regulatory Agency (NRC), Environmental Protection Agency (EPA), and the South Dakota Department of Environmental and Natural Resources. In terms of project schedule, the most significant permit is the Source and By-Product Materials License administered by the NRC. In October 2009, the NRC deemed Powertech's application to be administratively complete. In January 2010, the NRC issued a Notice of Intent to prepare a Supplemental Environmental Impact Statement for the Dewey-Burdock Project. At this time, there are no characteristics or specific difficulties associated with the Dewey-Burdock Project that are considered unusual or should cause undue delay in obtaining the required permits and licenses for development and operation of a uranium ISR facility.

As of the date of this report, Powertech anticipates that NRC will proceed to a draft license with the Safety Evaluation Report (SER) scheduled in August 2012. The final Supplemental Environmental Impact Statement is scheduled for January through May 2013.

The project is within an area of low population density characterized by an agriculture based economy with generally low level of other types of commercial and industrial activity. The project is expected to bring a significant economic benefit to the local area in terms of tax revenue, new jobs, and commercial activity supporting the project. Previously, a uranium mill was located at the town of Edgemont, and a renewal of uranium production is expected to be a locally favorable form of economic development.

Economic Analysis

Powertech technical and management staff have prior experience with ISR uranium mine development and operations. Therefore, Powertech has developed much of the preliminary well field design and cost estimates in-house, with vendor quotes as support in many instances. Lyntek Inc. provided independent preliminary engineering design support for the surface uranium recovery and processing facilities, and is a major contributor to the estimate of project costs for Dewey-Burdock.

SRK completed a preliminary economic analysis for the Project. The base case economic analysis results indicate a pre-tax NPV of USD109 million at an 8% discount rate with an IRR of 48% (Table ES.2). Payback will be in the fourth quarter of production, Year 2.

The LoM plan and economics are based on the following:

- CIM-compliant Mineral Resources;
- A mine life of nine years;
- A cash operating cost of USD33.31/lb-U3O8;
- Initial capital costs of USD54.3million; and
- No provision for salvage value is assumed in the analysis.

Table ES.2: Technical Economic Results ($000s)

Item	Units	Value
Net Revenue		
U_3O_8 Price ($/lb)	$/lb-$U_3O_8$	$65.00
Prod.	klbs	8,407
Gross Revenue	**$000s**	**$546,477**
Transportation	$000s	($1,261)
Severance Tax	$000s	($24,591)
Surface Royalty	$000s	($10,385)
Mineral Royalty	$000s	($18,822)
Property Tax	$000s	($9,100)
Net Revenue	$000s	$482,317
Production Costs		
Central Plant/Ponds	$000s	$32,877
Satellite/Well Field	$000s	$110,713
Restoration	$000s	$8,255
Decommissioning	$000s	$9,168
G&A Labor	$000s	$14,797
Corporate Overhead	$000s	$3,900
Contingency	$000s	$36,194
Production Costs	**$000s**	**$215,905**
Gross Margin	**$000s**	**$266,412**
Project Capital (Equity)	$000s	($71,497)

Item	Units	Value
Income Tax	$000s	0
Free Cash Flow	**$000s**	**$194,915**
IRR	**-**	**48%**
Present Value	**$000s**	**$109,117**

This Preliminary Assessment has been conducted as a study of the potential ISR mineability of the Project, utilizing industry standard criteria for Scoping Level studies, which is normally at ±35 to 40% on costing estimates. In many cases, the cost estimates and supporting studies provided by Powertech are defined to a prefeasibility level, with vendor quote backup; as a result, contingency costs for the base case are set at 20%. This report includes the economic basis for the preliminary assessment and any qualifications and/or assumptions of the responsible qualified persons.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. This preliminary assessment is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary assessment will be realized.

Interpretation and Conclusions

SRK concludes the Dewey-Burdock Project is a sufficiently drill-defined sandstone-hosted roll front uranium deposit that contains approximately 6.7 Mlbs U_3O_8 as Indicated mineral resource and 4.5 Mlbs U_3O_8 as Inferred mineral resource, such that continued work is justified by Powertech towards the goal of ISR uranium recovery and production. Historic and current drilling information support the resource estimation defining several stacked horizons of uranium mineralization at the Dewey and Burdock areas. All basic information necessary to evaluate the conceptual development of the resources by ISR methods has been addressed at a scoping level study to determine the project's potential economic viability.

Powertech's plan is to fully permit to operation and upon receiving all permits, to proceed to delineate the initial well fields, conduct baseline and hydrogeologic studies of the initial well fields, and construct the processing facilities. Upon review of the detailed site specific well field data, including additional baseline, resource definition, and hydrogeologic data, Powertech plans to design, construct, and operate their well fields. SRK recommends that Powertech continue the ongoing process of project permitting toward eventual project development and well field construction.

Powertech will permit for full production and will obtain the information to satisfy the pre-feasibility study, which is ISR recovery information and operation cost details, during the initial mine start-up phase – during the processing of the first set of ISR wellfield cells that are brought on-line. To achieve initial well field construction, Powertech will require capital expenditures of USD54.3million over a 1 year period.

Powertech will determine whether or not it will file a pre-feasibility report prior to commencing capital construction for production, with the understanding that the parameters of actual ISR recovery and wellfield production costs are the only items lacking to achieve a pre-feasibility level understanding and a statement of reserves for Dewey-Burdock.

Recommendations

SRK concurs with Powertech's approach to proceed from preliminary economic assessment to a production decision, with the caveat that the reader understands the risks of investing large initial capital for a production scale recovery plant. This is a business decision and risk that Powertech is willing to accept based on prior ISR production history on similar deposits elsewhere in the U.S.

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Appendix A Certificates of Authors

1 Introduction (Item 2)

Powertech (USA) Inc.,a wholly-owned subsidiary of Powertech Uranium Corp. (Powertech), commissioned SRK Consulting (U.S.), Inc. (SRK) to prepare a Canadian National Instrument 43-101 (NI 43-101) format Preliminary Assessment for Powertech's Dewey-Burdock Uranium Project (Dewey-Burdock or the Project) south of Edgemont, South Dakota. The Dewey-Burdock project is an advanced-stage exploration project with established uranium resources and project conceptual designs for In Situ Recovery (ISR) of uranium. Powertech controls 17,800 acres of fee mineral ownership and 14,500 acres of surface ownership that covers the project areas of uranium mineralization.

1.1 Terms of Reference and Purpose of the Report

The purpose of this Preliminary Economic Assessment is to provide the reader with a brief review of the historical and current exploration activities conducted at the Dewey-Burdock Uranium Project, an independent audit of Powertech's most recent resource estimate, and a discussion of the elements of the scoping study conceptual design, including a preliminary economic assessment of the project's potential economic viability. Mr. Jerry Bush, P.G., a Qualified Person and independent professional geologist with uranium exploration experience in the Black Hills region estimated the uranium resources for the Project, as documented in the Updated National Instrument 43-101 Technical Report, announced on March 1, 2010.

The corporate address of Powertech is 5575 DTC Parkway, Suite 140, Greenwood Village Colorado, telephone 303-790-7528, with project field offices in Hot Springs and Edgemont, South Dakota. Powertech is a publicly traded company listed on the Toronto Stock Exchange (TSX) under the symbol "PWE"; and has Canadian corporate offices at Suite 3023, Three Bentall Centre, 595 Burrard Street, PO Box 49212, Vancouver, BC V7X 1K8, telephone: 604-685-9181.

SRK used Form NI 43-101F1 as the format for this report. SRK prepared this report using the industry accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Best Practices and Reporting Guidelines" for disclosing mineral exploration information, the Canadian Securities Administrators revised regulations in NI 43-101 (Standards of Disclosure For Mineral Projects) and Companion Policy 43-101CP, and CIM Definition Standards for Mineral Resources and Mineral Reserves (November 27, 2010).

SRK completed a Preliminary Assessment NI 43-101 technical report for Dewey-Burdock with an effective date of April 23, 2010, a report date of July 06, 2010, and an updated report dated February 07, 2011, which was filed on SEDAR by Powertech on February 08, 2011. The project has undergone additional evaluation such that an updated report is necessary. Changes in the project include advanced permit and license application work, additional hydrogeologic work and new county property tax incentives. These changes support modification of the mine planning sequence, operating philosophy, new capital expenditures, and refinement of the project economic analysis.

1.2 Qualifications of Consultants (Item 3)

Allan V. Moran, R.G., C.P.G.: Allan Moran is a Principal Geologist with SRK, with 40 years' experience in exploration, exploration management, and project evaluations, including 10 years direct experience with uranium exploration methodologies and evaluation of uranium deposits for resource estimation and project development. He is the Qualified Person for all sections of this

Technical Report, excluding Sections 11, 12, 14 and 18 of this Technical Report. Mr. Moran conducted a site visit to the Dewey-Burdock Uranium Project on December 09, 2009.

Frank A. Daviess, MAusIMM: Frank Daviess is a Principal Resource Geologist with SRK, with 38 years total industry experience, including 11 years direct experience with uranium exploration and evaluation of uranium deposits for resource estimation, and 26 years conducting resource estimation. He is a Qualified Person for this report and is responsible for the resource estimation presented in Section 12 of this report.

John I. Kyle, P.E. Lyntek: John Kyle is a Vice President of Lyntek, Inc. and is a Professional Engineer with over 36 years of experience. He has been involved in over 20 projects evaluating uranium operations on a global basis. He has mine operating experience as well as consulting experience generating costs and economic analysis on a host of mineral deposits and mining operations. He is a qualified Person for this Technical Report and responsible for the processing portions of Sections 11, 14 and 18 of this report.

1.3 Reliance on Other Experts (Item 3)

The Qualified Persons (QP), Allan V. Moran and Frank Daviess, examined the historical and current data for the Dewey-Burdock Uranium Project provided by Powertech with respect to resources, and relied upon that basic data to support the statements and opinions presented in this Technical Report. Mr. Moran and Daviess reviewed and verified the basic drillhole data that supports the resource estimates and audited the resource estimation methodology used by Powertech.

Mr. Moran supervised and relied on the work input by SRK contributors, Matt Hartmann (hydrogeology, wellfield design and costs, permitting, and environmental), Vladimir Ugorets (Hydrogeology), Terry McNulty (review of metallurgy, processing methods and costs), and Val Obie (technical economic model). Each expert, in their respective areas of expertise, examined the data presented by Powertech and verified the data as to sufficiency of the information, accuracy and representativeness of the data, and validity of the associated costs that were used in the preliminary assessment; benchmarked against known similar projects. The expert's verification included:

Matt Hartmann:

- Reviewed hydrogeologic field testing program and resultant data for adequacy in characterization of the local groundwater system and evaluated ability of production aquifer to support ISR mining methods. Reviewed groundwater chemistry data utilized for process design and regulatory permitting;
- Well field design criteria, and surface piping layout designs by Powertech were examined and verified as to adequacy of hole spacing, well design/construction/cost, and logistics;
- Assessed local and state uranium mine permitting atmosphere and potential challenges to the permitting process. Reviewed Powertech's federal and state permit applications completed to date, and work completed on those still in process; and
- Evaluated mine waste streams and options available to Powertech to ensure that disposal paths existed for all materials.

Vladimir Ugorets:

- Reviewed hydrogeologic data and groundwater model completed by PetroTek to support federal and state permit applications, and completed analytical modeling to verify well field spacing.

Terry McNulty:

- Examined the basic metallurgical lab data of leachability tests on core samples, which support the determinations of expected Uranium recovery by ISR methods;
- Reviewed the Lyntek design process flow sheet for uranium recovery developed for the ISR recovery plant; and
- Reviewed the capital and operating costs estimates developed by Lyntek with respect to other known ISR uranium recovery plants.

Val Obie:

- Updated the technical economic model used in this Preliminary Assessment

Powertech provided the preliminary wellfield design and surface piping facilities parameters to Lyntek Incorporatred (Lyntek) as the basis for Lyntek's design of the process flow sheet and processing plant, and capital and operating costs. Lyntek's work is relied upon as they are Qualified Person's for this report.

John Kyle:

- Directed the activities involving the design of the processing of solutions and restoration fluids for the facility as well as generating the capital and operating costs for the plant.

In the opinion of the authors, the project data is present in sufficient detail to provide an accurate representation of the Project.

It is the opinion of the QPs that there are no material gaps in the information presented for the project. Sufficient information is available to prepare this report, and any statements in this report related to deficiency of information are directed at information, which, in the opinion of the author, should be sought as the project progresses.

The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Powertech, SRK, and the authors. SRK will be paid a fee for its work in accordance with normal professional consulting practice.

1.3.1 Sources of Information

The authors relied upon the work of Powertech to describe the land tenure and land title (Sections 2.1 – Property Location and 2.2 – Mineral Titles). SRK obtained this information from the updated NI 43-101 Technical Report, authored by Mr. Jerry Bush, P.G, consultant to Powertech. SRK relied on Powertech to provide the description of Royalties, Agreements and Encumbrances in Section 2.3.

SRK reviewed the hydrology, wellfield design, surface piping designs and costing generated by Powertech in sufficient detail to concur that the data are reasonable for the purpose of this Preliminary Assessment.

The authors reviewed project data provided by Powertech, conducted site visits to confirm the data and mineralization, and reviewed the project site access and layout. In addition, wellfield designs were reviewed by SRK for adequacy and cost estimates in comparison to SRK experience with other known similar projects.

SRK is responsible for the overall content of this report. The sources of information for the various key technical aspects of this report were contributed as follows as follows:

- Sections 2 through 9 - Information provided by Powertech (Powertech's NI 43-101 on resources dated March 1, 2010) and reviewed and augmented where necessary by SRK and accepted by SRK;
- Section 10 – Data Verification: SRK verified the resource database;
- Section 11 – Mineral Processing and Metallurgical Testing: Data was derived from Powertech and Lyntek and was reviewed, supplemented and accepted by SRK;
- Section 12 – Mineral Resource and Mineral Reserve Estimates: Powertech's NI 43-101 Technical report on Resources dated March 1, 2010, by Qualified Person Mr. Jerry Bush, P.G.; and audited by SRK;
- Section 13 – Mining Methods: : Data was derived from Powertech and Lyntek and was reviewed, supplemented and accepted by SRK;
- Section 14 – Recovery Methods: Data was derived from Powertech and Lyntek and was reviewed, supplemented and accepted by SRK; and
- Section 18 – Capital and Operating Costs: Data was derived from Powertech and Lyntek and was reviewed, supplemented and accepted by SRK.

This report includes technical information, which requires subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently can introduce a margin of error. Where these rounding errors occur, SRK does not consider them material.

1.4 Effective Date

The effective date of this PEA is April 17, 2012, the effective date of completion of the technical economic model used in the economic analysis.

1.5 Units of Measure

The metric (SI System) units of measure are used in this report unless otherwise noted. Analytical results are reported as a percentage of chemical element or as parts per million (ppm). A glossary of terms used in this report is provided in Section 25 of this report.

2 Property Description and Location (Item 4)

Section 2 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

2.1 Project Location

The Dewey-Burdock Project is located in southwest South Dakota and forms part of the northwestern extension of the Edgemont Uranium Mining District. The project area is located in Townships 6 and 7 South Range 1 East of the Black Hills Prime Meridian. The county line dividing Custer and Fall River counties in South Dakota lies at the confluence of Townships 6 and 7 South (Figure 2.1).

2.2 Mineral Titles

At the time of the writing of the original Dewey-Burdock technical report in December 2005, the project consisted of federal claims, private mineral rights and private surface rights covering 11,180 acres of mineral rights and 11,520 acres of surface rights. Since that time, Powertech consolidated its land position by staking an additional 61 mining claims and aggressively acquiring surrounding property with resource potential. At the time of this report, Powertech controls approximately 17,800 acres of mineral rights and 14,500 acres of surface rights in the project area (Figure 2.2).

2.3 Royalties, Agreements and Encumbrances

Powertech acquired leases from the various landowners with several levels of payments and obligations. In the portions of the project area where Powertech seeks to develop the uranium, both surface and minerals are leased. Powertech granted the mineral owners a 5% overriding royalty payment out of sales of the product. The surface owners will be paid a 2% overriding royalty as incentive to support the development of uranium under their lands. In addition, surface owners are paid an annual rental to cover the cost of surface damage and to additionally compensate for reduction of husbandry grazing during field operations. All bonus and rental payments are "advance royalty" payments and will be credited against future production royalties. The basic terms of the lease are a five-year initial term and are renewable two times for five years each extension. Additional bonuses are paid to the landowners at the time of renewal. All leases were signed in 2005 and the leases are in force through 2020 without production. In the case of production, all leases will be held as long as minerals are produced.

In December 2008, Powertech purchased a large block of properties in South Dakota and Wyoming from Bayswater Uranium Corporation (Bayswater). There were 37 mining claims (740 acres) located adjacent to Powertech properties within the Dewey-Burdock Project. Bayswater (and others) retained a Yellowcake Royalty of 5% on these properties.

In January 2009, Powertech entered into an agreement with Neutron Energy Inc. (NEI) to exchange some of Powertech's noncore properties in New Mexico and Wyoming for acreage located within and adjacent to Powertech's Dewey-Burdock Project in South Dakota. The acreage acquired from

NEI by Powertech consists of approximately 6,000 acres of prospective claims and leases. This acreage has historical drilling and adds future development potential to the project.

The terms of the agreement with NEI provide for the retention of a 30% net proceeds interest by NEI from future production on the acquired acreage and Powertech will be the operator. As additional consideration, Powertech transferred to NEI approximately 360 acres of claims and leases, along with associated historical drilling data, in South Dakota. This acreage is located several miles away from Powertech's Dewey-Burdock Project area and is surrounded by properties staked by NEI.

2.4 Location of Mineralization

The uranium deposits in the Dewey-Burdock Project are classic roll front type deposits occurring in subsurface sandstone channels within the Lakota and Fall River formations of early-Cretaceous age (see stratigraphic column (Figure 2.3)). These fronts are known to extend throughout an area covering more than 16 square miles and having a total length of over 24mi. A map prepared by SKM in 1985, and acquired by Powertech, indicates the regional oxidation reduction boundaries (redox) that control the deposition of uranium mineralization. In addition to the densely (100ft spacing) drilled portions of the redox interfaces where SKM had estimated uranium resources, sparsely drilled extensions of these boundaries total 114mi.

2.5 Environmental Liabilities and Permitting

The Dewey-Burdock project is well advanced in terms of environmental permits, and is positioned to receive the necessary licenses and permits for construction and operation of an ISR facility as early as 2013 with mining operations commencing in 2014.

2.5.1 Residual Environmental Liabilities

The eastern portion of the Burdock project area contains the remnants of uranium mining operations dating from the late 1950s and 1960s. Approximately 200klbs of uranium was extracted via open pit and shallow underground mining methods from the outcropping Fall River Formation. Surface disturbance related to these operations, including open pit workings and waste rock piles have not been reclaimed. At this time, Powertech does not propose ISR operations in this area.

Present operational liabilities are limited to restoration of ground disturbed by drilling operations at the project site. Powertech conducts this work on an ongoing basis

2.5.2 Required Permits and Status

South Dakota has a long history of underground and open pit mining. The South Dakota Department of Environment and Natural Resources administers recently tolled regulations related to in situ uranium development due to duplicative requirements from federal agencies. There are a number of permits and licenses required by federal and state agencies. Table 2.1 lists the required permits, and their current status for the Dewey-Burdock project.

Powertech conducted an environmental baseline data collection program on the Dewey-Burdock site from July 2007 to September 2008. An independent, third-party contract directed sampling and analysis activities to characterize pre-mining conditions related to water, soils, air, vegetation, and wildlife of the site and surrounding areas. Further exploration or drilling permitting for data collection is not expected, nor required, at this time.

Table 2.1: Status of Required Permits for the Dewey-Burdock Project

Permit, License, or Approval Name	Agency	Status
Special, Exceptional, Critical, or Unique Lands Designation Permit	DENR	Approved – 2/2009
UIC Class III Permit	EPA	Submitted – 12/2008 Deemed Complete – 2/2009
Source and By-Product Materials License	NRC	Submitted – 8/2009 Deemed Complete – 10/2009
Plan of Operations	BLM	Submitted – 10/2009 Response to BLM Comments – 1/2010
UIC Class V Permit	EPA/DENR	Submitted – 3/2010 Deemed Complete 4/2010
ISL Large Scale Mine Permit	DENR	TBS – 2nd Q 2012
Groundwater Discharge Plan	DENR	Submitted 3/2012
Water Rights Permit	EPA/DENR	TBS – 2nd Q 2012
Minor Permits: NPDES Permit Drinking Water Permit Septic Tank Permit Stormwater Permit Spill Contingency Plan Hazardous Waste Permit	DENR	TBS – 2nd half Q 2012

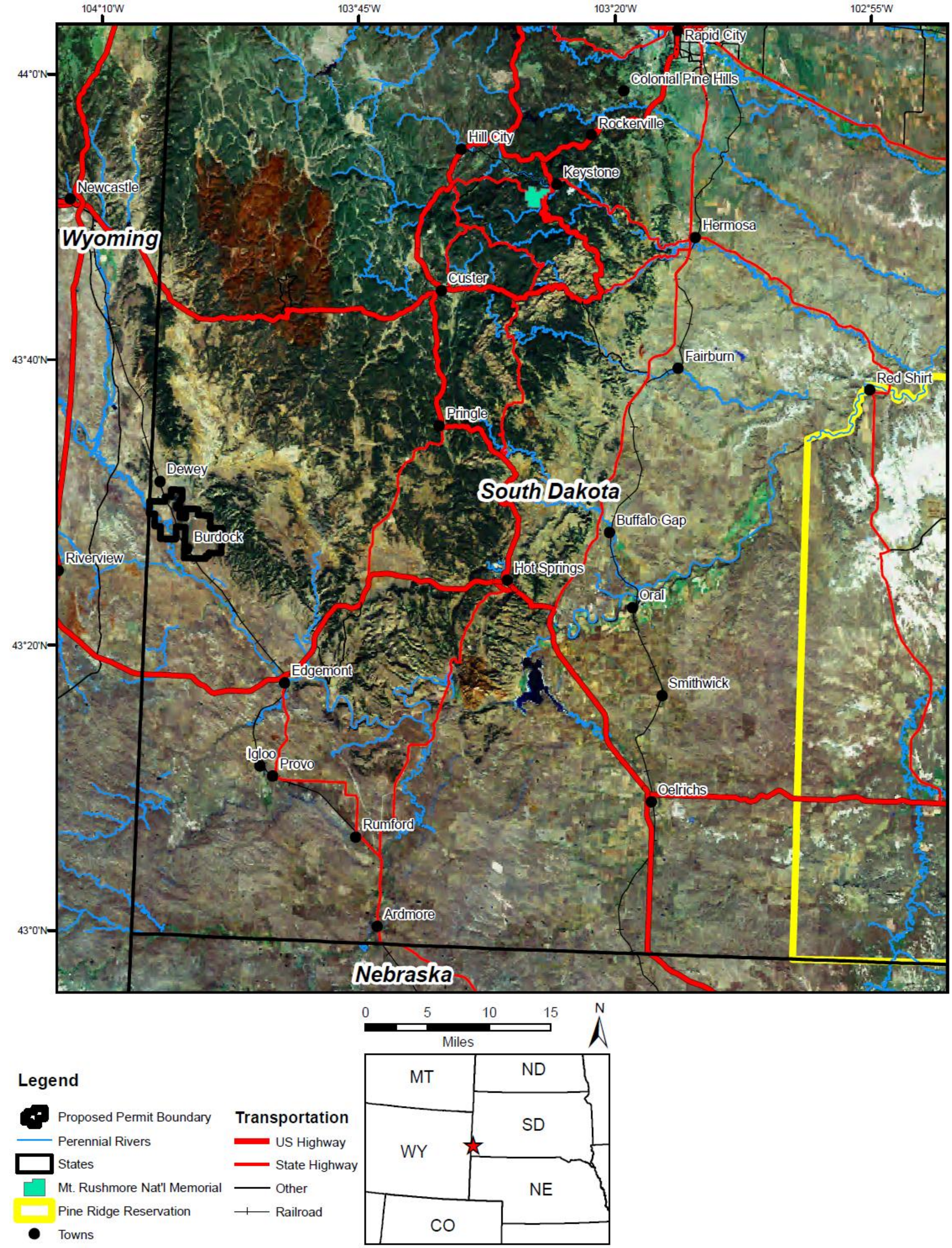
Notes: DENR – South Dakota Department of Environmental and Natural Resources
NRC – Nuclear Regulatory Commission
EPA – Environmental Protection Agency
BLM – Bureau of Land Management
TBS – To be submitted
NPDES – National Pollutant Discharge Elimination System

Jurisdiction of the permitting process for Dewey-Burdock falls to the U.S. Nuclear Regulatory Agency (NRC), Environmental Protection Agency (EPA), and the South Dakota Department of Environmental and Natural Resources. In terms of project schedule, the most significant permit is the Source and By-Product Materials License administered by the NRC. In October 2009, the NRC deemed Powertech's application to be administratively complete. In January 2010, the NRC issued a Notice of Intent to prepare a Supplemental Environmental Impact Statement for the Dewey-Burdock Project. At this time, there are no characteristics or specific issues associated with the Dewey-Burdock project that are considered unusual or should cause undue delay in obtaining the required permits and licenses for development and operation of a uranium ISR facility. NRC stated in December 2011 that responses to the request for additional information filed by Powertech were complete and adequate for NRC review. As of the date of this report, Powertech anticipates that NRC will proceed to a draft license with the Safety Evaluation Report (SER) scheduled in August 2012. The final Supplemental Environmental Impact Statement is scheduled for completion January through May 2013. This schedule is based on published correspondence from the NRC.

As of the date of the updated report, Powertech maintains its permitting path on both options for handling waste water from the proposed ISR plant. However, an industry standard underground injection well is currently seen as the most favorable method of wastewater disposal.

2.6 Other Significant Factors and Risks

There are no other known factors or risks that would limit Powertech's ability to access the Dewey Burdock properties and/or conduct exploration or ISR mining and recovery operations on the property that have no already been addressed elsewhere in this report.



srk consulting

SRK Project No.: 194300.030

194300.030_Powertech_Dewey Burdock PEA_Figure_2.1

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

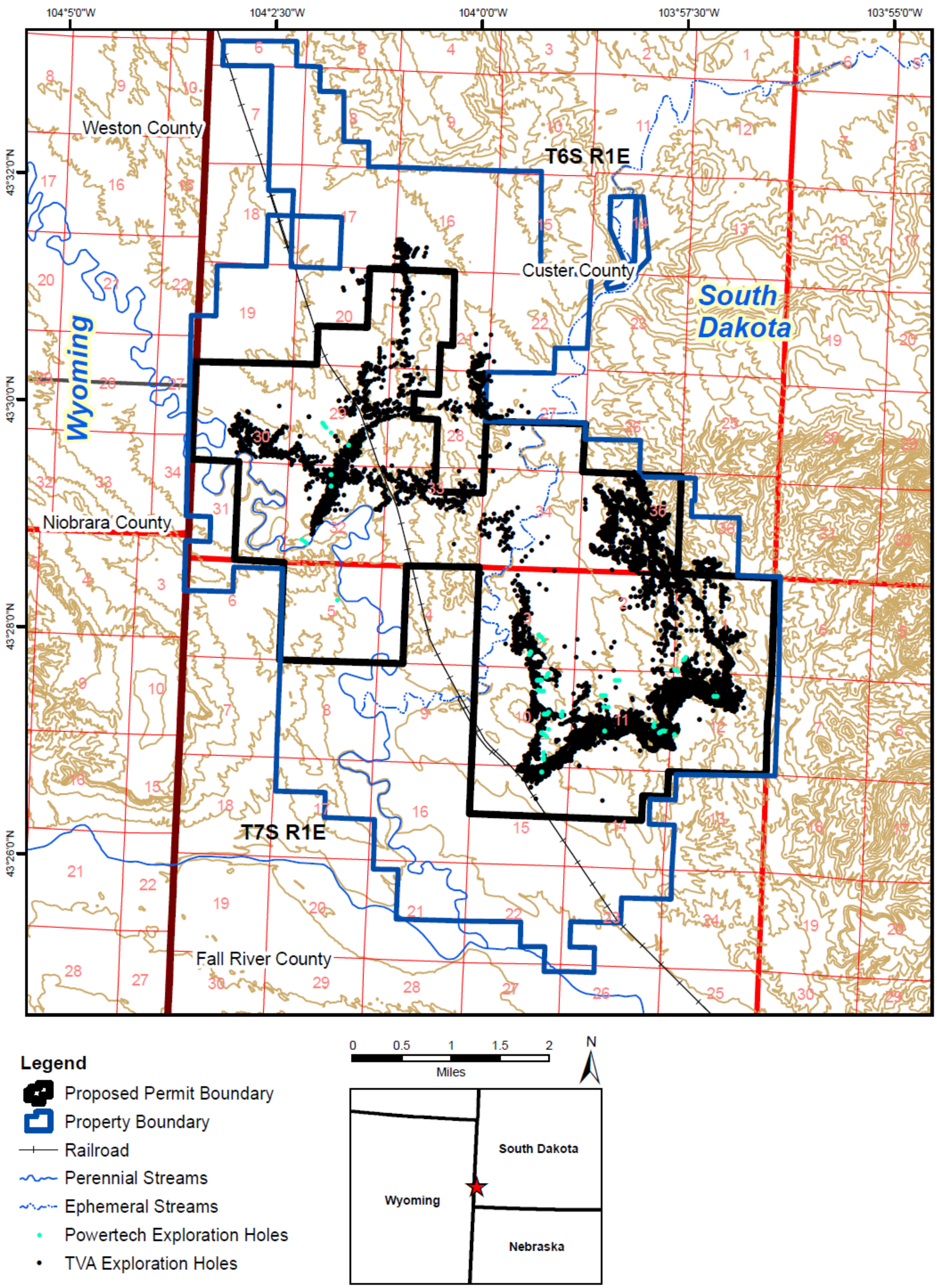
Source: RESPEC & S. Hetrick, 2009

Dewey-Burdock Project Location Map

Date: 20100414

Approved: AM

Figure: 2.1



srk consulting

SRK Project No.: 194300.030

194300.030_Powertech_Dewey Burdock PEA_Figure_2.2

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

Source: S. Hetrick, 2010

Dewey-Burdock Property Map – Land Ownership

Date: 20100414

Approved: AM

Figure: 2.2

PERIOD	FORMATION	Sym-bol	COLUMN	LITHOLOGIC DESCRIPTION	Thickness	CORRELATION
Tertiary	White River Fm.	Twr		Volcanic Ash	0-500 ft	
Cretaceous	Pierre Fm.	Kp		Dark Gray Shale, weather brown, fossiliferous	0-1000 ft	
	Niobrara Fm.	Kn		Gray calcareous shale weathers yellow	0-225 ft	
	Carlile Fm.	Kcr		Gray shale w/ thin ss beds	0-540 ft	
	Greenhorn LS	Kg		Thin bed hard limestone, fossiliferous	0-50 ft	
	Belle Fourche Fm. Mowry Shale Newcastle SS Skull Creek Sh	Kgs		Lt gy shale, bentonite w/concretions Thin brn -yellow ss Black carbonaceous sh	0-870 ft	
	Fall River Fm.	Kfr		Interbed red-brn massive ss and carbonaceous shale	30-165 ft	Uranium Zone
	Fuson Sh.			Gy-purple sh, bentonite, concretions	0-160 ft	
	Minnewasta LS			Lt gy massive ls	0-25 ft	
	Lakota Fm.	Klk		Coarse massive ss, buff-gray coal near base	130-230 ft	Uranium Zone
Jurassic	Morison Fm.	Jm		Green maroon sh	0-125 ft	
	Unkapa Fm	Ju		fine gr massive ss	0-240 ft	
	Sundance Fm	Jsd		red ss interbeds and red to green marine sh	250-450 ft	

srk consulting

SRK Project No.: 194300.030

194300.030_Powertech_Dewey Burdock PEA_Figure_2.3

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

Source: S. Hetrick, 2009

Dewey-Burdock Property Map – Location of Mineralization

Date: 20100414 | Approved: AM | **Figure: 2.3**

3 Accessibility, Climate, Local Resources, Infrastructure and Physiography (Item 5)

Section 3 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

3.1 Access

The nearest population center to the Dewey-Burdock Project is Edgemont, South Dakota (population 900) located on US Highway 18, 14mi east from the Wyoming-South Dakota state line. Fall River County Road 6463 extends northwestward from Edgemont to the abandoned community of Burdock located at the extreme southwest corner of the Dewey-Burdock project, about 16mi from Edgemont. This road is a two lane, all weather gravel road. Fall River County Road 6463 continues north from Burdock to the Fall River-Custer county line where it becomes Custer County Road 769 and continues on to the hamlet of Dewey, a total distance of about 23mi from Edgemont. This county highway closely follows the tracks of the BNSF (Burlington Northern Santa Fe) railroad between Edgemont and Newcastle, Wyoming. Dewey is about 2mi from the northwest corner of the Dewey-Burdock project.

An unnamed unimproved public access road into the Black Hills National Forest intersects Fall River County Road 6463 4.3mi southeast of Burdock and extends northward about 4mi, allowing access to the east side of the Dewey-Burdock project. About 0.9mi northwest from Burdock, an unimproved public access road to the east from Fall River County Road 6463 allows access to the western portion of the Dewey-Burdock project. Private ranch roads intersecting Fall River County Road 6463 and Custer County Road 769 allow access to all other portions of the Dewey-Burdock Project.

3.2 Climate and Vegetation

The Dewey-Burdock Project topography ranges from low-lying grass lands on the project's west side to dissected upwarped flanks of the Black Hills Uplift in the eastern portion of the Project. Low precipitation, high evaporation rates, low relative humidity and moderate mean temperatures with significant diurnal and seasonal variations characterize the area. The general climate of the project area is semi-arid continental or steppe with a dry winter season. The higher Black Hills to the northeast of the project seem to generally moderate temperature extremes especially during winter months.

The annual mean temperature in this area of South Dakota is 46°F. The mean low temperature of 20°F occurs in January. The mean high temperature of 74°F occurs in July. Dewey-Burdock averages 198d/yr of below freezing temperatures. Below freezing temperatures generally do not occur after mid-May or before late September.

The average precipitation in the Dewey-Burdock Project area is 14in. The wettest month is June when rainfall amounts to 2.6in and the driest months are January and December yielding 0.3in each month, usually as snow. The average annual snowfall is 37in.

Three major vegetation regions are noted within the Dewey-Burdock Project area: grassland, ponderosa pine and desert shrub. Grassland vegetation is dominated by buffalo grass, blue gramma grass and western wheatgrass. Ponderosa pine occurs with Rocky Mountain juniper. Shrubs are composed of big sagebrush and black greasewood.

Cultivated crops are limited to and consist of flood irrigated hay land. Less than 5% of the project area includes cultivated farming. Most of the vegetation is given over to cattle. A minor portion of the project area covered by stands of ponderosa pine has been selectively logged for pulpwood. Timber is not a significant industry in the Dewey-Burdock Project.

No threatened or endangered plant species are known to exist on or near the Dewey-Burdock Project.

3.3 Topography and Elevation

The Dewey-Burdock Project is located at the extreme southwest corner of the Black Hills Uplift. Terrain is thus, in part, undulating to moderately incised at the south and west portion of the project. The eastern and northern area is further into the Uplift and is cut by narrow canyons draining the higher hills. Significant drainages on the project are few, with only four or five canyons on the whole project area. These canyons are cut less than 1,000ft in width between the ridges. Slopes may be gentle or steep depending upon the underlying rock type. Sandstones may form cliffs up to 30 to 45ft in height that will extend for only hundreds of feet in length. It is estimated from available topographic maps that 2-wheel drive vehicles can access 75% of the project area and 90% of the known mineralized area.

There is only about 200ft of elevation change across the project area. The lower elevation of 3,600ft above mean sea level is accurate around the south and west side of the project area. The highest elevation at near 3,800ft above mean sea level is at the northeast portion of the area.

3.4 Infrastructure

The Dewey-Burdock area is well supported by nearby towns and services. Major power lines are located across the project and can be accessed for electrical service for the mining operation. A major rail line (Burlington Northern-Santa Fe) cuts diagonally across the project area. A major railroad siding occurs at Edgemont and will assist in shipment of materials and equipment for development of the producing facilities. Confined groundwater aquifers containing the uranium are locally artesian to the surface or near surface. This characteristic is highly favorable for ISR and will aid in the dissolution of oxygen in the lixiviant that is utilized in the recovery process.

Nearby population centers indicate there will be no difficulty in finding housing for the relatively small staffing level (e.g., less than 100 employees) that is typical of an ISR operation. Skills that are employed in ISR mining are typically found in regional population centers. The local communities of Edgemont and Hot Springs offer sources for labor, housing, offices and basic supplies.

All leases are designed to have maximum flexibility for emplacement of tanks, out buildings, storage area and pipelines. The topography is relatively low lying and undulating and is conducive for the development of ISR operations.

The project site has no current facilities or buildings. The only site facilities include a Powertech installed weather monitoring station, radiological monitoring stations, and monitor wells (capped wellheads), all accessible by dirt access roads.

3.5 Sufficiency of Surface Rights

The majority of Powertech's land ownership is composed of mining claims on BLM land, and private surface and minerals. The access to these lands, as stated in Section 2.2 – Mineral Titles is controlled by surface rights held by Powertech, or on public access BLM lands. There are no significant limitations to surface access and usage rights that might affect Powertech's ability to drill and conduct ISR mining and uranium recovery operations on the Dewey-Burdock properties.

4 History (Item 6)

Section 4 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of February 5, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

4.1 Ownership

The surface and minerals rights of properties within the Dewey-Burdock Project may not be owned by the same entity. In years past, when the surface real estate was sold, the owner retained ownership of the minerals. Other properties were homesteaded under the 1916 Homestead Act and the mineral rights were reserved by the U.S. Government. Uranium minerals were discovered in the Dewey-Burdock Project area as early as 1952 and were soon developed by open pit, adit, or decline shallow underground methods. Production came from small mining companies leasing the mineral rights from either the surface/mineral owner or the surface/mining claim owner. By the mid-1960s, these surface uranium deposits came under the control of Susquehanna Western Corp. (SW) who had purchased the process mill located in Edgemont. SW mined out most of the known, shallow uranium deposits before closure of the mill in the late 1960s.

During the uranium boom of the 1970s, several companies returned to the Dewey-Burdock area, acquired leases and began further exploration for deeper deposits. During this period, exploration groups such as Wyoming Mineral (Westinghouse), Homestake Mining Co., Federal Resources and SW discovered much larger, roll-front type uranium mineralization. In the mid-1970s, TVA bought out SW's interest in the Southern Black Hills uranium district, including the closed processing mill in Edgemont. TVA made the Dewey-Burdock area its main exploration target and developed reserves adequate to warrant an underground shaft mine at both the Burdock site and the Dewey site. TVA's plans included a new uranium mill to be located near Burdock.

These plans ended when the price of uranium dropped in the early 1980's. Eventually, TVA dropped their leases and mining claims in the area and the original land/claim owners took over their old mining claims or retained their mineral rights. In 1994, Energy Fuels Nuclear (EFN) acquired the properties covering the uranium roll-front ore bodies within the Dewey-Burdock Project. By 2000, EFN relinquished their land position in the Dewey-Burdock project.

In 2005, Denver Uranium Company, LLC (DU) acquired leases of federal claims, private mineral rights covering 11,180 acres and private surface rights covering 11,520 acres in the Dewey-Burdock area. This acreage position consisted of contiguous blocks of both surface and mineral rights covering the majority of the discovered and delineated uranium in this district. The basic terms of the lease are a five-year initial term, renewable two times every five years.

On February 21, 2006, Powertech and DU entered into a binding Agreement of Purchase and Sale. Pursuant to the terms of the agreement, Powertech agreed to purchase the assets of DU in exchange for the issuance of eight million common shares of Powertech and the assumption of the liabilities of DU, including a bridge loan, but excluding liabilities related to tax and to DU's officers and members. Further to its initiative to consolidate the Dewey-Burdock uranium resource, Powertech also entered into a binding property purchase agreement with Energy Metals Corp.

(EMC) on November 18, 2005 whereby Powertech acquired a 100% interest in 119 mineral claims covering approximately 2,300 acres in the Dewey-Burdock area. EMC retained a production royalty based upon the price of uranium. Powertech issued 1 million shares and 1.25 million share purchase warrants as consideration for the mineral claims.

Since that time, Powertech consolidated its land position by staking an additional 61 mining claims and aggressively acquiring surrounding property with resource potential. At the time of this report, Powertech controls approximately 18,820 acres of mineral rights and 14,770 acres of surface rights in the project area (Figure 2-2).

In December 2008, Powertech purchased a large block of properties in South Dakota and Wyoming from Bayswater Uranium Corporation (Bayswater). There were 37 mining claims (740 acres) located adjacent to Powertech properties within the Dewey-Burdock Project. Bayswater (and others) retained a Yellowcake Royalty of 5% on these properties.

In January 2009, Powertech entered into an agreement with NEI to exchange some of Powertech's non-core properties in New Mexico and Wyoming for acreage located within and adjacent to Powertech's Dewey-Burdock Project in South Dakota. The acreage acquired from NEI by Powertech consists of approximately 6,000 acres of prospective claims and leases. This acreage has historical drilling and adds future development potential to the project.

4.2 Past Exploration and Development

Exploration in the Dewey-Burdock area began in 1952 following discovery of uranium minerals in Craven Canyon in the Edgemont District. Early efforts by the US Atomic Energy Commission and the USGS determined the Lakota and Fall River formations were potential uranium host formations. Early rancher/prospectors made the first uranium discovery in outcrops of the Fall River formation on the Dewey-Burdock Project. The prospectors leased their holdings to local uranium mining companies who first drilled shallow exploration holes with wagon drills and hand-held Geiger probes. Sufficient uranium was discovered to warrant mine development by adit and shallow decline. Susquehanna Western Inc. drilled the first deep holes (600ft) to discover unoxidized uranium roll front ore deposits in the Lakota formation.

After acquisition of the Dewey-Burdock Project by TVA in 1974, its contractor, SKM, evaluated previous exploration efforts and began its own exploration program. Exploration and development drilling continued on the Dewey-Burdock Project until 1986 when TVA dropped its leases. By that time, an estimated 4,000 exploration holes to depths of 500 to 800ft were drilled on the project. The majority of this drilling was done with rotary drills using 4.5 to 5.3in drill bits and drilling mud recovery fluids. Cutting samples were collected at 10ft intervals and were recorded in geologic sample logs.

The completed open hole was probed for uranium intersection by down hole instruments to log the hole for gamma, self potential (SP) and resistivity. Because of caving ground and swelling clays, some holes were logged through the drill stem, which limited the borehole log to gamma response. TVA studied logging holes both open hole and behind pipe in the same hole to estimate a factor to evaluate uranium content when the hole was logged only behind pipe.

TVA completed at least 64 core hole tests on the Burdock portion of the project to calculate equilibrium of gamma response for uranium equivalent measurement versus actual chemical assay. The records do not specify the laboratory used but the results show that the mineralized trends are in equilibrium and that gamma logging will give an accurate measurement of the in place uranium content.

TVA completed an extensive development drilling program as well as a hydrologic study and in 1981 completed an underground mine feasibility study on the uranium deposits within the Dewey-Burdock Project. This study designed an underground mine that proposed five shafts, three on the Burdock deposit and two on the Dewey deposit. Projected mine production was to be 750t/d that would produce 5Mlbs U3O8 using underground mining cutoff grade of 6.0ft of 0.20%. Later studies considered a processing mill to be built on the Burdock deposit that would also process Dewey ores as well as other ores to be mined in the Edgemont District.

All TVA efforts between 1982 and 1986 were expended on exploration drilling assessment work required to hold their lode mining claims. This effort ended in 1988 when the claims and leases were allowed to expire.

In 1992, EFN acquired leases and drillhole information on the Dewey-Burdock Project. Their intention was to mine the uranium deposits by ISR methods. EFN retained RBS&A as an independent consultant to evaluate available data and to identify the location, host formation and uranium resource that might be exploited by ISR methods. EFN did no additional exploration or development drilling on the project. In 2000, International Uranium Corporation, the successor to EFN, dropped their holdings in the Dewey-Burdock Project.

4.3 Historic Mineral Resource Estimates

Historically, the district has had numerous operators exploring for uranium. In 1974, TVA acquired all the mineral interests along the known mineralized trend and looked to develop underground mines to feed ore to a planned expanded mill at Edgemont. The ore trends in the Dewey-Burdock area were drilled on various spacings by TVA. TVA utilized a qualified operator, SKM for resource/reserve estimation and mine planning. SKM was known as a careful and qualified operating company with knowledgeable geologists and engineers who had a reputation for accurate and meticulous methods of reserve/resource estimation.

The first uranium resource estimate for the Dewey-Burdock Project was completed for TVA by SKM in 1981 as part of an underground mine feasibility study. This study used a minimum thickness of 6ft with a minimum average grade of 0.10% U3O8. The feasibility study concluded that 5Mlbs could be mined by underground methods from a total calculated resource of about 8Mlbs. Because of the specific underground mining parameters used in this calculation, this historical resource did not use categories contained in the CIM Definition Standards on Mineral Resources and Reserves. This resource was calculated from assay maps that showed hole location, collar elevation, gamma intercept depth, intercept thickness and, average intercept grade estimated by conventional gamma log grade calculation methods. Powertech does not consider this historical estimate to be equivalent to current mineral resources or mineral reserves as defined in NI 43-101; therefore, and the historical estimates should not be relied upon.

SKM calculated in place “identified resources” for the Project (July 1985) of 10Mlbs (SKM terminology, average grade and tonnage not specified). In addition, within these in-place pounds, SKM estimated underground “mineable reserves” of approximately 5Mlbs U3O8. This estimate was based on a run of mine total of 1,250,000t averaging 0.20% U3O8. This historical estimate by SKM is not compliant with NI 43-101 and the categorizations “identified resources” and “mineable reserves" are not categories contained in the CIM Definition Standards. These U.S. historical resource categories were based primarily on drillhole density within the resource areas. Powertech does not consider this historical estimate to be equivalent to current mineral resources or mineral reserves as defined in NI 43-101; therefore, and the historical estimates should not be relied upon.

As part of the pre-mine feasibility study, TVA and SKM conducted several leach studies that were designed for a conventional milling circuit. The uranium recovery averaged over 99% and indicated that there is no known portion of the mineralization that can be considered refractory. Copies of the same drillhole assay maps were available to RBS&A in 1991. RBS&A evaluated the data for a U.S. uranium company in the expectation that the uranium deposit would be mined by ISR methods. RBS&A considered only those assay map intercepts that had an average grade of 0.05% U3O8 or greater and were of sufficient thickness to yield a grade-thickness (GT) product of 0.50. Over 2,000 electric drillhole logs from the known mineralized areas on the Dewey-Burdock Project were selected for audit in order to correlate and categorize each intercept to a designated sand host unit and to determine an intercept position within a geochemical roll front system. The drillhole electric log data in association with lithologic data determined roll front intervals or horizons within each of 12 lithologic units within the Lakota and Fall River formations. Nine lithologic units were assigned to the Lakota formation and three lithologic units were assigned to the Fall River Formation.

The assay intervals greater than 0.5GT and roll front location were transferred to drillhole location maps. The GT values were then hand contoured. The area inside the 0.5GT contour was measured with a planimeter to estimate the square footage within the area. The arithmetic mean GT intercept within the 0.5GT contour was calculated. Pounds of U3O8 within any 0.5GT contour were estimated using the equation:

$(20 \times A \times GT)/16 = \text{lbs } U_3O_8$

Where "A" is equal to the planimeter area, GT is mean grade-thickness product, and 16ft3/t is rock density. Uranium resources were estimated for each 0.5GT contour closure and these resources were summed for each lithologic unit. All lithologic units were summed to obtain the total uranium resource. This resource estimate was prepared for a U.S. client and did not conform to CIM Standards on Mineral Resources and Reserves. This evaluation by RBS&A indicated a global uranium resource that met economic parameters for ISR mining in the Dewey-Burdock project area totaled 8.1Mlbs U_3O_8, contained in 1,928,000t and averaging 0.21% U_3O_8. Powertech does not consider this historical estimate to be equivalent to current mineral resources or mineral reserves as defined in NI 43-101; therefore, and the historical estimates should not be relied upon.

Powertech purchased all of RBS&A data in 2006. These records and maps document the method of calculation and interpretation of the TVA data. The maps were adjusted to fit Powertech's land position in 2006 and, in accordance to the CIM Standards on Mineral Resources and Reserves; a second resource evaluation was undertaken. These calculations are documented in the original Dewey-Burdock technical report prepared by RBS&A, showing total Powertech inferred resources to be 7.6Mlbs U_3O_8, contained in 1,807,000t and averaging 0.21% U_3O_8. Powertech's in-house experts in ISR mining corroborate the RBS&A calculations.

The historical resources/reserves stated in this Section 4.3 are not reliable or relevant; they are historically reported information only. Key assumptions and estimation parameters used in the above estimates are not completely known to the authors of this report, it is therefore not possible to determine what additional work is required to upgrade or verify the historical estimated as current mineral resources or mineral reserves. The above tonnage and grade figures are not CIM complaint resources, as no Powertech or SRK Qualified Persons have evaluated the data used to derive the estimates of tonnage and grade; therefore the estimates should not be relied upon. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves and Powertech is not treating the historical estimate as current mineral resources or mineral reserves. The estimates of tons and grade or pounds of uranium are presented here only as documentation of what was historically reported for the property.

Powertech presents current and CIM compliant resources for Dewey-Burdock in Section 12 of this report.

4.4 Historic Production

Uranium was first produced in the Dewey-Burdock Project probably as early as 1954 by a local group known as Triangle Mining Co., a subsidiary of Edgemont Mining Co. Early commercial production consisted of a single, shallow open pit. This same group reportedly drove an adit from both sides of an exposed ridge mining a narrow orebody about 600ft in length. These mining efforts produced probably about 1,000 to 2,000lbs of yellowcake that was processed at the mill in Edgemont. This mining was within the Burdock portion of the Dewey-Burdock Project area.

SWI acquired the same area in about 1960 and discovered by shallow drilling sufficient resources in the Fall River formation to warrant open pit mining in five or six pits less than 100ft deep. SWI controlled the mill in Edgemont, which allowed some tolerances in mining low-grade ores that other mining companies could not afford. SWI also had a milling contract with Homestake Mining Co. to buy ore from the Hauber Mine in northeast Wyoming. As long as SWI had the Hauber ore to run through their Edgemont mill they could afford to mine low-grade ores from the Burdock surface mines. When the Hauber Mine was mined out and Homestake ceased ore shipments to Edgemont, SWI closed their mining operations at Burdock and elsewhere in the Black Hills. No actual production records are known from the Burdock mines, which are located east of the current project area, but production is estimated to have been less than 1Mlbs. No subsequent operator in the Dewey-Burdock area produced uranium.

5 Geological Setting and Mineralization (Item 7)

Section 5 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

5.1 Regional Geology

The Black Hills Uplift is a Laramide Age structure forming a northwest trending dome about 125mi long x 60mi wide located in southwestern South Dakota and northeastern Wyoming. The uplift has deformed all rocks in age from Cambrian to latest Cretaceous. Subsequent erosion has exposed these rock units dipping outward in successive elliptical outcrops surrounding the central Precambrian granite core. Differential weathering has resulted in present day topography of concentric ellipsoids of valleys under softer rocks and ridges held up by more competent units.

The uranium host units in the Dewey-Burdock area are the marginal marine Lakota and Fall River sandstone units within the Inyan Kara Group of earliest Cretaceous Age. These sandstones are equivalent to the Cloverly formation in western Wyoming, the Lakota formation in western Minnesota, and the Dakota formation in the Colorado Plateau. The entire Inyan Kara Group consists of basal fluvial sediments grading into near marine sandstones, silts and clays deposited along the ancestral Black Hills Uplift. The sandstones are fairly continuous along the western flank of the Uplift. The Inyan Kara Group unconformably overlies the Jurassic Morrison formation, here a marine shale. Overlying the Inyan Kara are later early Cretaceous marine shales composed of the Skull Creek, Mowry, and Belle Fourche formations. Post uplift, the entire truncated set of formations was unconformably overlain by the Tertiary White River formation. The White River consisted of several thousand feet of volcanic ash laden sediments that have since been eroded.

The Inyan Kara is typical of units formed as first incursion of a transgressive sea. The basal fluvial units grade into marine units as the ocean inundates a stable land surface. The basal units of the Lakota rest in scours cut into the underlying Morrison shale and display the depositional nature associated with mega-channel systems crossing a broad, flat coastal plain. Younger sand units of the Lakota become progressively thinner and less continuous and often scour into older channel sand units. Between channel sands are thin deposits of overbank and flood plain silts and clays. Crevasse splays are common and abruptly terminate into inter-channel clays. The upper-most unit of the Lakota formation is a widespread clay unit generally easily identified on electric logs by a characteristic "shoulder" on the resistivity curve. This unit is known as the Fuson member. The basal unit of the Fall River formation is a widespread, fairly thick channel sand deposited in a middle deltaic environment that is evidenced by low-grade coals in its upper portion. Younger Fall River sand units are progressively thinner, less widespread; contain more silt and contain considerably more carbon, denoting a lower deltaic environment of deposition. There is little or no evidence of scouring of the contact between Fall River and the overlying marine Skull Creek. Inundation must have been rapid since within less than 20ft of sedimentation, rock character goes from middle deltaic, marginal marine to deep marine environment with no evidence of beach deposits or offshore bar systems.

The overall structure of the Black Hills Uplift is fairly simple in that the structure is domal and rock units dip outward away from the central core. In detail, subsequent and attendant local doming caused by local intrusions disrupts the general dip of the units. Tensional stress creates fault zones with considerable displacement from one side of the zone to the other. This is often a distance of 3 or 4mi. The Dewey fault zone, a few miles to the north is a zone of major displacement. The faulting drops the uranium host units several hundred feet and truncates the oxidation reduction contact that formed the Dewey-Burdock mineralization.

5.2 Local and Project Geology

The Lakota formation in the Dewey-Burdock Project area was deposited by a northward flowing stream system. Sediments consist of point bar and transverse bar deposition. The stream channel systems are typical of meandering fluvial deposition. Sand units fine upward and numerous cut-and-fill sandstones are indicative of channel migration depositing silt and clay upon older sand and additional channel sands overlay older silts and clays. This Lakota stream deposited sediments across a channel width of 4 or 5mi. Uranium minerals were deposited in several stratigraphically different sands that do interconnect to form a near-continuous aquifer for groundwater migration. Because uranium deposits have formed in separate stratigraphic units, these units were identified and named for their stratigraphic position.

Similar channel deposition occurred during Fall River time but the channel sands are noticeably thinner with marine sediments immediately superimposed on the fluvial sands. The knowledge of detailed stratigraphy is critical in ISR mining due to the importance of solution contact with the uranium mineralization. Where uranium is located in low permeability horizons, solution mining is not as efficient as it would be in more uniform sandstones with relatively equal permeability. During the evaluation of uranium resources made by RBS&A, the sands of the Lakota Formation were divided into nine sandstone units, generally about 20ft thick and usually separated by a consistent claystones or shales. The major sand unit in the basal Fall River Formation was divided into three sand subunits, each of which are mineralized and contain roll fronts on the Dewey portion of the area. All of the Fall River uranium mineralization on the Burdock portion of the Project are at or above the water table and were not considered in the evaluation.

The lithologic units of the Lakota and Fall River Formations now dip gently, about 3° to the southwest off the flank of the Black Hills Uplift (Figure 5.1). This structure controls present groundwater migration. Since the uranium roll front orebodies below the water table are dynamic, their deposition and tenor is factored by groundwater migration. No faults were observed during the correlation of exploration drillholes in the project area. Fault systems have been mapped away from the Project and only the major sandstone channel systems affect local groundwater migration and thus uranium deposition.

5.3 Significant Mineralized Zones

5.3.1 Mineralized Zones

Previous reports by TVA indicate that uranium minerals in the Dewey-Burdock Project are all of +4 valence state and thus considered to be deposited from epigenetic solutions. Uranium deposits are concentrated along the flanks of sand channels and are larger in size on the down dip channel flanks. Alteration, depicting the oxidation-reduction contact can occur in several channel units and may be several miles in length. Uranium deposition in significant deposits occurs discontinuously along the oxidation/reduction boundary with individual deposits ranging from several hundred-to a few thousand feet in length. Width of concentration is dependent upon lithology and position within the channel. Widths are seldom less than 50ft and are often over 100ft. Thickness of high concentration uranium mineralization varies from 1 or 2ft in limbs, to 8 or 10ft in the rolls. Tenor of uranium mineralization may vary from nil to a few percent at any point within the orebody.

5.3.2 Relevant Geologic Controls

The primary ore control of uranium mineralization in the Dewey-Burdock project is the presence of permeable sandstone within a major sand channel system that is also a groundwater aquifer. Such conditions exist in both the Lakota and Fall River formations. A source rock for uranium in juxtaposition to the aquifer is necessary to provide mineral to the system. As described above, the uranium-rich White River formation originally overlay the subcropping sandstone units of the Lakota and Fall River formations. The last control is the need for a source of reductant to precipitate dissolved uranium from groundwater solutions. RBS&A observed that such reductant is available from deeper hydrocarbon deposits discovered down dip only a few miles west of the Dewey-Burdock Project as well as hydrocarbon occurrences in deeper formations just east of the Project area. Previous writers as early as 1952 postulated the source of reductant to be carbon and carbon trash that does occur in varying quantities throughout the Inyan Kara group sedimentary rocks, including the Fall River and Lakota formations.

5.4 Hydrogeological Setting

CIM adopted Best Practice Guidelines for the Estimation of Mineral Resources and Mineral Reserves on November 23, 2003; within which are recommended guidelines with respect to uranium. To support the use of ISR methods, hydrogeologic data are required to show:

- Permeability of the mineralized horizon;
- Hydrologic confinement of the mineralized horizon; and
- Ability to return groundwater within the mined area to its original baseline quality and usage.

Powertech completed significant work to characterize the groundwater system at the Dewey-Burdock project to demonstrate favorable hydrogeologic conditions for ISR methods, as well as mine planning and permitting purposes. Work completed by Powertech and their consultants includes monitor and pumping well construction, aquifer testing, groundwater sampling, and completion of a regional groundwater model.

5.4.1 Project Hydrogeology

Within the Dewey-Budock project area the uppermost aquifer and the production aquifer are both the Inyan Kara, the underlying aquifer is the Unkpapa Formation (or Sundance if the Unkpapa is not present). There is no overlying aquifer within the project area other than minor localized alluvial aquifers.

The information presented is based upon the results of work completed by Powertech and their consultants, as well as TVA. Powertech completed groundwater sampling, piezometric surface mapping, and individual aquifer tests within both the Dewey project area and the Burdock project area in 2008, in addition to resource drilling activities that collected core samples for measurement of hydrogeologic parameters. TVA completed three aquifer tests, one just north of the Dewey project area in 1982, and two within the Burdock project area in 1979 (Knight Piésold 2008).

5.4.2 Hydraulic Properties of the Inyan Kara

The following section discusses the results of aquifer tests and geotechnical testing completed in the project area to estimate the hydraulic properties of the production aquifer and confining units, as well as water level data and confining pressures for the individual project areas.

Dewey

Two aquifer test programs were completed within the Dewey project area: Tennessee Valley Authority (TVA) in 1982 and Powertech in 2008.

The 1982 test completed by TVA consisted of pumping in the Lakota Formation for 11 days at an average rate of 495gpm from a screened interval 75ft in length. The results of the aquifer test yielded the following data:

- Transmissivity of the Lakota averaged 590ft^2/d; and
- Storativity of the Lakota was approximately 1.0 x 10^{-4} (dimensionless).

TVA recorded a hydraulic response in the Fall River through the intervening Fuson Member late in the aquifer test (3,000 to 10,000 minutes). TVA calculated the vertical hydraulic conductivity of the Fuson Member to be 2 x 10^{-4}ft/d using the Neuman-Witherspoon ratio method (Neuman and Witherspoon, 1973).

TVA observed a barrier boundary, or a decrease in transmissivity due to lithologic changes with distance from the site, or both. A possible geologic feature corresponding to a barrier was noted to be the Dewey Fault Zone, located approximately 1.5mi north of the test site, where the Lakota and Fall River Formations are structurally offset.

The 2008 test completed by Powertech consisted of pumping in the Fall River Formation for 72 hours at an average rate of 30.2gpm from a screened interval 15ft in length. The results of the aquifer test yielded the following data:

- Ten determinations of transmissivity ranged from 180 to 330ft^2/d, with the median value of 255ft^2/d; and
- Five determinations of storativity ranged from 2.3 x 10^{-5} to 2.0 x 10^{-4} with a median value of 4.6 x 10^{-5}.

Powertech recorded a delayed response in the upper Fall River Formation which indicates lateral and vertical anisotropy due to interbedded shales in the formation. No flow was observed through the Fuson Member between the Fall River and the underlying Lakota aquifers.

In addition to the 2008 aquifer test, Powertech collected and submitted Fall River sandstone core samples, equivalent to that tested by the aquifer test, for laboratory measurements of horizontal and vertical hydraulic conductivity with the following results:

- Measured horizontal hydraulic conductivity was 6.1ft/d; and
- Horizontal to vertical hydraulic conductivity ratio of 4.5:1.

Laboratory measurements of horizontal and vertical hydraulic conductivity on core from the confining units overlying (above the Fall River aquifer) and underlying (between the Fall River and Lakota aquifers) the aquifer test area include:

- Skull Creek shale: average vertical hydraulic conductivity of 1.5 x 10^{-5}ft/d; and
- Fuson shale: average vertical hydraulic conductivity of 1.8 x 10^{-5}ft/d.

Water level data collected by Powertech from a vertical well nest at the Dewey project area indicate that the Unkpapa, Lakota, and Fall River aquifers are confined and are locally hydraulically isolated. Generalized water level data for the Lower Fall River Sandstone that hosts uranium mineralization in the Dewey project area are detailed in Table 5.1.

Table 5.1: Dewey Production Area Water Level Data

Aquifer	Top Elevation (ft)	Bottom Elevation (ft)	Static Water Elevation (ft)	Available Drawdown (ft)
Lower Fall River	3,151	3,011	3,642	491

Burdock

Three aquifer tests were completed within the Burdock project area: two completed by TVA in 1979, and a third completed by Powertech in 2008.

The 1979 tests completed by TVA consisted of pumping in the Lakota Formation for 73 hours at an average rate of 200gpm, and pumping in the Fall River for 49 hours at an average rate of 8.5gpm. A single pumping well was utilized for these tests, with a pneumatic packer separating the screened intervals within the Lakota and Fall River. The screen length in the Lakota was approximately 75ft, and in the Fall River 55ft. The results of the aquifer tests yielded the following data:

- Interpreted transmissivity of the Lakota was based on analysis of late time data and inferred decreasing transmissivity with distance from the test site due to changes in lithology; overall transmissivity averaged approximately 190ft^2/d and storativity was 1.8 x 10^{-4}. The maximum transmissivity determined from early time was approximately 310ft^2/d;
- Transmissivity of the Fall River averaged approximately 54ft^2/d and storativity of 1.4 x 10^{-5};
- Communication was observed between the Fall River and Lakota Formations through the intervening Fuson shale; and leaky behavior was observed in the Fall River Formation; and
- The vertical hydraulic conductivity of the Fuson shale determined with the Neuman-Witherspoon ratio method (Neuman and Witherspoon, 1973) was estimated to be 10^{-3} to 10^{-4}ft/d.

The 2008 test completed by Powertech consisted of pumping in the Lakota Formation for 72 hours at an average rate of 30.2gpm from a screened interval 10ft in length. The results of the aquifer test yielded the following data:

- Nine determinations of transmissivity ranged from 120 to 223ft^2/d with a median value of 150ft^2/d; and
- Four storativity determinations ranged from 6.8 x 10^{-5} to 1.9 x 10^{-4} with a median value of 1.2 x 10^{-4}.

In addition to the 2008 pump test, Powertech collected and submitted Lakota sandstone core samples, representative of the formations tested during the aquifer test, for laboratory measurements of horizontal and vertical hydraulic conductivity with the following results:

- Measured horizontal hydraulic conductivity ranged from 5.9 to 9.1ft/d, and a mean value of 7.4ft/d; and
- Horizontal to vertical hydraulic conductivity ratio of 2.47:1.

Laboratory measurements of horizontal and vertical hydraulic conductivity on core from the confining units overlying (above the Lakota aquifer) and underlying (below the Lakota aquifer) the aquifer test area:

- Fuson shale: average vertical hydraulic conductivity of 2.7 x 10^{-4}ft/d; and
- Morrison shale: average vertical hydraulic conductivity of 6.0 x 10^{-5}ft/d.

Water level data collected by Powertech from vertical well nest at the Dewey project area indicate that the Unkpapa, Lakota, and Fall River aquifers are confined and are locally hydraulically isolated. Generalized water level data for the Lower Lakota Sandstone that hosts uranium mineralization in the Burdock project area are detailed in Table 5.2.

Table 5.2: Burdock Production Area Water Level Data

Aquifer	Top Elevation (ft)	Bottom Elevation (ft)	Static Water Elevation (ft)	Available Drawdown (ft)
Lower Lakota	3290	3245	3660	370

The data collected by Powertech, and previous operator TVA, is sufficient to characterize the hydrogeologic regimes of the production aquifers at the Dewey-Burdock Project. Table 5.3 summarizes groundwater flow parameters determined for the project.

Table 5.3: Aquifer Property Summary for the Dewey-Burdock Project

Geologic Unit	Pump Test Transmissivity (ft^2/day)		Horizontal Hydraulic Conductivity*	Vertical Hydraulic Conductivity* (ft/day)	
	TVA	Powertech	Powertech	TVA	Powertech
Dewey					
Skull Creek	-	-	-	-	1.5 x 10^{-5}
Fall River	-	255 (15ft screen)	6.1ft/d	-	-
Fuson	-	-	-	2 x 10^{-4}	1.8 x 10^{-5}
Lakota	590 (75ft screen)	-	-	-	-
Morrison	-	-	-	-	-
Burdock					
Skull Creek	-	-	-	-	-
Fall River	54 (55ft screen)	-	-	-	-

Geologic Unit	Pump Test Transmissivity (ft^2/day)		Horizontal Hydraulic Conductivity*	Vertical Hydraulic Conductivity* (ft/day)	
	TVA	Powertech	Powertech	TVA	Powertech
Fuson	-	-	-	10^{-3} to 10^{-4}	2.7×10^{-4}
Lakota	190 (75ft screen)	150 (10ft screen)	7.4ft/d	-	-
Morrison	-	-	-	-	6.0×10^{-5}

*Core Material

5.4.3 Hydrogeologic Considerations for ISR Mining Performance

The primary aquifer parameter to consider in the design of an ISR well field is hydraulic conductivity/transmissivity of the mineral deposit. This parameter influences aquifer drawdown, and build up, due to pumping and injection, as well as groundwater velocity and residence time for the ISR mining lixiviant. The second important aquifer parameter for ISR well field design is the amount of hydraulic head above an upper confining unit (or available drawdown). A greater hydraulic head allows for higher concentrations of dissolved oxygen within the lixiviant, more aggressive pumping and injection, and reduced risk for gas lock in the producing formation.

The well field plan for the Dewey-Burdock project utilizes 5-spot well patterns (four injection wells, and one central recovery well), 100ft well spacing (square side length), and an average mining thickness (screen length) of approximately 8ft. The anticipated average pumping rate for the recovery wells is 20gpm.

Analysis of the Fall River aquifer suggests that Powertech's anticipated recovery well pumping rate of 20gpm is within the aquifer's potential. The combination of local artesian conditions (relatively high hydraulic head above an upper confining unit and available drawdown) in the Fall River and aquifer transmissivity provide favorable conditions for ISR mining techniques. The existing aquifer parameters will allow significant dissolved oxygen to be introduced into the groundwater for uranium oxidation and extraction.

The current mining plan calls for each mine unit to be operated for approximately 21 months. Utilizing a recovery well pump rate of 20gpm, and assuming homogeneous flow within any given 5-spot pattern, a 39,200ft^3 mining block will have over 100 pore volumes circulated though during the operational period. This number is significantly higher than the 30 pore volumes utilized to obtain the 59% to 90% indicated leach efficiencies during bottle roll testing (Bush 2010), suggesting that the operational period of each mine unit should be sufficient to overcome unbalanced flow within any given well pattern.

5.4.4 Hydrogeologic Considerations for ISR Mining Impact to Groundwater System

Powertech completed an analytical modeling of the potential impact of consumptive use by an ISR facility on the local groundwater system. The potential impact on both the Fall River and the Lakota was analyzed utilizing a 1% bleed on a 2,000gpm production rate. Potential impacts due to well field drawdown at the locations of the nearest domestic well to the first planned mine unit to operate in each of the two respective aquifers were modeled. Results of both the TVA and Powertech, aquifer tests were interpreted by SRK to estimate the range of possible drawdown. The results of these analyses indicated the following:

- Fall River – Possible drawdown estimates range from 9.9 to 42.8ft in the nearest domestic well at a distance of 15,075ft; and
- Lakota – Possible drawdown estimates range from 4.9 to 12.6ft in the nearest domestic well at a distance of 10,915ft.

5.4.5 Groundwater Chemistry

Uranium ISR permitting regulations in South Dakota require that pre-mining groundwater chemistry data be collected from the production aquifer, underlying aquifer, overlying aquifer, and the uppermost aquifer. Within the Dewey-Burdock project area, the uppermost aquifer and the production aquifer are both the Inyan Kara, the underlying aquifer is the Unkpapa Formation. There is no overlying aquifer within the project area other than minor localized alluvial aquifers.

Across the Black Hills region, the groundwater of the Inyan Kara ranges from soft to very hard and fresh to slightly saline. Compared to other regional aquifers, the Inyan Kara has relatively high concentrations of sulfate, sodium, and magnesium. These concentrations, along with chloride, are generally higher in the southern Black Hills. The exact source of the sulfate is uncertain but could be the result of oxidation of sulfide minerals such as pyrite within the Inyan Kara (RESPEC 2008a).

Chemical composition and pH within the Inyan Kara varies based upon distance from the outcrop. Previous studies indicate the groundwater pH increases down dip, as well as a change from calcium sulfate type water near outcrop to sodium sulfate type down gradient.

The Inyan Kara is a principal uranium-bearing rock unit in the southwestern Black Hills. As such, the aquifer typically has measurable amounts of dissolved uranium, radium-226, radon-222, and other byproducts of radioactive decay. In addition to the radionuclides, high concentrations of sulfate and dissolved solids deter use of the Inyan Kara as a source of drinking water (RESPEC 2008b).

Groundwater chemistry data for the Fall River Formation and Lakota Formation of the Inyan Kara are shown in Table 5.4. Minimum, maximum, and mean concentrations are based upon background data collected for the Dewey-Burdock NRC source material license. In general, the water of the Inyan Kara within the project area is characterized by high concentrations of dissolved solids, sulfate, and radionuclides. Mean concentrations of sulfate, dissolved solids, manganese, and radionuclides (gross alpha, Radon-222) exceed drinking water quality standards (EPA maximum contaminant levels (MCL), secondary MCLs, and proposed MCLs) in over half of the samples collected. In addition, uranium values as high as 0.123mg/L and 0.336mg/L were obtained from the Fall River and Lakota respectively.

The present poor water quality of the Inyan Kara within the Dewey-Burdock project area, naturally containing both radionuclide and TDS concentrations above EPA drinking water standards, suggests that reclamation of the production aquifer to the previous usage standard can be achieved.

Table 5.4: Groundwater Chemistry for the Inyan Kara Group, Dewey-Burdock Project

Analyte	Units	MCL or Other Advisory Value	Fall River Formation			Lakota Formation		
			Min	Max	Mean	Min	Max	Mean
Bulk Properties								
pH	pH	6.5 – 8.5[(a)]	6.75	12.4	7.99	6.49	8.71	7.63
Solids-Total Dissolved (TDS)	mg/L	500[(a)]	690	2,300	1,157	92	3,700	1,389
Cations/Anions								
Bicarbonate as HCO_3	mg/L	-	2.5	254	192	15	341	205
Carbonate as CO_3	mg/L	-	2.5	53	4.1	2.5	10	2.6
Calcium-Dissolved	mg/L	-	11.2	393	116	0.25	461	165
Magnesium-Dissolved	mg/L	-	0.25	141	39.7	0.25	149	57
Sodium-Dissolved	mg/L	200[(a)]	77.1	373	198	12	716	178
Potassium-Dissolved	mg/L	-	6.9	16.8	12.1	0.25	27.7	14.1
Chloride	mg/L	250[(a)]	8	113	13.4	2	37	11
Sulfate	mg/L	250[(a)]	159	1,470	645	39	2,440	812
Metals – Total								
Arsenic	mg/L	0.01	0.0005	0.006	0.002	0.0015	0.0015	0.0015
Chromium	mg/L	0.1	0.025	0.025	0.025	0.025	0.025	0.025
Copper	mg/L	1.0[(a)]; 1.3[(b)]	0.005	0.005	0.005	0.005	0.08	0.007
Iron	mg/L	0.3[(a)]; 5[(c)]	0.015	10.7	1.45	0.04	21.8	2.59
Lead	mg/L	0.015	0.0005	0.035	0.004	0.0005	0.05	0.003
Manganese	mg/L	0.05[(a)]; 0.8[(c)]	0.005	2.66	0.44	0.05	1.82	0.32
Mercury	mg/L	0.002	0.00005	0.005	0.0004	0.00005	0.0005	0.0003
Molybdenum	mg/L	0.04[(d)]	0.005	0.05	0.04	0.005	0.3	0.05
Selenium	mg/L	0.05	0.0005	0.005	0.001	0.0005	0.008	0.001
Strontium	mg/L	4[(d)]	0.05	6.8	2.3	0.7	8.2	3.4
Uranium	mg/L	0.030	0.00015	0.123	0.019	0.00015	0.336	0.018
Zinc	mg/L	5[(a)]; 2[(d)]	0.005	0.25	0.022	0.005	0.18	0.018
Radionuclides								
Gross Alpha-Dissolved	pCi/L	15	2.9	2,220	403	1.4	6,500	664
Radium-226-Total	pCi/L	5[(e)]	0.1	15.2	5.7	1.1	120	32.8
Radon-222-Total	pCi/L	300[(f)]	119	462,000	47,445	134	590,000	42,078

a Secondary drinking standard

b Action level, which if exceeded, triggers treatment

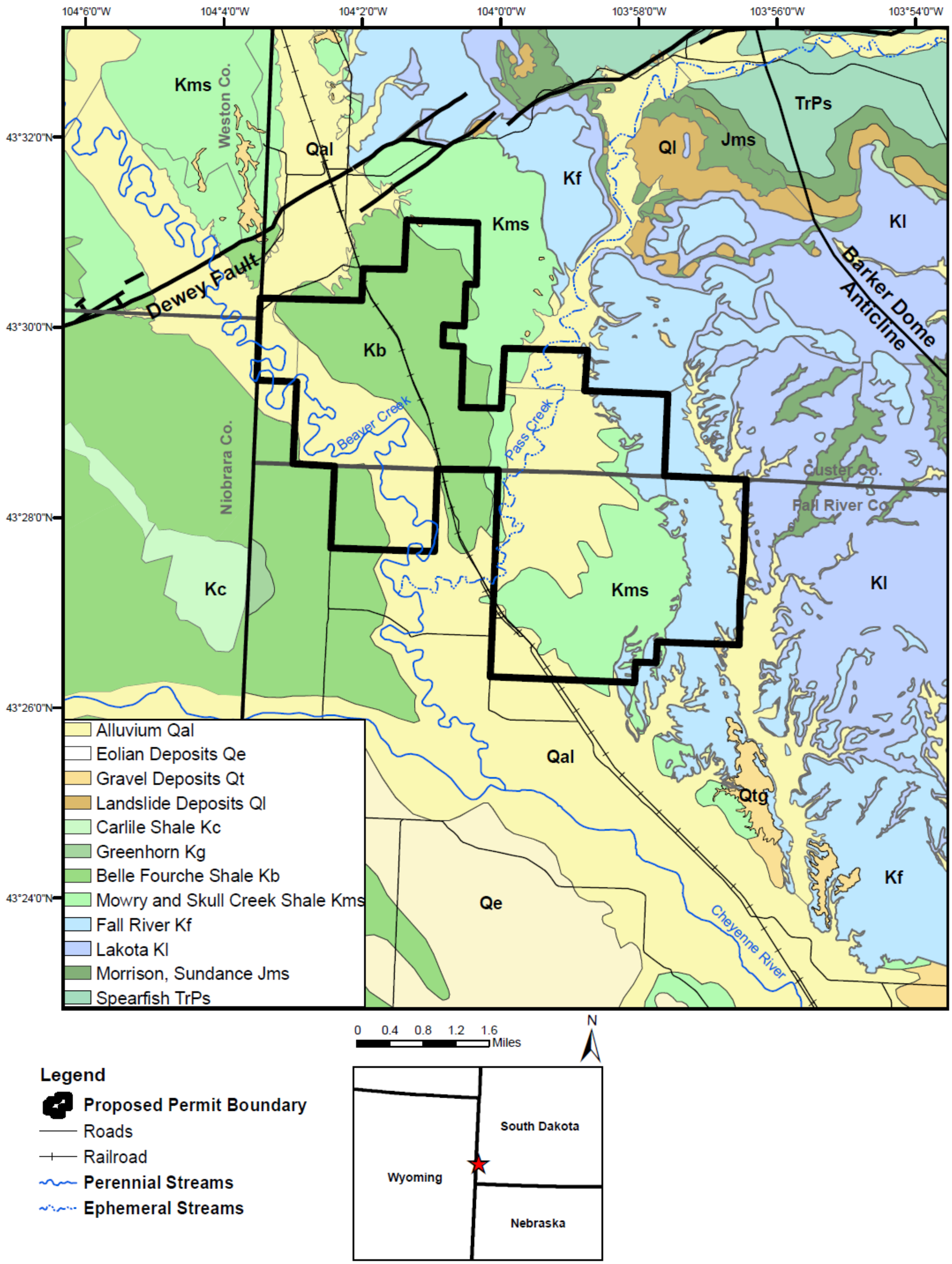
c Permit limit calculated by Region 8 Drinking Water Toxicologist based on human-health criteria d Health advisory-lifetime

e MCL for Radium-226 and Radium-228 Total, Radium-228 not analyzed

f Proposed MCL

5.4.6 Assessment of Dewey-Burdock Project Hydrogeology

The data confidence level is typical of a uranium ISR project at this stage in development. Prior to the development of each individual well field, Powertech will complete specific testing including coring and aquifer testing that will increase confidence and understanding.



srk consulting

SRK Project No.: 194300.030

194300.030_Powertech_Dewey Burdock PEA_Figure_5.1

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

Source: C. Hocking, RESPEC, 2008

Geologic Map of Dewey-Burdock Project

Date: 20100414

Approved: AM

Figure: 5.1

6 Deposit Type (Item 8)

These introductory two paragraphs of Section 6 are extracted from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. SRK revised certain standardizations, sub-titles, and organization to suit the format of this Technical Report.

Uranium deposits in the Dewey-Burdock Project are sandstone, roll front type. This type of deposit is usually "C" shaped in cross-section, with the down gradient center of the "C" having the greatest thickness and highest tenor. The "tails" of the "C" are usually much thinner and essentially trail the "roll front" being within the top and bottom of the sandstone unit that is slightly less permeable. These "roll fronts" are typically a few tens of feet wide and often can be thousands of feet long. Uranium minerals are deposited at the interface of oxidizing solutions and reducing solutions. As the uranium minerals precipitate, they coat sand grains and partially fill the interstices between grains. As long as oxidizing groundwater movement is constant, minerals will be solubilized at the interior portion of the "C" shape and precipitated in the exterior portion of the "C" shape, increasing the tenor of the orebody by multiple migration and accretion. Thickness of the orebody is generally a factor of the thickness of the sandstone host unit. Mineralization may be 10 to 15ft thick within the roll front while being inches to feet thick in the trailing tail portions. Deposit configuration determines the location of well field drillholes and is a major economic factor in ISR mining.

The uranium deposits in the southern Black Hills region are characteristic of the Rocky Mountain and Intermontane Basin uranium province, United States (Finch, 1996). The uranium province is essentially defined by the extent of the Laramide uplifts and basins.

Roll-front sandstone uranium deposits formed in the continental fluvial basins developed between uplifts. These uranium deposits were formed by oxidizing uranium-bearing groundwater that entered the host sandstone from the edges of the basins. Two possible sources of the uranium were (1) uraniferous Precambrian granite that provided sediment for the host sandstone and (2) overlying Tertiary age (Oligocene) volcanic ash sediments. Major uranium deposits occur as sandstone deposits in Cretaceous and Tertiary age basin sediments. Cluster size and grades for the sandstone deposits range from 500 to 20,000t U_3O_8, at typical grades of 0.04 to 0.23% U_3O_8.

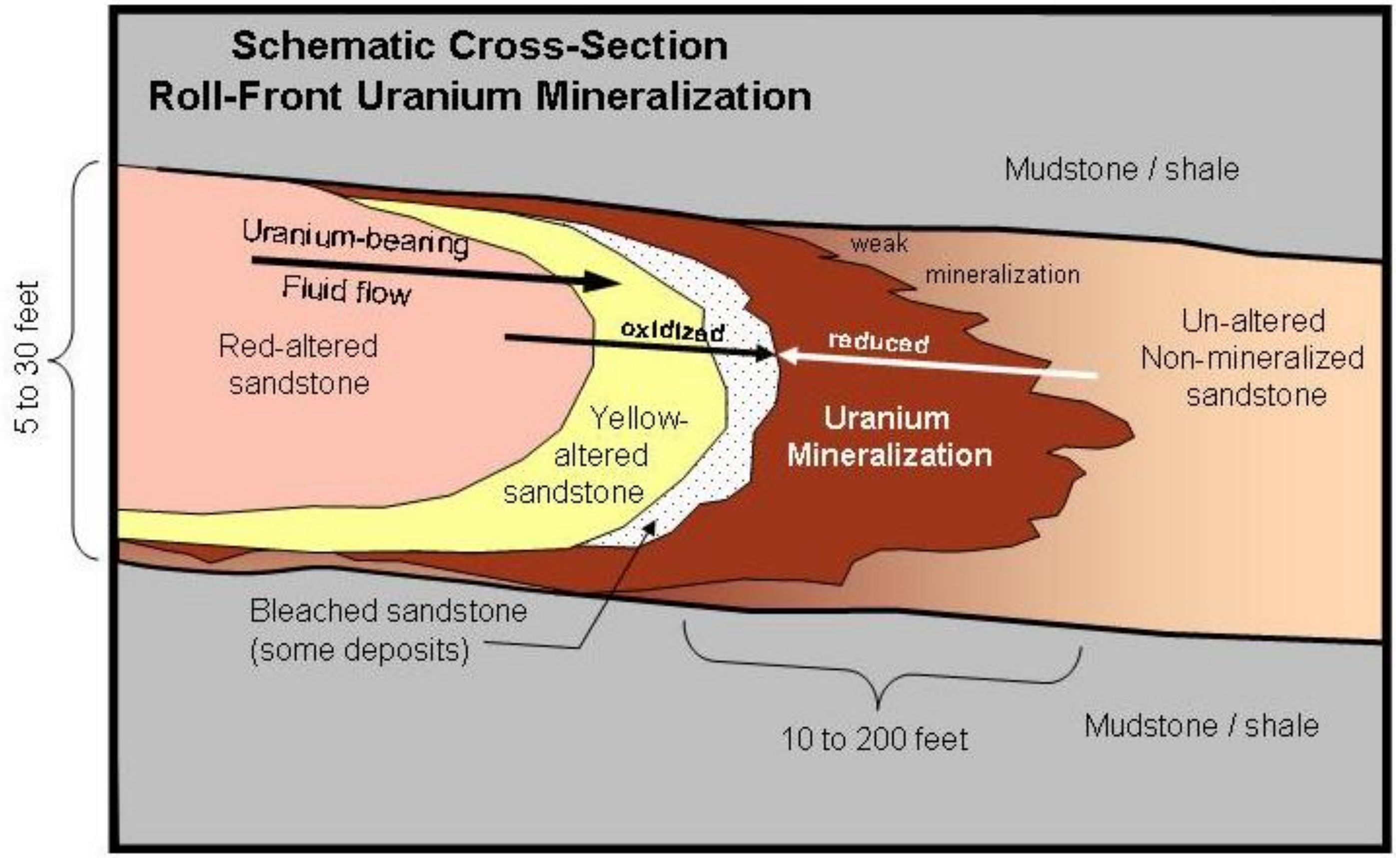
The tectono-stratigraphic setting for roll-front uranium ores is in arkosic and fluvial sandstone formations deposited in small basins. Host rocks are continental fluvial and near-shore sandstone. The principal ages of the host rocks are Early Cretaceous (144–97Ma), Eocene (52–36Ma), and Oligocene (36–24Ma), with epochs of mineralization at 70Ma, 35–26Ma, and 3Ma.

Ore mineralogy consists of uraninite, pitchblende and coffinite with associated vanadium in some deposits. Typical alteration in the roll-front sandstone deposit includes oxidation of iron minerals up-dip from the front and reduction of iron minerals down-dip along advancing redox interface boundaries (Figure 6.1).

Probable sources of uranium in the sandstone deposits are Oligocene volcanic ash and/or Precambrian granite (2,900–2,600Ma). Mineralizing solutions in the sandstone are oxygen-bearing groundwater. Uranium mineralization of the sandstone deposits began with inception of Laramide uplift (approximately 70Ma) and peaked in Oligocene.

Size and shape of individual deposits can vary from small pod-like replacement bodies to elongate lobes of mineralization along the regional redox boundary.

Historical drillhole data (electric and lithology logs), along with Powertech's confirmatory drilling results confirm that the mineralization at Dewey-Burdock is a roll front type uranium deposit. This is determined by the position of the uranium mineralization within sandstone units in the subsurface, the configuration of the mineralization and the spatial relationship between the mineralization and the oxidation/reduction boundary within the host sandstone units.



srk consulting	Dewey-Burdock Project, Custer and Fall River Counties, South Dakota	Schematic Cross-Section – Roll Front Uranium Mineralization		
SRK Project No.: 194300.030				
194300.030_Powertech_Dewey Burdock PEA_Figure_6.1	Source: SRK, 2007	Date: 20100414	Approved: AM	Figure: 6.1

7 Exploration (Item 9)

Section 7 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

Historical exploration drilling for the project area was extensive and is discussed in Section 4 (History). In January 2007, Powertech received an exploration permit for its Dewey-Burdock project from the South Dakota DENR. This permit was for the drilling of up to 155 holes. The purpose of this drilling was to examine the geologic setting of the Inyan Kara Group sandstones in the subsurface, to confirm the uranium mineralogy within these sands, to collect core samples on which assay, metallurgical and leach testing could be performed. In addition, the drilling program was to install groundwater wells for groundwater quality samples, and for two 72-hour pump tests to estimate the permeability and flow rates for the host formations. Drilling associated with this permit began in May 2007, continued through April 2008 and will be discussed in the following section.

Powertech received their second exploration permit in November 2008. The purpose of this 30-hole permit was to investigate the uranium potential of known host sandstones, below planned production facilities, to ensure that no surface construction would take place over uranium resources. As of the date of this report, no drilling has taken place under this permit.

No additional mineral detection exploration surveys or investigations, other than drilling, were conducted on the Dewey-Burdock project.

SRK's opinion is that the historical drilling, for which Powertech has some, but not all the drillhole gamma log data, was typically drilled and logged in a manner that would produce acceptable data for resource estimation purposes today. In addition, Powertech's confirmatory drilling has verified historically determined geology, mineralization, and shapes of the defined roll fronts. The exploration methods used historically and by Powertech are appropriate for the style of mineralization, and provide industry standard results that are applicable to current methods of resource estimation.

8 Drilling (Item 10)

Section 8 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

From May 2007 to April 2008, Powertech completed 91 drillholes on the Dewey- Burdock Project for a total footage of 55,302ft. The depths of these holes ranged from 185 to 761ft-below-surface. While geologic information was collected from all drillholes, they were used for multiple purposes. Selective coring took place in ten holes and 12 holes were completed as water wells. With the exception of the holes converted to wells, all other drillholes were plugged and abandoned in accordance with State of South Dakota regulations. This involved filling the drillhole, from the bottom upward, with a sodium bentonite plugging gel. The viscosity of this plugging gel was measured to be, at a minimum, 20 seconds higher than the viscosity of the bottom-hole drilling fluid. After a 24-hour settling period, this method of hole sealing emplaces a solid plug in the abandoned hole that has a high degree of elasticity. This type of plug conforms to any irregularity within the drillhole and is considered to provide a more effective seal than a rigid cement plug. Once the plugging gel has been allowed to settle (24-hour period), the sealing procedure is completed by filling the remainder of the hole with bentonite chips to the surface. If artesian water flow was encountered in the drillhole, it was filled from the bottom upward with portland cement. A representative of the South Dakota DENR was on site to observe all hole plugging activities.

8.1 Mud Rotary Drilling

Exploratory drilling was performed using a truck-mounted, rotary drill rig using mud recovery fluids. This style of drilling is consistent with historical drilling programs from the 1970s and 1980s. A 6.5in hole was drilled and rotary cutting samples were collected at 5ft intervals. The on-site geologist prepared a description of these cuttings and compiled a lithology log for each drillhole. This rotary drilling was used to confirm several critical issues regarding uranium resources at the Dewey-Burdock project.

Wide-spaced exploration holes were drilled across the project area to examine the geologic setting and the nature of the host sands within the Fall River and Lakota Formations. This drilling showed that the depositional environments and lithologies of the Fall River and Lakota sands were found to be consistent with descriptions presented by previous operators on the project site. It also confirmed the presence of multiple, stacked mineralized sand units in the area. Electric logs and lithology logs from each drillhole were used in these evaluations.

Most importantly, the observation that geochemical oxidation cells within the host sands in the subsurface were directly related to uranium mineralization, establishes well-known geologic controls to uranium resources on this project. Encountering mineralized trends associated with "oxidized" and "reduced" sands within multiple sand units, provides reliable guides to the identification of resource potential in relatively unexplored areas, as well as to demonstrating continuity within known resource areas.

Fences of drillholes were completed in areas away from known resources but within areas of identified oxidation-reduction boundaries in the subsurface. Due to the narrow average width of the higher-grade uranium mineralization along these trends, between four and six close-spaced drillholes are required in each fence. A total 56 holes were drilled in 15 fences. In the completion of this drilling program, seven fences encountered mineralization in excess of 0.05% eU3O8. The remaining eight fences will require additional drilling to delineate the higher-grade mineralization.

This drilling demonstrated that the originally hypothesized roll-front deposit model is appropriately applied to this project. While high-grade uranium mineralization was not encountered in all fences due to the sparse nature of reconnaissance drilling, the concentration and configuration of mineralization was sufficiently encouraging to warrant additional close-spaced drilling in the fences that did not encounter high-grade mineralization.

8.2 Core Drilling

Ten core holes were included in the 91 drillholes completed. Rotary drilling was used to reach core point, at which time, a 10ft-long, 4in diameter core barrel (with core bit) was lowered into the drillhole. A total of 407ft of 3in core was recovered from the mineralized sands in four separate resource areas. The coring was planned to intercept various parts of these uranium roll front deposits and to obtain samples of mineralized sandstone for chemical analyses and for metallurgical testing. Six holes were cored in the Fall River Formation and four holes were cored in the Lakota Formation. Table 8.1 and Table 8.2 present a listing of the uranium values in these core holes, as determined by down-hole radiometric logging for the Fall River and Lakota Formations, respectively.

Table 8.1: Results of Fall River Formation Core Holes

Core Hole Number	Depth (ft)	Total Mineralized Intercept	GT	Highest 1/2ft Interval
DB 07-29-1C	579.5	12.5ft of .150% eU_3O_8	1.88	0.944% eU_3O_8
DB 07-32-1C	589.5	5.0ft of .208% eU_3O_8	1.04	0.774% eU_3O_8
DB 07-32-2C	582.5	16.0ft of .159% eU_3O_8	2.54	0.902% eU_3O_8
DB 07-32-3C	No mineralized sand recovered			
DB 07-32-4C	559.0	13.0ft of .367% eU_3O_8	4.765	1.331% eU_3O_8
DB 08-32-9C	585.5	10.5ft of .045% eU_3O_8	0.47	0.076% eU_3O_8

Table 8.2: Results of Lakota Formation Core Holes

Core Hole Number	Depth (ft)	Total Mineralized Intercept	GT	Highest 1/2ft Interval
DB 07-11-4C	432.5	6.0ft of .037% eU_3O_8	0.22	0.056% eU_3O_8
DB 07-11-11C	429.5	7.0ft of .056% eU_3O_8	0.40	0.061% eU_3O_8
DB 07-11-14C	415.0	9.0ft of .052% eU_3O_8	0.47	0.126% eU_3O_8
DB 07-11-16C	409.0	3.5ft of .031% eU_3O_8	0.17	0.041% eU_3O_8

Overall core recovery, despite poor hole conditions in DB 07-32-3C, was greater than 90% on this coring program.

Laboratory analyses were performed on selected core samples to determine the physical parameters for permeability and porosity of the mineralized sands, as well as overlying and underlying clays. These analyses on seven core samples of mineralized sandstones showed favorable high, horizontal permeabilities - ranging from 449 to 3207 millidarcies. These horizontal permeabilities within the mineralized zones allow for favorable solution flow rates for ISR production. Analyses on confining units, above and below the sands, showed very low, vertical permeabilities - ranging from 0.007 to 0.697 millidarcies. Low vertical permeabilities in the confining units help to isolate solutions within the mineralized sand during ISR mining and restoration operations.

8.3 Groundwater Wells

During the 2007 and 2008 drilling campaign, Powertech converted 12 of the 91 rotary holes to groundwater wells in both Fall River and Lakota sands. These wells were used for the collection of groundwater quality samples and in pump tests to determine the hydrologic characteristics of the mineralized sands. Results of the pump tests demonstrated a sustained pumping rate of 25 to 30gpm and showed that groundwater flow characteristics within the mineralized sands were sufficient to support ISR mining operations. All data relating to groundwater quality and hydrology are available for public review in the recent permit applications submitted to the NRC and the State of South Dakota.

8.4 Results

SRK concludes the drilling practices were conducted in accordance with industry-standard procedures. The drilling conducted by Powertech confirms historical drilling in terms of thickness and grade of uranium mineralization and provides confirmatory geological controls to that mineralization – conformation of the redox roll-front model.

Core drilling provided the verification of the mineralization as being largely in equilibrium for those deposits that are below the current water table. Water wells provide the means for groundwater characterization, and preliminary information to support potential ISR production.

9 Sample Preparation, Analysis and Security (Item 11)

Section 9 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

9.1 Sample Methods

9.1.1 Electrical Logs

Powertech owns a geophysical logging truck, manufactured by Geoinstruments Logging. This unit produces continuous, down-hole electric logs, consisting of resistivity, self-potential and gamma ray curves. This suite of logs is ideal for defining lithologic units in the subsurface. The resistivity and self-potential curves provide qualitative measurements of water conductivities and indicate permeability, which are used to identify sandstones, clays and other lithologic units in the subsurface. These geophysical techniques enable geologists to interpret and correlate geologic units and perform detailed subsurface geologic mapping.

The gamma ray curves are extremely important as they provide an indirect measurement of uranium in the subsurface. Uranium in nature primarily consists of the isotope Uranium-238, which is not a major gamma emitter. However, many of the daughter products of uranium are gamma emitters and when the uranium is in equilibrium with its daughter products, gamma logging is a reliable technique for calculating in-place uranium resources.

These electric logs were run on all 91 drillholes completed across the Dewey-Burdock project site. They are similar in nature to TVA's historic drillhole logs for the project.

9.1.2 Drill Cuttings

Mud rotary drilling relies upon drilling fluids to prevent the drilling bit from overheating and to evacuate drill cuttings from the hole. Drill cuttings (samples) are collected at five-foot intervals by the drill rig hands at the time of drilling. The samples are displayed on the ground in order to illustrate the lithology of the material being drilled and so that depth can be estimated. After the hole is completed, a geologist will record the cuttings piles into a geologist's lithology log of the hole. This log will describe the entire hole, but detailed attention will be directed toward prospective sands and any alteration (oxidation or reduction) associated with these sands. Chemical assaying of drillhole cuttings is not practical since dilution is so great by the mud column in the drillhole and sample selection is not completely accurate to depth.

9.1.3 Core Samples

Core samples allow accurate chemical analyses and metallurgical testing, as well as testing of physical parameters of mineralized sands and confining units. The mud rotary drill rig had the capability to selectively core portions of any drillhole, using a 10ft barrel.

A portable core table was set up at the drilling site. Core was taken directly from the inner core barrel and laid out on the table. The core was measured to estimate the percentage of core recovery, then washed, photographed and logged by the site geologist. The core was then wrapped in plastic, in order to maintain moisture content and prevent oxidation, and cut to fit into core boxes for later sample preparation. Overall core recovery was approximately 90%.

9.2 Review

Gamma logs historically were the standard “sampling” tool by which to determine in-situ uranium grades. Current uranium exploration methods use a combination of gamma logging and core samples, as Powertech has, to determine in situ uranium grades, and the nature and extent of uranium equilibrium/disequilibrium. The methods employed by Powertech are appropriate for the mineralization at Dewey-Burdock and are standard industry methods for uranium exploration and resource development.

9.3 Laboratory Analysis

Analyses of recent core samples are included in this updated report. The down-hole electric log was used in conjunction with the geologist’s log of the core to select intervals for testing. Powertech selected 6in intervals of whole core (3in diameter) for physical parameter testing (permeability, porosity, density). Mineralized sands selected for chemical analyses were cut into ½ft intervals and then split in half. One of the splits was used for chemical analyses and the other split was set aside for metallurgical testing. Powertech geologic staff performed the sample identification and selection process. Chain-of-custody (COC), sample tags were filled out for each sample and samples were packed into ice chests for transportation to the analytical laboratory.

Powertech sent samples to Energy Laboratories, Inc.’s (ELI’s) Casper, WY facility for analyses. Upon receipt at the laboratory, the COC forms were completed and maintained, with the lab staff taking responsibility for the samples. The first step in the sample preparation process involved drying and crushing the selected samples. The pulp is then subject to an EPA 3050 strong acid extraction technique. Digestion fluids were then run through an Inductively Coupled Argon Plasma Emission Spectrometer (ICPMS) according to strict EPA analytical procedures. Multi-element chemical analyses included values for uranium (chemical), vanadium, selenium, molybdenum, iron, calcium and organic carbon. Whole rock geochemistry provides valuable information for the design of ISR well field operations.

9.3.1 Sample Preparation and Assaying Methods

ELI is certified through the National Environmental Laboratory Accreditation Program (NELAP). NELAP establishes and promotes mutually acceptable performance standards for the operation of environmental laboratories. The standards address analytical testing, with State and Federal agencies serve as accrediting authorities with coordination facilitated by the EPA to assure uniformity. Maintaining high quality control measures is a prerequisite for obtaining NELAP certification. As an example, nearly 30% of the individual samples run through ICPMS are control or blank samples to assure accurate analyses. In SRK’s opinion, ELI has demonstrated professional and consistent procedures in the areas of sample preparation and sample security, resulting in reliable analytical results.

9.3.2 Gamma Logging (SRK)

The basic analysis that supports the uranium grade reported in most uranium deposits is the down-hole gamma log created by the down-hole radiometric probe. The down-hole gamma log data are gathered as digital data on approximately 1.0in intervals as the radiometric probe is inserted or extracted from a drillhole.

The down-hole radiometric probe measures total gamma radiation from all natural sources, including potassium (K) and thorium (Th) in addition to uranium (U) from uranium-bearing minerals. In most uranium deposits, K and Th provide a minimal component to the total radioactivity, measured by the instrument as counts per second (CPS). At the Dewey-Burdock Project, the uranium content is high enough that the component of natural radiation that is contributed by K from feldspars in sandstone and minor Th minerals is expected to be negligible. The conversion of CPS to equivalent uranium concentrations is therefore considered a reasonable representation of the in-situ uranium grade. Thus, determined equivalent uranium analyses are typically expressed as ppm eU3O8 (“e” for equivalent) and should not be confused with U3O8 determination by standard XRF or ICP analytical procedures (commonly referred to as chemical uranium determinations). Radiometric probing (gamma logs) and the conversion to eU3O8 data have been industry-standard practices used for in-situ uranium determinations since the 1960’s. The conversion process can involve one or more data corrections; therefore, the process is described here.

The typical gamma probe is about 2in in diameter and about 3ft in length. The probe has a standard sodium iodide (NaI) crystal that is common to both hand-held and down-hole gamma scintillation counters. The logging system consists of the winch mechanism, which controls the movement of the probe in and out of the hole, and the digital data collection device, which interfaces with a portable computer and collects the radiometric data as CPS at defined intervals in the hole.

Raw data is typically plotted by WellCAD software to provide a graphic down-hole plot of CPS. The CPS radiometric data may need corrections prior to conversion to eU3O8 data. Those corrections account for water in the hole (water factor) which depresses the gamma response, the instrumentation lag time in counting (dead time factor), and corrections for reduced signatures when the readings are taken inside casing (casing factor). The water factor and casing factor account for the reduction in CPS that the probe reads while in water or inside casing, as the probes are typically calibrated for use in air-filled drillholes without casing. Water factor and casing factor corrections are made where necessary, but Powertech drillholes were logged primarily in open, mud-filled drillholes.

Conversion of CPS to %-eU3O8 is done by calibration of the probe against a source of known uranium (and thorium) concentration. This was done for the Powertech gamma probe initially at the U.S. Department of Energy (DOE) uranium test pits in George West, Texas. Throughout Powertech’s field projects the probe was then regularly calibrated at the DOE uranium test pits in Casper, Wyoming. The calibration calculation results in a “K-factor” specific to the probe; the K-factor is 6.12331-6 for Powertech’s gamma probe. The following can be stated for thick (+60cm) radiometric sources detected by the gamma probe:

10,000CPS x K = 0.612%eU_3O_8

The total CPS at the Dewey-Burdock Uranium Project is dominantly from uraninite/pitchblende uranium mineralization therefore, the conversion K factor is used to estimate uranium grade, as potassium and thorium are not relevant in this geological environment. The calibration constants are only applicable to source widths in excess of 2.0ft. When the calibration constant is applied to source widths of less than 2.0ft, widths of mineralization will be over-stated and radiometric determined grades will be understated.

The industry standard approach to estimating grade for a graphical plot is shown in Figure 9.1, and is referred to as the half-amplitude method.

The half-amplitude method follows the formula:

GT = K x A

Where: GT is the grade-thickness product,

K is the probe calibration constant, and

A is the area under the curve (feet-CPS units).

The area under the curve is estimated by the summation of the 6in (grade-thickness) intervals between E1 and E2 plus the tail factor adjustment to the CPS reading of E1 and E2, according to the following formula:

A = [∑N + (1.38 x (E1 + E2)]

Where: A is the area under the curve,

N is the CPS per unit of thickness (6in), and

E1 and E2 are the half-amplitude picks on the curve.

This process is used in reverse for known grade to determine the K factor constant.

The procedure used at the Dewey-Burdock Project is to convert CPS per anomalous interval by means of the half-amplitude method; this results in an intercept thickness and eU3O8 grade. This process can be done in a spreadsheet with digital data, or by making picks off the analog plot of the graphical curve plot of down-hole CPS.

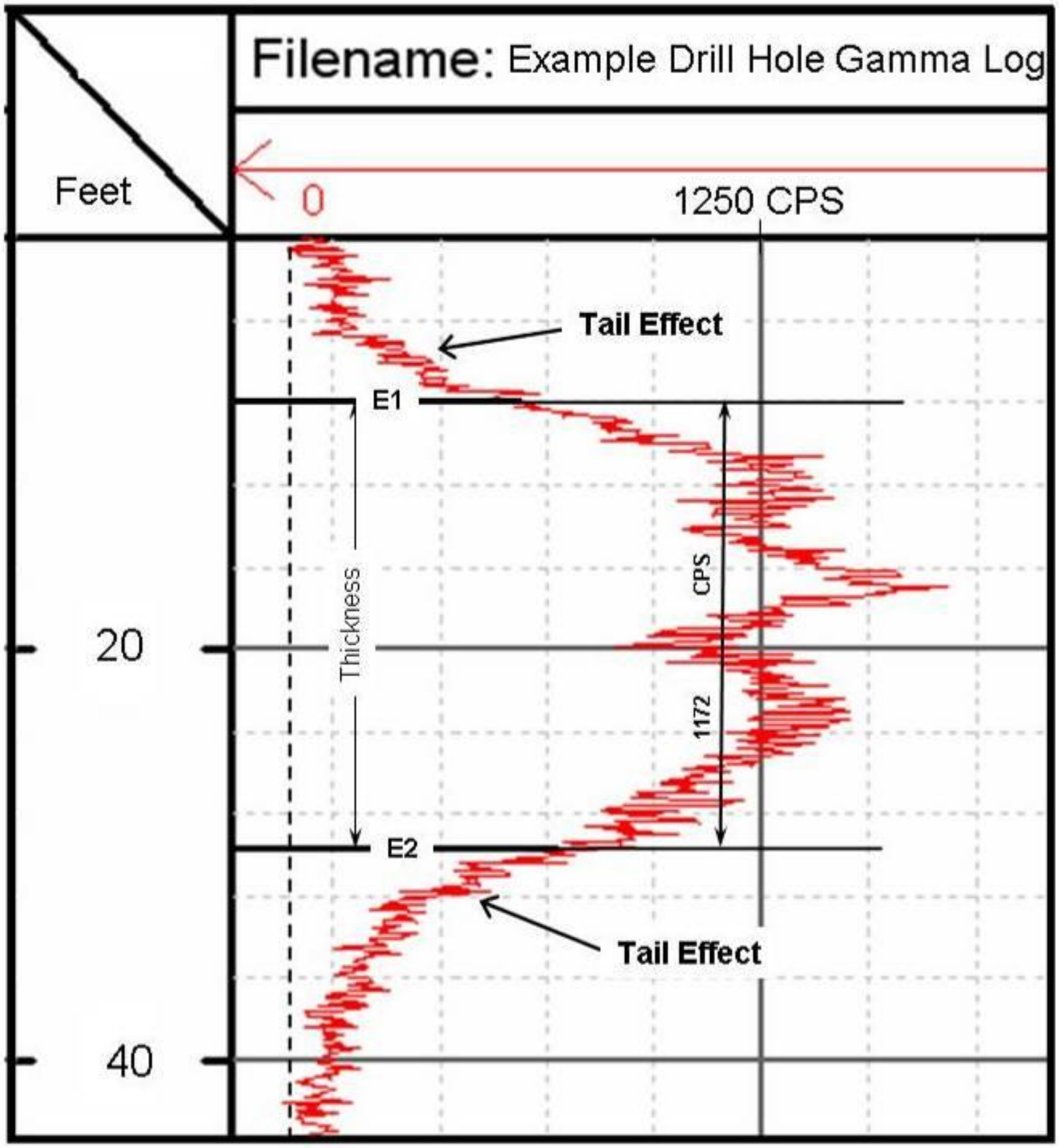
9.4 Results and QC Procedures

Geophysical logging during confirmatory drilling programs at Dewey-Burdock utilized multiple geophysical logging trucks. Century Geophysical provided initial logging services, and later logging was completed by a Powertech-owned unit. No discrepancies were seen in results between either service provider. Historical logs, and those completed by Powertech during confirmatory drilling, were interpreted on 0.5ft intervals following standard industry practice.

No drillholes completed by Powertech were truly co-located with historical drillholes; however, several drilled within 10ft of historical drillholes displayed similar results for eU3O8 values.

9.5 Opinion on Adequacy

SRK concludes that Powertech's sample preparation, methods of analysis, and sample and data security are acceptable industry standard procedures, and are applicable to the uranium deposits at the Dewey-Burdock Uranium project.



srk consulting

SRK Project No.: 194300.030

194300.030_Powertech_Dewey Burdock PEA_Figure_9.1

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

Source: SRK, 2006

Example Gamma Log – Half-Amplitude Method

Date: 20100414

Approved:

Figure: 9.1

10 Data Verification (Item 12)

The records of the Dewey-Burdock Project are substantial. In 1991, RBS&A conducted an evaluation of the ore deposits using copies of electric logs and various drillhole location and assay maps. In 1993, additional data became available that included reports by previous owners, additional assay data and even aerial photographs of the project. Diligent searches of university libraries and government records were made. Contacts were made to interview people who had been active on the project at different times. All of this data was evaluated during 1993 and 1994 and summarized in several reports presented to EFN, the owner and operator of the project at that time.

RBS&A had a long career in evaluating numerous uranium ore reserves throughout the United States and in Mexico. With this experience comes the knowledge to recognize reliable data. RBS&A stated that “knowing the parties involved in the project area and knowing several of the workers personally gives confidence to the veracity of the data obtained and reviewed to develop the estimate of uranium resources. The limitation of all these data is that their origin is so diverse. Different companies produced electric logs across a long period of time. Data is so abundant that it is difficult to accumulate all the data into one sensible document. Up to a point in time, these data were being used to establish an underground uranium mine. The present interest is to develop an ISR mine that requires slightly different parameters than does conventional mining.” Powertech’s Chief Geologist has also reviewed this extensive database and believes the information to be relevant and accurate.

10.1 Procedures

As previously described, TVA performed an equilibrium study on core samples from mineralized sandstones to demonstrate gamma response for uranium equivalent measurements versus actual chemical assays of the core. Figure 10.1 is the equilibrium plot from the original technical report showing the relationship between chemical and gamma responses from TVA’s historic coring program. The results show that the mineralized trends are in equilibrium and that gamma logging will give an accurate measurement of the in place uranium content.

Powertech’s 10-hole coring program completed in 2007 and 2008 provided samples for a similar verification analysis of the uranium mineralization at Dewey-Burdock. Half-foot samples of mineralized sandstones were sent to Energy Labs, Inc. in Casper, WY for analyses. Each sample was assayed for UGamma and UChemical. As shown in the equilibrium plot in Figure 12-1, a trend line on the plot of these values for each core interval shows an excellent correlation between radiometric and chemical values. The trend lines (or the chemical uranium: gamma uranium ratios) for these two plots are very similar. This indicates that the confirmation drilling encountered the same chemical uranium mineralization in the subsurface and this chemical uranium is in equilibrium with its gamma response. For resource estimation purposes, conventional gamma ray logging will provide a valid representation of in-place uranium resources.

Figure 10.2 shows the location of Powertech’s confirmation drilling within the Dewey portion of the project area. The drillholes on this map targeted the F11 mineralized trend and are a good example of how confirmation drilling (shown in blue text) verified the results of historic drilling and in many cases, expanded known high-grade mineralization. This confirmation drilling successfully demonstrated geological and grade continuity within identified resource areas throughout the Dewey-Burdock project.

10.2 Data Confirmation

An overall assessment of the data used for the classification of resources into various categories is required by the CIM Definition Standards. This assessment showed that historical data gathering and interpretation of the data was conducted by a well-respected, major uranium exploration company with high-quality uranium exploration staffs. It also showed that at key points, professional geologic consultants reviewed and verified the results of the historic explorations programs. Numerous academic reports have also been published on geologic settings and uranium mineralization of the Project. Current interpretive work has been completed under the direction of Powertech's senior geologic staff. Powertech's Chief Geologist has 40 years of uranium experience, including well field development assignments at several South Texas ISL facilities. All these factors provide a high level of confidence in the geological information available on the mineral deposit and that historic drillhole data on the Dewey-Burdock Project is accurate and useable for continued evaluation of the project.

Jerry Bush, the Qualified Person responsible for Powertech's resources, spent several weeks in Powertech's Hot Spring office reviewing data used in this resource evaluation. He examined geologic data, performed quality assurance checks of gamma logging data contained in resource databases/maps and prepared or reviewed geologic cross-sections to assure continuity of geology and grade throughout the resource areas.

10.3 Quality Control Measures and Procedures

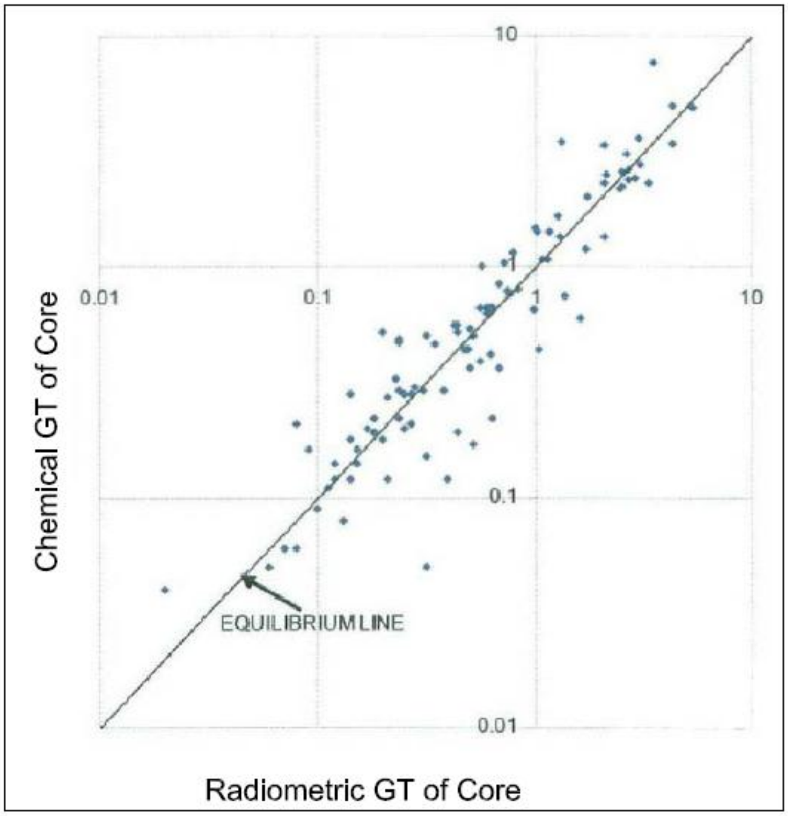
With respect to all data used in the verification analysis, Jerry Bush (QP for Mineral Resources) inspected the drill site during coring operations, was in contact with the analytical laboratory that performed the analyses, received copies of the analytical results and directed the interpretation of the data.

10.4 Limitations

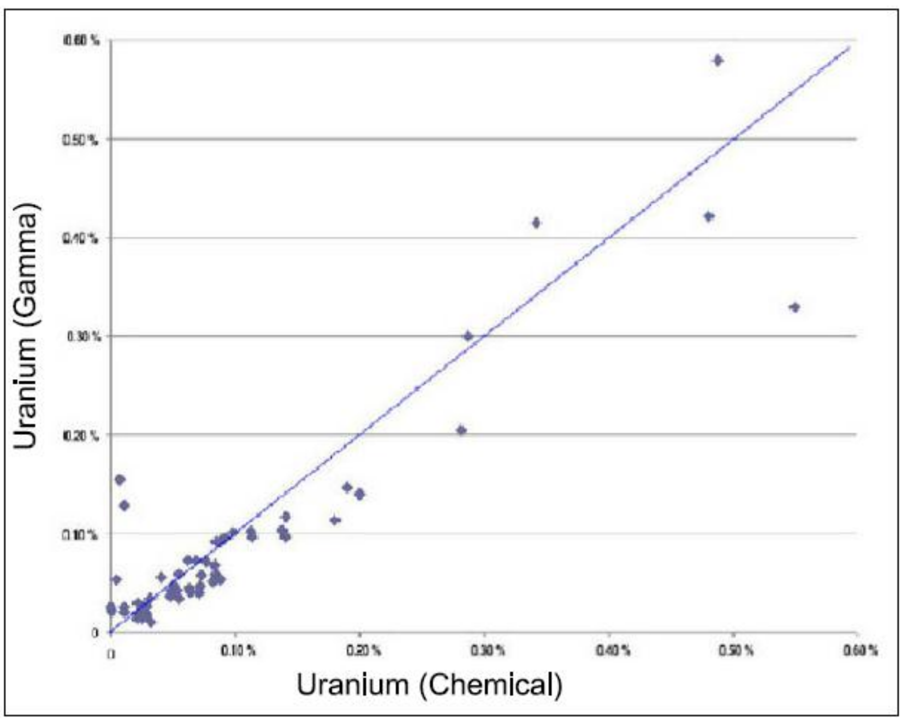
SRK concludes the work done by Powertech to verify the historical records has validated the project information. SRK visited the site and noted the location of current Powertech drillhole sites and water well and monitor well above-ground casings. There is a limitation in defining the historical drilling in that most, if not all, historical drillholes are no longer identifiable as to collar location. This is due in part because the holes were collared in soil/alluvium/shale, which would not visibly retain evidence of the drillhole collars unless the holes were abandoned with steel casing protruding from the ground surface.

10.5 Data Adequacy

SRK notes that the drilling by Powertech has verified the location and grade of uranium mineralization. There are no known discrepancies in locations, depths, thicknesses, or grades that would render the project data questionable in any way. It is SRK's opinion that Powertech and Qualified Person Jerry Bush (responsible for the resource estimate in Section 12) has adequately verified the historical data for the Dewey-Burdock project. SRK has reviewed the data confirmation procedures and concludes that the drillhole database has been sufficiently verified and is adequate for use in resource estimation.

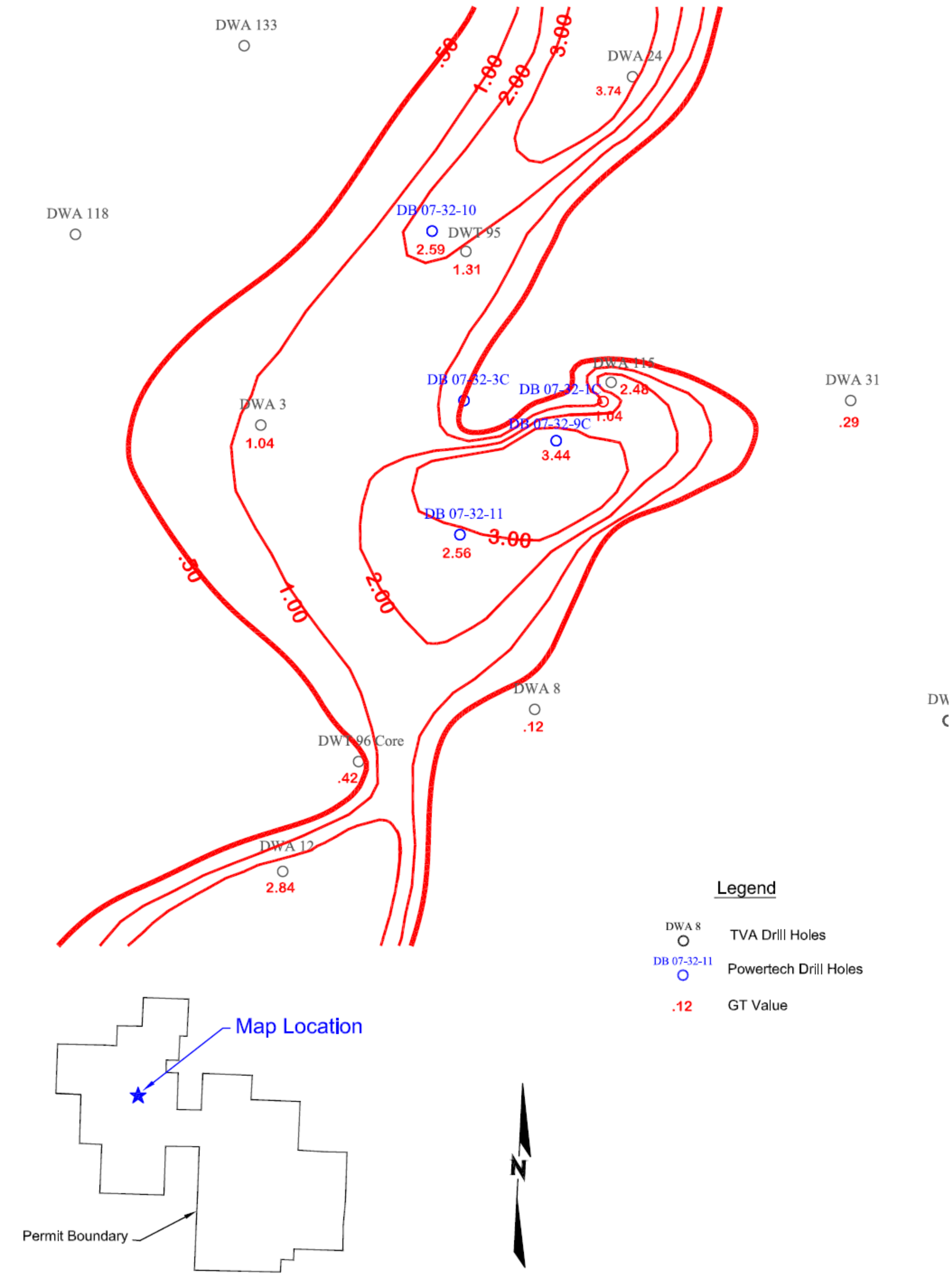


A- Historic Equilibrium Plot



B- Confirmation Coring Equilibrium Plot

srk consulting	Dewey-Burdock Project, Custer and Fall River Counties, South Dakota	Historic and Confirmatory Drilling Equilibrium Plots		
SRK Project No.: 194300.010				
194300.030_Powertech_Dewey Burdock PEA_Figure_10.1	**Source: Powertech (USA) Inc.**	Date: 20100414	Approved: AM	**Figure: 10.1**



srk consulting	Dewey-Burdock Project, Custer and Fall River Counties, South Dakota	Confirmatory Drilling Locations in the Dewey Project Area
SRK Project No.: 194300.010		
194300.030_Powertech_Dewey Burdock PEA_Figure_10.2	Source: Powertech (USA) Inc.	Date: 20100414 / Approved: AM / Figure: 10.2

11 Mineral Processing and Metallurgical Testing (Item 13)

Section 11 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of February 5, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

11.1 Procedures

Powertech conducted leach amenability studies on uranium core samples obtained in the previously described coring program. Powertech conducted the tests at ELI's Casper facility between July 27 and August 3, 2007. Leach amenability studies are intended to demonstrate that the uranium mineralization is capable of being leached using conventional ISR chemistry. The leach solution is prepared using sodium bicarbonate as the source of the carbonate complexing agent (formation of uranyldicarbonate (UDC) or uranyltricarbonate ion (UTC). Hydrogen peroxide is added as the uranium-oxidizing agent as the tests are conducted at ambient pressure. Sequential leach "bottle roll" tests were conducted on the four core intervals selected by Powertech personnel. The tests are not designed to approximate in-situ conditions (permeability, porosity, pressure) but are an indication of an ore's reaction rate and the potential uranium recovery.

11.2 Results

The leach tests were conducted on four core intervals recovered from two holes. One interval represented low-grade ore at 0.067% U3O8 and the other three intervals represented ore ranging from 0.14% U3O8 to 0.74% U3O8. Based on the known volume of core in the selected intervals and the apparent wet density, wet masses of sample representing a 100mL pore volume (PV), assuming 30% porosity, were delivered to the reaction vessels. 5PV lixiviate charges (500mL of 2g/L HCO3, 0.5 g/L H2O2) were mixed with the ore samples and vessel rotation was started. Over a six-day period, 30PV of lixiviate was delivered to and extracted from the vessels. Analysis results of the resulting leach solution indicated leach efficiencies of 59% to 90%. Peak recovery solution grades ranged from 414mg/L to 1,654mg/L. Tails analysis indicated efficiencies of 71% to 98%. The differences between the two calculations are likely to involve the difficulty in obtaining truly representative 1g subsamples of the feed and tails solids. The solution assays are believed to be more accurate and representative than the feed/tails results and they consistently showed a more conservative estimate of uranium leachability.

These preliminary leach tests indicate that the uranium deposits at Dewey-Burdock appear to be readily mobilized in oxidizing solutions and potentially well suited for ISR mining.

11.3 SRK Comments

The following comments by SRK pertain (1) to combined bottle roll tests conducted by Energy Labs Inc. (ELI), and (2) to a pressurized bottle roll test conducted by Hazen Research, Inc. (HRI).

11.3.1 Ambient Bottle Roll Tests

ELI reported that acid producing reactions were occurring during the initial leaching cycles and this is consistent with the core samples having been exposed to air during unsealed storage. This may have influenced uranium leaching kinetics and final uranium extraction, but two other aspects of the work deserve emphasis: (1) the coarsest grain size in two of the four leach residues had very high uranium assays; and (2) all four composites contained leachable vanadium.

The 615.5-616.5ft interval of Hole # DB0732-2C produced a 30-PV (pore volume) leach residue assaying 2.95% U_3O_8 in the +20-mesh fraction, and the same coarse fraction from the 616.5-617.3ft interval of that hole assayed 5.02% U_3O_8. The weight fractions were small, 0.7% and 1.8%, but the respective uranium distributions were 28% and 30% of total uranium retained in the residues. Possibly, these losses in the coarsest grain fraction were due simply to calcite encapsulation or another post-mineralization event. In any case, a QEMSCAN characterization of the uranium could shed light on the likelihood of increased uranium dissolution by reagent diffusion during longer retention times in a commercial well field. If this interpretation is supported by new evidence, there is a potential for ultimate uranium extractions (not overall recoveries) well over 90% from higher-grade intervals. The table following the next paragraph includes calculated uranium extractions based on the ELI leach tests without accounting for possible improvements at longer retention times.

As shown in Table 11.1, the four composites contained variable concentrations of vanadium, but most of it, at least by one method of calculation, was dissolved by the oxygenated bicarbonate lixiviant. The uranium and vanadium dissolutions in Table 11.1 were calculated from worksheets describing individual ELI leaching cycles and are based on assays of heads and residues. There are analytical uncertainties, however, so Tables 11.2 and 11.3 summarize results obtained by different approaches. The uranium dissolutions in Table 11.2 are based on dividing the uranium mass in the leachates by the sum of the masses of uranium in leachates and residues. The vanadium dissolutions in Table 11.3 are based on dividing the sum of the vanadium masses in the leachates by the vanadium mass in the sample prior to leaching. Thus, the vanadium dissolutions given in Table 11.3 are lower than those in Table 11.1, while the uranium dissolutions in Tables 11.1 and 11.2 are comparable. Available data do not allow a rigorous determination of the amount of vanadium that will dissolve during commercial leaching, but it is clear that vanadium will be present in the pregnant leach solutions.

Table 11.1: Uranium and Vanadium Dissolutions Based on Solids Assays

	Core Assays – mg/kg		Residue Assays – mg/kg		% Dissolutions	
Sample	**U**	**V**	**U**	**V**	**U**	**V**
DB-07-11-4C #1	670	59	70	35	90.3	45.0
DB 07-32-2C #2	2020	648	625	175	71	74.7
DB 07-32-2C #3	7370	348	2336	358	71	5.9
DB 07-32-2C #4	1370	79	103	31	92.8	61.4

Table 11.2: Uranium Dissolutions Based on Leachate and Residue Assays

Sample	mg U in leachates	mg U in Residues	Total mg U	% U Dissolution
DB-07-11-4C #1	324	10.0	334	97.0%
DB 07-32-2C #2	722	229.5	952	75.8%
DB 07-32-2C #3	3235	386.5	3621	89.3%
DB 07-32-2C #4	775	73.7	849	91.3%

Table 11.3: Vanadium Dissolutions Based on Head and Leachate Assays

	Head: Pre-Test			Leachate	
Sample	Dry Head mass (g)	V - mg/kg	mg V	mg V Extracted	% V Dissolution
DB-07-11-4C #1	631.4	58.9	37	6.5	17.4%
DB 07-32-2C #2	610	648	395	194.9	49.3%
DB 07-32-2C #3	597	348	208	24.1	11.6%
DB 07-32-2C #4	629	79.4	50	17.5	35.0%

The ELI report states “Vanadium mobilization occurred in all intervals; however, uranium appeared to leach first and preferentially.” This conclusion is generally supported by the test results. There are potentially important consequences of high vanadium dissolution. Vanadium in the VO-3 and VO4-2 valence states will exchange onto and elute from a strong-base anionic resin along with uranium. However, the resin’s affinity for uranium is stronger, so vanadium can be “crowded off” the resin with higher uranium loadings. Based upon present data, vanadium ratios are variable and may require additional attention within the processing facility. There are several options for removal of vanadium, including elution and separation by IX or solvent extraction. Should further testing or initial operations prove that vanadium is inhibiting uranium recovery, the addition of a vanadium removal system to the processing plant may be necessary. Capital costs for a vanadium circuit are not presented in the economic analysis at this time.

SRK recommends further testing to determine the U/V ratios in leach solutions and the favored approach to handling U and V separation.

11.3.2 Pressurized Bottle Roll Test

A novel bottle roll test was conducted at HRI (Project No. 10695) during September-December 2008. As described in the test report:

“The purpose of the testing was to simulate field leaching conditions as closely as possible in order to observe the extent of uranium leaching that occurred and to measure the water quality of the mining solution, or lixiviant, after uranium recovery was complete. This post-mining water quality, measured in the laboratory, would then serve as an estimate of end-of-mining groundwater quality in actual field conditions” (Munro 2009)

In this test gaseous carbon dioxide and oxygen were used at elevated pressures, instead of aqueous reagents, in an attempt to realistically simulate the hydrostatic conditions that prevail at the bottom of a solution column in an injection well. The test sample consisted of an ore composite developed from core material obtained during the 2007 drilling program at Dewey-Burdock. However, this core material was not properly sealed and stored at that time for later testing. The prolonged exposure of the core material to air indicates that some minerals within may have undergone oxidation reactions due to contact with atmospheric oxygen. In addition, the ore composite was not assayed prior to testing.

SRK reviewed the results of this testing and determined that the procedure utilized was not suitable for the data objective. SRK does not recommend further testing of this nature.

12 Mineral Resource Estimate (Item 14)

Section 12 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Dewey-Burdock Uranium Project, Custer and Fall River Counties, South Dakota", with an effective date of March 1, 2010, and Lyntek's report titled "Preliminary Economic Assessment, Dewey-Burdock ISR Project", with an effective date of March 1, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

Section 12.1 through 12.3 are derived from the above referenced Powertech NI 43-101 on Resource (Bush, 2010). Section 12.4 describes SRK's audit of the resource estimation procedures and resource classification completed by Jerry Bush. Section 12.5 provides Lyntek's analysis of resource recovery and mine life for a proposed ISR wellfield.

The primary purpose of this technical report is to re-categorize the total resource base within the Dewey-Burdock Project. To date, all previous technical reports have categorized these resources as "inferred resources", based solely on historical data. As presented in Section 10.0 - Data Verification of this report, the results of Powertech's confirmation drilling programs from 2007 -2008 have successfully verified historical project data. This re-categorization is therefore based upon a combination of historical and recent drilling data. In order to perform this re-categorization, an extensive evaluation of Dewey-Burdock project resources was undertaken. The first step in this evaluation process was the GT contouring of all identified resources. The next step involved the application of criteria and definitions presented in the CIM Definition Standards for Mineral Resources and Mineral Reserves, dated November 27, 2010 to these identified resource areas to establish resource categories.

There are no established reserves for Dewey-Burdock.

12.1 GT Contouring

For the ISR industry, GT contour mapping is the accepted and preferred method of resource calculation, as well as for well field design and layout. The reason that this method is preferred over all others is the experience of the industry in successfully mining many ore bodies. The GT contour method is highly accurate in predicting resources as shown by the recovery of the uranium. It is believed that the method most closely represents the manner in which the uranium is precipitated from solution within the sedimentary horizons that separate individual roll fronts. GT is a summary of mineralization, based on the grade thickness product; Grade (G) multiplied by the Thickness (T) of a mineralized intercept. After extensive subsurface correlation of mineralized sandstone units to determine geologic continuity, a listing of all mineralized intercepts for individual sandstone units was developed.

Mineralized intercepts that met or exceeded a GT of 0.5 were placed on drillhole maps. In cases where two or more mineralized zones were present in the same sandstone unit, if the separation of these mineralized intercepts was 10ft or less, the GTs were summed. If this separation of mineralized intercepts was greater than 10ft, only one GT value was used. Hand-drawn contouring of the GT values was then performed. Standard extrapolation techniques were used in the contouring process, along with the incorporation of some geologic interpretation. This interpretation took the physical characteristics of a roll-front uranium deposit into consideration, allowing for the projection of contour lines along the trend of the observed oxidation/reduction boundary. Individual contour lines were drawn for GTs of 0.50, 1.0, 2.0, 3.0, etc. The resulting GT contour map provides an excellent representation of the distribution of uranium grades and delineates the roll-front within each resource area. An example of a GT contour for a portion of the resources in the Burdock Area is shown in Figure 12.1; the outermost contour being the 0.5ft-% GT (equivalent to 10ft @ 0.05% eU_3O_8).

For each resource area, the first step in estimating resources was to calculate areas (in square feet) between each GT contour line; AutoCAD was used for this purpose. Resources were calculated by multiplying the area of each interval enclosed by the GT contours by the average GT of that interval and divided by the tonnage factor of 16ft3/t (Avg. GT x Area in ft2 x 20)/16ft3/t = lbs U3O8. All individual interval resources were summed to determine a total for each resource area. Spreadsheets for these calculations were maintained.

12.2 CIM Definition Standards

To categorize these GT contoured-resources, criteria from the CIM Definition Standards were applied to each resource area. The GT contour maps (and the drillhole data from which they were prepared) were the primary focus of the resource reclassification effort. The CIM Definition Standards state that a mineral resource is known, estimated or interpreted from specific geological evidence and knowledge. A resource is further sub-divided into categories based on increasing geological confidence, such that inferred resources have a lower level of confidence than that applied to an indicated resource. An indicated resource has a higher level of confidence than inferred resources but has a lower level of confidence than a measured resource. CIM resource definitions are as follows:

Inferred Mineral Resource - An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.

Indicated Mineral Resource - An ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Measured Mineral Resource - A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity.

As previously discussed in Section 12.0 - Data Verification, it is the opinion of Jerry Bush (QP for Mineral Resources) that the exploration techniques used by TVA and Powertech to delineate these resources were reliable, accurate and appropriate. To complete the categorization process, the results of the historic and confirmation drilling was examined to verify that the uranium mineralization at Dewey-Burdock fits an accepted uranium deposit model and that the mineralized sandstones could be fit into an accepted depositional environment model. As previously discussed in this report, uranium mineralization within the project area fits a sandstone roll-front uranium model and the host sandstone were deposited in a fluvial depositional system. Based on industry knowledge of these models, site-specific criteria were applied to the GT contoured-resources in order to establish a level of confidence for resource areas. These criteria apply to the geological and grade continuity of the resource areas, as well as the drillhole spacing within individual resource areas.

Geologic Continuity – Specific geologic data were reviewed for each resource area (GT contour map) to confirm that the mineralization is consistent with a sandstone roll-front deposit model within fluvial channel sandstones. Sufficient drillhole electric and geologic lithology logs were reviewed for each area to determine the presence of a consistent mineralized oxidation/reduction (redox) boundary in the subsurface. At the same time, drillhole data within the project were reviewed to gain an understanding of the identification and correlation of stratigraphic units in the subsurface. Cross-sections were developed and reviewed, along with a review of existing isopach maps, to demonstrate the presence of individual, mapable continuous host sandstones. Laboratory results of core analyses were reviewed that demonstrated sufficient permeability and porosity of host sandstones for movement of mineralized solutions, as well as physical parameters showing low vertical permeabilities for confining clay units above and below the host sandstones. Preliminary laboratory analyses on the leachability of uranium within the resource areas were also reviewed. These analyses support the interpretation of roll front uranium as opposed to refractory mineralization. All this data confirmed the presence of uranium mineralization within a geologic environment that is continuous throughout the project area.

Grade Continuity – Again, the confirmation that Dewey-Burdock mineralization is associated with sandstone roll front deposits is an important factor in establishing grade continuity of the resources. In a roll front deposit, the continuity of the grade of a deposit or resource area is directly related to the mineralized redox boundary. Uranium mineralization in a roll front deposit has a readily identifiable elongated, crescent-shaped configuration. The “points” of the crescent are within the oxidized portion behind the redox boundary. The highest-grade portion of the mineralization is found in the center of the crescent at the redox boundary or the “front”. The length of a deposit or resource area is roughly parallel to the redox boundary and can have a length of a few hundreds of feet to a few thousands of feet. The width of a resource is at a right-angle to the redox boundary and will measure from a few tens of feet to a few hundreds of feet. Cross-sections drawn or reviewed by the author within all resource areas illustrated the presence of roll front uranium and the continuity of uranium mineralization along redox boundaries within sandstone units. Drillhole data gathered on the Dewey-Burdock Project demonstrates that the grades of uranium mineralization within these roll front deposits are both continuous and predictable.

Drilling Hole Spacing - It was determined that in order to complete an orderly re-categorization of resources, some site-specific clarification of definitions within the CIM Definition Standards was required. With respect to the required drillhole spacing, the following definitions apply:

Drilling Density for Measured Resources – Within the Dewey-Burdock project, the uranium deposits are contained in terrestrial, fluvial sandstones. The average width of a resource area is 50 to 75ft and the average grade of the deposit is 0.20% U_3O_8. A review of historical TVA drilling within the resource areas shows that a diamond-shape drill pattern with drillhole spacing of approximately 75ft was successful in delineating resource areas and confirming geological and grade continuity. This density of drilling yields an average Area of Influence per hole of 5,625ft^2. Therefore, it was determined, for the purpose of delineating measured resources; drillholes within a resource area must be spaced at a sufficient density to yield an average Area of Influence of less than 5,000ft^2.

Drilling Density for Indicated Resources - A review of historic TVA drilling shows by increasing drillhole spacing to a diamond-shape drill pattern with drillhole spacing of approximately 150ft, the geological and grade continuity of the resource areas could be reasonably assumed. This density of drilling yields an average Area of Influence per hole of 22,500ft^2. Therefore, Indicated resources were defined within the overall confining shape of mineralization, the 0.5GT boundary, by establishing an area of influence of 22,500ft^2 around each mineralized drillhole. The percentage of the total area encompassed by the 22,500ft^2 areas of influence relative to the total area of the confining GT contour applied to the total pound of uranium equates to the percentage of the total classified as Indicated.

Drilling Density for Inferred Resources - Historic TVA drilling shows that wide-spaced exploration drillholes can identify the redox boundary and encounter higher-grade mineralization along this boundary. From this limited drilling, a GT cut-off can be applied to an area and resources can be estimated. However, additional grid drilling is required before the geological and grade continuity of the resource areas can be reasonably assumed. Therefore, the percentage of the total area outside the 22,500ft^2 areas of influence of each mineralized drillhole but internal to the confining GT contour, applied to the total pound of uranium equates to the percentage of the total classified as Inferred.

12.3 Mineral Resource Estimates

Uranium resources have been calculated for multiple, stacked mineralized sandstone units within the Dewey-Burdock project. To date, resources have been delineated in three sandstone units within the Fall River Formation and seven individual mineralized units within the Lakota Formation. (See Figure 12.2).

For the initial technical report in December 2005, only uranium intercepts that had an average grade of 0.05% U3O8 or greater and were of sufficient thickness to yield a GT product of 0.50 were used. Table 12.1 presents the RBS&A-calculated inferred uranium resources for the Dewey and Burdock areas.

Table 12.1: 2005 Inferred Resources (Powertech 2005)

Area	Tons	Average Grade	Pounds (U_3O_8)
Dewey Area	887,000	0.22% U_3O_8	4.0 million
Burdock Area	920,000	0.20% U_3O_8	3.6 million
Total Dewey-Burdock	1,807,000	0.21% U_3O_8	7.6 million

In the updated technical report of June 2009, uranium intercepts with an average grade of 0.02 % U3O8 or greater and a GT value of 0.20 were used in the calculation of inferred resources. The inclusion of these 0.20GT cut-off resources with the previously-identified resources from the original technical report had the effect of reducing the average grade of the Dewey-Burdock total resource inventory. Table 12.2 presents the 2009 inferred resources published by Powertech.

Table 12.2: 2009 Inferred Resources (Powertech 2009)

Area	Tons	Average Grade	Pounds (U_3O_8)
Dewey Area	1,198,136	0.195 % U_3O_8	4,659,400
Burdock Area	1,794,700	0.172 % U_3O_8	6,153,600
Total Dewey-Burdock	2,992,836	0.182 % U_3O_8	10,813,000

In this updated technical report, using the above-described evaluation criteria, project resources were calculated and reported for both Inferred Resources and Indicated Resource categories. In the opinion of the author, there was not sufficient drillhole records or density to support the calculation of Measured Resources. In addition, project resources are being reported for both a 0.20GT and a 0.50GT cut-off.

All indicated resources were calculated using detailed GT contour mapping (see Figure 12.1). The author reviewed all GT contour maps, audited drillholes and mineralized intercepts used in the construction of these maps and examined drillhole densities in accordance project-specific criteria. Individual resource areas that met the evaluation criteria were summed to determine total indicated resources for the Dewey-Burdock Project.

Inferred resources were estimated by two methods:

- GT contoured intervals that displayed geologic and grade continuity, but whose drillhole density did not meet the criteria for Indicated Resources were categorized as Inferred Resources; and
- Areas within the Dewey-Burdock Project where significant uranium mineralization had been encountered, but had not received sufficient drilling to perform GT contouring were considered for Inferred Resource status. A 0.20GT outline was drawn around these mineralized areas and if the drillhole spacing within these mapped outlines met the project-specific criteria, they were designated as Inferred Resources. Average GTs from adjacent resource areas were applied to these areas for resource estimation.

Figure 12.3 shows the outline of all uranium resources included in this updated technical report.

Table 12.3: 2010 Dewey-Burdock Resources - 0.50GT (Bush 2010)

Classification	Tons	Average Grade	Pounds (U_3O_8)
Indicated Resources	1,561,560	0.214 % U_3O_8	6,684,285
Inferred Resources	1,259,438	0.179 % U_3O_8	4,525,500

12.4 SRK Resource Audit

As part of this Scoping Study Preliminary Assessment, SRK audited the resource methodology used for Dewey-Burdock by Powertech and independent “Qualified Person” Jerry Bush. At the request of SRK, Powertech presented detailed drillhole data for two areas of planned well field development. The areas chosen by Powertech include a portion of the Dewey and the Burdock areas. SRK audited only a representative portion of the Dewey mineralized area, not the entire resource. The following section describes the process utilized by SRK to audit this resource.

12.4.1 Thickness Digital Terrain Models

SRK used the top and bottom elevations for each of the composite intercepts for each mineralized zone. Digital terrain models for the top and bottoms of the surfaces were created and loaded into the block models to create a thickness representation for each zone of each sandstone unit. The horizontal extent of the mineralized zones was limited by the respective 0.5GT contour outlines created by Powertech as described in Section 12.1. Given the limited amount of available data points for the creation of surfaces, controlling elevations were created external to the outlines by a method whereby triangulation control “points” were fitted to the known plane of existing true data. The results of this process are displayed on the three dimensional projection of Figure 12.4 for the F13 front. Given the importance of thickness and given the limitation of data in many of the portions of the zones (one intercept), additional data would be required to fully characterize this variable.

12.4.2 Dynamic Anisotropy and Search Orientation

Variograms, indicator variograms and correlograms were constructed with limited success for the Dewey data. Given the variation of both lower-grade and higher-grade values, and the lack of closely spaced values, very erratic results were obtained with very high nugget values relative to sills. In particular, no preferential orientations (anisotropies) of mineralization could be observed internal to the 0.5GT contour. SRK is of the opinion from general geologic inspection that broad orientation trends do exist. The GT contouring carried out by Powertech clearly identifies mineralized trends; however, data reviewed for Dewey is too sparse for geostatistical confirmation.

The dynamic anisotropy option in Datamine Studio3® allows the anisotropy rotation angles for defining the search volume to be defined individually for each cell in the wire-frame digital terrain models. The search volume is oriented precisely and follows the trend of the mineralization. The rotation angles are assigned to each cell in the model; it is assumed that the dimensions of the ellipsoid, the lengths of the three axes, remain constant. Since the three axes of the search volume are orthogonal and only two rotations are used (dip and dip direction) the orientation of all axes are explicitly defined. The point values can be taken from the orientation of the triangular facets that comprise the surface of a wireframe. In this case, the rotations are in plan only (one-dimensional) and a point file, where each point has a value for direction, is created from the GT contour strings defined by Powertech as described above. These points are displayed on Figure 15-4; each “arrow” is a locally interpreted “direction”. These points are interpolated into each zone of the block model (using zonal control) and control the subsequent ellipsoidal search orientation for grade estimation for that block.

12.4.3 Grade Estimation

Block grades of eU3O8 were estimated using the dynamic search orientation as described above, with a three to one anisotropy (search along primary orientation was three times that across), hard boundary zonal control and an inverse-distance power of two. The primary search was set initially to 150ft (secondary and tertiary to 50ft) with the requirement of a minimum of two composites, and the search distance was subsequently doubled for an interpolation of non-interpolated blocks.

A grade-thickness product variable (G x T or GT) was calculated from the estimated eU3O8 variable (G) and the thickness (T) variable derived from the digital terrain models. SRK further constrained the estimated resource for the trends to areas that were considered to demonstrate reasonable geologic continuity and in particular to areas that were more or less interior to the drilling pattern.

Projections beyond the extent of drilling were minimized; however, certain projections between intercepts in zones with a reasonable appearance of good geologic continuity were in some cases allowed. This interpretation is partly subjective, based on the available sample intercepts but also on an appraisal of continuity.

The resources estimated by SRK and those estimated by Powertech, within the limited portion of the Dewey area modeled, were globally similar. This is expected given the use of 0.5GT contours provided by Powertech to limit the horizontal extent of each mineralized zone within each sandstone unit and the use of essentially an identical data set of composite intercept picks provided by Powertech. In general, SRK finds no flaws in the overall Powertech global resource.

The major differences in resource estimation methodology are:

- The SRK representation is fully three-dimensional. Since the units are stacked vertically, this allows the spatial distribution of available sample intercepts and modeled grades, in and between each intercept, to be more fully examined;
- SRK created a block model that allows an analysis of the spatial internal variation of available sample intercepts and modeled grades within a given unit; and
- With the use of Datamine Studio3® software, SRK was able to rapidly examine alternative representations, assumptions and sensitivities.

12.4.4 Comments

SRK independently evaluated the Dewey-Burdock uranium resource using different techniques than Powertech. The resource estimates completed by SRK and Powertech are nearly identical for the total indicated and inferred resource; however when compared, the ratio between the resource classifications is different. The following section discusses these results and describes the differences.

SRK found that within the Dewey area modeled, there were areas with different sampling density. SRK found a non-uniform distribution of grade, thickness, and grade-thickness product. SRK also found that, in many cases, areas with the higher variability of these important characteristics had lower density of sampling than areas with lower variability of these characteristics. This is seen on Figures 12.4 and 12.5. For resource estimation, ideally, the opposite would be the case; where grades (or GT) are higher, so should be the sample density.

SRK also notes that for the Dewey area modeled, a number of the higher grade (GT) intercepts are positioned on the margins of the overall drillhole pattern (Figures 12.4 and 12.5), and for resource estimation cautionary steps would normally have to be taken to avoid undue projection of these values beyond the extent of information. For example, SRK would consider the majority of the resource within the 0.5GT contour displayed on Figure 12.5 to be classified as Inferred. These intercepts are 200ft apart, and the northern most intercept with a GT of 3.7 is isolated on the margins of the delineation. On Figure 12.4 SRK would classify much of the resource to the west of the higher-grade (GT) intercepts to be Inferred as well.

Powertech used the following criteria for resource classification:

"Therefore, Indicated resources were defined within the overall confining shape of mineralization, the 0.5GT boundary, by establishing an area of influence of 22,500ft^2 around each mineralized drillhole. The percentage of the total area encompassed by the 22,500ft^2 areas of influence relative to the total

area of the confining GT contour applied to the total pound of uranium equates to the percentage of the total classified as Indicated."

The spacing of the original TVA historical drilling was on an irregular grid. An area of influence of 22,500ft^2 corresponds to a density of drilling equivalent to a holes drilled on a maximum 150 ft grid. Powertech calculated the average drillhole area of influence within a 0.5 GT contour and if it was less than 22,500ft^2, then the entire GT contour area was classified as Indicated. The application of average area of influence does not take into account position, grade, or GT of individual holes; nor does it take into account clusters of close spaced holes in contrast to single isolated holes. The Powertech analysis results in approximately 63% of the resource pounds for the audited area classified as indicated. SRK would classify approximately 50% of the resource pounds as indicated. The difference is accounted for by the different approaches to drillhole area of influences discussed above; however, for the purpose of this Preliminary Assessment, SRK considers the difference in classification percentages of Indicated to not be material, primarily because the difference is only 13% and the total resource as estimated by Powertech and SRK is essentially the same. In addition, this Preliminary Assessment uses both indicated and inferred resources, therefore the classification difference is not relevant to the Preliminary Assessment in Section 16.0 of this report.

For future resource updates, SRK recommends the Powertech approach to resource classification be further modified to take into account two characteristics:

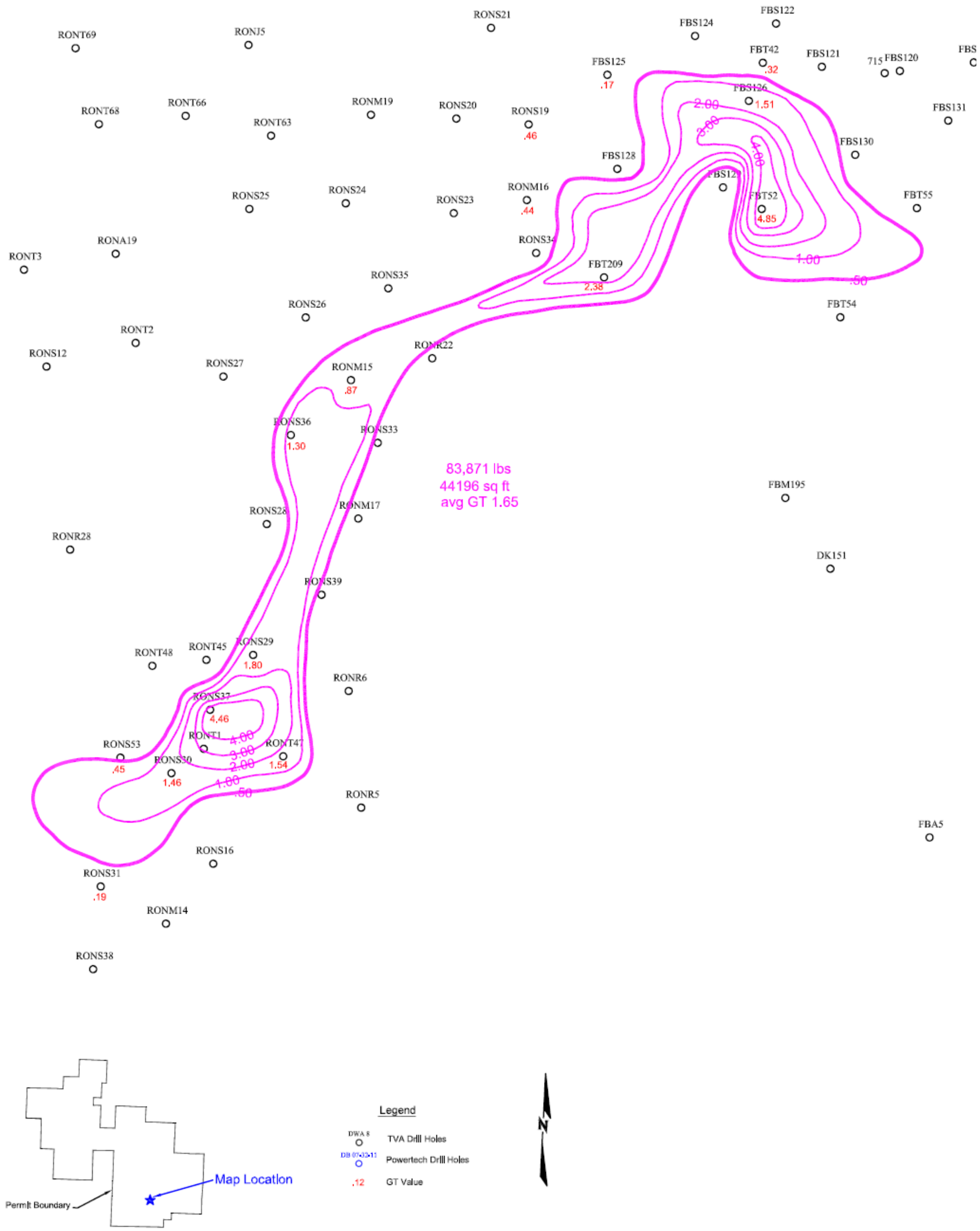
- The grade (or GT) of the intercept; and
- The position of the intercept.

These characteristics are not independent. A higher-grade (i.e., higher GT) intercept surrounded by, or close to, in line with a reasonable geologic interpretation, that is not on the margin of the overall delineation warrants a reasonably high area of influence while one isolated, or on the edge of the overall delineation should be constrained. In many cases, this requires a subjective assessment of geologic continuity however the position of other samples must also be taken into account.

SRK recommends that isolated holes with high grades (high GT) be tested with offset drillholes along the mineralized trend to better define the area of influence of these high GT holes. Powertech plans to conduct definition drilling to achieve 10,000ft^2 areas of influence as part of the planned ISR well-field design for production. At that time, the area of influence of high GT holes will be better defined.

SRK understands that Powertech has purchased Micromine, version 11.0.4, a 3-D modeling software, for use in final resource estimation within the planned well fields. This industry standard software will allow the creation and maintenance of various databases for all forms of data. In addition, it will provide the ability to represent and manipulate all data in three dimensions including drillholes, geologic interpretations and spatial models. Numerical estimation methods, beyond arithmetic averaging within outlines, should be implemented; as discussed above, not solely for the global resource calculation but as importantly for resource confidence classification, and for estimation of in-place reserves to establish uranium recovery within each well field. Many, if not most, of the commonly accepted industry standard practices for resource estimation are very difficult to achieve with manual methodologies.

While SRK differs with the Powertech resource classification methodology, for the purpose of this Preliminary Assessment, the differences are not relevant to the total resource that is potentially mineable, as that includes both Indicated and Inferred resources.



srk consulting

SRK Project No.: 194300.010

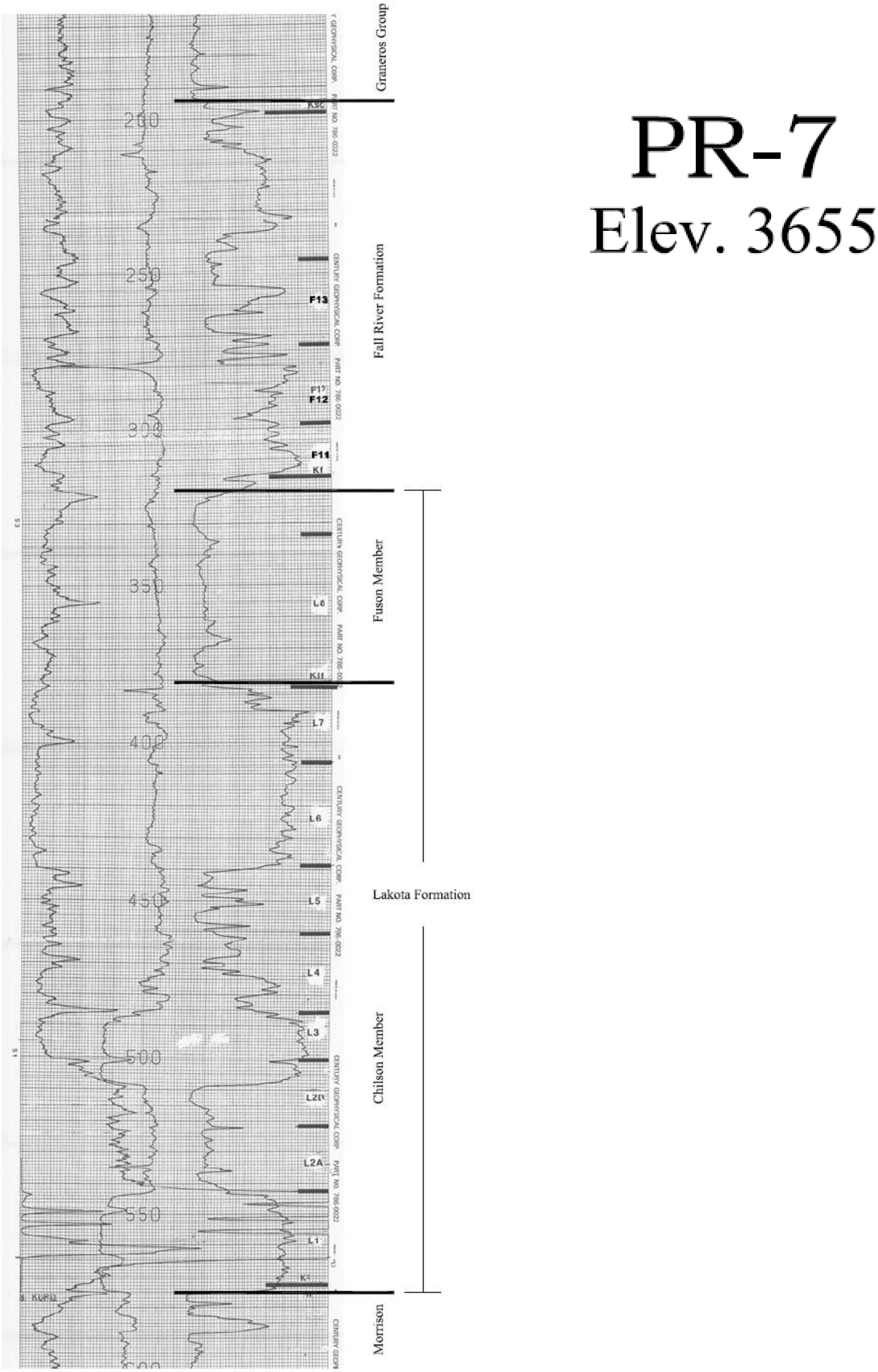
194300.030_Powertech_Dewey Burdock PEA_Figure_12.1

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

Source: Powertech (USA) Inc.

Typical GT Contour Map from the Burdock Project Area

Date: 20100414 | Approved: AM | **Figure: 12.1**



srk consulting

SRK Project No.: 194300.030

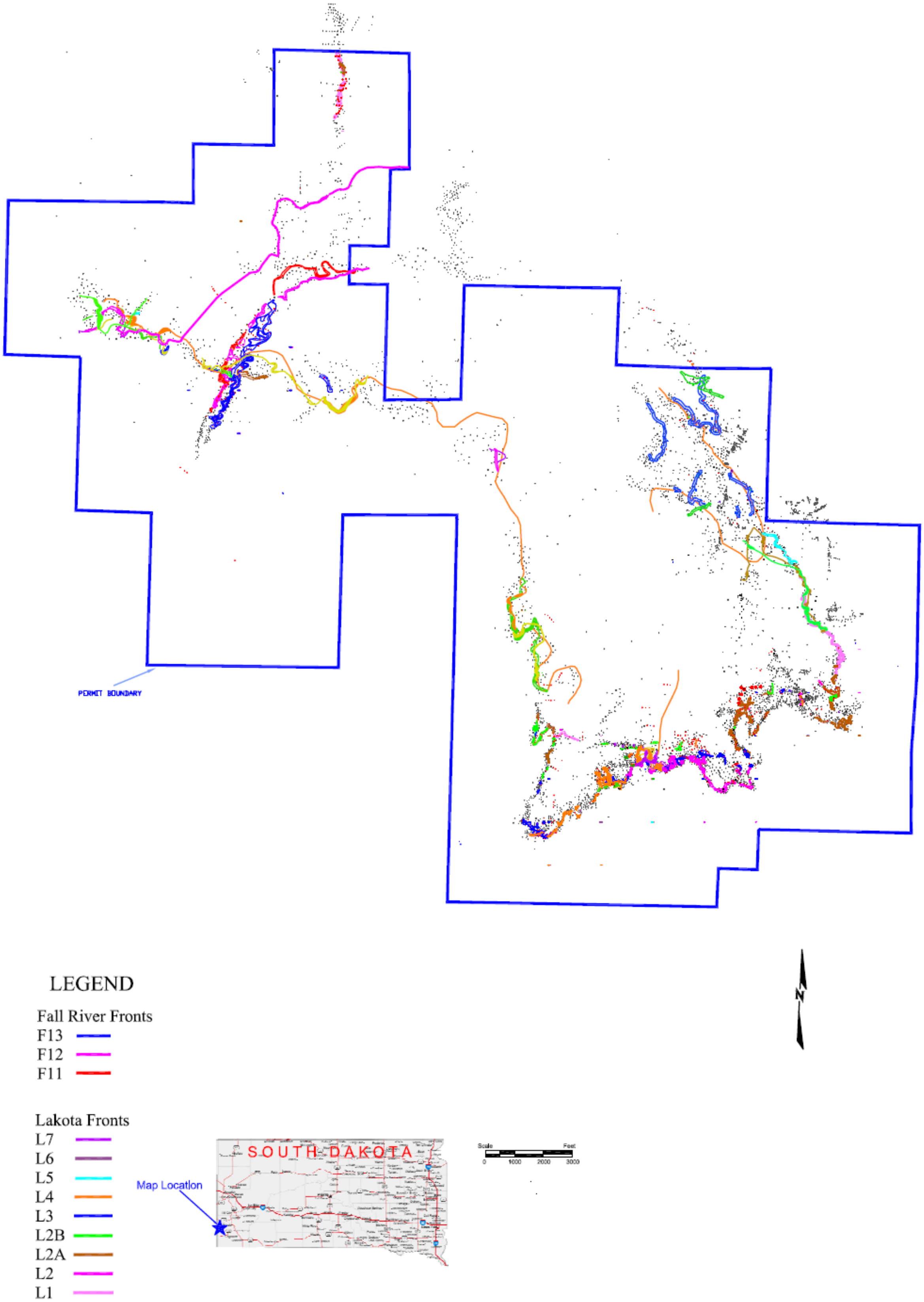
194300.030_Powertech_Dewey Burdock PEA_Figure_12.2

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

Source: Powertech (USA) Inc.

Type Log for Dewey-Burdock Project

Date: 20100414 | Approved: AM | **Figure: 12.2**



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SRK Project No.: 194300.010

File Name: Figure_15-3.docx

Dewey-Burdock Project, Custer and Fall River Counties, South Dakota

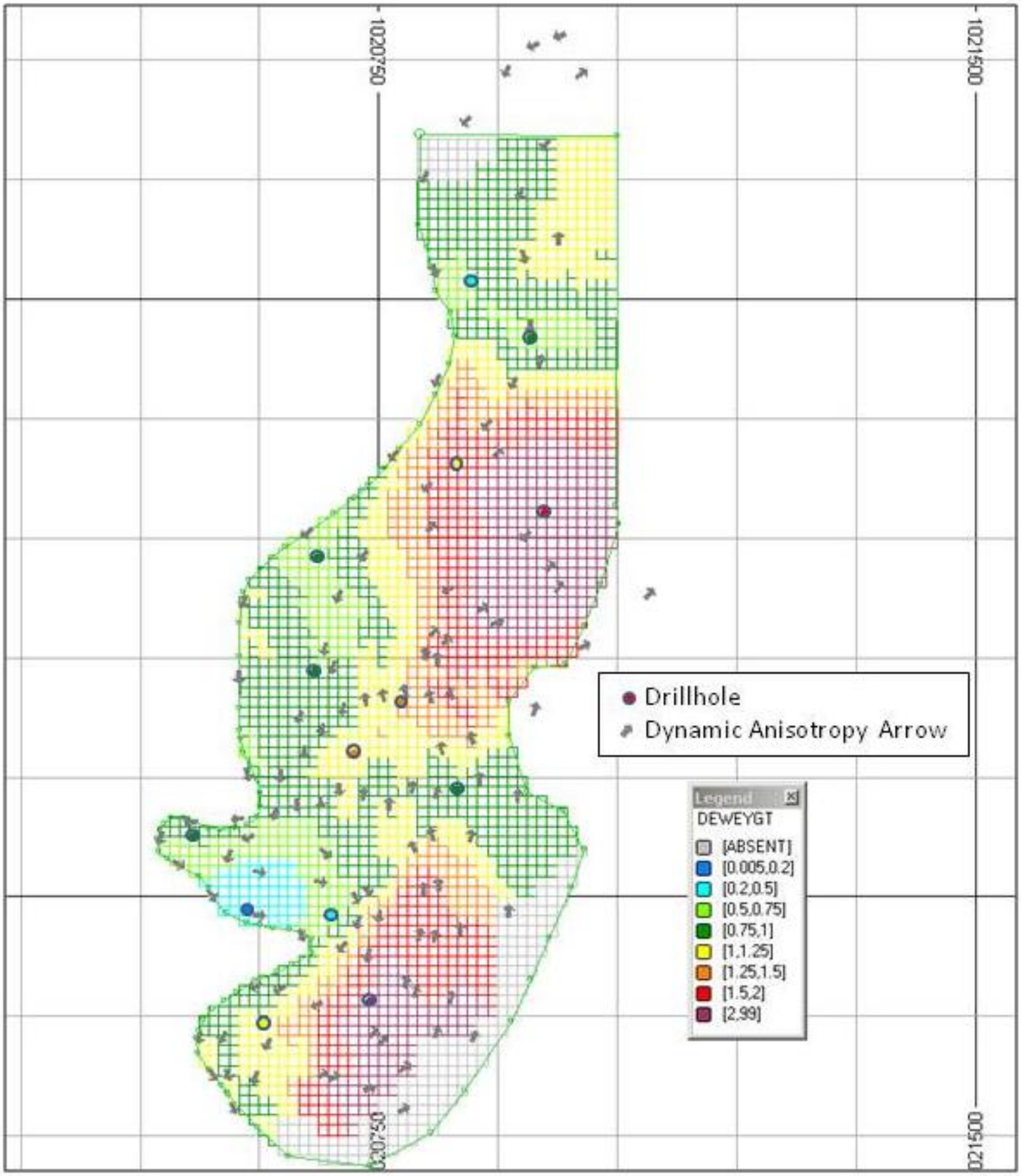
Source: Powertech (USA) Inc.

Dewey-Burdock Resource Areas

Date: 20100414

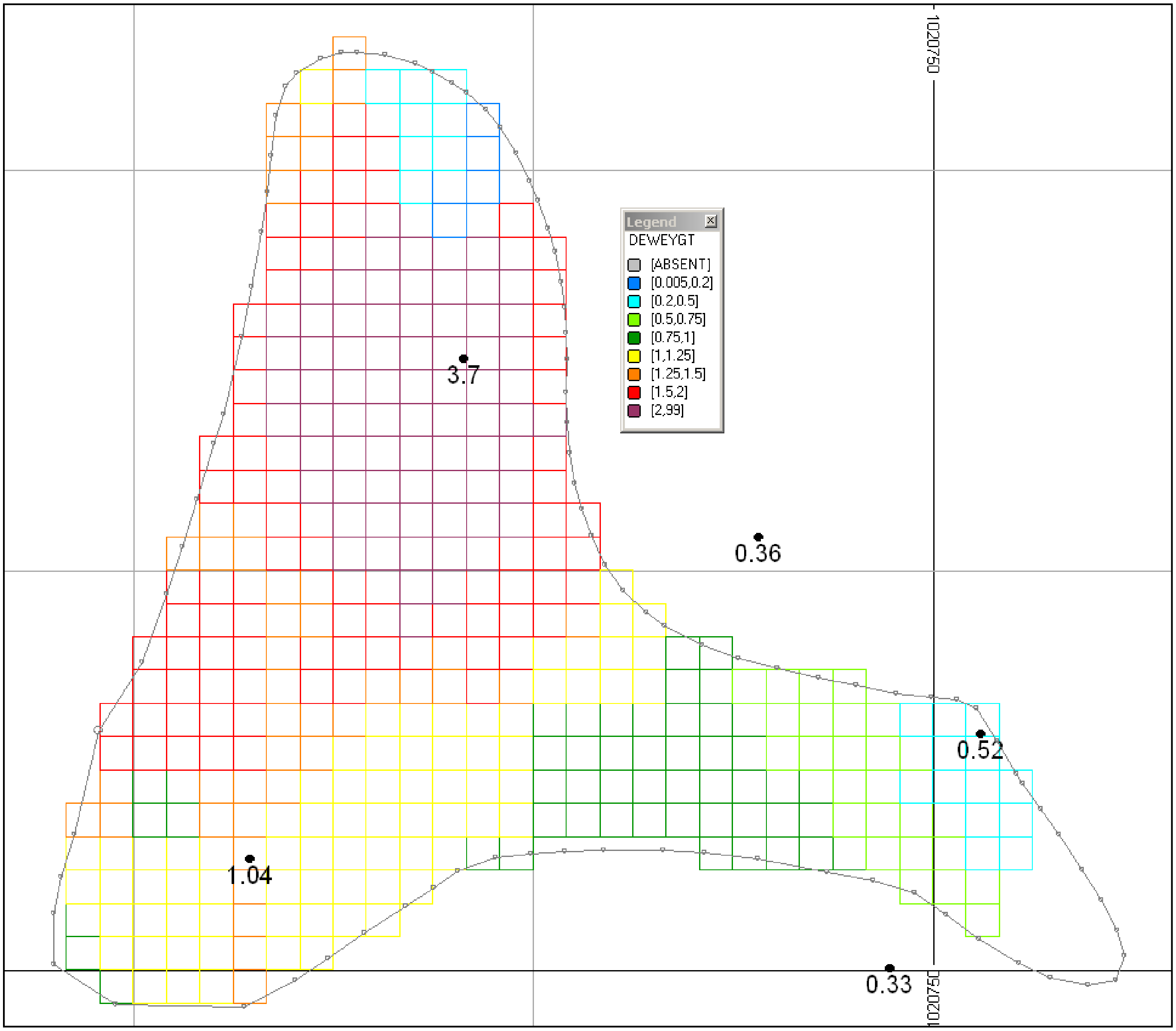
Approved: AM

Figure: 12.3



Note: Scale – 150 ft square grid; 12.5 ft square block size, in plan (colored squares); boundary is 0.5 GT contour

srk consulting	Dewey-Burdock Project, Custer and Fall River Counties, South Dakota	F13 Roll Front		
SRK Project No.: 194300.010				
194300.030_Powertech_Dewey Burdock PEA_Figure_12.4		Date: 20100414	Approved: AM	**Figure: 12.4**



Note: Scale – 150 ft square grid; 12.5 ft square block size, in plan (colored squares); boundary is 0.5 GT contour

srk consulting	**Dewey-Burdock Project, Custer and Fall River Counties, South Dakota**	**F12 Roll Front**
SRK Project No.: 194300.010		
194300.030_Powertech_Dewey Burdock PEA_Figure_12.5		Date: 20100414 / Approved: AM / **Figure: 12.5**

13 Mining Methods (Item 16)

Sections 13 through 18 pertain to scoping level studies on the potential for economic development of the Dewey-Burdock uranium project, as part of this Preliminary Economic Assessment. There are no current mining or processing operations at Dewey-Burdock.

In principle, in-situ recovery (ISR) of uranium from permeable sandstone formations consists of injecting a solution (lixiviant) into a mineralized section of the formation and extracting a production composite solution (PC) for treatment in a surface facility to recover the dissolved uranium. Typically, solution treatment produces a barren solution. A portion of this is disposed of to maintain favorable hydraulic conditions within the well field, and the remaining solution is reconstituted with reagents, restored with natural groundwater to the desired flowrate and re-injected.

As is the case with nearly all ISR operations, the plant for Dewey-Burdock will use oxygen as the oxidant for tetravalent uranium and carbon dioxide as a complexing agent to form water-soluble uranyl dicarbonate , $[UO_2(CO_3)_2]^{-2}$, or uranyl tricarbonate, $[UO_2(CO_3)_3]^{-4}$. Although the oxygen and carbon dioxide are introduced into the lixiviant as gases, they dissolve under the static pressure produced by the hydraulic head in the injection well. The target concentrations of oxygen and carbon dioxide, respectively, will be 400mg/L and 200mg/L, yielding an anticipated PC concentration of 60mg/L U_3O_8.

13.1 Process Benefits

Many impacts typically associated with conventional uranium mining and milling processes can be avoided by employing uranium ISR mining techniques. The ISR benefits are substantial in that no tailings are generated, surface disturbance is minimal in the well fields, and restoration, reseeding, and reclamation can begin during operations. As a particular well field is depleted, groundwater restoration can begin soon after, significantly reducing both the time period of post-production restoration, and the cumulative area not restored at any point in time. The final uranium product is yellowcake (uranium oxide) that has been dried in a vacuum dryer.

At the end of the project life, affected lands and groundwater will be restored as dictated by permit and regulatory requirements.

The well field areas are logically divided into mining units for scheduling development works, which also allows the establishment of specific baseline data, monitoring requirements, and restoration criteria. Each mining unit consists of a potentially mineable resource block ranging from 2 to 41 acres, representing an area that will be developed, produced and restored as a unit. Approximately 12 such units will be required throughout the total project area. Two to three mining units may be in production at any one time with additional units in various states of development and/or restoration. Aquifer restoration of a mining unit will begin as soon as practicable after mining in the unit is complete. If a mined-out unit is adjacent to another unit being mined, restoration of a portion of the unit may be deferred to minimize interference with the operating unit.

13.2 Well Field Design Concepts

Well fields will be developed based on conventional five-spot patterns. Injection and production wells within a mining unit will be completed in the mineralized interval of only one mineralized zone at any one time. Injection and production wells will be completed in a manner to isolate the screened uranium-bearing interval. Production zone monitor wells will be located in a pattern around the mining unit or units with the completion interval open to most of the production zone. Overlying and underlying monitor wells will also be completed in the aquifers immediately above and below the production zone to monitor and minimize the potential for vertical lixiviant migration.

13.2.1 Well Field Pattern

The Dewey well field will consist of five mining units extending over approximately 3,025,000ft^2 (69 acres). Pending future changes that will reflect a clearer understanding of site specifics such as permeability variations and well performance, there will be approximately 385 five-spot square patterns, 100ft x 100ft in dimension. Actual pattern geometry may easily vary from 50ft x 50ft to 100ft x 100ft depending upon actual field conditions. Powertech expects to delineate on average, a 100ft x 100ft grid.

The Burdock well field will include seven mining units on 5,203,500ft^2 (119 acres) of surface. Given the same caveats as for the Dewey well field there will be approximately 665 five-spot square patterns, 100ft x 100ft in dimension. Actual pattern geometry may easily vary from 50ft x 50ft to 100ft x 100ft depending upon actual field conditions. Powertech expects to delineate on average, a 100ft x 100ft grid.

The wastewater disposal system has been conservatively designed to have the capacity to process a 1% production bleed.

Monitor wells will be located approximately 400ft beyond the mining unit perimeter with a maximum spacing of 400ft between wells.

Each injection well and production well will be connected to the respective injection or production manifold in a header building. The manifolds will route the leaching solutions to pipelines, which carry the solutions to and from the ion exchange facility. Flow meters, control valves, and pressure gauges in the individual well lines will monitor and control the individual well flow rates. Well field piping will typically be high-density polyethylene pipe, as is appropriate to properly and safely control the solutions.

SRK considers the well field designs to be reasonable and conservative, based on the information presently available.

13.2.2 Well Completion

Monitor, production, and injection wells will be drilled, logged and reamed to accommodate casing. Casing is set and cemented to isolate the completion interval from overlying aquifers. All production, injection, and monitor wells will be constructed with polyvinyl chloride (PVC) following standard industry practices.

13.2.3 Well Casing Integrity

After a well has been completed and before it is made operational, a mechanical integrity test (MIT) of the well casing will be conducted. The MIT method that will be employed is pressure testing.

If a well casing does not meet the MIT, the casing will be repaired and the well retested. If a repaired well passes the MIT, it will be employed in its intended service. Also, if the well defect occurs at depth, the well may be plugged back and recompleted for use in a shallower zone provided it passes a subsequent MIT. If an acceptable MIT cannot be obtained after repairs, the well will be plugged. A new well casing integrity test will also be conducted after any well repair using a down-hole drill bit or under reaming tool.

Wells will again be subject to MIT every five years after start-up.

13.2.4 Well Field Control

Well field flow regulation will be managed from portable well field header houses. The header house will contain the collection and distribution interfaces between the injection wells, collection wells, and process facility. A typical header house contains injection and collection manifolds, valves, and flow meters; all controlled on an individual well basis.

14 Recovery Methods (Item 17)

The following discussion is derived from Lyntek Inc. as an analysis of the resource base for potential life-of-mine development, and the basis for conceptual design of processing facilities further described in Section 17 of this report. SRK made changes to formatting to fit this report, and SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

SRK notes that the Dewey-Burdock uranium resources are potentially mineable by in-situ leach and recovery (ISR) mining methods, and this is the basis upon which further conceptual mine and process plant design are predicated.

Recovery of mineral is projected at 75% from the mineral deposit through to feed to the plant. This value is an estimate based on similar existing operations in Powertech's experience profile. Leaching studies have been conducted on the mineralization. Therefore, the overall potential yellowcake production is estimated to be 8,407,774lb. Considering the well field development and production schedule, the life of mine, at a production rate of 1Mlbs/yr U_3O_8 is nine years.

The Dewey-Burdock project has two distinct locations, which conceptually will be mined simultaneously; the satellite Dewey site and the Burdock central site. Loaded resin will be trucked from the Dewey satellite IX facility to the Burdock central processing plant.

Shown below in Table 14.1 are the conceptual design criteria for the Dewey-Burdock project. These conceptual production values are used for the economic analysis of this project.

Table 14.1: Summary of Design Criteria for Dewey-Burdock Project

Statistic	Units	Value
Dewey-Burdock Indicated resources (lb-U_3O_8)	U_3O_8 lb	6,684,285
Dewey-Burdock Inferred resources (lb-U_3O_8)		4,525,500
Estimated overall recovery		75%
Total Resources Recovered	U_3O_8 lb	8,407,774
Annual yellowcake production	U_3O_8 lb/yr	1,000,000
Estimated mine life	Years	9
Daily operating schedule	Hours/d	24
Annual operating schedule	d/yr	350
Daily production required	U_3O_8 lb/d	2,857

It is common to achieve 75 to 80% ultimate uranium extraction from an ISR operation. The comments made by SRK in Section 14.2 illustrate the need for further extraction and recovery studies. For the purpose of this Preliminary Assessment, it is SRK's recommendation that Powertech's assumed uranium recovery of 75% during well field operation be accepted.

14.1 Processing Plant Design Concept

The processing plant for the proposed project will consist of a Central Processing Plant (CPP) and a Satellite Facility. The CPP will be located at the Burdock site and the Satellite Facility will be located at the Dewey site; the distance between the two facilities is approximately 4mi.

Recovery of uranium by IX involves the following process circuits (described in detail in the following sections):

- Resin loading;
- Production bleed;
- Resin elution;
- Precipitation;
- Product washing, drying and packaging; and
- Radium removal from wastewater.

The Satellite Facility will contain IX vessels for resin loading. The facility will be capable of processing 2,000gpm of lixiviant. The average uranium concentration for this design is 60ppm. Trucks will transfer resin between the Satellite Facility and the Central Processing Plant.

The Central Processing Plant will contain an IX process line, a precipitation circuit, and a washing, drying and packaging circuit. The IX loading vessels will be capable of processing 3,000gpm of 60ppm lixiviant. The elution, precipitation, product washing/filtering, drying and packaging circuits will be capable of processing more than 2,857lbs U_3O_8/d (1Mlbs/yr).

14.1.1 Resin Loading

The Burdock CPP resin loading circuit will consist of six pressurized vessels while the Dewey satellite plant will have four; each designed to contain a 500ft^3 batch of anionic ion exchange resin. These vessels will be configured in three parallel trains for two-stage down-flow loading. Booster pumps are located upstream and downstream of the trains.

As the pregnant lixiviant enters the IX circuit from the well field, the dissolved uranium in the pregnant lixiviant is chemically adsorbed onto the ion exchange resin. The barren lixiviant exiting the second stage will normally contain less than 2ppm of uranium.

14.1.2 Elution Circuit

Loaded resin is treated in the elution circuit. Resin is transferred to the elution vessels to recover uranium and regenerate the resin.

Eluate (sodium chloride and sodium carbonate) will be added to the elution vessels, stripping the resin of uranium and regenerating the resin for further use. Eluted resin, or barren resin, is then rinsed and returned to IX vessels for further loading. The elution process will consist of four stages: three (3) eluant stages will contact one 500ft^3 batch of resin with four bed volumes of eluant each and one (1) rinse stage will contact the batch with four bed volumes of fresh water. Uranium values (as uranyl carbonate) are then contained in the rich eluate solution.

14.1.3 Precipitation Circuit

Sulfuric acid is then added to the rich eluate to bring the pH down to the range of 2 to 3 where the uranyl carbonate breaks down, liberating carbon dioxide and free uranyl ions. In the next stage, sodium hydroxide (caustic soda) is added to raise the pH to the range of 4 to 5. After this pH adjustment, hydrogen peroxide is added in a batch process to form an insoluble uranyl peroxide (UO_4) compound. After precipitation, the pH is raised to approximately 7 and the uranium precipitate slurry is pumped to a 30ft diameter thickener. The uranium-depleted supernate solution overflows the thickener and is disposed of via a deep injection well. Solution may be treated to remove radium if required.

The precipitation cycle procedures and methods to be employed for this project have been used extensively in ISR programs and in conventional uranium milling operations and is a highly accepted and successful method of processing uranium.

14.1.4 Product Filtering, Drying and Packaging

After precipitation, the uranium precipitate, or yellowcake, is removed for washing, filtering, drying and product packaging in a controlled area. The yellowcake from the thickener underflow is washed to remove excess chlorides and other soluble contaminants. The slurry is then dewatered in a filter press and the filter cake is transferred in an enclosed conveyor directly to the yellowcake dryer.

The yellowcake will be dried in a low temperature (<300°F) vacuum dryer; which is totally enclosed during the drying cycle and is heated by circulating thermal fluid through an external jacket. The off-gases generated during the drying cycle, consisting almost entirely of water vapor, are filtered to remove entrained particulates and then condensed. Compared to conventional high temperature drying by multi-hearth systems, this dryer has no significant airborne particulate emissions.

The dried yellowcake is packaged into 55gal drums for storage before transport by truck to a conversion facility.

14.1.5 Radium Removal from Wastewater

Wastewater discharged from processing operations will be treated to remove radionuclides before disposal. Conventional treatment for radium removal is traditionally done with barium chloride ($BaCl_2$) treatment, resulting in the precipitation of a sludge that may be separated to decrease total volume for disposal. To achieve the separation of sludge from wastewater, a system of filtration is employed with polymer addition, to aid in settling and filtering. The tanks are placed on a curbed concrete pad to provide support and secondary containment. The concrete pad will be large enough to accommodate trucks to load/unload the filtration tanks. Due to the possibility of sustained below-freezing temperatures, the entire tank system is assumed to be housed inside a building.

14.2 Predicted Mass Balance

Powertech developed an inclusive predicted mass balance. Lyntek independently spot checked key points in the process for the Dewey-Burdock project using data from the Design Criteria.

The predicted mass balance results for the Dewey-Burdock IX circuit, Elution and Precipitation stage and Drying process are shown in Table 14.2. Tables 14.3 and 14.4 show the predicted mass balance for the Dewey-Burdock Project precipitation and drying, respectively. It is assumed that the head grade from the well field is 60ppm, which is based on Powertech's proprietary experience at similar plants.

Table 14.2: Predicted Mass Balance for the Dewey-Burdock Project IX Circuit

Item	Units	Burdock Central	Satellite Dewey	Total
Head grade from well field to IX	lb/h U_3O_8	72.0	48.0	120.0
IX feed flow rate	Gpm	2,400	1,600	4,000
Head grade from well field to IX	g/L	0.060	0.060	0.060

Item	Units	Burdock Central	Satellite Dewey	Total
Barren resin grade	lb/h U_3O_8	1.2	0.8	2.0
Barren resin mass flow	lb/h total	569	379	948
U_3O_8 on barren resin	lb/t	4.6	4.7	4.7
% Loading on barren resin		0.2%	0.2%	0.2%
Loaded resin grade	lb/h U_3O_8	73.0	49.0	122.0
Loaded resin mass flow	lb/h total	641	427	1,068
U_3O_8 on loaded resin	lb/t	251.1	253.0	251.8
% Loading on loaded resin		11.4%	11.5%	11.4%
Barren solution grade	lb/h U_3O_8	2.4	1.6	4.0
Barren solution flow rate	Gpm	2,400	1,600	4,000
Barren solution grade	g/L	0.002	0.002	0.002
Total Recovery in IX Columns		97%	97%	97%

Table 14.3: Predicted Mass Balance for the Dewey-Burdock Project Elution

Item	Units	CPP
Loaded resin grade	lb/h U3O8	122.0
Loaded resin mass flow	lb/h total	1,068
U3O8 on loaded resin	lb/t	251.8
% Loading on loaded resin		11.4%
1st stage elution recovery		90%
Recovered U3O8 in 1st stage	lb/h	109.8
U3O8 remaining on resin	lb/h	12.2
2nd stage elution recovery		70%
Recovered U3O8 in 2nd stage	lb/h	8.5
U3O8 remaining on resin	lb/h	3.7
3rd stage elution recovery		40%
Recovered U3O8 in 3rd stage	lb/h	1.5
U3O8 remaining on resin	lb/h	2.2
% Loading on barren resin		0.1%
Barren resin grade	lb/h U3O8	2.0
Barren resin mass flow	lb/h total	948
Total Recovered U3O8	lb/h	119.8
Total Recovery in Elution		98%

Table 14.4: Predicted Mass Balance for the Dewey-Burdock Project Precipitation & Drying

Item	Units	CPP
Feed head grade to precipitation	lb/h U_3O_8	119.8
Feed flow rate	Gpm	10
Feed head grade to precipitation	g/L	23.457
Solid U_3O_8 precipitate recovered	lb/h U_3O_8	119.8
Slurry discharge flow rate	Gpm	11
Total slurry mass flow	lb/h	5,740
Slurry % solids		2.1%
Thickener underflow	lb/h	1250
Thickener underflow % solids		9.6%
Recovery in precipitation		100%
Feed flow to filter press	lb/h	1250
Feed % solids		9.6%
Filter cake mass flow	lb/h	294
Filter cake % solids		40.7%
Dried yellowcake mass flow	lb/h	121
Dried yellowcake % solids		99.0%
Daily yellowcake production	lb/d	2,875

As Table 14.4 shows, the predicted flow rates and recoveries in the mass balance will produce the target annual yellowcake production of 1Mlb.

14.3 Predicted Water Balance

Uranium ISR is typically a water-intensive process; therefore, a significant amount of water is recycled through the system to reduce the water usage. The brine disposal system design is also dependent on the amount and quality of the wastewater produced. The wastewater disposal option investigated for the Dewey-Burdock project was deep well disposal with reverse osmosis.

The Dewey-Burdock project will have one source of process water, local aquifer water. Water usage is grouped into the following sections:

- Production well field;
- Restoration well field;
- Central processing plant and satellite facility; and
- Drilling, road maintenance and other activities.

As mentioned earlier, the production well field is expected to require less than 1% bleed in order to maintain favorable hydraulic conditions; however, the disposal system has a capacity to go up to 3%. Table 14.5 summarizes the predicted water balance for the Dewey-Burdock project during production and restoration. This table indicates a production flow rate of 4,000gpm will be required to achieve the desired annual yellowcake production.

Table 14.5: Predicted Water Balance for Dewey-Burdock Project

Item	Units	Dewey-Burdock
Production Well Field		
Aquifer feed	gpm	120
Recycle	gpm	3880
Feed to IX	gpm	4000
% bleed		1%
Production RO		
IX product split to RO		1%
Feed to RO	gpm	40
RO product split to well field		70%
Restoration Wellfield		
Aquifer feed	gpm	75
Recycle	gpm	175
Feed to IX	gpm	250
RO product split to restore field		70%
% recycle		233%
Feed to Ra settling ponds	gpm	127
Feed to Class V DDW	gpm	127
CPP & Site Facilities		
Aquifer feed	gpm	14.2
Feed to Ra settling ponds	gpm	12
Evaporation	gpm	0.4
Septic system	gpm	1.8
Drilling, Roads, etc.		
Aquifer feed	gpm	52
Total from Aquifer	gpm	336
Total to Deep Disposal Well	gpm	127

14.4 Design and Selection of Major Equipment

Select major equipment was sized to ensure that the selected unit was appropriate for its duty. These sizes were then reviewed against the Powertech equipment selection and quotes were used in the capital cost estimate.

14.4.1 IX Vessels

The IX Vessels were sized using a fixed diameter of 12ft and a resin volume of 500ft3 and the results are shown in Table 14.6.

Table 14.6: IX Vessel Sizing for Dewey-Burdock

Item	Units	IX Vessels
Vessel height TT	ft	10
Vessel internal diameter	ft	12
Vessel volume	ft^3	1131
Vessel volume	gallons	8,460
Resin in each vessel	ft^3	500
Resin av. bulk density	lb/ft^3	42
Number vessels		10
Resin bed height	ft	4.4
Est. % resin swelling	%	80%
Required vessel height	ft	8

Quotes were obtained from manufacturers for 12ft-diameter x 8ft-height IX Vessels which were suitable for this duty and these quotes were used in the capital cost estimate.

14.4.2 Yellowcake Thickener

A 30ft-diameter thickener was selected for this project, as additional storage capacity of yellowcake slurry was required by Powertech. This size thickener is more than adequate for this operation and is typical in industry for this size operation.

14.4.3 Filter Press

The filter presses were sized based on the required yellowcake production in lb/d and the results are shown in Table 14.7. Quotes were obtained for $65ft^3$ sized filter presses and these are included in the capital cost estimate.

Table 14.7: Filter Press Sizing for Dewey-Burdock

	Units	Dewey-Burdock
Daily U_3O_8 production required	lb/d	2,857
$UO_4.2H_2O$	U_3O_8	1.20
Filter cake $UO_4.2H_2O$	lb $UO_4.2H_2O$	3,440
Discharge from Press	% solids	50%
Free H_2O	lb H_2O	3,440
Density of $UO_4.2H_2O$	g/cc	5.2
Density of $UO_4.2H_2O$	lb/ft^3	324.63
Volume of $UO_4.2H_2O$	ft^3	10.60
Volume free H_2O	ft^3	55.10
Total Discharge Volume	ft^3	65.70

14.4.4 Yellowcake Dryer

The industry standard type of dryer for yellowcake produced in both ISR and modern conventional uranium recovery plants is a vacuum paddle dryer. This is an indirectly heated dryer consisting of a cylindrical shell with the axis horizontal and a heating jacket. A paddle system, based on a horizontal shaft, agitates the contents of the dryer. A vacuum is drawn on the dryer to cause the water in the product to evaporate at lower temperatures than atmospheric pressure. These dryers are widely used in the pharmaceutical industry.

These are batch dryers and typically take 16 hours to process a batch in uranium applications. A batch will be one day of production of yellowcake. The dryer volume chosen will be twice that of the batch of yellowcake slurry that will be fed to the dryer. For instance, production of 1,000,000lb/yr of U3O8 will require drying of approximately 3,300lb/d of uranium peroxide ($UO_4.2H_2O$) product. At a typical feed slurry mix of 35% solids by weight, this will occupy 140ft^3. The vacuum paddle dryer volume required will therefore be 280ft^3.

14.4.5 Radium Removal System

The design of the radium removal system assumes a feed rate of 300gpm of wastewater, 150gpm at Dewey and 150gpm at Burdock. The central processing plant will have a radium settling pond system where the radium will be precipitated. Including the addition of barium chloride and flocculent, the total sludge removed is expected to be approximately 880ft^3/yr. The sludge is classified as an 11(e) (2) byproduct material.

14.4.6 Major Buildings

The following design assumptions were made for the CPP and satellite plant:

- ISR daily yield, 9t resin;
- Design for a fully loaded 25t, tandem axle, dual wheel truck;
- Expected project life span of nine years based on current potentially mineable resource studies;
- Design loads based on AASHTO design Tandem Load Vehicle with 25 kip load on each axle, which is conservative; and
- Soil conditions are unknown.

Based on Lyntek's design assumptions, the main floor slab in Dewey-Burdock's Central Processing Plant is appropriately designed at 12in thick with double steel reinforcing. The floor covering will need to be a special epoxy blend that requires slab preparation and several layers to build it up properly.

SRK finds the proposed facility and process design is essentially industry standard.

14.4.7 Product Handling and Storage

The yellowcake drying and packaging stations will be segregated within the processing plant for worker safety. Dust abatement and filtration equipment will be deployed in this area of the facility. Storage of yellowcake drums will be in a dedicated and locked storage room while they await transport.

14.4.8 Transport

Following standard industry protocols, yellowcake will be transported in 55gal steel drums. The shipment method will be via specifically licensed trucking contractor. Approximately 295 shipments are estimated from the Dewey-Burdock project of the life of the mine based upon the present resource estimate.

14.4.9 Mobile Equipment

Major required mobile equipment will include resin haul tractors and trailers to deliver loaded resin from the satellite facility to the central processing plant, pump hoists, cementers, forklifts, pickups, logging trucks, and generators. In addition, several pieces of heavy equipment will be on site for excavation of mud pits, road maintenance, and reclamation activities. Powertech will lease mobile equipment for a 5 year period.

14.4.10 Equipment Maintenance and Facilities

Dedicated maintenance facilities will be constructed along with the central processing plant. In addition to maintenance of mobile equipment, the most commonly overhauled equipment will be the submersible pumps utilized on the recovery wells.

14.4.11 Liquid Waste Disposal

Powertech retained Petrotek Engineering Corp. to prepare the preliminary conceptual design and cost estimate for deep disposal wells at the Dewey-Burdock project (Petrotek Engineering Corp., 2012). The present plan is to construct two deep disposal wells. The target injection zones includes the Minnelusa and Deadwood Formations. Preliminary studies indicate that both formations are suitable for injection of wastewater.

Powertech is also investigating the use of land application of treated water as a method of disposal. For the purposes of this Preliminary Assessment, only deep well injection was considered in the economic analysis.

14.4.12 Solid Waste Disposal

Solid wastes at an ISR facility include, but are not limited to, spent resin, empty packaging, tank sediments and filtration products, motor vehicle maintenance waste, office waste, and clothing. All waste materials will be reviewed and entered into waste stream classifications on site.

Waste classified as non-contaminated (non-hazardous, non-radiological) will be disposed of in the nearest permitted sanitary waste disposal facility. Waste classified as hazardous (non-radiological) will be segregated and disposed of at the nearest permitting hazardous waste facility. Radiologically contaminated solid wastes, that cannot be decontaminated, are classified as 11.e (2) byproduct material. This waste will packaged and stored on site temporarily, and periodically shipped to a licensed 11.e (2) byproduct waste facility or a licensed mill tailings facility.

14.4.13 Personnel

The present work force estimates for the Dewey-Burdock project during full operation of the Central Processing Facility, Satellite Facility, and all associated well fields is 84 full time staff. In general the work force can be segregated into the following groups: administration (10 staff), radiation safety (5 staff), geology (5 staff), construction/drilling (17 staff), and production (47 staff). Staff schedules will vary based upon duty; some will work a typical 8 hr day, 40 hrs per week, while others will work a shift schedule to cover 24 hr operations of the facility. Additionally, a significant number of contracted persons are expected to work at the project on a full time basis to perform drilling and construction activities.

15 Project Infrastructure (Item 18)

Infrastructure for Dewey-Burdock is excellent, in that power, water, and manpower are available, and rail access is located at the project and in nearby Edgemont to facilitate transport and delivery of construction equipment and supplies. Infrastructure is not a project risk. Upon project completion, the central processing facility at Burdock will be able to receive shipments from not only the Dewey satellite facility but also other satellite facilities owned by Powertech or third party producers.

16 Market Studies (Item 19)

The uranium commodity markets are volatile. Due to the increased focus on nuclear energy, and the potential for uranium supply issues related to expansion of the industry, long-term contract prices are higher than the spot price. Long-term contact prices have some variance due to individual pricing terms and potential for adjustment over the sales period.

Revenue from U_3O_8 sales are based upon a market price of USD65.00/lb. Using data from TradeTech's "Long Term Uranium Price Indicator" as published in http://www.uranium.info, a three year trailing average of monthly long term prices from the period January 2009 to December 2012 was calculated to be USD64.33. A sales price of USD65.00 was used in the base case economic analysis. This pricing approach is consistent with industry financial practices for commodity pricing at this stage in resource development. Freight charges are estimated to be USD0.15/lb.

Given the high variability of uranium sales price, and potential for large swings, the sales price is a concern of the economic analysis.

17 Environmental Studies, Permitting and Social or Community Impact (Item 20)

17.1 Aquifer Restoration

After economic recovery in a well field has ceased, aquifer restoration will commence as soon as practical. Aquifer restoration will require the circulation of native groundwater and extraction of mobilized ions through reverse osmosis treatment. The intent of aquifer restoration is to return the groundwater quality parameters to that reported during the baseline studies. As previously noted, groundwater from the Inyan Kara at the Dewey-Burdock project does not presently meet EPA drinking water standards, as established in the baseline data collected by Powertech.

17.2 Reclamation

Following completion of economic recovery from a mine unit, aquifer restoration will commence as soon as operationally practical. The restoration of some mine units may be postponed in whole, or in part, so as to limit interference with adjacent mine units. Once aquifer restoration is completed, and the regulatory objectives have been met, pumps and injection lines will be removed from the wells. Wells will be abandoned with a bentonite or cement based grout following the requirements of the South Dakota Department of Environment and Natural Resources.

Simultaneous with well abandonment operations, all pipelines will be removed from the mine unit, tested for radiological contamination, and segregated for appropriate disposal. Header houses will be removed to other mine units, or radiologically surveyed, demolished, and appropriately disposed of. All other facilities, including the process plant, offices, warehouses, laboratory, and maintenance buildings will be radiologically surveyed, dismantled and/or demolished, and disposed of according to individual waste profiles.

Following well field abandonment and site dismantling and demolition, the site will be regraded to approximate the pre-existing topography. Topsoil stockpiled at the start of development will be placed across the site and disturbed areas will be reseeded.

Total closure costs are based upon 2010 dollars and material volumes developed in conjunction with this Preliminary Assessment. Closure costs are included in the well field restoration costs, and they are represented in the model as operating costs.

18 Capital and Operating Costs (Item 21)

18.1 Capital Cost Estimates

Life of Mine (LoM) direct capital costs will total USD70.8million as summarized in Table 18.1. Pre-production capital costs are USD51.0million. Ongoing direct capital, totaling USD19.8million accounts for the remaining mine life.

The initial capital cost estimate of USD51.0M includes direct project costs and does not include USD3million of initial bonding cost or USD0.3million for EPC fees. When these indirect costs are included, the LoM capital cost increases to USD71.5million, including USD54.3 in initial capital and USD17.2million in ongoing capital. Capital cost estimates are in Q1 2012 US constant dollar terms.

Capital-related labor costs and owner costs were estimated separately and are therefore shown as specific line items.

Initial capital assumes that mobile equipment is leased, whereas mobile equipment is replaced rather than leased.

Table 18.1: Capital Cost Summary ($000s)

Description	Initial Cost	Sustaining Cost	LoM Cost
CPP/Gen Facilities	$30,216	$11,881	$42,097
Well Fields	$8,760	$0	$8,760
Capital Labor	$1,558	$0	$1,558
G&A	$1,979	$1,798	$3,776
Replacement Capital	$0	$2,840	$2,840
Subtotal	$42,511	$16,519	$59,031
Contingency	$8,502	$3,304	$11,806
Total	**$51,014**	**$19,823**	**$70,837**

Note:

CPP (Central Plant & Ponds) and generating capital details, exclusive of contingency, are shown in Table 18.2. Initial capital costs of USD30.2 million are for the general construction and equipment to bring the project online. Sustaining costs of about USD11.9 million are associated with the satellite plant, disposal well construction, well abandonment, and restoration activities for the operation.

Table 18.2: CPP & Generation Facilities ($000s)

Description	Initial Cost	Sustaining Cost	LoM Cost
CPP	$21,576	$0	$21,576
Satellite Plant	$0	$6991	$6,991
Electrical Infrastructure	$2,275	$0	$2,275
Surface Impoundment	$3,753	$0	$3,753
CPP/SF Pipelines	$0	$2,008	$2,008
Deep Disposal Wells	$2,083	$1,500	$3,583
Water Supply	$528	$0	$528
Restoration Equip	$0	$1,382	$1,382

Description	Initial Cost	Sustaining Cost	LoM Cost
Mobile Equipment	$0	$0	$0
Total	**$30,216**	**$11,881**	**$42,097**

Capital associated with the well fields is shown in Table 18.3. The capital costs only occur in the initial mine development as the life of mine is short and the well field development costs are expensed due to the short lives of the well fields.

Table 18.3: Well Field Capital ($000s)

Description	Initial Cost	Sustaining Cost	LoM Cost
Delineation Drilling	$731	$0	$731
Well Construction	$5,531	$0	$5,531
Surface Construction	$2,168	$0	$2,168
Pipelines	$330	$0	$330
Total	**$8,760**	**$0**	**$8,760**

SRK estimates working capital as 20% of the initial production costs.

18.2 Operating Cost Estimates

LoM operating costs are estimated to total USD280million as shown in Table 18.4. This results in unit costs of USD33.31/lb U3O8. Production costs account for USD217million (USD25.83/lb U3O8) of the total. A contingency of 20% is applied to all operating costs.

Production taxes of USD62.9million (USD7.48/lb U3O8) make up the difference. Cost estimates are in Q1 2012 US constant dollar terms.

Table 18.4: LoM Operating Costs

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Central Plant/Ponds	$32,877	$3.91
Satellite/Well Field	$110,713	$13.17
Restoration	$8,255	$0.98
Decommissioning	$9,168	$1.09
Site Management	$19,958	$2.37
Contingency	$36,194	$4.31
Subtotal Operating Costs	$217,166	$25.83
Production Taxes	$62,899	$7.48
Total	**$280,065**	**$33.31**

Operating cost details are shown in Tables 18.5 to 18.9.

Table 18.5: Central Plant Operating Costs

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Labor	$12,743	$1.52
Electricity	$2,569	$0.31
Chemical	$6,964	$0.83
Hardware Maintenance/Replacement	$4,934	$0.59
Laboratory	$250	$0.03
Materials/Consume	$2,710	$0.32
Byproduct Disposal	$335	$0.04
Monitoring	$2,372	$0.28
Total	**$32,877**	**$3.91**

Table 18.6: Site/Well Field Operating Costs

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Delineation Drilling	$3,480	$0.041
Well Construction	$51,050	$6.07
Surface Construction	$16,900	$2.01
Pipelines	$2,976	$0.35
Development Labor	$10,808	$1.29
Operating Labor	$8,028	$0.95
Electricity	$1,580	$0.19
Chemical	$3,111	$0.37
Equipment Lease	$5,922	$0.70
Maintenance	$4,822	$0.57
Laboratory	$0	$0.00
Materials/Consume	$36	$0.004
Water Rights Usage	$0	$0.00
Byproduct Disposal	$315	$0.04
Monitoring	$1,684	$0.20
Total	**$110,713**	**$13.17**

Table 18.7: Restoration Operating Costs

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Labor	$3,256	$0.39
Electricity	$642	$0.08
Chemical	$189	$0.02
Maintenance	$3,650	$0.43
Laboratory	$0	$0.00

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Materials/Consume	$18	$0.00
Byproduct Disposal	$162	$0.02
Monitoring	$337	$0.04
Total	**$8,255**	**$0.98**

Table 18.8: Decommissioning Operating Costs

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Mob/Preparation	$0	$0.00
Well Closure	$3,375	$0.40
Mob/Site Prep	$50	$0.01
By-product Disposal	$0	$0.00
Equip Sold/Recycle	$210	$0.02
Subtitle D Landfill	$4,277	$0.51
Treatment/Backfill/Reclaim	$1,256	$0.15
Total	**$9,168**	**$1.09**

*End of life closure costs are included in owner capital under mine closure category

Table 18.9: Site Management Operating Costs

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Labor	$14,797	$1.76
U_3O_8 Transport Costs	$1,261	$0.15
Corporate Overhead	$3,900	$0.46
Total	**$19,958**	**$2.37**

Production taxes, described in Section 19.3 are shown in Table 18.10.

Table 18.10: Production Taxes

Description	LoM Cost ($000s)	Unit Cost ($/lb U_3O_8)
Severance Tax	$24,591	$2.93
Surface Royalty	$10,384	$1.24
Mineral Royalty	$18,822	$2.24
Property Tax	$9,100	$1.08
Total	**$62,899**	**$7.48**

19 Economic Analysis (Item 22)

Powertech technical and management staff have prior experience with ISR uranium mine development and operations. Therefore, Powertech has developed much of the preliminary well field design and cost estimates in-house, with vendor quotes as support in many instances. Lyntek Inc. provided independent preliminary engineering design support for the surface uranium recovery and processing facilities, and is a major contributor to the estimate of project costs for Dewey-Burdock.

19.1 Principal Assumptions

This Preliminary Assessment has been conducted as a study of the potential ISR mineability of the Project, utilizing industry standard criteria for Scoping Level studies, which is normally at ±35 to 40% on costing estimates. In many cases, the cost estimates and supporting studies provided by Powertech are defined to a prefeasibility level, with vendor quote backup; as a result, contingency costs for the base case are set at 20%. This report includes the economic basis for the preliminary assessment and any qualifications and/or assumptions of the responsible qualified persons.

19.2 Cashflow Forecasts and Annual Production Forecasts

SRK Lyntek completed a preliminary economic analysis for the Project which was review by SRK. The base case economic analysis results indicate a pre-tax NPV of USD109.0 million at an 8% discount rate with an IRR of 48%. Payback will be in the fourth quarter of production, Year 2.

The LoM plan and economics are based on the following:

- CIM-compliant Mineral Resources;
- A mine life of nine years;
- A cash operating cost of USD33.31/lb-U3O8;
- Initial capital costs of USD54.3million (including Year 1 bonding and EPC fees); and
- No provision for salvage value is assumed in the analysis.

19.3 Taxes, Royalties and Other Interests

Powertech has no contracts presently in place for production from the Dewey-Burdock project. This includes sales contracts, tolling agreements, or any other financial arrangements with other parties associated with the purchase or price of final uranium product.

19.3.1 Income Taxes

19.3.2 Federal Income Tax

In general, corporate Federal income tax is determined by computing and paying the higher of a regular tax or a tentative minimum tax (TMT). If the TMT exceeds the regular tax, the difference is the alternative minimum tax, the AMT.

Regular tax is determined by subtracting all allowable operating expenses, overhead, depreciation, amortization, and depletion allowance from total current-year revenues to arrive at taxable income. Deductions for exploration and development are either expensed or amortized. The tax rate is determined from a progressive rate schedule outlined by the Internal Revenue Service.

The second Federal corporate tax, the AMT, is determined in three steps. First, regular taxable income is adjusted by recalculating certain regular tax deductions, based on AMT laws, to arrive at AMT income (AMTI). Secondly, the AMTI is then multiplied by 20% to determine the TMT. Finally, if the TMT exceeds the regular tax, the excess is the AMT amount, payable at year-end, in addition to the regular tax liability. The AMT tax paid can be used to offset regular tax payable in succeeding years in which the regular tax is greater than the TMT.

An estimate of federal income tax for Powertech is not included in the technical economic model.

19.3.3 State Income Tax

There is no corporate income tax in South Dakota.

19.3.4 Production Taxes

Production taxes in South Dakota include: property tax, sales and use tax and severance tax.

Property tax is levied at a rate of 2.1% on the full value of the property. Ore reserves are included in the property valuation. There is no tax on personal property, so property tax is only applied to installed equipment and not applied to mobile equipment.

Purchases of equipment and supplies are subject to sales and use tax. The State imposes a 4% tax on retail sales and services, and municipalities can impose up to an additional 2%. Project economics presented in this report have sales and use tax imputed in the operating cost estimate.

Severance on uranium production is taxed at 4.5% of gross sales.

In a letter dated April 4, 2012 from the Fall River/Shannon Counties, the Director of Equalization indicated that "any above ground construction of new or improved commercial structures on a permanent foundation are taxable unless the construction's full and true value is $30,000 or more". If the value of new construction is greater than $30,000, then the added value over $30,000 would not be taxed for five years. The economic analysis includes this basis.

Custer County follows a discretionary tax formula to encourage development of certain industrial property within the county boundaries. In effect, the county commissioners assess property at full value in 5 years, incrementing by 20% starting in Year 1. The economic model includes this basis.

19.3.5 Royalties

The project is subject to a 1.90% surface and a 3.44% mineral royalty. Each royalty is assessed on gross proceeds.

19.4 Technical Economics Analysis

All costs presented in this report were provided to SRK for review and evaluation. Powertech provided access to an internal engineering economic assessment and Lyntek's report titled "Preliminary Economic Assessment, Dewey-Burdock ISR Project", with an effective date of March 1, 2010. To meet the needs of a Preliminary Assessment, costs must be presented at ±35 to 40%. Powertech compiled a number of vendor quotes for capital expenditures; therefore, some costs provided are defined to a pre-feasibility level.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. This Preliminary Assessment is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary assessment will be realized.

19.5 Economic Analysis

The technical-economic results of this report are based upon work performed by Powertech's consultants and have been prepared on an annual basis. All costs are in Q1 2012 US constant dollars. Mineral resources that are not mineral reserves do not have demonstrated economic viability. This Preliminary Assessment is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary assessment will be realized.

19.5.1 Model Inputs

The technical-economic model, shown in Exhibit 19.1, is presented on an unleveraged, pre-tax basis. Assumptions used are discussed in detail throughout this report and are summarized in Table 19.1.

Table 19.1: Technical-Economic Model Parameters

Model Parameter	Technical Input
General Assumptions	
Pre-Production Period	1 Year
Mine Life	9 years
Operating Days per year	365 days/yr
Market	
Discount Rate	8%
U_3O_8 Price	$65.00/lb
Transportation to market	$0.15/lb

A 12-month pre-production rate is used in the analysis implicitly assuming that permitting, detailed engineering, and due diligence/financing are well under way. The project will have an estimated life of 9 years given the mineable resource described in this report.

Revenue from U3O8 sales are based upon a market price of USD65.00/lb. Using data from TradeTech's "Long Term Uranium Price Indicator" as published in http://www.uranium.info, a three year trailing average of monthly long term prices from the period January 2009 to December 2012 was calculated to be $64.33. A sales price of $65.00 was used in the base case economic analysis. This pricing approach is consistent with industry financial practices for commodity pricing at this stage in resource development. Freight charges are estimated to be USD0.15/lb.

19.5.2 Technical-Economic Results

The base case economic analysis results, shown in Table 19.2, indicate a pre-tax NPV of USD109 million at an 8% discount rate with an IRR of 48%. Payback will be in Q4 of production Year 2.

The SRK LoM plan and economics are based on the following:

- CIM-compliant Mineral Resources;
- A mine life of 9yrs;
- A cash operating cost of USD33.31/lb-U3O8;
- Total project capital costs of USD71.5million, comprised of initial capital costs of USD54.3million, sustaining capital over the LoM of USD17.2million; and
- No provision for salvage value is assumed in the analysis.

Table 19.2: Technical-Economic Results ($000s)

Item	**units**	**Value**
Net Revenue		
U_3O_8 Price ($/lb)	$/lb-$U_3O_8$	$65.00
Production	Klbs	8,407
Gross Revenue	$000s	$546,477
Transportation	$000s	($1,261)
Severance Tax	$000s	($24,591)
Surface Royalty	$000s	($10,385)
Mineral Royalty	$000s	($18,822)
Property Tax	$000s	($9,100)
Net Revenue	$000s	$482,317
Production Costs		
Central Plant/Ponds	$000s	$32,877
Satellite/Well Field	$000s	$110,713
Restoration	$000s	$8,255
Decommissioning	$000s	$9,168
G&A Labor	$000s	$14,797
Corporate Overhead	$000s	$3,900
Contingency	$000s	$36,194
Production Costs	$000s	$215,905
Gross Margin	$000s	$266,412
Project Capital (Equity)	$000s	(71,497)
Income Tax	$000s	0
Free Cash Flow	$000s	**194,915**
IRR (Pre-tax)	-	**48.0%**
Present Value (discounted at 8%)	$000s	**109,117**

19.5.3 Sensitivity

Table 19.3: Price Sensitivity of the Technical Economic Model

Item	Units				
U_3O_8 Price	$/lb	$42.00	$60.00	$65.00	$80.00
Free Cash Flow	$Ms	$1.5	$152.9	$194.9	$321.0
IRR		0%	38%	48%	76%
$NPV_{8\%}$	$Ms	($17.7)	$81.5	$109.0	$191.8

Indicative Financial Model

COMPANY	Power Tech
BUSINESS UNIT	Dewey-Burdock
OPERATION	1,000k-lbs U3O8/yr

	value / factor	units / sensit.	Total or Avg.	PreProd -1	Production. . . 1	2	3	4	5	6	7	8	9	10	11	12	13 (END)	14
PRODUCTION SUMMARY																		
U3O8 Recovered	-	klbs	8,407	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0	0	0	0	0
U3O8 Restoration	-	klbs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U3O8 Produced		klbs	8,407	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0	0	0	0	0
CASH FLOW SCHEDULE																		
Estimate of Cash Flow																		
Net Revenue																		
U3O8 Price ($/lb)	$65.00	1.00	65		$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00	$65.00					
Prod.		klbs	8,407	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0	0	0	0	0
Gross Revenue		$000s	546,477	0	65,501	65,316	65,647	65,744	66,009	65,000	63,753	54,840	34,669	0	0	0	0	0
		$/lb-U3O8	65.00															
Freight & Marketing																		
Marketing	$0.00	$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U3O8 Transport ($/lb)	$0.15	$000s	(1,261)	0	(151)	(151)	(151)	(152)	(152)	(150)	(147)	(127)	(80)	0	0	0	0	0
Insurance/other ($/t-prod)	$0.00	$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation		$000s	(1,261)	0	(151)	(151)	(151)	(152)	(152)	(150)	(147)	(127)	(80)	0	0	0	0	0
		$/lb-U3O8	($0.15)	$0.00	($0.15)	($0.15)	($0.15)	($0.15)	($0.15)	($0.15)	($0.15)	($0.15)	($0.15)	$0.00	$0.00	$0.00	$0.00	$0.00
Severance, Royalty, Tax																		
Severance Tax		$000s	(24,591)	0	(2,948)	(2,939)	(2,954)	(2,958)	(2,970)	(2,925)	(2,869)	(2,468)	(1,560)	0	0	0	0	0
Surface Royalty		$000s	(10,385)	0	(1,204)	(1,201)	(1,207)	(1,209)	(1,214)	(1,284)	(1,275)	(1,097)	(693)	0	0	0	0	0
Mineral Royalty		$000s	(18,822)	0	(3,074)	(3,065)	(3,080)	(3,085)	(3,097)	(1,239)	(908)	(781)	(494)	0	0	0	0	0
Property Tax		$000s	(9,100)	0	(14)	(28)	(164)	(363)	(108)	(1,259)	(1,324)	(1,412)	(1,476)	(1,476)	(1,476)	0	0	0
Other Tax		$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Severance, Royalty, Tax		$000s	(62,899)	0	(7,239)	(7,233)	(7,405)	(7,616)	(7,389)	(6,708)	(6,376)	(5,757)	(4,223)	(1,476)	(1,476)	0	0	0
		$/lb-U3O8	($7.48)	$0.00	($7.18)	($7.20)	($7.33)	($7.53)	($7.28)	($6.71)	($6.50)	($6.82)	($7.92)	$0.00	$0.00	$0.00	$0.00	$0.00
Net Revenue		$000s	482,317	0	58,110	57,932	58,090	57,977	58,468	58,142	57,230	48,956	30,365	(1,476)	(1,476)	0	0	0
		$/lb-U3O8	57.37															
Production Costs																		
Central Plant/Ponds	-	1.00	32,877	885	2,750	3,573	3,582	3,588	3,594	3,578	3,540	3,349	2,357	993	555	312	224	0
Satellite/Well Field	-	1.00	110,713	83	11,331	19,154	19,359	15,948	13,700	7,980	19,765	2,102	1,292	0	0	0	0	0
Restoration	-	1.00	8,255	0	0	0	0	1,002	1,027	1,060	1,056	1,039	1,036	1,038	997	0	0	0
Decommissioning	-	1.00	9,168	0	0	0	0	0	0	0	0	0	648	648	3,961	3,911	0	0
G&A Labor	-	1.00	14,797	1,062	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,211	730	683	683	412	0
Corporate Overhead	-	1.00	3,900	350	350	350	350	350	350	350	350	350	150	150	150	150	150	0
Contingency	-	1.00	36,194	476	3,167	4,896	4,939	4,458	4,015	2,874	5,222	1,643	1,355	712	1,269	1,011	157	0
Production Costs		$000s	215,905	2,856	18,849	29,225	29,481	26,598	23,939	17,093	31,186	9,734	8,048	4,270	7,616	6,067	943	0
		$/lb-U3O8	$25.68	$0.00	$18.71	$29.08	$29.19	$26.30	$23.57	$17.09	$31.80	$11.54	$15.09	$0.00	$0.00	$0.00	$0.00	$0.00
CASH COST		$000s	280,065	2,856	26,240	36,609	37,038	34,365	31,480	23,951	37,709	15,618	12,351	5,747	9,092	6,067	943	0
		$/lb-U3O8	$33.31	$0.00	$26.04	$36.43	$36.67	$33.98	$31.00	$23.95	$38.45	$18.51	$23.16	$0.00	$0.00	$0.00	$0.00	$0.00
MARGIN		US$000	266,412	(2,856)	39,261	28,707	28,609	31,379	34,529	41,049	26,044	39,221	22,317	(5,747)	(9,092)	(6,067)	(943)	0
Cash Available for Debt Service																		
Operating Margin		$000s	266,412	(2,856)	39,261	28,707	28,609	31,379	34,529	41,049	26,044	39,221	22,317	(5,747)	(9,092)	(6,067)	(943)	0
Project Capital (Equity)	100%	$000s	(71,497)	(54,314)	(1,723)	(1,723)	(7,591)	(10,633)	(1,108)	(2,232)	(1,036)	(2,136)	0	0	0	0	0	11,000
Income Tax		$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Working Capital		$000s	(0)	(571)	(3,199)	(2,075)	(51)	577	532	1,369	(2,819)	4,290	337	756	(669)	310	1,025	189
CF Avail. for Debt Service		$000s	194,915	(57,741)	34,339	24,909	20,966	21,322	33,953	40,186	22,189	41,376	22,654	(4,991)	(9,761)	(5,757)	82	11,189
Loan Repayment		$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expense		$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Free Cash Flow		$000s	194,915	(57,741)	34,339	24,909	20,966	21,322	33,953	40,186	22,189	41,376	22,654	(4,991)	(9,761)	(5,757)	82	11,189
				(57,741)	(23,402)	1,507	22,473	43,795	77,748	117,934	140,123	181,499	204,153	199,162	189,401	183,644	183,726	194,915
IRR		48%																
Present Value		8.0%	109,117															
			-															

Indicative Financial Model

COMPANY	**Power Tech**
BUSINESS UNIT	**Dewey-Burdock**
OPERATION	**1,000k-lbs U3O8/yr**

	value / factor	**units / sensit.**	**Total or Avg.**	**PreProd -1**	**Production. . . 1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
U3O8 PRODUCTION														
U3O8														
U3O8 Recovered	-	klbs	**8,407**	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0
U3O8 Restoration	-	klbs	**0**	0	0	0	0	0	0	0	0	0	0	0
Total U3O8	**-**	**klbs**	**8,407**	**0**	**1,008**	**1,005**	**1,010**	**1,011**	**1,016**	**1,000**	**981**	**844**	**533**	**0**
WELL PRODUCTION - Summary														
U3O8 Resource														
B1-B7_Other: U3O8		klbs	6,930	0	1,481	1,225	1,595	1,153	1,476	0	0	0	0	0
D1-5: U3O8		klbs	4,280	0	0	0	0	0	0	1,229	1,229	1,823	0	0
Total U3O8	**-**	**klbs**	**11,210**	**0**	**1,481**	**1,225**	**1,595**	**1,153**	**1,476**	**1,229**	**1,229**	**1,823**	**0**	**0**
Well Field Inventory														
Initial		klbs		0	0	137	23	271	75	197	92	13	711	0
In-circuit U3O8		klbs		0	1,481	1,225	1,595	1,153	1,476	1,229	1,229	1,823	0	0
Processed U3O8		klbs	11,210	0	1,344	1,340	1,347	1,349	1,354	1,333	1,308	1,125	711	0
Recovered U3O8	**75.0%**	klbs	8,407	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0
End		klbs		0	137	23	271	75	197	92	13	711	0	0
Area														
B1-B7_Other: U3O8		ac	128	0.0	18.5	14.4	27.5	33.6	33.6	0.0	0.0	0.0	0.0	0.0
D1-5: U3O8		ac	70	0.0	0.0	0.0	0.0	0.0	0.0	16.2	16.2	37.0	0.0	0.0
Total Area	**-**	**ac**	**197**	**0**	**18**	**14**	**27**	**34**	**34**	**16**	**16**	**37**	**0**	**0**
Water Consumption	**(make-up from aquifer)**													
Consumed		ac-ft	0	0	0	0	0	0	0	0	0	0	0	0
Consumed		kgal	1,942,618	176,602	176,602	176,602	176,602	176,602	176,602	176,602	176,602	176,602	176,602	176,602
Consumed		gpm		336	336	336	336	336	336	336	336	336	336	336

Indicative Financial Model

COMPANY	Power Tech
BUSINESS UNIT	Dewey-Burdock
OPERATION	1,000k-lbs U3O8/yr

	value / factor	units / sensit.	Total or Avg.	PreProd -1	Production. . . 1	2	3	4	5	6	7	8	9	10
CAPITAL SUMMARY														
U3O8														
U3O8 Recovered	-	klbs	**8,407**	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0
U3O8 Restoration	-	klbs	**0**	0	0	0	0	0	0	0	0	0	0	0
Total U3O8	-	**klbs**	**8,407**	**0**	**1,008**	**1,005**	**1,010**	**1,011**	**1,016**	**1,000**	**981**	**844**	**533**	**0**
CAPITAL COST														
CPP/Gen Facilities	-	**$000s**	**42,097**	30,216	0	0	4,890	6,991	0	0	0	0	0	0
Well Fields	-	**$000s**	**8,760**	8,760	0	0	0	0	0	0	0	0	0	0
Capital Labor	-	**$000s**	**1,558**	1,558	0	0	0	0	0	0	0	0	0	0
G&A	-	**$000s**	**3,776**	1,979	553	553	553	40	40	30	30	0	0	0
Replacement Capital	-	**$000s**	**2,840**	0	0	0	0	947	0	947	0	947	0	0
Contingency	20%	**$000s**	**11,806**	8,502	111	111	1,089	1,596	8	195	6	189	0	0
Total CAPITAL COST	-	**$000s**	**70,837**	**51,014**	**663**	**663**	**6,531**	**9,573**	**48**	**1,172**	**36**	**1,136**	**0**	**0**
		$/lb-U3O8	$8.43											
CPP/Gen Facilities														
Ceneral Plant and Project Site		**$000s**	**21,576**	21,576	0	0	0	0	0	0	0	0	0	0
Satellite Plant		**$000s**	**6,991**	0	0	0	0	6,991	0	0	0	0	0	0
Electrical Infrastructure		**$000s**	**2,275**	2,275	0	0	0	0	0	0	0	0	0	0
Surface Unoiybdnebts		**$000s**	**3,753**	3,753	0	0	0	0	0	0	0	0	0	0
CPP-SF pipelines		**$000s**	**2,008**	0	0	0	2,008	0	0	0	0	0	0	0
Deep Disposal Well(s)		**$000s**	**3,583**	2,083	0	0	1,500	0	0	0	0	0	0	0
Water Supply		**$000s**	**528**	528	0	0	0	0	0	0	0	0	0	0
Restoration Equipment		**$000s**	**1,382**	0	0	0	1,382	0	0	0	0	0	0	0
Mobile Equipment		**$000s**	**0**	0	0	0	0	0	0	0	0	0	0	0
Total CPP/Gen Facilities		**$000s**	**42,097**	**30,216**	**0**	**0**	**4,890**	**6,991**	**0**	**0**	**0**	**0**	**0**	**0**
		$/lb-U3O8	$5.01											
Well Fields														
Delineation Drilling		**$000s**	**731**	731	0	0	0	0	0	0	0	0	0	0
Well Construction		**$000s**	**5,531**	5,531	0	0	0	0	0	0	0	0	0	0
Surface Construction		**$000s**	**2,168**	2,168	0	0	0	0	0	0	0	0	0	0
Pipelines		**$000s**	**330**	330	0	0	0	0	0	0	0	0	0	0
Total Well Fields		**$000s**	**8,760**	**8,760**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		$/lb-U3O8	$1.04											
G&A														
G&A		**$000s**	**0**	0	0	0	0	0	0	0	0	0	0	0
Permitting		**$000s**	**1,271**	1,271	0	0	0	0	0	0	0	0	0	0
Land & Min Acquire		**$000s**	**2,505**	707	553	553	553	40	40	30	30	0	0	0
Total G&A		**$000s**	**3,776**	**1,979**	**553**	**553**	**553**	**40**	**40**	**30**	**30**	**0**	**0**	**0**
		$/lb-U3O8	$0.449											
Replacement Capital														
Replacement Capital		**$000s**	**2,840**	0	0	0	0	947	0	947	0	947	0	0
Total Replacement Capital		**$000s**	**2,840**	**0**	**0**	**0**	**0**	**947**	**0**	**947**	**0**	**947**	**0**	**0**
		$/lb-U3O8	$0.34											
PowerTech Capital Labor														
Capital Labor		**$000s**	**1,558**	1,558	0	0	0	0	0	0	0	0	0	0
al PowerTech Capital Labor		**$000s**	**1,558**	**1,558**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
		$/lb-U3O8	$0.18											

Indicative Financial Model

COMPANY	Power Tech	
BUSINESS UNIT	Dewey-Burdock	
OPERATION	1,000k-lbs U3O8/yr	END

	value / factor	units / sensit.	Total or Avg.	PreProd -1	Production. . . 1	2	3	4	5	6	7	8	9	10	11	12	13
PRODUCTION SUMMARY																	
U3O8																	
U3O8 Recovered	-	klbs	**8,407**	0	1,008	1,005	1,010	1,011	1,016	1,000	981	844	533	0	0	0	0
U3O8 Restoration	-	klbs	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total U3O8	-	**klbs**	8,407	**0**	**1,008**	**1,005**	**1,010**	**1,011**	**1,016**	**1,000**	**981**	**844**	**533**	**0**	**0**	**0**	**0**
OPERATING COST																	
Central Plant/Ponds	-	**$000s**	**32,877**	885	2,750	3,573	3,582	3,588	3,594	3,578	3,540	3,349	2,357	993	555	312	224
Satellite/Well Field	-	**$000s**	**110,713**	83	11,331	19,154	19,359	15,948	13,700	7,980	19,765	2,102	1,292	0	0	0	0
Restoration	-	**$000s**	**8,255**	0	0	0	0	1,002	1,027	1,060	1,056	1,039	1,036	1,038	997	0	0
Decommissioning	-	**$000s**	**9,168**	0	0	0	0	0	0	0	0	0	648	648	3,961	3,911	0
Site Management	-	**$000s**	**19,958**	1,412	1,753	1,753	1,753	1,754	1,754	1,752	1,749	1,729	1,441	880	833	833	562
Contingency	-	**$000s**	**36,194**	476	3,167	4,896	4,939	4,458	4,015	2,874	5,222	1,643	1,355	712	1,269	1,011	157
Production Taxes	-	**$000s**	**62,899**	0	7,239	7,233	7,405	7,616	7,389	6,708	6,376	5,757	4,223	1,476	1,476	0	0
Mine Opex	-	**$000s**	**280,065**	**2,856**	**26,240**	**36,609**	**37,038**	**34,365**	**31,480**	**23,951**	**37,709**	**15,618**	**12,351**	**5,747**	**9,092**	**6,067**	**943**
		$/lb-U3O8	$33.312														
Central Plant/Ponds																	
Labor		$000s	12,743	335	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	815	390	390	312	224
Electricity		$000s	2,569	0	308	307	309	309	310	306	300	258	163	0	0	0	0
Chemical		$000s	6,964	0	3	832	834	838	840	843	830	815	692	437	0	0	0
Hardware Maint/Repl		$000s	4,934	0	593	590	593	593	596	587	575	495	313	0	0	0	0
Laboratory		$000s	250	0	30	30	30	30	30	30	29	25	16	0	0	0	0
Materials/Consume		$000s	2,710	0	325	324	325	326	327	322	316	272	172	0	0	0	0
Byproduct Disposal		$000s	335	0	40	40	40	40	41	40	39	34	21	0	0	0	0
Monitoring		$000s	2,372	550	166	166	166	166	166	166	166	166	166	166	166	0	0
Total Central Plant/Ponds		**$000s**	**32,877**	**885**	**2,750**	**3,573**	**3,582**	**3,588**	**3,594**	**3,578**	**3,540**	**3,349**	**2,357**	**993**	**555**	**312**	**224**
		$/lb-U3O8	$3.911														
Satellite Well/Field																	
Delineation Drilling		$000s	3,480	0	619	1,313	898	0	650	0	0	0	0	0	0	0	0
Well Construction		$000s	51,050	0	4,354	9,166	9,791	7,804	3,891	3,891	12,153	0	0	0	0	0	0
Surface Construction		$000s	16,900	0	1,161	3,103	3,175	2,600	3,817	0	3,044	0	0	0	0	0	0
Pipelines		$000s	2,976	0	220	550	550	446	264	264	682	0	0	0	0	0	0
Development Labor		$000s	10,808	0	1,544	1,544	1,544	1,544	1,544	1,544	1,544	0	0	0	0	0	0
Operating Labor		$000s	8,028	0	892	892	892	946	946	946	946	946	622	0	0	0	0
Electricity		$000s	1,580	0	189	189	190	190	191	188	184	159	100	0	0	0	0
Chemical		$000s	3,111	0	372	372	374	375	376	370	363	312	197	0	0	0	0
Equipment Lease		$000s	5,922	0	1,184	1,184	1,184	1,184	1,184	0	0	0	0	0	0	0	0
Maintenance		$000s	4,822	0	578	576	579	580	582	574	563	484	306	0	0	0	0
Laboratory		$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials/Consume		$000s	36	0	0	0	0	0	0	9	9	9	9	0	0	0	0
Byproduct Disposal		$000s	315	0	27	27	27	41	41	40	40	38	34	0	0	0	0
Monitoring		$000s	1,684	83	190	237	154	237	214	154	237	154	24	0	0	0	0
Total Satellite/Well Field		**$000s**	**110,713**	**83**	**11,331**	**19,154**	**19,359**	**15,948**	**13,700**	**7,980**	**19,765**	**2,102**	**1,292**	**0**	**0**	**0**	**0**
		$/lb-U3O8	$13.169														

Indicative Financial Model

COMPANY	Power Tech																
BUSINESS UNIT	Dewey-Burdock																
OPERATION	1,000k-lbs U3O8/yr																END
	value / factor	units / sensit.	Total or Avg.	PreProd -1	Production. . . 1	2	3	4	5	6	7	8	9	10	11	12	13
Restoration																	
Labor		$000s	3,256	0	0	0	0	407	407	407	407	407	407	407	407	0	0
Electricity		$000s	642	0	0	0	0	80	80	80	80	80	80	80	80	0	0
Chemical		$000s	189	0	0	0	0	26	26	26	26	26	26	26	7	0	0
Maintenance		$000s	3,650	0	0	0	0	456	456	456	456	456	456	456	456	0	0
Laboratory		$000s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials/Consume		$000s	18	0	0	0	0	0	0	0	0	0	0	9	9	0	0
Byproduct Disposal		$000s	162	0	0	0	0	20	20	20	20	20	20	20	20	0	0
Monitoring		$000s	337	0	0	0	0	12	37	70	66	49	46	39	18	0	0
Total Restoration		**$000s**	**8,255**	**0**	**0**	**0**	**0**	**1,002**	**1,027**	**1,060**	**1,056**	**1,039**	**1,036**	**1,038**	**997**	**0**	**0**
		$/lb-U3O8	$0.982														
Decommissioning																	
Mob/Preparation		$000s	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well Closure		$000s	**3,375**	0	0	0	0	0	0	0	0	0	648	648	1,040	1,040	0
Mob/Site Prep		$000s	**50**	0	0	0	0	0	0	0	0	0	0	0	50	0	0
Byproduct Disposal		$000s	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equipment Sold/Recycled		$000s	**210**	0	0	0	0	0	0	0	0	0	0	0	105	105	0
Subtitle D landfill		$000s	**4,277**	0	0	0	0	0	0	0	0	0	0	0	2,139	2,139	0
Trtmt/backfill/Reclam		$000s	**1,256**	0	0	0	0	0	0	0	0	0	0	0	628	628	0
Total		**$000s**	**9,168**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**648**	**648**	**3,961**	**3,911**	**0**
		$/lb-U3O8	$1.09														
Site Management																	
Labor		$000s	**14,797**	1,062	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,252	1,211	730	683	683	412
U3O8 Transport Costs	$0.15	$000s	**1,261**	0	151	151	151	152	152	150	147	127	80	0	0	0	0
Corporate Overhead		$000s	**3,900**	350	350	350	350	350	350	350	350	350	150	150	150	150	150
Total		**$000s**	**19,958**	**1,412**	**1,753**	**1,753**	**1,753**	**1,754**	**1,754**	**1,752**	**1,749**	**1,729**	**1,441**	**880**	**833**	**833**	**562**
		$/lb-U3O8	$2.37														
Contingency																	
Central Plant/Ponds	20%	$000s	**6,575**	177	550	715	716	718	719	716	708	670	471	199	111	62	45
Satellite/Well Field	20%	$000s	**22,143**	17	2,266	3,831	3,872	3,190	2,740	1,596	3,953	420	258	0	0	0	0
Restoration	20%	$000s	**1,651**	0	0	0	0	200	205	212	211	208	207	208	199	0	0
Decommissioning	20%	$000s	**1,834**	0	0	0	0	0	0	0	0	0	130	130	792	782	0
Site Management	20%	$000s	**3,992**	282	351	351	351	351	351	350	350	346	288	176	167	167	112
Total		**$000s**	**36,194**	**476**	**3,167**	**4,896**	**4,939**	**4,458**	**4,015**	**2,874**	**5,222**	**1,643**	**1,355**	**712**	**1,269**	**1,011**	**157**
		$/lb-U3O8	$4.31														
Production Taxes																	
Gross Revenues		$000s	**546,477**	0	65,501	65,316	65,647	65,744	66,009	65,000	63,753	54,840	34,669	0	0	0	0
OpEx (ex Tax)		$000s	**217,166**	2,856	19,001	29,376	29,633	26,750	24,091	17,243	31,333	9,861	8,128	4,270	7,616	6,067	943
Assets		$000s	**70,837**	51,014	663	663	6,531	9,573	48	1,172	36	1,136	0	0	0	0	0
Assets ex Mobile Equip		$000s	**70,837**	51,014	663	663	6,531	9,573	48	1,172	36	1,136	0	0	0	0	0
Cummulative Assets		$000s		51,014	51,677	52,340	58,871	68,445	68,493	69,665	69,701	70,837	70,837	70,837	70,837	70,837	70,837
Depreciation		$000s	**65,319**	0	1,821	14,078	10,246	7,719	7,487	8,538	7,435	6,349	1,647	0	0	0	0
Severance Tax		$000s	**24,591**	0	2,948	2,939	2,954	2,958	2,970	2,925	2,869	2,468	1,560	0	0	0	0
Surface Royalty		$000s	**10,385**	0	1,204	1,201	1,207	1,209	1,214	1,284	1,275	1,097	693	0	0	0	0
Minerals Royalty		$000s	**18,822**	0	3,074	3,065	3,080	3,085	3,097	1,239	908	781	494	0	0	0	0
Property Tax		$000s	**9,100**	0	14	28	164	363	108	1,259	1,324	1,412	1,476	1,476	1,476	0	0
Other Tax		$000s	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		**$000s**	**62,899**	**0**	**7,239**	**7,233**	**7,405**	**7,616**	**7,389**	**6,708**	**6,376**	**5,757**	**4,223**	**1,476**	**1,476**	**0**	**0**
		$/lb-U3O8	$7.48														

20 Adjacent Properties (Item 23)

There are no operating uranium mines near the Dewey-Burdock project at this time. In the past, several open pit and underground uranium mines were located in the Edgemont District to the northeast of the current project location, and in northeastern Wyoming. An ISR uranium mine is presently operating near Crawford, Nebraska, approximately 70mi straight line distance to the south of Dewey-Burdock and another ISR uranium mine is operating in Converse County, Wyoming approximately 90mi to the west of Dewey-Burdock.

21 Other Relevant Data and Information (Item 24)

The total current resource base of Indicated and Inferred resources are considered in this report to be potentially mineable resources for the purposes of a preliminary assessment. SRK notes that Dewey-Burdock does not have reportable reserves as defined by CIM and NI 43-101.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. This Preliminary Assessment is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary assessment will be realized.

This report includes the economic basis for the preliminary assessment and any qualifications and/or assumptions of the responsible qualified persons.

22 Interpretation and Conclusions (Item 25)

SRK concludes the Dewey-Burdock Project is a sufficiently drill-defined sandstone-hosted roll front uranium deposit that contains approximately 6.7 Mlbs U3O8 as Indicated mineral resource and 4.5 Mlbs U3O8 as Inferred mineral resource, such that continued work is justified by Powertech towards the goal of ISR recovery and production of uranium. Historical and current drilling information support the resource estimation defining several stacked horizons of uranium mineralization at the Dewey and Burdock areas. All basic information necessary to evaluate the conceptual develop of the resources has been addressed at a scoping level study to determine the project's potential economic viability.

The results of this Preliminary Assessment indicate that ISR development of the Dewey-Burdock project, through a combination of satellite recovery and a central processing facility, offers the potential for positive economics based upon the information available at this time.

Powertech technical and management staff have prior pertinent experience with ISR uranium mine development and operations. Therefore, Powertech has developed much of the preliminary well field design and cost estimates in-house, with vendor quotes as support in many instances. Lyntek Inc. has provided independent preliminary engineering design support for the surface uranium recovery and processing facilities, and is a major contributor to the estimate of project costs for Dewey-Burdock.

Using data from TradeTech's "Long Term Uranium Price Indicator" as published in http://www.uranium.info, a three year trailing average of monthly long term prices from the period January 2009 to December 2012 was calculated to be $64.33. A sales price of $65.00 was used in the base case economic analysis.

This Preliminary Assessment has been conducted as a study of the potential ISR mineability of the project, utilizing industry standard criteria for Scoping Level studies, which is normally at ±35 to 40% on costing estimates. In many cases, the cost estimates provided by Powertech are defined to a pre-feasibility level, with vendor quote backup; as a result, contingency costs for the base case are set at 20%.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. This preliminary assessment is preliminary in nature. It includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary assessment will be realized.

As with any pre-development mining property, there are risks and opportunity attached to the project that need further assessment as the project moves forward. SRK deems those risks, on the whole, as identifiable and manageable.

22.1 Project Opportunity

The resources stated are for the defined areas of historical drilling which have been confirmed by Powertech's drilling. There are extensions to mineralization that offer exploration potential up-side that remain to be addressed by Powertech. There are also adjacent and nearby properties that offer exploration potential and the potential for incremental uranium resources.

22.2 Significant Risks and Uncertainties

22.2.1 Social/Political

As with any uranium project in the USA, there will undoubtedly be some social/political/environmental opposition to development of the project. The project could draw some attention from non-governmental organizations (NGOs). This risk is manageable for the Dewey-Burdock area, as the region in sparsely populated, and the overriding interest may in fact be the jobs that the project will offer. The demonstration of nearby successful ISR uranium mining operations in Nebraska and Wyoming may have a positive effect on the proposed development of Dewey-Burdock; however, there are no current or previous ISR uranium operations in the State of South Dakota, so Powertech's proposed operations will be a first for the state, and that may draw attention. This is a manageable risk that will require attention to public relations by Powertech.

22.2.2 Environmental and Permitting

The Dewey-Burdock project is the first uranium ISR facility to submit permit applications in the State of South Dakota. As such, there is inherent risk in a new permitting process, regulatory unfamiliarity with ISR methods, and an untested review period. The amount of time required for regulatory review of all permits associated with the commissioning of an ISR facility is highly variable and directly affects the viability of a project. The assumption presented in this Preliminary Assessment is that Powertech will have all permits necessary to begin construction of the facility during 2013. However, this timeframe for obtaining the necessary licenses, permits, and approvals could very easily be extended due to understaffing, and lack of staff knowledge in the areas of uranium mining and processing in the regulatory agencies.

Both deep well injection and land application of treated wastewater from a uranium processing facility have not been previously permitted in the State of South Dakota. Powertech is presently pursuing both options, however the timeframe to obtain permits for either method is unknown therefore, Powertech will actively pursue both options within the permitting process. It is possible that a combination of both styles of wastewater disposal could be utilized to speed restoration and increase the economic viability of the project.

22.2.3 Project Timing

As a whole, the timing risks are less technical and more likely permitting delays due to opposition to development. These risks are largely up-front risks that have an effect on the timing for initiation of operations. The majority of project capital is not at risk until after the permits for construction and well-field development are in place, at which time the risks are operational.

22.2.4 Resource and Reserves

Mineable reserves can only be defined after field pilot tests or mining operations have been undertaken. Resource estimates were utilized within this Preliminary Assessment. These resources have been coupled with a small number of laboratory leach studies that indicate 75% recoverability of the resource. There is no assurance that this level of recovery will be achieved by the project based on current information.

22.2.5 Hydrogeology

The primary hydrogeologic concern for the development of a uranium ISR project is orebody transmissivity (or hydraulic conductivity). Both have been characterized from localized tests within the project area and are sufficient for ISR operations. Hydrogeologic project risks are generally associated with lateral heterogeneity of the host aquifer and physical plugging of pore spaces due to geochemical reactions within the formation. Any change in orebody transmissivity that is lower than previously observed parameters to date, may increase the length of time required for resource recovery, and potentially have a negative effect on the economics of the project.

22.2.6 Uranium Recovery and Processing

The greatest risk in the development of an ISR project is the lack of pilot-scale field-testing and site-specific assessment of percent and time of recovery and average uranium concentration in PC. The lack of data from field application present risks associated with the production, and thus the financial results presented in the Assessment. The validity of the economic analysis is heavily dependent on the performance of the ISR well field and the ability of the operation to extract uranium from the host unit at a rate similar to those utilized in the economic analysis. Potential problems are numerous and include: a reduction in hydraulic conductivity due to mineral precipitation, or spatial variability; unforeseen uranium grade variability; discontinuity of confining geology; all of which have further effects on resource recovery and required infrastructure to maintain project economics.

Process risks include process selection, design, and construction on a commercial scale based upon limited laboratory studies specific to the project site. Uranium concentrations in the PC may be significantly higher or lower than presented in this Assessment. In addition, the PC may carry undesirable impurities which may reduce uranium production, or create the need for secondary circuits on the process facility. Dewey-Burdock contains uncertain vanadium content that will potentially need to be dealt with in the processing facility.

In addition, specific to Dewey-Burdock is the need for several overlying well fields in the Burdock area. The roll front deposits in the south central area are stacked and narrow; requiring detailed well field and infrastructure planning to maximize the resource recovery.

22.2.7 Commodity Price Fluctuation

The current spot price for uranium is USD52.00/lb (as of report effective date of December 31, 2011) U3O8 and long-term contract price is approximately USD65.00/lb. Uranium long term prices have fluctuated during the past five years from lows of near USD60.00/lb to USD95.00/lb. Long-term market trends analyzing supply and demand indicate increases in future demand.

Using data from TradeTech's "Long Term Uranium Price Indicator" as published in http://www.uranium.info, a three year trailing average of monthly long term prices from the period January 2009 to December 2011 was calculated to be $64.33. A sales price of $65.00 was used in the base case economic analysis.

22.2.8 Radiological Waste and Contamination

Radiologically contaminated solid wastes, that cannot be decontaminated, will be classified a 11e.(2) byproduct material, and will need to be disposed of in a licensed radiological waste facility. It is estimated that the Dewey-Burdock project will generate at least $40yd^3$ of 11e.(2) material per year. The long-term availability of radiological waste disposal facilities cannot be predicted. In addition, the availability of, and demand for, these facilities cannot be predicted and may lead to an increase in disposal prices.

The environmental radiological impact of the Dewey-Burdock project will be assessed within the Supplemental Environmental Impact Statement prepared by the NRC as part of the Source Material License Application. It is anticipated that operations will not contribute to the dosage of the general public, and any risk of radiological exposure is minimal to none.

22.2.9 Transport

Transportation of PC or yellowcake by Powertech could result in an accident and product spillage. If such an event were to occur, all spilled materials would be collected, and contaminated materials would be removed from the site and processed at a uranium processing mill as alternate feed, or disposed of at a licensed radiological waste facility as 11e.(2) byproduct material.

Risk of release during shipment cannot be eliminated, however; proper mitigation through institution of shipping and spill response procedures can reduce the overall impact of such an event.

22.2.10 Occupational Health and Safety

All site operations will be completed under the appropriate guidelines and procedures. Powertech will have at least one Certified Health Physicist, as well as several radiological technicians on site to deal with any radiological emergencies. Proper administrative and engineering controls will be in place prior to commencement of facility operations, and all activities shall proceed in a manner that maintains radiological exposure as low as reasonably achievable (ALARA).

In summary, SRK considers the risks associated with the development of Dewey-Burdock as a uranium ISR well field and recovery operation are primarily in the time required for the process to achieve permitting regulatory approvals. Identified potential operations risks are considered as typical of uranium ISR operations and are considered manageable. SRK's opinion is that there are no significant risks that should impede Powertech's desire to move the project forward toward development.

23 Recommendations (Item 26)

Industry Standards for projects with a positive Scoping Study would be to recommend proceeding to a pre-feasibility level study. For ISR, this would normally involve a pilot-scale recovery facility with construction and operation of test injection and recovery well field. This would be operated for a period of time sufficient to develop a recovery curve to accurately predict extraction rate and ultimate total amount of recoverable uranium. For uranium projects, the option of permitting a pilot facility is expected to require the significant amount of permitting work as well as a significant time delay. Powertech's plan is to permit for operations, and upon permit approval, develop detailed recovery information in the first operational mine unit. Powertech plans to permit for full production and to achieve the information to satisfy the requirements of a pre-feasibility study, which include ISR recovery information and operational cost details, during the initial mine start-up phase and the processing of the ISR well field. Recommendations for going forward are therefore presented as the costs to achieve initial production (and thus would be the equivalent of pre-feasibility study information).

- Complete all activities required to obtained all necessary licenses and permits required to operate an in situ uranium mine in the State of South Dakota;
- Complete the construction of electronic drill hole databases to support mine planning activities;
- Conduct definition drilling for the initial well-field for mine planning purposes;
- Complete analysis and permit selected waste-water disposal method (land application or deep-well disposal);
- Cost benefit analysis to determine best available process to handle vanadium in the PC, should levels be significant;
- Finalize facility and mine unit designs and construction drawings; and
- Identify procurement process for long lead items, and perform cost benefit analysis for any alternative equipment or materials.

A Phase I program would take the project through the permitting stage and initial construction of well field equipment and the Central Processing Plant at Burdock, and completion of initial ISR recovery information to verify the equivalent of pre-feasibility study information. A preliminary budget of USD54.3million is anticipated over a one-year period.

Powertech elected to forgo the time and expense of pilot scale ISR production and recovery of uranium prior to a production decision, due to the permitting time requirements and delays it will impart to the project, as well as the additional capital required for a pilot scale recovery plant. A determination of the actual ISR recovery and actual well-field production costs will be determined either way.

Powertech will determine whether or not it will file a pre-feasibility report prior to commencing capital construction for production, with the understanding that the parameters of actual ISR recovery and well field production costs are the only items lacking to achieve a pre-feasibility level understanding and a statement of reserves for Dewey-Burdock.

SRK concurs with Powertech's approach to proceed from preliminary economic assessment to a production decision, with the caveat that the reader understands the risks of investing the initial capital for production-scale well fields and surface processing facility. Further study beyond this preliminary economic assessment would require the completion of a well field scale pilot test; however, the regulatory permitting requirements of an ISR well field and associated surface processing facility for pilot testing, and that required for full scale production, are identical and can take up to 5 years to complete. Because there will have been no well field scale pilot testing completed prior to construction of a full production facility, there is a risk that the total resource recovered, presently projected based on laboratory studies, may be overestimated. In addition, the current preliminary assessment includes 37% inferred resources (Powertech), for which there is insufficient confidence to allow pre-feasibility level application of technical and economic parameters. It is possible that future well field delineation drilling may not successfully upgrade all of the inferred resource to indicated or measured class, and any potential future pre-feasibility level economic analysis may not include resources currently classified as inferred. Proceeding directly from a preliminary economic assessment to full production is a business decision and risk that Powertech is willing to accept based on prior ISR production history on similar deposits elsewhere in the U.S.

24 References (Item 27)

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25 Glossary

25.1 Mineral Resources

The mineral resources and mineral reserves have been classified according to the “CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines” (November 27, 2010). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

A Mineral Resource is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.

An ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity.

25.2 General Mining Terms

The following general mining terms may be used in this report.

Table 25.1: Glossary

Term	Definition
Assay:	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure:	All other expenditures not classified as operating costs.
Composite:	Combining more than one sample result to give an average result over a larger distance.
Concentrate:	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Cut-off Grade (CoG):	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution:	Waste, which is unavoidably mined with ore.
Dip:	Angle of inclination of a geological feature/rock from the horizontal.
Fault:	The surface of a fracture along which movement has occurred.
Footwall:	The underlying side of an orebody or stope.
Gangue:	Non-valuable components of the ore.
Grade:	The measure of concentration of gold within mineralized rock.
Hangingwall:	The overlying side of an orebody or slope.
Igneous:	Primary crystalline rock formed by the solidification of magma.
Kriging:	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level:	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological:	Geological description pertaining to different rock types.
LoM Plans:	Life-of-Mine plans.
Material Properties:	Mine properties.
Mineral/Mining Lease:	A lease area for which mineral rights are held.
Mining Assets:	The Material Properties and Significant Exploration Properties.
Ongoing Capital:	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve:	See Mineral Reserve.
Sedimentary:	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft:	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Sill:	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Stratigraphy:	The study of stratified rocks in terms of time and space.
Strike:	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Total Expenditure:	All expenditures including those of an operating and capital nature.
Variogram:	A statistical representation of the characteristics (usually grade).

25.3 Abbreviations

The following abbreviations may be used in this report.

Table 25.2: List of Abbreviations

Abbreviation	Unit or Term
A	ampere
AA	atomic absorption
A/m^2	amperes per square meter
Ag	silver
Au	gold
AuEq	gold equivalent grade
°C	degrees Centigrade
CoG	cut-off grade
cm	centimeter
cm^2	square centimeter
cm^3	cubic centimeter
cfm	cubic feet per minute
ConfC	confidence code
CRec	core recovery
CSS	closed-side setting
CTW	calculated true width
°	degree (degrees)
dia.	diameter
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPC	Engineering, Procurement and Construction
FA	fire assay
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
g	gram
gal	gallon
g/L	gram per liter
g-mol	gram-mole
gpm	gallons per minute
g/t	grams per tonne
ha	hectares
HDPE	High Density Polyethylene
hp	horsepower
HTW	horizontal true width

Abbreviation	Unit or Term
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
IFC	International Finance Corporation
ILS	Intermediate Leach Solution
kA	kiloamperes
kg	kilograms
km	kilometer
km^2	square kilometer
koz	thousand troy ounce
kt	thousand tonnes
kt/d	thousand tonnes per day
kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
kWh/t	kilowatt-hour per metric tonne
L	liter
L/sec	liters per second
L/sec/m	liters per second per meter
lb	pound
LoM	Life-of-Mine
m	meter
m^2	square meter
m^3	cubic meter
masl	meters above sea level
mg/L	milligrams/liter
mm	millimeter
mm^2	square millimeter
mm^3	cubic millimeter
Moz	million troy ounces
Mt	million tonnes
MTW	measured true width
MW	million watts
m.y.	million years
NGO	non-governmental organization
NI 43-101	Canadian National Instrument 43-101
OSC	Ontario Securities Commission
oz	troy ounce

Abbreviation	Unit or Term
%	percent
PLS	Pregnant Leach Solution
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	second
SG	specific gravity
SPT	standard penetration testing
st	short ton (2,000 pounds)
t	tonne (metric ton) (2,204.6 pounds)
t/h	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
TSF	tailings storage facility
TSP	total suspended particulates
µm	micron or microns
V	volts
VFD	variable frequency drive
W	watt
XRD	x-ray diffraction
y	year

Appendix A: Certificates of Authors

SRK Denver
Suite 3000
7175 West Jefferson Avenue
Lakewood, CO 80235

T: 303.985.1333
F: 303.985.9947

denver@srk.com
www.srk.com

CERTIFICATE OF AUTHOR

I, Allan V. Moran, a Registered Geologist and a Certified Professional Geologist do hereby certify that:

1. I am a Principal Geologist of:

   SRK Consulting (U.S.), Inc.
   3275 W. Ina Rd.
   Tucson, Arizona, USA, 85741

2. I graduated with a Bachelors of Science Degree in Geological Engineering from the Colorado School of Mines, Golden, Colorado, USA; May 1970.

3. I am a Registered Geologist in the State of Oregon, USA, # G-313, and have been since 1978. I am a Certified Professional Geologist through membership in the American Institute of Professional Geologists, CPG - 09565, and have been since 1995.

4. I have been employed as a geologist in the mining and mineral exploration business, continuously, for the past 39 years, since my graduation from university. My relevant experience for the purpose of the Preliminary Economic Assessment is:

   - Vice President and U.S. Exploration Manager for Independence Mining Company, Reno, Nevada, 1990-1993;
   - Manager, Exploration North America for Cameco Gold Inc., 1998-2002;
   - Exploration Geologist for Freeport McMoRan Gold, 1980-1990;
   - Uranium exploration experience, as an exploration geologist, from 1975 to 1980 with Kerr McGee Resources, and Freeport Exploration; and as a geologist consultant from 2006 to 2012 with SRK Consulting (U.S.) Inc.;
   - Experience in the above positions working with and reviewing resource estimation methodologies, in concert with resource estimation geologists and engineers; and
   - As a consultant, I completed several NI 43-101 Technical reports, 2003 - 2012.

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 (as defined in NI 43-101) 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 all sections, except Sections 11,12, 14 and 18 of the technical report titled "NI 43-101 Technical Report, Preliminary Economic Assessment, Dewey-Burdock Project", effective date April 17, 2012, and dated April 17, 2012 (the "Technical Report") relating to the Dewey-Burdock property. I visited the Dewey-Burdock property on December 09, 2009, for 1 day.

7. I have had prior involvement with the Dewey-Burdock property that is the subject of the Preliminary Economic Assessment. The nature of that involvement was in preparing the original Preliminary Economic Assessment NI 43-101 technical report dated July 06, 2010 and updated on February 07, 2011; the precursor to this Preliminary Economic Assessment.

8. I am independent of the Powertech Uranium Corp. applying all of the tests in section 1.5 of National Instrument 43-101.

9. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

11. As of April 17, 2012, to the best of my knowledge, information and belief, the Sections of Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th Day of April, 2012.

"Signed" *"Sealed"*

Allan V. Moran, R.G., CPG

srk consulting

SRK Denver
Suite 3000
7175 West Jefferson Avenue
Lakewood, CO 80235

T: 303.985.1333
F: 303.985.9947

denver@srk.com
www.srk.com

CERTIFICATE of AUTHOR

I, Frank Daviess, MAusIMM, Registered SME, MSc. do hereby certify that:

1. I am currently employed as a consulting resource geologist to the mining and mineral exploration industry and I am currently under contract as an Associate Resource Geologist with SRK Consulting (U.S.) Inc, with an office address of

   SRK Consulting (U.S.), Inc.
   7175 W. Jefferson Ave, Suite 3000
   Lakewood, CO, USA, 80235
2. I graduated from the University Of Colorado, Boulder, Colorado, USA with a B.A. in Geology in 1971 and a M.A. in Natural Resource Economics and Statistics in 1975.

3. I am a Member of the Australasian Institute of Mining and Metallurgy (Registration No. 226303). I am a Registered Member of the Society for Mining, Metallurgy and Exploration, Inc. (Registration No. 0742250).

4. I have been employed as a geologist in the mining and mineral exploration business, continuously, for the past 37 years, since my graduation from university.

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 (as defined in NI 43-101) 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 Section 12 of the technical report titled "NI 43-101 Technical Report, Preliminary Economic Assessment, Dewey-Burdock Project", effective date April 17, 2012, and dated April 17, 2012 (the "Technical Report") relating to the Dewey-Burdock property. I have not visited the Dewey-Burdock property.

7. 7. I have had prior involvement with the Dewey-Burdock property that is the subject of the Technical Report. The nature of that involvement was in preparing the original Preliminary Economic Assessment NI 43-101 technical report dated July 06, 2010 and updated on February 07, 2011; the precursor to this Technical Report.

8. 8. I am independent of the Powertech Uranium Corp. applying all of the tests in section 1.5 of National Instrument 43-101.

9. I have read National Instrument 43-101 and Form 43-101F1, and the Preliminary Assessment has been prepared in compliance with that instrument and form.

10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

11. As of April 17, 2012, to the best of my knowledge, information and belief, Section 12, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th Day of April, 2012.

"Signed"

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Frank Daviess, MAusIMM, Registered SME

CERTIFICATE OF AUTHOR

John I. Kyle, P.E.

I, John I. Kyle, am a Mining Engineer Registered (#15882) in Colorado, USA, do hereby certify that:

1) I am a Vice President of Lyntek, Inc. with offices at 1550 Dover Street, Lakewood, CO 80215;

2) I hold a B.Sc. Mining (1974) from the Colorado School of Mines in Golden, CO, USA and a Masters in Business Administration from Denver University in Denver, CO, USA (1986);

3) I am a Profession Engineer Registered (#15882) in Colorado, USA since 1978 and am a member of the Society of Mining Engineers;

4) I have been practicing my profession as an Engineer for over 37 years and have been employed as a Consulting Engineer since 1988. I am currently employed as a Vice President for Lyntek, Inc. I have worked on uranium projects on a global scale. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify, as a result of my education, experience and qualifications, I am a qualified person as defined in National Instrument 43-101.

5) I have read the definition of "qualified person" specified in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) 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 preparation of sections 11, 14 and 18 of the technical report titled "NI 43-101 Technical Report, Preliminary Economic Assessment, Dewey-Burdock Project", effective date April 17, 2012, and dated April 17, 2012 (the "Technical Report") relating to the Dewey-Burdock property. I have not visited the project site and did not have any prior involvement with the property prior to requests by Powertech Uranium, Inc to work upon the project.

7) I am independent of the issuer, applying all of the tests in Item 1.5 of National Instrument 43-101.

8) I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

9) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

10) As of April 17, 2012, to the best of my knowledge, information and belief, the Sections 11, 14 and 18 contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of April, 2012.

("Signed") ("Sealed")

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John I. Kyle, P.E.