



**TOEROEK
ASSOCIATES, INC.**

TRONOX BANKRUPTCY TASK ORDER

**Site Research Summary for
Belle Fourche Site
Attachment B Site No. 2388**

April 6, 2015

I. Introduction

In 2014, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Justice (DOJ) entered into a settlement agreement to resolve fraudulent conveyance claims against Kerr-McGee Corporation (Kerr-McGee) and related subsidiaries. This settlement was the result of litigation relating to Kerr-McGee's spin-off of businesses and liabilities to Tronox Incorporated (Tronox), which soon after filed for bankruptcy and therefore could not pay for legacy liabilities. These legacy liabilities were extensive, and comprised environmental liabilities associated with over 80 years of Kerr-McGee historic operations. In 2011, a report was prepared to evaluate the environmental liability of Tronox legacy sites that were operated by Kerr-McGee and affiliated entities (Appendix A-1 of the 2011 report provides a list of Kerr-McGee related entities).¹

Toeroek Associates, Inc. (Toeroek) was tasked to perform a targeted Potentially Responsible Party (PRP) search investigation of "Belle Fourche in Crook County, Wyoming." Belle Fourche was identified as a legacy site of Tronox and as an "Other Site" in Attachment B of a Consent Decree and Environmental Settlement Agreement.²

EPA directed Toeroek to research the history of the "Belle Fourche" for evidence of site ownership or operations by Kerr-McGee related entities. This report describes the methodology used for this research; provides a summary of the research results; and presents, where applicable, recommended future EPA investigative action.

¹ The report was prepared for the Anadarko Litigation Trust by Roux Associates, Inc. and entitled: *Environmental Liability Evaluation of Tronox Legacy Sites*.

² The Consent Decree and Environmental Settlement Agreement in the matter of In re: Tronox Incorporated, *et al.*, Case No. 09-10156 (ALG) was filed with the U.S. Bankruptcy Court for the Southern District of New York.

II. Methodology

Toeroek reviewed the data sources described in Table 1 below for the purpose of identifying the ownership and operational history of the “Belle Fourche” site. Toeroek compiled the data found and then conducted a data review to determine: (1) basic information about the site, including any aliases and a general timeline of its operations; (2) information regarding ownership, evidence of operation, and admission of operation; (3) PRPs associated with the site; and (4) identification of Kerr-McGee related entities involved with the site area.

Table 1. Data Sources Reviewed

Data Source	Notes
DOJ’s Relativity Database	Key words: Crook County, Black Hills Mining, Elkhorn Creek, Barlow Canyon, Hulett, Carlile, and Hauber, which did not produce any results. A search for Belle Fourche indicated that it was a legacy site.
Internet	Crook County, Wyoming websites; Wyoming state agency websites; Federal agency websites (EPA, BLM, NPS, NRC, USGS); Google Books; Archive.org; USGS Publications Warehouse; University of Wisconsin Ecology and Natural Resources (USGS Minerals Yearbooks); Hathi Trust; Colorado Concordance database for Tronox Project (including Kerr-McGee Annual Reports and various Minerals Yearbooks).School of Mines; and other general Internet searches.

III. Research Findings – Belle Fourche

The “KMC 2005 Due Diligence Mine Exploration List” identifies Belle Fourche in Crook County as a site associated with a Kerr-McGee entity for the commodity of uranium. Based on its listing, it appears the activity by a Kerr-McGee entity may have been exploratory in nature (NR0083927, p. 15). The subject area for the “Belle Fourche” Legacy site is not clearly delineated. In addition, various features (e.g., mines, a river, a watershed, geologic formation) bear the name “Belle Fourche.” Toeroek’s research encompassed these features to determine if a relationship to a Kerr-McGee entity and/or uranium mining exists with them.

A. Site Location

The Belle Fourche River is a tributary of the Cheyenne River, and passes through Crook County in the northeast corner of Wyoming and into South Dakota. The Belle Fourche Watershed is a component of the Missouri watershed, and has three subunits: Upper Belle Fourche, Lower Belle Fourche, and Redwater, all of which have portions in Crook County (BEL-015). The Belle Fourche Watershed covers approximately 75 percent of Crook County and contains several mining districts. In addition to Crook County, the watershed also extends into two other Wyoming counties and parts of Montana and South Dakota. Figure 1 illustrates the location of the Belle Fourche River and its Watershed (denoted with green shading) (BEL-006).

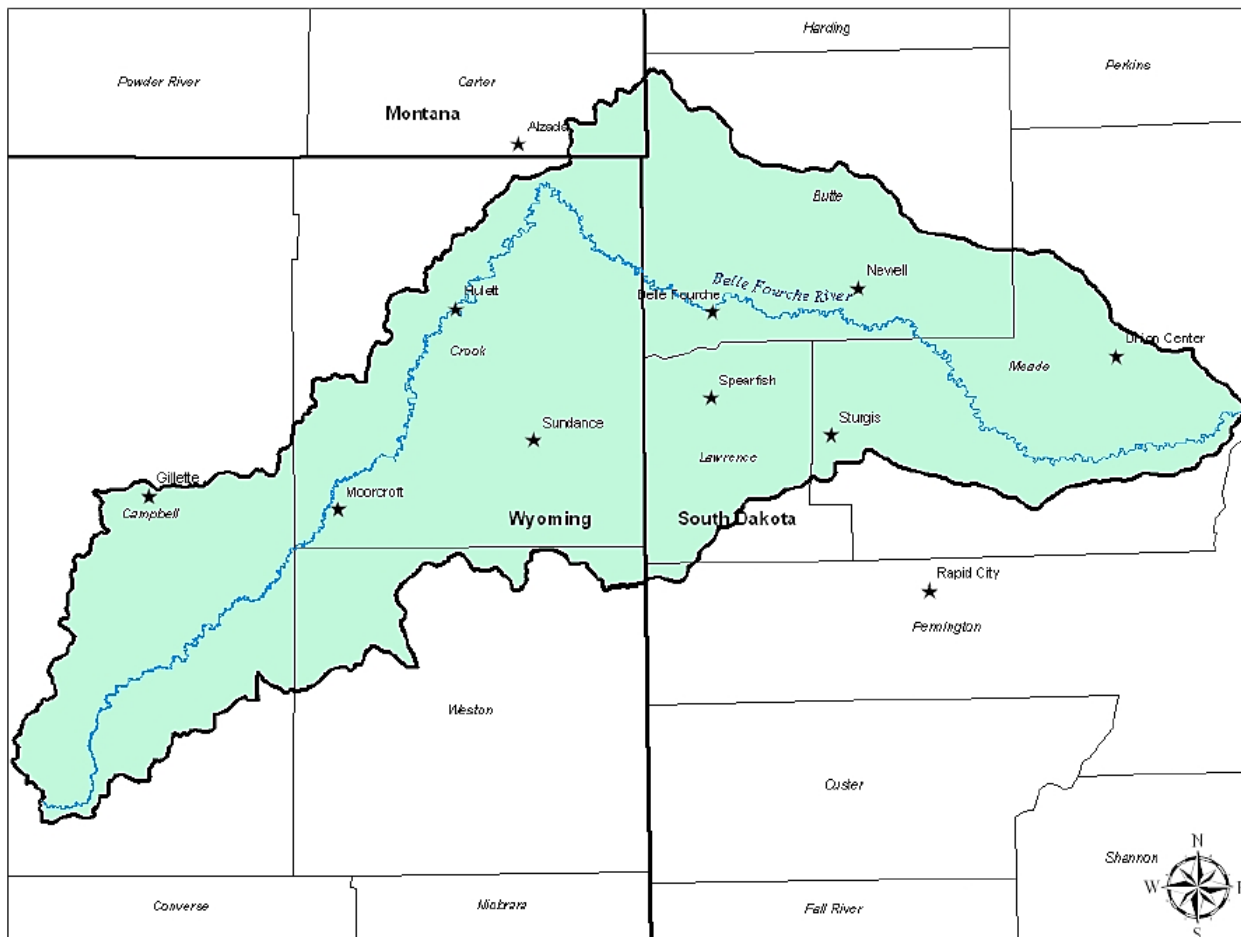


Figure 1. Belle Fourche River and its Watershed (BEL-006)

Belle Fourche is also the name of a geologic formation in Montana, and a nearby town in western South Dakota with a thriving industry of bentonite mining (BEL-031, p. 3; BEL-036, p. 1). Due to the widespread use of “Belle Fourche” as a place name in the area, the site has been defined as that portion of Crook County, Wyoming located within the Belle Fourche Watershed for this report, with specific focus on mines and districts along the Belle Fourche River. One mine called the Belle Fourche Mine is located in Campbell County, Wyoming. Three Belle Fourche River Mines are located in Crook County, each located in different U.S. Geological Survey quadrants. No further information was found on these mines (BEL-032, pp. 9, 20).

B. Operations

In this section, Toeroek summarizes the different historical mining activities that were conducted in the Belle Fourche Watershed within Crook County, Wyoming, including uranium mining as well as coal and hard rock mining (e.g., gold). The Operations section first presents information regarding *Uranium Mining and Exploration* followed by a discussion of *Historic Mining of Other Commodities*.

Uranium Mining and Exploration

Uranium in the Black Hills region of Crook County, Wyoming occurs as epigenetic mineralization in Cretaceous fluvial sediments. The host rocks for mineralization include the Fall River and Lakota formations of the Inyan Kara Group of Late Cretaceous age (HART-012, p. 32).

Uranium was discovered in Crook County in 1949 (BEL-001, p. 7). According to a 1982 Geological Survey of Wyoming publication on ore deposits within the state, five different districts in Crook County have produced uranium. They were identified as the Aladdin area, Elkhorn Creek District, Barlow Canyon District, Hulett Creek area, and Carlile area. This publication further included a figure, found here as Figure 2, dated 1979 with major active and inactive uranium mining districts. This figure identifies only one uranium mining district, the "Black Hills Mining District," in Crook County (HART-012, pp. 32, 35). Bear Lodge Mining District is yet another district identified in Crook County for uranium (BEL-014, p. 1).

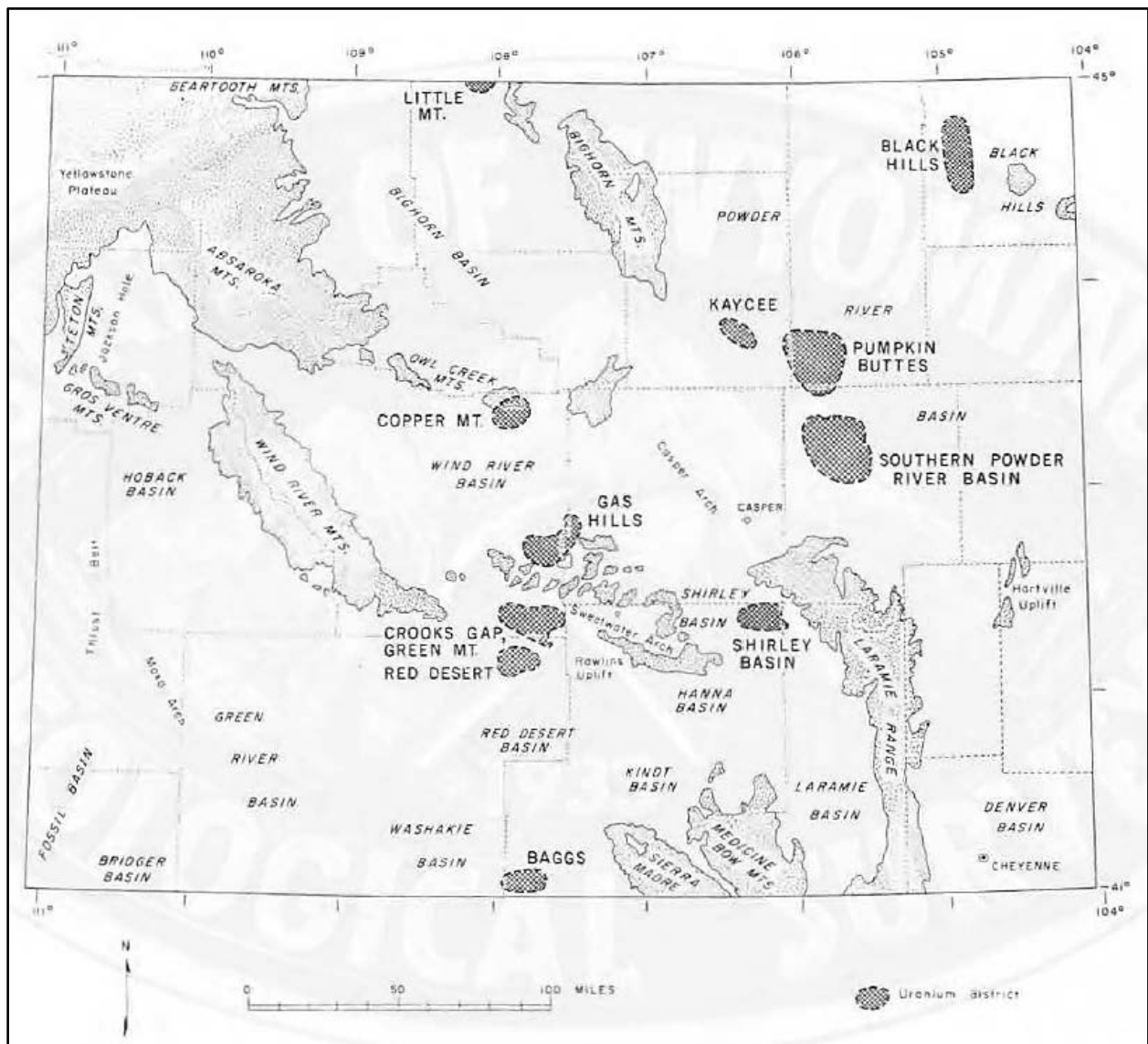


Figure 2. Major Uranium Districts in Wyoming, 1979 (HART-012, p. 35)

Bear Lodge Mining District

Nuclear Dynamics, Inc. and Bethlehem Steel Corp formed a joint venture called NuBeth Joint Venture. In 1978, the NuBeth Joint Venture operated in-situ leaching recovery activities for uranium at a project site located in the east half of Section 18, Township 53 North, Range 67 West. The project, identified as the Sundance Project, was a pilot scale operation, although the joint venture planned to expand operations to increase its production (BEL-028).

Aladdin area

The Aladdin area is located in Township 54 North, Range 60 West (HART-012, p 32). Uranium was discovered in this area sometime between 1952 and 1955, and a number of uranium occurrences were mined from surface exposures in the Aladdin area in the 1950s. These activities provided a prospective for further development (BEL-029, p. 1; BEL-010, p. 9).

Kerr-McGee Corporation and “Teton” mined for uranium in the Aladdin area during the 1970s and 1980s.³ These companies conducted extensive drilling down from the surface anomalies identified decades earlier, and both encountered significant mineralization in the area (BEL-029, p. 1). In a 1983 EPA report, a list of inactive uranium mines in Crook County includes A.A. Sisson Mine. This mine was controlled by “Kerr-McGee,” and it was located in Section 7, Township 54 North, Range 60 West, the same township and range of the Aladdin area. The EPA report stated the A.A. Sisson Mine was a surface mine, which produced less than 100 tons as of January 1979 and went to a depth of 50 feet (BEL-022, p. 110).

According to a 2007 publication on uranium mining and exploration, a subsidiary of Powertech Uranium Corporation, Powertech (USA), Inc. had acquired leases in the area where Teton and Kerr McGee Corporation had conducted exploratory work. Powertech (USA), Inc. had acquired Teton’s database consisting of 220,000 feet of drill hole logs in the Aladdin area. Powertech Uranium Corp. received an exploration permit from the Wyoming Department of Environmental Quality in October 2006 for the Aladdin project (BEL-029, p. 1; BEL-023, pp. 2-3). A 2012 news article stated Powertech Uranium Corporation conducted exploratory uranium development on 15,000 acres of the Aladdin area. This company used in-situ recovery, and its “facilities” included well fields and a processing facility (BEL-011, p. 4).

Another company, Azarga Uranium Corporation, also conducted exploratory work for uranium in the Aladdin area circa 2012. Its project consisted of about 14,500 acres of mineral rights along the border of Wyoming and South Dakota (BEL-023, pp. 1-2).

Elkhorn Creek District

Elkhorn Creek is located in Township 56 North, Range 66 West (HART-012, p. 32). Operated by Homestake Mining Company, the Hauber Mine was only a few miles west of the Elkhorn Creek Mines and had the largest production of uranium in the area in 1960. Homestake Mining Company produced 2.6 million pounds of triuranium octoxide (U₃O₈) from the mine from 1959

³ Toeroek believes the reference to “Teton” is to “Teton Exploration Company” as the Powertech Uranium Corporation website identified this company in connection to mining in the Aladdin area (BEL-023, p. 2).

to 1966, and explored adjacent areas of the northern Black Hills into the mid-1980s (CRGP-003_MYB 1960, p. 16; BEL-008, p. 1).

Aldershot Resources Ltd (through Royal USA Inc.) is conducting uranium operations in the “Hauber II Lakota” and “Hauber Fall River” projects, formerly Elkhorn project properties, as of approximately 2010 to 2014 (BEL-026, p. 4). Ur-Energy Inc. (through NFUR Hauber, LLC) also conducted uranium operations at other Hauber Project properties as of approximately 2010 (BEL-026, pp. 4-5). Ur-Energy previously operated another uranium project as a joint venture with NCA Nuclear near New Haven in northwest Crook County. The status of operations was exploratory and temporarily on hold as reported in 2012 (BEL-011, p. 3).

In a 2008 Bayswater Uranium Corporation report, it states that Bayswater acquired Kilgore Minerals Ltd. in 2007 through an amalgamation, which resulted in it owning 100 percent of the 22 uranium properties in four states, including Wyoming. One property was the Elkhorn Project. Kilgore had acquired a database which included 4,600 drill holes completed by “Kerr-McGee” and other major companies in northeast Wyoming (BEL-030, p. 8). Bayswater Uranium Corporation entered a venture agreement in 2009 with NFUR Hauber, LLC (a subsidiary of Ur-Energy, Inc.), whereby Bayswater can earn 75 percent interest in Ur-Energy, Inc.’s Hauber Uranium Project, which consisted of 700 drill holes (BEL-008, p.1). Bayswater used exploratory in-situ recovery methods for uranium on 2,000 acres of Elkhorn property as of 2012 (BEL-011, p. 5).

Hulett Creek area

The Hulett Creek area is located in Township 55 North, Range 67 West, and its uranium deposit was found in a 7,000- by 2,000-foot channel of sandstone near the top of the Fall River Formation (HART-012, p. 32). In 1949, Homestake Mining Company opened a mine north of the town of Hulett, which was reportedly still operating. Homestake Mining Company had six open pits in the Hulett Creek area in 1960. Sodak Uranium and Mining Company was also mining a nearby deposit in the area (BEL-001, p. 7; BEL-004, pp. 9, 17).

Carlile area

Uranium was discovered in the Carlile area around between 1952 and 1955. The Carlile Mine, located in Township 52 North, Range 66 West, was mined in the 1950s by Homestake Mining Company; these operations ceased by 1955. The Busfield Mine, located nearby in Township 56 North, Range 66 West, was mined open cut and underground by Sodak Uranium and Mining Company (BEL-010, pp. 9, 24). Located near Carlile was the Laymon Lease property. Shannon Oil Company had a contract with the U.S. Department of Interior Defense Minerals Exploration Administration (DMEA) to explore it for uranium in as early as the mid-1950s. According to DMEA’s semiannual report, dated February 1958, for the period July 1 through December 31, 1957 or in 1955, the project had been inactive; however, another company, Balboa Mining and Development Co. filed an application to further explore the property (BEL-027, pp. 4-6, 17).

A few miles west of the town of Carlile is the Lance Project property, extending northward starting from six miles north of Moorecroft. As of 2012, the project area was 23 miles in length and 5 miles in width (BEL-035, p. 2). The original NuBeth Joint Venture between Nuclear Dynamics, Inc., Bethlehem Steel Corporation and later Pacific Power and Hydro (NuBeth Joint

Venture), discovered 13 substantial zones of uranium mineralization associated with an extensive system of roll fronts. These deposits were confirmed by drilling between 1970 and 1979. As part of this exploration program, the NuBeth Joint Venture drilled more than 5,000 exploration and development holes (BEL-033, p. 1). In 2007, Peninsula Energy Ltd. acquired the project, and performed in-situ recovery planning and exploration from 2010 to 2014. Peninsula Energy Ltd. “facilities” included well fields and a processing plant (BEL-035, p. 2; BEL-026, p. 11; BEL-011, p. 7). Strata Energy, Inc. is a wholly owned subsidiary of Peninsula Energy Ltd., and was operating the Lance projects as of 2012 (BEL-034; BEL-035, p. 1).

Upon review of records in the public domain, most of the entities identified in the operational section did not have a known association with any Kerr-McGee entity. However, Kerr-McGee performed uranium mining activities in the Aladdin area during the 1970s and 1980s, approximately.

Historic Mining of Other Commodities

The Belle Fourche Watershed has an extensive history of mining, particularly for coal, gold, bentonite, and rare earth elements. In 1895, the Black Hills Coal Company was founded and began mining coal at the Aladdin Mine in Crook County, Wyoming. This company also built a shortline railroad that connected area mines to a larger main line railroad in Belle Fourche, South Dakota. The Aladdin Mine was one of the first underground mines in northeastern Wyoming; it continued to operate until 1942 when it was abandoned. M. S. Kemmerer bought the controlling interest in the mines in Aladdin, Wyoming in 1899 along with the shortline railroad. The shortline railroad continued to operate through 1929, although the last shipments of coal on it occurred in 1910 (BEL-001, p. 5; BEL-021, p. 1).

The town of Sundance, Wyoming was established in 1879 during the Black Hill Gold Rush, and continued to be a major mining town (BEL-007, p. 2) (refer to Figure 1 for the location of Sundance). In the Bear Lodge District, Warren’s Peak Mines Company and the Bear Lodge Mining Company were mining for gold around 1912. This company erected a 5-stamp mill. At this time in 1912, Crook County mineral resources were identified as gold, tin, petroleum, coal, and gypsum (BEL-005, p. 5). The town of Colony, Wyoming was a major center for the bentonite industry, beginning in the early 1900s with the Baroid Bentonite Plant, the American Colloid Company in the 1920s, and the Archer-Daniels-Midland plants in 1964 (BEL-001, p. 6).

The Mineral Hill District is located approximately ten miles east of the town of Sundance, in Township 51 North, Range 60 West. Golden Predator Royalty and Development Corporation (Golden) signed a letter agreement in 2009 with Bronco Creek Exploration, Inc. and Mineral Hill, LP in which Golden will lease the Mineral Hill Property, consisting of 20 patented and 69 unpatented mining claims located in this district. The property comprises approximately 1,430 acres of mineral rights and patented mining claims, primarily for gold mining (BEL-012, p. 1).

The Bear Lodge Mountains are located approximately seven miles north of Sundance, and includes both the Bear Lodge Mining District and the Hurricane Mining District, which reportedly had one mine and three small placer gold mines, respectively. Other mines in the area included the Independence Mine operated by the Roenna Mining Company, and the Copper Prince Mine and Hutchins Consolidated Gold Mining Company Mine (BEL-007, p. 6). Rare earth mineralization was first discovered in the Bear Lodge Mountains in 1949, and the U.S.

Bureau of Mines conducted some limited exploration in the early 1950s. In 1972, Duval Corporation reinitiated exploration activities with a focus on copper and molybdenum, but it was soon determined that “Bear Lodge had the potential to host an economically significant rare earth deposit.” Molycorp, Inc. was brought in as a partner but was not able to advance the project primarily due to weakening market fundamentals. At approximately the same time, the U.S. Geological Survey conducted field and laboratory studies and published a paper that concluded that the Bear Lodge area has one of the largest resources of total rare earth elements in the United States (BEL-014, p. 2-3).

Hecla Mining Company explored the Bear Lodge area, first for rare earths and then for gold, between 1987 and 1991. Their exploration effort identified the Whitetail Ridge mineralization and Bull Hill deposit, conducting two and three drillings at each location, respectively. This company also explored the property for gold between 1994 and 1996 (BEL-014, pp. 2-3). Rare Element Resources Ltd., a British Columbia company, began to position itself to undertake the Bear Lodge Project in the early 2000s. This company anticipated this project would produce many of the critical rare earths necessary to support the evolving technologies for the next 40 plus years. This project consisted of the following two components: (1) the Bull Hill Mine consisting of the Whitetail Ridge and Bull Hill deposits, located 12 miles north of Sundance; and (2) Upton Hydrometallurgical Plant, located 40 miles south of the Bull Hill Mine and two miles west of the town of Upton, Wyoming (BEL-014, p. 1). Rare Element Resources Ltd. proposed to operate the Bull Hill Mine as a surface mine. Neodymium, a rare earth element, was found at Bull Hill Mine (BEL-002, pp. 1-2). This company initiated rare earth elements exploration activities at the Bull Hill Mine in 2004; between this date and 2013, it had drilled over 160,000 linear feet in over 200 core holes that ranged in depth from 88 to 1,886 feet (BEL-014, p. 3). Rare Element Resources Ltd. incorporated in 1999 as “Spartacus Capital Inc.” and changed its name in 2003, at which time it acquired the property (BEL-013, p. 1).

Other entities that are known operators in the oil and gas industry in Crook County in current years are: Anadarko Petroleum Corporation, Merit Energy Company Co., Strata Energy Inc., Citation Oil and Gas Corp., T Roustabout, Flying J Oil & Gas, Rex A Brown Pumping Inc., Sterling Oil & Gas Company, and True Oil LLC (BEL-001, p. 7).

C. Ownership Information

Toeroek conducted searches for property ownership information using the Crook County Assessor’s and Clerk’s websites. The Crook County Property Tax records were also searched, using the terms “Kerr-McGee,” “Kerr,” “McGee,” and “Anadarko”, but no results were found. Aside from Kerr-McGee Corporation and a brief mention of Anadarko, no other related entities were identified in operational research, so no additional search terms were employed.

Toeroek also searched for mining claims using two of the U.S Bureau of Land Management (BLM) websites. The first website, BLM’s General Land Office Records, did not produce any search results that were Kerr-McGee related. BLM’s Land & Mineral Legacy Rehost 2000 System, the second website, was searched using the above mentioned search terms in conjunction with county, state, and township and range information for the land adjacent to the Belle Fourche River, thus encompassing a large geographic portion of the watershed. Toeroek

searched both Case Recordations and Mining Claims using these search terms.⁴ Kerr-McGee related results were found (BEL-019, BEL-020). The mining claim geographic report listed many claims held by Kerr-McGee Corporation in 1974. Claim names/numbers associated with Kerr-McGee's included: BAN#1 – BAN#115, BAG#7 – BAG#133, BELLE#1 – BELLE#103, and TAS#63 TAS#68 (BEL-019). It can be inferred that other Kerr-McGee mining claims exist in the adjacent land in the Belle Fourche Watershed, although additional township and range descriptions were not searched. The geographic report with customer listing showed Kerr-McGee as a lessee in three closed cases. The closures occurred between 1988 and 1990 (BEL-020). Information on additional mining claims found through the BLM's website is described in the Operations section above.

D. PRPs

Table 2 identifies PRPs for uranium mining activities in the Belle Fourche Watershed within Crook County, Wyoming, along with a brief description and estimated dates of their involvement. Additional information regarding these parties is provided in the Operations section above.

Table 2. PRP Summary Table

PRP	Year(s)	Involvement at Site	Reference	Kerr-McGee Entity
Aldershot Resources, Ltd. (through Royal USA Inc.)	2010 – 2014	Conducted uranium mining operations at Hauber and Elkhorn properties.	BEL-026	No
Azarga Uranium Corporation	2012	Explored the Aladdin area for uranium.	BEL-023	No
Balboa Mining and Development Co.	Unknown	Filed an application to further explore the Laymon Lease property in the Carlile area.	BEL-027	No
Bayswater Uranium Corporation	2007 – 2012	Acquired Kilgore Minerals Ltd and their Elkhorn properties in 2007; conducted exploratory in situ recovery on the Elkhorn property; and entered into Joint Venture with NFUR Hauber LLC in 2009.	BEL-008; BEL-030; BEL-011	No
Homestake Mining Company	1949 – 1966	Operated Hauber Mine and adjacent areas (1959-1966); mined near Hulett (1949-1955); operated the Carlile Mine in the 1950s.	BEL-008; BEL-004; BEL-001; BEL-010	No
Kerr-McGee Corporation	1970s – 1980s; 1974; 1988 – 1990	Mined uranium in the Aladdin area, including "A. A. Sisson" Mine in 1983 (1970-1980); held several mining claims and leases.	BEL-029; BEL-022	Yes

⁴ In the BLM LR2000, Case Recordations contain information on leases, permits, contracts, grants, agreements, mineral patents, etc. issued by the BLM on federal actions affecting public lands. The Mining Claims contains information on unpatented mining claims located on federal land.

PRP	Year(s)	Involvement at Site	Reference	Kerr-McGee Entity
NFUR Hauber, LLC	ca. 2009	Operated the Hauber Project properties through UR-Energy, Inc.; Entered a venture agreement with Bayswater Uranium Corp. for the Hauber Uranium Project in 2009.	BEL-008; BEL-026	No
NuBeth Joint Venture (Nuclear Dynamics, Inc. & Bethlehem Steel Corp., and later Pacific Power and Hydro)	1978	Operated the Sundance uranium project; conducted uranium drilling associated with the Lance Project in the Carlile area.	BEL-028; BEL-033	No
Peninsula Energy Ltd.	2007 – 2012	Acquired Lance project near Carlile area and performed uranium in-situ operations.	BEL-035; BEL-026; BEL-011	No
Powertech Uranium Corporation	2006 – 2012	Explored Aladdin area for uranium.	BEL-011	No
Powertech (USA), Inc. (subsidiary of Powertech Uranium Corporation)	ca. 2007	Acquired leases of land previously mined by “Teton” and Kerr-McGee Corporation.	BEL-029	No
Shannon Oil Company	Mid-1950s	Explored for uranium at the Laymon Lease property in the Carlile area.	BEL-027	No
Sodak Uranium and Mining Company	1950s – 1960	Mined uranium in the Hulett Creek area and the Busfield Mine near Carlile, Wyoming.	BEL-010	No
Strata Energy, Inc. (subsidiary of Peninsula Energy Ltd.)	2012	Operating Lance uranium project near Carlile, Wyoming.	BEL-034; BEL-035	No
Teton Exploration Company	1970s – 1980s	Mined uranium in the Aladdin area.	BEL-029	No
Ur-Energy, Inc. (through NFUR Hauber LLC)	2007 – 2010	Conducting uranium operations at Hauber properties; had joint venture with NCA Nuclear to explore for uranium near New Haven, WY.	BEL-026; BEL-011	No

Many mining companies operated in the site area for other commodities, such as coal, gold, bentonite, and rare earth elements. These entities are described in *Section B - Operations – Historic Mining of Other Commodities* of this report and are not listed as PRPs in the table above. .

E. Kerr-McGee Regional Activities

On a regional level, Kerr-McGee related entities conducted mining activities and/or owned mining property in several Wyoming counties (e.g., Fremont, Carbon, Converse, Natrona Counties). Toeroek has been tasked to research up to 15 different Tronox legacy sites located in Wyoming. Please refer to these legacy site reports for further information.

At least two of the legacy sites involved uranium mining. The Petrotoomics Mill site (Site No. 1497) is located in the Shirley Basin area of Carbon County, Wyoming. Petrotoomics Company developed uranium deposits in this area and operated the Petrotoomics Mill. The report for this site details Kerr-McGee's 50 percent ownership in the Petrotoomics Company. Another legacy site involving Kerr-McGee and uranium mining included the Gas Hills site (Site Nos. 2404 and 2437). Kerr-McGee had obtained over 6,000 acres of uranium reserves in the Gas Hills area since approximately 1965 (GAS-006, p. 17).

Kerr-McGee's involvement in uranium mining in Wyoming includes other sites not currently being researched as part of this Tronox legacy site investigation. As an example, Kerr-McGee staked the Bootheel property in 1958, discovering both shallow oxidized and deeper uranium mineralization on the property. The Bootheel property is located in Shirley Basin, Carbon County, Wyoming. Kerr-McGee completed 283 drillings in that area by 1962, but dropped the property in 1962 only to reacquire it in 1968. It abandoned the Bootheel property in 1969 (PET-024, p. 30). Kerr-McGee also first discovered uranium mineralization at the Chalk Hills property in the 1960s (PET-024, pp. 7-8).

On a more general note, Kerr-McGee Oil Industries, Inc. was identified as one of four companies with the most uranium reserves in the state as early as 1956 (GAS-003, pp. 23-24). A 1976 Minerals Yearbook notes that Kerr-McGee Nuclear Corp. held 125,000 acres of uranium mining rights in the South Powder River Basin (TEA-009, p. 14). Finally, Kerr-McGee's 1985 Annual Report stated Sequoyah Fuels Corporation, a corporately related entity, owned extensive uranium reserves in Wyoming (GAS-004, pp. 7, 10).

IV. Conclusion

Toeroek was tasked with determining the involvement of Kerr-McGee entities with the "Belle Fourche" site located in Crook County. According to available information from the DOJ Relativity database, the commodity of interest is uranium, and the Kerr-McGee entity's involvement appears to include limited mining and extensive exploratory work.

It should be noted that the exact location of the study area for this research is unclear and further complicated by the existence of a Belle Fourche River, a Belle Fourche town in South Dakota, and the Belle Fourche Watershed that not only covers the majority of Crook County, but spans three states, among other features. Consequently, for purposes of this investigation, Toeroek conducted research on "Belle Fourche" in reference with Crook County, Wyoming, the county identified in the Consent Decree and Environmental Settlement Agreement.

Toeroek researched ownership and operational records for the Belle Fourche site with a focus on uranium. However, other commodities mined in the area included gold, coal, and bentonite. Kerr-McGee conducted uranium mining and exploratory work in the Aladdin area in the 1970s and 1980s, but information is limited on the details of this activity. Various other past operators involved in uranium mining in the site area were also identified. Toeroek also discovered that Kerr-McGee held several mining claims in the site area, which included at least three mine leases, one of which had its case closed as recently as 1990.

If EPA desires, additional research could be conducted at local archives and libraries to further develop the nexus between Kerr-McGee and the site. Toeroek has limited access to the Tronox

case files in DOJ's Relativity Database; a credentialed user with full access could run additional keyword searches through the database to identify pertinent information. Specifically, an expanded search may assist in ascertaining the location or site boundary of the "Belle Fourche" site identified as the legacy site for Kerr-McGee.