



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATE, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.**

November 8, 2012

Powertech (USA) Inc
Richard Blubaugh
5575 DTC Parkway Ste 140
Greenwood Co 80111

Dear Mr. Blubaugh:

Water Permit Application Nos. 2685-2 and 2686-2 for industrial use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the following papers:

Custer County Chronicle printed in Custer SD (Ph# 605-673-2217)

Hot Springs Star printed in Hot Springs SD (Ph# 605-745-4170)

Rapid City Journal printed in Rapid City SD (Ph# 605-394-8300)

You will need to contact these newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper(s) has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

At DENR's discretion, the notice of hearing is also being published in the Edgemont Herald-Tribune, Black Hills Pioneer and Lakota Country Times. DENR will be responsible for payment in these newspapers.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

c: Jack Fritz, WWC Engineering, 1849 Terra Ave., Sheridan WY, 82801

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the applications.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 8, 2012

Edgemont Herald-Tribune
PO Box 660
Edgemont SD 57735

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 2685-2 and 2686-2 to Appropriate Water. Please publish the notice once on November 14, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

Please BILL the WATER RIGHTS PROGRAM for the cost of publication.

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.
Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 8, 2012

Black Hills Pioneer
PO Box 7
Spearfish SD 57783

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 2685-2 and 2686-2 to Appropriate Water. Please publish the notice once on November 14, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

Please BILL the WATER RIGHTS PROGRAM for the cost of publication.

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 8, 2012

Custer County Chronicle
PO Box 551
Custer SD 57730

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 2685-2 and 2686-2 to Appropriate Water. Please publish the notice once on November 14, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway, Ste. 140, Greenwood Village CO 80111 (Ph # 303-790-7528).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 8, 2012

Rapid City Journal
PO Box 450
Rapid City SD 57709

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 2685-2 and 2686-2 to Appropriate Water. Please publish the notice once on November 14, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway, Ste. 140, Greenwood Village CO 80111 (Ph # 303-790-7528).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 8, 2012

Hot Springs Star
PO Box 1000
Hot Springs SD 57747

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 2685-2 and 2686-2 to Appropriate Water. Please publish the notice once on November 13, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway, Ste. 140, Greenwood Village CO 80111 (Ph # 303-790-7528).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 8, 2012

Lakota Country Times
PO Box 386
Martin SD 57551

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 2685-2 and 2686-2 to Appropriate Water. Please publish the notice once on November 14, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

Please BILL the Water Rights Program for the cost of publication.

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.
Delays in receiving the affidavit can be costly to the applicant.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

Instruction to Newspaper - Publish Notice on November 14, 2012. The applicant is responsible for payment.

NOTICE OF HEARING on Water Permit Application Nos. 2685-2 and 2686-2 to Appropriate Water for Powertech (USA) Inc.

Notice is given that Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway Suite #140, Greenwood Village CO 80111 has filed two applications for water permits for primarily industrial use in a uranium in-situ mining project called the Dewey-Burdock Project located in Custer and Fall River Counties. The Dewey-Burdock Project area (project area) encompasses approximately 10,580 acres including portions of Sections 1 through 5, 10 through 12, and 14 through 15 in T7S, R1E and Sections 20 through 21, and 27 through 35 in T6S, R1E, Black Hills Meridian.

Project Overview: Powertech (USA) proposes to recover uranium by a method known as in-situ recovery, or ISR, in which groundwater from the formation containing uranium (the Inyan Kara Group) is pumped to the surface from a field of wells, fortified with oxygen and carbon dioxide, and recirculated through the formation. The oxidized groundwater changes the uranium to a soluble form and is pumped to the surface, where uranium is removed from the solution. ISR circulates water through the uranium ore zone. Only a small fraction of the water is a net withdrawal because most water is recirculated back through the ore zone. A portion of the water extracted from the Inyan Kara Aquifer will be "bled off" to maintain a cone of depression so native groundwater continually flows toward the center of the production zone. Production bleed rates may vary in the range of 0.5 to 3 percent over the life of the project. Restoration bleed rates up to 17 percent may be used briefly but would be limited to well fields undergoing aquifer restoration. The ISR process is repeated until the economic reserves of uranium are fully removed from that particular well field. The process moves to another well field, and the uranium depleted well field is restored by continuing to circulate clean water through the wells until the water is similar in quality to the water that existed in the formation prior to the ISR operations. Most of the water removed from the Inyan Kara Aquifer during the ISR process is recirculated and re-injected through the well field, resulting in the net consumptive use of water being a small portion of the gross withdrawal rate. Most of the water used in the ISR operations will be obtained from the Inyan Kara Group. However, Powertech (USA) plans to use water from the Madison Aquifer to make up for water that is not provided from the ISR process. The amount of "make-up" from the Madison Aquifer will depend upon the water disposal method which is either deep disposal well or land application. The use of water from these two formations necessitates obtaining water permits from each source. The applications listed below describe the proposed points of diversion, amount of water to be used, the maximum annual diversion rate and annual volume that may be diverted. The eastern portion of the project area is known as the Burdock area. It will include a series of ISR well fields and a central processing plant. The western portion of the project area is the Dewey area which will include ISR well fields and a satellite processing plant.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed online at <http://denr.sd.gov/Powertech.aspx>.

Water Permit Application No. 2685-2 proposes to appropriate and place to beneficial use up to 1.228 cubic feet of water per second (cfs) with an annual consumptive use up to 888.8 acre feet of water annually from up to two or more wells completed into the Madison Aquifer at an approximate depth between 2,700 to 3,400 feet. The instantaneous peak diversion rate of 1.228 cubic feet of water per second (cfs) equates to 551 gallons per minute (gpm). The wells are to be located in the NW ¼ NW ¼ Section 32, T6S, R1E and the NW ¼ NE ¼ Section 11, T7S, R1E. Madison Aquifer water is primarily proposed for aquifer restoration following in-situ recovery but also may serve as the general facility water supply including the central processing plant, satellite plant and for domestic and livestock use for area landowners inside and near the project area.

The required yield may be obtained from one Madison well or several wells dependent on a number of factors. Powertech (USA) listed two potential well locations on this water permit application, one in the Dewey portion of the project and one in the Burdock portion. The final decision as to number and location of wells will depend upon water requirements, well yield, water quality and economic factors.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2685-2 subject to a 20-year term limitation because 1) although evidence is not available to justify issuing the permit without a 20-year term limitation, there is reasonable probability that there is unappropriated water available, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest.

Water Permit Application No. 2686-2 proposes to appropriate and place to beneficial use up to 18,938 cfs limited to an annual consumptive use volume up to 274.2 acre feet of water (equivalent to 0.38 cfs or 170 gpm) from multiple wells completed into the Inyan Kara aquifer at a depth between 200 to 800 feet. The wells will be located within the project area as defined in the first paragraph of this notice of hearing. The application is for a gross withdrawal (flow) rate of 18,938 cfs which equates to 8,500 gpm. The net consumptive use of water is a small portion of the gross withdrawal rate. Approximately two percent of the water is "bled off" during the process in order to maintain flow gradients toward the center of the well field. The remaining approximately ninety eight percent of the water is recirculated and continuously re-injected as part of the ISR process. The maximum net withdrawal rate equates to 0.38 cfs (170 gpm) from the Inyan Aquifer for an annual volume of up to 274.2 acre feet of water annually consumptively removed from the aquifer during the project.

Uranium recovery operations will continue for approximately 7 to 20 years. A typical well field grid of Inyan Kara wells consists of a 100 by 100 foot grid with one production well in the center and four surrounding wells for injection into the ore body. The well pattern may differ from well field to well field and be modified as needed to fit the characteristics of each ore body. Well fields will be completed along the various uranium zones. Current development plans include construction of approximately 600 ISR production wells in the Dewey portion of the project area and 900 ISR production wells in the Burdock portion of the project area. The maximum number of production wells in operation at any one time within the entire project area including production and restoration is 1,000 wells. Based on the project life and number of production wells scheduled as the well fields are developed, Powertech (USA) anticipates requesting a future permit amendment for an extension of the five year construction period pursuant to SDCL 46-2A-8. Powertech (USA) will provide an annual diversion report to DENR describing the number and location of pumping production wells. This report will include request for change in the number and designated locations of pumping wells pursuant to SDCL 46-5-13.1. This statute allows for the location of point of diversion or additional points of diversion to be approved without application or publication if the wells are completed into the same source, no additional water is appropriated and the Chief Engineer makes a finding that the change does not increase the potential for interference with existing diversions.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends Approval of Application No. 2686-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard by the Water Management Board.

The Water Management Board will consider these applications at 8:30 AM on December 5, 2012 in the Matthew Training Center, 523 E. Capitol Ave. Pierre SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support the applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must

also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by November 26, 2012. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in either application, the petitioner's reasons for opposing or supporting either application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The hearing is an adversary proceeding and any party has the right to be present at the hearing and to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing and decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

The December 5, 2012 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any person who has filed a petition to oppose or support either application. The request for an automatic delay must be filed by November 26, 2012. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to all petitioners regarding the time, date and location.

Contact Eric Gronlund by November 26, 2012, at the above Chief Engineer's address to request copies of the staff reports, recommendations, applications or other information. Additionally each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>. Notice is given to individuals with disabilities that this hearing is being held in a physically accessible place. Please notify the Department of Environment and Natural Resources at least 48 hours before the hearing if you have a disability for which special arrangements must be made at the hearing. The telephone number for making arrangements is (605) 773-3352.

Under SDCL 1-26-17(7) notices must state that "if the amount in controversy exceeds \$2,500.00 or if a property right may be terminated, any party to the contested case may require the agency to use the Office of Hearing Examiners by giving notice of the request to the agency no later than ten days after service of a notice of hearing issued pursuant to SDCL 1-26-17." This is a Notice of Hearing, service is being provided by publication, and the applicable date to give notice to the Chief Engineer is November 26, 2012. However, since this particular matter involves water permit applications and not a monetary controversy in excess of \$2,500.00 or termination of a property right the Chief Engineer disputes the applicability of this provision and maintains that the hearing must be conducted by the Board.

The legal authority and jurisdiction under which the hearing is to be held are the following as applicable: SDCL 1-26-16 thru 1-26-28; SDCL 46-1-1 thru 46-1-9, 46-1-14 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-14, 46-2A-15; 46-5-6.11, 46-5-10 thru 46-5-13, 46-5-30 thru 46-5-30.3, 46-5-32; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-26; and Board rules ARSD 74:02:01:01 thru 74:02:01:15.

The particular section of statutes and rules pertaining to these permit applications are, in addition to the above, the following: SDCL 46-2A-9, 46-6-3.1, 46-2A-15, 46-2A-20, 46-2A-21 46-5-10 thru 46-5-13.1, 46-5-26, 46-6-10, 46-6-26; the above listed administrative rules and the following rules pertaining to qualifications recommended by the Chief Engineer: ARSD Chapter 74:02:01 and 74:02:04.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

Bruce H Ellison
Ellison Law Office
PO Box 2508
Rapid City SD 57709

Dear Mr. Ellison:

Enclosed is the public notice of hearing for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The notice of hearing is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties on November 13th or 14th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board. The date to petition to intervene is November 26, 2012.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

The notice of hearing provides an opportunity to petition to be a party to any contested case hearing before the South Dakota Water Management Board.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

Michael Catches Enemy
Oglala Sioux Tribe
PO Box 320
Pine Ridge SD 57770

Dear Mr. Catches Enemy:

Enclosed is the public notice of hearing for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The notice of hearing is scheduled to be published in Fall River, Custer, Pennington, Lawrence Counties and the Lakota Country Times on November 13th or 14th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board. The date to petition to intervene is November 26, 2012.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

The notice of hearing provides an opportunity to petition to be a party to any contested case hearing before the South Dakota Water Management Board.

Sincerely,


Eric Gronlund
Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

STEVEN & ELIZABETH LAESCH
7509 VISTA RIDGE COURT
GARLAND TX 75044

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

WILLIAM J LAESCH
40275 N PATRIOT WAY
ANTHEM AZ 85086

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

CLIFFORD LOVELL & PATRICIA JOHNSON
PO BOX 473
HOT SPRINGS SD 57747

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

PAUL LOWHAM
480 S CACHE ST # 2
JACKSON WY 83001

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

AGNES MEDSKER
62 CYPRESS CR
PORT ANGELES WA 98362

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

REV RICHARD & IRENE MUELLER
1520 LAKESIDE TERRACE
WATERTOWN WI 53094

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

PETERSON & SONS INC
27389 BURDOCK LOOP
EDGEMONT SD 57735

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

PUTNAM & PUTNAM LLP
27150 N FLAT TOP RD
BURDOCK SD 57735

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

CLAYTON SANDER
12469 WILLOW CREEK RD
CUSTER SD 57730

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

A handwritten signature in black ink that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

DONALD & PAT SPENCER
27269 ELBOW CANYON RD
EDGEMONT SD 57735

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

JEAN SWIRCZYNSKI
PO BOX 1848
CASPER WY 82602

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

TERATECTONICS CORP
10852 ONTARIO AVE
LITTLETON CO 80127

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

BUREAU OF LAND MANAGEMENT
310 ROUNDUP ST
BELLE FOURCHE SD 57717

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

CHRISTOPHER & KELLY ANN VIEL
10916 JEFFREY LN
MILWAUKEE WI 53225

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

ALLEN & BARBARA WILSON
PO BOX 731
HOT SPRINGS SD 57747

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

DONALD & LINDA ANDERSEN
10194 ARGENTINE RD
EDGEMONT SD 57735

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

JAMES & ROSE ANDERSEN
PO BOX 33
HERMOSA SD 57744

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

BAKEWELL-ANDIS RANCH LLP
PO BOX 2012
BEUNA VISTA CO 81211

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

A handwritten signature in black ink that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

EVERETT & DAWN ENGLEBERT
27449 DEWEY RD
BURDOCK SD 57735

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

A handwritten signature in black ink that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

GCC DACOTAH INC
501 N ST ONGE ST
RAPID CITY SD 57702

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

CLINT ANDERSEN
1703 OMARR AVE
SHERIDAN WY 82801

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

IRENE ANDERSEN
27360 S FLAT TOP RD
EDGEMONT SD 57735

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

ROBERT & ALICE BARNARD
480 S CACHE ST # 2
JACKSON WY 83001

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

WILLIAM & JOYCE BARNARD
480 S CACHE ST # 2
JACKSON WY 83001

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

BLACK STONE MINERALS CO
1001 FANNIN # 2020
HOUSTON TX 77002

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

CHRIS & AMY DANIEL
48235 334TH ST
JEFFERSON SD 57038

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

DANIEL PROPERTIES LLC
48235 334TH ST
JEFFERSON SD 57038

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

BARBARA JACQUELINE S LAESCH ELLISON
10012 MAYFIELD DR
BETHESDA MD 20817

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

ELSTON BROS REALTY CO LLC
2227 S 185TH ST
OMAHA NE 68130

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

RICHARD E ELSTON
3312 W CONNAUGHT DR
SPOKANE WA 99208

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

ROY GUESS
1865 BEVERLY ST # 101
CASPER WY 82609

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

FRANCIS & PHYLLIS JOZWIK
2941 PILOT DR
CASPER WY 82604

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

PAUL & JANET JOZWIK
2938 PILOT DR
CASPER WY 82604

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

HELEN & CARL KELLBERG
14516 SE 112TH PLACE
RENTON WA 98059

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

KATHLEEN KLAUSEN
23000 MORNINGSIDE DR
RAPID CITY SD 57703

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

CAROL A LAESCH
6 CLEARBROOK CT
ST CHARLES MO 63304

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-31B2

denr.sd.gov

November 9, 2012

FREDERICK & MARILYN LAESCH
524 N 14TH ST
NILES MI 49120

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

REV NORMAN & JOYCE LAESCH
3114 W VIA DE PEDRO MIGUEL DR
PHOENIX AZ 85086

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

ROGER C & JEANETTE R LAESCH
4503 N 106TH ST
WAUWATOSA WI 53225

Dear Surface and or Mineral Rights Owner:

Enclosed is the public notice for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The public notice is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties the week of November 12th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

This information is being sent to those listed as either surface or mineral right owners within the project area. If you have any questions regarding DENR's review of the applications, please contact us at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

Enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

Craig Bobzien USDA
National Forest Service
1019 N 5th Street
Custer SD 57730

Dear Mr. Bobzien:

Enclosed is the public notice of hearing for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The notice of hearing is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties on November 13th or 14th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board. The date to petition to intervene is November 26, 2012.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

The notice of hearing provides an opportunity to petition to be a party to any contested case hearing before the South Dakota Water Management Board.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

Susan Henderson
11507 Highway 471
Edgemont, SD 57735

Dr. Rebecca R. Leas, Ph.D.
Professor Emeritus
6509 Seminole Lane
Rapid City, SD 57702-7088

Dear Ms. Henderson and Dr. Leas,

Enclosed is the public notice of hearing for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The notice of hearing is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties on November 13th or 14th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board. The date to petition to intervene is November 26, 2012.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

The notice of hearing provides an opportunity to petition to be a party to any contested case hearing before the South Dakota Water Management Board.

Sincerely,

Eric Gronlund
Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 9, 2012

Jarrold Johnson, Commissioner
School and Public Lands
500 E Capitol Avenue
Pierre SD 57501

Dear Commissioner Johnson:

Enclosed is the public notice of hearing for Water Right Permit Application Nos. 2685-2 and 2686-2 filed by Powertech (USA). The water right permit applications are for primarily industrial use in a proposed uranium in-situ mining project called Dewey-Burdock Project located in the Custer and Fall River Counties of South Dakota. The notice of hearing is scheduled to be published in Fall River, Custer, Pennington and Lawrence Counties on November 13th or 14th. The notice of hearing schedules a December 5, 2012 hearing before the Water Management Board. The date to petition to intervene is November 26, 2012.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>.

The notice of hearing provides an opportunity to petition to be a party to any contested case hearing before the South Dakota Water Management Board.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures

Instruction to Newspaper - Publish Notice on November 14, 2012. The applicant is responsible for payment.

NOTICE OF HEARING on Water Permit Application Nos. 2685-2 and 2686-2 to Appropriate Water for Powertech (USA) Inc.

Notice is given that Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway Suite #140, Greenwood Village CO 80111 has filed two applications for water permits for primarily industrial use in a uranium in-situ mining project called the Dewey-Burdock Project located in Custer and Fall River Counties. The Dewey-Burdock Project area (project area) encompasses approximately 10,580 acres including portions of Sections 1 through 5, 10 through 12, and 14 through 15 in T7S, R1E and Sections 20 through 21, and 27 through 35 in T6S, R1E, Black Hills Meridian.

Project Overview: Powertech (USA) proposes to recover uranium by a method known as in-situ recovery, or ISR, in which groundwater from the formation containing uranium (the Inyan Kara Group) is pumped to the surface from a field of wells, fortified with oxygen and carbon dioxide, and recirculated through the formation. The oxidized groundwater changes the uranium to a soluble form and is pumped to the surface, where uranium is removed from the solution. ISR circulates water through the uranium ore zone. Only a small fraction of the water is a net withdrawal because most water is recirculated back through the ore zone. A portion of the water extracted from the Inyan Kara Aquifer will be "bled off" to maintain a cone of depression so native groundwater continually flows toward the center of the production zone. Production bleed rates may vary in the range of 0.5 to 3 percent over the life of the project. Restoration bleed rates up to 17 percent may be used briefly but would be limited to well fields undergoing aquifer restoration. The ISR process is repeated until the economic reserves of uranium are fully removed from that particular well field. The process moves to another well field, and the uranium depleted well field is restored by continuing to circulate clean water through the wells until the water is similar in quality to the water that existed in the formation prior to the ISR operations. Most of the water removed from the Inyan Kara Aquifer during the ISR process is recirculated and re-injected through the well field, resulting in the net consumptive use of water being a small portion of the gross withdrawal rate. Most of the water used in the ISR operations will be obtained from the Inyan Kara Group. However, Powertech (USA) plans to use water from the Madison Aquifer to make up for water that is not provided from the ISR process. The amount of "make-up" from the Madison Aquifer will depend upon the water disposal method which is either deep disposal well or land application. The use of water from these two formations necessitates obtaining water permits from each source. The applications listed below describe the proposed points of diversion, amount of water to be used, the maximum annual diversion rate and annual volume that may be diverted. The eastern portion of the project area is known as the Burdock area. It will include a series of ISR well fields and a central processing plant. The western portion of the project area is the Dewey area which will include ISR well fields and a satellite processing plant.

Each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed online at <http://denr.sd.gov/Powertech.aspx>.

Water Permit Application No. 2685-2 proposes to appropriate and place to beneficial use up to 1.228 cubic feet of water per second (cfs) with an annual consumptive use up to 888.8 acre feet of water annually from up to two or more wells completed into the Madison Aquifer at an approximate depth between 2,700 to 3,400 feet. The instantaneous peak diversion rate of 1.228 cubic feet of water per second (cfs) equates to 551 gallons per minute (gpm). The wells are to be located in the NW ¼ NW ¼ Section 32, T6S, R1E and the NW ¼ NE ¼ Section 11, T7S, R1E. Madison Aquifer water is primarily proposed for aquifer restoration following in-situ recovery but also may serve as the general facility water supply including the central processing plant, satellite plant and for domestic and livestock use for area landowners inside and near the project area.

The required yield may be obtained from one Madison well or several wells dependent on a number of factors. Powertech (USA) listed two potential well locations on this water permit application, one in the Dewey portion of the project and one in the Burdock portion. The final decision as to number and location of wells will depend upon water requirements, well yield, water quality and economic factors.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2685-2 subject to a 20-year term limitation because 1) although evidence is not available to justify issuing the permit without a 20-year term limitation, there is reasonable probability that there is unappropriated water available, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest.

Water Permit Application No. 2686-2 proposes to appropriate and place to beneficial use up to 18.938 cfs limited to an annual consumptive use volume up to 274.2 acre feet of water (equivalent to 0.38 cfs or 170 gpm) from multiple wells completed into the Inyan Kara aquifer at a depth between 200 to 800 feet. The wells will be located within the project area as defined in the first paragraph of this notice of hearing. The application is for a gross withdrawal (flow) rate of 18.938 cfs which equates to 8,500 gpm. The net consumptive use of water is a small portion of the gross withdrawal rate. Approximately two percent of the water is "bled off" during the process in order to maintain flow gradients toward the center of the well field. The remaining approximately ninety eight percent of the water is recirculated and continuously re-injected as part of the ISR process. The maximum net withdrawal rate equates to 0.38 cfs (170 gpm) from the Inyan Aquifer for an annual volume of up to 274.2 acre feet of water annually consumptively removed from the aquifer during the project.

Uranium recovery operations will continue for approximately 7 to 20 years. A typical well field grid of Inyan Kara wells consists of a 100 by 100 foot grid with one production well in the center and four surrounding wells for injection into the ore body. The well pattern may differ from well field to well field and be modified as needed to fit the characteristics of each ore body. Well fields will be completed along the various uranium zones. Current development plans include construction of approximately 600 ISR production wells in the Dewey portion of the project area and 900 ISR production wells in the Burdock portion of the project area. The maximum number of production wells in operation at any one time within the entire project area including production and restoration is 1,000 wells. Based on the project life and number of production wells scheduled as the well fields are developed, Powertech (USA) anticipates requesting a future permit amendment for an extension of the five year construction period pursuant to SDCL 46-2A-8. Powertech (USA) will provide an annual diversion report to DENR describing the number and location of pumping production wells. This report will include request for change in the number and designated locations of pumping wells pursuant to SDCL 46-5-13.1. This statute allows for the location of point of diversion or additional points of diversion to be approved without application or publication if the wells are completed into the same source, no additional water is appropriated and the Chief Engineer makes a finding that the change does not increase the potential for interference with existing diversions.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends Approval of Application No. 2686-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

SDCL 46-2A-4(10) provides that "if the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the Chief Engineer's recommendation and no hearing may be held before the board, unless the Chief Engineer makes a finding that an application, even if uncontested, presents important issues of public policy or public interest that should be heard by the board." In this case, the Chief Engineer finds that these applications present important issues of public interest that should be heard by the Water Management Board.

The Water Management Board will consider these applications at 8:30 AM on December 5, 2012 in the Matthew Training Center, 523 E. Capitol Ave. Pierre SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny these applications based on the facts presented at the public hearing.

Any interested person who intends to participate in the hearing shall file a petition to oppose or support the applications and the petition shall be filed with BOTH the applicant and Chief Engineer. The applicant must

also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by November 26, 2012. The petition may be informal, but shall be in writing and shall include a statement describing the petitioner's interest in either application, the petitioner's reasons for opposing or supporting either application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. The hearing is an adversary proceeding and any party has the right to be present at the hearing and to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing and decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law.

The December 5, 2012 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any person who has filed a petition to oppose or support either application. The request for an automatic delay must be filed by November 26, 2012. If an automatic delay is requested, the hearing will be rescheduled for a future Board meeting and personal notice will be provided to all petitioners regarding the time, date and location.

Contact Eric Gronlund by November 26, 2012, at the above Chief Engineer's address to request copies of the staff reports, recommendations, applications or other information. Additionally each application, Water Rights Program staff report and Chief Engineer's recommendation may be viewed on-line at <http://denr.sd.gov/Powertech.aspx>. Notice is given to individuals with disabilities that this hearing is being held in a physically accessible place. Please notify the Department of Environment and Natural Resources at least 48 hours before the hearing if you have a disability for which special arrangements must be made at the hearing. The telephone number for making arrangements is (605) 773-3352.

Under SDCL 1-26-17(7) notices must state that "if the amount in controversy exceeds \$2,500.00 or if a property right may be terminated, any party to the contested case may require the agency to use the Office of Hearing Examiners by giving notice of the request to the agency no later than ten days after service of a notice of hearing issued pursuant to SDCL 1-26-17." This is a Notice of Hearing, service is being provided by publication, and the applicable date to give notice to the Chief Engineer is November 26, 2012. However, since this particular matter involves water permit applications and not a monetary controversy in excess of \$2,500.00 or termination of a property right the Chief Engineer disputes the applicability of this provision and maintains that the hearing must be conducted by the Board.

The legal authority and jurisdiction under which the hearing is to be held are the following as applicable: SDCL 1-26-16 thru 1-26-28; SDCL 46-1-1 thru 46-1-9, 46-1-14 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-14, 46-2A-15; 46-5-6.11, 46-5-10 thru 46-5-13, 46-5-30 thru 46-5-30.3, 46-5-32; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-26; and Board rules ARSD 74:02:01:01 thru 74:02:01:15.

The particular section of statutes and rules pertaining to these permit applications are, in addition to the above, the following: SDCL 46-2A-9, 46-6-3.1, 46-2A-15, 46-2A-20, 46-2A-21 46-5-10 thru 46-5-13.1, 46-5-26, 46-6-10, 46-6-26; the above listed administrative rules and the following rules pertaining to qualifications recommended by the Chief Engineer: ARSD Chapter 74:02:01 and 74:02:04.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

November 20, 2012

Mayor Don De Vries and Council Woman Georgia Holmes
City of Hot Springs
303 North River Road
Hot Springs SD 57747

Dear Mayor De Vries and Council Woman Holmes:

As per your request, please find attached DENR's staff technical reports on the water permit applications filed by Powertech USA.

The applications as submitted and all other correspondence on the applications may be found at <http://denr.sd.gov/Powertech.aspx>.

I hope this information is helpful.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric Gronlund', written in a cursive style.

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 2685-2
POWERTECH (USA) INC.
November 2, 2012

Powertech (USA) proposes to recover uranium by a method known as in-situ recovery, or ISR, in which groundwater from the formation containing uranium (the Inyan Kara Group) is pumped to the surface from a field of wells, fortified with oxygen and carbon dioxide, and recirculated through the formation. The oxidized groundwater changes the uranium to a soluble form and is pumped to the surface, where uranium is removed from the solution. ISR circulates water through the uranium ore zone. Only a small fraction of the water is a net withdrawal because most water is recirculated back through the ore zone. A portion of the water extracted from the Inyan Kara Aquifer will be "bled off" to maintain a cone of depression so native groundwater continually flows toward the center of the production zone. Production bleed rates may vary in the range of 0.5 to 3 percent over the life of the project. If necessary, a bleed of up to 17 percent will be used briefly during aquifer restoration. The ISR process is repeated until the economic reserves of uranium are fully removed from that particular well field. The process moves to another well field, and the uranium depleted well field is restored by continuing to circulate clean water through the wells until the water is similar in quality to the water that existed in the formation prior to the ISR operations. Most of the water removed from the Inyan Kara Aquifer during the ISR process is recirculated and re-injected through the well field, resulting in the net consumptive use of water being a small portion of the gross withdrawal rate. Most of the water used in the ISR operations will be obtained from the Inyan Kara Group. However, Powertech (USA) plans to use water from the Madison Aquifer to make up for water that is not provided from the ISR process. The amount of "make-up" from the Madison Aquifer will depend upon the water disposal method which is either deep disposal well or land application. The use of water from these two formations necessitates obtaining water permits from each source. The eastern portion of the project area is known as the Burdock area. It will include a series of ISR well fields and a central processing plant. The western portion of the project areas is the Dewey area which will include ISR well fields and a satellite processing plant.

Water Permit Application No. 2685-2 proposes to appropriate up to 888.8 acre-feet of water annually at an instantaneous peak diversion rate of 1.228 cubic feet of water per second (cfs) (551 gallons per minute (gpm)), from two wells 2,700 – 3,400 feet deep, completed into the Madison aquifer. The wells are to be located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 32, T6S, R1E and the NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 11, T7S, R1E. The water is to be used primarily for aquifer restoration following in-situ recovery (ISR) mining but may also be used to supply the facility including the central processing plant, satellite plant and for domestic and livestock use for area landowners inside and near the project area. The amount of water that will be diverted from the Madison aquifer for this project depends on the water disposal method that will be used as part of the ISR process. The disposal method has not been determined but will be either through deep disposal wells or land application. The use of land application disposal will require a diversion rate of 551 gpm, and using deep disposal wells will require a diversion rate of 160 gpm from the Madison aquifer.

AQUIFER: MADISON (MDSN)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Madison aquifer is a major regional aquifer that underlies parts of Montana, North Dakota, South Dakota, Wyoming and Canada. The aquifer underlies most of western South Dakota and a small part of Eastern South Dakota (Figure 1).

The Madison aquifer contains an estimated 644,827,200 acre-feet of recoverable water in storage in western South Dakota (Allen and others, 1985) and 51,512,300 acre-feet of recoverable water in storage in eastern South Dakota (Hedges and others, 1982).

The Madison aquifer occurs within the Mississippian aged Madison Limestone which is locally known as the Pahasapa Limestone. The Madison Limestone is a massive limestone and dolomite with relatively low primary permeability and porosity. Extensive secondary porosity and permeability occur within the Madison in the form of fractures and solution openings. The upper portion of the Madison Limestone in particular is karstic with caves, solution collapse features and enlarged conduits. A number of high yield wells have been developed in the Madison aquifer where these enhanced porosity and permeability features are favorable. The average porosity of the Madison is estimated to be 11% and the effective porosity from which recoverable water can be obtained by wells is assumed to be 5% (Rahn, 1979). The Madison Limestone is estimated to be between 300 feet thick (Carter and Redden, 1999a; and Carter and Redden, 1999b) and 400 feet in this area (Gries, 1981). The Madison dips to the southwest in this area at approximately 200 feet per mile (Carter and Redden, 1999a). The top of the Madison is estimated to be approximately 3,130 feet below ground surface at the "Dewey" well site and approximately 2,715 feet below grade at the "Burdock" well site (Carter and Redden, 1999a).

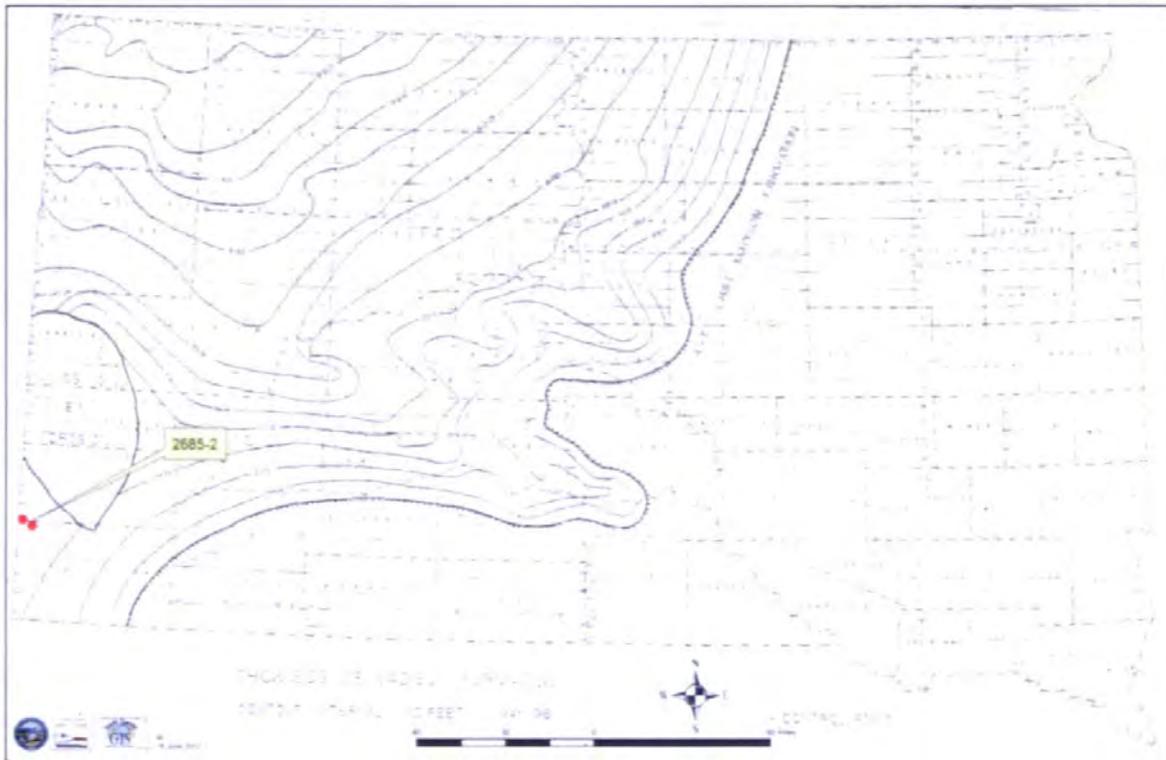


Figure 1. Areal Extent of the Madison Formation in South Dakota and the location of Water Permit Application No. 2685-2; (modified from Gries, 1981)

The well sites, "Dewey" and "Burdock" proposed by this application are located approximately two and one-half, and five and three-fourths miles south, respectively of the Dewey Fault and Structural Zone (DeWitt and others, 1989; and Brobst, 1961). Directly north of the proposed "Dewey" well, the Madison has been displaced approximately 300 feet vertically by the fault and north of the "Burdock" well site the vertical displacement at the fault is approximately 500 feet (Carter and Redden, 1999a). Southwest trending folding (an anticline and syncline) has been identified approximately five miles east-northeast of the proposed well sites and the north-south trending Sheep Canyon monocline is located approximately 11 miles east of "Burdock" well site (Strobel and others, 1999). A generalized stratigraphic column for this area is shown in Figure 2.

The Madison is generally considered an excellent aquifer in terms of its potential to supply good quality water to relatively productive wells, especially near the outcrop (recharge area). The well sites proposed by this application are located 18-20 miles southwest of the Madison outcrop (Strobel and others, 1999).

ABBREVIATION FOR STRATIGRAPHIC INTERVAL	GEOLOGIC UNIT	
Ks	GRANERD	MOWRY SHALE
		MUDDY SANDSTONE
		NEWCASTLE SANDSTONE
		SKULL CREEK SHALE
Kk	NYAN KARA GROUP	FALL RIVER FORMATION
		LAKOTA FORMATION
		MORRISON FORMATION
Ji		SUNDANCE FORMATION
		WYOMING FORMATION
BPi		SPEARFISH FORMATION
Pmk		MINNEKANTA LIMESTONE
Pp		SPEICHE SHALE
PFm		MINNELUSA FORMATION
MDe		MADISON (PAHASARA) LIMESTONE
		ENGLEWOOD FORMATION
DD		DEADWOOD FORMATION
pCu		UNDIFFERENTIATED (SVEDE) SAND METAMORPHIC ROCKS

Figure 2. Generalized stratigraphic column for this area (modified from Carter and others, 2003)

The lower portion of the Madison and the underlying Englewood Formation form a lower confining zone (Strobel and others, 1999). The Minnelusa Formation unconformably overlies the Madison aquifer and generally serves as an upper confining layer. However, "The hydraulic connection between the Madison Limestone and Minnelusa Formation is spatially variable and may result from faults, fractures, and breccia pipes. Collapse features ... may be pathways for vertical movement of water between these two units." (Putnam and Long, 2007). The water levels of DENR-Water Rights' observation wells in the area indicate very distinct potentiometric surfaces in the Minnelusa and Madison, and suggest the aquifers are hydraulically separated.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest.

WATER AVAILABILITY:

The probability of unappropriated water available for appropriation can be evaluated by considering SDCL 46-6-3.1 which requires that:

"No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."

Water Balance:

Recharge to the Madison aquifer occurs through streamflow losses and direct infiltration of precipitation at the outcrop area. "Precipitation recharge [in the Black Hills] is consistently larger than streamflow recharge; however, the relative proportion of streamflow recharge increases as combined recharge decreases" (Carter and others, 2001a). Recharge to the Madison aquifer in South Dakota has been estimated to range from 140,000 to 400,000 acre-feet per year (Woodward-Clyde, 1981). Woodward-Clyde however, essentially defined the Madison aquifer as everything between the Precambrian and the Cretaceous shales. As part of the Black Hills Hydrology Study, the average annual recharge to the Madison aquifer from 1931-1998 was estimated to be approximately 137,000 ac-ft/yr (Carter and others, 2001a).

The high cost of Madison wells, except very near the outcrop, and the availability of groundwater from shallower sources, has limited domestic development from the aquifer. Carter and others, (2001b) estimate "Self-supply Domestic" and "Livestock Watering" only account for approximately 2.25% of the water use from the Madison aquifer. In general, well withdrawals from the Madison are for uses which require water rights permits. The majority of the water rights/permits from the aquifer are from Butte, Lawrence, Meade, Pennington and Fall River Counties. The Madison supplies water for irrigation, geothermal, industrial, and commercial uses. However, by far the major use of the aquifer is for water distribution systems (suburban housing development and municipal use). The cities of Spearfish, Belle Fourche, Sturgis, Rapid City, Box Elder, and Edgemont all depend on water from wells completed into the Madison aquifer.

There have been a total of 213 applications made for appropriations from the Madison; the statuses of these applications are shown in table 1.

STATUS	NUMBER
Approved and licensed	94
Approved and not licensed	63
Future Use reservation	7
Incorporated into a license	28
Cancelled	17
Denied	1
Deferred	1
Withdrawn	2

Table 1. Water permit applications from the Madison aquifer in South Dakota

There are currently a total of 164 appropriations plus one deferred application from the Madison aquifer in South Dakota. Assuming that: (1) future use permits will be fully developed; (2) appropriations with a specified annual volume limitation will divert to their maximum limit; and (3) appropriations limited by diversion rate only, will be used at 60 percent of full time usage at their maximum diversion rate; the appropriations represent a potential maximum annual withdrawal from the Madison aquifer of approximately 55,000 ac-ft/yr. The assumptions used to estimate the potential maximum withdrawal from the aquifer are extremely conservative and represent a "worst case scenario."

Almost all of the water use from the Madison aquifer in South Dakota is from the Black Hills area. The withdrawals from all wells completed into the Madison aquifer in the Black Hills of

South Dakota and Wyoming, were estimated to average 12,310 acre-feet annually from 1987-1996 (Carter and others, 2001b). The "potential maximum annual withdrawal" from the aquifer for 1996, using the assumptions given above for the appropriations in 1996 is 35,831 ac-ft/yr. Applying the 1996 "potential maximum annual withdrawal" to the estimated average annual use ratio, the average annual withdrawal corresponding with a potential maximum annual withdrawal of 55,000 ac-ft/yr would be less than 20,000 ac-ft/yr.

The quantities of both the average annual recharge and the average annual use for the Madison aquifer are both small percentages of the amount of water stored in the Madison aquifer so the aquifer can actually withstand several years of drought conditions with only minimal impact to wells or springs. Comparison of average annual recharge and average annual withdrawal estimates for the Madison aquifer indicate that unappropriated water is available from the Madison aquifer. The simple water budget comparing the estimated average annual recharge and the potential withdrawal by existing wells and current appropriations is not intended to suggest that all of the water that is in storage in the Madison or that all of the recharge to the aquifer is available for this appropriation, merely to demonstrate that in general the Madison aquifer is an immense resource that is relatively untapped.

Localized Hydrologic Budget:

Carter and others (2001b) developed a hydrologic budget for the Madison and Minnelusa aquifers combined, for a subarea based on the hydrogeology, which includes this project area. The hydrologic budget for this subarea balanced from 1987-1996, by estimating that water enters the subarea through streamflow recharge, precipitation recharge and groundwater inflow from the northwest and from the west. Water was assumed to exit this subarea through groundwater outflow to the east, artesian springflow and well withdrawals (see table 2).

Stream-flow recharge	Precipitation recharge	Minnelusa ground-water inflow	Madison ground-water inflow	Minnelusa ground-water outflow	Madison ground-water outflow	Artesian spring-flow	Well withdrawals
4.4 cfs	6.1 cfs	24.5cfs	23.2cfs	8 cfs	4 cfs	44.3 cfs	1.8 cfs

Table 2. Hydrologic budget for the subarea that includes the project area proposed by Application No. 2685-2 for Water Years 1987-1996. Modified from (Carter and others, 2001b).

It is clear that in this subarea most of the recharge to the Madison aquifer is through groundwater inflow, and water leaves this subarea primarily through artesian springflow and groundwater outflow. There are only 27 wells on file with the DENR-Water Rights Program that appear to be completed into the Madison aquifer in the subarea that includes this proposed project (Water Rights, 2012c) and as shown in table 2, well withdrawals are a minor component. Springflow, groundwater inflow and groundwater outflow are all dependent on the groundwater gradient at the subarea boundaries or near the springs. As the aquifer is stressed by changing one or more of the variables in the hydrologic budget, the other interdependent variables adjust until the system equilibrates. Obviously, a new hydrologic budget can balance for this subarea (i.e. a new condition of dynamic equilibrium) with an increase of well withdrawals through a decrease of the natural discharge from the aquifer or an increase of groundwater inflow from adjacent subareas. It can be assumed that with a very subtle change in the hydraulic gradient at either the

inflow zone or the outflow zone, a new dynamic equilibrium would be established in this area with virtually immeasurable impacts to the amount of water in transient storage. Therefore, there is a reasonable probability that unappropriated water is available from this subarea for this proposed use.

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that "the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer."

The Water Rights Program monitors 26 observation wells completed into the Madison aquifer in the Black Hills area (Water Rights, 2012a). This project area is located within approximately 15 miles of two Water Rights' Observations completed into the Madison aquifer. Hydrographs for the wells show the aquifer's response to climatic conditions and clearly demonstrate the system is recharged. (see figures 3 and 4).

The analysis of the DENR-Water Rights Program observation well data provides a qualitative means of assessing the aquifer and provides the best information reasonably available to evaluate the hydrologic budget for the Madison aquifer. Observation well data showing a steady, continual decline of the aquifer's water level or artesian pressure could indicate that withdrawals from the aquifer were exceeding recharge. In addition, water level fluctuations in an aquifer dominated by the influences of well withdrawals, or a change in the gradient of the potentiometric surface could indicate that well pumping is a significant component in the system relative to recharge and/or natural withdrawals.

Observation well data for the Madison aquifer documents: 1) upward trending water levels; 2) that at the current level of development, climatic conditions greatly mask any temporal effects of well withdrawals thus the combined recharge to and natural discharge from the Madison aquifer significantly exceeds long term well withdrawals; and 3) the potentiometric surface of the aquifer has been relatively unchanged over time. Therefore, the observation well data shows that unappropriated water is available from the Madison aquifer.



Figure 3. DENR-Water Rights observation well completed into the Madison aquifer located approximately 10 miles northeast of the project area proposed by Application No. 2685-2.



Figure 3. DENR-Water Rights observation well completed into the Madison aquifer located approximately 15 miles east of the project area proposed by Application No. 2685-2.

AFFECTS ON EXISTING RIGHTS:

Water Rights Permits supplied by wells completed into aquifers that are stratigraphically above or below the Madison are not expected to be affected by Madison aquifer withdrawals since the lower Minnelusa Formation and the lower Madison Limestone generally serve as upper and lower confining units for the Madison aquifer. The displacement of the Madison Limestone caused by the Dewey Fault likely provides a north-south groundwater barrier for most of the length of the fault and drawdown from wells south of the fault is not expected to extend to the north of the fault.

It is difficult to precisely estimate the amount and extent of drawdown that will result from pumping a well completed into the Madison aquifer since the well conditions are site specific. The transmissivity of the aquifer is very heterogenous with values that range over several orders of magnitude (Putnam and Long, 2007). In addition the aquifer characteristics of the Madison can vary considerably within a short distance (Greene, 1993). The transmissivity of the Madison at flow zones into and out of this subarea was estimated at between 732 and 7,393 feet squared per day (ft^2/d) (Carter and others, 2001b). The hydraulic gradient of the Madison aquifer in this area appears to be very low which generally indicates high transmissivity (Water Rights, 2012a; Water Rights, 2012b and Water Rights, 2012c). The transmissivity for this subarea is expected to be as high as 7,393 ft^2/d in this area (Carter and others, 2001b) therefore drawdown could be even less than predicted by the Theis equation.

Applying the transmissivity and storage coefficient (i.e. $T= 3,000 \text{ ft}^2/\text{d}$; and $S= 2 \times 10^{-4}$) estimated for the Madison aquifer in this area (Woodward-Clyde Consultants, 1980), the drawdown 1,000 feet

from a well pumping 551 gpm would be less than 35 feet after twenty years of continuous pumping based on the Theis Equation (see Figure 4) ("Theis Equation Calculator"). Since the transmissivity for this area is likely higher than $3,000 \text{ ft}^2/\text{d}$, drawdown would be less than predicted by the Theis Equation. The Theis equation requires a number of simplifying assumptions, some of which may not apply in this case however, the solution is still useful.

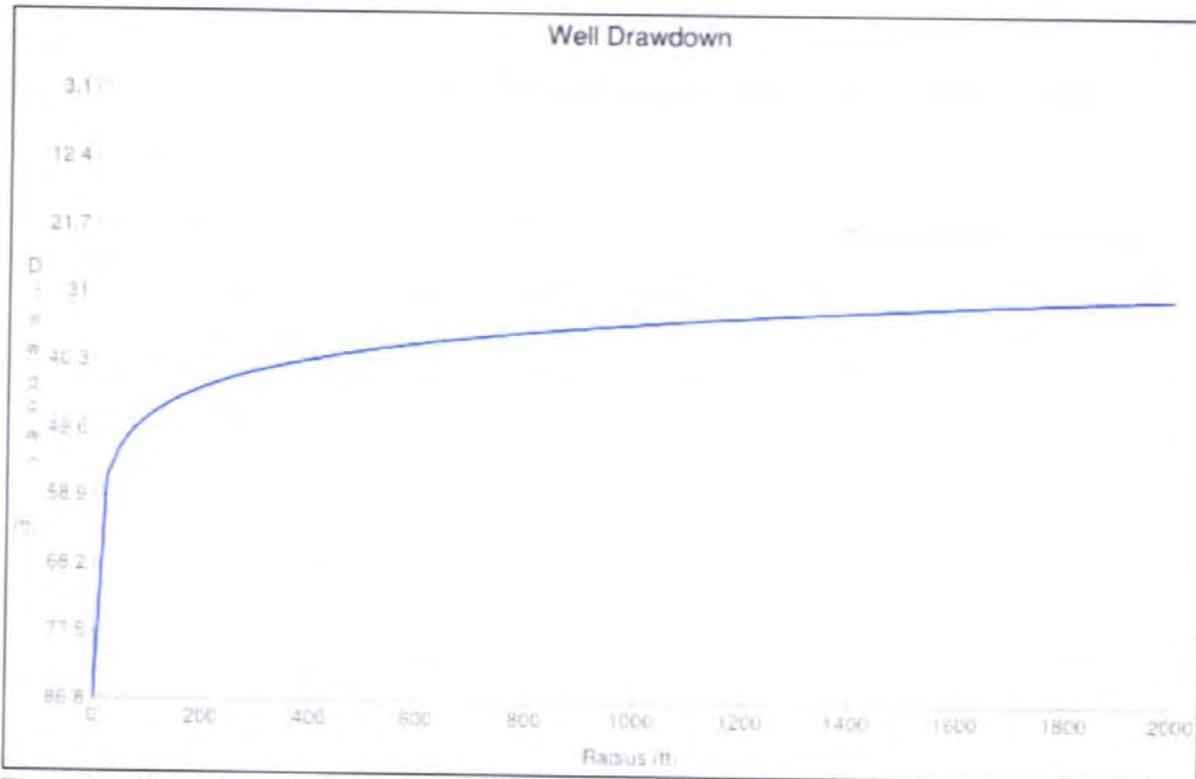


Figure 5. Drawdown predicted from a well pumping 551 gallons per minute from the Madison aquifer, continuously for one year, assuming $T = 3,000 \text{ ft}^2/\text{d}$, $S = 2 \times 10^{-4}$, $t = 20 \text{ yrs}$. (modified from ("Theis Equation Calculator"))

There are only 16 wells on file with the DENR-Water Rights Program that appear to be completed into the Madison aquifer within approximately 16 miles of this project area. Only one of these wells, a domestic well for Steve Casters, located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 14, T5S-R1E (i.e. approximately nine miles north-northeast of the "Dewey" well proposed by this application), is within 10 miles of this project area. If this application is approved, drawdown from either or both wells is not expected to be significant to existing wells. Well interference is not expected to be significant.

If this application is approved, the drawdown caused by pumping a well or wells at a rate of 551 gallons per minute is not expected to adversely impact domestic wells or wells supplying prior appropriation. This is especially the case when considering the Madison is under artesian conditions with several hundred feet of head pressure at the documented natural fluctuation in this area (see figure 3 and 4). Wells supplying existing Water Rights/Permits and domestic uses are protected from adverse impacts per Water Management Board rules 74:02:04 and 74:02:05, which were promulgated pursuant to SDCL 46-6-6.1. These rules provide for the regulation of

large capacity wells to the degree necessary to maintain an adequate depth of water for a prior appropriator in wells that have the ability to produce water **independent of artesian pressure**. Simply put, the pump placement in a prior appropriator's well is not necessarily protected.

If the water levels in the Madison aquifer were to decline, owners of existing wells bear the responsibility of lowering the pump inlet in the well to the top of the aquifer, if necessary. Increased lift would decrease the pump discharge; or require a larger pump or a different type of a pump to maintain the same output.

An increase in operating expenses that may result from interference between wells is not necessarily an adverse impact. The Water Management Board considered this situation in the matter of Water Permit Application 2313-2, Coca-Cola Bottling Company of the Black Hills (Water Rights, 1995). The Board adopted findings of fact and conclusions of law that basically state that if the increased cost or decreased production is considered an adverse impact, it could be in conflict with SDCL 46-1-4, which requires South Dakota's water resources to be put to beneficial use to the fullest extent of which they are capable.

It should be noted however, that well interference (drawdown) measured at Water Rights' observation wells located near high capacity municipal wells in Spearfish, Sturgis and Rapid City has never been significant (i.e. drawdown of only a few feet or tens of feet) (Water Rights, 2012a).

Given the distance between the well that is to supply this appropriation and existing Madison wells, well interference is not expected to be adverse.

BENEFICIAL USE OF WATER:

In the past, the Water Management Board has determined that the use of water for mining purposes is a beneficial use of water. The Water Management Board has not yet considered if in situ recovery is a beneficial use of water.

PUBLIC INTEREST:

Historically, "public interest issues" have been raised by the public during Water Management Board hearings. However, the Chief Engineer has raised the question of whether the Board should consider a large decrease in spring output as a public interest issue if such a decrease would occur. The Water Management Board accepted that SD Water Law does not protect artesian head pressure as a means of diversion and determined that well interference resulting in decreased discharge from these "artesian" springs likely could not be considered an adverse impact. The Board concluded that "The only protection South Dakota law provides when considering an application for an underground water permit for flow from an artesian spring is under the public interest criteria" (Water Management Board Findings dated 19 March 2007 (Paragraph 11)). Consequently, the Board has conditioned a number of recent water permits appropriating water from the Madison aquifer with a qualification such as:

"The Permit Holder shall control withdrawals from the well so there is not a significant adverse effect on the water flow from area springs or a significant adverse effect on the water quality and character in area springs."

Rahn and Gries, (1973) identify four springs in the subarea defined by Carter and others (2001b) in which this proposed project is to be located. The springs are shown in Table 3.

SPRING	DISCHARGE (cfs) *	APPROXIMATE DISTANCE FROM 2685-3 (miles)	LIKELY SOURCE
Cold Brook	0.66	≈23 miles	Partly evolved Minnelusa**
Hot Brook	1.98	≈24 miles	Distinct Madison**
Fall River	22.92	≈25 miles	Madison and Partly evolved Minnelusa**
Cascade	23.65	≈21 miles	Madison***

* (Rahn and Gries, 1973) ** (Whalen, 1994) *** (Hayes, 1999)

Table 3. Springs located within the subarea defined by Carter and Driscoll (2001) in which 2685-2 is located.

A fairly large change in the hydraulic gradient in the vicinity of the springs would be necessary to significantly affect the groundwater flow rates and consequently the spring's discharge. Given the distance involved and the relatively low diversion rate proposed by this application, (551 gpm maximum), it is unlikely that drawdown from this well would have a measurable impact on the spring discharge.

During the public hearing to consider Water Permit Application No. 2585-2, the National Park Service contended that the possibility of an impact on the park may exist if the water levels in the underground caves were lowered. Geochemical data indicates that water at Wind Cave sites has contributions from recharge that occurred on the western outcrop of the Madison aquifer (Long). Again, since a fairly large change in the hydraulic gradient in the vicinity of Wind Cave National Park would be required to affect the water levels in the park, it is unlikely that drawdown from this proposed appropriation would be measurable at Wind Cave National Park due to the distance involved.

TERM LIMITATION:

SDCL 46-2A-20 requires that "... no water permit for construction of works to withdraw water from the Madison formation in Butte, Fall River, Custer, Lawrence, Meade and Pennington counties may be issued for a term of more than twenty years, unless the water management board determines, based upon the evidence presented at the hearing that:

- (1) Sufficient information is available to determine whether any significant adverse hydrologic effects on the supply of water in the Madison formation would result if the proposed withdrawal were approved; and
- (2) The information, whether provided by the applicant or by other means, show that there is a reasonable probability that issuance of the proposed permit would not have a significant adverse effect on nearby Madison formation wells and springs."

Pursuant to SDCL 46-2A-21, "at the end of the twenty-year limitation, the board may cancel a permit or amend the permit with a new term limitation of up to twenty years, if the board is unable to make a finding after notice and hearing that sufficient information is available to delete the term limitation."

2. Water Permit Application No. 2686-2 proposes to divert water from as many as 1,000 wells at one time and re-inject all of the water back to the Inyan Kara aquifer except for a maximum of 170 gallons per minute.
3. The location of the wells that are to be used will change over the life of this project and construction will not be completed within the five year period provided by law.
4. An extension of the five year construction period may be necessary to completely build-out this project.
5. Approval of this application will not result in average annual withdrawals from the Inyan Kara aquifer to exceed the average annual recharge to the aquifer.
6. The Inyan Kara aquifer is an extensive aquifer and there is a reasonable probability that there is at least 274.2 acre-feet per year of unappropriated water is available from the aquifer.
7. SD DENR-Water Rights Program observation well data indicates that unappropriated water is available from the Inyan Kara aquifer.
8. There is a reasonable probability that the diversion proposed by this appropriation can be made without unlawful impairment of existing appropriative rights or domestic wells.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Allen, J.C., Iles, D.L., and Petres, A.K., 1985. Analysis of Groundwater and Streamflow Data, Western Dakotas Region of South Dakota. Tasks 3A.B.C. and 4A.B: Groundwater Resources Inventory: US Army Corps of Engineers Contract DAWC 45-82-C-0151, SD DENR-Geological Survey, Vermillion SD
- Boggs, J.M., and Jenkins, A.M., 1980, Analysis of Aquifer Tests Conducted at the Proposed Burdock Uranium Mine Site. Burdock, South Dakota: Tennessee Valley authority, Office of natural Resources, Division of Water Resources, Water System Development Branch, Report No. WR28-1-520-109, 73 p.
- Brobst, D.A. 1961, Geology of the Dewey Quadrangle Wyoming-South Dakota: U.S. Geological Survey Bulletin 1063-B, 60 p.
- Carter, J.M., and Redden, J.A., 1999, Altitude of the Top of the Inyan Kara Group in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-A, 2 sheets, scale 1:100,000
- Drinking Water Program, 2009-2012 Sanitary Surveys, DENR-Drinking Water Program, Joe Foss Building, Pierre, SD 57501

- Carter, J.M., Driscoll, D.G., Sawyer, J.F., 2003, Ground-Water Resources in the Black Hills Area, South Dakota: Water-Resources Investigations Report 03-4049, U.S. , U.S. Department of the Interior, U.S. Geological Survey, Rapid City, SD, 36 p.
- Carter, J.M., and Redden, J.A., 1999a, Altitude of the Top of the Madison Limestone in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-D, 2 sheets, scale 1:100,000
- Carter, J.M., Redden, J.A., 1999b, Altitude of the Top of the Deadwood Formation in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-E, 2 sheets, scale 1:100,000
- DeWitt, E., Redden, J.A., Buscher, D.P., and Wilson, A.B., 1989, Geologic Map of the Black Hills Area, South Dakota and Wyoming: U.S. Geological Survey IMAP-1910, scale 1:250,000
- Greene, E.A., 1993, Hydraulic Properties of the Madison Aquifer System in the Western Rapid City Area, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 93-4008, 56 p.
- Gries, J.P., 1981, unpublished maps prepared for the Office of Drinking Water, South Dakota Dept. of Water and Natural Resources for the Underground Injection Control Program.
- Hayes, T.S., 1999, Episodic Sediment-Discharge Events in Cascade Springs, Southern Black Hills, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 99-4168, 34 p.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography [Sic.] and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base. Prepared for U.S. Army Corps of Engineers, contract DACW 45-80-C-0185
- Long, A.J., Research Hydrologist, U.S. Geological Survey. Personal interview, 21 Aug. 2012
- Rahn, P.H., 1979, Ground Water Resources of Western South Dakota: U.S. Army Corps of Engineers, SDSM&T Project #2533
- Rahn, P.H., and Gries, J.P., 1973, Large Springs in the Black hills, South Dakota and Wyoming: South Dakota Geological Survey Report of Investigations 107, 46 p.
- Putnam, L.D., and Long, A.J., 2007, Characterization of Ground-Water Flow and Water Quality for the Madison and Minnelusa Aquifers in northern Lawrence County, South Dakota: U.S. Geological Survey Scientific Investigations Report 2007-5001, 61 p.

- Strobel, M.L., Jarrell, G.J., Sawyer, J.F., Schleicher, J.R., and Fahrenbach, M.D., 1999, Distribution of Hydrogeologic Units in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-743, 3 sheets, scale 1:100,000
- "Theis Equation Calculator." i-calcul⁸ 7 Aug. 2012 <<http://www.icalcul8.com/theis.php>>
- Whalen, P.J., 1994, Source Aquifers for Cascade Springs, Hot Springs and Beaver Creek Springs in the Southern Black Hills of South Dakota: South Dakota School of Mines and Technology Master of Science Thesis, Rapid City, SD, 299 p.
- Water Rights Program, 1995, Findings of Fact, Conclusions of Law and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of The Black Hills, SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012a, Observation Well Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012b, Water Permit/Right Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012c, Well Completion Report Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Woodward Clyde Consultants, 1981, Well Field Hydrology Technical Report, for the ETSI Coal Slurry Pipeline Project, U.S. Dept. of the Interior, Bureau of Land Management



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2685-2, Powertech (USA) Inc.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2685-2, Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway, Suite #140, Greenwood Village CO 80111.

The Chief Engineer is recommending Approval of Application No. 2685-2 for a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest with the following qualifications:

1. The permit holder shall report to the Chief Engineer annually, the amount of water withdrawn from the Madison Aquifer. This annual reporting shall report separately the amount of water use for the insitu mining operation and water supplied for domestic/livestock use in the area.
2. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. The wells authorized by Permit No. 2685-2 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2685-2 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2685-2 may also be cancelled for nonconstruction, forfeiture, abandonment or three permit violations pursuant to SDCL 46-1-12, 46-5-37.1 and ARSD 74:02:01:37.
5. The Permit holder under this permit shall control withdrawals from the wells so there is not a significant adverse effect on the water flow from area springs or a significant adverse effect on the water quality and character in area springs.

See report on application for additional information.



Garland Erbele, Chief Engineer

November 6, 2012

NOTE: In addition to obtaining water right permits, Powertech (USA) is subject to compliance with all other state of South Dakota and federal government regulations relating to water use and insitu mining.

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 2686-2
POWERTECH (USA) INC.
NOVEMBER 2, 2012

Powertech (USA) proposes to recover uranium by a method known as in-situ recovery, or ISR, in which groundwater from the formation containing uranium (the Inyan Kara Group) is pumped to the surface from a field of wells, fortified with oxygen and carbon dioxide, and recirculated through the formation. The oxidized groundwater changes the uranium to a soluble form and is pumped to the surface, where uranium is removed from the solution. ISR circulates water through the uranium ore zone. Only a small fraction of the water is a net withdrawal because most water is recirculated back through the ore zone. A portion of the water extracted from the Inyan Kara Aquifer will be "bled off" to maintain a cone of depression so native groundwater continually flows toward the center of the production zone. Production bleed rates may vary in the range of 0.5 to 3 percent over the life of the project. If necessary, a bleed of up to 17 percent of 500 gpm will be used briefly during aquifer restoration. The ISR process is repeated until the economic reserves of uranium are fully removed from that particular well field. The process moves to another well field, and the uranium depleted well field is restored by continuing to circulate clean water through the wells until the water is similar in quality to the water that existed in the formation prior to the ISR operations. Most of the water removed from the Inyan Kara Aquifer during the ISR process is recirculated and re-injected through the well field, resulting in the net consumptive use of water being a small portion of the gross withdrawal rate. Most of the water used in the ISR operations will be obtained from the Inyan Kara Group. However, Powertech (USA) plans to use water from the Madison Aquifer to make up for water that is not provided from the ISR process. The amount of "make-up" from the Madison Aquifer will depend upon the water disposal method which is either deep disposal well or land application. The use of water from these two formations necessitates obtaining water permits from each source. The eastern portion of the project area is known as the Burdock area. It will include a series of ISR well fields and a central processing plant. The western portion of the project areas is the Dewey areas which will include ISR well fields and a satellite processing plant.

Water Permit Application No. 2686-2 proposes to appropriate up to 274.2 acre feet of water annually (ac-ft/yr) from wells completed into the Inyan Kara aquifer at depths between 200 - 800 feet. The wells will be located within a project area that encompasses approximately 10,580 acres located in portions of Sections 1-5, 10-12, and 14-15 in T7S-R1E and Section 20-21, and 27-35 in T6S-R1E, Black Hills Meridian. This application proposes a gross withdrawal (flow) rate of 18.938 cubic feet of water per second (cfs) which is equivalent to approximately 8,500 gallons per minute (gpm). A "net" or consumptive use of water will be a small portion of the gross withdrawal rate. Approximately two percent of the water is "bled off" during the process in order to maintain flow gradients toward the center of the well field. The remaining approximate ninety eight percent of the water is recirculated and continuously re-injected into the Inyan Kara aquifer as part of the In-Situ Recovery (ISR) process. Approval of this permit would authorize a maximum net (consumptive) withdrawal rate from the Inyan Kara aquifer

limited to 0.38 cfs (170 gpm) and limit the net (consumptive) withdrawal volume from the Inyan Kara aquifer to 274.2 acre feet of water annually.

Uranium recovery operations will continue for approximately 7 to 20 years. A typical well field grid of Inyan Kara wells consists of a 100 by 100 foot grid with one production well in the center and four surrounding wells for injection into the ore body. The well pattern may differ from well field to well field and be modified as needed to fit the characteristics of each ore body. Well fields will be completed along the various uranium zones. Current development plans include the construction of approximately 600 ISR production wells in the "Dewey" portion of the project area and approximately 900 ISR production wells in the "Burdock" portion of the project area. The maximum number of production wells in operation at any one time within the entire project area during production and restoration is 1,000 wells. Based on the project life and number of production wells scheduled as the well fields are developed, Powertech (USA) anticipates requesting a permit amendment in the future for an extension of the five year construction period pursuant to SDCL 46-2A-8. Powertech (USA) will provide an annual diversion report to DENR describing the number and location of pumping production wells. This report will include a request for change in the number and designated locations of pumping wells pursuant to SDCL 46-5-13.1. This statute allows for the location of point of diversion or additional points of diversion to be approved without application or publication if the wells are completed into the same source, no additional water is appropriated and the Chief Engineer makes a finding that the change does not increase the potential for interference with existing diversions.

AQUIFER: INYAN KARA (INKR)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Inyan Kara aquifer is composed of the portions of the Lower Cretaceous aged Inyan Kara Group that contain sufficient saturated permeable material to yield quantities of groundwater to wells. The Inyan Kara Group was deposited in shallow waters along the eastern shore of the Skull Creek Sea (Merewether, 1975) and in general, consists of a sequence of interbedded sandstones, siltstones, and mudstones of fluvial, lacustrine, and possibly eolian origin (Schnabel, 1963). The Inyan Kara Group is made up of two geologic formations: the Fall River formation and the underlying Lakota formation. The Fall River formation, which is about 150 feet thick in the Burdock quadrangle (Schnabel, 1963) and has an average thickness of 125 feet in the Dewey quadrangle (Brobst, 1961), has been mapped as three units in this area: an upper unit composed of interlayered mudstones and fine to very fine-grained sandstones; a middle unit of interbedded sandstone and mudstone with massive, medium-grained sandstone; and a lower unit of siltstone and thin beds of sandstone (Brobst, 1961; and Schnabel, 1963)). The Lakota formation has been divided into three units that in descending order are: the Fuson member, which is a sequence of sandstone and mudstone; the Minnewaste member, which is a series of impure limestones; and the Chilson member, which consists of thick channel sandstone interbedded with sandstone and mudstone (see figure 1). The Lakota formation ranges in thickness from about 200 feet to about 350 feet in the Burdock quadrangle (Schnabel, 1963). In the Dewey quadrangle, the average thickness of the Lakota formation is estimated to be 225 feet (Brobst, 1961).

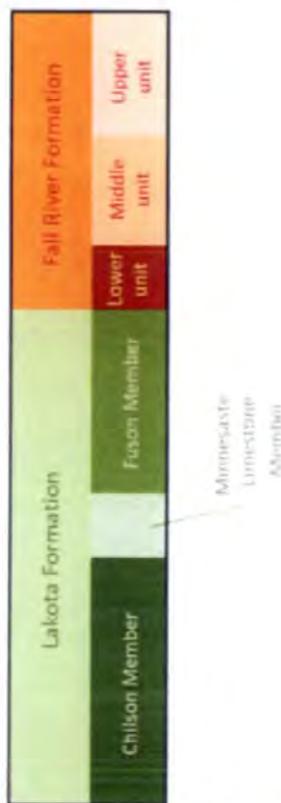


Figure 1. Generalized stratigraphic column for the Inyan Kara Group

The applicant contends that the Fuson member of the Lakota formation is an aquitard between a “Fall River aquifer” and a “Lakota aquifer” and data submitted with this permit application suggest distinct potentiometric surfaces with slightly different groundwater flow directions between the two “aquifers”. However, the Fuson member consists of a sequence of sandstone and mudstone and “Locally, the sandstone beds reach varying degrees of prominence, and in some places form the whole Fuson member” (Schnabel, 1963). Although it is possible that the Fuson member of the Lakota formation is an aquitard in the vicinity of this project, on a regional scale the degree to which the Fall River and Lakota formations are hydraulically connected or separated is unclear and the two formations are typically considered parts of a single Inyan Kara aquifer (e.g. Driscoll and others, 2002; Galloway, 1999; and Strobel, et. al., 2000). For the purpose of appropriations, the DENR-Water Rights Program and the Water Management Board consider the Inyan Kara a single aquifer.

The Inyan Kara aquifer occurs at a regional scale, extending into Wyoming, North Dakota and Nebraska as well as a major portion of South Dakota (see figure 2). The Inyan Kara underlies over 36,000 square miles and contains over 324 million acre-feet of recoverable water in storage in western South Dakota alone (Allen and others, 1985). Although the Inyan Kara is areally extensive, only a portion of the water it contains is fresh. More than one-half of the water in the Inyan Kara is moderately saline, and the water is saline to brine in parts (Driscoll and others, 2002). The Inyan Kara Group outcrops in the eastern portion of the project area proposed by this application and the top of the Inyan Kara is approximately 600 feet below grade at the western edge of the project area (Carter and Redden, 1999). The potentiometric surface of the Inyan

Kara aquifer ranges from around 3,800 feet mean sea level elevation (msl) to 3,600 feet msl in this area (Strobel and others, 2000). The aquifer is under unconfined conditions in the eastern portion of the proposed project area and under confined conditions in the western portion of the area. Water levels of wells in the project area reportedly range from approximately 140 feet below grade to over 74 feet above ground surface (i.e. flowing wells with up to 32 psi shut-in pressure).

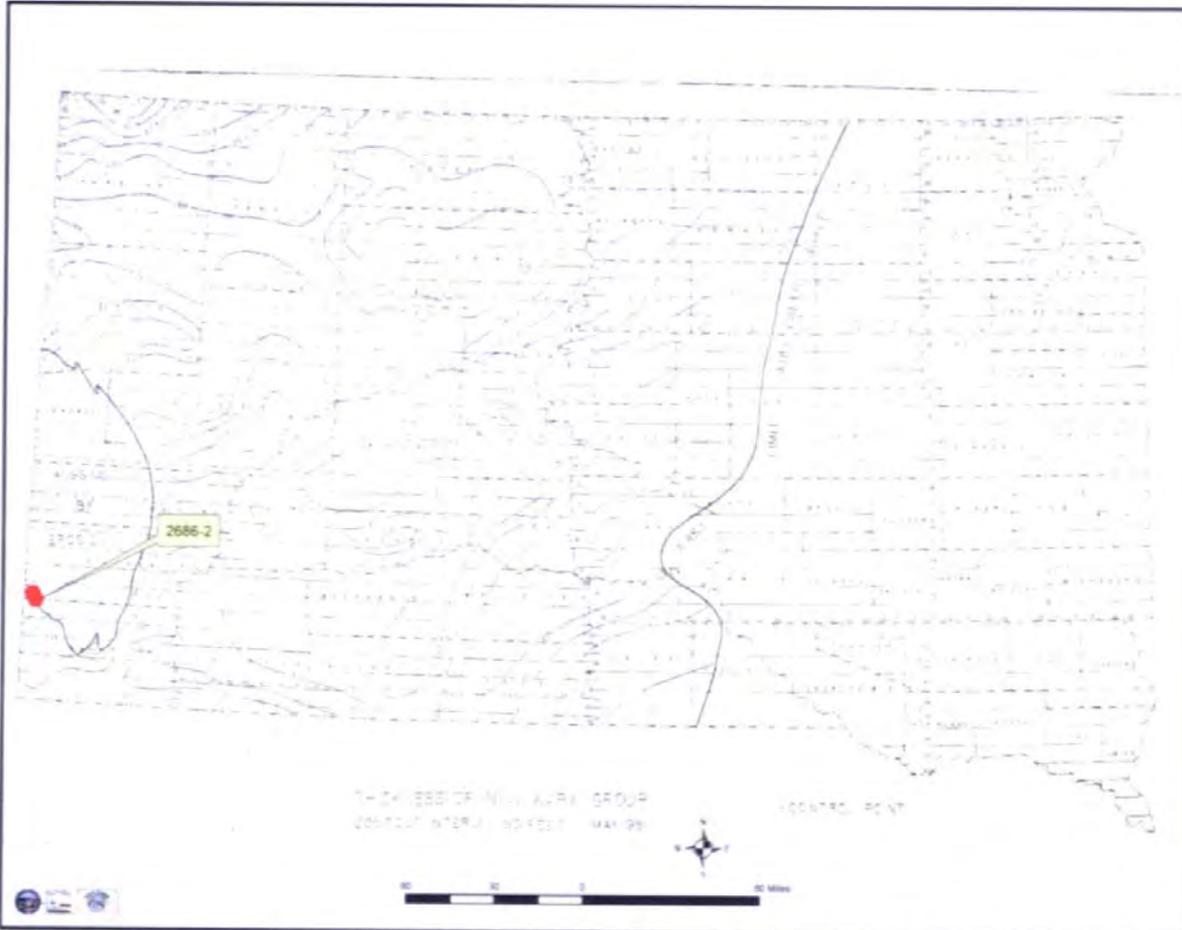


Figure 2. Areal extent of the Inyan Kara aquifer and the location of Water Permit Application No. 2686-2: (modified from Gries, 1981)

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest.

WATER AVAILABILITY:

The probability of unappropriated water available for appropriation can be evaluated by considering SDCL 46-6-3.1 which requires that:

"No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."

Water Balance:

Recharge:

Recharge to the Inyan Kara aquifer is through infiltration of precipitation at the outcrop and the aquifer also appears to be receiving water from the underlying Paleozoic aquifers (Schoon, 1971; Gott and others, 1974; Lobmeyer, 1985). An average annual recharge rate has not been quantified for the Inyan Kara aquifer. However, annual recharge to the portion of the Inyan Kara aquifer that outcrops in South Dakota alone, from the precipitation component only, was estimated for 1950-1998 to be 11,600 acre-feet per year (Driscoll and Carter, 2001).

Withdrawals:

There are a total of 185 Water Rights/Permits appropriating water from the Inyan Kara aquifer in South Dakota. In addition, Future Use Permit 1780-2, Town of New Underwood, reserves 142 ac-ft/yr from the Inyan Kara aquifer for future use. The estimated average annual withdrawal of appropriations is 10,700 ac-ft/yr. This estimate is based on: 1) annual water use reported in the latest public water system survey for municipal, suburban housing development and rural water system appropriations where applicable (DENR-Drinking Water Program, 2009-2012); 2) calculated annual use based permitted animals and rates of 20 gallons per day for beef cattle, 5 gallons per day for swine, 15 gallons per 100 turkeys, and 9 gallons per 100 chickens for large confinement operations permitted by DENR (Roth); 3) irrigation questionnaire reporting for irrigation permits when available (DENR-Water Rights Program, 2012a); 4) the most current water use reported for non-irrigation appropriations that are required to report (DENR-Water Rights Program, 2012b); 4) assuming unreported water rights/permits limited to an annual volume will be used to the maximum and water rights/permits limited by diversion rate will be used 60% of continuous pumping at the maximum diversion rate for their annual use period.

The estimated average annual withdrawal from the Inyan Kara (10,700 ac-ft/yr) is less than the precipitation recharge component alone for the aquifer (11,600 ac-ft/yr). Therefore, there is a reasonable probability that there is 274.2 acre-feet of unappropriated water available annually to supply this proposed appropriation. The quantities of both the average annual recharge and the average annual use for the Inyan Kara aquifer are both small percentages of the amount of water stored in the Inyan Kara aquifer so the aquifer can actually withstand several years of drought conditions with only minimal impact to wells.

The simple water budget comparing the estimated average annual recharge and the potential withdrawal by existing wells and current appropriations is not intended to suggest that all of the water that is in storage in the Inyan Kara aquifer or that all of the recharge to the aquifer is available for this appropriation, merely to demonstrate that in general the Inyan Kara aquifer is an immense resource that is relatively untapped.

Localized Hydrologic Budget:

A separate hydrologic budget was developed for a subarea of the Inyan Kara aquifer that includes the project area proposed by this application. The subarea was identified based on the structural geology of the area with the Dewey Fault and Structural Zone considered the northern boundary, and the Cottonwood Anticline and/or the Sheep Canyon Monocline considered the southern boundary (see Figure 3). (Note: the Cottonwood Anticline is just southeast of the area shown in figure 3).

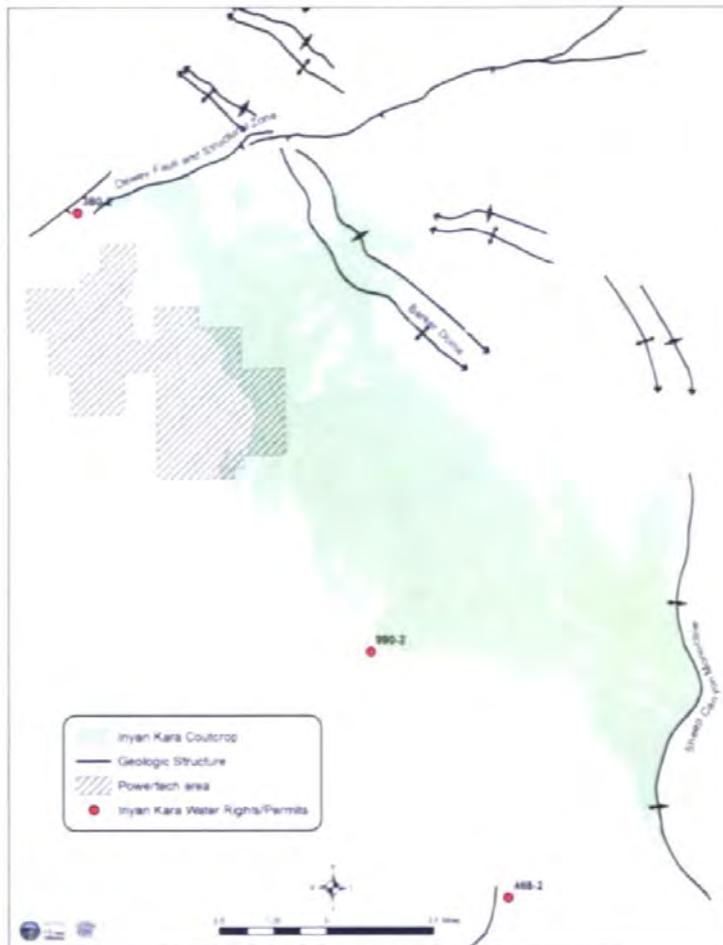


Figure 3. Subarea of the Inyan Kara aquifer including the Powertech project area and major structural features.

“The Dewey Fault begins in the Elk Mountains, about 2 ½ miles northeast of Dewey. The fault appears to be continuous for at least 6 ½ miles. Measurable vertical displacement on the fault is about 60 feet on the dip slope of the mountain but is at least 200 feet in Secs. 21, 22, and 28, T. 41 N., R. 60 W.” (Brobst, 1961). Although the entire thickness of the Inyan Kara aquifer is not offset by the displacement of the fault, assuming the fault is a hydrologic barrier produces a more restrictive area and consequently produces a more conservative subarea.

Likewise, assuming the Cottonwood Anticline and/or the Sheep Canyon Monocline, the first major structural feature southeast of this project area, as a southern hydrologic barrier produces a conservative subarea.

The Inyan Kara Group outcrops over approximately 41,800 acres of the subarea shown in Figure 2. Precipitation recharge to the subarea estimated using the yield-efficiency algorithm developed by Driscoll and Crater (2001) is approximately 1,400 acre-feet per year. There are three existing water rights appropriating water from the Inyan Kara in this area (see table 1).

PERMIT NO	NAME	STATUS	USE	CFS	ACRES	APPROPRIATION (AC-FT/YR)
380-2	HENRY C HOLLENBECK	LC	IRR	0.85	60	180
468-2	CITY OF EDGEMONT	LC	MUN	0.2	0	86.88
990-2	EFFIE M GOW	LC	IRR	0.13	20	60

LC= Water Right, IRR= Irrigation, Appropriation based on three acre-feet acre per year for irrigation and 60% of full time pumping for municipal use

Table 1. Water Rights within the subarea of the Inyan Kara aquifer that includes the project proposed by Application No. 2686-2

The estimated annual withdrawal from the subarea of Inyan Kara aquifer (<326.88 ac-ft/yr) is less than the precipitation recharge estimated for subarea (1,400 ac-ft/yr) and there is a reasonable probability that there is 274.2 acre-feet of unappropriated water available annually to supply this proposed appropriation. (Incidentally, even if only the portion of the Inyan Kara outcrop that is directly up dip of the project area is considered, the precipitation recharge to the area can be expected to be at least 564 acre-feet per year using the yield-efficiency algorithm.)

OBSERVATION WELL DATA:

Administrative Rule of South Dakota Section 74:02:05:07 requires that "the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer."

The DENR-Water Rights Program monitors nine observation wells completed into the Inyan Kara aquifer statewide. Eight of these wells are located near the perimeter of the Black Hills (see Figure 4). Hydrographs for the observation wells are shown in Figures 5-12.

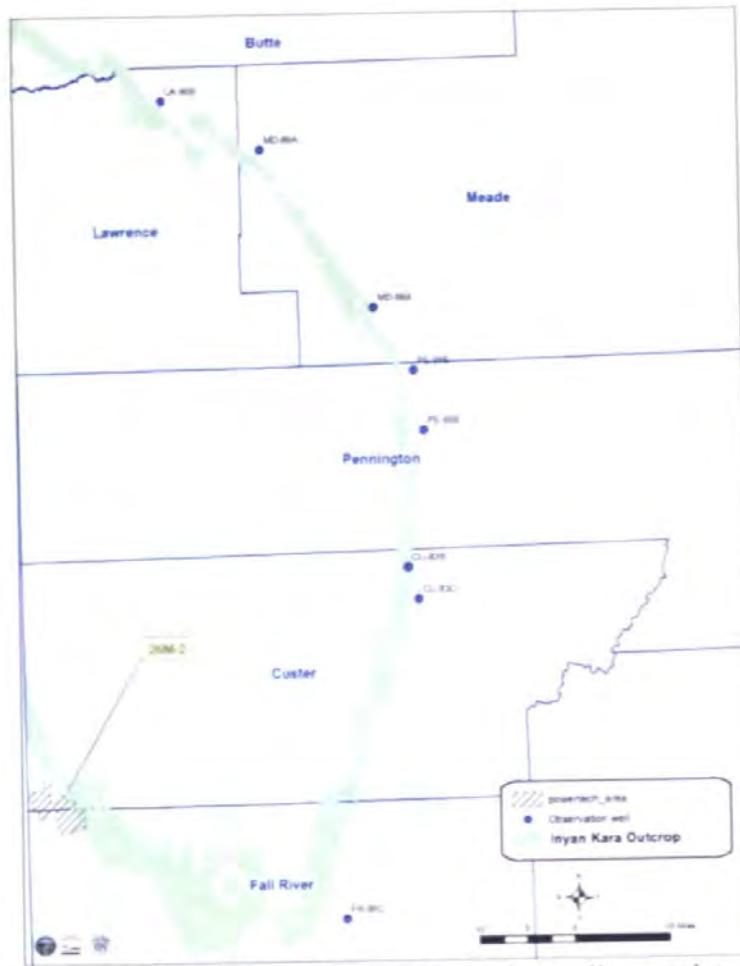


Figure 4. Location map of DENR-Water Rights' observation wells completed into the Inyan Kara aquifer

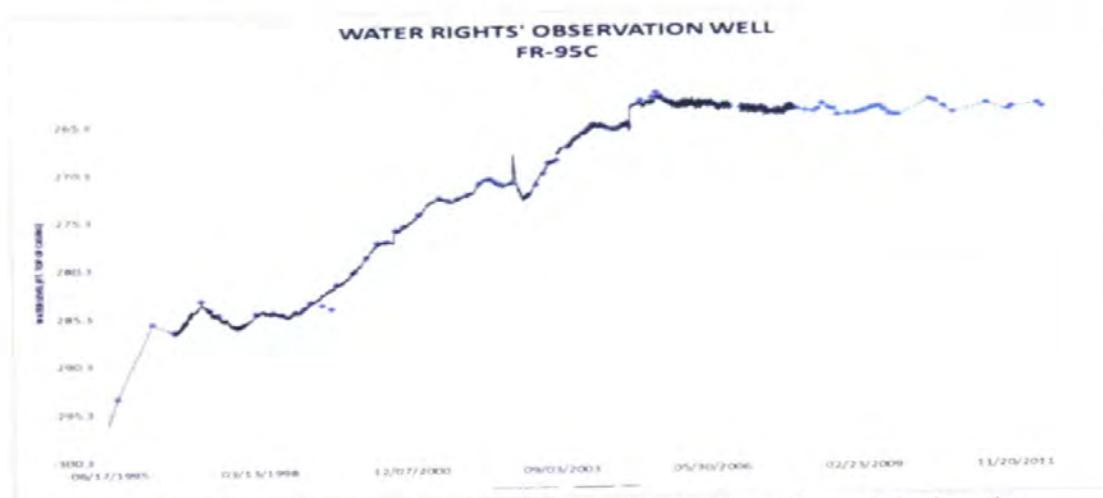


Figure 5. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 6. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 7. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 8. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 9. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 10. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 11. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.



Figure 12. Hydrograph of Inyan Kara aquifer observation well, see figure 4 for location.

The observation well data for the Inyan Kara aquifer documents: 1) upward trending water levels; 2) that at the current level of development, climatic conditions greatly mask any temporal effects of well withdrawals thus the combined recharge to and natural discharge from the Inyan Kara aquifer significantly exceeds long term well withdrawals; and 3) the potentiometric surface of the aquifer has been relatively unchanged over time. Therefore, the observation well data shows that unappropriated water is available from the Inyan Kara aquifer.

AFFECTS ON EXISTING WATER RIGHTS:

Water rights/permits supplied by sources other than the Inyan Kara aquifer are not expected to be affected by Inyan Kara aquifer withdrawals since the aquifer is confined by the overlying Skull Creek shale and the underlying Morrison formation separates the aquifer from lower aquifers in this area.

The nearest water right to the project area proposed by this application that appropriates water from the Inyan Kara aquifer is Water Right No. 380-2 for Henry C. Hollenbeck. The water right authorizes the irrigation of 60 acres using a free flowing well located in the approximate center of the NW¼ of Section 17, T6S-R1E (i.e. approximately 0.6 miles north of the project area proposed by this application). Based on the Brobst (1961) delineation of the Dewey Fault and location of the well, the well that supplies Water Right No. 380-2 appears to be on the opposite side of the Dewey Fault from the Powertech project area. The displacement of this fault between the Hollenbeck well and the Powertech area is approximately 120 feet (Brobst, 1961). Since the fault does not completely offset the Inyan Kara Group in this area, the extent that the fault serves as a flow boundary is not clear. Earlier in this report, for the purpose of evaluating the availability of unappropriated water, the Dewey Fault was considered the northern extent of a subarea. Considering the fault as a flow barrier for the purpose of assessing water availability provided a "most conservative" analysis. For the purpose of considering the impairment of existing rights however, the most conservative analysis involves assuming the fault is not a flow boundary. Even by assuming the fault is not a flow boundary, and the entire 170 gallons per minute were withdrawn at the nearest possible point in the project area from the Hollenbeck well (an approach that over-predicts the maximum anticipated drawdown and produces a worst case scenario), drawdown at the Hollenbeck well is not expected to be significant based on the aquifer

characteristics for the Inyan Kara aquifer that were obtained from pump tests conducted in the Burdock area (Boggs and Jenkins, 1980). Since the pumping proposed by this application is to be spread over numerous wells, the maximum drawdown will be significantly less than for a single well. Any drawdown that would be measurable at the well that supplies Water Right No. 380-2 is not expected to be adverse. This is particularly true since the data on file with Water Right No. 380-2 indicates there is at least 40 feet of artesian pressure at the well and SDCL 46-6-6.1 does not require the protection of artesian head pressure as a means of diversion. The next closest South Dakota water right from the Inyan Kara aquifer is Water Right No. 990-2 for Effie M. Gow. Water Right No. 990-2 uses a free flowing well located approximately five miles southeast of this project area to flood irrigate 20 acres. Given the distance between Water Right No. 990-2 and the Powertech project area, adverse impacts are not likely.

The applicant has identified a water right (No. P183561W) located approximately 1.2 miles west of the project area in Wyoming. Since the drawdown caused by this proposed operation is not expected to be substantial, it is unlikely that the water right would be adversely impacted (at least by South Dakota standards).

The DENR-Water Rights Program has several completion reports on file for domestic wells in the vicinity of the proposed Powertech project area. Again, with the drawdown spread over a number of wells, the maximum drawdown at any point should not be significant. However, pursuant SDCL 46-6-24,

"The failure of a well to meet standards established pursuant to § 46-6-6.1 is not a defense in any action or proceeding regarding damage, loss of water production or quality, replacement cost, or increased operating expenses incurred by a municipal or domestic use well located in a formation older than or stratigraphically lower than the greenhorn formation caused by any person using or withdrawing groundwater for mine dewatering in a formation older than or stratigraphically lower than the greenhorn formation."

This statute may provide protection to artesian pressure in domestic and municipal wells and to domestic or municipal wells that are not "adequate wells" pursuant to ARSD 74:02:04:20(6). Powertech has submitted a water permit application to appropriate water from the Madison aquifer for purposes including "for domestic and livestock use for area landowners inside and near the project area". A mitigating action such as supplying water from an alternative source as proposed, could resolve impairment of domestic well issues.

BENEFICIAL USE OF WATER AND PUBLIC INTEREST:

In the past, the Water Management Board has determined that the use of water for mining purposes is a beneficial use of water. The Water Management Board has not yet considered if in situ recovery is a beneficial use of water.

CONCLUSIONS:

1. Water Permit Application No. 2686-2 proposes to appropriate 274.2 acre-feet per year from the Inyan Kara aquifer.

Although the criteria for approval of a water permit established by SDCL 46-2A-9 are met, (i.e., there is a reasonable probability that unappropriated water is available for the applicant's proposed use, and this proposed diversion can be developed without unlawful impairment of existing rights); evidence is not available to justify issuing this permit without a term limitation of 20 years.

CONCLUSIONS:

1. The Madison aquifer is a major regional aquifer and a viable source of water for this proposed appropriation.
2. This application proposes to appropriate 1.228 cubic feet of water per second. There is no limit to the annual volume of water that can be diverted other than the physical constraints of the maximum diversion rate.
3. There is a reasonable probability that unappropriated water is available in the Madison aquifer to supply this appropriation.
4. Approval of this application will not result in average annual withdrawals from the Madison aquifer to exceed the average annual recharge to the aquifer.
5. There is a reasonable probability this appropriation can be made without adversely impacting existing water rights including domestic users.
6. Information is not available to justify issuing these permits without a term limitation of 20 years.
7. Following notice and a public hearing, the Water Management Board may cancel this permit or amend it with a new term limitation after twenty years.



Ken Buhler
Natural Resources Engineer

REFERENCES:

- Allen, J.C., Iles, D.L., and Petres, A.K., 1985, Analysis of Groundwater and Streamflow Data, Western Dakotas Region of South Dakota, Tasks 3A.B.C. and 4A.B: Groundwater Resources Inventory: US Army Corps of Engineers Contract DAWC 45-82-C-0151, SD DENR-Geological Survey, Vermillion SD
- Brobst, D.A., 1961, Geology of the Dewey Quadrangle Wyoming-south Dakota: U.S. Geological Survey Bulletin 1063-B, 60 p.
- Carter, J.M., Driscoll, D.G., and Hamade, G.R., 2001a, Estimated Recharge to the Madison and Minnelusa Aquifers in the Black Hills Area, South Dakota and Wyoming, Water Years 1931-98: U.S. Geological Survey Water-Resources Investigations Report 00-4278, 66 p
- Carter, J.M., Driscoll, D.G., Hamade, G.R., and Jarrell, G.J., 2001b, Hydrologic Budgets for the Madison and Minnelusa Aquifers, Black Hills of South Dakota and Wyoming, Water Years 1987-1996: Water-Resources Investigations Report 01-4119, U.S. Department of the Interior, U.S. Geological Survey, Rapid City, SD

- Galloway, J.M., 1999, Selected Hydrogeologic Data for the Inyan Kara, Minnekahta, Minnelusa, Madison, and Deadwood Aquifers in the Black Hills area, South Dakota: U.S. Geological Survey Open-File report 99-602, 60 p.
- Gott, G.B., Wolcott, D.E., and Bowles, C.G., 1974, Stratigraphy of the Inyan Kara Group and Localization of Uranium Deposits, Southern Black Hills, South Dakota and Wyoming: U.S. Geological Survey Professional Paper 763, 57 p.
- Driscoll, D.G., Carter, J.M., Williamson, J.E., and Putnam, L.D., 2002, Hydrology of the Black Hills Area, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 02-4094, 150 p.
- Lobmeyer, D.H., 1985, Freshwater Heads and Ground-Water Temperatures in Aquifers of the Northern Great Plains in parts of Montana, North Dakota, South Dakota, and Wyoming: U.S. Geological Survey Professional Paper 1402-D, 11 p.
- Merewether, E.A., 1975, Mesozoic Rocks: Mineral and Water Resources of South Dakota, Committee on Interior and Insular Affairs, United States Senate pg. 41
- Roth, T.M. Natural Resources Engineer, SD DENR-Surface Water Quality Program. Personal interview. 16 Aug. 2012
- Schnabel, R.W., 1963, Geology of the Burdock Quadrangle Fall River and Custer Counties South Dakota: U.S. Geological Survey Bulletin 1063-F, pg. 193-214
- Schoon, R.A., 1971, Geology and Hydrology of the Dakota Formation in South Dakota: SD DENR- Geological Survey Report of Investigations 104, 55 p.
- Strobel, M.L., Galloway, J.M., Hamade, G.R., Jarrell, G.J., 2000, Potentiometric Surface of the Inyan Kara Aquifer in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Atlas 745-A, scale:1:100,000
- Water Rights Program, 2012a, Irrigation Questionnaires, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012b, Non-Irrigation User's Annual Reports, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012c, Observation Well Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012d, Water Permit/Right Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501
- Water Rights Program, 2012e, Well Completion Report Files, DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

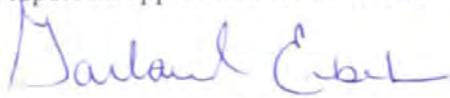
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2686-2, Powertech (USA) Inc.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2686-2, Powertech (USA) Inc., c/o Richard Blubaugh, 5575 DTC Parkway, Suite #140, Greenwood Village CO 80111.

The Chief Engineer is recommending APPROVAL of Application No. 2686-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Water Permit No. 2686-2 appropriates and places to beneficial use up to 18.938 cfs with an annual consumptive use volume of 274.2 acre feet of water (equal to 0.38 cfs) from the Inyan Kara Aquifer for the specific purpose of the production of uranium through the insitu mining process at the legal location listed in the permit.
2. The wells authorized by Permit No. 2686-2 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. Well completions report shall be submitted within one month of completing each production and/or injection well.
3. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Inyan Kara Aquifer. This annual reporting shall report both the gross and net withdrawal from the Inyan Kara Aquifer.
4. The wells approved under this permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The Well owner under this permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
5. The Permit holder shall submit a planned diversion report annually setting forth the number anticipated and location of pumping wells to be constructed and/or operated during the next upcoming year.

See report on application for additional information.



Garland Erbele, Chief Engineer
November 6, 2012

NOTE: DENR recognizes that the number and location of production and injection wells completed into the Inyan Kara Aquifer will vary as well fields are constructed, insitu mining is conducted, restoration is conducted and decommissioning is completed. The application states that amendments for additional wells and changes in well locations as the project progresses will be requested subject to provisions of SDCL 46-5-13.1. As Chief Engineer, all requests for changes in well location and additional wells will be reviewed as set forth in SDCL 46-5-13.1.

In addition to obtaining water right permits, Powertech (USA) will be subject to compliance with all other state of South Dakota and federal government regulations relating to water use and insitu mining.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 18, 2012

Brenda Gamache
2337 Wilson Avenue
Hot Springs SD 57747

Dear Ms. Gamache:

I am writing in regards to the circulated petition entitled "Notice to DENR of Water Permit Application Numbers 2685-2 and 2686-2 to Appropriate Water for PowerTech (USA) Inc". The return address on the envelope that contained signature pages has your address listed.

DENR made its best effort to determine the name and address of all the signatories on this petition. When the November 28, 2012 notice was sent to parties of record informing them of the automatic delay of the December 5, 2012 hearing before the Water Management Board, DENR received 13 notices back from the postal service as undeliverable. Enclosed is a list of who did not receive the notice based on how we read their signature. I have also enclosed the circulated petitions with the signatures in question highlighted. In some cases it was difficult to read the signature and/or address. Please review and let us know if you can identify the citizens that signed the petition and provide their address.

All individuals who signed a petition are to receive notice of scheduling for Powertech's water permit application and may participate in the hearing on the water permit applications. As the person that mailed the circulated petitions, DENR is requesting your assistance in determining the proper names and addresses.

Sincerely,

Eric Gronlund

Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us

enclosures

11/28/2012 -- AUTO DELAY NOTICES RETURNED

Jewell Keown
410 S Spring St
Hot Springs SD 57747

Veronica Hernandez
410 ½ South St
Hot Springs SD 57747

Neal Miller
486 Almond St
Hot Springs SD 57747

B J Hunter
353 Bears Ave
Hot Springs SD 57747

Peggy Semler
PO Box 245
Hot Springs SD 57747

Moses & Ciser Hernandez
410 ½ South St
Hot Springs SD 57747

Linda Pirales
606 S River
Hot Springs SD 57747

Joe Bassingham
10985 Pleasant Valley Rd
Hot Springs SD 57747

J Smith
2728 Hot Brook
Hot Springs SD 57747

Michael Sugeg
PO Box 139
Hot Springs SD 57747

Dennis Sutherland
2022 University
Hot Springs SD 57747

Karl W Bothul
338 S 17th
Hot Springs SD 57747

Lena Walker
446 S 16th St
Hot Springs SD 57747

RECEIVED

NOV 28 2012

WATER RIGHTS
PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMIT APPLICATION
NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR
POWER TECH (USA) INC.**

C/O

RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

**THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER
PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A
HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD
BE PERMITTED THESE WATER PERMITS.**

* Paul W. Roehrs

338 So. 17th Hot Springs, 890-9647

* Sida Prales

606 S River Hot Springs SD.

* Waf Miller

486 Almond ST Hot Springs

* Jewell Krown

410 S 4th ST Hot Springs 891-9861

* Barbara Sharp

445 S 3rd Hot Springs SD 57777

* Mary Goulet Goulet

338 S. 5th ST. 745-5078

* Dorothy Richard

340 N. 23rd St Hot Springs 605-929-4354

* Raymond Fisher Palmer

27221 Windy Rd 890-2864

* Larry Bloomer

3146 Minnehaha Hot Springs 745-7816

* William Long

1446 Evanston Ave H.S. 891-9621

* Elise Kaneshiro

1446 Evanston Ave. H.S. 891-9717

RECEIVED

NOV 28 2012

WATER RIGHTS PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMIT APPLICATION
NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR
POWER TECH (USA) INC.**

C/O

RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD BE PERMITTED THESE WATER PERMITS.

NAME	Address	phone #
X ^{Semlar} Richard Bluburg	PO BOX 27 HS	745 3325
X Casey Neugebauer	27552S S Buffalo Gap	RD 4 24-298S 01215059766
X Neil Lince	2330 Washington ave	745 7727 HS
X Louise Kussave	Buffalo Gap	745 . 833-2122
X Betty Welch	27275 50th PO Box 14	79 Edgemont 662-5300
X Rusty Wilt	301 So CHICAGO HOT SPRINGS SD	745 629
X Dana Wilt	446 50th 160T HOT SPRINGS SD	745-3308
X Don Jensen	806 Babcock Ave HOT SPRINGS SD	745 3373
X Hans Schweiger	27915 Cascadia Rd.	745-3153

RECEIVED

NOV 28 2012

WATER RIGHTS PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMIT APPLICATION
NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR
POWER TECH (USA) INC.**

C/O

RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

**THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER
PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A
HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD
BE PERMITTED THESE WATER PERMITS.**

<i>* NAME</i>	<i>Address</i>	<i>Phone #</i>
<i>* MAURA SMITH</i>	<i>306 Joplin #8 HOTSPRINGS, SD</i>	<i>605-440-1604</i>
<i>* Keller Walter</i>	<i>1005 S. River St Hot Springs</i>	<i>891-9747</i>
<i>? (Lana Swens</i>	<i>Hot Springs</i>	
<i>? (B Klucka</i>	<i>Hot Springs</i>	
<i>* Michelle Snags</i>	<i>P.O. Box 139 Hot Springs SD 57447</i>	<i>605-440-2310 cell</i>
<i>* Mui Vong</i>	<i>333 N River Hot Springs</i>	<i>745-3933</i>
<i>* Linda J. Smith</i>	<i>947 So. Chicago St Hot Springs</i>	<i>745-3402</i>
<i>* Terri Baker</i>	<i>705 North River St.</i>	<i>745-4420</i>

RECEIVED

NOV 28 2012

WATER RIGHTS
PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMIT APPLICATION
NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR
POWER TECH (USA) INC.**

C/O

RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

**THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER
PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A
HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD
BE PERMITTED THESE WATER PERMITS.**

Name

Address

PHONE #

* Ronald Bly

205 N. River St.

745-4420

* Jeannie Liff

2342 Wilson Ave.
HS SD.

745-3036

* Lyle Jensen

13167 Fall River Rd -

745-7291

* Jami Sutherland ?

2022 University - Hot Spring
P.O. Box 1204 H.S.D.

890 2362

605-381-3510

* Lynda Davis

* Brenda Gamache
Gamache

2332 Wilson Ave.
H.S.

605-745-4726

RECEIVED

NOV 28 2012

WATER RIGHTS
PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMIT APPLICATION
NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR
POWER TECH (USA) INC.**

C/O

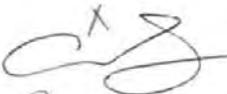
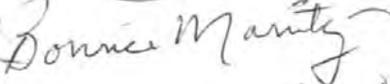
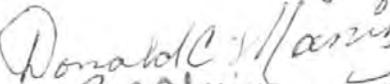
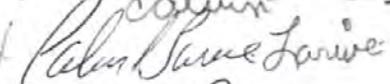
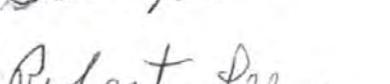
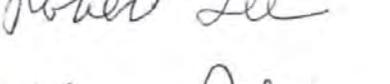
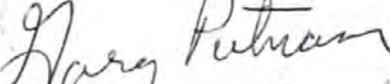
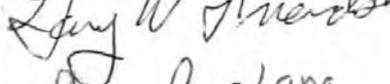
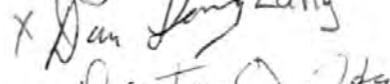
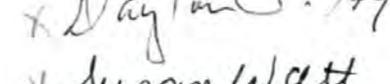
RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

**THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER
PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A
HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD
BE PERMITTED THESE WATER PERMITS.**

	ALISON SWAN	302 S. 16th St. Hot Springs	745-7771
	Bonnie Maritz	545 N. River #313 Hot Springs	745-4574
	Donald C. Maritz	545 N. River #313 Hot Springs	745-4574
	Calvin		
	Pamela Jane Larive	713 N. River St Hot Springs	745-7936
	Stan Lacker	1913 Jennings Ave Hot Spring	745-3054
	Robert Lee	338 S. 5th St., Hot Springs	745-3688
	Gary Putman	204 4th Ave. Hot Edgemont	662-7229
	Larry W. Friends	27098 ELK RD Buffalo Gap	833-2000
	Dan Song Lang	27564 ^{Ponderosa Rd} Busby Hot Springs	745-5266
	Dayton O. Hyke	Box 932 Hot Springs	745-6339
	Susan Watt	Box 790 Hot Springs	745-7494

RECEIVED

NOV 28 2012

WATER RIGHTS PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMINT
APPLICATION NUMBERS 2685-2 AND 2686-2 TO
APPROPRIATE WATER FOR POWER TECH (USA) INC.**

C/O

RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

**THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION
OPPOSE WATER PERMITS TO BE GIVEN TO POWER TECH (USA) INC.
DENR NEEDS TO HOLD A HEARING FOR THE PEOPLE OF FALL RIVER
COUNTY ON WHY POWER TECH SHOULD BE PERMITTED THESE WATER
PERMITS.**

NAME	Address	phone #
X Geora Dappen	13174 Fall River Rd Hot Springs	605-890-0641
Joe Dappen	Hot Springs	605 890 3063
+ Susan Stotarch	Hot Springs PO Box 686	605-745-4363
Donna Henderson	11509 Hwy 471 Edgemont SD 59935	605-469-5150
+ Tris Williams	27662 Scenic Rd Hot Springs, S.D.	6058911967
+ Judith Klein	238 N 6th St Hot Springs	605 145 3355
? Bill Bowen	Hot Springs	890 1268
? Paul Hottel	Hot Springs	891-9176
X Craig R Roney	342 N 4th Hot Springs SD	745-4465

RECEIVED
NOV 28 2012
WATER RIGHTS
PROGRAM

11/15/2012

**NOTICE TO DENR ON WATER PERMIT APPLICATION
NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR
POWER TECH (USA) INC.**

C/O

RICHARD BLUBURG

5575 CTC PKWY STE# 140

GREENWOOD VILLAGE, CO

80111

**THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER
PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A
HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD
BE PERMITTED THESE WATER PERMITS.**

Name	105 S. 23rd St #605-745-5992
Terry Holcomb	PO Box 152 delPichs (605) 535-2004
Grady Lakhot	12544 West Cadada RP. (605) 890-4056
Russ Petter	HOT SPRINGS S.D.
_____	27056 BROWN Y-57 RD 605.745.3528

↑
can't
read
didn't add

November 15, 2012

NOTICE TO DENR ON WATER PERMIT APPLICATION

NUMBERS 2685-2 AND 2686-2 TO APPROPRIATE WATER FOR POWER TECH (USA) INC.

RECEIVED

NOV 28 2012

C/O

RICHARD BLUBURG

5575 CTC PRWY SUITE 140

GREENWOOD VILLAGE, CO 80111

WATER RIGHTS PROGRAM

THE PEOPLE OF FALL RIVER COUNTY SIGNING THIS PETITION OPPOSE WATER PERMITS TO BE GIVEN TO POWER TECH (USA) INC. DENR NEEDS TO HOLD A HEARING FOR THE PEOPLE OF FALL RIVER COUNTY ON WHY POWER TECH SHOULD BE PERMITTED THESE WATER PERMITS.

NAME	ADDRESS	PHONE
Michelle Brock	26846 HWY 385 H.S.	605-515-3364
NANCY BLATCHFORD	441 S 4TH ST	605 891-1712
RICH GERICKE	305 S 14 th ST Hot Springs SD	891-1142
JACKIE GERICKE	" " " "	" "
ELAINE EVERHART	545 N. River St. Hot Springs, SD	890-1921
Allen Chesson	545 N. River St H. S. Springs	891-8325
Langw Friedshub	27098 ELK RD Bldg 4p	833-2000
Moses Hernandez	910 1/2 South Street	605-891-1866
Sarah Phillips	705 N. River St. Apt. 1	605-891-1374
AJ Phillips	" " " "	" "
Ricardo Vaccaro	601 Albany Ave	605-890-0098
Julie Christensen	603 N. River St.	719-482-4092
Emily Christensen	603 N. River St	605-745-4400
AULA TORRES	306 Thompson	605-745-4523
Cesar Hernandez	410 1/2 South 4th	608 891 1260
LORAINO TUCKER	P.O. Box 1129 H.S.	605-593-2373
Eddie Bertold	241 Galveston Ave	605-890-6356
Steve Pugh	2317 Washington	605-745-7085
Wanda Hume	410 1/2 S	605-891-1866
Melissa Martin	2329 Ely Ave H.S. SD	605-745-3974
DeAnn McCormick	PO BOX 254 H.S. SD	605-745-3096
Georgiana Cross	2045 Canton Ave #530 H.S. SD	745-6471
KAREN VEKEL	2245 Minnukahita	745-5213
Marion Muhm	1614 Coldbrook Ave	745-3659
Patricia Hernandez	246 S. 6 th ST Apt 4 H.S.	605-540-7592
Miriam Martin	801 N. River St H.S. SD	745-7321
Ken MARTIN	801 N. River St	745-7321
Sake Haacke	6026 Evanston Ave	605-890-2273
Brianna Badure	Valley View Drive	605-220-6559
REX PIPER	12616 ANCYLE RD H.S. 51747	605-745-5765
MILDRED PIPER	12616 PIRCYLE RD H.S. 51747	605-745-5765
Jim BEN CHOWN	13224 Grandin H.S.	605-890-5600
J. Smith	2728 Hot Brook	605-890-3860

LAW OFFICES OF
BENNETT, MAIN & GUBBRUD
A PROFESSIONAL CORPORATION
618 STATE STREET
BELLE FOURCHE, SOUTH DAKOTA 57717-1489
TEL (605) 892-2011
FAX (605) 892-4084
EMAIL: bellelaw@bellelaw.com

MAX MAIN*
DWIGHT A. GUBBRUD*
*LICENSED IN SOUTH DAKOTA AND WYOMING

EST. 1908

RETIRED
DONN BENNETT

RECEIVED
DEC 28 2012
WATER RIGHTS
PROGRAM

December 26, 2012

Eric Gronlund
DENR - Water Rights Program
523 East Capitol Ave., Joe Foss Bldg.
Pierre, SD 57501-3182

**RE: IN THE MATTER OF WATER PERMIT APPLICATION NOS.
2685-2 AND 2686-2, POWERTECH (USA) INC.;**
Our File No. 4500.035012.

Dear Eric:

Enclosed for filing in the above-referenced matter is an original NOTICE
OF APPEARANCE.

Thank you for your assistance.

Sincerely,

BENNETT, MAIN & GUBBRUD, P.C.



Max Main

MM/ra

Enc.

cc (w/Encs.): Client

STATE OF SOUTH DAKOTA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT
APPLICATION NOS. 2685-2 AND 2686-2,
POWERTECH (USA) INC.

NOTICE OF APPEARANCE

PLEASE TAKE NOTICE, that the undersigned appears in the above-entitled matter for Powertech (USA) Inc.

Dated December 26th, 2012.

BENNETT, MAIN & GUBBRUD, P.C.
Attorneys for Powertech

By Max Main
Max Main
618 State Street
Belle Fourche, SD 57717-1489
Telephone: 605.892.2011

CERTIFICATE OF SERVICE

I, MAX MAIN, one of the attorneys for Powertech (USA) Inc., do hereby certify that on December 26, 2012, I caused the original of the foregoing NOTICE OF APPEARANCE to be filed as follows:

Eric Gronlund
DENR - Water Rights Program
523 East Capitol Ave., Joe Foss Bldg.
Pierre, SD 57501

and that I caused full, true and complete copies of said documents to be served upon the following named persons at their last known mailing addresses, as follows:

Jillian Anawaty
2804 Willow Ave.
Rapid City, SD 57701

Jerri Baker
705 N. River Street
Hot Springs, SD 57747

Mark Belitz
28233 Cascade Road
Hot Springs, SD 57747

Jennifer Belitz
28233 Cascade Road
Hot Springs, SD 57747

Doris Belitz
12747 Oak Road
Hot Springs, SD 57747

Larry Belitz
12747 Oak Road
Hot Springs, SD 57747

Edward H. Binns
408 N. 17th Street
Hot Springs, SD 57747

Cindy Brunson
11122 Fort Igloo Rd.
Edgemont, SD 57735

Bruce Ellison
Attorney for Clean Water Alliance
P. O. Box 2508
Rapid City, SD 57709

Barbara Cromwell
2313 Cruz Drive
Rapid City, SD 57702

Jeremiah J. Davis
130 E. Centennial
Rapid City, SD 57701

Charmaine White Face, Coordinator
Defenders of the Black Hills
P. O. Box 2003
Rapid City, SD 57709

Fall River County Commission
Attn: Michael P. Ortner, Chairman
906 N. River Street
Hot Springs, SD 57747

Leslie Murphy, Senior Biologist
S.D. Dept. of Game, Fish & Parks
Foss Bldg, 523 East Capitol
Pierre, SD 57501-3182

Gary Heckenlaible
P. O. Box 422
Rapid City, SD 57709

Susan R. Henderson
11507 Hwy 471
Edgemont, SD 57735

City of Hot Springs
Attn: D. J. De Vries, Mayor
303 N. River Street
Hot Springs, SD 57747

Lilias Jarding, Ph. D.
418 N. 44th Street
Rapid City, SD 57702

Marvin Kammerer
22198 Elk Vale Rd.
Rapid City, SD 57701

Donald H. Kelley, M.D.
12637 Merritt Estes Rd.
Deadwood, SD 57732

Sabrina King
14705 Halter Ct.
Piedmont, SD 57767

Dewane Stearns
11500 Indian Canyon Road
Edgemont, SD 57735

Mark Tubbs
10891 River Road
Edgemont, SD 57735

W. Cindy Gillis
Gonzalez Law Firm
Attorneys for Oglala Sioux Tribe
522 Seventh St., Suite 202
Rapid City, SD 57701

Diane Best, Esq.
Office of the Attorney General
317 N. Main Ave.
Sioux Falls, SD 57104

Rebecca R. Leas, Ph.D.
6509 Seminole Lane
Rapid City, SD 57709

William R. Hansen, Chief
Water Rights Branch
U.S. Dept. of Interior-National Park Service
Water Resources Division
1201 Oakridge Drive, Suite 250
Fort Collins, CO 80525-5596

Gena M. Parkhurst
P. O. Box 1914
Rapid City, SD 57709

Tom Emanuel, Executive Director
South Dakota Peace & Justice Center
19 N. Pine Street
Vermillion, SD 57069

James B. Woodward
P. O. Box 599
Wellington, CO 80549

Roxanne Giedd, Esq.
Deputy Attorney General
Office of the Attorney General
1302 E. Hwy. 14, Ste. 1
Pierre, SD 57501-8501

by depositing the same in the United States Mail in Belle Fourche, South Dakota with first class postage thereon fully prepaid, in envelopes addressed as above.


MAX MAIN

Eric Gronlund
Water Rights Program, DENR

RECEIVED
DEC 31 2012
WATER RIGHTS
PROGRAM

Here are the corrected names and addresses for the protest against Powertech.

Veronica Hernandez
705 N River St
Hot Springs, SD 57747

Lennie Walleen
446 S 16th St
Hot Springs, SD 57747

Moses & Ciser Hernandea
705 N River St
Hot Springs, SD 57747

Jennie Sotherland
27735 Cascade Rd
Hot Springs, SD 57747

Joe Bassingham
10985 Pleasant Valley Rd
Edgemont, SD 57735

Peggy Semler
PO Box 27
Hot Springs, SD 57747

Thank you and please call with any questions,

Brenda Gamache
605-745-4726

