

1. Considered: _____, 19____ Water Right No. 1278-1
2. Name of Applicant WHARF RESOURCES (USA) INC
3. Post Office Address POB 897, Lead 57754
4. Amount of Water Claimed 0.25 maximum acre feet _____
5. Source of Water Supply 480' well
6. Water to be used for IND acres to be irrigated _____
7. County Lawrence about _____ miles _____ of _____
8. PROOF OF PUBLICATION: Received 6-21-83 Not Received _____
 APPLICATION: Approved 7-20-83 Subject to Well Interference
 Not Approved _____ Action Deferred _____

PRIORITY Dated Received 5/20/83 Application complete-yes x no _____ FEE 150.00
5/20/83 Remarks _____

Corrected Application received _____ Period of Annual Use 1/1 thru 12/31

WATER
QUALITY

Received yes _____ no _____ APPROVED/CONDITIONAL (Circle one)
 WI-1 Description same as application-yes _____ no _____ Remarks _____

N/A

Disapproved _____ Returned _____

Diversion Point _____
SW $\frac{1}{4}$ SE $\frac{1}{4}$ 33-5N-2E

Land to be irrigated _____

WELL LOG Driller Taylor Bros Licensed - yes x no _____
 Depth 480' deep well Madison Formation

Remarks _____

MAP Map No. 1278-1 Map located in Water Right x Map file _____
 Type of Map drawn Prepared by PE Randall Greenway

+++++

REVIEWED This Application was received within 30 days of the date received, accepted as complete, Number assigned and written up for advertisement before the Board on:
5/25/83

Baty Westlund
 (Signed)

+++++

PROTESTS Letters/Petitions in File - yes _____ no _____ Remarks _____

REMARKS Date
 F.F. & C. Final Decision, including F.F. & C. of Law were adopted _____
 OF LAW, Date
 FINAL Final Decision mailed to parties and/or parties notified that Final Decision was
 DECISIONS adopted _____
 ETC. Remarks _____



No. 1278-1
 Map No. 1278-1 Water Division No. 1 BELLE FOURCHE District
 Above for Office Use 10120203

APPLICATION FOR PERMIT To Appropriate Water within the State of South Dakota

Check one of the following:

New XX Vested Right _____ Future Use _____

Change in Diversion _____ Additional Diversion _____

Change in Acreage _____ Additional Acreage _____

1. Name of Applicant Wharf Resources (U.S.A.), Inc. Phone No. 605-584-1441
 Post Office Address P. O. Box 897 Lead South Dakota 57754
 (Street, RR, or Box) (Town) (Zip Code)
 If a corporation show date and place of incorporation 1978 COLORADO

2. Method of accomplishing work (contract, employment of others, or by direct labor) Drilled by others3. Name of diversion work N/A4. Amount of water claimed (cubic feet per second) 0.25 Cu ft/sec.5. Source of water supply Well (480 FT deep, Madison Formation) KCL

6. Location of point of diversion Well (see map)
SWSE⁴ SEC. 33-T5N-R2E

County Lawrence7. Annual period or periods during which water is to be used Year Round8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) Industrial

9. For irrigation use, Total number of acres to be irrigated _____

List below each forty acre subdivision, or lot, or fraction thereof and show number of acres to be irrigated in each.

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 6 mo. 5 years. Additional time required to complete application of water to the proposed beneficial use 6 mo. 4 years.

11. Choice of county newspaper for publication of Notice of Intent to Appropriate Water Lead Daily Call

12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source.

Transform monitoring well (already completed) to water well by reaming hole and doing drawn down development

B. Works proposed to transport water to place of use.

Submersible pump and 3" PVC water line

C. Works proposed to apply water to beneficial use.

Water from the well will be used for domestic uses in the office and mine changehouse, dust control on haul roads and crusher site, and makeup water for the leach plant.

The makeup water entails mixing water with sodium cyanide (NaCN) to the specifications of 1 lb. NaCN:1 ton water (500 ppm Na CN). Sufficient lime is also added to the solution to maintain a PH of 10 to 11.

Estimated Total Cost \$ _____

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map.
 (see instructions concerning preparation.)

STATE OF SOUTH DAKOTA)
) ss.
 County of _____)

I, H. Peter Feigley (Environmental Coordinator) the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.

Signed H. Peter Feigley
 Subscribed and sworn to before me this 18th day of May, 1983
Carladachanzenbach
 Notary Public (or other qualified officer)

WATER RIGHT APPLICATION APPROVAL

The Water Management Board hereby approves Water Right Application No. 1278-1

Wharf Resources (USA) Inc.

Box 897, Lead

(Applicant)

(Post Office Address)

South Dakota

(State)

With the following qualifications

The well 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.

Date of first receipt of application May 20, 1983

Date of return to applicant for correction, amendments or changes required , 19

Date of receipt of corrected application , 19

Approved July 20, 1983, Recorded in Book Page

WATER RIGHT PERMIT NO. 1278-1

The Water Management Board hereby grants and issues this Water Right Permit No. 1278-1 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as qualified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is May 20, 1983
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before January 20, 1986
3. The whole of said work is to be completed on or before July 20, 1988
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is July 20, 1992
5. The water appropriated shall be used for the purpose of Industrial, Domestic

6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.

7. The amount of the appropriation herein granted shall not exceed .25 cubic feet per second; neither shall it exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for beneficial uses served, and ~~if for irrigation purposes said appropriation must be limited to not more than 2 acre feet per acre per year and be limited to not more than one seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied~~

^{BW} INDUSTRIAL USE
for ~~irrigation~~ on or before July 20, 1992; said water to be used during the following described annual period: January 1 thru December 31

Witness my hand this 26th day of July, 1983

THE WATER MANAGEMENT BOARD

By: John H. H. H.
Chief Engineer, Water Rights

Certificate of Construction Issued , 19

Water License Issued , 19

D Well Information

- (1) Drill Hole, Diameter 6 $\frac{1}{4}$, Depth 480 Ft.
- (2) Casing, Type Schedule 40 PVC, Diameter 4.5 OD, Thickness 0.173"
(wood, concrete, steel, etc.)
- (3) Screen, Type Perforated Pipe, Diameter _____, Length _____
- (4) Gravel Pack, Thickness Rubber Shale Packer, Length of gravel pack _____

E. Dugout Information or Estimates

- (1) Surface dimensions, _____, Depth _____

F. Fill out for Either a Well or a Dugout.

- (1) Water Bearing Materials. (Attach a copy of test well log)

Depth to top of water bearing material 160 Ft.

Depth to bottom of water bearing material Unknown

Depth to water (ground surface to water level) 100 Ft.

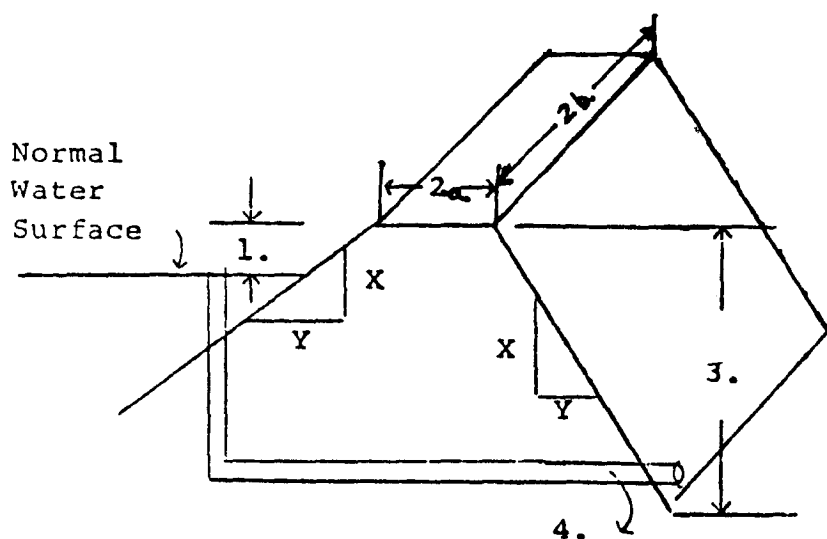
- (2) Distance to nearest existing household or livestock watering well.

On same owner's property _____ rds.

On property owned by others 157 rds.

G Water Storage Dams

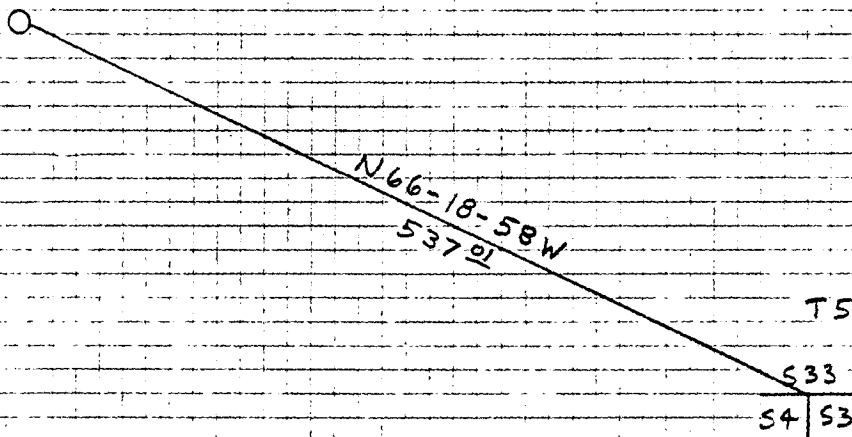
If the proposed water use system contains one or more water storage dams, please show in the space below, the height, length, maximum water depth, surface area, drainage area, storage capacity, dam slope, dimensions, location and size of outlet works, of each storage dam. The location of each water storage dam should be shown on the water right map.



1. Freeboard _____
- 2a Crest width _____ b. length _____
3. Height of Dam _____
4. Outlet dimensions:
Pipe diameter _____
Spillway width _____
- X & Y slope:
Upstream _____
Downstream _____
Surface area of impoundment _____
Drainage area above dam _____

H. Peter Reigle
Signature of Applicant

HDH-II (PROPOSED WELL)



T5N, R2E, B.H.P.M.

T4N, R2E, B.H.P.M.



appl &
Map # 1278-1

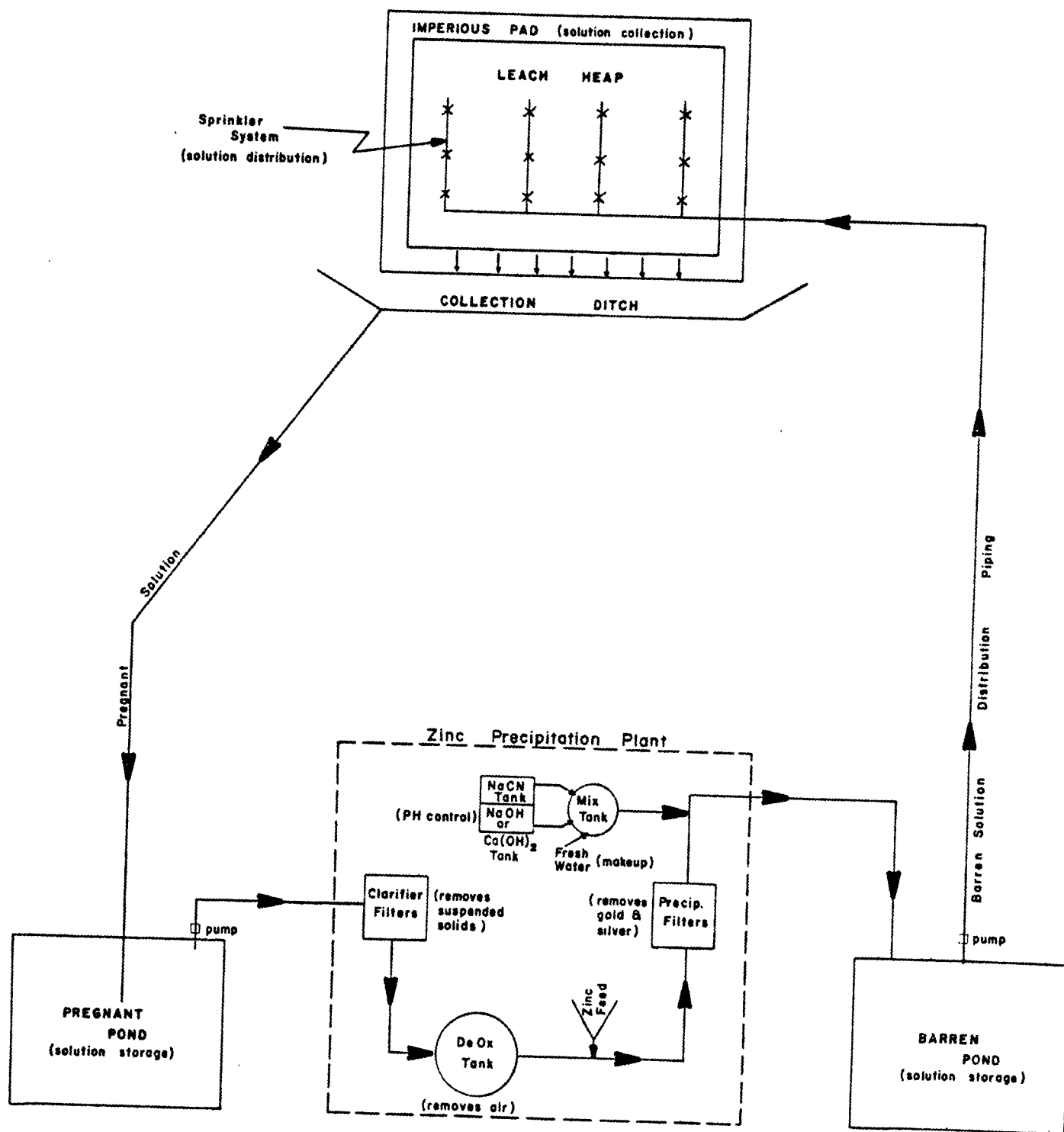


Figure 5
SCHEMATIC : Heap-Leach Cyanide Process

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

Pierre, June 15, 19 88

RECEIVED OF Wharf Resources, P.O. Box 446, Deadwood, SD 57732

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct works and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. 1278-1	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	50 00

By John Hatch
Chief Engineer

JOHN HATCH MS

4-78

Ralph Taylor Jr. 5-11-83
Signed By Date

DESCRIPTION OF DEVELOPMENT PROPOSAL

3.3.5 Overburden Dumps (Continued)

of the area where any potential mineralization is likely to occur. Prior to construction of the overburden dumps, the area will be logged of merchantable timber and grubbed. Topsoil will be removed, stockpiled, and vegetated for eventual reclamation use. The top of the dump area will be ditched in order to prevent surface runoff from entering into the dump area. The dump area will be developed on at least two levels which would allow for benching and eventually easier reclamation. Dumps will be benched and sloped below the angle of repose, recovered with topsoil and revegetated as various sections of the dump area are completed.

A suspended solids settling pond will be constructed below the overburden dumps to remove fines in runoff water. Testing of pit-run rock indicates that all rock types within the pit are basic with the acid producing material already leached-out.

3.3.6 Crusher Facility

Ore will be trucked to a site adjacent to the leach pad area where it will be dumped into a dump pocket or will be dumped into a stockpile adjacent to the dump pocket. The dump pocket feeds a vibrating feeder which in turn feeds a jaw crusher. The ore will be crushed to minus 3 in. and then stacked with a radial stacker in a stockpile ready for loading onto trucks for transport onto the leach pads. It is anticipated that the crusher would operate at a maximum rate of 300 tons per hour. Should a crusher product of less than 1-inch be required for road construction aggregate or for preparation of heap-leach piles, a cone crusher will be rented and used for a temporary period. A front end loader will feed the stockpile into the dump pocket and also will load haul trucks from the radial stacker stockpile.

3.3.7 Leach Pads

The leach pad site was selected because the ground slope is low enough to allow preparation of pads at the natural slope. The area is overlain by native clays that have low permeabilities when properly compacted. The pad area is topographically higher than the surrounding area and has virtually no potential for runoff into the pad area. The pads (and also the plant) will be constructed in the McKinley drainage which is a "pirated" stream above the pad site and for considerable distance below the pad site does not run any water

DESCRIPTION OF DEVELOPMENT PROPOSAL

3.3.7 Leach Pads (Continued)

except in high runoff periods.

The pads are topographically higher than the plant and solution ponds, allowing the leach solution to be gravity fed to the ponds.

The pads will be developed in increments as more leach area is required. Initially two areas (500 ft. by 800 ft.) will be developed which will provide sufficient leach area until the third year of production.

The schematic of the pad layout in relation to ponds, plant ditching, berms, etc. is shown in Figure 8.

The prime objective of pad design is to provide an impermeable layer below the leach heap to collect solutions and conduct those solutions to a collection ditch or pipe. This impermeable layer (10^{-7} cm/sec or less) prevents the loss of solution into the ground below the pad and insures no ground water contamination. There are a wide variety of pad designs in a wide variety of applications, depending upon the proposed use, the type of earth materials available, and the design life of the pad. The water running on the surface of the pads will have a low hydraulic head, and the pad area will be used for up to three years before neutralizing the heap. Compacted clay pads are widely used in heap-leach applications for both copper and gold and have had very good results. Properly constructed and compacted clay pads are very resistant to damage and have long life. They have low permeabilities and have proven to be environmentally safe after many years of use. Plastic (Hypalon) membranes have been used in many applications and have been proven effective, but are subject to mechanical damage.

A key point in compacted clay-liner design is to insure that the liner does not crack due to drying out of an insufficiently thick liner.

KEY { The production pad design will use compacted clay liners as its main component, but will also incorporate Hypalon liners in ditches and solution collection pipes on the pad surface. The pads will be bermed to prevent surface runoff in or out of the pad areas. On the down-slope side of the pad, a compacted-clay, Hypalon-lined collection ditch with sufficient cross section to handle a 100 year flood situation will direct the leach solution by pipeline to the pregnant pond.

DESCRIPTION OF DEVELOPMENT PROPOSAL

3.3.7 Leach Pads (Continued)

The pipeline will run in a Hypalon-lined ditch which will act as a safety feature in the event of a pipe break.

3.3.8 Heaps

Eight to 12 inches of 3/4-inch crushed and screened ore will be placed on the clay pad to provide a "drainrock" type layer, and also, to protect the pad when the minus 3-inch ore is placed. A perforated drain pipe (8-inch diameter) will be placed on the pad to provide intermediate drainage from the pad surface (this pipe will be covered with 1½ to 2 feet of crushed rock to protect it). An 8-inch berm down-dip from the pipe will insure that solution passes into the perforated pipe.

The minus 3-inch crushed ore will be trucked onto the heap with care to insure minimal compaction of the heap and then pushed into place with a dozer. A single lift will consist of 10 feet of ore with five lifts (or 50 feet) proposed as the minimum height of the heaps. Preliminary stability investigations indicate that the heap and prepared pads will be stable with good safety factors to a height of at least 50 feet. Further investigations will probably allow for greater heap heights. (Reference-Hydrometrics-Botz-in Appendix II).

A ten-foot buffer zone between the edge of the heap and a two-foot high berm surrounding the leach heaps will be built to insure that cyanide spray does not leave the pad area. This buffer zone is also constructed between the heap and the solution ditches to insure that solution spray does not leave the pad area, and also, to provide further safety in case of structural failure of the heap.

3.3.9 Ditches

Solution collection ditches will be constructed on the down-dip side of pads to provide for collection of leach solution and runoff water.

The ditches will be constructed such that they are bermed 2 feet on the outer side and are of sufficient capacity to hold runoff from a 100 year flood. The base of the ditch will be a compacted clay liner plus a Hypalon liner.

JOHN PAUL GRIES

Consulting Geologist

239 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA

Scholz Engineering D. H. No. 11.

Location:

Collar Elevation: 6047 feet

Drilled by Taylor Drilling Co., Rapid City, S. D.

- 0 - 10 dolomite, very finely crystalline, dense, gray to tan, earthy
20 dol, vy fx, dense, gray, some slightly silicified; trace black chert
30 dol, similar, much gray to black chert
40 dol, vy fx, dense, light gray to cream
50 dol, fx, soft (weathered) light gray to yellow stained, clay pocket?
60 dol, fx to vy fx, soft, gray, yellow, pink; some chert
70 dol, vy f x, dense, argillaceous, dull light gray
80 dol, fx to mx, glassy, light to medium gray; some vuggy porosity
90 dol, fx, glassy, gray to pink, some rhombic; trace porosity
100 dol, fx, slightly rhombic, pinpoint porosity, gray to pink and orange
10 dol, mx rhombic, glassy, white, light gray & pink; highly por.
30 dol, same and some mx glassy not porous
40 dol, fx, + glassy, dove gray; little pinpoint porosity
50 dol, fx, light to medium gray, dense
60 dol, fx to vy fx, sugary to dense, vy light gray to nearly white
80 dol, same and some mx to cx rhombic, white, very porous
90 dol, fx, dense, dull medium gray
200 dol, same, much black chert
05 dol, same and dol, dull, fx, soft, cream
10 dol, vy fx, dense, dull light gray
15 dol, fx, light gray, looks like neat cement
20 dol, same
25 dol, fx, oolitic or pelletal, porous
35 dol, same, porous, some streaks dense gray dol
40 dol, fx to mx, dense, nearly white
45 dol, fx to mx, oolitic or pelletal, porous, medium gray; some vy fx dull dense gray dol stained yellowish
55 dol, same and more dol fx to mx, dense, medium gray, with pinpoint porosity.
50 dol, mx, rh, vy porous, light gray to white; some medium gray, fx, dense.
65 dol, fx to mx, rh, porous, medium gray to white; dol, medium gray, dense, with pinpoint porosity
75 dol, fx to mx, dense, light to medium gray; trace pink
80 dol, same, coarser grained
85 dol, fx, dense, gray, yellow, pink and red
90 dol, similar more deep red-brown
95 dol, fx, dense, red brown to red and tan

Drill Hole No. 11 (cont'd)

300 - 305 dol, fx to mx, glassy, medium gray; dol, fx, chalky, yellow
to cream
10 dol, same mix
15 dol, same, more of the glassy type
20 dol, fx to mx, gray with light brown mottling;; dol, gray to
tan
25 dol, same, some pinpoint porosity
35 dol, same
40 dol, same and some grayer
45 dol, same and some mx, rhombic, gray to white
50 dol, fx to mx, med gray, rhombic in part, gray to white; some
oolitic, porous
55 dol, fx, glassy, medium gray
60 dol, fx, granular to dense, gray and yellowish
65 dol, fx to mx, light to medium gray, dense
70 dol, fx, glassy, slightly rhombic to dense, medium gray
75 dol, same; trace sulfide looks like chalcopyrite
95 dol, fx, dense, glassy, medium gray
400 dol, mx, glassy gray and some mottled yellow-brown to pink
10 dol, same
25 dol, fx, glassy, light to medium gray
35 dol same, trace water stained vugs, rusty
40 dol, same, high porosity in rhombic
50 dol, fx to mx, gray as above and some red-brown
55 dol, same but less brown
75 dolomite, same gray

RECEIPT

WATER RIGHTS COMMISSION

State of South Dakota

No 4 9258

Wharf Resources (USA) Inc., PO Box 897, Lead SD 57754, PIERRE, May 20, 1983

RECEIVED OF -----

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit to Appropriate Water No. ----- (examination, processing, recording and filing) -----	150	00
Fee for inspecting Construction, and issuing Cert. of Construction No.-----		
Fee for inspecting Beneficial Use, and issuing Water License No.-----		
Fee for issuing Location Certificate-Dry Draw, No.-----		
Fee for filing -----		
Fee for certified copy of -----		
Fee for Print copy of map -----		
Fee for Certifying -----		
Fee for ----- (any other work as provided by law)		
TOTAL	150	00

WATER RIGHTS COMMISSION

John Hatch
Chief Engineer, Executive Officer
JOHN HATCH KS

REPORT ON WATER PERMIT APPLICATION

NO. 1278-1, Wharf Resources (USA) Inc.

June 1, 1983

Application No. 1278-1 is for 0.25 cfs from one 480 foot deep Madison Formation well. The water will be used for domestic use and make up water for the leach plant. This make up water is to replace water lost by evaporation from leach heap. The applicant expects to pump the well up to 75% of the time. Wharf Resources presently has a mining permit from the State of South Dakota. The DWNR, Office of Water Quality is currently maintaining a series of water quality monitoring wells at the site.

Aquifer

Madison Limestone

Geology and Aquifer Characteristics

Although this well will be completed in the Madison Limestone (see driller's log and Gries geologist's log). This is not a typical section of the Madison. The nearby intrusive rocks have altered the Madison both structurally and internally and thus affected the ground water flow system. There is very little data available to support these assertions other than some personal experience looking at these rocks, studying the geologic maps (Darton, 1925) the permit application as submitted and existing water permits.

The groundwater system probably flows from the north (higher ground) to the south and west towards Anne Creek and East Spearfish Creek. Both these creeks are perennial streams indicating a baseflow from groundwater. The reported static water level from a test well is 100 feet below land surface which is above the creek levels and produced 30 gpm using air lift. A properly constructed well should yield the amount of water requested by this application. Water Rights does not have any observation wells in this area and no historical data is available (water levels).

Review of Existing Water Rights

1173-1 Warbonnett Inc.	Springs from Madison Limestone	0.20 cfs
1247-1 Warbonnett Inc.	950' Madison well	1.20 cfs

Water Permit No. 1173-1 is a recognized vested right for springflow and is located approximately 1/2 to 3/4 mile southeast of the well requested by this (1278-1) application. Water Permit No. 1247-1 is located about 3/4 mile northeast of this (1278-1) application and may not yet be constructed.

Conclusions

1. Very little hydrologic data is available. Certainly the Madison is a viable source of water in this area, but well capacity and storage in the aquifer are unknown.
2. The source of water for the wells both in this application and application No. 1247-1 is the same as the spring under No. 1173-1.
3. Recharge to the Madison has been estimated at 6.8 in/yr (Rahn and Gries, 1973) in the Northern Black Hills.

Conclusions (cont.)

4. The existing test well penetrates porous zones in the Madison and the static water level is 100 feet below land surface. The well was tested using airlift at 30 gpm.
5. Because of the distance between the existing water permit and the relatively low pumping rates, interference should not be a problem.
6. It is recommended that testing and permanent monitoring (water levels) be done in order to prevent possible controversy.


JAMES A GOODMAN
Hydrologist

Darton, N.H. and Sidney Paige, 1925, Central Black Hills Folio, USGS, No. 219.

Rahn, P.H. and J.P. Gries, 1973, Large Springs in the Black Hills, South Dakota and Wyoming, SDGS Report of Investigations No. 107, Vermillion SD.

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT APPLICATION

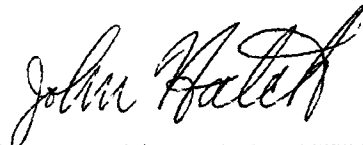
No. 1278-1, Wharf Resources (USA) Inc.

Pursuant to Section 4, House Bill 1002, 1983 Legislature, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 1278-1, Wharf Resources (USA) Inc., PO Box 897, Lead SD.

The Chief Engineer is recommending APPROVAL of Application No. 1278-1 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) that the proposed diversion can be developed without unlawful impairment of existing rights, 3) that the proposed use is beneficial use and 4) in the public interest with the following qualifications:

The well 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.

The attached report is a part of this recommendation.

A handwritten signature in cursive script, reading "John Hatch".

JOHN HATCH, Chief Engineer
June 6, 1983

Instructions to Newspaper - Publish first publication of following Notice on or before

June 10, 1983 with 2nd publication 1 week later. The applicant is responsible for payment.

NOTICE of HEARING on Application No. 1278-1 to Appropriate Water
and/or to Amend Water Permit or Water Right No. _____

Notice is hereby given that Wharf Resources (USA) Inc. whose mailing address is PO Box 897

Lead, South Dakota has made an application pursuant to the provisions of SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-14, Section 13 of HB 1001 enacted by 1983 Legislature; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, Section 32 of HB 1001; 46-5-1 thru 46-5-8, 46-5-10, thru 46-5-16, 46-5-24, 46-5-25, 46-5-31, Sections 38, 47, 59 & 67 of HB 1001, Sections 1, 4, 5, 6, 11, 12, 13, 16, 18, 19 & 21 of HB 1002; ~~(ground) 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; (future use) 46-5-38 thru 46-5-40, Section 71 of HB 1001, (transfer lands) 46-5-33 thru 46-5-35, (10,000 AFA) 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; (future use) 74:02:01:24 thru 74:02:01:26; (10,000 AFA) 74:02:01:15:02 thru 74:02:01:15:05;~~ (several of the preceeding SDCL Sections are amended by HB 1001 & 1002 of 1983 Legislature) for a permit to appropriate 0.25 cubic feet per second from ground-water; one 480' deep Madison Formation well, the point of diversion to be located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 33, T5N, R2E. Said water to be used for the purpose of providing water for industrial use.

Pursuant to Section 4 of HB 1002 the Chief Engineer of the Water Rights Division recommends Approval of Application No. 1278-1 because 1) unappropriated water is available, 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and 4) is in the public interest.

This application will be considered by the Water Management Board at Community Room, Basement Day Co. Courthouse; 710 W 1, Webster SD upon the 19 day of July, 1983 at 10:00 am.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to make a determination on this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with the Chief Engineer and the Applicant by July 8, 1983. The petition may be informal, but it must include a statement describing the petitioner's interest in the application, the reason for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition. The time of the hearing will be automatically extended for at least twenty days upon written request of the applicant or any person who has filed a petition to oppose or support the application. The request for extension must be filed with the Chief Engineer by July 8, 1983.

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can contact the Water Right Division, DWNr, Joe Foss Bldg., Pierre SD (605 773-3352) for assistance prior to the hearing date.

STATE OF SOUTH DAKOTA)
County Lawrence) ss.

I, William B Kemper

certify that the annexed printed copy of

Water was taken from the Lead Ditch

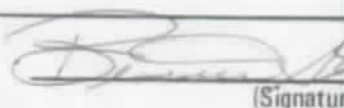
A newspaper which during the whole time
herein after stated, has been and is printed

Town _____ of _____

County of Lawrence
that the said notice was published in said
two dates:

June 10, 1983

June 17, 1983


(Signature)


(Title)


(Date Sig)

Cost of Printing: _____

119 lines x .2

119 lines x .1

Total Cost _____

PROOF OF PUBLICATION

Legal Notices

NOTICE OF HEARING on Application No. 1278-1 to Appropriate Water

Notice is hereby given that Wharf Resources (USA) Inc., whose mailing address is PO Box 897, Lead, South Dakota has made an application pursuant to the provisions of SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-14, Section 13 of HB 1001 enacted by 1983 Legislature; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, Section 32 of HB 1001; 46-5-1 thru 46-5-8, 46-5-10, thru 46-5-16, 46-5-24, 46-5-25, 46-5-31, Sections 38, 47, 59 & 67 of HB 1001, Sections 1, 4, 5, 6, 11, 12, 13, 16, 18, 19 & 21 of HB 1002; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; (several of the preceding SDCL Sections are amended by HB 1001 & 1002 of 1983 Legislature) for a permit to appropriate 0.25 cubic feet per second from groundwater, one 480' deep Madison Formation well, the point of diversion to be located in the SW 1/4 SE 1/4 of Section 33, T5N, R2E. Said water to be used for the purpose of providing water for industrial use.

Pursuant to Section 4 of HB 1002 the Chief Engineer of the Water Rights Division recommends Approval of Application No. 1278-1 because 1) unappropriated water is available, 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and 4) is in the public interest.

This application will be considered by the Water Management Board at Community Room, Basement Day Co. Courthouse, 710 W. 1. Webster, S.D., upon the 19th day of July, 1983 at 10:00 a.m.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to make a determination on this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with the Chief Engineer and the Applicant by July 8, 1983.

The petition may be informal, but it

must include a statement describing the petitioner's interest in the application, the reason for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition. The time of the hearing will be automatically extended for at least twenty days upon written request of the applicant or any person who has filed a petition to oppose or support the application. The request for extension must be filed with the Chief Engineer by July 8, 1983.

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can contact the Water Right Division, DWNR, Joe Foss Bldg., Pierre, SD (605-773-3352) for assistance prior to the hearing date.

June 10, 1983





Department of Water & Natural Resources

1278-1

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

August 1, 1983

Wharf Resources (USA) Inc
Box 897
Lead, South Dakota 57754

Dear Sir:

Enclosed herewith is your Water Permit No. 1278-1 as approved by the Water Management Board authorizing you to construct your water diversion system and the water to beneficial use, not exceeding the limits as specified in said Water Permit No. 1278-1.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that your Water License may be issued to you, thus completing your acquisition of a Water Right.

Very truly yours,

A handwritten signature in black ink, appearing to read "John Hatch".

JOHN HATCH, Chief Engineer
Water Rights Division

JH:ms

enclosure

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period-i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.

WNR-809-5/83

NOTICE OF COMPLETION OF WORKS AND/OR
APPLICATION OF WATER TO BENEFICIAL USEPost Office Lead, South DakotaDate October 7, 1985

TO: Water Rights
Joe Foss Building
Pierre, South Dakota 57501

Dear Sirs:

This is to inform you that I have completed the construction of the water diversion system and/or that I have put the water to beneficial use to maximum extent it is going to be used, not exceeding the amounts as specified in Water Right No. 1278-1.

Water Right Permit No. 1278-1 states that the diversion system is to be constructed by July 20, 1988, and that the water is put to beneficial use by July 20, 1992.

The diversion system was completed on July, 1983. Applying the water to beneficial use was completed on July, 1983.

You may schedule an inspection so that ~~the Certificate of Construction and/or~~ the Water License may be issued, thus completing my acquisition of a water right.

Steve Stampfli
(Signature)

Steve Stampfli
Environmental Coordinator
Wharf Resources
PO Box 897
Lead, SD 57754





Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

WATER RIGHTS DIVISION
(605) 773-3352

1278-1
1288-1
1346-1

June 6, 1988

Wharf Resources
PO Box 446
Deadwood, South Dakota 57732

Dear Sir:

The inspection of your water use systems and inspection of the extent of the application of water to beneficial use, as developed under your Water Right Nos. 1278-1, 1288-1 and 1346-1 has been completed. Your final water right documents, the Water Licenses, can now be issued.

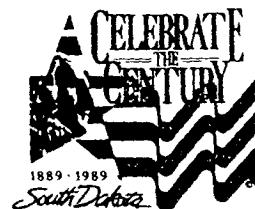
Statutes require that we charge a \$50.00 fee for the inspection and issuing of the Water License. Upon receipt of the \$50.00 fee from you for each permit, total of \$150.00 for the three, your Water Licenses will be sent to you.

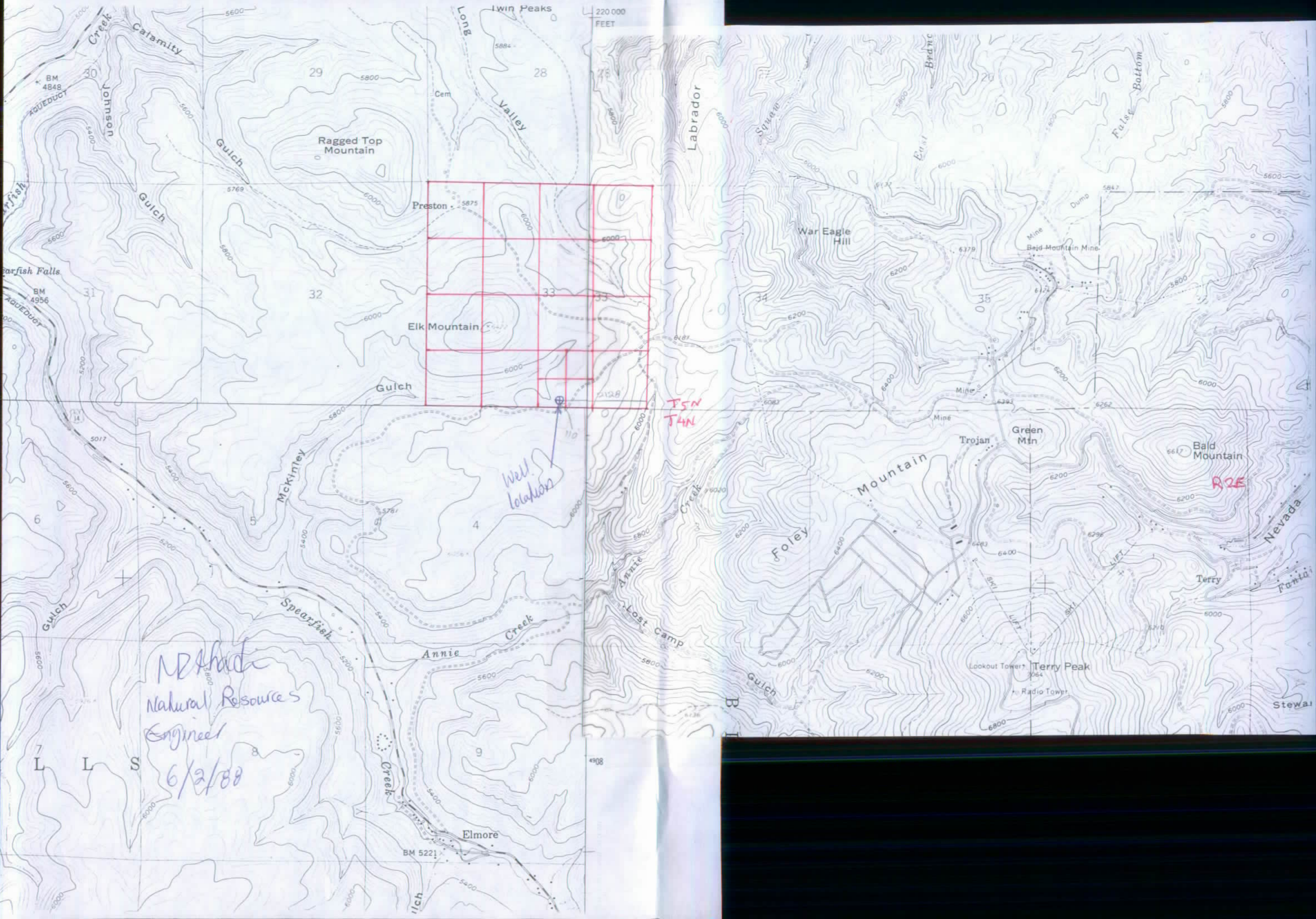
South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until this \$50.00 license fee for each permit has been paid. Please contact us if you have any questions.

Sincerely,

Maxine Stirling
Secretary

NOTE: On check or money order, please indicate the number of the water permit. This insures proper handling of the fees.





MD Had
Natural Resources
Engineer
6/2/88

Well
location

T5N
T4N

R2E

LICENSE FOR PERMIT NUMBER 1278-1

1. Legal location of wells: SW1/4 SE1/4 Section 33, T5N-R2E

dams & structures: NA

2. Well Information: Well Drilling Firm Taylor Drilling Company

No. of wells 1 Depth 480 feet

Casing a) diameter 6½ inches Screen a) type None used

b) length 480 feet b) length _____

c) type Polyvinyl Chloride (PVC) Static Water Level 100 feet

Pump a) make Submersible Motor a) make Submersible

b) model _____ b) model no. _____

c) size _____ c) horsepower rating 2

d) capacity 30 GPM d) motor efficiency rating _____

e) turbine pump

no. of stages _____

3. Distribution lines:

a) size of lines 3 inches

b) type Polyvinyl Chloride (PVC)

c) length 80 feet from the well to the plant.

4. Dam information:

a) height to crest _____

b) height to spillway _____

c) crest width _____

d) crest length _____

e) spillway length _____

f) spillway width _____

g) approx. storage _____

h) Distribution lines or canals:

1) size _____

2) type _____

3) length _____

i) Outlet tubes:

1) diameter _____

2) type _____

3) valued (Y/N) _____

4) valve type _____

5) location on structure _____

5. System Type: a) sideroll:

1) length _____ feet

2) diameter of pipe _____

3) make, model & number of sprinklers _____

4) spacing of sprinklers _____

5) nozzle size _____

b) towline:

1) length _____ feet

2) make, model & number of sprinklers _____

3) spacing of sprinklers _____

4) nozzle size _____

5. System Type: c) center pivot

- 1) make _____
- 2) number of towers _____
- 3) distance between towers _____
- 4) overall length _____
- 5) End gun (Y/N) _____
- 6) high or low pressure _____
- 7) make & size of nozzles _____
- 8) PSI reading while system is running _____
- 9) GPM _____

g) Gun

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____
- 6) hose size _____
- 7) hose length _____

d) Gate Pipe

- 1) length _____
- 2) diameter _____
- 3) spacing of gates _____

e) Siphons

- 1) number _____
- 2) size _____

f) Portable boom

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____

h) Hydromatic

- 1) make _____
- 2) model _____
- 3) serial number _____
- 4) length _____
- 5) nozzle size _____
- 6) spacing _____
- 7) PSI _____
- 8) capacity (GPM) _____

YES

NO

Check Items

___ NA ___

X ___

X ___

1. Soil and water permit lands agree with lands being irrigated and lands listed on permit.

2. Special Qualifications to permit being abided by.

3. All Structures, wells and lands on map.

REMARKS: The well was originally drilled as a monitoring well.

Water District

Report Of Examination Of Works And/Or Application Of Water To Beneficial Use

TO: Chief Engineer, Division of Water Rights, DWRN, Foss Bldg., Pierre, SD 57501

I have this day made a thorough examination of the water use system constructed by Wharf Resources
(USA) Inc. of P.O. Box 446, Deadwood, S.D. 57732 holder of
Permit No. 1278-1, bearing the priority of May 20 1983 authorizing
the diversion of 0.25 cu. ft. per second of the waters of groundwater, Madison Well
for domestic-industrial purposes, in Lawrence County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water:

A Submersible pump, 30 gallons per minute capacity.

A Submersible motor, 2 horse power.

B. Works used to transport water to place of use:

3 inch Polyvinyl Chloride pipe, 80 feet long from the well to the plant.

C. Works used to apply water to beneficial use:

The water is used for domestic and also as makeup water for heap leaching process.

The system is in the following condition GoodThe point of diversion is located approximately 2128 feet west, 110 feet north from the Southeast
corner of Section 33, T5N-R2E. SW1/4 SE1/4The works are capable of diverting and conveying to the place of use 0.067
cu. ft. per second of water which is to be used for domestic and industrial use (see also below)

Water has been put to beneficial use to the maximum extent as follows: _____

The water from the well is used for domestic uses in the mining company's offices.It is also used to control dust on the roads on the site and also used as makeup water
for the heap leaching process to be mixed with sodium cyanide.comprising a total of NA acres of land and the license should be issued for 0.067 cfsApplicable permit qualifications have been complied with X Yes NoExceptions to compliance are: _____ Date 5/25/88

(signature)

MB Hadi

State of South Dakota

Water License No. 1278-1

(1) Wharf Resources (USA) Inc.
of PO Box 446, Deadwood, South Dakota 57732
made Application No. 1278-1, May 20, 1983 for a water permit to appropriate
0.25 cubic feet per second of water from groundwater (one well),
Lawrence County, South Dakota for industrial purposes.
Permit No. 1278-1, with a priority date of May 20, 1983
was approved July 20, 1983 and issued to applicant(s) for diversion of water with construction of the described
water supply system to be completed on or before July 20, 1988 and for the application to beneficial use of said
water on or before July 20, 1992.

and

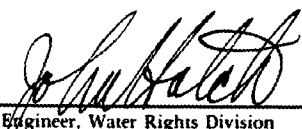
(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of
the construction of the water supply system and is entitled to divert 0.067 cubic feet per second of water
for beneficial use. The location of the diversion point(s) is approximately 2128 feet West and 110 feet
North of the SE Corner of Section 33, T5N, R2E (SW $\frac{1}{4}$ SE $\frac{1}{4}$)

and

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use, ~~to the following extent,~~ _____

(4) Pursuant to §46-5-30.1 Wharf Resources (USA) Inc.
of PO Box 446, Deadwood, South Dakota 57732
the holder(s) and/or owner(s) of Water Permit No. 1278-1 is issued a license to appropriate water, the right to use
0.067 cubic feet per second of water from groundwater (one well) with a priority date
of May 20, 1983 from the location specified in (2) of this license. The water to be
conducted to and upon land specified in (3) of this license for the purpose of industrial use

This license is subject to any limitations or qualifications listed in Water Permit No. 1278-1 and subject
to South Dakota State Law.



Chief Engineer, Water Rights Division
Department of Water and Natural Resources

JOHN HATCH

MAR 10 1989

SOUTH Dakota Department of
Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

MAR 10 1989

1278-1

1288-1

1346-1

Wharf Resources, Inc.
PO Box 446
Deadwood, South Dakota 57732

Dear Sir:

Enclosed is Water License Nos. 1278-1, 1288-1 and 1346-1. This is the final water right document completing your process of obtaining a Water Right.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right Nos. 1278-1, 1288-1 and 1346-1, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

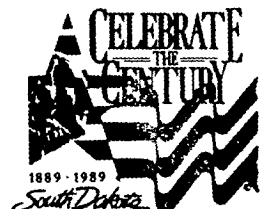
As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,



JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

APR 23 1998

1406A-1
1493-1

Wharf Resources
Terese Hruska and Jeff Dirkson
HC 37, Box 811
Lead, SD 57754

Dear Ms. Hruska and Mr. Dirkson:

Enclosed are Water License Nos. 1406A-1 and 1493-1. These are the final water right documents completing your process of obtaining a Water Right. Enclosed are Receipt Nos. 415678 and 415679 in the amount of \$50.00 each which you paid for the investigation and issuance of the Water Licenses.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right Nos. 1406A-1 and 1493-1, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water Licenses, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

ks
enclosures

NOTE: The applicable portions of No. 1406-1 have been incorporated into 1406A-1, and the applicable portions of Water Right Nos. 1278-1 and 1288-1 are incorporated into License No. 1493-1.