

1. Considered 5-27 1981
2. Name of Applicant PACER CORPORATION
3. Post Office Address CUSTER
4. Amount of Water Claimed .55 ~~FRACTURED SCHIST~~ REPLACEMENT
5. Source of Water Supply 350' DEEP WELL APPL FOR CANCELL
PERMIT NO 888-2
6. Water to be used for COMMERCIAL-MINING MILLING
7. Acres to be irrigated _____ maximum
acre feet _____
8. Water to be diverted and used in PENNINGTON County
about IN KEYSTONE CITY LIMITS miles of _____
9. PROOF OF PUBLICATION Received 5-21-74

Not Received _____

APPLICATION

Approved 5/27/81

Subject to WIT ~~SEE~~

Not Approved _____

Action deferred _____

Priority

Date

Received 5-8-81 Application Complete yes ☒ no _____ FEE 150⁰⁰

Remarks _____

Date information and/or
fee or corrected Application received _____
Period of Annual use _____

WATER
QUALITY

Received yes NA no _____ APPROVED/CONDITIONAL (Circle one)

W-1 Description same as application yes _____ no _____ Remarks _____

Disapproved _____

Returned _____

Diversion Point _____

SW⁴, SEC 4, 2S, 6E

Lands to be irrigated _____

WELL
LOG

Remarks _____

Driller HAMMOND & HOWELL

Licensed yes ? no ?

Depth 350'

WELL DRILLED IN 1965
UNDER PERMIT NO 888-2

MAP

Map No. 772-2 Map located in Water Right ✓ Map file _____
 Type of Map DRAWN Prepared by AI JOHNSON

+++++

REVIEWED This Application was reviewed within 30 days of date received, accepted as complete, Number assigned and written up for advertisement before the Board on MAY 8, 1961.

(Signature)
 (Signed)

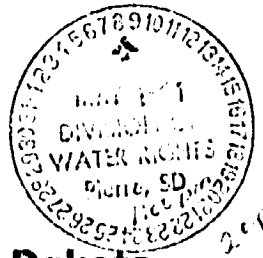
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PROTESTS Letters/Petitions in File - yes _____ no _____ Remarks _____

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
 DECISIONS was adopted _____
 ETC.

Remarks _____

No. 1774-2
 SEE Map No. 772-2 Water Division No. 2 UPPER CHEYENNE District
 Above for Office Use



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

Check one of the following.

New _____ Vested Right _____ Future Use _____ Renewal of Water Permit #888-2

Change in Diversion _____ Additional Diversion _____

Change in Acreage _____ Additional Acreage _____

1. Name of Applicant Pacer Corporation Phone No. 673-4419
 Post Office Address P.O. Box 912 Custer, State SD 57730
 (Street, RR, or Box) (Town) (Zip Code)
 If a corporation show date and place of incorporation: October, 1970, South Dakota
2. Method of accomplishing work (contract, employment of others, or by direct labor) Contract & Direct Labor
3. Name of diversion work well
4. Amount of water claimed (cubic feet per second) 250 gpm
5. Source of water supply water bearing fractures in schist
6. Location of point of diversion At a point on M.S. 2106, SW¹, T2S, R6E, Keystone, SD. Map was
submitted with the original application and should be on hand with the Division of
water rights County Pennington
7. Annual period or periods during which water is to be used continuously
8. 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 complete years. Additional time required to complete application of water to the proposed beneficial use three years.
11. Choice of county newspaper for publication of Notice of Intent to Appropriate Water Rapid City Journal
12. Principal Features of the Proposed Water Supply System:
- A. Works proposed to divert water from its natural source. 350 foot well

B. Works proposed to transport water to place of use. Transported through: 2" pipe.C. Works proposed to apply water to beneficial use. Industrial use -- separating Tantalite and other heavy minerals from pegmatite ore.

Estimated total cost \$ 5,000.00 for
 pump and approx. 400' of pipe to plant.

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

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

I, John C. Scheuer, Land Mgr., Pacer Corp 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 [Signature]Subscribed and sworn to before me this 11 day of May, 1981

Notary Public (or other qualified officer)

PLAT OF
WELL and PIPE LINE EASEMENTS
Scale 1"=20' Feb 23, 1966
A.I. Johnson

BULLION LODGE
MS 2186

Eastment MS 2186
on Line of MS 2136
and line of Lot 1 Block I

Lot 1, Block 1
Harney Addition

COR 39 MS 2106 COR 4 MS 2106

LOT I
Block 10 HARNEY ADDITION
(Lot 1 comprises all of Block 10)
by County Records
Exhibit A - All bearings True.

Begin at point S 22° 20' E 29'
from COR 6 MS 2106 -

KEYSTONE No 2
MS 1029

KEYSTONE MS 1029

ACCESS ROAD TO BULLION MINE
THRU LOT 62 and NORTHWEST LODGE

Scale 1"=20' Feb 23, 1966
A.I. Johnson

PIPELINE + WELL
Scale 1"=20' MAR 27, 1966
A.I. Johnson

RECORDED
INDEXED

23361
STATE OF SOUTH DAKOTA
COUNTY OF PENNINGTON
Filed for record this 2 day of
May, A.D. 1966 at 8 o'clock
and 2 minutes P.M. and recorded in
Book 91 Page 814 of MS 195
Records
Register of Deeds

MAP No 772-2 APP. No 888-2

WATER RIGHT APPLICATION APPROVAL

The Water Management Board hereby approves Water Right Application No. 1774-2

PACER CORPORATION Box 912, Custer
(Applicant) (Post Office Address)
SOUTH DAKOTA 57730 With the following qualifications
(State)

The well approved under this Permit will be located near domestic wells and other irrigation 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 irrigation wells having prior water rights.

Date of first receipt of application May 8, 19 81
Date of return to applicant for correction, amendments or changes required _____, 19 ____
Date of receipt of corrected application _____, 19 ____
Approved May 27, 19 81, Recorded in Book 22 Page 180

WATER RIGHT PERMIT NO. 1774-2

The Water Management Board hereby grants and issues this Water Right Permit No. 1774-2 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 8, 19 81
2. The equivalent of at least one-fifth of the work above specified is ~~to be~~ completed ~~on or before~~ 19
3. The whole of said work is ~~to be~~ completed ~~on or before~~ 19
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is May 27, 19 84
5. The water appropriated shall be used for the purpose of COMMERCIAL, mining and
milling operation
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 .55 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 use 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-seventh (1/7) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied for commercial purposes~~
~~irrigation~~ on or before May 27, 19 84; said water to be used during the following described annual period: continuously

Witness my hand this 29th day of May, 19 81

THE WATER MANAGEMENT BOARD

By: John Hatch
Clerk Engineer Water Rights JOHN HATCH

Certificate of Construction Issued _____, 19 ____

Water License Issued _____, 19 ____

D Well Information

- (1) Drill Hole, Diameter 10 inch, Depth 350 ft.
- (2) Casing, Type steel (wood, concrete, steel, etc), Diameter 10 inch, Thickness 3/4 inch
- (3) Screen, Type torch cut, Diameter 3/8 inches, Length 55 ft.
- (4) Gravel Pack, Thickness 0, Length of gravel pack 0

F 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) fractured formation of schist.

Depth to top of water bearing material 55 ft.

Depth to bottom of water bearing material 178 ft.

Depth to water (ground surface to water level) 55 ft.

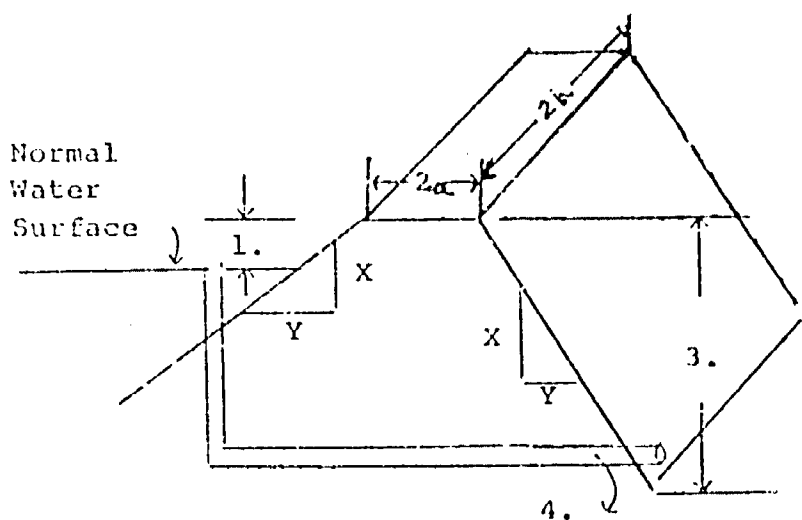
- (2) Distance to nearest existing household or livestock watering well

On same owner's property 0 rds

On property owned by others 25 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 _____

John C. Schuer, Land Mgr., Pacer Corp.

Signature of Applicant

CABLE TOOL DRILLING REPORT
KOSZAR 389.3 FULLA, OKLAHOMA

OPERATOR _____
COUNTY & STATE _____
WELL NO. _____
SEC. _____
TWP. _____
RGE. _____
LEASE NAME _____
SIGNED-FORMER _____
DATE _____
RIS NO. _____

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
3-31-65	8:00	5:00	9
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT PER FT.	CASING RUN	SET AT
IN	LBS	FT.	FT.
DRILLED PER IN	DEPTH (FT.)	CASING	BAILEY PER IN
FORMATION	FROM (ft.)	TO (ft.)	IN X FT.

REMARKS: *don't start mud runs yet to bottom*

DRILLER	SEC. SEC. NO.
John McCall	7
John McCall	7

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-3-65	9:00	2:00	5
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT PER FT.	CASING RUN	SET AT
IN	LBS	FT.	FT.
DRILLED PER IN	DEPTH (FT.)	CASING	BAILEY PER IN
FORMATION	FROM (ft.)	TO (ft.)	IN X FT.

REMARKS: *set up rig ready to drill*

DRILLER	SEC. SEC. NO.
John McCall	5
John McCall	5

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-5-65	9:00	6:00	9
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT PER FT.	CASING RUN	SET AT
IN	LBS	FT.	FT.
DRILLED PER IN	DEPTH (FT.)	CASING	BAILEY PER IN
FORMATION	FROM (ft.)	TO (ft.)	IN X FT.

REMARKS: *don't start mud runs yet*

DRILLER	SEC. SEC. NO.
John McCall	9
John McCall	9

Hubert Wiley Co.

CABLE TOOL DRILLING REPORT

WELD 869-3 (LOCAL OKLAHOMA)

OPERATOR
COUNTY & STATE
WILLIAM BULLIUM CORP.

Drumington A. Dick

SIGNED-FOREMAN

Seaboyer

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-6-65	8:00	6:00	10
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	AT PER FT.	CASING RUN	SET AT
IN	LBS	FT	FT
BAILEYS PER MIN	DEPTH (FT.)	CARRYING BAILEY SIZE	BAILEYS PER MIN
FORMATION	FROM (ft.)	IN X	TO (ft.)
thin sand	34	30	
shist	30		
REMARKS	drive pipe		
DRILLER	WHS	SOC. SEC. NO.	
TOOL DRESSER			
CHIEF			

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-7-65	9:00	6:00	7
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT PER FT.	CASING RUN	SET AT
IN	LBS	FT	FT
BAILEYS PER MIN	DEPTH (FT.)	CARRYING BAILEY SIZE	BAILEYS PER MIN
FORMATION	FROM (ft.)	IN X	TO (ft.)
shist	30	45	
REMARKS	drive pipe to 35 ft.		
DRILLER	WHS	SOC. SEC. NO.	
TOOL DRESSER			
CHIEF			

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-8-65	9:00	3:30	6 1/2
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT PER FT.	CASING RUN	SET AT
IN	LBS	FT	FT
BAILEYS PER MIN	DEPTH (FT.)	CARRYING BAILEY SIZE	BAILEYS PER MIN
FORMATION	FROM "	IN X	TO (ft.)
shist	45	47	
REMARKS	mud drive pipe hole mud in pipe		
DRILLER	WHS	SOC. SEC. NO.	
TOOL DRESSER			
CHIEF			

CABLE TOOL DRILLING REPORT

NO. 1234 865-3 TUBAL OIL COMPANY

OPERATOR *William Rayburn Corp.*
 SIGNATURE *William Rayburn*
 SEC. *J. H. H.*
 TWP. *3 days*
 RGL. *10*
 SIGNED-SUPERVISOR *W. H. H.*

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
7:30	6:00	8 1/2	

4-12-65

DRILLED	W. PER FT.	CASING RUN	SET AT	TOTAL FT.
IN	LBS	FT	IN X	FT
FORMATION	FROM (ft.)	TO (ft.)		

REMARKS: *rig up gear pull 13 3/4*
41 ft.

DRILLER	WHD	SOC SEC NO
<i>W. J. H.</i>	8 1/2	
TOOL DRIVEN	8 1/2	
OTHER	8 1/2	

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
8:00	6:30	10 1/2	

4-13-65

DRILLED	W. PER FT.	CASING RUN	SET AT	TOTAL FT.
IN	LBS	FT	IN X	FT
FORMATION	FROM (ft.)	TO (ft.)		

REMARKS: *run 13 3/4 Q.D. casing*
84.5 ft.
17.0 ft.
41.5 ft. drive to 40 ft.

DRILLER	WHD	SOC SEC NO
<i>W. J. H.</i>	10 1/2	
TOOL DRIVEN	10 1/2	
OTHER	10 1/2	

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
10:00	7:00	9.00	

4-14-65

DRILLED	W. PER FT.	CASING RUN	SET AT	TOTAL FT.
IN	LBS	FT	IN X	FT
FORMATION	FROM (ft.)	TO (ft.)		

REMARKS: *run up drive 13 3/4 to 45.2 ft.*
in bed rock.
41 ft.

DRILLER	WHD	SOC SEC NO
<i>W. J. H.</i>	9	
TOOL DRIVEN	9	
OTHER	9	

CABLE TOOL DRILLING REPORT

Well/Well 369-3 POSS PARTIAL CO
NORTHWEST BAYLUM CRYSTAL OILFIELD

OPERATOR

Northwest Baylun Cryst

COUNTY & STATE

WELL NO

LEASE NAME

SIGNED-FORMERMAN

DATE
3 days

FIRST TOUR
TIME STARTED 8:00
TIME STOPPED 7:00
TOTAL HOURS 11

4-15-65

DRILLED
Casing Size
IN
LBS
FT
FORMATION
FROM (ft.)
TO (ft.)
IN X
FT

WATER
DRILLERS PER MIN
DEPTH (FT.)
CARRYING
BAILER SIZE
BAILERS
PER MIN
FORMATION
FROM (ft.)
TO (ft.)
IN X
FT

SECOND TOUR
TIME STARTED 8:00
TIME STOPPED 4:00
TOTAL HOURS 4

4-16-65

DRILLED
Casing Size
IN
LBS
FT
FORMATION
FROM (ft.)
TO (ft.)
IN X
FT

WATER
DRILLERS PER MIN
DEPTH (FT.)
CARRYING
BAILER SIZE
BAILERS
PER MIN
FORMATION
FROM (ft.)
TO (ft.)
IN X
FT

THIRD TOUR
TIME STARTED 9:00
TIME STOPPED 7:00
TOTAL HOURS 10

4-19-65

DRILLED
Casing Size
IN
LBS
FT
FORMATION
FROM (ft.)
TO (ft.)
IN X
FT

WATER
DRILLERS PER MIN
DEPTH (FT.)
CARRYING
BAILER SIZE
BAILERS
PER MIN
FORMATION
FROM (ft.)
TO (ft.)
IN X
FT

REMARKS: Since 3:15 at 8:00

grad drive to 8:00 at 11:00

REMARKS:

Drilling 4 to 90 and
drilling to 100

REMARKS:

Drilling 4 to 90 and
drilling to 100

DRILLER
A. L. Lammert
WHS
SOC SEC NO
11

DRILLER
A. L. Lammert
WHS
SOC SEC NO
8

DRILLER
A. L. Lammert
WHS
SOC SEC NO
10

CABLE TOOL DRILLING REPORT

NEEDHAM 869-2 POLARIS OILFIELD

OPERATOR				WELL NO.				LEASE NAME				DATE			
COUNTY & STATE				SIGNED-FORMAN				RIG NO.				3 days			
Northwest Drilling Corp Washington State															
FIRST TOUR		TIME STARTED	TIME STOPPED	TOTAL HOURS											
4-20-65		8:00	7:00	11											
DRILLED		CASING SIZE	WT PER FT	CASING RUN	SET AT										
IN		LBS	FT	FT	FT										
FORMATION		FROM (ft)	TO (ft)												
Shale		100	112												
REMARKS: Pulling shale up from 100 to 93 drilling out to 100 hole OK															
DRILLER		TIME	SOC SEC NO												
A. F. Hamner		11													
TOOL DRESSING															
OTHERS															
SECOND TOUR		TIME STARTED	TIME STOPPED	TOTAL HOURS											
4-21-65		8:00	6:00	10											
DRILLED		CASING SIZE	WT PER FT	CASING RUN	SET AT										
IN		LBS	FT	FT	FT										
FORMATION		FROM (ft)	TO (ft)												
Shale		112	135												
REMARKS: Exposed at 135															
DRILLER		TIME	SOC SEC NO												
A. F. Hamner		10													
TOOL DRESSING															
OTHERS															
THIRD TOUR		TIME STARTED	TIME STOPPED	TOTAL HOURS											
4-23-65		1:30	6:30	10											
DRILLED		CASING SIZE	WT PER FT	CASING RUN	SET AT										
IN		LBS	FT	FT	FT										
FORMATION		FROM (ft)	TO (ft)												
WATER															
REMARKS: Pulling up shale from 135 to 128 and drilling out to															
DRILLER		TIME	SOC SEC NO												
A. F. Hamner		10													
TOOL DRESSING															
OTHERS															

CABLE TOOL DRILLING REPORT

WELL NO. 885-3 TULSA, OKLAHOMA

OPERATOR

Wellmont Drilling Corp

WELL NO.

LEASE NAME

DATE

COUNTY & STATE

SEC

TWP

RGE

SIGNED-DREMAN

FIG. NO.

Drilling to 100 ft

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-24-65	9:00	6:00	9:00
DRILLED	135	137	2
CASING SIZE	IN	LBS	FT
DRILLER	WHS	DOC SEC NO	
TOOL DRESSER			
OTHERS			

REMARKS: Drilling hole up in the rock & cement from 135 to 136 drilling bit lost at 135

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-25-65	8:30	6:30	10
DRILLED	137	155	18
CASING SIZE	IN	LBS	FT
DRILLER	WHS	DOC SEC NO	
TOOL DRESSER			
OTHERS			

REMARKS:

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
4-26-65	8	7	11
DRILLED	157	154	3
CASING SIZE	IN	LBS	FT
DRILLER	WHS	DOC SEC NO	
TOOL DRESSER			
OTHERS			

REMARKS: Drilling in cement from 135 to 157 drilling hole up with rock & cement from 157 to 150 drilling bit down 150 to 154 hole lost at 153

555-3 TULSA, OKLAHOMA

THIRD TOUR	TIME STARTED 8:30	TIME STOPPED 6:30	TOTAL HOURS 6:30 10
4-29-65			
CALLED CASINO BUS	FROM 1ST	TO 1ST	TOTAL FT 1574
IN	WT PER FT	CASINO RUN	SET NO
LB'S			
FT			FT
WATER	WATER STOP	CASINO BUS	WATER STOP
FORMATION	FROM 1ST	TO 1ST	TO 1ST
IN X			FT

REMARKS: *155-20145-20145*
add 148

Handwritten: 10-17-68
Soc Sec No. [illegible]
[illegible]
[illegible]

OPERATION

214 76344

PLEASE MAIL

23

Mrs. J. M. Smith

SIGNED-1 : 11. MAR

3/20/44

866-9-3 ROSS MARTIN CO
TULSA, OKLAHOMA

FIRST TOUR		TIME STARTED 8:05	TIME STOPPED 6:15	TOTAL HOURS 10
4-30-65		FROM 1ST	TO 1ST	TOTAL FT
DRIILLED		WT. PER FT.	CORR. MIN.	SIT AT
CORING SIZE	IN	LBS	FT	FT
PALERS PER HR	DEPTH 1ST			
		CANYING		DAILERS PER HR
		BAILER SIZE		
FORMATION	FROM (ft)	IN X	TO (ft)	FT
	148		153	
REMARKS				
DRILLER 4171 TOOL DRESSER 10				
SOG REC NO				
CYRINS				

SECOND TOUR		TIME STARTED	TIME STOPPED	TOTAL HOURS
5-1-65		800	2:00	6
DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.	
CASING SIZE	WT. PER FT.	CASING RUN	BIT AT	
IN.	LBS.	FT.	FT.	
BAILEYS PER MM	DEPTH (FT.)	CARRYING BAILEY SIZE	IN. X	FT.
FORMATION		FROM (FT.)	TO (FT.)	
REMARKS: Drilling cut to 153 tools in crew				
DRILLER J. L. Brown		NO.	SOC. SEC. NO.	
TOOL DRESSER				
OTHERS				

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-3-65	8 ⁰⁰	6 ⁰⁰	10

CASING SIZE	WT PER FT	LOGGING RUN	NITRO	TOTAL FT
DRILLED	IN	LBS	FT	FT
OF LOGS PER IN	DPTH (FT)	(CALCULATING) DAILY LOGS	IN X	FT
FORMATION	FROM (ft)	TO (ft)		

REMARKS:
Plugging hole. Much work
during night shift from
137 to 150 and drilling
ahead from 135 to 137

Drilling
No. 10
No. 10

OTHER:

PRINTED IN THE U S A

CABLE TOOL DRILLING REPORT

NEEDLE 850.2 2388 MARTIN CO
TOLSON, CALIFORNIA

OPERATOR *Northwest Drilling Corp* WELL NO. *3* DATE *Aug 1*
COUNTY & STATE *NEEDLE 850.2 2388 MARTIN CO* SEC. *1* TWP. *10* RGE. *10* SIGNED-OFFICERMAN *3 days* RIG NO.

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-4-65	8:30	6-30	10

DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
5-4-65	FROM 177.1	TO 177.1	TOTAL FT.

WATER	IN	LB5	FT.	FT.
5-4-65	IN	LB5	FT.	FT.

FORMATION	FROM (ft.)	TO (ft.)
5-4-65	FROM (ft.)	TO (ft.)

REMARKS: *Drilling out hole from 137 to 146*

DRILLER *A. L. Hammer* MIN. *10* SOC. SEC. NO.

OTHERS

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-5-65	9:00	7:00	

DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
5-5-65	FROM 177.1	TO 177.1	TOTAL FT.

WATER	IN	LB5	FT.	FT.
5-5-65	IN	LB5	FT.	FT.

FORMATION	FROM (ft.)	TO (ft.)
5-5-65	FROM (ft.)	TO (ft.)

REMARKS: *Drilling out from 146 to 154*

DRILLER *A. L. Hammer* MIN. *5* SOC. SEC. NO.

OTHERS

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-6-65	8:30	5:30	9

DRILLED	FROM (FT.)	TO (FT.)	TOTAL FT.
5-6-65	FROM 177.1	TO 177.1	TOTAL FT.

WATER	IN	LB5	FT.	FT.
5-6-65	IN	LB5	FT.	FT.

FORMATION	FROM (ft.)	TO (ft.)
5-6-65	FROM (ft.)	TO (ft.)

REMARKS: *Drilling out from 154 to 157 hole had down 150 to 157*

DRILLER *A. L. Hammer* MIN. *9* SOC. SEC. NO.

OTHERS

CABLE TOOL DRILLING REPORT

NEEDLE 8693 TONGUE WORTH CO.

OPERATION *Northwest Berthelton Co.*
COUNTY & STATE *SEC*

WELL NO

LEASE NAME

DATE

SIGNED-FOREMAN

RIG NO

FIRST TOUR
TIME STARTED 900
TIME STOPPED 700
TOTAL HOURS 10

5-7-65

DRILLED
Casing Size

IN LBS
WT PER FT
Casing Run
SIT AT
FT
CARRYING
BAILER SIZE
IN X FT
FORMATION FROM (ft) TO (ft)

WATER
BAILERS PER MIN
DEPTH (ft)
CARRYING
BAILER SIZE
IN X FT
FORMATION FROM (ft) TO (ft)

SECOND TOUR
TIME STARTED 800
TIME STOPPED 508
TOTAL HOURS 9

5-8-65

DRILLED
Casing Size

IN LBS
WT PER FT
Casing Run
SIT AT
FT
CARRYING
BAILER SIZE
IN X FT
FORMATION FROM (ft) TO (ft)

WATER
BAILERS PER MIN
DEPTH (ft)
CARRYING
BAILER SIZE
IN X FT
FORMATION FROM (ft) TO (ft)

THIRD TOUR
TIME STARTED 900
TIME STOPPED 700
TOTAL HOURS 10

5-10-65

DRILLED
Casing Size

IN LBS
WT PER FT
Casing Run
SIT AT
FT
CARRYING
BAILER SIZE
IN X FT
FORMATION FROM (ft) TO (ft)

Quartz 158 165

REMARKS: *Stopping hole at 1574 158*

REMARKS: *Building out from 158 to 158*

REMARKS: *Changing down from top back*

pulling up hole with 158 & 150 building from 158 to 150

DRILLER *A. L. Plummer* 10 SOC SEC NO

DRILLER *A. L. Plummer* 9 SOC SEC NO

DRILLER *A. L. Plummer* 10 SOC SEC NO

OTHERS

OTHERS

OTHERS

CABLE TOOL DRILLING REPORT

HEDIN 869.3 10000 WATER CO
HEDIN 869.3 10000 OILFIELD

OPERATOR

Northwest Royalties Corp

WELL NO

LEAD NAME

DATE

3 days

COUNTY & STATE

TWP

RGL

SIGNED-FORMERMAN

MIG NO

FIRST TOUR
TIME STARTED 8 30
TIME STOPPED 6 30
TOTAL HOURS 105-11-65
DRILLED
FROM 1 FT TO 1 FT TOTAL FT

Casing Size WT PER FT Casing Run SET AT

IN LBS FT IN X FT

WATER
BAILERS PER MIN
CARRYING BAILER SIZE
FORMATION FROM (ft) TO (ft)

Shale 163 168

REMARKS: Put in to 4425 165 F116A

DRILLER
1 man #1 Smith
HNS SOC SEC NOTOOL DRESSER
A. L. Hammons 10

OTHERS

SECOND TOUR
TIME STARTED 8 30
TIME STOPPED 6 30
TOTAL HOURS 105-12-65
DRILLED
FROM 1 FT TO 1 FT TOTAL FT

Casing Size WT PER FT Casing Run SET AT

IN LBS FT IN X FT

WATER
BAILERS PER MIN
CARRYING BAILER SIZE
FORMATION FROM (ft) TO (ft)

Shale 168 173

REMARKS: 1 Shale at 1712

Drilling up to 165
Drilling out from
169 to 171DRILLER
A. L. Hammons 10
HNS SOC SEC NOTOOL DRESSER
A. L. Hammons

OTHERS

THIRD TOUR
TIME STARTED 8 50
TIME STOPPED 6 30
TOTAL HOURS 105-13-65
DRILLED
FROM 1 FT TO 1 FT TOTAL FT

Casing Size WT PER FT Casing Run SET AT

IN LBS FT IN X FT

WATER
BAILERS PER MIN
CARRYING BAILER SIZE
FORMATION FROM (ft) TO (ft)

Shale 173 178

REMARKS: Drilling at 1712

171 to 173

DRILLER
A. L. Hammons 10
HNS SOC SEC NOTOOL DRESSER
A. L. Hammons

OTHERS

CABLE TOOL DRILLING REPORT

OPERATOR Northwell Drilling Co WELL NO. 6693 DATE 3 days
 COUNTY & STATE SEC TWP RGL SIGNED-FORMAN RIG NO

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-19-65	8:30		

DRILLED	FROM (FT)	TO (FT)	TOTAL FT
5-19-65			

CASING SIZE	WT PER FT	CASING RUN	SET AT	FT

IN	LBS	FT	FT

BAILEYS PER MIN	DEPTH (FT)	CARRYING BAILEY SIZE	BAILEYS PER MIN

FORMATION	FROM (ft)	TO (ft)	IN X	FT
Shale	178	183		

REMARKS:

DRILLER A. J. P. Lammert SOC SEC NO 8
 TOOL DRISSEN

OTHERS:

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-19-65	9:00	6:00	9

DRILLED	FROM (FT)	TO (FT)	TOTAL FT
5-19-65			

CASING SIZE	WT PER FT	CASING RUN	SET AT	FT

IN	LBS	FT	FT

BAILEYS PER MIN	DEPTH (FT)	CARRYING BAILEY SIZE	BAILEYS PER MIN

FORMATION	FROM (ft)	TO (ft)	IN X	FT
Shale	183	190		

REMARKS:

DRILLER A. J. P. Lammert SOC SEC NO 9
 TOOL DRISSEN

OTHERS:

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-17-65	8:30	6:00	

DRILLED	FROM (FT)	TO (FT)	TOTAL FT
5-17-65			

CASING SIZE	WT PER FT	CASING RUN	SET AT	FT

IN	LBS	FT	FT

BAILEYS PER MIN	DEPTH (FT)	CARRYING BAILEY SIZE	BAILEYS PER MIN

FORMATION	FROM (ft)	TO (ft)	IN X	FT
Quartz & Shale	190	205		

REMARKS:

DRILLER A. J. P. Lammert SOC SEC NO 7
 TOOL DRISSEN

OTHERS:

CABLE TOOL DRILLING REPORT

REC'D 869.3 TULSA, OKLAHOMA

OPERATION

Newman & Sons
COUNTY & STATE

WELL NO.

LEASE NAME

DATE

HOLED-FOREMAN

RIG NO.

3 cats

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
	8:25	6:20	10

5-18-65	FROM (FT.)	TO (FT.)	TOTAL FT.
DRILLED			
CASING SIZE	WT PER FT.	CASING RUN	BIT AT

IN	LB.	FT.	FT.
GAUGES PER MIN	DEPTH (FT.)	CARRYING	GAUGES PER MIN
		BAILER SIZE	
FORMATION	FROM (ft.)	TO (ft.)	IN X FT.

<i>Shale</i>		20 - 225	
--------------	--	----------	--

REMARKS

DILLON	WHS	SOC SEC NO.
<i>A. L. Hammors</i>	10	

OTHERS

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
	8:30	6:30	

5-19-65	FROM (FT.)	TO (FT.)	TOTAL FT.
DRILLED			
CASING SIZE	WT PER FT.	CASING RUN	SET AT

IN	LB.	FT.	FT.
GAUGES PER MIN	DEPTH (FT.)	CARRYING	GAUGES PER MIN
		BAILER SIZE	
FORMATION	FROM (ft.)	TO (ft.)	IN X FT.

<i>Shale</i>		225 - 240	
--------------	--	-----------	--

REMARKS

DILLON	WHS	SOC SEC NO.
<i>A. L. Hammors</i>	10	

OTHERS

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
	8:00	6:00	10

5-20-65	FROM (FT.)	TO (FT.)	TOTAL FT.
DRILLED			
CASING SIZE	WT PER FT.	CASING RUN	BIT AT

IN	LB.	FT.	FT.
GAUGES PER MIN	DEPTH (FT.)	CARRYING	GAUGES PER MIN
		BAILER SIZE	
FORMATION	FROM (ft.)	TO (ft.)	IN X FT.

<i>Shale</i>		240 - 255	
--------------	--	-----------	--

REMARKS

DILLON	WHS	SOC SEC NO.
<i>A. L. Hammors</i>	10	

OTHERS

CABLE TOOL DRILLING REPORT

WELL NO. 8693 TOWN OF OKLAHOMA

OPERATOR *Ward Thwait* WELL NO. *8693* LEASE NAME *3 days*
 COUNTY & STATE *OKLAHOMA* SEC. *10* TWP. *10* RCL. *10* SIGNED-FORMAN *3 days*

FIRST TOUR	TIME STARTED 8:00	TIME STOPPED 9:00	TOTAL HOURS 11
DRILLED 5-21-65	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT. PER FT.	CASING RUN	SET AT
IN	LBS	FT	FT
DRILLER PER HOUR	DEPTH (FT.)	CARRYING FILLER SIZE	BAILEYS PER HOUR
FORMATION	FROM (ft.)	IN X	TO (ft.)
<i>Shale</i>	<i>2:35</i>	<i>2:55</i>	
REMARKS			
DRILLER <i>A. L. Homan</i>	HRS. 11	SOC. SEC. NO.	
TOOL DRESSER			
OTHERS			

SECOND TOUR	TIME STARTED 8:00	TIME STOPPED 9:00	TOTAL HOURS 10
DRILLED 5-22-65	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT. PER FT.	CASING RUN	SET AT
IN	LBS	FT	FT
DRILLER PER HOUR	DEPTH (FT.)	CARRYING FILLER SIZE	BAILEYS PER HOUR
FORMATION	FROM (ft.)	IN X	TO (ft.)
<i>Shale</i>	<i>2:75</i>	<i>2:95</i>	
REMARKS <i>Shale</i>			
DRILLER <i>A. L. Homan</i>	HRS. 10	SOC. SEC. NO.	
TOOL DRESSER			
OTHERS			

THIRD TOUR	TIME STARTED 8:30	TIME STOPPED 6:30	TOTAL HOURS 10
DRILLED 5-25-65	FROM (FT.)	TO (FT.)	TOTAL FT.
CASING SIZE	WT. PER FT.	CASING RUN	SET AT
IN	LBS	FT	FT
DRILLER PER HOUR	DEPTH (FT.)	CARRYING FILLER SIZE	BAILEYS PER HOUR
FORMATION	FROM (ft.)	IN X	TO (ft.)
<i>Shale</i>	<i>2:95</i>	<i>3:15</i>	
REMARKS <i>Redd Apple Rock</i>			
DRILLER <i>A. L. Homan</i>	HRS. 10	SOC. SEC. NO.	
TOOL DRESSER			
OTHERS			

CABLE TOOL DRILLING REPORT

FORM 889.3 TULSA, OKLAHOMA

OPERATOR
 COUNTY & STATE
 SEC.
 TWP.
 RISE

WELL NO.

LEASE NAME

SIGNED - DRILLMAN

DATE

3 10/1/11

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-26-65	8:00	6:00	10

DRILLED	WT PER FT	CASING RUN	SET AT	FT
5-26-65				

FORMATION	FROM (ft)	TO (ft)	IN X	FT
Shale	313	335		

REMARKS:

DRILLER: *Ed H. Harrison* MRS. SOC SEC NO. 10

TOOL DRESSER:

OTHERS:

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
5-27-65	9:00	5:00	4

DRILLED	WT PER FT	CASING RUN	SET AT	FT
5-27-65				

FORMATION	FROM (ft)	TO (ft)	IN X	FT
Shale	335	350		

REMARKS: / Set Walling

DRILLER: *Ed H. Harrison* MRS. SOC SEC NO. 8

TOOL DRESSER:

OTHERS:

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
6-65-65	8:00	4:00	8

DRILLED	WT PER FT	CASING RUN	SET AT	FT
6-65-65				

FORMATION	FROM (ft)	TO (ft)	IN X	FT

REMARKS: Good casing to 165' - 10' casing

DRILLER: *Ed H. Harrison* MRS. SOC SEC NO. 8

TOOL DRESSER:

OTHERS:

CABLE TOOL DRILLING REPORT

NEEDHAM 869.3 TULSA, OKLAHOMA

OPERATOR

Northwest Bengtson Corp

COUNTY & STATE

SEC

TWP

ROE

SIGNED-FOREMAN

WELL NO

LEAF NAME

DATE

RIG NO

FIRST TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
10:00	4:00	6 hrs,	

DRILLED	WT PER FT	CASING RUN	SET AT	TOTAL FT
6-16-65				

CASING SIZE	IN	LBS	FT	FT

FORMATION	FROM (ft.)	TO (ft.)	IN	X	FT

REMARKS: run casing to 274ft.

DRILLER: *John E*

TOOL DRESSER: *John*

OTHERS: *W. J. Pennington*

SECOND TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS
8:00	4:00	8 hrs,	

DRILLED	WT PER FT	CASING RUN	SET AT	TOTAL FT
6-14-65				

CASING SIZE	IN	LBS	FT	FT
10 3/4	32.75	353	350	

FORMATION	FROM (ft.)	TO (ft.)	IN	X	FT

REMARKS: run 60ft casing.

DRILLER: *John E*

TOOL DRESSER: *John*

OTHERS: *John*

THIRD TOUR	TIME STARTED	TIME STOPPED	TOTAL HOURS

DRILLED	WT PER FT	CASING RUN	SET AT	TOTAL FT

CASING SIZE	IN	LBS	FT	FT

FORMATION	FROM (ft.)	TO (ft.)	IN	X	FT

REMARKS:

DRILLER: *John E*

TOOL DRESSER: *John*

OTHERS: *John*

No. 1774-2

Publish first publication, on or before May 14, 1981

NOTICE OF HEARING ON
APPLICATION TO APPROPRIATE WATER

Pierre, South Dakota 57501

May 8, 1981

Notice is hereby given that Pacer Corporation whose post office address is Custer, South Dakota, has made an application in accordance with the provisions of SDCL 46-1-1 thru 46-1-9, 46-1-14; 46-2-9 thru 46-2-11, 46-2-13; 46-5-1 thru 46-5-8; 46-5-10 thru 46-5-22, 46-5-41; 46-6-3, 46-6-3.1, 46-6-5, 46-6-6.1, 46-6-10, 46-6-14 and Board Rules ARSD 52:01:01:01 thru 52:01:01:13, for a permit to appropriate for beneficial use .55 cubic feet of water per second of time from groundwater (one well) through the Pacer Well #1, the point of diversion of which is (XXX) to be located in XXX MS 2106, SW¹

of Section 4, Twp. 2 S, Range 6E. Said water to be used for the purpose of
XX

commercial mining and milling operation

This Application No. 1774-2 will be considered by the Water Management Board at Meeting Room #1, Kneip Building, Church & Illinois Street, Pierre, SD upon the 27th day of May 1981

at 10 A .M. The Board is authorized to make a determination on this application at the hearing. All interested persons may appear and be heard. Any person who may be affected by a Board decision who desires to present evidence or cross-examine witnesses according to SDCL 1-26 may notify the Board in writing prior to the hearing or orally at the hearing.

This hearing is an adversary proceeding. Any person 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 at the hearing. Decisions of the Board may be appealed to the Courts as provided by law.

Any handicapped person wishing to attend this hearing can contact the Water Rights Division, DVHR, Joe Foss Building, Pierre SD, prior to the hearing date for assistance to assure access to the hearing.

WATER MANAGEMENT BOARD

cc: Pacer Corporation
Box 912
Custer, SD 57730

XX
BURTON T. JONES
Water Rights Specialist

VHR-806A-7/79 Notice of Intent to Appropriate Water
GROUNDWATER

DATE MICROFILMED
CHERRY OPERATOR

Form 8 - Proof of Publication - Notice of
Intent to Appropriate Water

No. _____

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
County _____)

I, T. Mary K. Carness hereby
certify that the annexed printed copy of Notice of Intent to Appropriate
Water was taken from the Rapid City Journal

A newspaper which during the whole time of publication of said notice
herein after stated, has been and is printed and published in the _____

City of Rapid City

County of Pennington and State of South Dakota;
that the said notice was published in said newspaper on the following
two dates:

May 13, 1981

May 20, 1981

T. Mary K. Carness
(Signature)

Bookkeeper, Rapid City Journal
(Title)

May 20, 1981
(Date Signed)

May 13, 20 L349
NOTICE OF HEARING
ON APPLICATION TO
APPROPRIATE WATER
Pierre, South Dakota 57501
May 8, 1981
Notice is hereby given that
Pacer Corporation whose post office address is Custer, South Dakota, has made an application in accordance with the provisions of SDCL 46-1-1 thru 46-1-14; 46-2-9 thru 46-2-11; 46-2-13; 46-3-1 thru 46-3-9; 46-3-10 thru 46-3-22; 46-5-4; 46-5-7; 46-6-2-1; 46-6-5; 46-6-6-1; 46-6-10; 46-6-14 and Board Rules ARSD 52:01:01:01 thru 52:01:01:13, for a permit to appropriate for beneficial use .55 cubic feet of water per second of time from groundwater (one well) through the Pack Well No. 1, the point of diversion of which is to be located in MS 2106, SW 1/4 of Section 4, Twp. 25, Range 6E. Said water is to be used for the purpose of commercial mining and milling operation.
This Application No. 17742 will be considered by the Water Management Board at Meeting Room No. 1, Knelp Building, Church & Illinois Street, Pierre, S.D., upon the 27th day of May 1981 at 10 A.M. The Board is authorized to make a determination on this application at the hearing. All interested persons may appear and be heard. Any person who may be affected by a Board decision who desires to present evidence or cross examine witnesses according to SDCL 1-26 may notify the Board in writing prior to the hearing or orally at the hearing.
This hearing is an adversary proceeding. Any person 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 at the hearing. Decisions of the Board may be appealed to the Courts as provided by law.
Any handicapped person wishing to attend this hearing can contact the Water Rights Division, DWIR, Joe Foss Building, Pierre, S.D., prior to the hearing date for assistance to assure access to the hearing.
WATER MANAGEMENT BOARD
BURTON F. JONES
Water Rights Specialist

Cost of Printing: Pen 5 6/16 inch legal advertising in the Rapid City Journal on May 13 & May 20 @ \$3.33 per inch = \$35.20



RECEIPT

WATER RIGHTS COMMISSION

State of South Dakota

No 4 8212

PIERRE,

May 8

1981

RECEIVED OF Pacer Corporation, Box 912, Custer, SD 57730

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

Fee for Application for Permit to Appropriate Water No. <u>1774-2</u> (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

By

(Signature)
Chief Engineer, Executive Officer

JUNE 1981 / 100

Pacer Corporation

BOX 912 - CUSTER, SOUTH DAKOTA 57730

Telephone 605 673-4419 / 605 673 4523

May 7, 1981

Water Management Board - Water Rights
Department of Water and Natural Resources
Joe Foss Building
Pierre, South Dakota 57501

RE: Renewal of Water Permit No. 888-2 and 974-2

Dear Sirs:

On January 28, 1981 I appeared before the Board of Water Management on behalf of Pacer Corporation to protest the cancellation of Water Permit Nos. 888-2 and 974-2. The permits were then in the name of Lawrence Judson, Rodney Alexander and James Halley of Keystone, South Dakota. Our interest was that we were negotiating the purchase of the property to which the permits applied with the idea of re-activating the old mill site.

The water made available through these permits is essential to our planned operation. The Board explained to me at the January 28th hearing that South Dakota Water Laws provide that lack of beneficial use of appropriated water for a period of three years is cause for cancellation and that no provision exists allowing for an extension of the three year period. It was therefore determined that the permits would have to be cancelled and that Pacer Corporation would have to apply for their renewal after purchase of the old mill site was completed. The general opinion of the Board at that time seemed to be that there would be no real problems in getting the permits renewed.

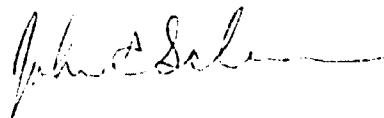
Since the January 28th meeting Pacer Corporation has acquired the property and we have started on the renovation of the mill. I have enclosed with this letter the applications for the renewal of Water Permit Nos. 888-2 and 974-2 along with copies of the drilling reports, copies of the old permits, and a check in the amount of \$300.00 to cover the filing fees for both permits based on an estimated maximum use of 100 acre feet/year for each well.

I would also like to take this opportunity to give you a brief explanation of our proposed operation. The plant is designed for the gravity separation of Tantalite and other heavy minerals found in pegmatite ore bodies. This will be accomplished primarily by wet screening, hydraulic classification and separation on concentration tables. The water used in the process is then diverted to settling ponds and then pumped into a 20,000 gallon holding tank for re-use. No chemical or other agents that might contaminate the water will be used.

As I stated at the January 28th hearing we are currently using a limited amount of water (1,000 gallons/day) from the well covered by permit no. 974-2 to run a small testing plant. Although the well and pump were in servicable condition we did have to replace approximately 250 feet of 2 inch pipe from the well to the mill building at a cost of \$1,000.00. The well covered by permit no. 888-2 is not currently in use but may be required in the future. The estimated cost of installing a pump and piping the water to the mill is \$5,000.00.

Your prompt attention to this matter would be appreciated as we are hoping to start production at the earliest possible date. If you have any questions or need any additional information please contact me at the above address or call 675-4419.

Sincerely,
PACER CORPORATION



John C. Scheuer
Land Manager

JCS:jg
Enclosures

Permit No. ¹⁵ 1774-2

Water District: Upper Cheyenne River

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

I have this day made a thorough examination of the water use system constructed by Pacer corporation of Box 872, Custer, SD 57730 holder of Permit No. 1774-2, bearing the priority of May 8, 1981 authorizing the diversion of 0.55 cu.ft. per second the waters of groundwater for industrial purposes, in Pennington County.

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

A. Works used to divert the water:

A Century submersible pump, 25 gallons per minute capacity.

A submersible motor, 1-1/2 horse power.

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

350 feet of 1-1/4 inch rubber hose.

C. Works used to apply water to beneficial use:

Water is used as a backup source in milling and mining process.

The system is in the following conditions: Good. The point of diversion is located: Approximately 160 feet east, 240 feet north from the Southwest corner of Section 4, T2S-R6E (SW1/4 SW1/4).

The works are capable of diverting and conveying to the place of use 0.06 cu.ft. per second of groundwater which is used for industrial purposes.

The license should be issued for 0.06 cfs. Application permit qualifications have been complied with X Yes No

Exceptions to compliance are: None

Date: July 10, 1991

M. Rassool Ahadi

M. RASSOOL AHADI

Natural Resources Engineer III

DENR, Water Rights Division

LICENSE FOR PERMIT NUMBER 1774-2

Date: 7/10/91

1. Legal location of well: SW1/4 Section 4, T2S-R6E
2. Well Information: Well Drilling Firm Holwell Drilling Co.
Completion Report? Yes X No. of Wells 1 Depth(s) 350 feet
Casing a) diameter 10 inches Screen a) type steel
b) length 295 feet b) length 55 feet
c) type steel Static Water Level 55 feet
Pump a) make Century (sub) Motor a) make Submersible
b) model b) model no.
c) size c) horsepower rating 1-1/2
d) capacity 25 GPM d) serial no.
e) turbine pump - no. of stages
f) operating PSI
3. Distribution lines or canals
a) size 1-1/4 inches
b) type Rubber
c) length 350 feet

Indicate any other permit(s) which are associated with project

Permit No. 1775-2

Yes	No	Check Items
	<u>NA</u>	1. Soil and water permit lands agree with lands being irrigated and lands listed on permit?
<u>X</u>		2. Special qualifications to permit being abided by?
<u>X</u>		3. All structures, wells and lands on map?
	<u>NA</u>	4. Irrigation Questionnaires checked to determine if permit owner started irrigation by end of construction period?
<u>X</u>		5. Is chemigation used?
		6. If yes, does equipment comply with chemigation rules?

REMARKS: The well is used as a backup water source. The main source of water for the operation is a mine shaft. A pump is installed approximately 500 feet below the top of the shaft. The capacity of the pump is 600 GPM with a Hi-Thrust 60 horse power motor. A tunnel intercepts the shaft at 420 foot level. The pump in the shaft is located about 80 feet below the tunnel. There is no permit for the shaft. Application forms were sent to Pacer Corporation to cover the water use from the shaft. If the well water and the shaft water are the same, the new application and this water permit may be incorporated into one, if not the new application could be licensed if approved.

Ind a any other permit(s) which are associated with project

Permit No. 1775-1

Yes No Check Items

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

X 2. Special qualifications to permit being abided by?

X 3. All structures, wells and lands on map?

NA 4. Irrigation Questionnaires checked to determine if
permit owner started irrigation by end of construction period?

X 5. Is chemigation used?

6. If yes, does equipment comply with chemigation rules?

REMARKS: The well is used as a backup water source. The main source of water for the operation is a mine shaft. A pump is installed approximately 500 feet below the top of the shaft. The capacity of the pump is 600 GPM with a Hi-Thrust 60 horse power motor. A tunnel intercepts the shaft at 420 foot level. The pump in the shaft is located about 80 feet below the tunnel. There is no permit for the shaft. Application forms were sent to Pacer Corporation to cover the water use from the shaft. If the well water and the shaft water are the same, the new application and this water permit may be incorporated into one, if not the new application could be licensed if approved.

South Dakota

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 20, 1991

Steven Cullum
Box 872
Custer, SD 57730

Dear Mr. Cullum:

Enclosed you will find two copies of application forms you need to file for a Water Permit to use water from the mine shaft. As I mentioned in our telephone conversation today, there is no water permit for the mine shaft in our files.

On the application forms, I left the name of applicant blank so that you can decide what name you want to put on the application. Please indicate on the application how much water you will be claiming, and also the period of time when water is used. Please refer to the enclosed instruction sheet and determine the filing fee. The application forms must be signed in the presence of a notary.

If you have any questions, please feel free to contact me.

Sincerely,

M. Rassool Ahadi

M. Rassool Ahadi
Natural Resources Engineer
Water Rights Division
(605) 773-3352

enclosure

WATER PERMIT APPLICATION No. 2198-2

MINERAL TECHNOLOGY CORPORATION

NOVEMBER 21, 1991

Water Permit Application No. 2198-2 proposes to appropriate 240 acre-feet annually at a maximum diversion rate of 0.33 cubic feet of water per second. The proposed source of water for this application is the Holy Terror Mine Shaft which is located in the SE 1/4 SE 1/4 Sec. 5, T2S-R6E. The water is used for industrial purposes by the Mineral Technology Corporation.

AQUIFER: Crystalline Rock (CRSL)

GEOLOGY AND AQUIFER CHARACTERISTICS:

A July 1991, staff inspection of Pacer Corporation Water Permit Numbers 1774-2 and 1775-2, identified development of a diversion point which was not authorized by a permit. This application proposes authorization of diversions made from the Holy Terror Mine Shaft.

The depth of the mine shaft was not provided with this application, however, J.P. Connolly, (1929) reports that "The Holy Terror Shaft in June, 1901, had reached a depth of 1,100 feet and by October that year reached a depth of 1,200 feet." The mine is located completely within precambrian aged rock, which in this area is fairly complex geologically. There are at least three types of rock present: ancient sediments now metamorphosed into slates, phyllites, quartzites and

mica schist; dioritic intrusive rocks; and granite pegmatites which have been intruded into all of the earlier rocks. The rock types present are all crystalline and make up what can be considered a single hydrologic unit although, faults, intrusives, the orientation of the beds, and lithologic changes within the beds may all serve as local aquitards. The aquifer is under unconfined conditions with the water table approximately the level of Battle Creek in this area. Water is derived from voids in the rock which occur either as small intergranular openings (primary porosity); or bedding planes, joints, and fractures (secondary porosity). The distribution, orientation and interconnection of these zones of secondary porosity and permeability are unpredictable, and the aquifer characteristics are site specific and highly variable. The total porosity of the crystalline rock is estimated to be 3%, and the effective porosity, generally in the form of secondary porosity, is estimated to be 1% (Rahn, 1979). Recharge to the crystalline rock in this area occurs through direct infiltration of precipitation via fractures and fissures, and possibly through streamflow from Battle Creek. There are no recharge estimates available for the crystalline rock in this area.

The volume of ground water stored in the crystalline rock in this area is difficult to assess, and the amount of water available to a well is highly variable. The best information available regarding the water availability at this mine shaft is in the form of historic records. The Holy Terror mine is said to have been forced to close because of "the inability of the operators to pump out the water, the flow of which had increased steadily with depth, and because of litigation."

(Allsman, 1940). Another account reports "By this time [1903] water had become very troublesome, pumping had become an important factor, the general operating expenses were high and this combined with cumulative effects of the judgements against the company, necessitated the cessation of activity." (Connolly, 1929)

REVIEW OF EXISTING WATER RIGHTS:

There are several Water Rights/Permits within approximately 2 miles of the diversion point proposed by this application. They are:

Permit No.	Holder	Diversion Rate	Source
1135-2	J.Kinyon	0.03 cfs	60' CRSL
1595-2	B & B Trailer Park	0.02 cfs	54' CRSL
1774-2	Pacer Corp.	0.55 cfs	350' CRSL
1775-2	Pacer Corp.	0.55 cfs	325' CRSL
1811-2	G.Woldt	0.15 cfs	(3 wells) 50', 100', 90' CRSL
1849-2	Town of Keystone	0.67 cfs	(2 wells) 300' ea. CRSL & ALQ

CONCLUSIONS:

1. This application proposes authorization of a developed diversion point at the Holly Terror Mine Shaft which penetrates the crystalline rock aquifer.

2. The crystalline rock is a viable aquifer in this area and there is a reasonable probability that unappropriated water is available for this appropriation.
3. The crystalline rock aquifer is under unconfined conditions in this area and it is unlikely that pumping authorized by this application would adversely affect adequate wells in this area.

KEN BUHLER

Natural Resources Engineer

approved by:

JAMES A. GOODMAN, P.E.

Natural Resources Engineer

REFERENCES:

Allsman, P.T., 1940, Reconnaissance of Gold-Mining Districts in the Black Hills, S.Dak., United States Department of the Interior, Bureau of Mines, Bulletin 427, US Government Printing Office, Washington, D.C

Connolly, J.P., 1929, Gold Deposits of the Keystone District, The
Black Hills Engineer, Volume 7, No.1, 1929

Rahn, P.H., 1979, Ground Water Resources of Western South Dakota,
SDSM&T Project #2533, South Dakota School of Mines and
Technology, Rapid City, SD

Permit No. 1774-2
Upper Cheyenne River - Water District

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

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, October 29, 1997, made a thorough examination of the water use system constructed by Mineral Technology Corporation of Custer holder of Permit No. 1774-2, bearing the priority of May 8, 1981 authorizing the diversion of 0.55 cu. ft. per second of the waters of groundwater for commercial purposes, in Pennington County.

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

A. Works used to divert the water:

Water is diverted from a well 350 feet deep, cased with 10 3/4-inch diameter steel casing, located 170 feet north and 60 feet east of the south west corner of Sec. 4, T2S-R6E. Water is diverted with a 3 hersepower submersible pump capable of producing 40 gallons per minute.

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

Water is transported to use through 350 feet of 1 1/4-inch diameter polyethylene pipe.

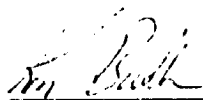
C. Works used to apply water to beneficial use:

Water is used for the proprietary industrial process.

The system is in the following condition good. The point of diversion is located 170 feet north and 60 feet east of the south west corner of Sec. 4, T2S-R6E. The works are capable of diverting and conveying to the place of use 0.09 cu. ft. per second of water, which is to be used for commercial (mining and milling operation) purposes. The license should be issued for 0.09 cfs.

Applicable permit qualifications have been complied with: yes

Exceptions to compliance are: na



Ken Buhler
Natural Resources Engineer
DENR, Water Rights Program

2/12/98

Date

REPORT ON INSPECTION OF PERMIT NO. 1774-2

Other permit(s) associated with the project: 1775-2 and 2198-2

NAME & ADDRESS OF INSPECTION CONTACT Steve Saunders

Box 872

Custer, SD 57730

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: Vice President,

NAME & ADDRESS OF PERMIT HOLDER: Mineral Technology Corporaion

Box 872

Custer, SD 57730

DATE OF INSPECTION: October 29, 1997

**DIVERSION POINT LEGAL LOCATION: 170 feet north and 60 feet east of the south west corner
of Sec. 4, T2S-R6W (SW¼ SW¼ SW¼ SW¼ Sec. 4, T2S-
R6E)**

WELL INFORMATION:

- 1) Well Drilling Firm: Holwell Drilling Co.
- 2) No. of Wells one
- 3) Depth(s) 350 feet
- 4) Well log is available yes

Casing:

- 1) Diameter 10 ¾ inches
- 2) Length 350 feet
- 3) Type steel

Screen:

- 1) Type perforated casing and open hole
- 2) Length 10' (55-65')+ 45' (135-180') feet
- 3) Static water level 55 feet

Pump:

- 1) Make Goulds Submersible
- 2) Capacity 40 GPM

Motor:

- 1) Make Franklin
- 2) Horsepower rating 3 hp

DISTRIBUTION LINES OR CANALS:

- 1) Type polyethylene
- 2) Size 1 1/4 inches
- 3) Length 350 feet

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Special qualifications to permit being abided by yes
- 2) All structures, wells and lands on map yes
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period NA



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

March 17, 1998

1774-2

Steve Saunders, Vice President
Mineral Technology Corporation
Box 872
Custer SD 57730

Dear Mr. Saunders:

The investigation of the water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 1774-2, was completed by Ken Buhler on October 29, 1997. The final water right document, the Water License, can now be issued.

Statutes require that we charge a \$50.00 fee for the investigation and issuance of the Water License. Upon receipt of the \$50.00 fee, we will begin processing the Water License.

Also, enclosed is a *Notice of Transfer of Ownership* form. This form needs to be completed, signed by the current owner, notarized and returned with a \$2.50 filing fee.

Please submit \$52.50 to: Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

Sincerely,

Karen Schlaak
Water Rights Program
(605) 773-3352

NOTE: On check or money order, please specify your permit number. This will insure proper handling of the fee.

NOTICE OF TRANSFER OF OWNERSHIP



To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 1774-2

Date: Mar 26, 1998

I/We request that Water Permit No. 1774-2

formerly owned by: Pacer Corporation

be transferred to: (name & address) Mineral Technology Corporation

PO Box 872 Custer, SD 57730

Telephone No. 605 673-3178

Title to the following described land(s)/property has been transferred as described above:

one well - SW 1/4 SW 1/4 Section 4-T2S-R6W for industrial use

I/We understand that the validity of Water Permit No. 1774-2 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is attached to cover the filing fees as required under SDCL 46-2-13.

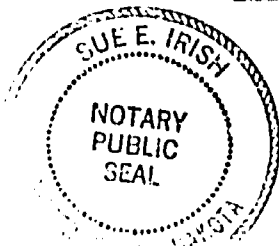
STATE OF SOUTH DAKOTA)

County of Custer)

I/~~Us~~ Robert L Cullum being first duly sworn on my oath depose and say that my relation to the above described undertaking is that of Owner, that I have read the above foregoing statement, and that I know of my own personal knowledge that the information herein stated is true.

(Signed) Robert L Cullum, President

Subscribed and sworn to before me this 26th day of March, 1998.



(Notary Public) Sue E Irish

My commission expires 3/24/06

NOTE: Water permits may be cancelled for nonconstruction within the five year construction period. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

No 415709

Water Rights Program

South Dakota Department of Environment and Natural Resources

Pierre, _____ March 27, 19 98

RECEIVED OF Mineral Technology Corp., P.O. Box 872, Custer, SD 57730
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct
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. _____

Fee for Filing Transfer Form Water Permit No. 1774-2

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

2 50

By _____
Chief Engineer

John Hatch

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

Pierre, _____

March 27, 19 98

RECEIVED OF Mineral Technology Corp., P.O. Box 872, Custer, SD 57730
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct
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. 1774-2

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

50 00

50 00

John Hatcher (D)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3161

APR 23 1998

1774-2

Steve Saunders, Vice President
Mineral Technology Corporation
P.O. Box 872
Custer, SD 57730

Dear Mr. Saunders:

Enclosed is Water License No. 1774-2. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 415709 in the amount of \$2.50 and Receipt No. 415710 in the amount of \$50.00 which you paid for the transfer, investigation and issuance of the Water License.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 1774-2, 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 Program
(605) 773-3352

ks
enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1774-2

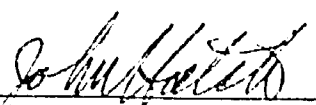
(1) Pacer Corporation, Custer SD made Application No. 1774-2, May 8, 1981 for a water permit to divert 0.55 cubic feet of water per second from groundwater (one well), Pennington County, South Dakota for commercial purposes. Permit No. 1774-2, with a priority date of May 8, 1981 was approved May 27, 1981 and issued to the applicant for diversion of water with construction of the described water supply system completed and the application to beneficial use of said water on or before May 27, 1984.

On March 27, 1998, Water Permit No. 1774-2 was transferred to Mineral Technology Corporation.

(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 0.09 cubic feet of water per second for beneficial use. The location of the diversion point is 170 feet north and 60 feet east of the southwest corner of Section 4-T2S-R6E (SW 1/4 SW 1/4).

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use in a mining and milling operation.

(4) Pursuant to South Dakota Water Law 45-5-30.1 Minneral Technology Corporation, PO Box 872, Custer SD 57730 the holder and/or owner of Water Permit No. 1774-2 is issued a license to appropriate water, the right to use 0.09 cubic feet of water per second from groundwater (one well) with a priority date of May 8, 1981 from the location specified in (2) of this license for the purpose of commercial use. This license is subject to any limitations or qualifications listed in Water Permit No. 1774-2 and subject to South Dakota State Law.

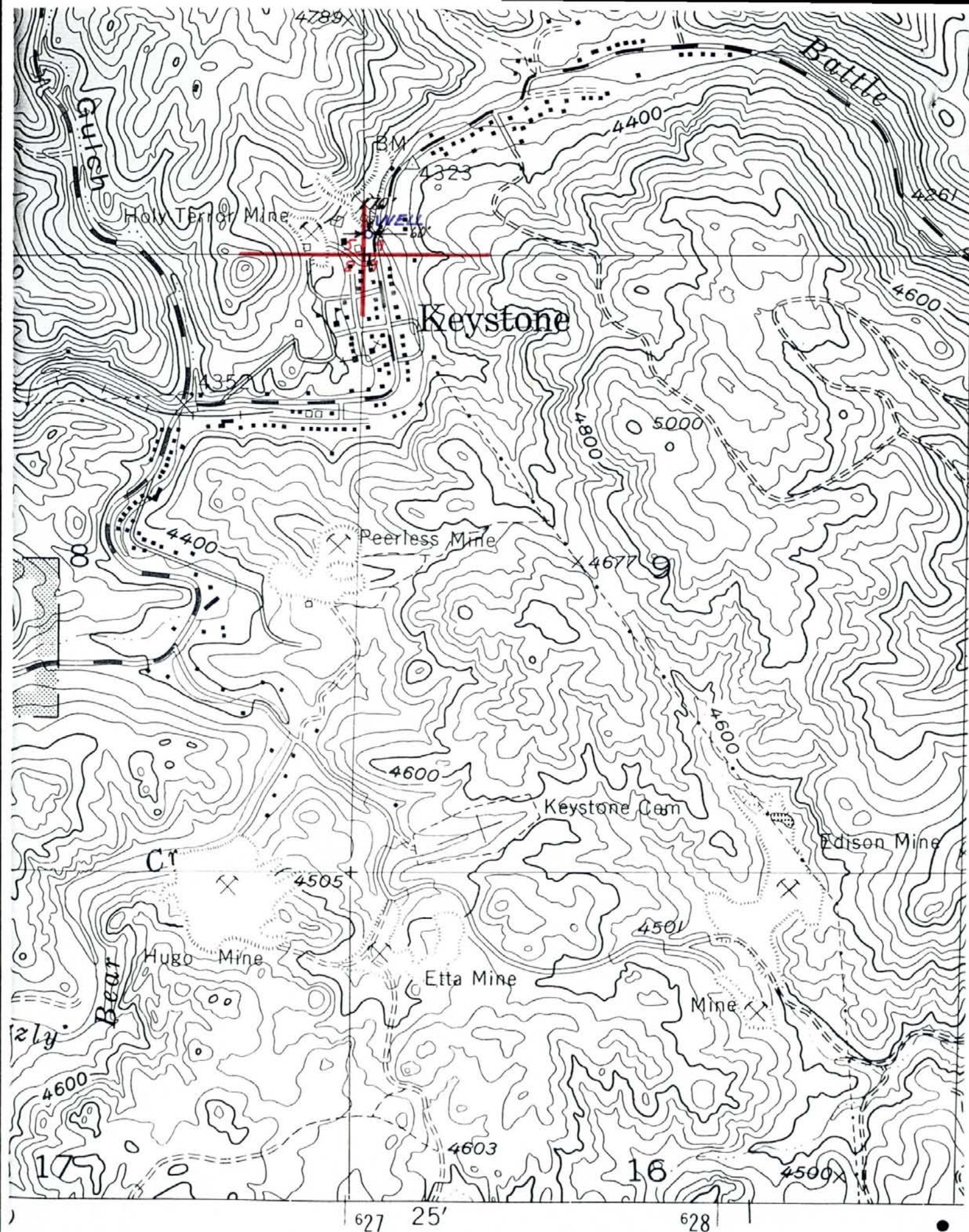


JOHN HATCH, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

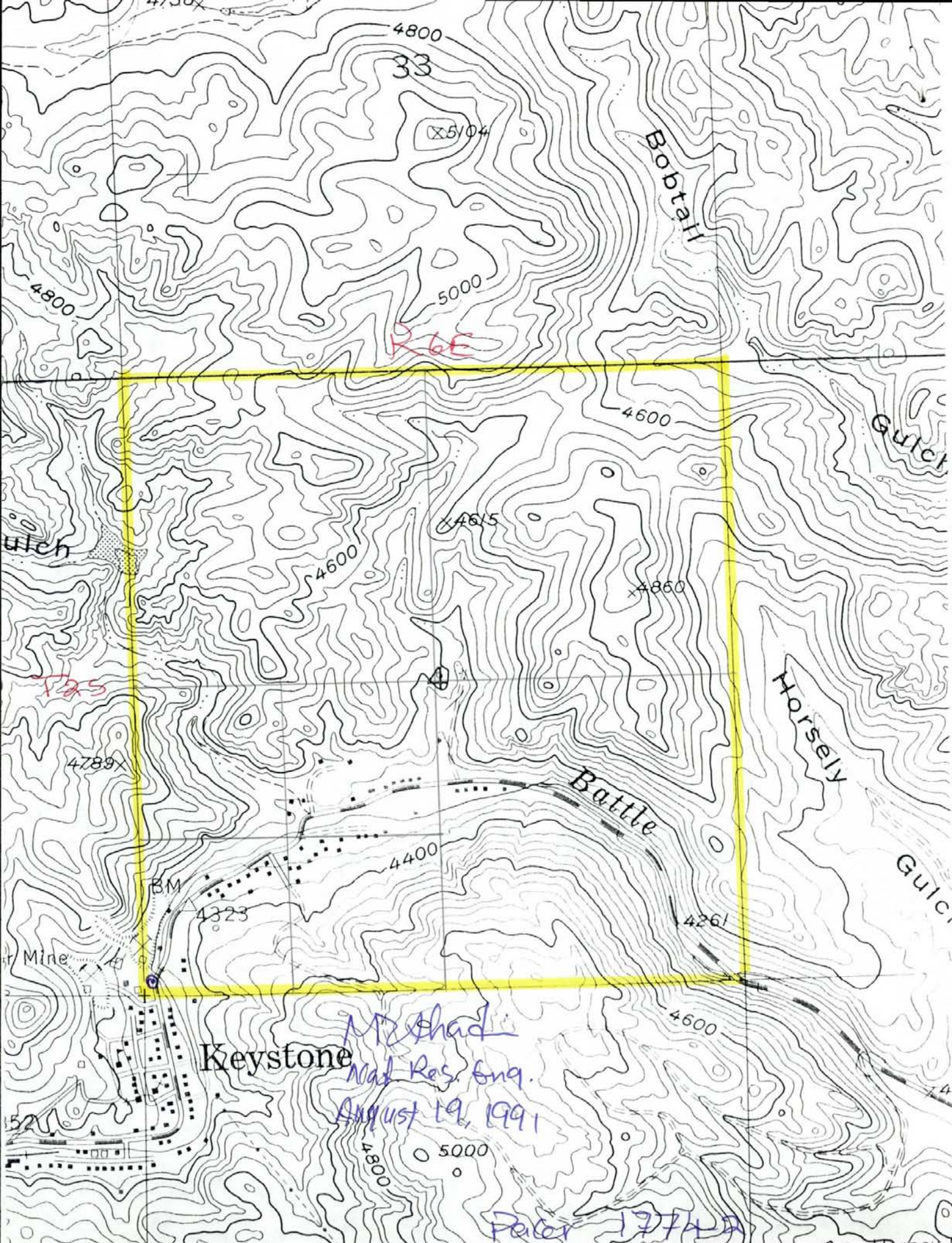
APR 23 1998

date





1774-2



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R6E

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Gulch

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Horsely

Gulch

Battle

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BM

4323

Mine

Keystone

MD Had
Nat Res. Gng.
August 19, 1991

Page 177A

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