

CHANGE OF DIVERSION

1. Considered: April 14, 19 83 Water Right No. 1830-2A
2. Name of Applicant City of Box Elder
3. Post Office Address P O B 27, Box Elder 57719
4. Amount of Water Claimed 1.11 maximum acre feet
5. Source of Water Supply 4200 ± Pahasapa Madison Limestone Formation
6. Water to be used for MUN acres to be irrigated
South edge of City Limits
7. County Pennington about miles of
8. PROOF OF PUBLICATION: Received 1st 5-5-83 Not Received
- APPLICATION: Approved Subject to
- Not Approved Action Deferred

PRIORITY Dated Received 2/22/83 Application complete-yes xx no FEE n/a

Remarks Change of Diversion point on 1830-2

Corrected Application received Period of Annual Use 1/1 to 12/31

WATER QUALITY Received yes no APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as application-yes no Remarks

Disapproved Returned

*					
29					

Diversion Point
NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 29-2N 9E

Land to be irrigated

WELL LOG Driller Licensed - yes no

Depth 4200 ft. +-

Remarks All information on 2A regarding construction of the well will submit
log when drilled

MAP Map No. 1830-2A Map located in Water Right xx Map file _____
 Type of Map Drawn Prepared by Engg. David Kallemeyn
 Registered land surveyor

+++++

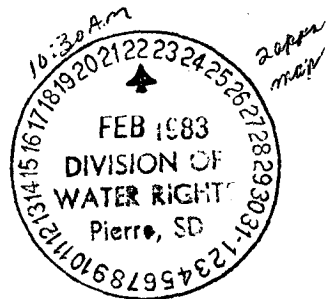
REVIEWED This Application was received within 30 days of the date received, accepted as complete, Number assigned and written up for advertisement before the Board on:
3/1/83

Harry 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. 1830-2A
Map No. 1830-2A Water Division No. 2 UPPER CHEYENNE District
Above for Office Use 10120110

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

Check one of the following:

New ☒ Vested Right _____ Future Use _____

Change in Diversion ☒ Additional Diversion _____ See Permit # 1830-2

Change in Acreage _____ Additional Acreage _____

1. Name of Applicant City of Box Elder Phone No. 605/923-1401
Post Office Address P.O. Box 27 Box Elder State South Dakota 57719
(Street, RR, or Box) (Town) (Zip Code)
If a corporation show date and place of incorporation _____

2. Method of accomplishing work (contract, employment of others, or by direct labor) Contract

3. Name of diversion work Box Elder Well #4

4. Amount of water claimed (cubic feet per second) 1.115 cfs

5. Source of water supply Deep Well into Pahasapa (Madison) Limestone

6. Location of point of diversion 1417.88 feet N06°45'12"E from the West Quarter Corner of
Section 29, T2N, R9E, BHM (BB)

County Pennington

7. Annual period or periods during which water is to be used entire year

8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) Municipal

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 3 1/2 years. Additional time required
to complete application of water to the proposed beneficial use 0 4 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.

Deep Well into Pahasapa (Madison) Limestone complete with submersible turbine pump, chlorination and fluoridation equipment.

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

Existing Municipal water system

C. Works proposed to apply water to beneficial use.

Existing Municipal water system

Estimated Total Cost \$ 300,000.00

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)
County of Pennington)ss.

I, John L. Hughley, Mayor, City of Box Elder, 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 John L. Hughley Mayor
Subscribed and sworn to before me this 18th day of February, 1983
Dinah Beffert
Notary Public (or other qualified officer)

WATER RIGHT APPLICATION APPROVAL

The Board of Water Management hereby approves Water Right Application No. 1830-2A

City of Box Elder

(Applicant)

Box 27, Box Elder

(Post Office Address)

South Dakota 57719

(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 wells having prior water rights.

Date of first receipt of application February 22, 1983

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

Date of receipt of corrected application —, 19—

Approved June 9, 1983, Recorded in Book — Page —

WATER RIGHT PERMIT NO. 1830-2A

The Board of Water Management hereby grants and issues this Water Right Permit No. 1830-2A 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 October 28, 1982
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before December 9, 1985
3. The whole of said work is to be completed on or before June 9, 1988
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is June 9, 1992
5. The water appropriated shall be used for the purpose of City water supply

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 1.11 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~~

MUNICIPAL PURPOSES
for ~~irrigation~~ on or before June 9, 1992; said water to be used during the following described annual period: January 1 - December 31

Witness my hand this 17th day of June, 1983

THE BOARD OF WATER MANAGEMENT

By: John Hatch
Chief Engineer, Water Rights

Certificate of Construction Issued —, 19—

Water License Issued —, 19—

D Well Information

6-3/4"

(1) Drill Hole, Diameter 13 1/2", 9-7/8" & 10-3/4", Depth Est. 1220', 2960' & 300' respectively

(2) Casing, Type steel, Diameter 7-5/8", Thickness Est. 2960'
(wood, concrete, steel, etc.)

(3) Screen, Type *, Diameter , Length
*Plan to use open hole completion into Pahasapa (Madison) Limestone.

(4) Gravel Pack, Thickness , 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 Est. 4200'

Depth to bottom of water bearing material

Depth to water (ground surface to water level) Est. 200'

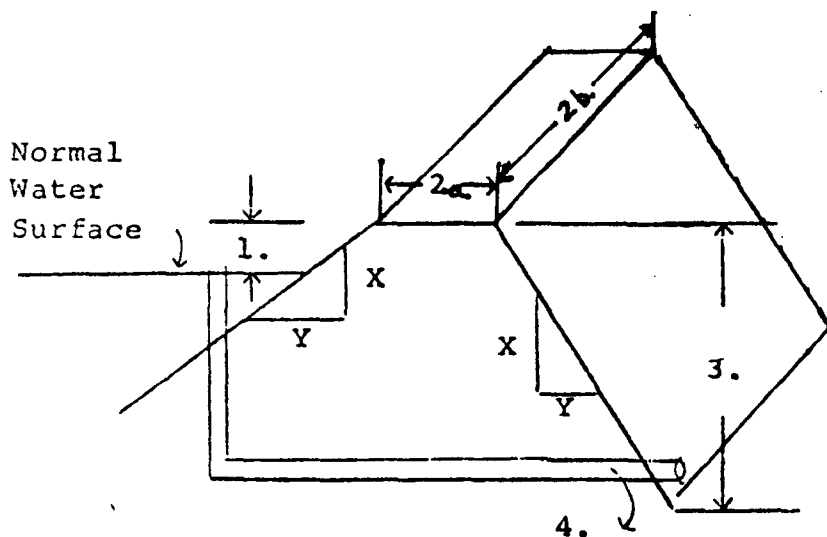
(2) Distance to nearest existing household or livestock watering well.

On same owner's property rds.

On property owned by others 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

OTHER

It is anticipated that the 10-3/4" O.D. casing will be set and grouted in the first 1220 feet and the 7-5/8" O.D. casing will be set and grouted from 1220' below ground surface to slightly into the Pahasapa (Madison) Limestone. Upon the recommendation of geologists, it is planned to drill a 6-3/4" diameter open hole into the Pahasapa (Madison) Limestone.

John A. Dugan
Signature of Applicant

State of South Dakota
Water License No. 1830-2A

(1) City of Box Elder
of Box 27, Box Elder, South Dakota
made Application No. 1830-2A, February 22, 1983 for a water permit to appropriate
1.11 cubic feet per second of water from groundwater-one well (change in diversion from Permit
Pennington County, South Dakota for municipal No. 1830-2) purposes.
Permit No. 1830-2A, with a priority date of October 28, 1982
was approved June 9, 1983 and issued to applicant(s) for diversion of water with construction of the described
water supply system ~~to be completed on or before~~ ~~and for~~ the application to beneficial use of said
water ~~on or before~~ completed.

The applicable portions of Water Permit No. 1830-2 have been incorporated into this Water License No. 1830-2A. An October 28, 1982 priority date is retained.

and

(2) It is certified that the application 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 1.11 cubic feet per second of water
for beneficial use. The location of the diversion point(s) is 1420 ft N06° 45'E from the W½ Corner Section 29,
T2N, R9E

and

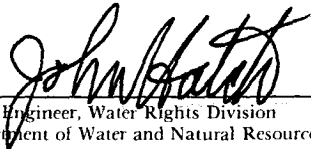
(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to the following extent, water is diverted through the City's distribution system.

(4) Pursuant to §46-5-30.1 City of Box Elder

of Box 27, Box Elder, South Dakota 57719

the holder(s) and/or owner(s) of Water Permit No. 1830-2A is issued a license to appropriate water, the right to use 1.11 cubic feet per second of water from groundwater-one well with a priority date of October 28, 1982 from the location specified in (2) of this license. The water to be conducted to and upon lands specified in (3) of this license for the purpose of municipal use

This license is subject to any limitations or qualifications listed in Water Permit No. 1830-2A and subject to South Dakota State Law.


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

JOHN HATCH

DEC 20 1985

Permit No. 1830-2AUpper Cheyenne Water District**Report Of Examination Of Works And/Or Application Of Water To Beneficial Use**

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

I have this day made a thorough examination of the water use system constructed by City of _____Box Elder _____ holder ofPermit No. 1830-2A, bearing the priority of October 28 1982 authorizingthe diversion of 1.11 cu. ft. per second of the waters of groundwater - Madisonfor Municipal purposes, in Pennington County.

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

- A. Works used to divert the water: One well - Madison Formation 4483 FT deep, 10" steel casing
surface to 1174' 7 in. to 4163'
One Submersible pump 88", Red Jacket #6H300-20-B
Pleuger 125 Hp sub. motor

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

City Water system

- C. Works used to apply water to beneficial use:

The system is in the following condition excellentThe point of diversion is located 1420 FT N06°45'E From west 1/4 cornerSec. 29 T2N-R9EThe works are capable of diverting and conveying to the place of use 1.11cu. ft. per second of water which is to be used for municipal water supply

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

~~comprising a total of~~ _____ ~~acres of land and~~ the license should be issued for 1.11 cfsApplicable permit qualifications have been complied with X Yes _____ NoExceptions to compliance are: _____ Date Oct. 4, 1984Kevin P. Larson

(signature)

RECEIPT

Division of Water Rights

No 4-10075-

South Dakota Department of Water and Natural Resources

Pierre, June 317, 1944

RECEIVED OF City of Box Elder, P.O. Box 27, Box Elder, SD 57714

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. 1030-2A	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 _____

Chief Engineer

JOB HATCH/mis



Weston Engineering, Inc.

P.O. BOX 260 -- UPTON, WYOMING 82730 (307) 468-2605

Town of Boxelder
Boxelder, South Dakota

We, Weston Engineering, Inc. propose to furnish and install the following equipment in your new water supply well.

Proposal:

Red Jacket Model #6H300-20-G Pump
Pleuger 125 Hp., 762V., 3Ø motor
3- 4" check valves
1008'- 4"x21' Sch. 40 T&C pipe
1- 4"x6" Swedge
1020'- 1/4" airline
1- 762v. Pump control panel
LH Type BW Relay
Motorsaver
Lightning arrestor
Autocon Class 1100 Tanktrol 50-125 Bladder
10" Bristol Recording ammeter 7 day/24 hr. clock
2000'- #18 electrode wire
54- 4" stainless steel bands
1100'- #00-3 strd. copper 1500 v. Paige cable
Rigtime and labor for installation
Electrician to wire from panel to well.

Total Price \$35,570.00

(thirty five thousand, five hundred, seventy dollars)

All materials shall be new, warrantied for a period of one year from failure in materials or workmanship. No warranty shall apply to altered materials, or power fluctuations.

Installation shall be completed in a timely professional manner. Materials should arrive in approximately four (4) weeks.

Proposal Acceptance:



Jerry Hunt

4-27-84

Weston Engineering
Box Elder, S. Dak.

*Please sign, seal and return one copy.

JOHN PAUL GRIES

Consulting Geologist

238 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA



City of Box Elder Water Well No. 4
SW NW NW sec. 29, T. 2 N., R. 9 E.
Pennington Co., South Dakota
Drilled 1983 by Taylor Drilling Company, Rapid City, S. D.
Elevation approx. 3045 gnd, 3055 KB
Sample set SDSM 661, described by J. P. Gries

Start in Pierre shale

- 450- 480 shale, medium to dark gray, very pyritic, some bentonite
- 510 shale, same, more bentonite
- 550- 580 shale, darker gray, much bentonite
- 610 shale, light to medium gray; light is greenish gray; much bentonite
- 640 shale, same, more pyrite

Niobrara formation. Sample top 660+

- 680- 710 shale, medium gray, speckled
- 770 shale, light to medium gray, heavily speckled
- 800 shale, same, some less speckled
- 830 shale, same, mostly speckled
- 860 shale, same and more nearly black, sooty, non-speckled

Carlisle formation. Sample top 860

- 860- 890 shale, mostly sooty black, non-speckled
- 1080-1110 sandstone, fine to medium, salt and pepper, glauconitic TURNER ZONE
- 1130-1160 shale, silty in part
- 1170 shale, same and much caved Niobrara
- 1180 shale, same

Greenhorn formation. Sample top 1180

- 1180-1190 shale, speckled, traces Greenhorn limestone
- 1200 shale, sample burned
- 1210 shale, much limestone and Inoceramus fragments
- 1220 shale, more limestone and golden calcite
- 1230-1260 shale, medium gray, some speckled, some Inoceramus fragments
- 1360 shale, same, more speckled

Belle Fourche shale.

- 1360-1380 shale, same, much bentonite = "X" bentonite
- 1440 shale, sooty black
- 1470 shale, same, or back to medium to dark gray, non-speckled
- 1560 shale, very dark gray
- 1620-1655 shale, medium gray
- 1670 shale, medium gray, some sooty black may be caved
- 1710 shale, medium gray, sample burned
- 1790 shale, medium to dark gray, slightly micaceous

JOHN PAUL GRIES

Consulting Geologist

238 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA

Newcastle sandstone. Sample top 1790. EL/T 1779

- 1790-1810 shale, same, and sandstone, fine to medium, pyritic to porous
- 1830 log 50% shale, 50% sand as above
- 1840 sandstone, fine, white, tight; trace tarry residue

Skull Creek Shale Sample top 1880, EL/T 1840

- 1840-1850 much charcoal and coal
- 1870-1880 sand, fine, white, loose probably cave
- 1890 shale, medium to dark gray
- 1930-2060 shale, medium to dark gray

Fall River-Lakota formations. S/T 2060 EL/T2071

- 2060-2100 shale, same; few pieces poorly sorted sandstone
- 2130 siltstone and fine dirty sandstone, tight, micaceous, glauc.
- 2140 same and sand, medium glassy, porous, pyritic in part
- 2150 sand, same, m
- 2160 sandstone, fine, micaceous, cemented
- 2170 same, less sand
- 2190 sand, clay with siderite pellets
- 2210 poor sample, probably buff and red clay with siderite pellets, streaks sandstone
- 2220 sand, fine, porous, white, probably with clay streaks
- 2240 clay, red and buff, siderite pellets; trace sandstone stringers
- 2250 log half clay as above, half sandstone, silty, fine, micaceous
- 2260 sandstone fine to medium, arkosic to clean, coarse streaks
= sample top Lakota
- 2270 sand, fine to medium, white to slightly salmon, drills free, subrounded to sub angular
- 2280 sand, same, some to granule size
- 2290 sand, coarse to granules, white, colorless, yellow, poorly sorted, with clay streaks
- 2300 clay, hard, dead white
- 2320 clay, white; coarse free sand and granules, some fine white sandstone and siderite pellets
- 2340 sandstone, fine, white, tight
- 2350 sand and sandstone, fine with trace medium coarse, incoherent
- 2360 sandstone, fine, gray to white, dirty, tight to porous, granules
- 2370 sandstone, same, much siderite pellets

Morrison formation. Sample top 2370 EL/T 2375

- 2370-2380 clay, hard, gray, probably Morrison
- 2390 clay, as above; 2/3; sandstone, fine, white, cemented, 1/3
- 2400 clay, light gray, slightly greenish as above

Sundance formation. Sample top 2400

- 2400-2430 clay, same, 2/3; sandstone, fine, white, cemented, glauc., 1/3

JOHN PAUL GRIES

Consulting Geologist

236 ST. CHARLES STREET

RAPID CITY, SOUTH DAKOTA

- 2430- 2450 clay, white, trace sandstone, white, cemented
2460 clay, poor sample, log as sandstone and clay
2470 same, trace finely crystalline gray limestone
2480 clay, as above
2500 sandstone, fine, white, 2/3; clay, white, 1/3
2520 sandstone, fine, white with white cement
2530 sandstone, fine, gray to white, with white cement
2550 clay, white, sandy with white sandstone streaks; clay washes out
2560 clay, same; trace orange silty clay
2570 clay, same
2580 sandstone, fine, white, 1/2; clay, white, 1/2
2600 shale, greenish gray and sandstone, fine, white; trace orange
2610 clay with streaks free white sand
2620 sand, fine, white to gray, with gray sandy clay streaks
2630 clay with sand streaks
2650 clay, white, 2/3; sandstone, fine, white, 1/3
2680 poor sample, log as greenish gray shale
2690 shale, pale greenish gray
2700 shale, greenish gray
2710 poor, log as shale as above
2720 shale, greenish gray
2730 shale, greenish gray with streaks fine gray slightly glauc sand
2790 shale, greenish gray
2800 shale, light greenish gray; trace good glauconitic sandstone
2810 shale, 2/3; sandstone, argillaceous, gray, traces glauconite, 1/3
2820 shale, greenish gray
2850 shale, sandy and sandstone, gray, all $\pm$ glauconitic

Spearfish formation S/T 2850 EL/T 2838

- 2850-2860 same, with few pieces orange siltstone
2870 more redbeds
2890 siltstone, orange and some dark red shale
2900 sandstone, fine, white
2920 sandstone, fine white with white cement and streaks green shale
2930 shale, light greenish gray
2940 sandstone, fine, argillaceous, light gray to white
2950 sandstone, fine, poor sample
2970 same, much more red siltstone
2990 redbeds, pale salmon red
3010 anhydrite, 1/2; redbeds, 1/2
3030 redbeds
3050 anhydrite, white, 1/2; redbeds, 1/2
3080 redbeds
3090 redbeds, 1/3; anhydrite and gypsum, 2/3
3110 redbeds, 2/3; anhydrite, 1/3
3140 redbeds, 80%, anhydrite, 20%
3150 redbeds, trace gypsum

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238 ST. CHARLES STREET
RAPID CITY, SOUTH DAKOTA

- 3150-3160 redbeds, 30% gyp and anhydrite
- 3280 redbeds
- 3290 redbeds, trace anhydrite

Minnekahta formation. S/T 3290 EL/T 3290

- 3290-3300 anhydrite, cream to faintly pink, dense, slightly calcareous
- 3310 anhydrite, same but more calcareous
- 3330 same and some new red-brown anhydritic limestone or dolomite
- 3360 limestone, as above
- 3370 anhydrite, medium crystalline, white
- 3780 limestone, red-brown medium crystalline, silty to sandy

Opache formation S/T 3380 EL/T 3330

- 3380-3440 redbeds
- 3450 redbeds, a few rounded frosted orange sand grains
- 3460 redbeds
- 3470 redbeds, some large rounded, frosted orange grains
- 3480 redbeds

Minnelusa formation. S/T 3480 EL/T 3464

- 3480-3490 Sandstone, poorly sorted, white, large grains frosted, some orange
- 3500 sandstone, fine, white to yellow, tight
- 3510 anhydrite, finely crystalline, white, 2/3; dolomite, anhydritic gray, 1/3
- 3550 dolomite, finely crystalline, dull, flesh pink
- 3580 poor samples, log as anhydrite and sandstone, anhydritic
- 3590 dolomite, finely crystalline, flesh pink to gray and red-brown
- 3610 dolomite, finely crystalline, earthy, pinkish to very light tan
- 3630 sandstone, fine to medium, white to pink, tight
- 3640 sandstone, fine to medium, salmon red, tight
- 3650 sandstone, same, 2/3; anhydrite, white, 1/3
- 3660 dolomite, fine to very finely crystalline, flesh pink, anhydritic
- 3670 sandstone, fine to medium, red-brown to lavender, tight, 80%; dolomite as above, 20%
- 3680 dolomite, like '60
- 3690 probably dolomite, poor sample
- 3700 poor sample, log half dolomite, half anhydrite
- 3710 poor half dolomite, half anhydrite
- 3730 poor, log half sandstone, fine, pink and half anhydrite
- 3740 poor, log half anhydrite, half dolomite
- 3750 anhydrite, white to pink, dolomitic
- 3760 dolomite, anhydritic, pink, 2/3; sandstone, fine, white to pink, 1/3
- 3780 sandstone, fine, white to pink, tight
- 3790 anhydrite, pink, dolomitic. The interval from 50 to 90 drilled very fast, and is probably all sandstone
- 3800 sandstone, fine, white to pink, 2/3, dolomite, pink, 1/3
- 3810 dolomite, finely crystalline, pink to red brown, anhydritic
- 3820 poor; log half dolomite, half anhydrite

JOHN PAUL GRIES

Consulting Geologist

238 ST. CHARLES STREET

RAPID CITY, SOUTH DAKOTA

- 3820-3830 sandstone, fine, pink, 1/2; dolomite, pink, some sandy, 1/2
3840 dolomite, very finely crystalline, light brown to pink
3870 dolomite, very finely crystalline, light brown
3880 dolomite, brown to red brown, 2/3; anhydrite, white, 1/3;
traces splintery red shale. RED MARKER EL/T 3874-85
3890 dolomite, finely crystalline, light brown to lavender
3900 dolomite, finely crystalline, anhydritic, light brown
3910 poor, log as dolomite-red shale persisting
3920 dolomite, very finely crystalline, pale red brown to light brown
3930 dolomite, light brown to nearly black; chert, translucent creamy
brown
3940 dolomite, light brown, 1/2; sandstone, fine, white, 1/2 tr chert
3950 dolomite, finely crystalline, light gray-brown
3960 dolomite, same, 1/3; sandstone, fine to medium, white to yellow-
ish, tight, 1/3
3970 dolomite, light gray to light brown
3980 sandstone, fine, white to gray, tight
3990 sandstone, same, 2/3; dolomite finely crystalline, gray, 1/3
4000 dolomite, finely crystalline, gray
4010 dolomite, finely crystalline, medium gray; some red shale
4030 poor samples, probably same as above
4040 dolomite, same, some sandy; some dolomite, pink
4050 dolomite, very finely crystalline, cream to gray
4060 dolomite, same, may be some white sandstone
4070 dolomite, very finely crystalline, cream
4090 dolomite, same, 2/3; sandstone, fine, white, 1/3
4100 dolomite, finely crystalline, pink to light brown

Minnelusa detrital zone S/T 4120 EL/T 4100

- 4100-4110 dolomite, same to nearly white
4120 dolomite, same and 10% free orange to colorless sand
4150 dolomite, probably red shale, and much free sand

Madison formation S/T 4150 EL/T 4150

- 4150-4160 dolomite, fine to medium crystalline, nearly white
4163 dolomite, same
4163 circ 35 min. dolomite, same. recommended casing seat.

Set 7-inch at 4163 driller, 4173 logger. Open hole below to TD 4483

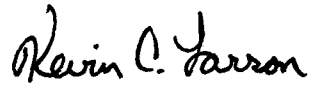
- 4170-4200 samples mostly cement with trace creamy white limestone
4300 limestone, slightly dolomitic, very finely crystalline, white
4310 limestone, same and some limestone, light brown, dolomitic
4340 limestone, light brown, dolomitic, and dolomite, limy, finely
crystalline, light brown
4370 dolomite, medium crystalline, rhombic, porous, white
4483 dolomite, very light brown to white, rhombic, porous

4483 total depth, driller

Report on Water Permit Application No. 1830-2A

March 28, 1983

Application No. 1830-2A is to change the diversion point for a Madison Well approved under permit 1830-2 to a point 2627 feet north of the original location. Recommend approval because it does not change any of the conditions of the original permit and it will not affect other water right holders.

A handwritten signature in black ink that reads "Kevin C. Larson". The signature is written in a cursive style with a large initial 'K'.

Kevin C. Larson
Water Resources Engineer

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT APPLICATION

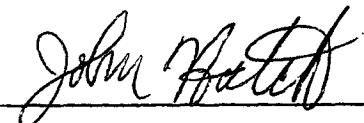
No. 1830-2A, City of Box Elder

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. 1830-2A, City of Box Elder, PO Box 27, Box Elder SD.

The Chief Engineer is recommending APPROVAL of Application No. 1830-2A because 1) the proposed change in diversion can be developed without unlawful impairment of existing rights, and 2) is 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 wells having prior water rights.

The attached report is a part of this recommendation.

A handwritten signature in cursive script, reading "John Hatch", written over a horizontal line.

JOHN HATCH, Chief Engineer
March 31, 1983

Instructions to Newspaper - Publish first publication of following Notice on or before
April 27, 1983 with 2nd publication 1 week later. The applicant is responsible for payment.

NOTICE of HEARING on Application No. 1830-2A to Appropriate Water
 and/or to Amend Water Permit or Water Right No. 1830-2

Notice is hereby given that the City of Box Elder whose mailing address is POB 27
Box Elder, 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 Legis-
 lature; 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 preceding SDCL Sections are amended by HB 1001 & 1002
 of 1983 Legislature) for a permit to amend Permit No. 1830-2 to appropriate no additional
 water (1.11 cubic feet per second to move the location of the diversion 2627 $\pm$ feet from
 the original location. The new point of diversion to be located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of
 Section 29, T2N, R9E. Said water to be used for the purpose of providing water supplies
 for municipal use.

Pursuant to Section 4 of HB 1002 the Chief Engineer of the Water Rights Division recommends
approval of Application No. 1830-2A because 1) will be no unlawful impairment of existing
rights, 2) is a beneficial use of water and 3) is in the public interest

This application will be considered by the Water Management Board at Federal Bldg, Room 301
200 4th St SW, Huron, South Dakota upon the 9th day of June, 1983 at 10:00 am.
1:30 pm

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 con-
 clusion 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 May 30, 1983.
 The petition may be informal, but it must include a statement describing the petitioners
 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 May 30, 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.

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

No. _____



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County _____) ss.

I, Mary K. Garness 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 _____

Rapid City Journal Rapid City

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

April 27, 1983

May 4, 1983

Mary K. Garness
(Signature)

Bookkeeper
(Title)

(Date Signed)

Cost of Printing: Ran 8 11/16 inch legal
advertising in the Rapid City Journal
on April 27 and May 4 @ \$3.76 per inch
= \$65.34

April 27, May 4 L360
NOTICE OF HEARING
ON APPLICATION NO. 1830-2A
TO APPROPRIATE WATER
AND/OR TO AMEND WATER
PERMIT OR WATER RIGHT
NO. 1830-2

Notice is hereby given that the City of Box Elder, whose mailing address is P.O. Box 27, Box Elder, 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 36, 47, 59 & 67 of HB 1001, Sections 1, 4, 5, 6, 11, 12, 13, 14, 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 amend Permit No. 1830-2 to appropriate no additional water (1.11 cubic feet per second) to move the location of the diversion 2627 +/- feet from the original location. The new point of diversion to be located in the NW 1/4 NW 1/4 of Section 29, T2N, R9E. Said water to be used for the purpose of providing water supplies for municipal use.

Pursuant to Section 4 of HB 1002 the Chief Engineer of the Water Rights Division recommends approval of Application No. 1830-2A because 1) will be no unlawful impairment of existing rights, 2) is a beneficial use of water and 3) is in the public interest.

This application will be considered by the Water Management Board at Federal Bldg., Room 301, 200 4th St. SW, Huron, South Dakota upon the 9th day of June, 1983 at 1:30 p.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 May 30, 1983. The petition may be informal, but it must include a statement describing the petitioners 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 May 30, 1983.

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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, DWRN, Joe Foss Bldg., Pierre SD (605 773-3352) for assistance prior to the hearing date.



Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

Division of Water Rights
605 773-3352

June 22, 1983

City of Box Elder
Box 27
Box Elder SD 57719

Dear Sir:

Enclosed herewith is your Water Permit No. 1830-2A 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. 1830-2A.

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 cursive script, appearing to read "John Hatch".

JOHN HATCH, Chief Engineer
Water Rights Division

JH:ks

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.



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

WATER RIGHTS DIVISION
Phone (605) 773-3352

No. 1830-2A

DEC 20 1985

City of Box Elder
Box 27
Box Elder, South Dakota 57719

Dear Sir:

Enclosed herewith is, Water License No. 1830-2A. This is the final water right document completing your process of obtaining a water right.

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.

Very truly yours,

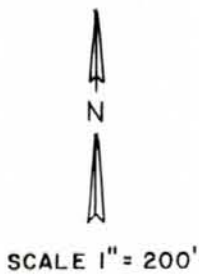
A handwritten signature in cursive script, reading "John Hatch".

JOHN HATCH, Chief Engineer
Water Rights Division

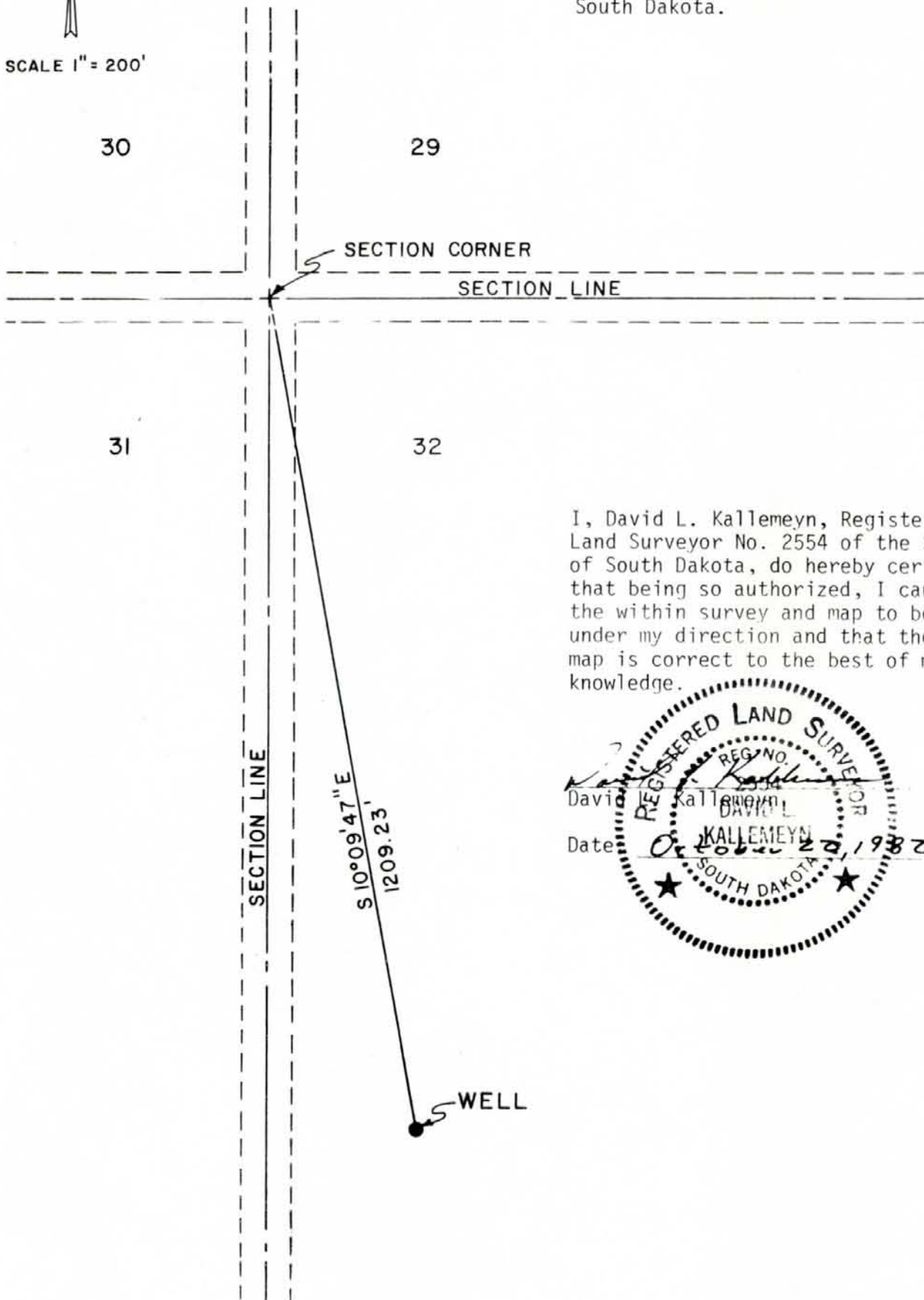
JH: ms

Enclosures

NOTE: The applicable portions of Water Permit No. 1830-2 have been incorporated into this Water License No. 1830-2A.



Water Right Map for Box Elder
City Well No. 4 located in the
W₂ of the NW₄ of Section 32, T2N,
R9E, BHM, Pennington County,
South Dakota.



I, David L. Kallemeyn, Registered
Land Surveyor No. 2554 of the State
of South Dakota, do hereby certify
that being so authorized, I caused
the within survey and map to be made
under my direction and that the said
map is correct to the best of my
knowledge.



~~Map # 1580-2~~

Appl # 1830-2