

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 57-11855

Exam Date: 7-1-2014

1. Current Owner: ABBY SUTFIN
3393 PURDOM LN
HOMEDALE ID 83628
(208) 337-3474

And

JEREMY SUTFIN
3393 PURDOM LN
HOMEDALE ID 83638
(208) 337-3474

2. Accompanied by: Jeremy Sutfin

Phone No: above

Address: above

Relationship to Permit Holder: same

3. SOURCE

UNNAMED STREAM

TRIBUTARY

SUCCOR CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: Gem Irrigation District
2. Other water rights with the same point of diversion: none

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

UNNAMED STREAM	SW1/4NE1/4	Sec. 7,	Twp 03N,	Rge 05W, B.M.
OWYHEE County				
UNNAMED STREAM	SW1/4NE1/4	Sec. 7,	Twp 03N,	Rge 05W, B.M.
OWYHEE County				

Method of Determination: aerial photographs, field exam

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	05W	7			12.0														12.0

Total Acres: 12

STOCKWATER FROM STORAGE same as IRRIGATIONSTOCKWATER STORAGE same as IRRIGATIONIRRIGATION FROM STORAGE same as IRRIGATIONIRRIGATION STORAGE same as IRRIGATION

Method of Determination:

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☒ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☒ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☒ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
<u>ID No.*</u>					
<u>pump POD</u>	<u>BALDOR</u>	<u>10</u>	<u>F1202273709</u>	<u>BALDOR</u>	
<u>Storage POD</u>	---- not applicable ----				

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
<u>Equipment</u>						

2. Measurements: NONE TAKEN

E. FLOW CALCULATIONS Additional Computation Sheets Attached

1) THEORETICAL CALCUALTION: 10 hp pump, open discharge, 60 psi, Q = 5'

$$8.8 \times 10 \text{ hp} \times 0.7 / 5 + [2.31 \times 60 \text{ psi}] = 61.6 / 138.6 = 0.44 \text{ cfs}$$

2) IDWR reference for pipe flow: 4" pip can produce 0.44 cfs

3) IDWR stand 0.02 cfs per acre = 0.24 for irrigation.

Measured Method:

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: STORAGE

Pond has a surface are of approximately 0.7 acres x average depth of 12 feet x 0.4 = 3.36 af. Recommend 3 af for licensing.

G. NARRATIVE/REMARKS/COMMENTS

Permit 57-7533 was originally issued to Echo Hall for 4 af for a pond for recreation, stockwater and irrigation storage, and 0.76 cfs for irrigation from storage. The sources of water were permitted as springs, and an unnamed stream, both tributary to Succor Creek.

Echo Hall sold a portion of the place of use, with the pond, to Jeremy and Abby Sutfin. An assignment of permit was submitted, and it will be processed, and the permit split, during licensing. The Hall license will retain the original water right number and the Sutfin license will be issued a new water right number. Field exams for both owners and their portions of the permit were conducted on 7/1/2014. A split analysis is attached.

Based on older methods and apparent flaws in how the permit was issued, licensing presents problems regardless of the solution used. This report discusses challenges and proposes reasonable solutions to avoid additional complications.

Differences between permit approval, permit development and storage jargon pose these problems:

- Outdated beneficial use terms for natural flow & storage. Here storage covers capacity & refills assumed as "irrigation";
- Non-irrigation POU's are not identified: and,
- The type and number of stock are not identified in conditions of approval.

Additional complications result from an assignment splitting the permit and separate systems for separate owners. Complications include the Hall portion with natural flow irrigation plus a stockwater pond, and Sutfin with on-stream storage pond used for irrigation and stockwater with undetermined number of possible refills. Recreation storage is not found for either owner.

Sutfin storage appears to be fed by natural flow, wastewater captured in the stream [where it becomes natural flow] and perhaps some Gem Irrigation District water [or wastewater from using Gem Irrigation district water]. The system is obviously capable of irrigating the land from pumping from the pond. Awkward retrofitting of flow/storage jargon is not helpful, so will allow older method for natural flow and storage mix.

The assignment assigns the point of diversion in the on-stream pond for irrigation of 12 acres and stockwater uses. The assignment is silent for non-irrigation uses but is assumed to provide some of those uses for each owner. A literal reading of the assignment is probably unworkable if we assume Hall keeps all stockwater storage and Sutfin gets none, because Sutfin diverts storage water for stockwater. This would require a very minor filing for new application to cover Sutfin stockwater storage for about 15 animals, further complicating the situation without adding value. We will assume the stockwater storage is split. Rebuttal, if necessary, will be per the preliminary license orders.

Determining the license amount for stockwater storage and stockwater from storage typically depends

on the type and number of animals and the volume required for the use. The application listed 100 cattle, implying 3.1 af/year for stockwater [$V_r = 100 \times 0.0134$; Vd comparison n/a for storage].

Sometimes stockwater storage is limited to V_r for stock even if the pond is bigger. Other times the pond capacity exceeding stock V_r is allowed – there are different results found in permits and licenses.

Hall has about 175 mixed stock. Sutfin has about 15 horses. The total pond capacity is 4 af. A reasonable way to provide stockwater for each owner, for the total pond capacity, not exceed the permit, and avoid another nearly frivolous application is:

- Do not use 3.1 af stock V_r as stockwater storage limit;
- Allow 1 af for stockwater storage for Hall;
- Allow 3 af stockwater storage for Sutfin;
- The pond capacity is covered for both owners in same way regarding stockwater; and,
- Assume there is no stockwater enlargement which compensates for our failure to properly condition stock use and for omitting non-irrigation POU in permit.

Although not required, an irrigation diversion volume is recommended for licensing to avoid some uses with volume and some uses without.

This narrative is for the Sutfin right. Jeremy Sutfin accompanied me on the field exam. The source is an unnamed stream or drain that originates about one-half mile west of the Sutfin property. Although the application says there are no other water rights appurtenant to the property, there are about 12 shares of Gem Irrigation District water used on the Sutfin place of use.

The unnamed stream fills an onstream pond. The excavated pond has a surface area of about 0.7 acre and is 15' deep, with very sloped sides. Mr. Sutfin said that the pond is also fed by wastewater from surrounding fields, and by a spring in the pond, though the spring sources permitted were not for a spring in the pond, according to permittee, Hall. There is an overflow weir on the east end of the pond where water flows back to the unnamed stream. There was no discernible flow in the stream to allow a measurement.

There are 2 PODs: the storage POD, and a pump for irrigation of 12 acres. For the irrigation use, there is a 10" steel pipe, about 20' long, from the pond to a vertical corrugated pipe that houses the 10 hp pump and motor. From there, 4" underground pipe carries water to risers in the small field immediately west of the pump, and another small field south of the house. These small fields total about 3 acres and are irrigated by K lines and K pods. Mr. Sutfin did not have specs for the K line system, but said that the sprinklers were the smallest made, one-eighth inch.

The 4" piping also extends to the 9-acre field planted in hay that is along the west boundary of the POU. There are 4 risers in this field for the one-quarter mile wheel line used to irrigate that field. Mr. Sutfin did not have specs for the sprinkler system and the nozzle size was not stamped on the sprinkler heads, which were Waderain WR33 heads. There were about 32 nozzles on the wheel line.

Water is also plumbed to a riser to fill stockwater troughs for the up to 15 horses on site.

The season of use for irrigation needs to be updated to the current standard season 3/1 – 11/15.

Recreation storage deleted because not found. The 1 cfs total diversion on the permit is not used for comparison during licensing.

ArcMap shows northern part of the POU in the NWNE but this is because the ArcMap layers are offset. All of the POU is in the SWNE.

A permit amendment is needed to add the second POD for the irrigation pump.

Have conditions of permit approval been met? ☒ Yes ☐ No

Add X02:

Stockwater use is for 15 horses.

H. RECOMMENDATIONS

- 1) Permit amount 1 cfs &/or 4 af storage
 2) Beneficial use limit 0.24 cfs &/or 54 af storage -irrigation and stockwater
 3) System measurement 1.86 cfs &/or 3 af storage
 4) Proof fee amount 1 cfs &/or 100 af storage

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
STOCKWATER FROM STORAGE	01/01 to 12/31		3.00 AF
STOCKWATER STORAGE	01/01 to 12/31		3.00 AF
IRRIGATION FROM STORAGE	03/15 to 11/15		3.00 AF
IRRIGATION	03/15 to 11/15	0.240 CFS	54.00 AF
IRRIGATION STORAGE	01/01 to 12/31		3.00 AF
<u>Totals:</u>		0.240 CFS	54.00 AF

2. Recommended Amendments

☒ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION

Field Examiner's Name Wing Chung Date 10-22-14

Reviewer _____ Date _____

SPLIT 57-7533

HALL (57-7533, Reduced)

	ACRES	CFS	AF
IRR	12	.24	54
stock storage			1
HALL TOTAL	12	.24	55

← not required but included

↑
N/A either owner:

- Div to storage
- Recreation storage

SUTFIN (issue now #)

IRR	12	.24	54
IRR storage			3
IRR from storage	12		3
stock storage			3
stock from storage			3

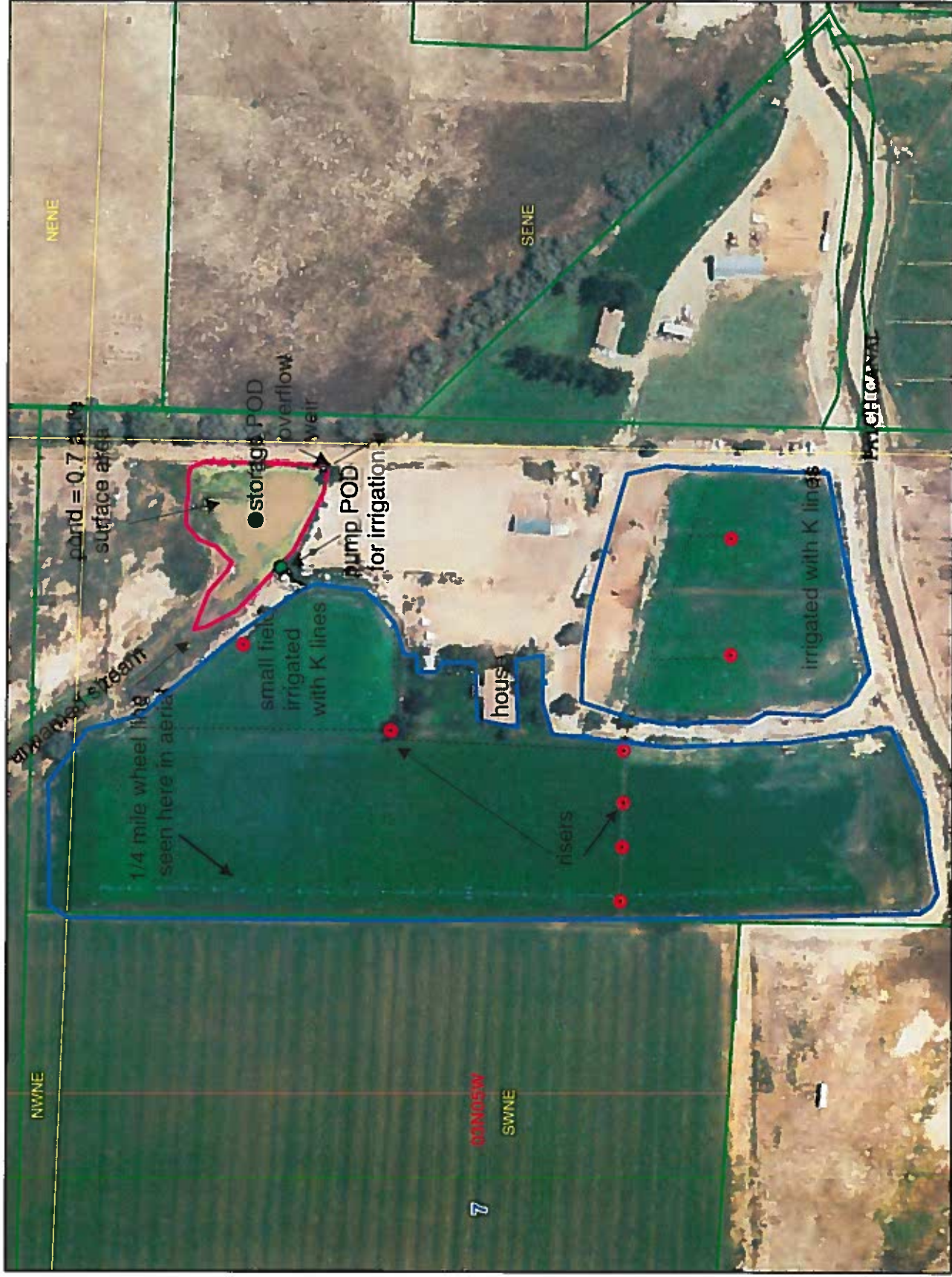
SUTFIN TOTAL 12 .24 57 *

COMBINED
OK ✓

24	.48	112
ACRES	CFS	AF

* OK NAT. FLOW + STORAGE VOLUME SAME ACRES

-SL
8/19/2014



57-11855 -- 2013 NAIP. This is the Sutfin portion of the 57-7533 Hall permit. There are 2 PODs -- 1 is in the pond and 1 POD is the pump for irrigation. The irrigation POU is outlined in blue and the storage POU is outlined in pink. The diversion system is labelled.

57-7533 – Sutfin field exam photographs



Looking northwest from south side of pond – in the pump enclosure. Unnamed stream source is in left center of photograph.



Looking northeast at pond from south side of pond in the pump enclosure.



Water is pumped from the pond into this vertical corrugated pipe, then through the piping seen below. The blue pipe is a filter.





Past the filter, water is diverted through 4" buried pipe, seen here at the right end of the filter.



Pond outlet on southeast corner of pond. Water flows back into the unnamed stream.



K lines and K pods in the small field west of the pump.



Looking west at the irrigated place of use and the 0.25 mile long wheel line.



Wheel line.



Riser and K pod in the field south of the house.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

July 30, 2014

WILLIAM AND ABBY SUTFIN
3393 PURDOM LN
HOMEDALE, ID 83638

Re Permit To Appropriate Water No. 57-7533

Dear WILLIAM AND ABBY SUTFIN:

This letter is to follow up on the field exam I conducted on July 1, 2014. After your exam, I conducted the field exam of the Echo Hall portion of the above permit. As a courtesy to you, I obtained Echo Hall's signature on an Assignment of Permit form, notarized it, and hand-delivered to your address. I left it in the grill, as Mr. Sutfin suggested. You were to submit the form to IDWR Western region, to my attention, with the \$25 fee.

To date, I have not received the Assignment of Permit which is necessary before IDWR can split the permit and issue licenses.

Please submit the Assignment form and fee by **August 8, 2014. Failure to do so will result in your portion of the permit being voided.** Thank you.

Sincerely,



Vicky Music
Sr. Water Resource Agent



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

April 4, 2014

WILLIAM AND ABBY SUTFIN
3393 PURDOM LN
HOMEDALE, ID 83638

Re Permit To Appropriate Water No. 57-7533

Dear WILLIAM AND ABBY SUTFIN:

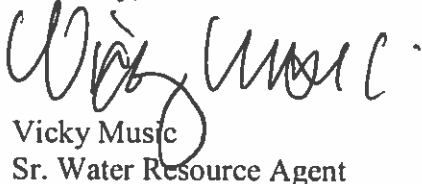
The permit referenced above was issued to ECHO HALL for 1 cfs and 4 af for the following uses: diversion to storage; irrigation, stockwater and recreation storage; and, irrigation from storage of 38 acres. The sources are a spring and an unnamed stream, both tributary to Succor Creek.

Aerial photography indicate that you own the pond and point of diversion, and approximately 12 acres of the 38 acre place of use. This letter is to request that you call me to schedule the field exam for this permit. A field exam is required by Idaho law before a license can be issued, at which time it becomes a water right. The license is the end product needed for continued water use. When you call me, we can discuss the ownership issues.

Please have available at the exam someone familiar with the system and its construction, as well as the documentation regarding the diversion and conveyance system such as pumps, motors, and sprinkler nozzles.

Please call me as soon as possible at 208.334.2190, to set an appointment for the exam that I hope to conduct in May of 2014. Failure to respond to this letter request by **May 5, 2014**, may result in the permit being voided or a license issued for less than the permitted amount. Thank you.

Sincerely,



Vicky Music
Sr. Water Resource Agent

Enclosures: Permit 57-7533, 2013 aerial photograph

State of Idaho
Department of Water Resources
Permit To Appropriate Water

NO. 57-07533

Proposed Priority: March 8, 1991 Maximum Diversion Rate: 1.00 CFS

This is to certify, that REY L. MC RAE
RT. 2 BOX 98
HOMEDALE, ID 83628

has applied for a permit to appropriate water from:

SPRINGS
UNNAMED STREAM

tributary of SUCCOR CREEK
tributary of SUCCOR CREEK

and a permit is APPROVED for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.76 CFS	
IRRIGATION STORAGE	01/01 to 12/31		4.0 AF
IRRIGATION FROM STORAGE	03/15 to 11/15		4.0 AF
STOCKWATER STORAGE	01/01 to 12/31		4.0 AF
RECREATION STORAGE	01/01 to 12/31		4.0 AF
DIVERSION TO STORAGE	01/01 to 12/31	1.00 CFS	
	Totals	1.00 CFS	

LOCATION OF POINT(S) OF DIVERSION:

SWSWSE Sec. 6, Township 03N, Range 05W
SWNE Sec. 7, Township 03N, Range 05W
NWNE Sec. 7, Township 03N, Range 05W
SESWSE Sec. 6, Township 03N, Range 05W
OWYHEE County

PLACE OF USE: IRRIGATION

<u>TWN</u>	<u>RGE</u>	<u>SEC</u>	<u>ACRES</u>	<u>ACRES</u>	<u>ACRES</u>	<u>TOTAL</u>
03N	05W	7	NWNE 7	SWNE 31		38

Total number of acres irrigated: 38

PLACE OF USE: IRRIGATION FROM STORAGE, same as IRRIGATION use

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before June 1, 1994.
2. Subject to all prior water rights.
3. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
4. The rate of diversion of water for irrigation under this permit and all other water rights on the same land shall not exceed 0.12 cubic feet per second for each acre of land.

MICROFILMED

JUL 15 1991

Permit To Appropriate Water

NO. 57-07533

CONDITIONS/REMARKS:

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code.
Witness the seal and signature of the Director, affixed at Boise, this

29th day of May, 1991.

[Signature]
for R. Keith Higginson, Director

REGISTERED

JUL 15 1991



57-7533