

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-9661

Exam Date: 9/12/2008

1. Current Owner: STATE OF IDAHO
DEPT OF LANDS
300 N 6TH ST
PO BOX 83720
BOISE ID 83720-0050
(208)334-0200

2. Accompanied by: Dean Johnson (ID Dept of Lands) / Milan Kovach (ID State Historical Society) / Rodney Burke (ID Botanical Gardens) / Kelly Christensen (IDWR)

Phone No: 208-334-3488 / 208-334-2844 / 208-383-0583 / 208-334-2190

Address: Above / Idaho Historic Sites 2445 Penitentiary Rd Boise, ID 83712 / Idaho Botanical Garden 2355 N Penitentiary Rd Boise, ID 83712

Relationship to Permit Holder: Representative / Land Lessee / Land Lessee

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 63-10241
2. Other water rights with the same point of diversion: 63-10022 and 63-10241

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER

NE1/4SW1/4

Sec. 13, Twp 03N, Rge 02E, B.M.

ADA County

Method of Determination: GPS

2.

PLACE OF USE:

IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
03N	02E	13		24.0	19.0		17.0			2.0									62.0

Total Acres: 62.0 Irrigation of 22.7 acres within 62.0 acre permissible place of use described above.

Method of Determination: Field observation with USGS topo map and aerial photo.

3. SEE 63-10022 EXAM FILE Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

YES Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

YES Aerial Photo Attached (required for irrigation of 10+ acres).

YES Photo of Diversion and System Attached

4.

Well or Diversion ID No.	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Old Penitentiary Well No. 2 Warm Springs Golf Course Well	General Electric	60	422113	Unknown	L88009 – 8 in discharge

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

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements:

Flow rate and capacity calculations completed for this system by Dan Nelson for beneficial use exam of 63-10022 conducted 3/21/2005. No changes to system since that time.

E. FLOW CALCULATIONS

YES Additional Computation Sheets Attached

Measured Method: See Flow Analysis performed by Dan Nelson for beneficial use exam of 63-10022 3/21/2005.

System capacity estimated to be 1.97 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 22.7 \text{ ac} \times 4.5 \text{ afa/ac} = 102.2 \text{ afa}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.46 \text{ cfs} \times 260 \text{ days} \times 1.9835 = 237.2 \text{ afa}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 102.2 \text{ afa}$$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

This permit is for irrigation of ID Dept of Lands property currently leased by several different entities including Idaho Botanical Gardens, Idaho Historical Society, and Boise State University among others. The permit has a long history likely to affect the manner in which it is licensed, in particular the conditioning of the license. The following is a timeline of events regarding this permit:

1. Original application for permit was approved 3/3/1981. Authorized diversion from a low temperature geothermal well known as Old Penitentiary Well No. 1. The proof of beneficial use due date was 3/1/1986.
2. A request for extension of time to submit proof was approved 5/19/1986. The new proof due date was 3/1/1991.
3. The Boise Front Ground Water Management Area was established. The management plan for this area, approved 6/3/1988, established restrictions on wells greater than or equal to 300 ft deep. The Old Penitentiary Well No. 1 fell under this regulation. Thus, development of this permit ceased.
4. Adjudication claim filed on 1/28/1983 and recommendation made for this permit in the SRBA.
5. Permit amended 1/19/1996 to add cold water well known as Old Penitentiary Well No. 2 aka Warm Springs Golf Course Well. The amendment was protested by United Water and others. As a result of this protest, the permit amendment was conditioned that no enlargement or deepening of the well shall occur.
6. Shelley Keen (IDWR) letter of 9/9/2003 acknowledged ID Dept of Lands proposal to remove Old Penitentiary Well No. 1 (hot water well) from the permit. The proof due date was likely amended at this time to 11/1/2008.
7. Proof of beneficial use field 8/22/2007.
8. Beneficial use exam 9/12/2008.

The field exam for this permit was conducted on 9/12/08 with several people present. Steve Lester (IDWR) attempted to contact the proof of beneficial use contact person, Jay Sila, as the attached 6/23/2008 memo indicates. He was informed the current contact for the ID Dept of Lands on this permit was to be Steven Douglas. Also, the ID Dept of Lands indicated Milan Kovach of the ID Historical Society would also be interested in attending the field exam. I left a message for Steven Douglas requesting arrangement of a time for the field exam. Dean Johnson (ID Dept of Lands) returned my call and indicated Steven Douglas has asked him to be the contact for subsequent actions regarding this water right permit.

Field examination for this permit confirmed the system permitted is part of a larger system of which two other water rights are associated. The beneficial use examination conducted by Dan Nelson (IDWR) for water right 63-10022 on 3/21/2005 outlines the main system design including system schematics, well information, theoretical capacity calculations, etc. A wide variety of devices are used to irrigate the portion of the system authorized by this permit. Devices such as drip lines, hoses, typical lawn irrigation sprinklers, etc. are used to irrigate the various gardens, lawns, greenhouses, etc. within the place of use during the irrigation season.

During the field examination, irrigation of approximately 28 acres was observed. This 28 acres includes 5.3 acres irrigated under 63-10241, thus 22.7 acres of new irrigation was observed. The 62 acre area permissible place of use proposed is the area capable of being irrigated by the current system within the permitted place of use. ID Dept of Lands representative and other lessees present for the field exam indicated there are plans to change the current land use practices. For instance, it was suggested that certain parking areas are planned to be taken out and irrigation put in their place, while other currently irrigated areas may not be irrigated. The permissible place of use is suggested for this application to allow a certain degree of flexibility of application of the water for irrigation purposes, because there are several entities that lease the land for various uses which are subject to change.

As mentioned above, the place of use for right 63-10241 (ID Dept of Lands) overlaps a portion of the permissible place of use for this right. The shapes on record for 63-10241 vary considerably from the license shape to the claim shape to the recommendation shape. It is unclear which specific 5.3 acres is authorized by right 63-10241. It is clear however that 28 acres are currently being irrigated under authorization of the two water rights 63-10241 and 63-9661. A license condition limiting the combined use of 63-9661 and 63-10241 to irrigation of 28 acres total has been suggested to address this matter.

Currently, there are three water rights using the irrigation system whose main source is Old Penitentiary Well No. 2, i.e. the Warm Springs Golf Course Well, 63-10022 (City of Boise), this permit 63-9661 (ID Dept of Lands), and 63-10241 (ID Dept of Lands). The system capacity, calculated by Dan Nelson (IDWR) during the beneficial use examination for 63-10022, is 1.97 cfs. Should this license be approved as recommended in this examination, the current uses of the system will be as follows; 63-10022 is 0.37 cfs (irrigation), 63-9661 is 0.46 cfs (irrigation), and 63-10241 is 0.24 cfs (irrigation and domestic) for a total of 1.07 cfs, which is well below the capacity of this system. There appears to be plenty of water available within this system for the current uses.

One additional issue to consider is the amended permit condition that resulted from the protest withdrawal. A pumping test of the cold water well p/d for this permit was conducted by Ed Squires on 7/12/95-7/13/95. This test concluded the well, originally 470 ft deep, has silted in to an approximate depth of 190 ft below land surface. The protest filed by United Water was withdrawn under the circumstances that the well not be deepened or opened up to water bearing strata below 192 ft.

The amended permit included a more generalized, less restrictive version of this condition. A database comment and/or a license condition should be created noting this condition for future reference.

I recommend conditions similar to the following be included on this license:

- 1) The use of this right is limited to irrigation of 22.7 acres within the 62 acre place of use.
- 2) Right nos. 63-9661 and 63-10241 are limited to the irrigation of a combined total of 28 acres in a single irrigation season.
- 3) Right nos. 63-10022 and 63-10241 are also diverted through the point of diversion described above.
- 4) Diversion and use of water with a temperature greater than 85 degrees Fahrenheit is not authorized under this right.

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

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	3/1 to 11/15	0.46 CFS	102.2
<u>Totals:</u>		0.46 CFS	102.2

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 Angela M Gimm Date 9/29/08

Reviewer _____ Date _____

MEMORANDUM

TO: 63-9661 Field Exam Report

FROM: Steve Lester 

DATE: June 23, 2008

RE: Field Exam Contact Person

Becky Evans, Resource Specialist with IDWR Southwest Area Office ("regional office" in Boise) called today. She was responding to my telephone message regarding ID Dept. of Lands request for a licensing field exam to address adjudication concerns.

The proof of beneficial use contact person, Jay Sila, is no longer with that IDL office. Becky identified the following contact person for the field exam: Steve Douglas, Area Supervisor 334-3488.

She also noted another person who wants to be present for the field exam: Milan Kovach from the ID Historical Society, 334-2844. He apparently is familiar with the system operation. Field examiner could also contact Kovach or could ask IDL to do that follow up since IHS is not the permit holder.

From file history, recall that use of the cold water well for this permit is subject to a private agreement between IDL, IHS and City of Boise Parks & Recreation. It would probably be useful for IHS to be involved with the exam for 63-9661.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

LESSER OF FOUR CHOICES

1) Permit amount	<u>2.20</u>	cfs &/or	_____	af storage
2) Beneficial use limit	<u>.46</u>	cfs &/or	_____	af storage
3) System measurement	<u>1.97</u>	cfs &/or	_____	af storage
4) Proof fee amount	<u>2.20</u>	cfs &/or	_____	af storage
Recommended Amount	<u>.46</u>	cfs &/or	_____	af storage

NOTES

Can never exceed permit amount.

Check proof filing fee required when proof was filed. Use current fees for proofs on/after 11/1/1991. See SL for fee schedule if proof filed before 11/1/1991.

If permit includes rate of flow and storage, proof fee is the greater amount for those two categories. Example with current filing fees:

1.0 cfs = \$100	15 af = \$50	required fee = \$100
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Beneficial use limits are recognized standards: 0.03 cfs for up to 5 acres, 0.02 cfs beyond 5 acres, stockwater chart, in-house domestic chart etc. Some exceptions acceptable if already approved in permit: excessive rate for parks etc.

System measurement can be actual measurement reflecting typical operations or theoretical measurement or some combination of both if actual measurement does not reflect true capacity of system based on other supporting information. Be cautious about using just theoretical measurement to limit the amount of water – see SL for details.

If proof filing fee is the limiting factor but otherwise could recommend more water for licensing, provide water user the chance to pay the upgrade - send letter with at least 30-days to respond.

63-9661 License Exam

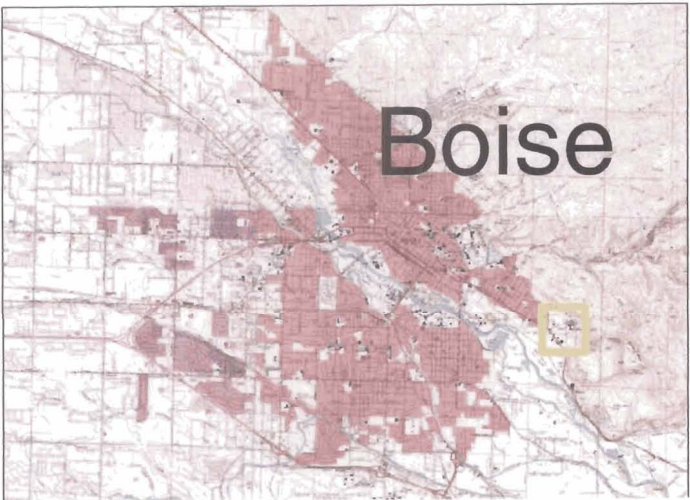
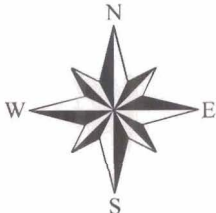
Angela Grimm 9/22/08

2006 Aerial Photo



Legend

- | | |
|--------------------|----------------|
| Non-Irrigated Land | Township/Range |
| 63-9661 PPU | Sections |
| 63-9661 PD | QQ |



IDAHO DEPARTMENT OF WATER RESOURCES

WELL INSPECTION FORM

1. DRILLING PERMIT NO: _____ OTHER APPLICABLE NO: 63-9661
OLD PENITENTIARY #2
WARM SPRINGS GOLF COURSE
2. OWNER: CITY OF BOISE Phone: (208) 384-3901
Address: 1104 ROYAL BLVD. BOISE, ID 83706 (P.O. Box 500 BOISE, ID 83701-0500)
3. WELL LOCATION: Twp 3N, Rge. 2E, Sec. 13, NE 1/4 SW 1/4
County ADA (Provide sketch map and photo on reverse.)
4. DRILLER: _____ Lic. No. _____
When Drilled? _____
5. WELL CONSTRUCTION:
Casing Diameter _____ inches Water tight cap? ☐ Yes ☒ No Access Port: ☒ Yes ☐ No
PUMP ON TOP OF CASING
Casing $\geq$ 12 inches above ground? ☐ Yes ☒ No - Describe LEVEL WITH SURFACE OF CONCRETE SLAB
Depth of Casing _____ ft. Method Drilled _____
Condition of Well Casing: ☐ Good ☐ Fair ☐ Poor Describe NOT VISIBLE
Control Valve? ☐ Yes ☒ No Pressure Gauge: ☒ Yes ☐ No
Condition of Piping and Valving GOOD
Auger to a depth of N/A ft. Evidence of Annular Seal ☐ Yes ☐ No
Are there obvious construction problems that may be a source for contamination or waste of water?
☐ Yes ☒ No (Describe in Remarks and Attach Photo - On Reverse)
6. HYDROLOGIC INFORMATION:
Depth to Static Water _____ ft. Water Temperature _____ °F
Flowing Artesian ☐ Yes ☐ No Pressure: _____ (psi)
Water Sample Taken? ☐ Yes ☐ No If yes, describe purpose _____
Water Quality Measurements/Observations (Describe) _____
7. WELL USE:
☐ Domestic ☒ Irrigation ☐ Stock
☐ Test ☐ Municipal ☐ Industrial
☐ Abandoned ☐ Waste Disposal/Injection ☐ Not Used
☐ Other: _____

8. POSSIBLE CONTAMINATION SOURCES:

Is there evidence of Chemigation? ☐ Yes ☒ No

If yes, is there a check-valve present? ☐ Yes ☐ No

Is there a possible source of contamination nearby? ☐ Yes ☒ No

If yes, what Type? _____

How far away from the well is this source? _____

9. REMARKS:

GPS ITM X 2325357 LONG -116.163571°
Y 1379260 LAT 43.593842°

APPEARS WELL IN SAME CONDITION AS DAN NELSON'S 3/21/05 BENEFICIAL
USE EXAM OF WATER RIGHT 03-10022.

NO OBVIOUS CONSTRUCTION ISSUES. NOT A LOT OF INFORMATION DETERMINED
AND RECORDS ON WELL, I.E. WELL LOG, UNCERTAIN.

 WATER RESOURCE AGENT, SR.
Signature of Dept. Representative & Title

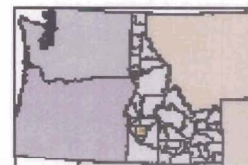
9/12/08
Inspection Date

PHOTOS, DRAWINGS, OTHER ATTACHMENTS:

SEE ATTACHED.

Idaho Department of Water Resources**Well Drillers' Locator**

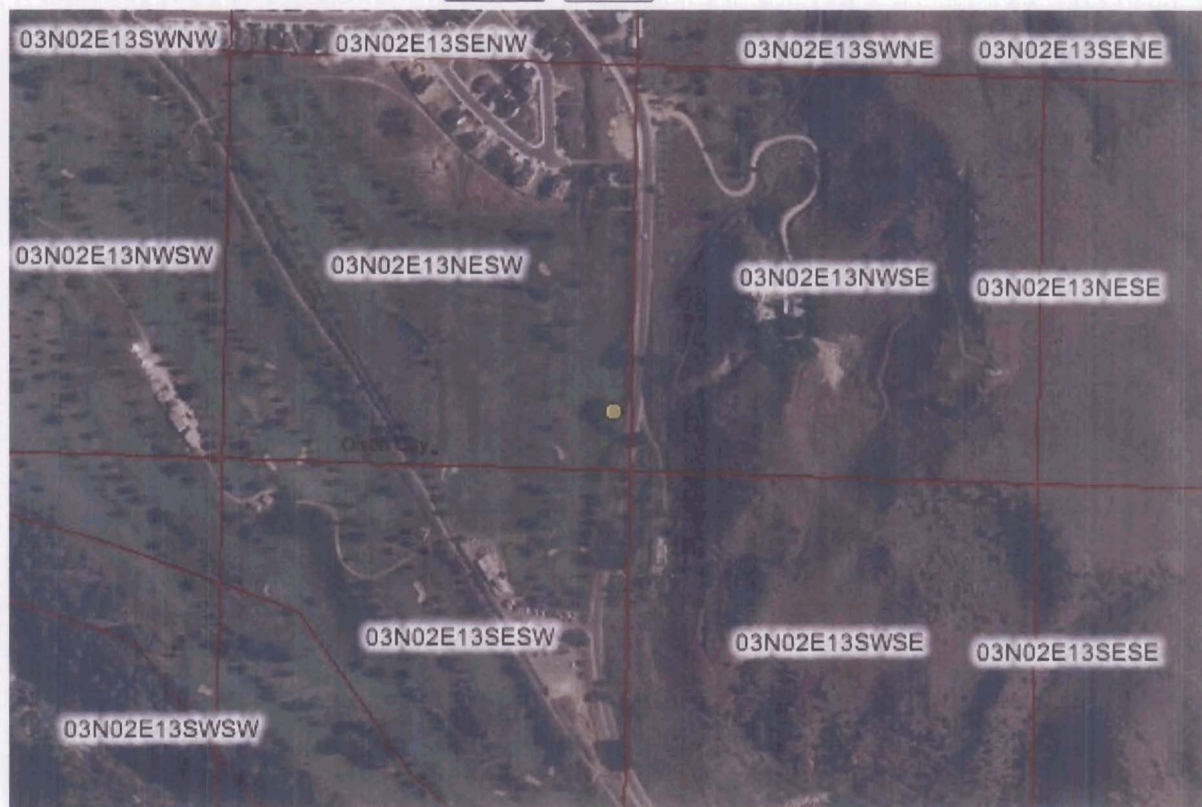
The computed lat/long is 43.59382951° N; 116.16356544° W
NE quarter of the SW quarter of Section 13, Township 03N, Range 02E
IDTM NAD83 coordinates: Easting=2325357; Northing=1379260



Choose the map-display background:

Photo

Topo

**Add Layer**

Wells



Water Rights



Water Right Permits



Adjudication Claims



Rejudication Recommendations

* Positions of wells/headgates may be based upon the center of a quarter-quarter section; those obtained by GPS or survey are accurate.



63-9661 License Exam 9/12/08: Old Penitentiary Well #2 aka Warm Springs Golf Course Well. P/D for water rights 63-9661, 63-10022, and 63-10241.



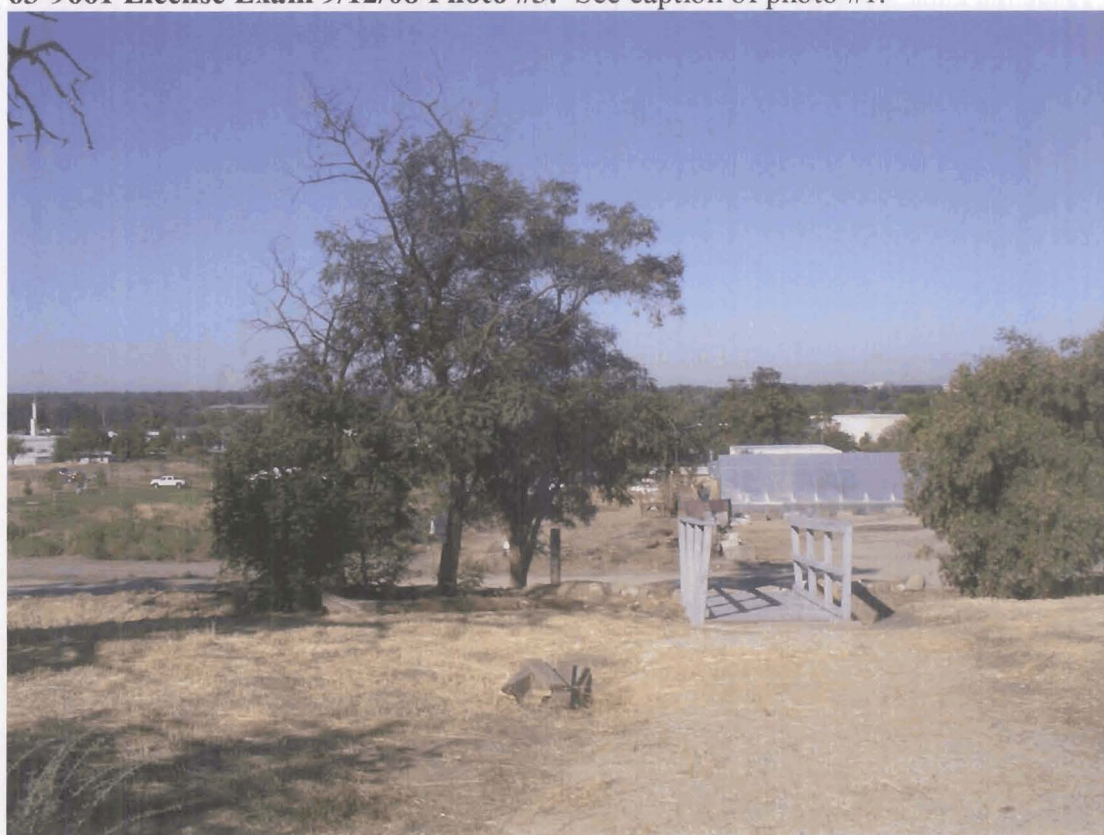
63-9661 License Exam 9/12/08 Photo #1: Photos #1 thru #7 pan starting with this photo facing north panning to the west then end facing south (photo #7). Area adjacent to Lewis & Clark Garden near the western edge of the property.



63-9661 License Exam 9/12/08 Photo #2: See caption of photo #1.



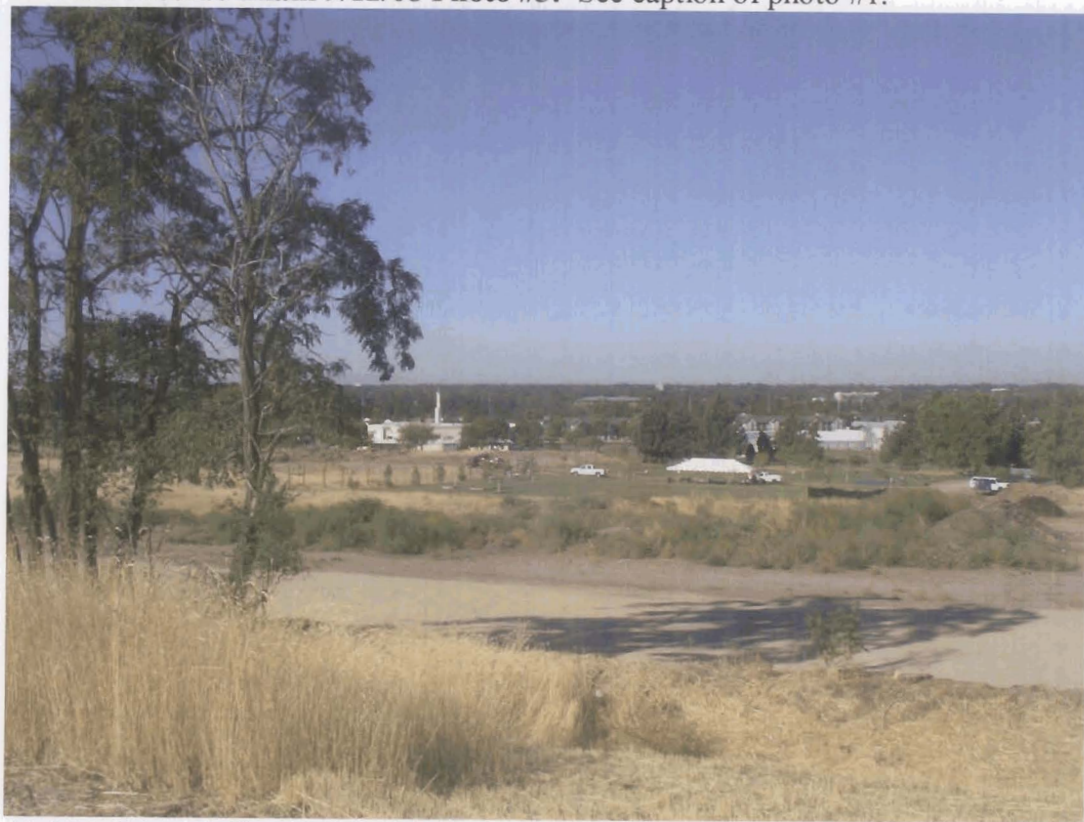
63-9661 License Exam 9/12/08 Photo #3: See caption of photo #1.



63-9661 License Exam 9/12/08 Photo #4: See caption of photo #1.



63-9661 License Exam 9/12/08 Photo #5: See caption of photo #1.



63-9661 License Exam 9/12/08 Photo #6: See caption of photo #1.



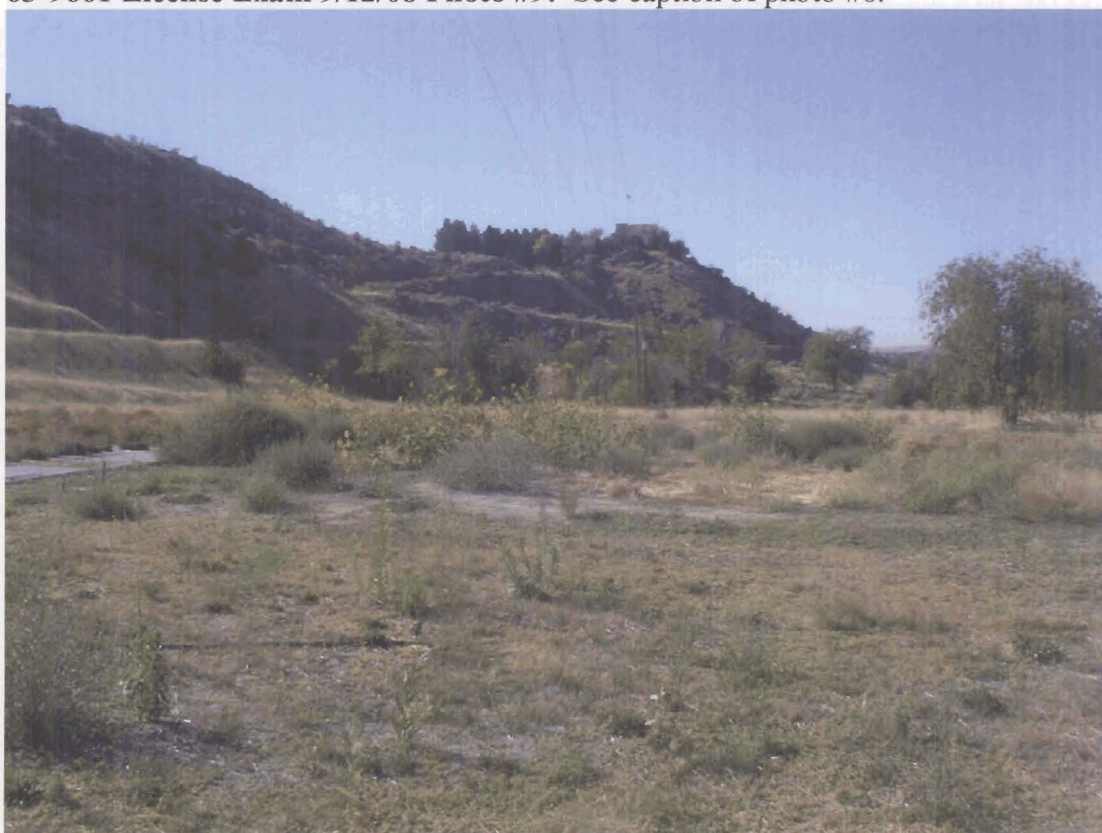
63-9661 License Exam 9/12/08 Photo #7: See caption of photo #1.



63-9661 License Exam 9/12/08 Photo #8: Photos #8 thru #13 pan starting with this photo facing east panning to the south ending with photo #13 facing west northwest. Area currently leased to Boise State University's (BSU) Horticulture Department. Location of irrigation in this area varies from year to year.



63-9661 License Exam 9/12/08 Photo #9: See caption of photo #8.



63-9661 License Exam 9/12/08 Photo #10: See caption of photo #8.



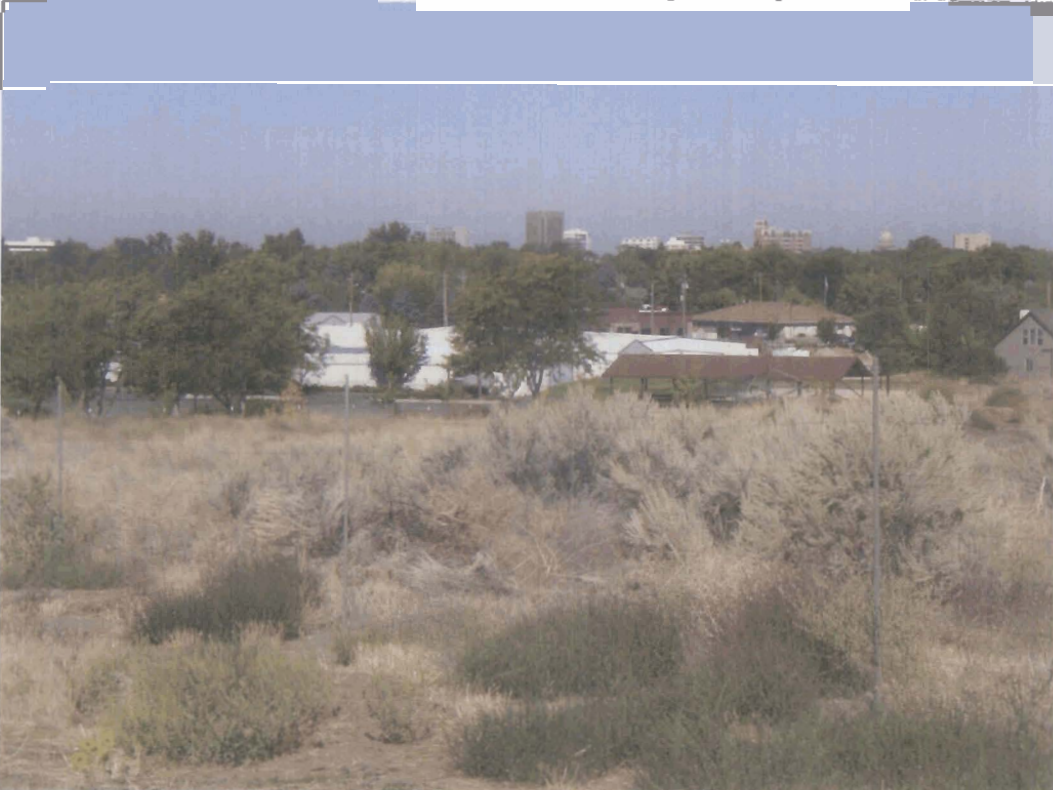
63-9661 License Exam 9/12/08 Photo #11: See caption of photo #8.



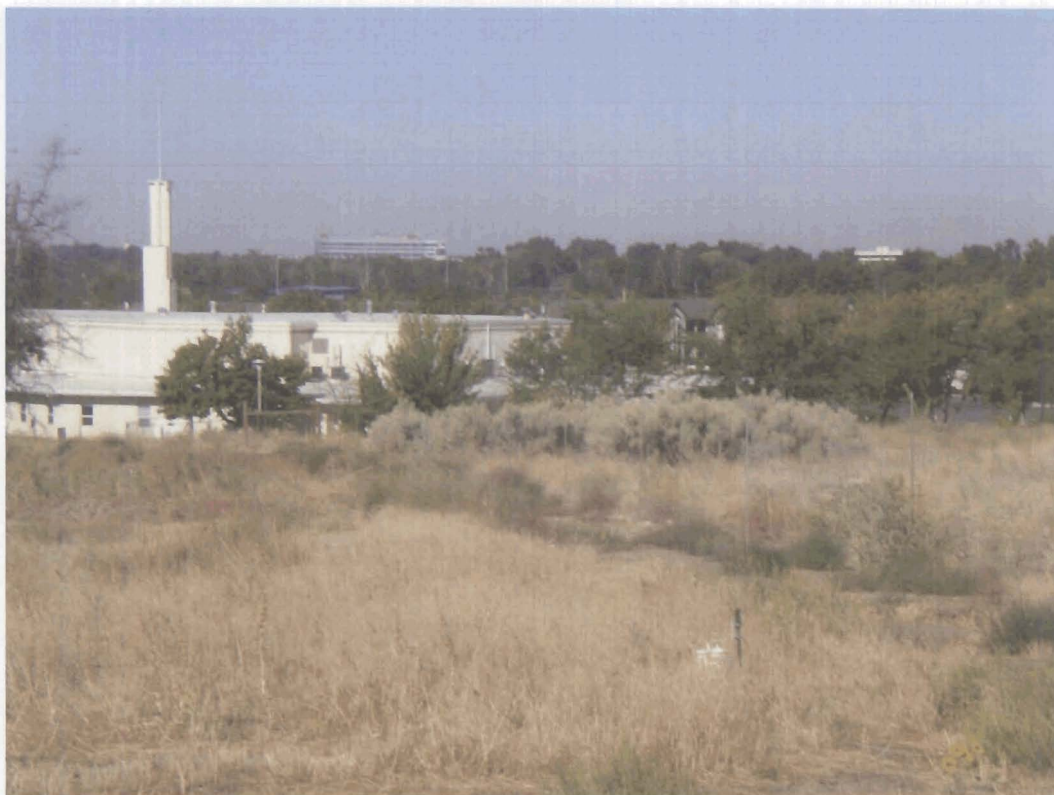
63-9661 License Exam 9/12/08 Photo #12: See caption of photo #8.



63-9661 License Exam 9/12/08 Photo #13: See caption of photo #8.



63-9661 License Exam 9/12/08 Photo #14: BSU leased land in foreground facing northwest.



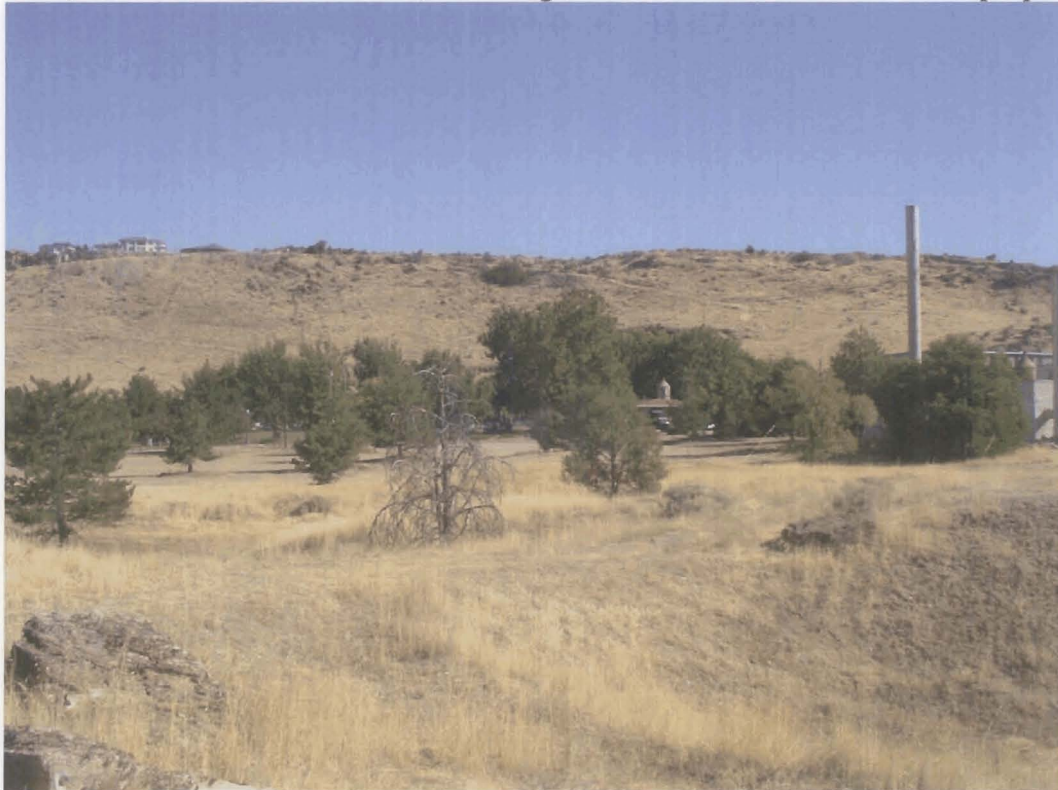
63-9661 License Exam 9/12/08 Photo #15: See caption of photo #14.



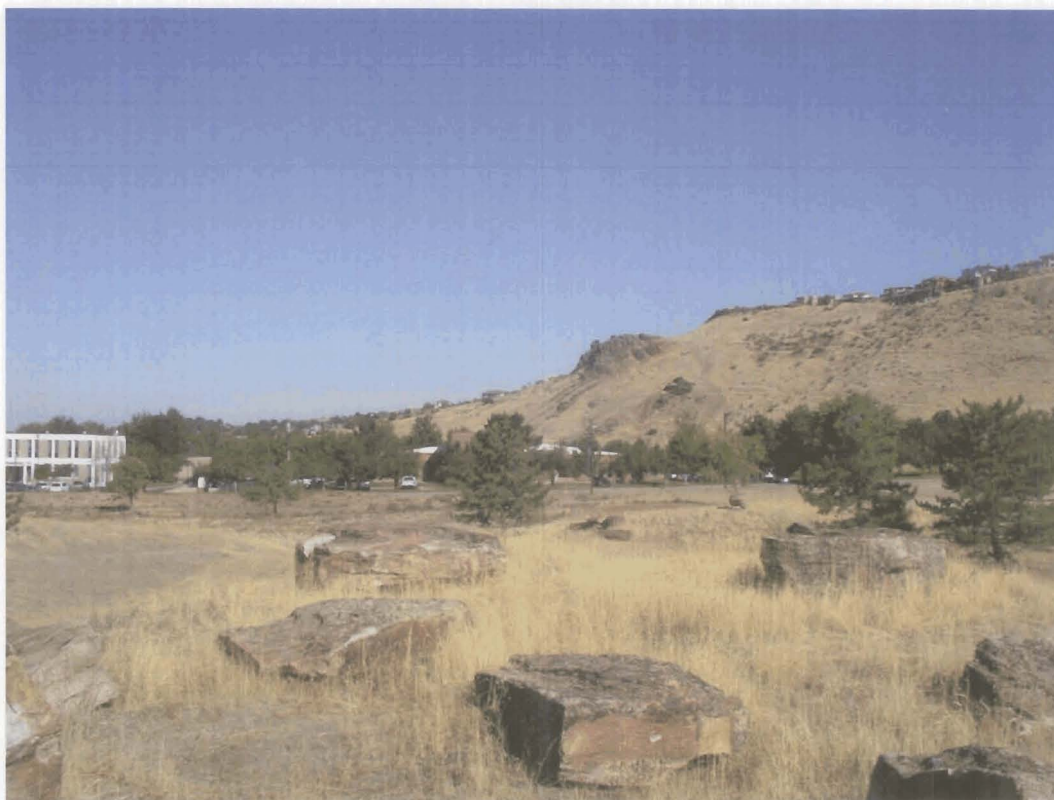
63-9661 License Exam 9/12/08 Photo #16: Old Penitentiary Well #1 previously on permit Well currently not in use.



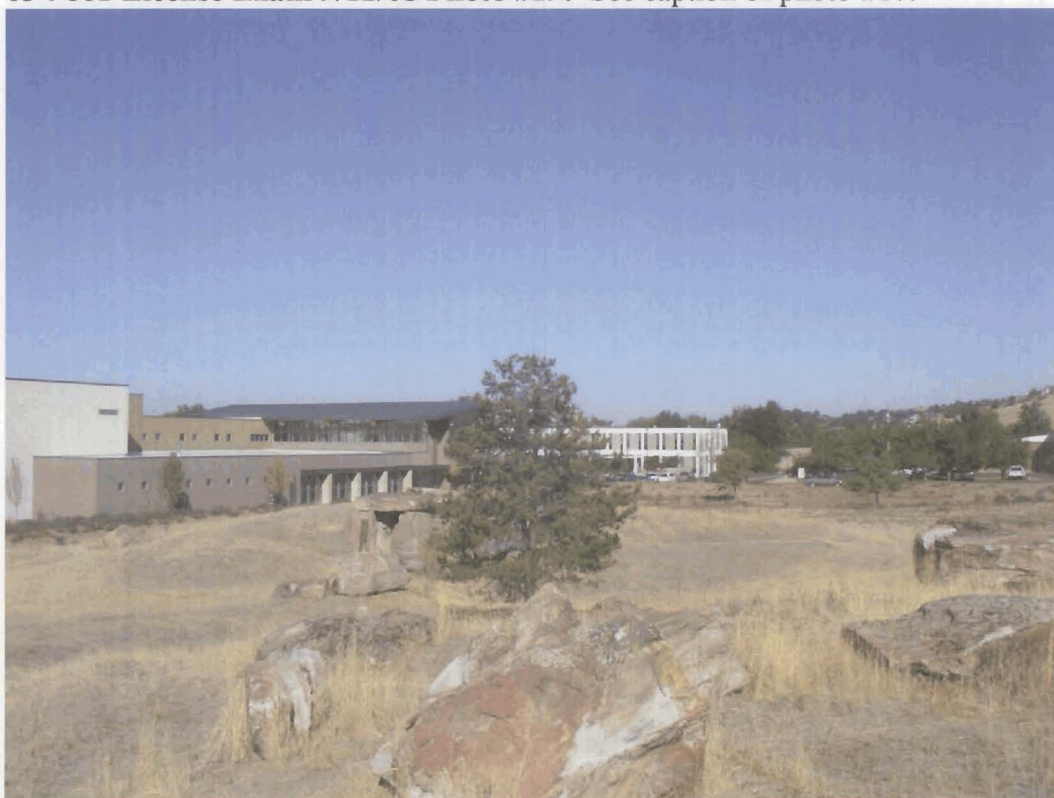
63-9661 License Exam 9/12/08 Photo #17: Photos #17 thru #26 pan starting with this photo facing northeast panning to the north a full 360° end facing northeast (photo #26). Area, known as Chinese Garden, with irrigation of trees in the center of the property.



63-9661 License Exam 9/12/08 Photo #18: See caption of photo #17.



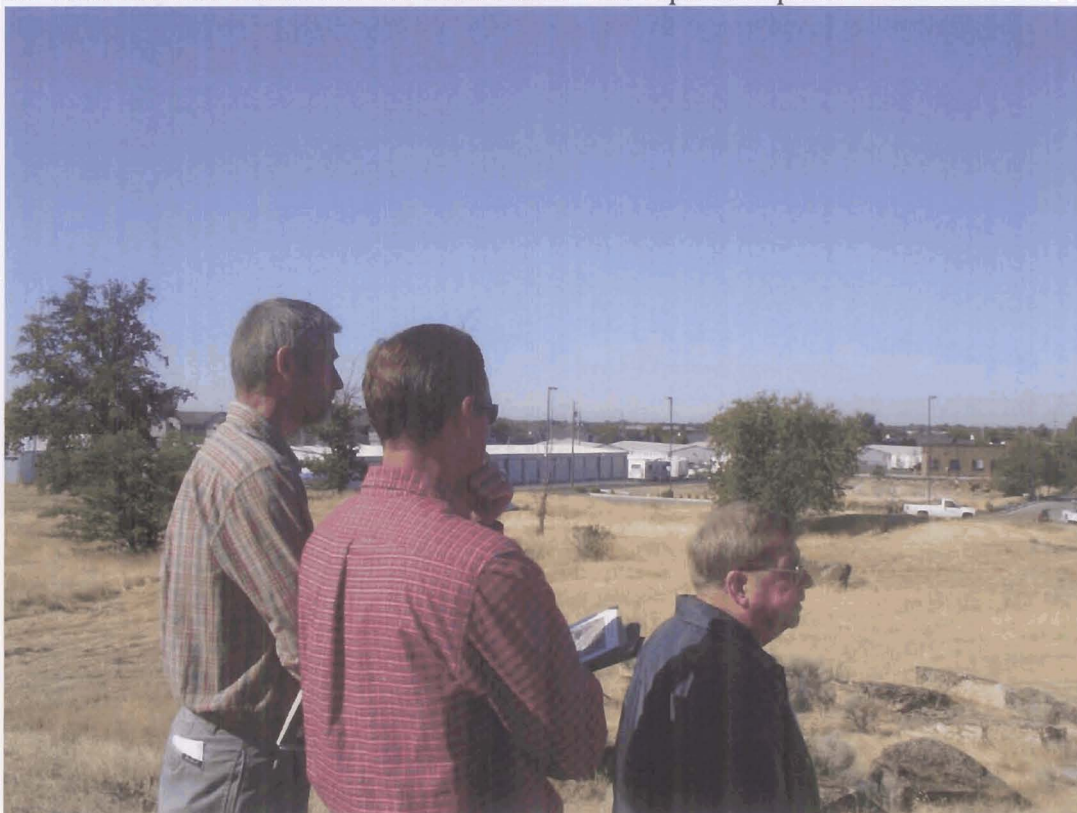
63-9661 License Exam 9/12/08 Photo #19: See caption of photo #17.



63-9661 License Exam 9/12/08 Photo #20: See caption of photo #17. ID Dept of Ag building in background. Idaho State Archives building on left in photo.



63-9661 License Exam 9/12/08 Photo #21: See caption of photo #17.



63-9661 License Exam 9/12/08 Photo #22: See caption of photo #17.



63-9661 License Exam 9/12/08 Photo #23: See caption of photo #17.



63-9661 License Exam 9/12/08 Photo #24: See caption of photo #17.



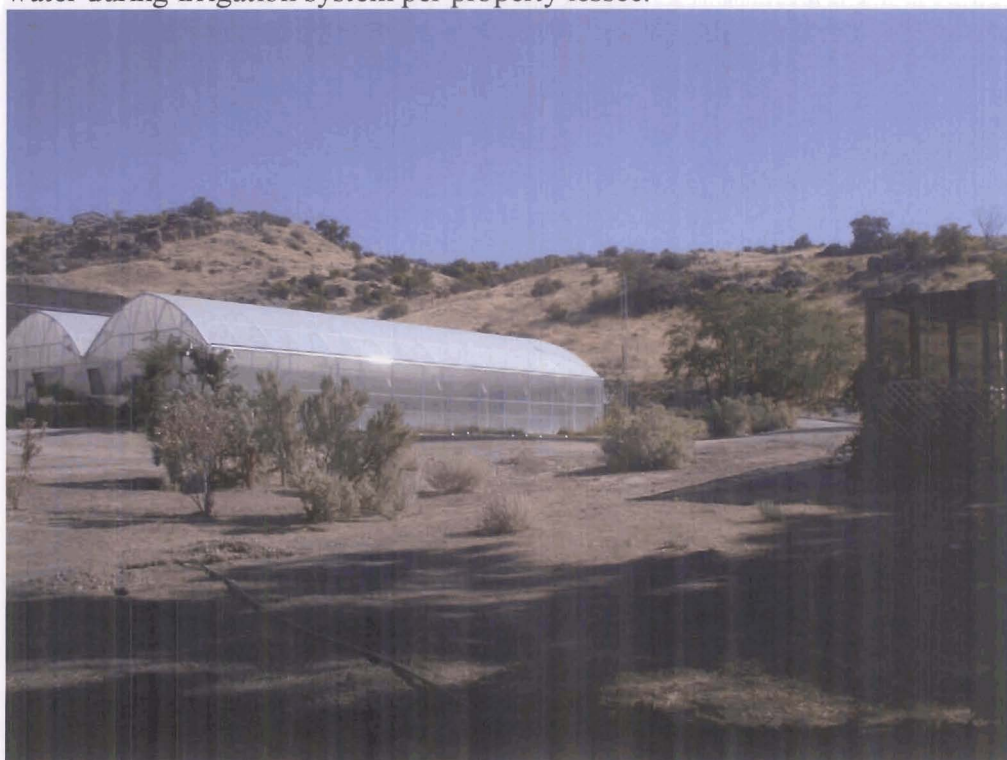
63-9661 License Exam 9/12/08 Photo #25: See caption of photo #17.



63-9661 License Exam 9/12/08 Photo #26: See caption of photo #18.



63-9661 License Exam 9/12/08 Photo #27: Photos #27 thru #31 pan starting with this photo facing east panning to the north ending facing west (photo #31). Area near greenhouses on the north east corner of the property. Greenhouses use 63-9661 system water during irrigation system per property lessee.



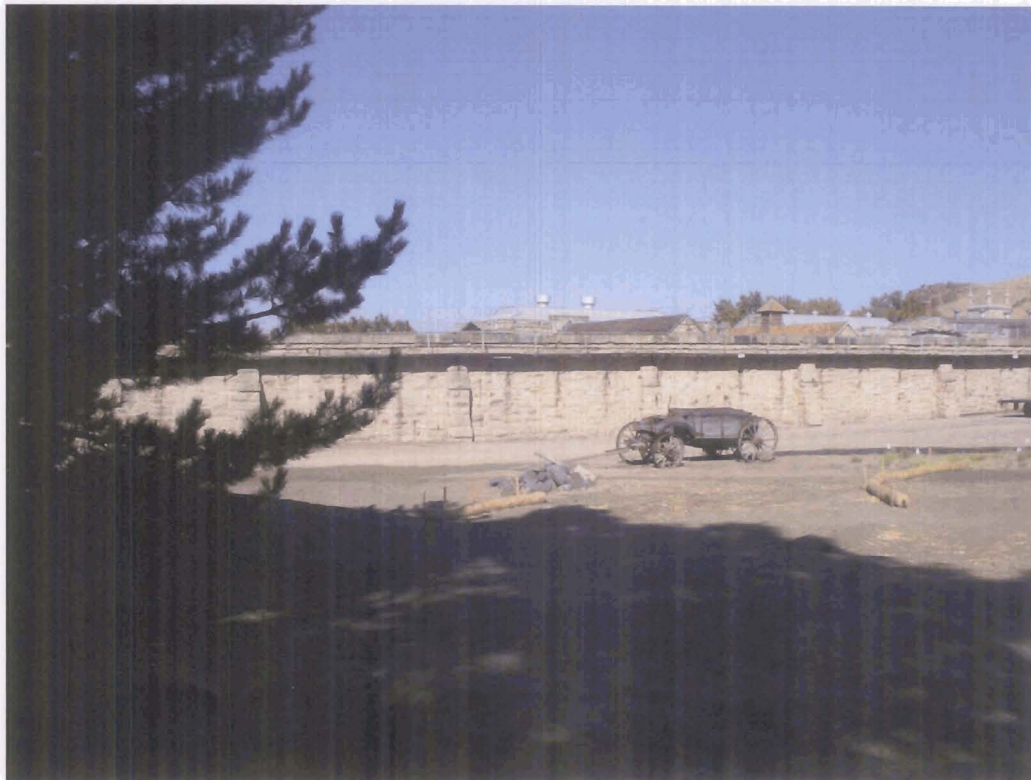
63-9661 License Exam 9/12/08 Photo #28: See caption of photo #27.



63-9661 License Exam 9/12/08 Photo #29: See caption of photo #27.



63-9661 License Exam 9/12/08 Photo #30: See caption of photo #27.



63-9661 License Exam 9/12/08 Photo #31: See caption of photo #27.



63-9661 License Exam 9/12/08 Photo #32: Permit P/D Old Penitentiary Well #2 aka Warm Springs Gold Course Well facing north.