

STATE OF IDAHO  
DEPARTMENT OF WATER RESOURCES  
**BENEFICIAL USE FIELD REPORT**

**A. GENERAL INFORMATION**

Permit No: 51-12992

Exam Date: 11/30/2005

1. Current Owner: MARTIN HOLLAND  
Or  
CHRISTINE HOLLAND  
HC 60 BOX 1020  
BLISS ID 83314  
(208)352-1033
2. Accompanied by: Martin Holland  
Phone No: Same as Above  
Address: Same as Above  
Relationship to Permit Holder: Owner

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

GROUND WATER

**B. OVERLAP REVIEW**

1. Other water rights with the same place of use: 51-10321 and King Hill Irrigation District Water
2. Other water rights with the same point of diversion: 51-10321

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

|               |            |          |          |               |
|---------------|------------|----------|----------|---------------|
| GROUND WATER  | NE1/4NE1/4 | Sec. 14, | Twp 06S, | Rge 11E, B.M. |
| ELMORE County |            |          |          |               |
| GROUND WATER  | SE1/4NE1/4 | Sec. 14, | Twp 06S, | Rge 11E, B.M. |
| ELMORE County |            |          |          |               |

Method of Determination: Aerial Photography and Visual Inspection

2.

**PLACE OF USE:** STOCKWATER

| Twp | Rge | Sec | NE |    |    |    | NW |    |    |    | SW |    |    |    | SE |    |    |    | Totals |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
|     |     |     | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE | NE | NW | SW | SE |        |
| 06S | 11E | 13  |    |    |    |    |    | X  |    |    |    |    |    |    |    |    |    |    |        |
| 06S | 11E | 14  | X  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |

Method of Determination: Aerial Photography and Visual Inspection

3. YES 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 Identification No.* | Motor Make | Hp     | Motor Serial No. | Pump Make | Pump Serial No. or Discharge Size |
|---------------------------------------|------------|--------|------------------|-----------|-----------------------------------|
| FEEDLOT WELL                          | STAY RITE  | 2 Hp   | 2823018110       | STAY RITE | 2823018110                        |
| HOME WELL                             | STAY RITE  | 1.5 Hp | 2823008110       | STAY RITE | 2823008110                        |
|                                       |            |        |                  |           |                                   |
|                                       |            |        |                  |           |                                   |

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

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

#### D. FLOW MEASUREMENTS

1.

| <u>Measurement Equipment</u> | <u>Type</u> | <u>Make</u> | <u>Model No.</u> | <u>Serial No.</u> | <u>Size</u> | <u>Calib. Date</u> |
|------------------------------|-------------|-------------|------------------|-------------------|-------------|--------------------|
| N/A                          |             |             |                  |                   |             |                    |
|                              |             |             |                  |                   |             |                    |

2. Measurements:

No Measurement was done at the time of the exam. It would have been difficult to get both pumps operating at the same time without causing a massive flood of the feedlot. Theoretical calculations and pump curves were used to determine the system capacity. Both the pump curves and theoretical calculations matched, so I am confident with the flow calculations.

#### E. FLOW CALCULATIONS

YES Additional Computation Sheets Attached

Measured Method:

FEEDLOT WELL → 0.04CFS  
 HOUSE WELL → 0.03 CFS  
 TOTAL → 0.07 CFS

PLEASE NOTE: The capacity of the system is less than permit, and the cattle number limitation determined in the Field Examiner's handbook. Therefore, I am recommending the capacity of the system for this permit.

**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:

600 head range cattle X 12 gpd X 365 days per year / 325850 = 8.1 afa for stockwater.

**G. NARRATIVE/REMARKS/COMMENTS**

The system for this feedlot diverts water from two wells with two water rights, this permit and water right 51-10321. The feedlot well designated by this permit is located just south of the feedlot in T6S R11E S14 NENE. The home well designated for water right 51-10321 is located just south of the home, approximately ¼ mile south of the feedlot in the T6S R11E S14 SENE. A mainline from the home well runs to the home of the owner, and then continues on south where it is connected to the mainline of the feedlot well. The two wells are connected together at the old dairy barn on the property, and then are piped to 7 water troughs in the feedlot. Whereas both wells are connected together, both wells should be included on this permit along with their combined diversion rate.

This permit was filed for 1,000 head of cattle for an existing feedlot. According to the aerial photography available, it appears the feedlot was developed between 1974 (orthophoto quadrangle map) and 1987. An adjudication claim was filed in the Snake River Basin Adjudication (SRBA) that allowed domestic use for the home and stockwater under water right 51-10321 with a priority date of 1945. 51-10321 is limited to a maximum use of 13,000 gallons per day or 14.6 afa per year. The pastures are large enough that this decree does seem reasonable, so it is assumed that all the stockwater for the pastures is covered under water right 51-10321.

The current owner has no idea what time the feedlot was developed. There is a dairy barn on site that suggests that this was a small dairy at one time, however, the current owner has only run beef cattle during the time that he has owned the property. This permit was filed to ensure that the current feedlot is covered by valid water rights from both wells.

The owner informed me that he has run over 1000 head of cattle on the property in the past. There are several pastures in and around 3 pivots and a couple of irrigated fields on the owner's property. At the time of the field exam, the owner only had 200 head of cattle on the property, but most of these were cows without calves. The calves are generally raised on site up to butcher weight. Therefore, under the current operation the owner could easily have up to 400 head of his own cattle on the property at any given time.

The owner periodically feeds additional range cattle from other ranches when they are brought down from the range in the winter months. During the winter, the cattle are given the run of the entire farm, to graze off excess forage from his farming operation. All of the pens in the feedlot have a gate to the pasture areas, so the cattle on pasture have a place to come in to drink and be fed. These gates allow the owner to separate cattle as needed. The owner informed me that he has had at least 1,000 head of animals on the property, but he didn't want to feed other cattle this year. The owner did supply a Livestock Facility Waste Inspection Report from the Idaho Department of Agriculture (IDA) that allows 600 head of cattle in the feedlot. The owner is allowed to have additional cattle in his pastures, so it is safe to assume that the owner can easily run between 600 and 1000 head of cattle on the property.

Even though the owner could possibly run 1,000 head of cattle, this permit was filed to cover mainly the feedlot. Therefore, I believe that we can only allow the 600 head allowed in the feedlot by the IDA (please see the IDA Livestock Facility Waste Report) for this permit. The license for this permit should not exceed the capacity of the both wells or 0.07 cfs for the 600 head found in the feedlot. The Field Examiner's handbook allows a volume of 12 gallons per day per animal or 8.1 afa for the feedlot operation. Any cattle fed at the facility above the 600 head should be covered under water right 51-10321.

Due to the past practices, I feel that this permit when combined with water right 51-10321 should not be limited to 600 head of cattle. It should be limited to the capacity of 51-10321 or 0.07 cfs and 13,000 gallons per day or 14.6 afa for the entire farm. The system capacity is also 0.07 cfs, so it appears as though this limitation will easily cover and represent the actual day-to-day operation of this facility. Therefore, when combined with the stockwater portion of water right 51-10321, this permit should be limited to 0.07 cfs and 14.6 afa.

I have spoken to the applicant about the need for a licensing amendment, and he agrees that it would be the best thing to properly describe his system.

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> |
|-----------------------|----------------------|-----------------------|----------------------|
| STOCKWATER            | 01/01 to 12/31       | 0.070 CFS             | 8.10 AF              |
| <u>Totals:</u>        |                      | 0.070 CFS             | 8.10 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**

DANIEL A. NELSON – SENIOR AGENT

Field Examiner's Name Daniel A. Nelson Date 1-6-05

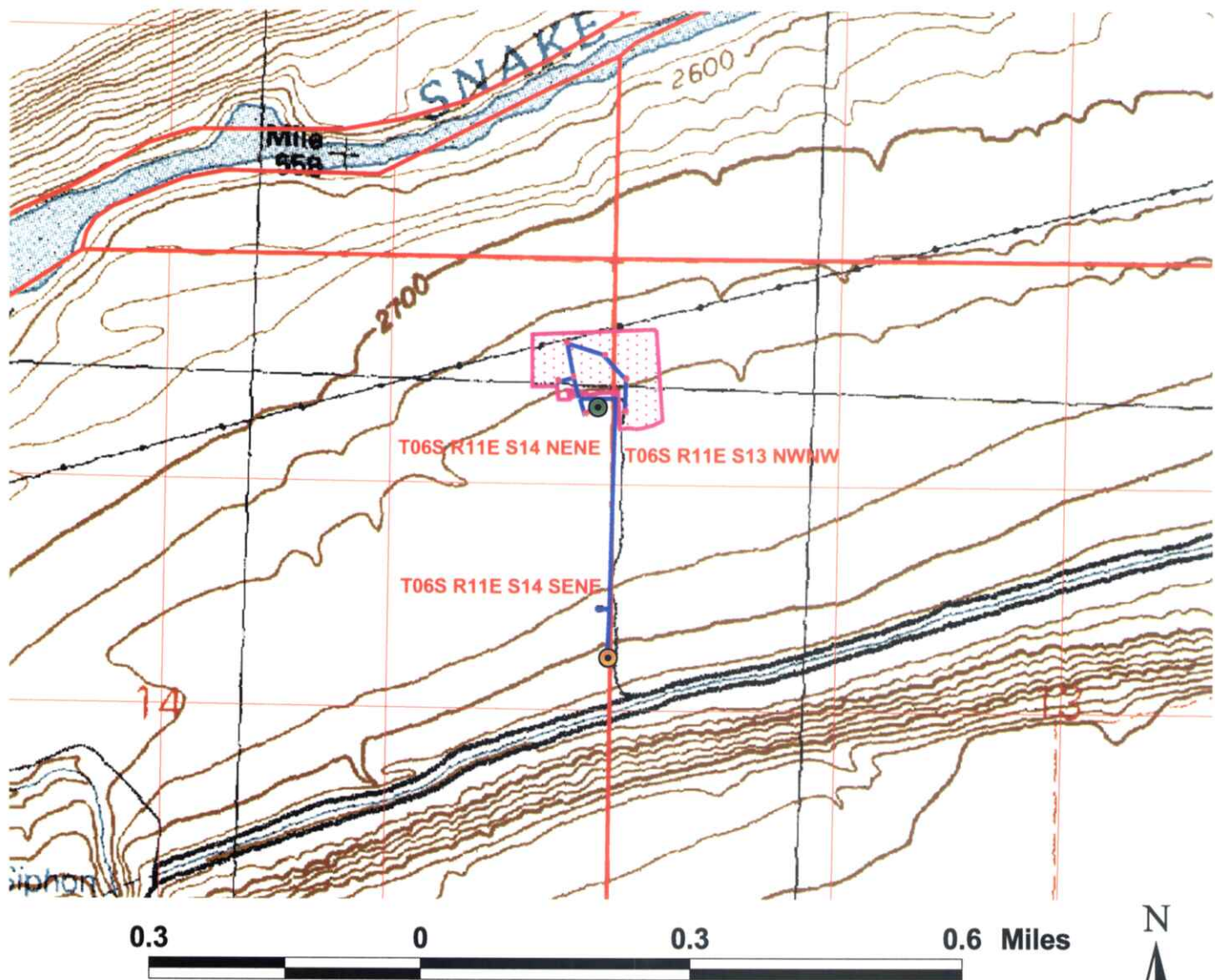
Reviewer \_\_\_\_\_ Date \_\_\_\_\_

SEAL

# FIELD EXAM 51-12992

## QUADRANGLE MAP

### BY DAN NELSON



- WELL DRILLED FOR THIS PERMIT
- WELL DRILLED FOR WATER RIGHT 51-10321

- WATER TROUGHS
- MAINLINE
- FEEDLOT BORDER
- SECTION LINES
- 1/4 1/4 LINES

#### PLEASE NOTE:

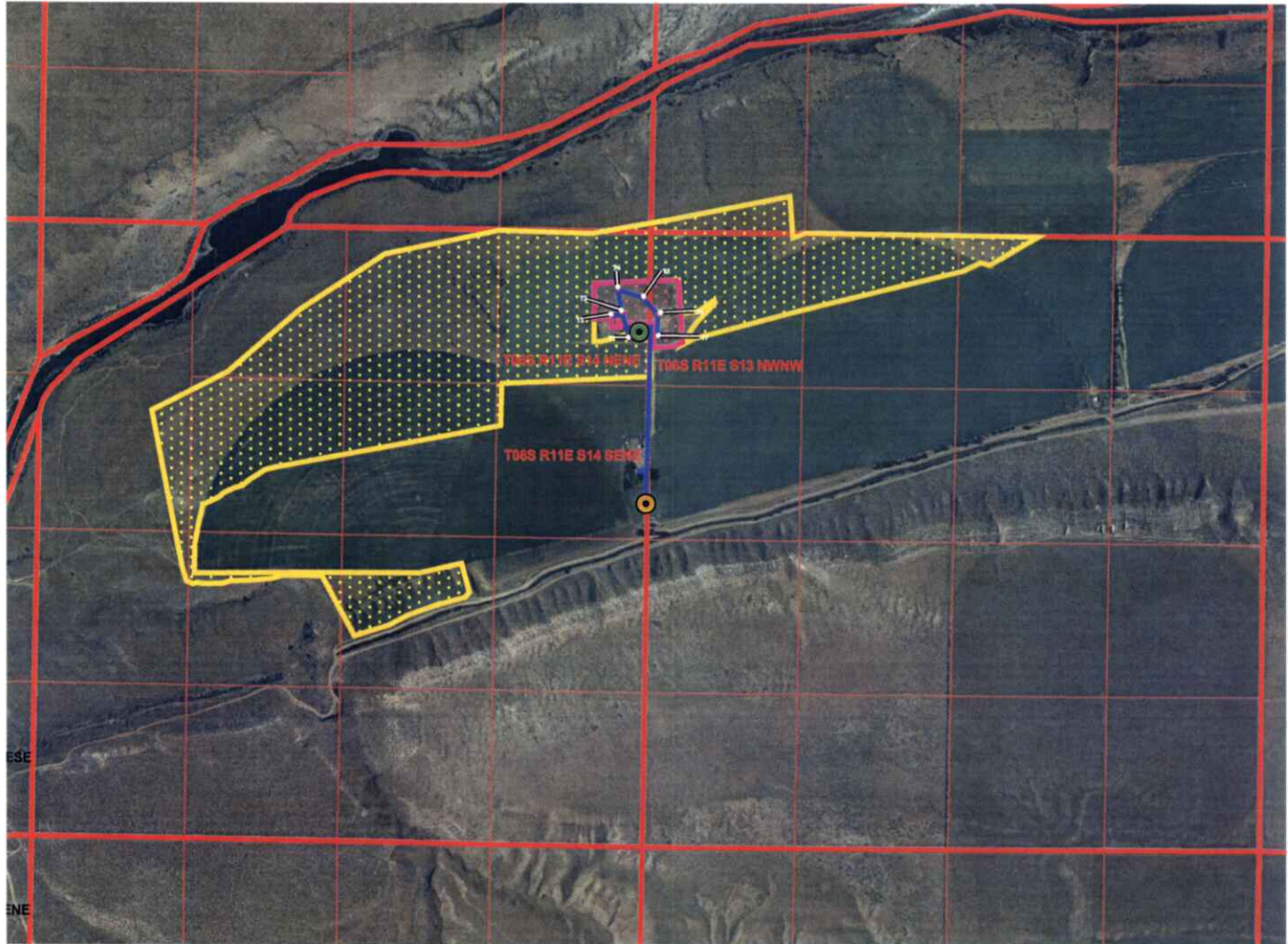
This Quadrangle map shows only the feedlot at the place of use. This permit was filed to cover the feedlot operation only, and water right 51-10321 is used to cover the animals run on the pasture. Both wells are connected together, so both wells should be included when calculating the capacity of the system. There are several gates around the feedlot to allow animals in the pasture into the various pens in the feedlot for water. The pasture and feedlot can be operated separately.

# FIELD EXAM 51-129.2

## PLACE OF USE MAP

### 2004 AERIAL PHOTO

### BY DAN NELSON



- WELL DRILLED FOR THIS PERMIT
- WELL DRILLED FOR WATER RIGHT 51-10321
- WATER TROUGHS
- MAINLINE
- FEEDLOT BORDER (PLACE OF USE)
- PASTURE BORDER
- SECTION LINES
- 1/4 1/4 LINES

#### PLEASE NOTE:

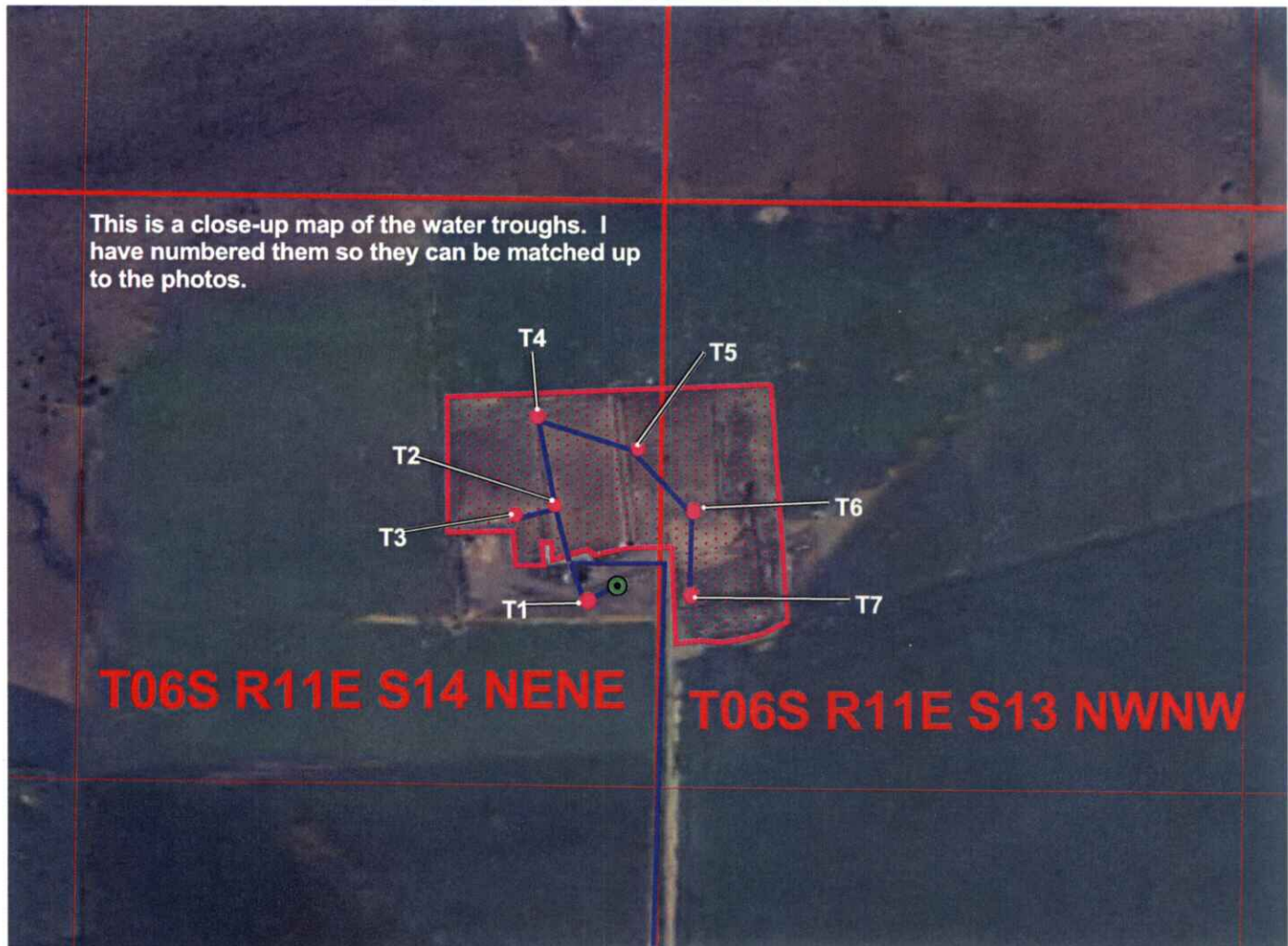
This Quadrangle map shows only the feedlot at the place of use. This permit was filed to cover the feedlot operation only, and water right 51-10321 is used to cover the animals run on the pasture. Both wells are connected together, so both wells should be included when calculating the capacity of the system. There are several gates around the feedlot to allow animals in the pasture into the various pens in the feedlot for water. The pasture and feedlot can be operated separately. The feedlot is the only place of use. The pasture is shown here just for reference.

# FIELD EXAM 51-12902

## MAP OF FEEDLOT

### 2004 AERIAL PHOTO

#### BY DAN NELSON



0.1 0 0.1 0.2 Miles

-  WELL FOR THIS PERMIT
-  WATER TROUGHS
-  MAINLINE
-  FEEDLOT AND ONLY PLACE OF USE
-  SECTION LINES
-  1/4 1/4 LINES



An aerial photograph of a landscape, likely a rural or agricultural area. A road or path runs diagonally across the middle of the image. To the right of the road, there is a large, dark, rectangular area that appears to be a feedlot. The terrain is uneven and shows signs of erosion or natural features. The image is a black and white photograph, possibly a photocopy or a scan of a physical print. There are some artifacts and noise visible on the image, particularly along the edges and in the background. The text is overlaid on the right side of the image.

Please Note:

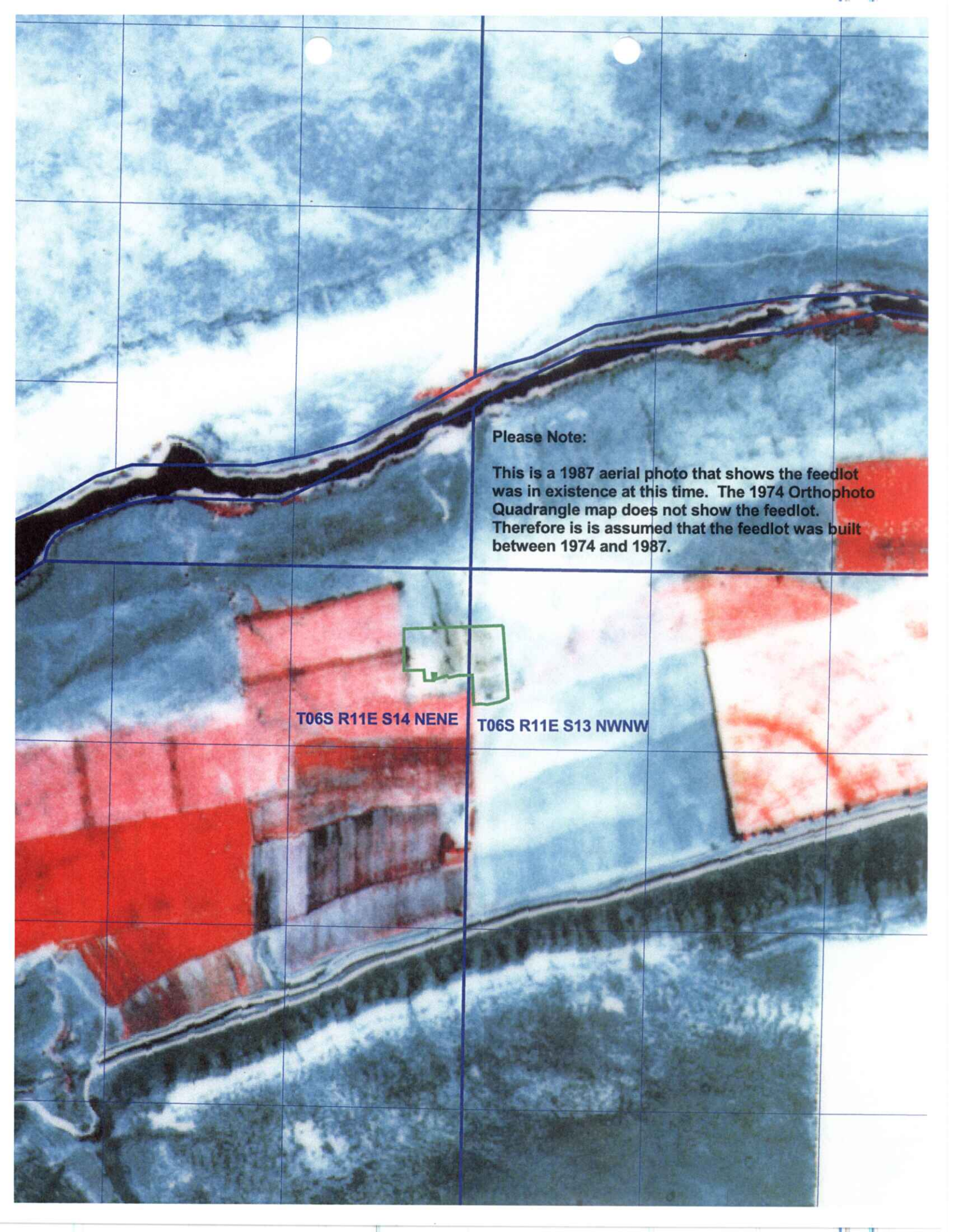
This is a 1974 Orthophoto Quadrangle map. There is no decernable feedlot shown on this map, which suggests that it was not in place at this time. The 1987 aerial photo does show the feedlot, so it is assumed it was built between 1974 and 1987.

Dan Nelson, 12/30/2005

3085

Pilgrim

Gulch

An aerial photograph showing a landscape with a grid overlay. A red-shaded area is visible in the lower-left and lower-right portions of the image. A dark, winding line, possibly a road or river, runs diagonally across the upper half. A green rectangular outline is drawn on the grid in the lower-middle section.

**Please Note:**

This is a 1987 aerial photo that shows the feedlot was in existence at this time. The 1974 Orthophoto Quadrangle map does not show the feedlot. Therefore it is assumed that the feedlot was built between 1974 and 1987.

**T06S R11E S14 NENE**

**T06S R11E S13 NWNW**

## Estimated Pumping Rate Computer

Flow Analysis Performed by: DAN NELSON

Date: 5/6/2005

Page 1 of 1

|                                           |          |                                                      |                                               |
|-------------------------------------------|----------|------------------------------------------------------|-----------------------------------------------|
| Record ID                                 |          | Measured Flow:                                       |                                               |
| Water Right No. 51-12992                  |          | Designed Flow: 0.03 cfs                              |                                               |
| Name Martin and Christine Holland         |          | HP/Eff Flow: 0.03 cfs <<--Max                        |                                               |
| pod 51-10321 Well                         |          | Sprinkler Flow:                                      |                                               |
| year:                                     |          | Pivot/System Flow:                                   |                                               |
| Flow Measurement:      gpm =              |          |                                                      |                                               |
| Curve/Pump Design:      12 gpm = 0.03 cfs |          |                                                      |                                               |
| Horsepower / Efficiency Method            |          |                                                      |                                               |
| Horsepower                                | 1.5 hp   |                                                      |                                               |
| PWL                                       | 208 ft   |                                                      |                                               |
| Disch Psi                                 | 40 psi   |                                                      |                                               |
| PUMP Eff Estimate                         | 0.73 %   |                                                      |                                               |
| TDH                                       | 300 ft   |                                                      |                                               |
| OHP                                       | 1.095 hp |                                                      |                                               |
| Flow                                      | 14 gpm   | =                                                    | 0.03 cfs                                      |
| System Method:                            |          |                                                      |                                               |
| No Lines                                  |          | Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$ |                                               |
| Birds per line                            |          | C=                                                   | 1.00 Nozzle coefficient; typical 0.97 to 1.00 |
| Ttl no nozzles                            | 0        | r=                                                   | 0.0000 ft Nozzle radius                       |
| Nozzle size                               | in       | A=                                                   | 0.00000 ft^2 Nozzle area                      |
| Nozzle pressure                           | psi      | h=                                                   | 0 ft Head                                     |
| Flow per nozzle                           | 0.00 gpm | g=                                                   | 32.2 ft/sec^2 Gravitational constant          |
| Sprinkler Flow                            | 0 gpm    | Q=                                                   | 0.000 cfs Flow per nozzle                     |
| Percent Leaks                             | %        | =                                                    | 0.000 gpm Flow per nozzle                     |
| Total Flow                                | 0 gpm    |                                                      |                                               |
| Pivot / System rating      gpm =          |          |                                                      |                                               |

## Comments / Data Supplied:

This is an older well, so no records were available. Therefore, I used the same data used on the Stock Well for this permit of 198 ft and 40 psi. This well should be recommended at a flow of 0.03 cfs. The maximum capacity of both well is 0.07 cfs.

## Estimated Pumping Rate Computer

Flow Analysis Performed by: DAN NELSON

Date: 5/6/2005

Page 1 of 1

|                                      |          |                                                      |                                               |
|--------------------------------------|----------|------------------------------------------------------|-----------------------------------------------|
| Record ID                            |          | Measured Flow:                                       |                                               |
| Water Right No. 51-12992             |          | Designed Flow: 0.04 cfs <--Max                       |                                               |
| Name Martin and Christine Holland    |          | HP/Eff Flow: 0.04 cfs                                |                                               |
| pod Stock Well                       |          | Sprinkler Flow:                                      |                                               |
| year:                                |          | Pivot/System Flow:                                   |                                               |
| Flow Measurement: gpm =              |          |                                                      |                                               |
| Curve/Pump Design: 20 gpm = 0.04 cfs |          |                                                      |                                               |
| Horsepower / Efficiency Method       |          |                                                      |                                               |
| Horsepower                           | 2 hp     |                                                      |                                               |
| PWL                                  | 208 ft   |                                                      |                                               |
| Disch Psi                            | 40 psi   |                                                      |                                               |
| PUMP Eff Estimate                    | 0.73 %   |                                                      |                                               |
| TDH                                  | 300 ft   |                                                      |                                               |
| OHP                                  | 1.46 hp  |                                                      |                                               |
| Flow                                 | 19 gpm   | =                                                    | 0.04 cfs                                      |
| System Method:                       |          |                                                      |                                               |
| No Lines                             |          | Nozzle Equation: $Q=C*A*\sqrt{2*g*h} / \sqrt{1-r^4}$ |                                               |
| Birds per line                       |          | C=                                                   | 1.00 Nozzle coefficient; typical 0.97 to 1.00 |
| Ttl no nozzles                       | 0        | r=                                                   | 0.0000 ft Nozzle radius                       |
| Nozzle size                          | in       | A=                                                   | 0.00000 ft^2 Nozzle area                      |
| Nozzle pressure                      | psi      | h=                                                   | 0 ft Head                                     |
| Flow per nozzle                      | 0.00 gpm | g=                                                   | 32.2 ft/sec^2 Gravitational constant          |
| Sprinkler Flow                       | 0 gpm    | Q=                                                   | 0.000 cfs Flow per nozzle                     |
| Percent Leaks                        | %        | =                                                    | 0.000 gpm Flow per nozzle                     |
| Total Flow                           | 0 gpm    | =                                                    |                                               |
| Pivot / System rating                | gpm      | =                                                    |                                               |

## Comments / Data Supplied:

This well has a static water level of 198 ft. Assuming the standard drawdown of 10 ft for small pumps, the pumping level or lift would be approximately 208 ft. The pressure was estimated for this size of operation at 40 psi. This well should be recommended at a flow of 0.04 cfs. The maximum capacity of both well is 0.12 cfs.

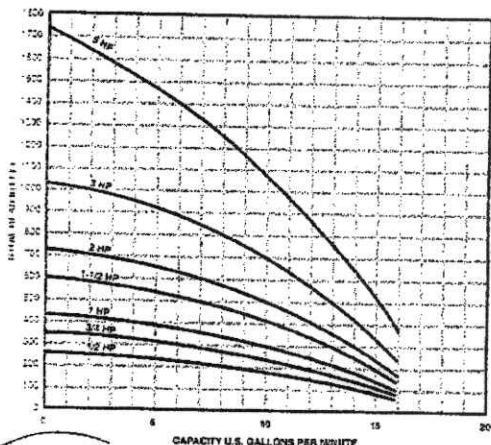
Martin Holland

4 in. Dan Nelson  
From: Eaton Drilling Built on Commitment.

# 4" Submersible Pumps

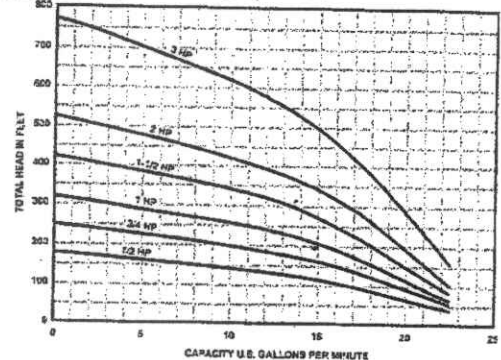
PUMP PERFORMANCE - 10, 15, 20, 30 AND 50 GPM

10 GPM

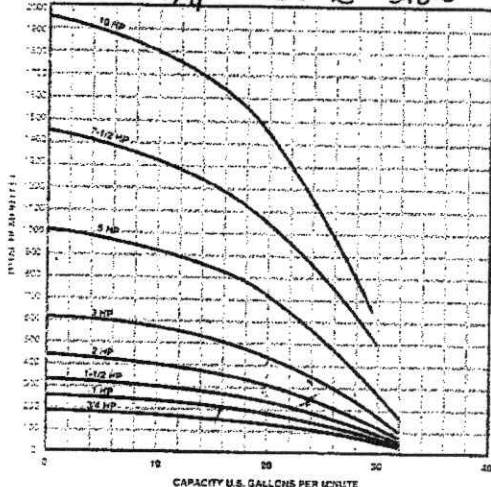


T.D.H - 315' (includes 50' pressure)

15 GPM 1 1/2 hp - SWL - 200'

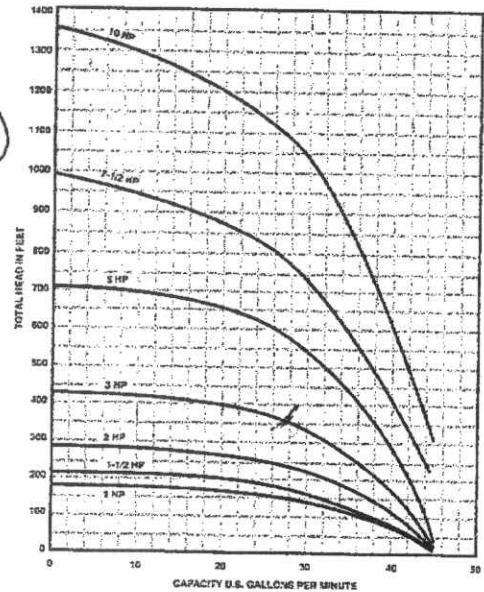


20 GPM 2hp - SWL - 200'

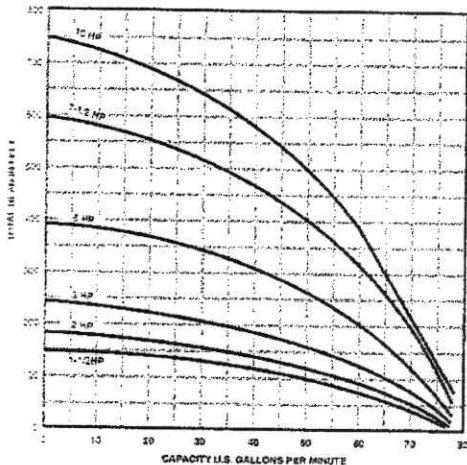


T.D.H - 315' - (includes 50' pressure)  
18 to 20 gals per min.

30 GPM



50 GPM



Check valve not included on 50 GPM pump ends.

# Livestock Facility Waste Inspection Report

|                                      |                             |                                                                                                                                                                                                                                                                  |                                                                       |
|--------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Facility Name: <i>Martin Holland</i> | Date: <i>25 Aug 03</i>      | Inspection Type:<br><input type="checkbox"/> Routine<br><input type="checkbox"/> Follow-up<br><input type="checkbox"/> Pre-Qualifying<br><input checked="" type="checkbox"/> Qualifying<br><input type="checkbox"/> Other<br><input type="checkbox"/> Complaint: | Repeat Non-Compliance <input type="checkbox"/>                        |
| Owner: <i>Gallins</i>                | Time: <i>5:00</i>           |                                                                                                                                                                                                                                                                  | Time Frame:                                                           |
| Address: <i>110 W 2040 S</i>         | Number of Animals: <i>0</i> |                                                                                                                                                                                                                                                                  | Discharge Violation <input type="checkbox"/>                          |
| City/State/Zip: <i>Bliss ID</i>      | Permit Amount: <i>600</i>   |                                                                                                                                                                                                                                                                  | GPS Coordinates<br>North: <i>42° 54.42</i><br>West: <i>115° 66.36</i> |
| Phone Number: <i>280-0517</i>        |                             |                                                                                                                                                                                                                                                                  |                                                                       |

A livestock waste facility inspection was conducted at your facility on this date. Items found to be in non-compliance with State Rules are identified below. Please be aware that repeat non-compliance items found to exist on the next inspection may be cause for regulatory action.

| ITEM/DESCRIPTION                    | Comment                             | Non-Compliance           | Discharge                |
|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| <b>1. WASTE SYSTEM</b>              |                                     |                          |                          |
| a. Waste Containment Pond           | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Type:                               |                                     |                          |                          |
| Freeboard:                          |                                     |                          |                          |
| b. Corral Containment               | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Adequate Berming                    |                                     |                          |                          |
| c. Separation System                | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Construction Approved            | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| e. Adequate Liquid Storage          | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| f. Waste Facilities Well Maintained | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| g. Evidence of Past Discharge       | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| h. Animals Confined From Waterways  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>2. NUTRIENT MANAGEMENT</b>       |                                     |                          |                          |
| a. Nutrient Management Plan         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |
| 1. Crop Rotation and Yield          | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| 2. Animal Numbers                   | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| 3. Barn Water Use                   | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| 4. Waste Export                     | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| b. Record Keeping Current           | <input type="checkbox"/>            | <input type="checkbox"/> |                          |
| c. Liquid Application               | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Solid Application                | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |

Remarks:

This facility uses in pen containment  
There are no animals in this facility at the time of this inspection.

This facility is in compliance with ISDA regulations at the time of this inspection.

2a No nutrient management plan is required for a feedlot of this size.

*John Klimas*  
*731-0564*

INSPECTOR SIGNATURE

PRODUCER SIGNATURE

*PHOTOGRAPHER AND DATE OF PHOTOS* DANIEL A NELSON 11/30/2005

*FILE NUMBER* 51-12992

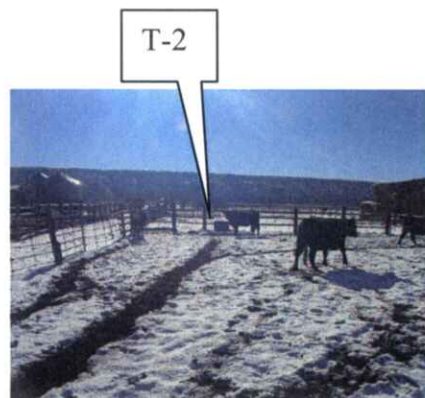
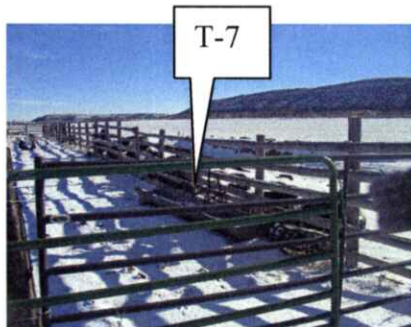
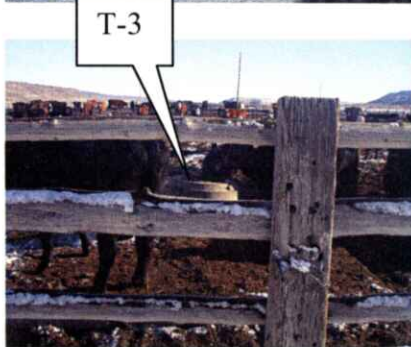
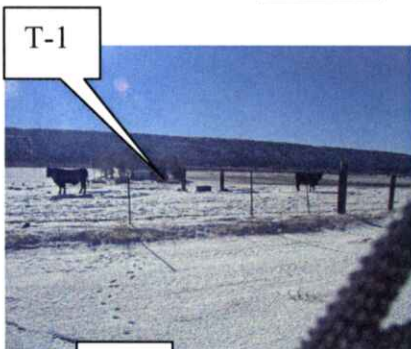


These are photos of the well and the power box for the well. The well is located in the middle of the pasture in front or south of the feedlot.



*PHOTOGRAPHER AND DATE OF PHOTOS* DANIEL A NELSON 11/30/2005

*FILE NUMBER* 51-12992



These are photos of the 7 water troughs. I have numbered each one of them to match the Feedlot Map.

*PHOTOGRAPHER AND DATE OF PHOTOS* DANIEL A NELSON 11/30/2005

*FILE NUMBER* 51-12992



These are random photos of the feedlot. The bottom two photos show the open gate to the various pastures, and the cattle going out to the pasture. The only available stockwater from the wells is from the water troughs in the feedlot.

*PHOTOGRAPHER AND DATE OF PHOTOS* DANIEL A NELSON 11/30/2005

*FILE NUMBER* 51-12992

Well of 51-10321 is located here.

Home

Feedlot

51-12992 well is located here.

Pasture fence line



This is a panoramic view of the farm. You can see the feedlot behind the home on top of the hill. The pasture runs along the back of the fields shown in the foreground.

*PHOTOGRAPHER AND DATE OF PHOTOS* DANIEL A NELSON 11/30/2005

*FILE NUMBER* 51-12992



These are photos of the well pit for the well associated with water right 51-10321. The well is connected to the same system, but is described by another water right.