

Field Exam Summary A25-12306 November 15, 2003

Bryce Contor

Water Resources Field Services

General Comments - All Maurice Robison Claims

These claims are beneficial use claims for irrigation from a reservoir, streams, and springs. *Two* of the claims include irrigation storage. My inspection confirmed the reservoir and some of the claimed irrigation and also confirmed stockwater use, ~~which is not claimed~~. A letter to the claimant requests a more detailed explanation of irrigation history and invites an amendment or new claim for stockwater. A copy is in paper file A25-12306.

I drove by late in the day on November 1 after looking at other claims all day. I took two photos and a GPS reading, so that if snow came early I would at least have something. These field notes are in the photos directory as A25-13582_Preliminary_Notes.jpg. Both photos are scanned in one JPEG, saved as A25-13582_Preliminary.jpg. The GPS readings are recorded in the field notes as UTM coordinates to allow direct scaling off a USGS map. They confirm that I was in the right location.

On November 6 I returned and did a more thorough investigation. Field notes are in the photos directory as A25_13582Notes_X.jpg where "X" is the page number. GPS readings are in UTM and correspond to points sketched on a copy of a USGS map in paper file A25-12306. Photo numbers in the notes refer to the red circles on a copy of the claimant's map, also filed in paper file A25-12306. GPS readings for Points of Diversion are reported in the summary write up and the data file in IDTM coordinates. My GPS unit sometimes seems to "lose" data points when I change filenames so the GPS filenames are just the names assigned by the unit.

The evidence of priority is an affidavit from Mr. Robison that describes activities that he may not have personally observed, as well as activities he undertook himself. He references coming home from WWII in 1947. This could imply a birth year of about 1920, suggesting his affidavit references personal knowledge back to 1925. This is earlier than many of the claimed priority dates.

General Comments - A25-12306

Field inspection confirms the use of this water right. The home is in disrepair and domestic water may not have been used recently but it is quite likely it was in use at the time the claim was filed.

Ownership

Appears to be correct.

POD

Layout appears to be correct. GPS waypoint 100, 686,593E 239,149N ITDM is the irrigation POD, a headgate from the dam. This is photo A25-12306_3.jpg.

GPS waypoint 120, 685,114 E 240,160N is the spring POD for the domestic use, photo A25-12306_10.jpg.

POU

The POU sketch in the claim appears to be about right. I tried to mark the layout but a better representation is the sketch I made on a copy from the USGS map. The uphill (north) edge of the POU is from a GPS traverse and the downhill (south) edge is from the creek on the USGS map. Dot count indicates about 53 acres which corresponds to the claimed acreage.

Overlap

Tail water from A25-13582 will run down onto this POU and it may be reasonable to recommend overlapping places of use, as I have sketched (see A25-13582 paper file).

A25-12306, A25-13584, and A25-13585 share storage in the reservoir.

Conflict

None noted.

Priority

Claimed priority date of 1937 should be within the personal knowledge of Mr. Robison. He affirms construction of the dam and use of the water in 1937 in the affidavit.

Quantity

The claimed 53.5 acres appears reasonable and justifies the claimed diversion rate and storage volume. A Manning's calculation confirms adequate diversion works capacity. My volume calculations for the reservoir indicate a capacity of 49 to 59 acre feet useable, which is less than claimed.

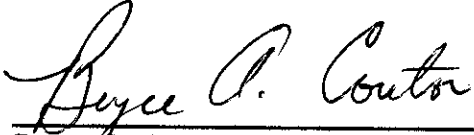
The three storage claims need a combined limitation to the reservoir capacity.

Water Use

Irrigation, domestic, and stock water uses observed. Letter invites claimant to amend claim to include stockwater.

List of Photos

- | | |
|------------------|---|
| A25-12306_1.jpg | Looking west at place of use. Foreground is not part of claim, claimed POU is beyond the line of willows in the middle ground. Corresponds to photo 7 on map and in field notes. |
| A25-12306_2.jpg | Dam. Corresponds to photo 8. |
| A25-12306_3.jpg | Headgate at dam. Photo 9. |
| A25-12306_4.jpg | Ditch. Photo 10. |
| A25-12306_5.jpg | Ditch at location of cross-section used for Manning's. Photo 11. Looking west (downstream). |
| A25-12306_6.jpg | Looking upstream (east) at ditch very near site of previous photo. Uphill ditch is the main ditch used in Manning's calculation. Lower ditch parallels upper for about half a mile. The line in between that looks like a ditch is a cow path. Photo 12. |
| A25-12306_7.jpg | Looking SW towards POU. POU is all on the near side of the creek. At the left of the photo traces of a dam can be seen, corresponding to point "G" on the field sketch map. Other claims indicate pumping from ponds for sprinkler irrigation and this is one of the dams sketched by claimant. Photo 13 on map and in notes. |
| A25-12306_8.jpg | POU looking SW from bend in ditch, photo 14 at GPS location 114. |
| A25-12306_9.jpg | POU looking NW from same location. Photo 15 in notes and on map. |
| A25-12306_10.jpg | Domestic POD. The pipeline also supplies stock tanks near the home. |


Bryce A. Contor

11/15/03
Date

November 15, 2003

Maurice L. Robison
690 Northgate Mile
Idaho Falls ID 83401

Re: Water Right Adjudication Claims A25-12306, A25-13582, A25-13583,
A25-13584, A25-13585, A25-13586

Dear Mr. Robison:

Many years ago you filed adjudication claims for the irrigation of your ranch in Long Valley, above Bone. Idaho Department of Water Resources is investigating irrigation claims in your area in order to make recommendations to the court. I have been contracted to do field exams of your rights, as I indicated in a post card mailed to you earlier.

In my field inspection I found the claimed gravity irrigation from the reservoir and from Long Valley Spring, as well as domestic and stock use. I also found stockwater use. You may wish to talk to IDWR about amending your claims or filing a separate claim for stockwater.

Some of your claims are for sprinkler irrigation on land too rolling for gravity irrigation. I found traces of previous sprinkler irrigation but no indication of current use of sprinklers. To aid IDWR in making a correct recommendation, I need you to send me a letter explaining your sprinkler irrigation practice from 1984 through the present. The more detail you can give me, the better. I've enclosed a map, could you please mark on there *exactly where you actually have sprinkled, and when*. Please describe the size and horsepower of the pump, the number of joints of mainline you used, the number of sprinklers and the nozzle size, how many sets a day you ran and about how many weeks a year you were able to irrigate each parcel.

Thank you,

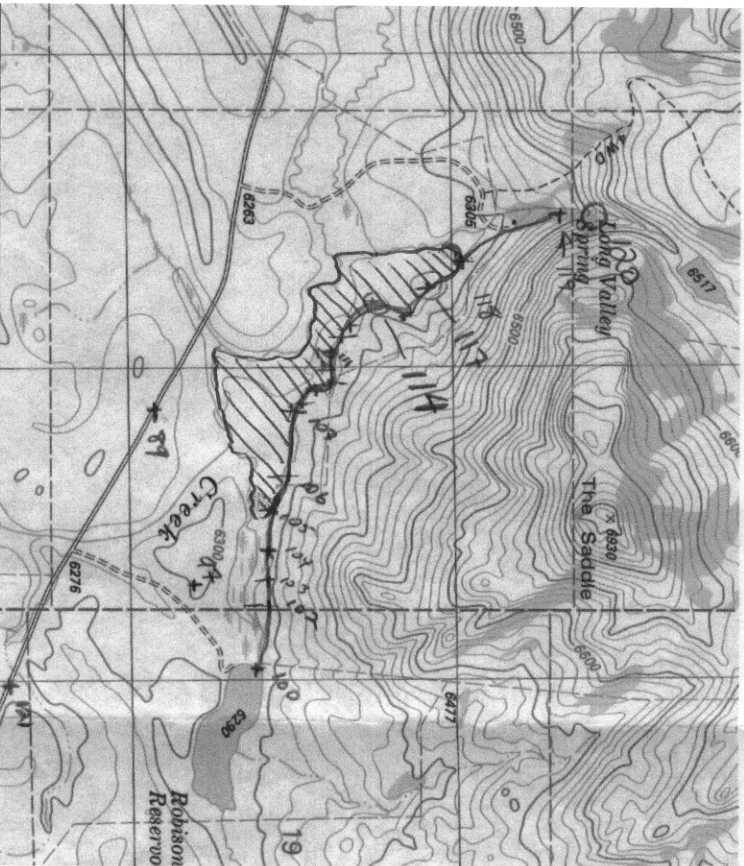
Bryce A. Contor

Water Resources
Field Services
208 663 4667

A25-12306 POU

Dec 11/15/03

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A25-12306 Reservoir Capacity 11/15/03

Using a dot grid on the USGS topo map
I count 16 dots $\times$ 0.92 acres $\approx$ 14.7 acres.

It looked like the effective ^{recently used} usable depth of the reservoir is about 4' though it has been dry the last few years. Neglecting the slope of the edges of the wedge of storage water (See photo A25-12306-3.jpg)



Actual



Calculation

the storage volume @ 4' is $4' \times 14.7 \text{ acres} = 59 \text{ acre feet}$.
The neglecting of the wedge is partial accommodation of a potentially greater depth.

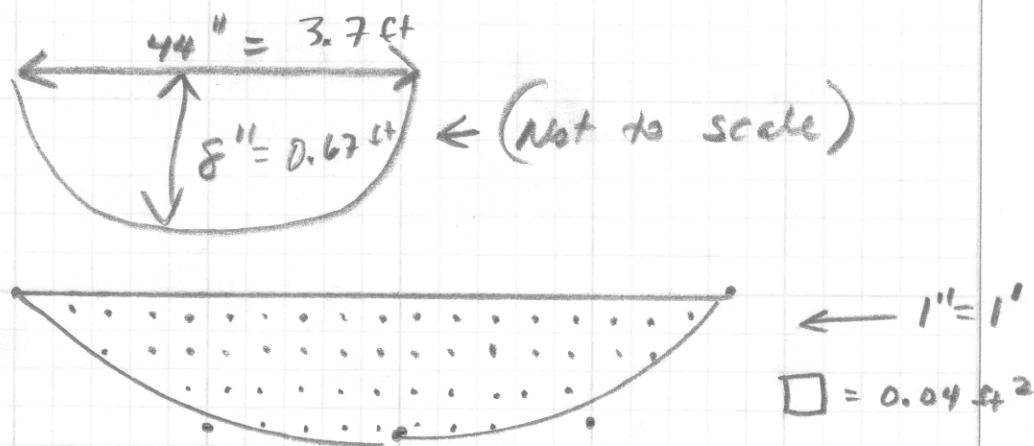
As an alternate calculation, the total volume can be seen as an inverted pyramid with a 14.7 acre base and an elevation of ten feet. The claim states "30' High" dam but the USGS map shows reservoir elevation at 6290 and the 6280 foot contour does not reach the foot of the dam. Pyramid volume = $\frac{1}{3}(\text{base})(\text{height})$
 $= (\frac{1}{3})(14.7 \text{ acres})(10 \text{ feet}) = 49 \text{ acre feet}$.

BAC

A25-12306 Mannings Calculation 11/8/03

I did not have my lazer level so I measured approx ditch dimensions w/ tape measure I planned to take slope from USGS map, plotting ditch locations w/ GPS. On a small scale the ditch appears to go uphill in places but over the length, the ditch about parallels the 6280 contour. Since the reservoir elevation is given at 6290 and the last waypoint ⁽¹¹⁸⁾ is much closer to the 6280 than the 6260, I suppose fall is about 10 ft in the mile length of the ditch. $\frac{10}{5280} \approx 0.0019$.

Cross-section (see A25-13582Notes-3.jpg):



$$HR = \frac{A}{WP} = \frac{2.0 \text{ ft}^2}{4.38 \text{ ft}} = 0.46 \text{ ft}$$

$\approx 50 \text{ squares} \approx 2.0 \text{ ft}^2$
WP measured w/ ruler = $4\frac{3}{8} \text{ ft}$
 $\approx 4.38 \text{ ft}$

A25-12306 Mannings' p 2 11/8/03

Mannings' n from Perry Civil Engineering
Handbook 1959

Earth, some weeds 0.025 0.030
Earth, dense weeds 0.030 0.040

I select 0.030 as mid-range value.

$$Q = \frac{1.486}{n} A R^{2/3} S^{1/2} \quad (\text{Bureau Rec} \\ \text{Data Meas. Manual} \\ \text{p170})$$

$$Q = \frac{1.486}{0.030} (2.0) (0.46^{2/3}) (0.0019)^{1/2} = 2.6 \text{ ft}^3/\text{s}$$

The slope could be double what I estimated
and n could be 0.025.

$$Q = \frac{1.486}{0.025} (2.0) (0.46^{2/3}) (0.0038)^{1/2} \approx 4.41 \text{ ft}^3/\text{s}$$

The slope could be half what I estimated
and n would be 0.04

$$Q = \frac{1.486}{0.04} (2.0) (0.46^{2/3}) (0.00095)^{1/2} \approx 1.38$$



Sketch to accompany
Field Notes 11/6/03
Dac

Water Resources
Field Services
208 663 4667

425-12306

Source: Claim file
425-12306

Date: 11/5/03
Dac

T2N R40E Long Valley Quad 4565

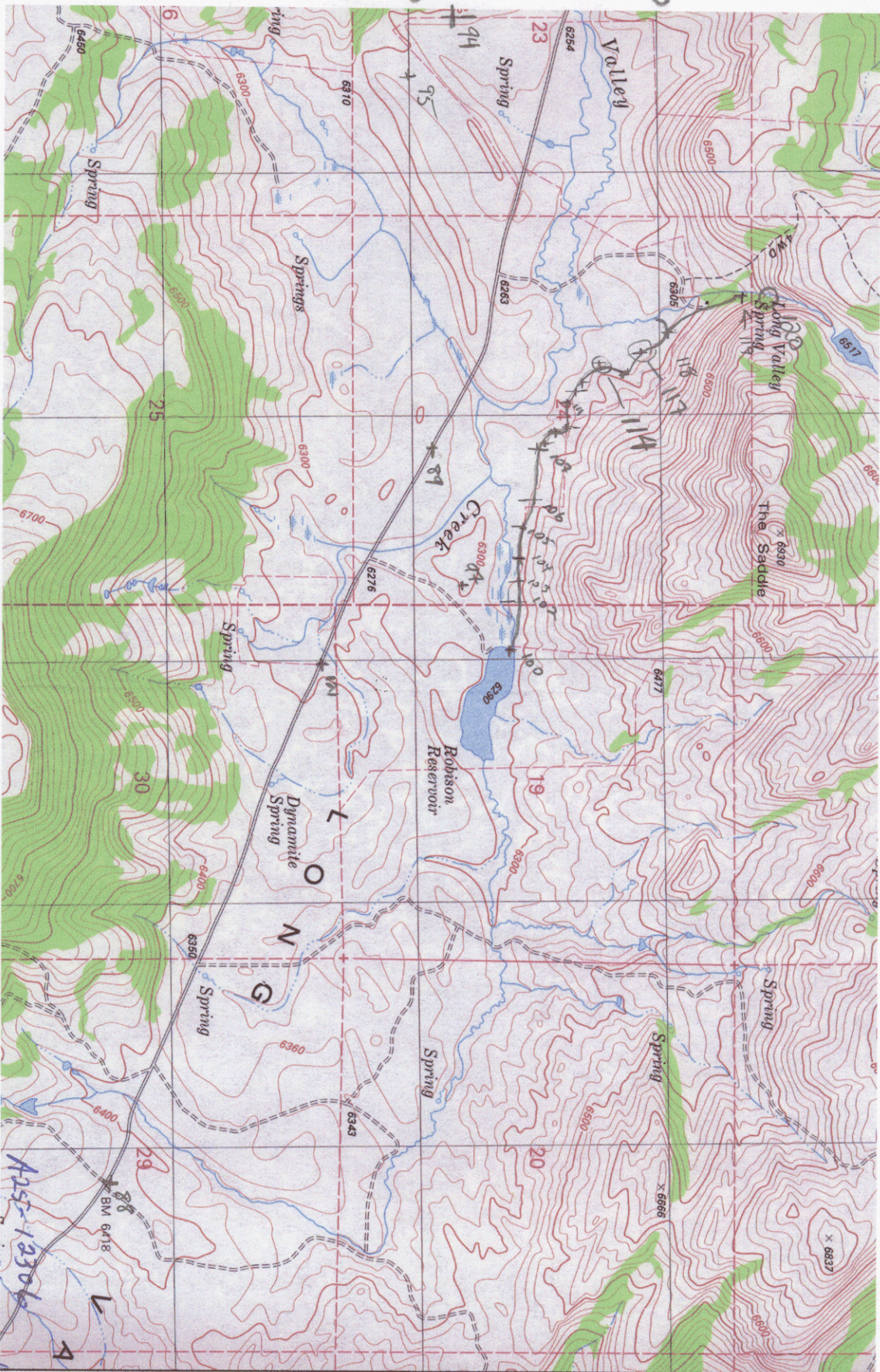
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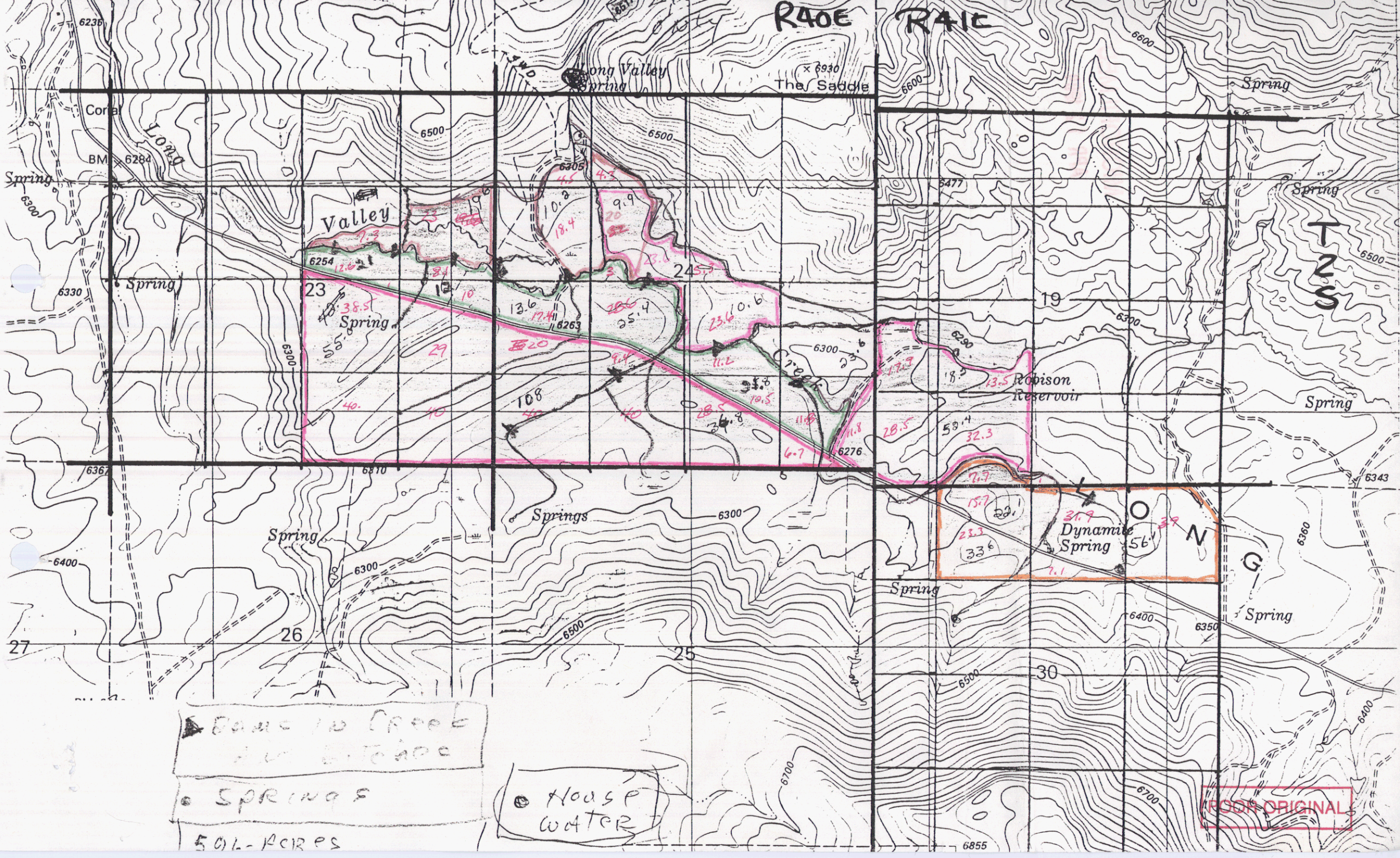
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R40E R41E

T
2
S

N

G

▲ Dam to Creek
for bitumens

• Springs

506-Acres

• House
water

FOOT ORIGINAL



POOR ORIGINAL