

JUN 24 2005

Permit No: 67-2390

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DEPARTMENT OF WATER RESOURCES

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 67-2390

Exam Date: 9/23/1992

1. Current Owner: ARTHUR A FAIRCHILD
2324 AIRPORT RD
MIDVALE ID 83645
(208)355-2248
2. Accompanied by: Art Fairchild (now deceased)

Current Owner/Contact: Tree Top Ranches LP, c/o Larry Williams, President
 Phone No: 377-0998
 Address: PO Box 8126, Boise ID 83707
 Relationship to Permit Holder: Son-in-Law & President; l of Tree Top Ranches LP

3. **SOURCE**

SAGE CREEK
UNNAMED STREAM
UNNAMED STREAMS

TRIBUTARY

WEISER RIVER
SAGE CREEK
SAGE CREEK

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 67-7732, 67-7899, 67-14107
2. Other water rights with the same point of diversion: 67-7732, 67-7899, 67-14107

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

UNNAMED STREAM	L2 NW1/4NE1/4 ✓	Sec. 3,	Twp 13N,	Rge 05W, B.M.
WASHINGTON County	(Injection)			
UNNAMED STREAM	NE1/4SE1/4 ✓	Sec. 3,	Twp 13N,	Rge 05W, B.M.
WASHINGTON County	(Rediversion)			
UNNAMED STREAM	NE1/4SE1/4 ✓	Sec. 3,	Twp 13N,	Rge 05W, B.M.
WASHINGTON County				
SAGE CREEK	NE1/4NW1/4 ✓	Sec. 23,	Twp 13N,	Rge 04W, B.M.
WASHINGTON County	(Rediversion)			
UNNAMED STREAM	NE1/4NE1/4 ✓	Sec. 34,	Twp 14N,	Rge 05W, B.M.
WASHINGTON County				
UNNAMED STREAM	SE1/4NW1/4 ✓	Sec. 20,	Twp 13N,	Rge 04W, B.M.
WASHINGTON County	(Injection)			
UNNAMED STREAMS	SW1/4NW1/4	Sec. 14,	Twp 13N,	Rge 05W, B.M.
WASHINGTON County				

Method of Determination: Exam

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
13N	04W	11												.8	30.0		40.0	40.0	110.8
13N	04W	12											24.0	16.0			9.3		49.3
13N	04W	13		40.0	38.0		24.0	39.0	39.0	40.0	30.0	40.0	35.0	19.0		1.4			345.4
✓ 13N	04W	14	40.0	40.0	39.0	37.0	28.0			25.0					39.0	8.6	6.1	28.0	290.7
13N	04W	23	6.6																6.6
13N	04W	24					4.2	20.0											24.2

PLACE OF USE: IRRIGATION STORAGE

[illegible]

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
13N	04W	11												X	X		X	X	
13N	04W	12											X	X			X		
13N	04W	13		X	X		X	X	X	X	X	X	X	X		X			
13N	04W	14	X	X	X	X	X			X				X	X	X	X	X	
13N	04W	23	X																
13N	04W	24					X	X											

Method of Determination: 1992 FSA Maps, 1987 Aerial Photos/ArcView, Field Exam

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

4. See pump station summary notes in file dated 4/11/05 for details of 5 pumps that divert water into the irrigation system from Fairchild Reservoir No. 2.

<u>Well or Diversion ID No.*</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>

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

D. FLOW MEASUREMENTS See File

<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>

E. FLOW CALCULATIONS

☒ X Additional Computation Sheets Attached

Measured Method:

See attached Mannings Equation-Data Collection sheet and computer calculations for capacity of ditch that feeds Fairchild Reservoir No. 1.

See attached calculations sheet dated 4/13/2005 for estimated capacity of ditch that feeds Fairchild Reservoir No. 2.

Stockwater flow rate was based on the department standard for 200 beef stock.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (5 \text{ af/ac allowed from storage}) = 827 \times 5 = 4135 \text{ af}$$

$$V_{D.R.} = \text{Fairchild Reservoir No. 1 Capacity} = 3700 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 3700 \text{ af}$$

2. Volume Calculations for Other Uses:

$$200 \text{ beef stock} \times 12 \text{ gpd/hd} \times 365 \text{ dys} = 876000/325850 = 2.70 \text{ afa}$$

Fairchild Reservoir No. 1: 3700 af per D67-2390

G. NARRATIVE/REMARKS/COMMENTS

This permit was originally filed in 1967 for 3160 acres in the name of Art Fairchild. Sufficient fees were received in 1988 for proof of beneficial use listing irrigation of 750 acres (fees are still sufficient for the recommended 827 acres). An SRBA claim was filed by Fairchild Tree Top Ranch LTD in 1989 on this permit listing irrigation of 800 acres. Current tax records show the property owned by Tree Top Ranches LP. President of this partnership is Larry Williams. Larry is Art Fairchild's son-in-law. Art Fairchild is deceased.

Steve Lester met with Art Fairchild and conducted an exam on this system in 1992. The recommended diversion to storage is based on a Mannings measurement made on the diversion ditch in S34 T14N R5W, which is used to collect the entire flow of an unnamed stream. Water collected in the ditch is injected into another unnamed stream, aka Summercamp Creek. The injected water, along with creek water, is then withdrawn into a ditch that is similar in size to the ditch measured above (basically a continuation of the first ditch). The ditch then feeds Fairchild Reservoir No. 1.

Fairchild Reservoir No. 1 has a capacity of 3700 af per Dam Safety File 67-2390. Storage water is released from the reservoir into an unnamed stream, which flows (injects) into Sage Creek. The water is then withdrawn from Sage Creek into a ditch and restored in Fairchild Reservoir No. 2 covered on right 67-7732. A Mannings measurement was attempted on this ditch during the 1992 exam, but the tripod broke. Steve calculated that a flow capacity of 1.0 cfs could easily be diverted from Sage Creek based on cross section and high water mark measurements taken at the flume located on the ditch. All of Sage Creek is diverted into this ditch, which includes the injected water from the upper reservoir.

Fairchild Reservoir No. 2 has a storage capacity of 108 af per Dam Safety File 67-7732. Permit 67-7732 covers 42 af storage volume and permit 67-7899 covers the remaining. Both permits list 1.0 cfs natural flow from Sage Creek. The purpose of the permits is basically to cover additional storage of natural flow water from Sage Creek in Fairchild Reservoir No. 2 that can occur when water is not being released and injected into Sage Creek from Fairchild Reservoir No. 1.

An 18 inch main diverts water from Fairchild Reservoir No. 2 to a pumping station consisting of 5 pumps that feed 2 mainlines used for sprinkler irrigation.

Total acres recommended for licensing were determined using FSA maps collected at the time of the field exam and ArcView. The north edge of the pivot located in the SWSE S11 was not recommended because the edge is not on property owned by the Tree Top Ranches. The pivot appears to slightly sprinkle beyond Tree Tops property line. All 827 acres recommended for licensing are owned by Tree Top Ranches LP, as confirmed by current Washington County tax records and Larry Williams. Please send a change in ownership form with the draft license.

Permit 67-2390 lists irrigation and stockwater uses and 4000 af storage. Flow rate and storage uses were not listed. The original application was filed in 1967 based on old terminology. The licensing recommendations reflect current department standards for the system developed.

Other overlaps include SRBA claims 67-14107 and 67-2302. Claim 67-14107 lists the same p/d from Sage Creek in S23 for irrigation of generally the same lands recommended for licensing. The claim is a combination of several decreed rights from Sage Creek. Claim 67-2302 is for ground water irrigation of 10 acres in S13 that appear to be separate from the acres recommended for licensing. The SRBA staff handling claims 67-2390 & 67-14107 have been notified and sent copies of this field exam report.

Please see file 67-2390 for additional exam details. Please note that when Steve composed his field exam notes and summary, he was unaware that the upper stock ponds above Fairchild Reservoir No. 1 are located on BLM property. As a result, stockwater storage cannot be licensed under this right as recommended by Steve. The stockwater p/u recommended for licensing is only on lands owned by Tree Top Ranches. Larry Williams confirmed the cattle number and type, which coincides with the amount listed on SRBA claim 67-2390. Steve was also unaware that permit 67-7899 was filed for the remaining storage in Fairchild Reservoir No. 2.

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>
DIVERSION TO STORAGE	01/01 to 12/31	3.160 CFS	
IRRIGATION FROM STORAGE	03/15 to 10/31		3,700.00 AF
IRRIGATION STORAGE	01/01 to 12/31		3,700.00 AF
STOCKWATER	01/01 to 12/31	0.050 CFS	2.70 AF
	<u>Totals:</u>	3.160 CFS	3,702.70 AF

2. Recommended Amendments

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

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

I. AUTHENTICATION

Field Examiner's Name Don Gruen Date 6/1/05

Reviewer _____ Date _____

EXAMS 67-2390 AND 67-7732

Steve Lertz
4/13/05

Per original exam notes from 9/23/92, accompanied by Art Fairchild (now deceased, how handle assignment process?)

Compare exam fees paid, Q estimated, beneficial uses & permit Q for correct license recommendations.

Little to no flow during exam and irrigation system was off.

67-2390

Divert entire unnamed stream to earth ditch.

Ditch injects into another unnamed stream aka "Summercamp Creek."

Plot P/D on topo 1.2 miles upstream along ditch from point of injection.

Measuring point #1 about $\frac{1}{2}$ way between this P/D and point of injection, used Mannings for dry ditch.

Ditch withdraws injected water from "Summercamp Creek" and additional water from "Summercamp Creek." Two stock ponds along ditch are filled. Upper pond is 3' deep, lower pond is 4' deep, estimate surface area from topo to estimate capacities.

Ditch continues to Fairchild Reservoir, 3700 af capacity per D67-2390. Dam serves as P/D for additional runoff captured in reservoir.

Sources are unnamed streams (plural) tributary to Sage Creek but not Sage Creek proper. Locals probably call drainage that reservoir is on a fork of Sage Creek.

3 P/D: ditch from unnamed stream, ditch from "Summercamp Creek" and Fairchild Reservoir dam.

Storage released into another unnamed stream below dam, flows to Sage Creek (point of injection).

Withdrawn from Sage Creek at P/D for 67-7732, storage from 67-2390 is released and re-stored in reservoir in 67-7732 as needed.

Permit used old terminology to define b.u. but needs to be updated:

- 3.16 cfs div to storage all year, use Mannings data from measuring point #1 to estimate ditch capacity. Same ditch continues past "Summercamp Creek" so this estimate is ok for entire cfs portion of permit.
- 3700 af irrigation storage all year (can have up to 5 afa/acre from storage, $740 \times 5 = 3700$. Can recommend full 3700 unless < 740 acres found. If < 740 found, can recommend $\# \text{ acres} \times 5 = \underline{\hspace{1cm}}$ afa storage per 5 afa/acre limit.
- Stockwater – cfs or storage? Q not defined in permit. Number/type of stock? Stock use ditch, 2 stock ponds and Fairchild Reservoir. Can split lots of hairs on this but appears intent was to develop 2 stock ponds so probably best to just cover those 2 ponds ... use cfs limit per $\#/\text{type}$ of stock vs 24 hr. fill for those ponds to see if should recommend natural flow vs. storage for stockwater. But stock P/U probably covers 2 ponds, ditches, Fairchild Res., Fairchild #2 Res. and irrigated acres (give benefit of doubt on this to wateruser). Neglected to get specs on stock during exam.

Claim 67-2390 includes a fair description of this system.

Forgot to discuss overlap with owner during exam.

67-7732

Post-1987 proof but part of integrated system.

Source is Sage Creek, P/D is point of withdrawal from creek also used by 67-2390 storage that is released upstream to Sage Creek.

Ditch with flume to Fairchild #2 Reservoir. This holds about 80 af and is primarily re-regulating storage from 67-2390 storage. But 67-2390 storage could be full and could divert from Sage Creek to provide more storage to Fairchild #2 Reservoir. OK to recommend natural flow plus storage in newer permit to cover that scenario ... would expect this to happen early in irrigation season. Ok to recommend natural flow irrigation per dept. standards.

18" main from reservoir to pumping station (5 pumps), then to 2 mainlines and onto variety of pivots, wheel lines and hand lines.

All irrigation is on north and west sides of Hwy 95. See copy of claim 67-2390 map for irrigation/stock boundary.

Permit only lists 42 af storage for this 80 af capacity. Should be ok since balance covered as re-regulation of storage from 67-2390.

Measuring point #2 is flume along Sage Creek diversion ditch. Flow too low to measure with current meter. Second tripod broke down in exam when tried to do Mannings so could not complete that (Fairchild was no longer present as I did these follow up details, no help to hold rod, which is why I used #2 tripod to hold rod). See notes about ditch easily able to convey 1.0 cfs.

No measuring devices found above & below Fairchild #2 Reservoir as required in permit. Lockable diversion works not required and n/a since entire creek diverted to ditch. Watermaster could require some/all flow to remain in creek and then to Weiser River if needed, so this is workable. Ok to license but keep measuring device requirement for water flowing into but not out of reservoir (role of 67-2390 makes measurement out of re-regulating storage not needed or useful). Also note 6/15 cutoff date for this permit.

Even if 67-7732 was cutoff after 6/15, storage from 67-2390 can be diverted from Sage Creek to re-regulating reservoir so irrigation from storage would continue.

MANNING EQUATION-DATA COLLECTION

MEAS. point A 1 3.16
cfsClaim No(s):: Permit 67-02390Name of Claimant: Arthur A. FairchildName of Ditch, Canal, or Stream Name: main ditch to Fairchild ReservoirDate of Measurement: 9/23/92 Data Collected By: Steve LesterMeasurement Location: 1/4 1/4 Section T R→ 6 mi. downstream
from pld

General Description and Comments

Cross-section Data

Basis: High water mark (X) Maximum capacity ()

Note: A minimum of five readings is necessary; first and last rod reading must be equal or zero

<u>Upstream</u>	<u>Depth or Rod Reading</u>	<u>Dist. from Initial Point</u>	<u>Downstream</u>	<u>Depth or Rod Reading</u>	<u>Dist. from Initial Point</u>
1.	0	LOW	11.	0	LOW
2.	.23	.5	12.	.36	.5
3.	.34	1.0	13.	.52	1.0
4.	.44	1.5	14.	.79	1.5
5.	.40	2.0	15.	.80	2.0
6.	.41	2.5	16.	.65	2.5
7.	.40	3.0	17.	.50	3.0
8.	.45	3.5	18.	.20	3.5
9.	.39	4.0	19.	.05	4.0
10.	.39	4.5	20.	0	4.2 REW
	.41	5.0			
	.35	5.5			

Slope Data

Basis: High water mark (X) Channel bottom () Land surface ()

Channel length from cross section: Upstream 144' Downstream 265'Total channel length used for slope measurement: 409'Rod reading at engineers level: 6.74'Upstream rod reading 7.88 - High Water Mark (if taken from channel bottom) 0.5 = 7.38Downstream rod reading 20.51 - High Water Mark (if taken from channel bottom) .72 = 19.79Note: The downstream rod reading must be higher than the upstream rod reading.

Are maps and/or photos attached? Yes (X)

.32

6.0

.31

6.5

0

7.0 REW

Total width = 7.0'

24.51
22
19.79

Total W = 4.2

1.44 2.65
UPST
(8.59-7.15) x 100
DOWNST
(21.85-19.2) x 100

MANNING'S "n" (roughness coefficient)

BASIC "n" CHANNEL MATERIAL				CHANNEL OBSTRUCTIONS			
earth	.020		(1)	negligible	.000		(1)
rock	.025		(2)	minor	.010		(2)
fine gravel	.024		(3)		~~.015~~		(3)
coarse gravel	.028		(4)	appreciable	.020		(4)
use .22						.030	
				severe	.040		(6)
					.050		(7)
					.060		(8)
				SURFACE IRREGULARITY			
smooth	.000		(1)	low	.005		(1)
minor	.005		(2)		.010		(2)
moderate	~~.010~~		(3)	medium	.015		(3)
severe	.020		(4)		~~.020~~		(4)
					.025		(5)
				.030		(6)	
				.040		(7)	
				high	.050		(8)
					very high	.060	
				.075			(10)
				.100			(11)
VARIATIONS IN SIZE AND SHAPE OF CROSS-SECTION				DEGREE OF MEANDERING			
gradual	.000		(1)	minor	1.00		(1)
occasional	.005		(2)	appreciable	~~1.15~~		(2)
frequent	~~.010~~		(3)	severe	1.30		(3)
	.015		(4)				

CROSS SECTION NUMBER 1

For File Number 67-2390 for the DITCH

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.23	0.23	0.50
3	0.34	0.34	1.00
4	0.44	0.44	1.50
5	0.40	0.40	2.00
6	0.41	0.41	2.50
7	0.40	0.40	3.00
8	0.45	0.45	3.50
9	0.39	0.39	4.00
10	0.39	0.39	4.50
11	0.41	0.41	5.00
12	0.35	0.35	5.50
13	0.32	0.32	6.00
14	0.31	0.31	6.50
15	0.00	0.00	7.00

The area for this cross section is 2.42 square feet
and the wetted perimeter is 7.17 feet.

CROSS SECTION NUMBER 2

For File Number 67-2390 for the DITCH

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.36	0.36	0.50
3	0.52	0.52	1.00
4	0.79	0.79	1.50
5	0.80	0.80	2.00
6	0.65	0.65	2.50
7	0.50	0.50	3.00
8	0.20	0.20	3.50
9	0.05	0.05	4.00
10	0.00	0.00	4.20

The area for this cross section is 1.93 square feet
and the wetted perimeter is 4.56 feet.

MANNING EQUATION CHANNEL CAPACITY RESULTS

05-16-2005

File Number: 67-2390

Claimant: FAIRCHILD

Channel measured: DITCH

Date of measurement: 9/23/1992

Measurement location:

.6 MILES DOWNSTREAM FROM P/D

Calculation prepared by: LORI GRAVES

Comments about the measurement:

The results of the calculation are:

The length of the channel measured is 409 feet.

The upstream and downstream rod readings are 7.38 and 19.79 feet.

The channel cross section is 2.17 ft-sq.

The wetted perimeter is 5.87 feet.

The hydraulic radius is 0.37 feet.

The slope is 0.0303

The roughness coefficient is 0.0920

The flow velocity is 1.455 ft/sec.

The rate of flow is 3.16 cfs.

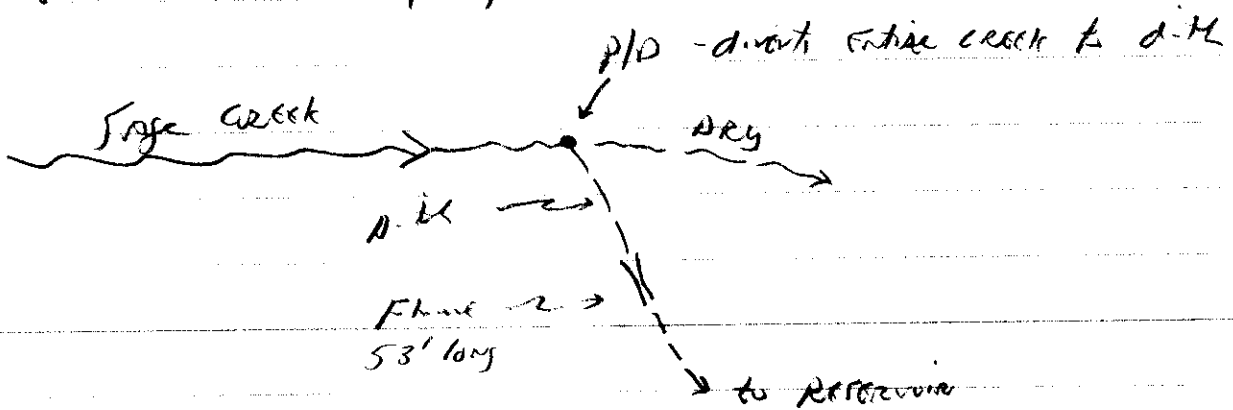
67-2390 / 67-7732

4/13/05 per
original exam notes

Estimated flow & measuring pt. #2 - diversion
ditch from Sage Creek to re-regulating reservoir
(Flume #2 Res.)

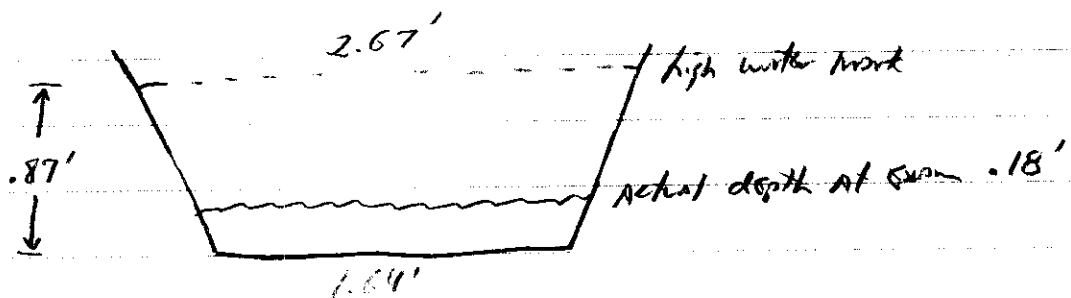
low flow & exam, can't use current meter
#2 to put brake, " " manways

Estimate flow capacity & flume:



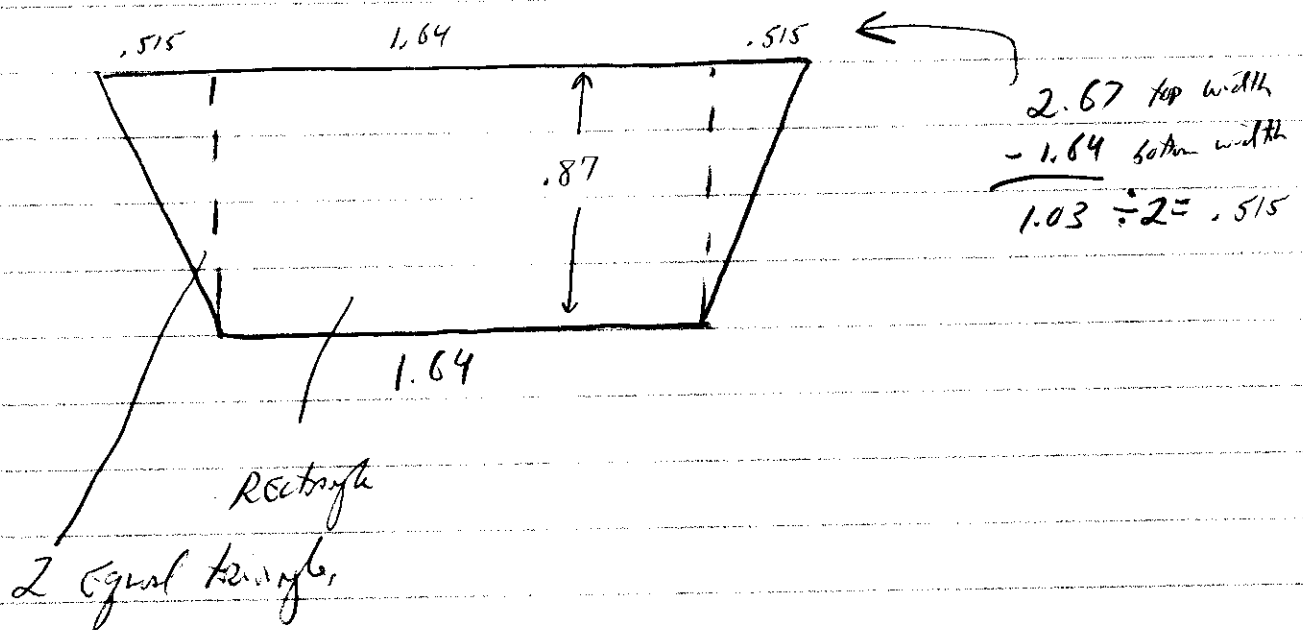
At Flume: cross section & middle 14' of 53' long flume

Metal
flume



-continued-

AREA of MAX flow @ high water mark



$$\text{Area Rect.} = l \times w = 1.64 \times .87 = 1.4268$$

$$2 \text{ triangles} = \frac{b \times h}{2} \times 2 = \frac{.515 \times .87}{2} \times 2 = .4481$$

$$\underline{\underline{1.8749}}$$

$$\text{TOTAL AREA} \approx 1.9 \text{ ft}^2$$

$$Q = VA \quad \text{if } 1.00 \text{ cfs is present, solve for } V:$$

$$V = \frac{Q}{A} = \frac{1.00}{1.9} \approx .5 \text{ ft/sec}$$

Velocity of $\frac{1}{2}$ ft/s. would yield 1.00 cfs

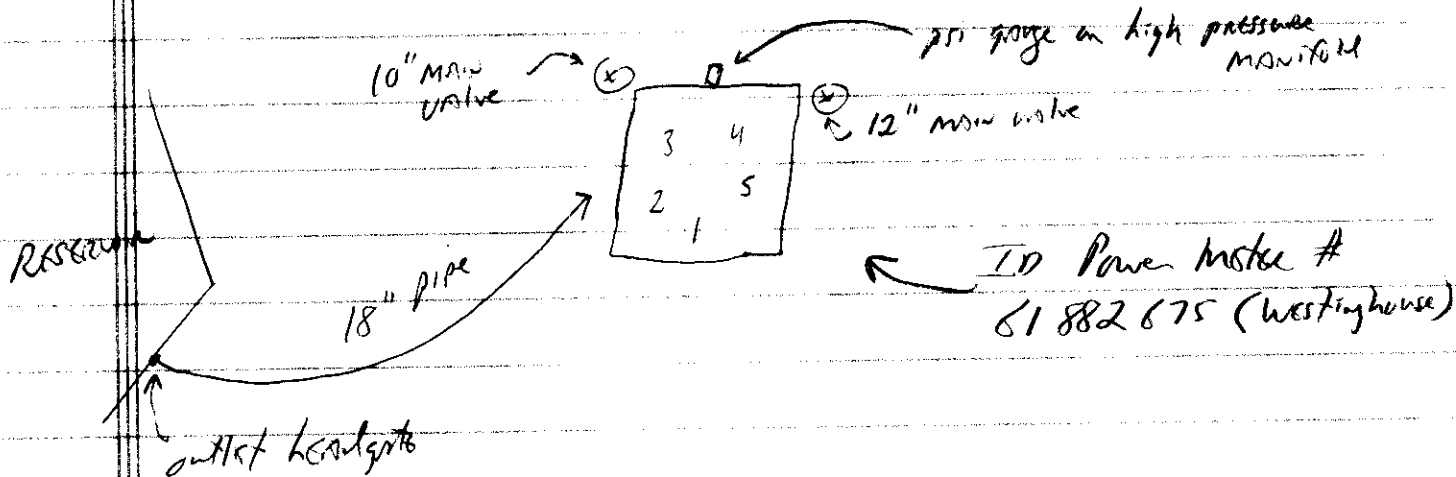
This velocity easily achieved under observed conditions

Allow 1.00 cfs diverted from Sage Creek

Pump Station

4/11/05 per
original exam notes

5 pumps fed by 18" main from Fairchild #2 Reservoir



	Motor	Pump
#1	Baldor 50 hp ser. # 3590	Cornell, no tag
#2	Mazda 50 hp model WF326TTOR7330ENW	Cornell model 4RB50-4 ser. # 70037 12 3/8 impell.
#3	as in #2 ser. # 326TTOR7653ENW	as in #2 ser. # 52249 12 3/8 impell.
#4	Century 40 hp ser. # 1N	Berkely model B4EPBL ser. # 7382226 7 1/8 impell.
#5	as in #4, can't read # tag	as in #4 ser. # 7480829 7 3/16 impell.

System not on in exam

Sprinkle system from Pump Station

- 82 4/11/05
per original
survey notes

10" main to road west of pumps

12" " " " East " "

4 center pivots

19 wheel lines

Misc. # hand lines

60 psi @ heads

no H₂O south/east of Hwy 95

all lines interconnected

MAIN RESERVE
from main stream via dike

INVENTORY OF DAMS BY DAM NUMBER

28-Mar-1990
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DAM NUMBER	NAME OF DAM			NAME OF OWNER			COUNTY	STREAM			IDF	LOCATION						
INSP DATE	PURPOSE	DAM RISK	DAM SIZE	DAM TYPE	STORAGE AC-FT	HEIGHT FT	DRAINAGE SQ-MI	RES AREA ACRES	YEAR COMP	CREST LEN-FT	-----SPILLWAY----- TYPE DEPTH-FT DISC-CFS			IDF-CFS	COND	EXPIR		
D67-2390 988	I	2	1	EARTH	FAIRCHILD 3700	70.0	0.5	110	1975	800	WASHINGTON	SAGE CREEK (OS) CHNAFD	5.0	220	0.5 PMF 0	14-13N-05W GD	1190	
D67-2394 787	HD	3	3	EARTH	ROBINSON	40	14.0	1.3	5	1947	120	WASHINGTON	ROBINSON CREEK CHNAFD	3.5	44	Q50 100	12-14N-06W GD	1192
D67-4041 687	J	3	3	EARTH	WILLIAMSON LOWER	5	20.0	0.1	1	1977	300	WASHINGTON	THOUSAND SPRINGS CK (OS) ERCHAN	3.5	37	Q50 0	04-12N-04W FR	1188
D67-4042 687	J	3	3	EARTH	WILLIAMSON UPPER	2	12.0	0.1	1	1977	270	WASHINGTON	THOUSAND SPRINGS CK (OS) ERCHAN	2.5	12	Q50 0	04-12N-04W FR	1188
D67-7016A1 687	I	2	2	EARTH	HORNET CK UPPER NORTH	270	18.0	0.6	32	1913	430	WASHINGTON	HORNET CREEK RKCHAN	4.0	86	Q500 0	20-17N-03W GD	1189
D67-7016A2 687		2		EARTH	HORNET CK UPPER SOUTH AUXDAM	15.0	0.0	0		550		WASHINGTON	HORNET CREEK WATER STORAGE RKCHAN	4.0	86	ASSN 0	20-17N-03W GD	1189
D67-7016A3 687		3		EARTH	HORNET CK UPPER DIKE AUXDAM	3.0	0.0	0		330		WASHINGTON	HORNET CREEK WATER STORAGE CHNAFD	4.0	86	ASSN 0	20-17N-03W GD	1189
D67-7020 588	I	2	3	EARTH	DICKERSON	10	18.0	0.3	1	1972	300	WASHINGTON	MONROE CREEK (OS) ERCHAN	3.0	23	Q100 34	10-11N-05W GD	1190
D67-7082 686	SG	3	3	EARTH	CRICKET	3	16.0	0.1	1	1970	175	WASHINGTON	TR-SPRING CREEK RKCHAN	3.5	80	Q50 0	17-12N-01E GD	1191
D67-7112A1 1088	I	3	3	EARTH	COURTRIGHT	90	17.0	0.4	9	1973	540	WASHINGTON	TR-HOG CREEK RKCHAN	4.0	123	Q50 53	11-13N-02W GD	1189
D67-7112A2 687		3		EARTH	COURTRIGHT DIKE AUXDAM	6.0	0.0	0		400		WASHINGTON	TR-HOG CREEK CHNAFD	0.0	0	Q50 0	11-13N-02W GD	1189
D67-7226A 1088	J	3	3	EARTH	NORTH COVE CREEK	94	19.0	1.5	14	1975	390	WASHINGTON	TR-COVE CREEK RKCHAN	5.0	222	Q50 120	23-11N-03W GD	1189
D67-7226B 1088	J	2	2	EARTH	CINNABAR	173	20.0	1.6	22	1975	400	WASHINGTON	TR-COVE CREEK RKCHAN	5.5	415	Q500 0	26-11N-03W GD	1189
D67-7240 785	SGH	3	3	EARTH	THORSON	10	15.0	1.6	2	1973	150	WASHINGTON	MONROE CREEK RPCHAN	5.0	68	Q50 0	12-13N-06W GD	1187
D67-7265A 687	J	3	3	EARTH	PHELPS NO 1	36	20.0	0.2	4	1976	300	ADAMS	TR-LITTLE WEISER RIVER RPCHAN	4.0	29	Q50 26	29-15N-01W GD	1189

System
overview

P/d for ditch

Injection pt for ditch

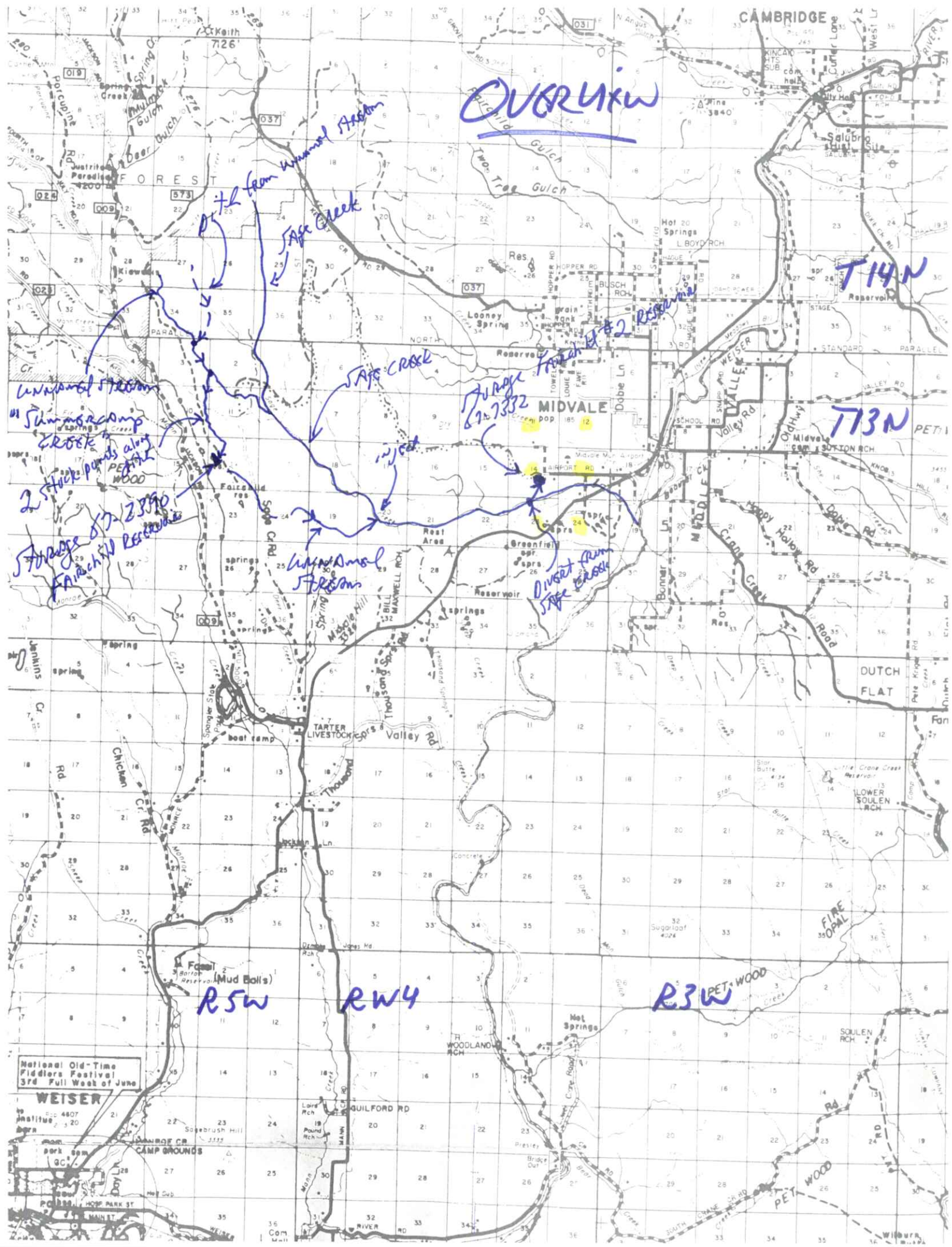
P/d for unnamed stream &
pt of rediversion for ditch

P/d for unnamed streams

Pt of injection for unnamed stream
(reservoir no. 1 water)

P/d for Sage Creek &
pt of rediversion for
unnamed stream

30.0				
0.80	0.00	0.24	0.00	
28.00	0.00	0.97	0.79	
25.99	0.07	0.09	0.00	0.00
0.89	0.00	0.00		
0.15	0.05			
1.13	0.88	0.10		
1.13	0.20	0.82		



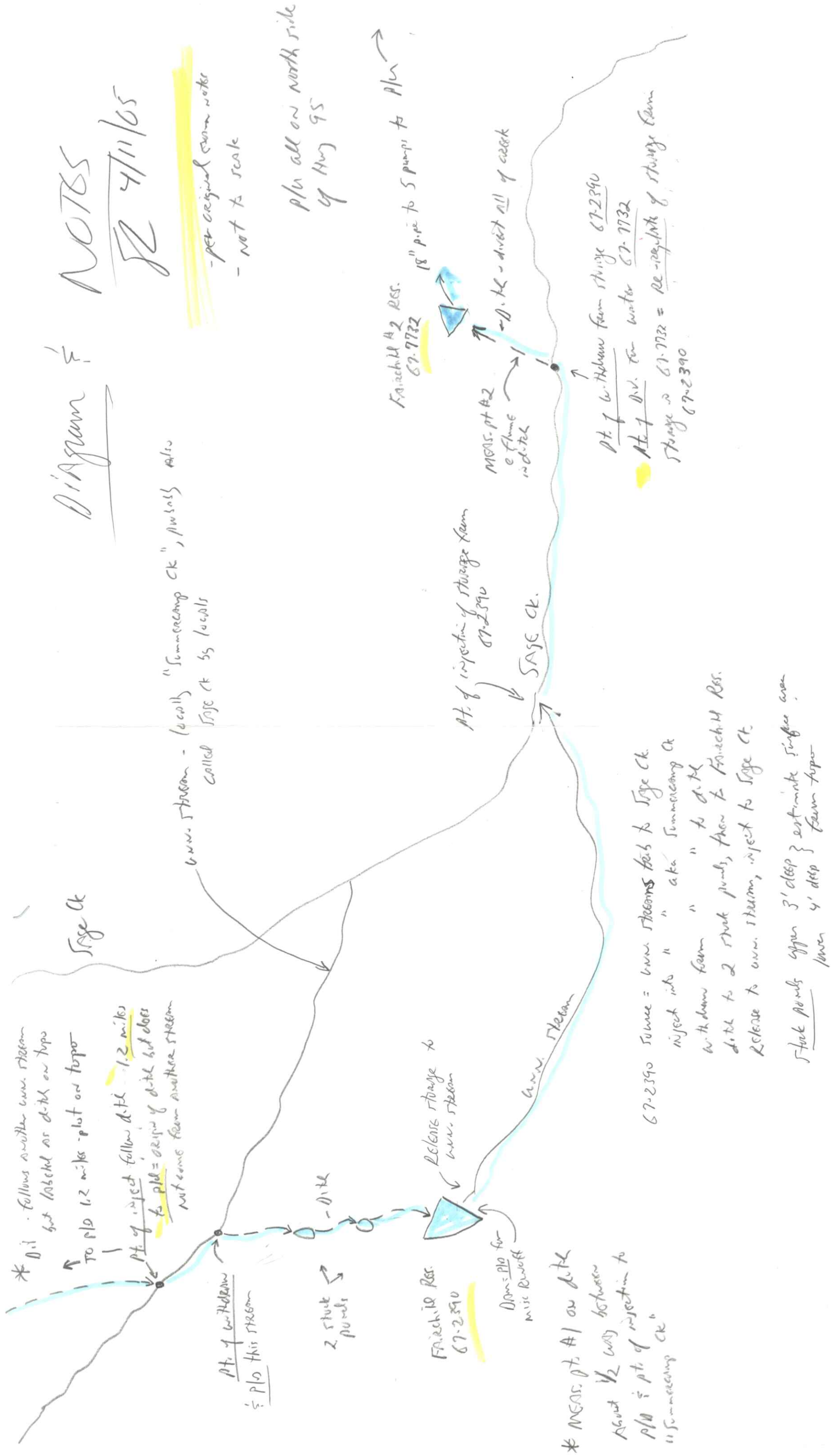
Diagram

NOTES

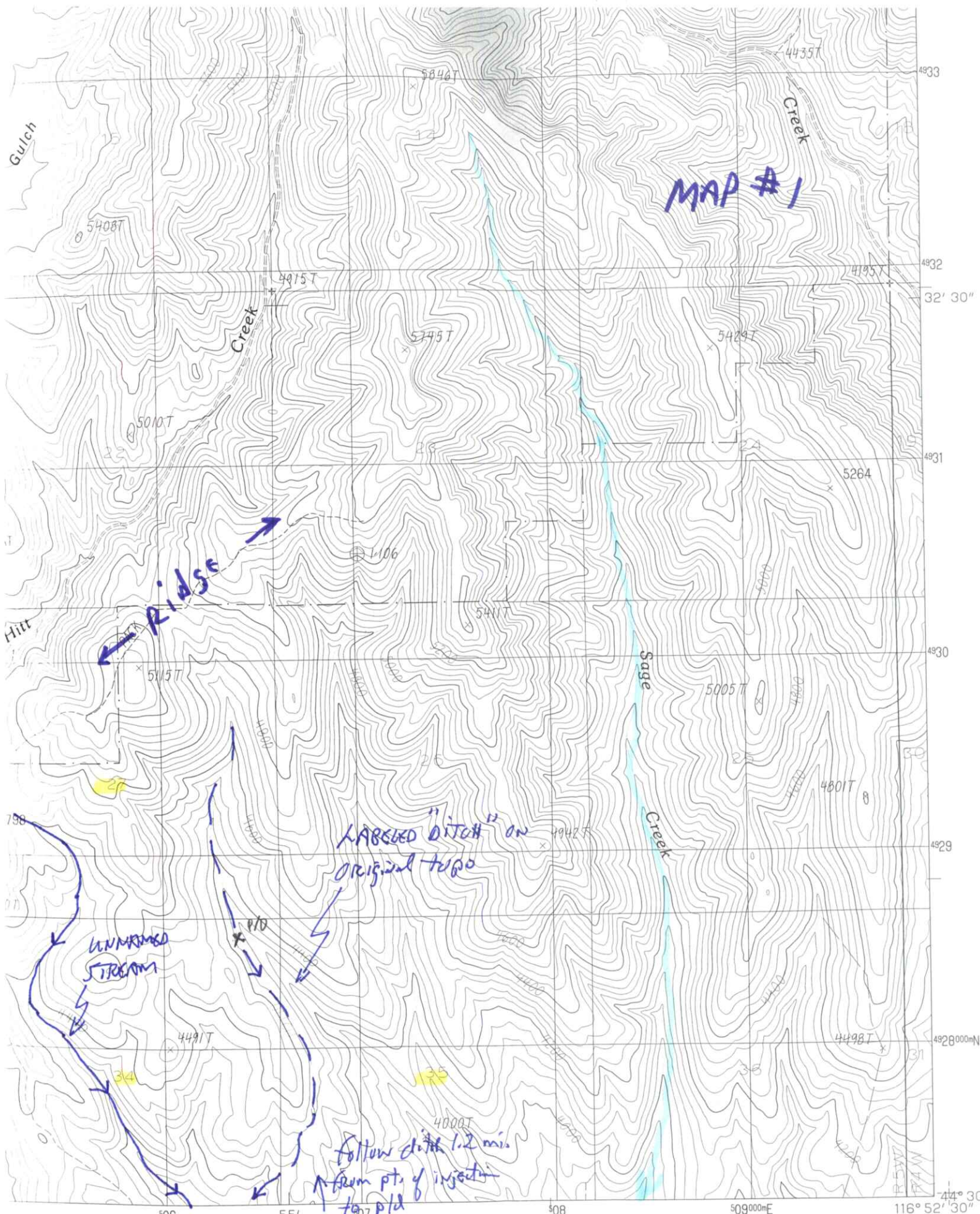
28 50/11/65

- per original cover notes
- not to scale

p/m all on north side
of Hwy 95



67-2390 + 67-7732 Pls See map is Aj dam 67-2340 ... Confirm with current owner
Permit assignment - how handle since Art F. deceased?



MAP #1

Ridge

Labeled "ditch" on original topo

UNKNOWN STREAM

Follow ditch 1.2 mi from pt. of injection to Pld

to MAP #2

INTERIOR GEOLOGICAL SURVEY, RESTON, VIRGINIA-1987

ROAD LEGEND

T14N

506

507

200000 FEET

509

116° 52' 30"

44° 30'

4283AT

4260T

4194T

4030T

4024AT

4927

Follow ditch 1.2 mi.
from here to pld

4232T

Pt. of withdrawal & P/O
from "Summercamp Cr"

WL 3903T

3735T

3715T

4926

1030000
FEET

2 Stock ponds

3904T

WL 3844T

Unusual stream
Also "Summercamp
Creek"

Corral

Spillway

T13N

3343T

3865T

3717T

4925

4924

Fairchild
Reservoir

1-104

DAM

3731T

3731T

3788T

3800

3817T

3699T

4923

DAM is Also
P/O for misc.
minor runoff that
is captured in
RESERVOIR

Unusual stream

TO
MAP
#3 →

Convey storage to
Sage Creek →

RSW

3781T

3147T

3876T

3800

3666T

3623T

3735T

4921

MAP #3

T/3N

R4W R3W

R4W R5W

unpaved stream,
water from reservoir
conveyed to Sage Creek

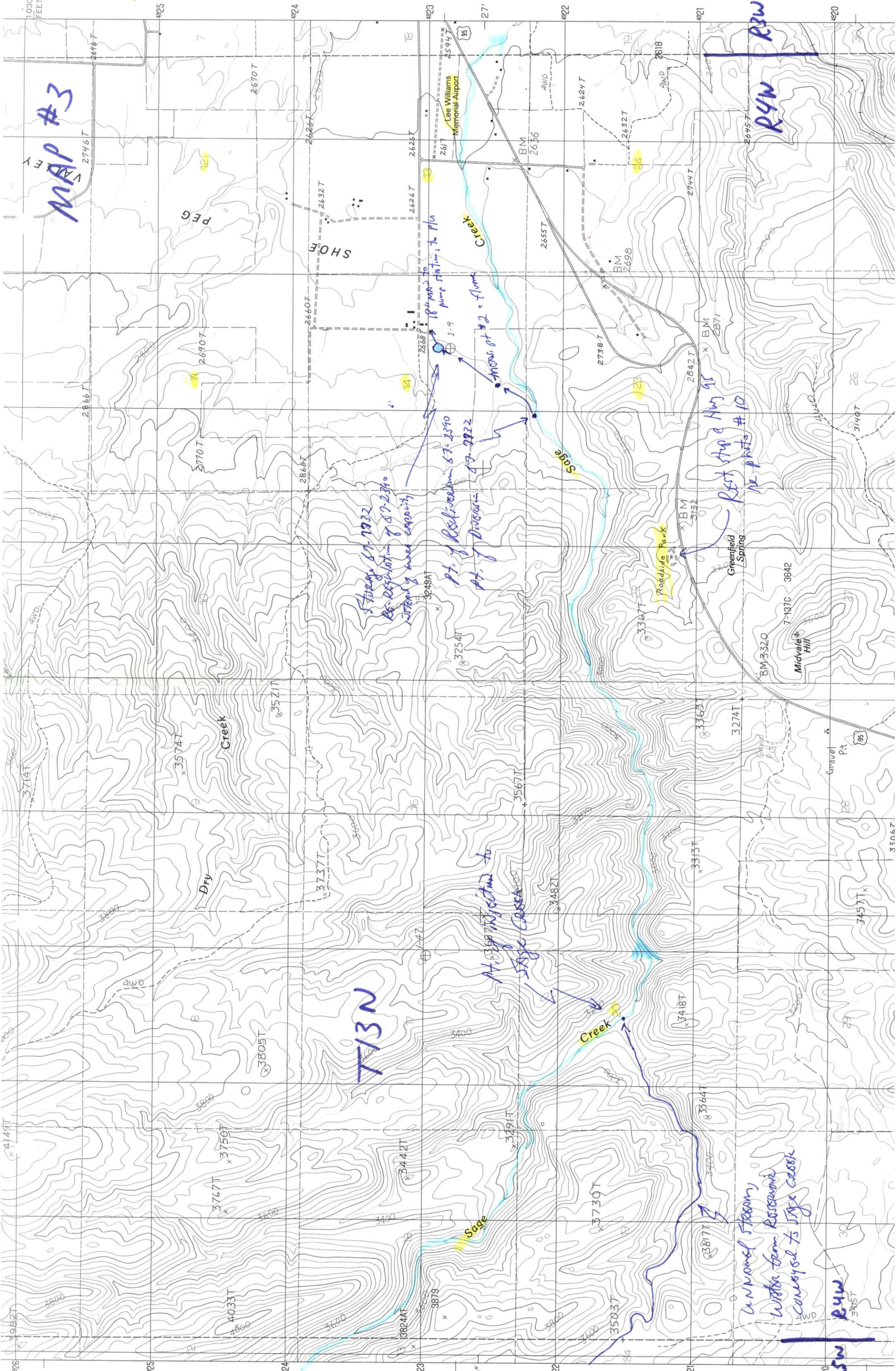
At. of Injection to
Sage Creek

Storage 67-1932
Re-regulation 87-2390
1500 gpm capacity
pt. of Reclamation 87-2390
At. of Diversion 87-1932
meas. at #2 - flume

Rest stop Hwy 95
NE photo #10

18" main to
pump station, to plu

1.9



T334

Friedrich
#2 Reservoir

Regulating
Reservoir

Ditch from
Sage ck. to
Regulating Reservoir

9/23/00
Entire creek
diverted from
via ditch

m.p. #2
(flume)

Outlet
for
18" pipe

26
20.0

Sage ck (dry here)

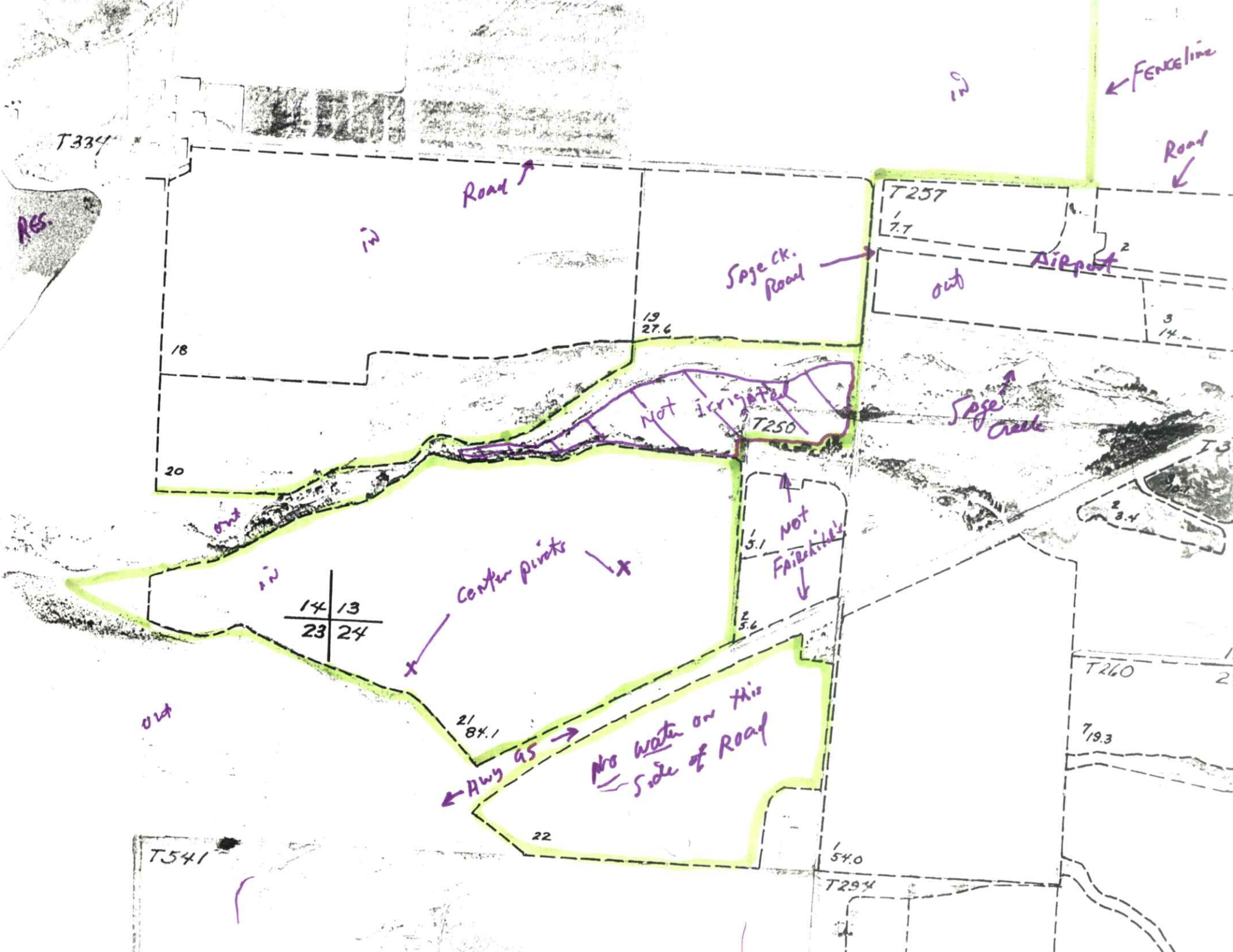
15 14
22 23

14 13
23 24

Sage Creek

creek used to flow there
p/o from ck - all of flow
goes to ditch

T541



T334

out

homestead

5

12

T324

12 7
13 18

10

out

old sawmill site,
not irrigated

8 38.3

7 8.9

FENKELINE

2 19.5

Road to
homestead

in

out

Midvale Airport
Rd

21 17.7

22 54.4

Road

Sage ck.
Road

Airport

523



- (1)
P/O Div. ditch -
captures entire
unnamed stream
1.2 miles beyond
downstream point
of injection to
"Summerville Ck"
(local name only)



- (2)
Ditch from photo
#1, looking up
the drainage.
Berm diverts flow
into ditch.



NOTE Photos of Fairchild Reservoir & Fairchild #2 Reservoir are
available in dam safety files 067-2390 & 067-9732 if needed.

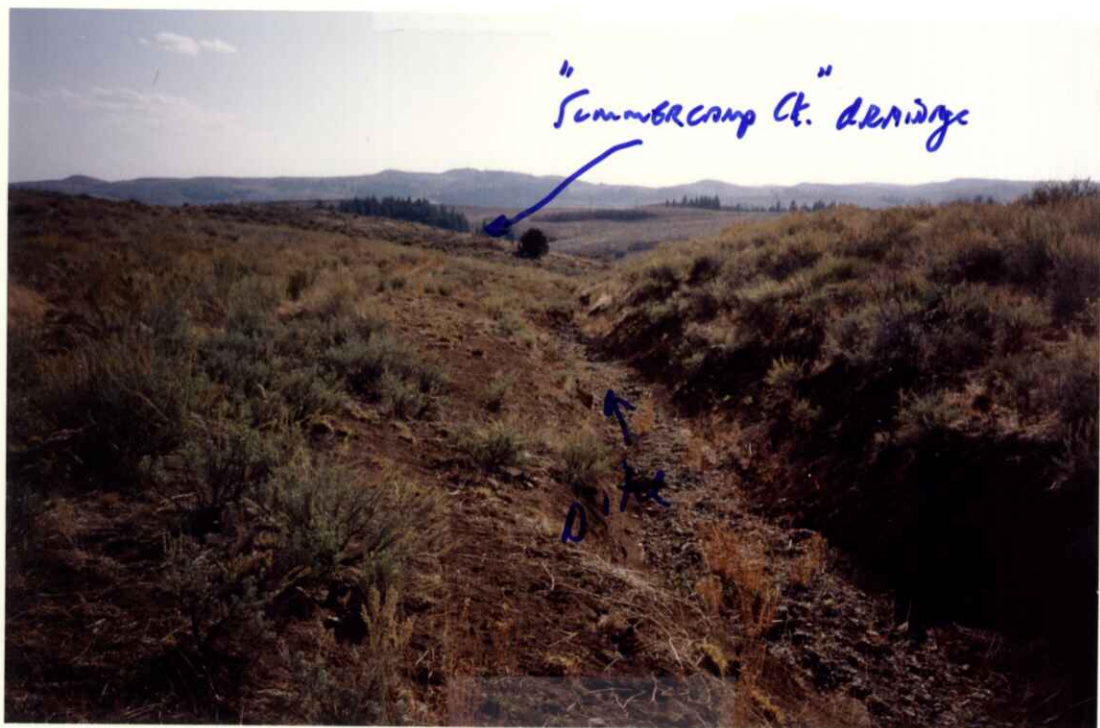
③

MEASURING point #1
(MANNINGS) on ditch
about 1/2 way from
pld to pt. of
injection



④

VIEW down the
ditch as it leads
to "Summerville
Ck"



(5)

View up the ditch
at point of
withdrawal from
"Summerville Ck."



(6)

Upper (smaller)
stockpond along
ditch

depth c 3'

area - calculate from
topo



(7)

Lower (larger)
Stockpond

Depth $\approx 4'$

Area - calculate from
topo

Road is beam for
pond



(8)

P/O at Sage Creek
close to Fairchild
#2 Reservoir.

Storage from Fairchild
Reservoir (fed by ditch
in previous photos) is
conveyed to Sage Cr.
& withdrawn here &
be restored as needed
at Re-regulating
Reservoir (Fairchild #2).

All of crest can be
diverted here.



(9)

Measuring point #2
C flume in ditch
from Sage Cr. to
Fairchild #2 Reservoir

CAN EASY carry
1.00 cfs listed in
67-7732



(10)

VIEW from Rest stop
on hill along Hwy 95.
Fairchild #2 Res.
is PLN SEEN.



(11)

Pumping plant -
5 pumps fed by
18" main from
Franchill #2 Res.



(12)

P/W looking East
from outlet headgate
at Franchill #2
Reservoir.



(13)

p/u looking north
from same point
as photo #12



(14)

p/u viewed from
Lee Williams
Memorial Airport -
homestead for
Owens 566 in
mid-background.

