
3.4
TRANSIT
W56

Page D — Levels on R.P.s
Morena Dam

A

Index

(over)

C

4.61 105.24 100.63

4.99 100.25

6.95 107.20

~~7.20~~

6.69

= RP = 8

4.67 100.57 = RP = 7

5.29 99.95 = RP = 6

= RP = 5

7.20 100.40 = RP = 4

6.99 100.20 = RP = 3

8.14 99.06 = RP = 2

6.92 107.28 = RP = 1

100.51 = Bm on 100' level - iron pin

Levels on 70' R.P.s Morena Dam
11-4-13. Kreisle Summ[illegible]

1.09	
	11.74
1.31½	
	11.65
3.49	
	11.28
4.56	
	~~5.44~~½
~~6.41~~	6.41
3.02	
	3.72
5.38	
	4.54

D

= B.M. & R.P. on 70' Line = Iron pin in Bedrock

5.44½ = RP #1 70.825
= RP #2 69.86
= RP #3 69.16
= 70.00 BM East of Dam

Levels on 150' RPs Monroe Dam
Nov 3, 1913 R. Lincoln Seth Swanson

6.8½ 155.09½ 148.26

~~2.74~~

2.32 154.68½ 2.73 152.36½

2.56 154.92½ 2.32 152.36½

6.18 159.28½ 1.72 153.10½
408½ 155.20

Run north and southerly

2.74½	RP. # 20	152.355
2.68	19	152.405
2.67	18	152.425
= RP #	17	152.365
2.30	16	152.385
2.31	15	152.375
2.31	14	152.375
2.32	13	152.365
2.33	12	152.355
2.34½	11	152.340
2.34	10	152.345
2.28	9	152.405
= RP # 8		152.365
2.58½	7	152.340
2.55½	6	152.380
2.54	5	152.385
2.55	4	152.375
2.56	3	152.365
2.58	2	152.345
2.56	1	152.365

Run south into Dam

1

Barnett Drift = Job 105

Gave him a grade (2" per 100')

on portal grade 4.20

on grade 18.5 in 4.17

Note - Roughly portal grade is 11.4 below top of Harris Dam

Note: Portal grade 2.2 above water at end of dump.

Progress Aug 2.12 31' in ground becoming seamy.

Progress Nov 1 58' in hard roof coming down. whole face will be hard in 2-3 rounds more

Nov 20 62½

Jan 1 78½

June 20 & 21 1912 Leverette.

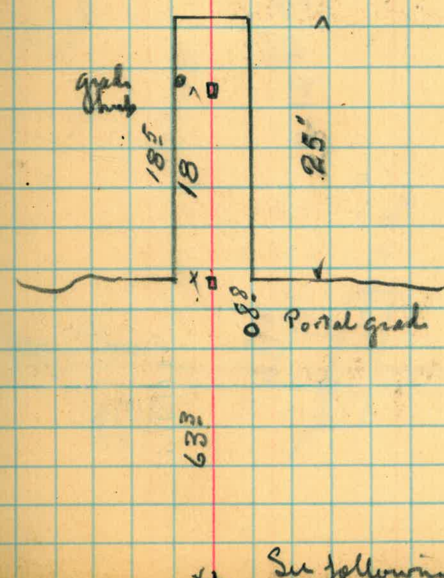
Set portal grade 8.8 outside portal on Rt side with drill hole above

Set center in roof 18' in from portal

Set chiselled cross 63.3 out from portal for ctr to set transit up over.

Set grade in 18.5 on left side

X Drift 25' in from portal hubs on rt. side 1' up on June 21 1912

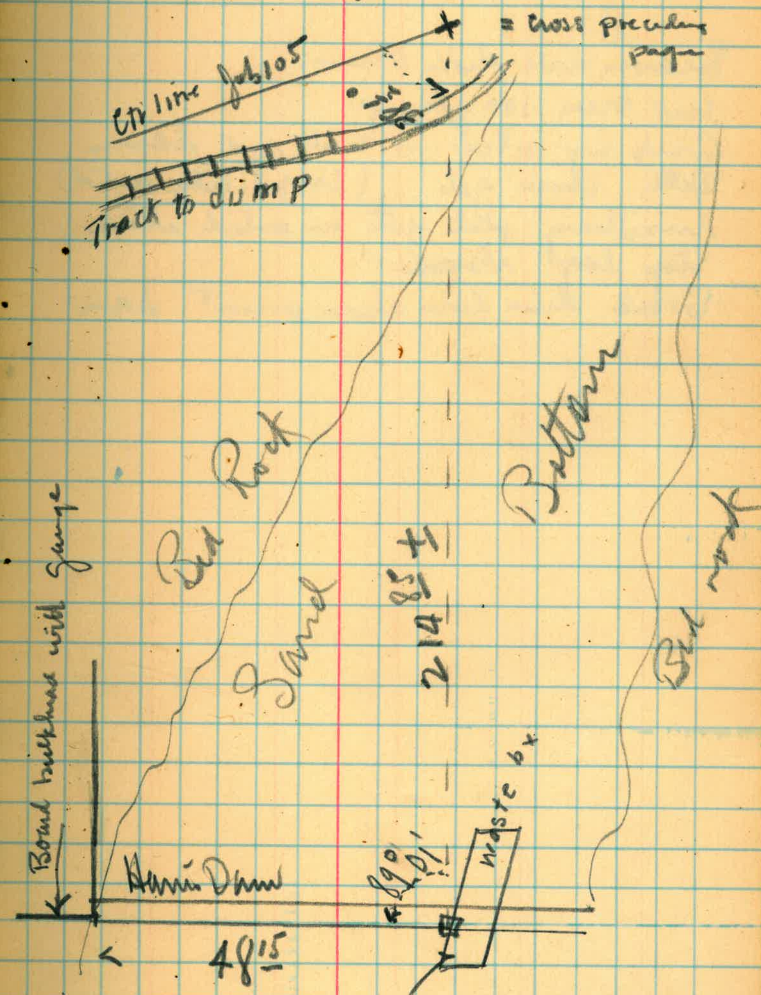


See following page

Connection Between Barnet Drift and Harris Dam = Job 105 Wrote June 21 1912

From O.S. Letter

Barnet Drift portal grade	10.13
Crest Harris Dam	21.2
1/8 Tunnel S Portal grade	57.71



3

Date P.C. Intake

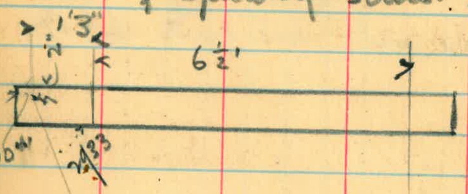
June 21 1912

Beaver will choke stream.
Cut trees 100 yds up.
Grub up 2 trees at north end dam
Better drain gate. (larger) (bottom control)
auxilliary plate-gate on outside above.
Stop logs above
Brush drain down above present dam

Angle notes for Sketch of
P C Dam

Note: Instrument on final transit point of conduit traverse oriented to 2nd final transit point Mag. Co = N 12 30 E

This point on 6x6 cap supporting ends of operating Screws of intake gate.



June 21 1912 Wunsch

∠ + 68° 46'	7.96'	7' 11½"	= South end 1st flash board
∠ + 42° 25'	22.90'	22' 10¾"	= north end 1st flash-board
✓ ∠ + 31° 30'	44.27	44' 3¼"	= South end 2nd do
∠ + 45° 36'	57.93	57' 11"	= north end 2nd do

x at 39' on this course to rt at 90° 13' dist = end of central bldr.
x at 37' on this co to lt at 90° 6' dist = outside axis of central bldr.

Cont.

x	L+	19°51'	51'	= west end ℄ axis ℄ boulder.
	L+	17°14'	55½"	= east end axis ℄ do
	R+	8°55'	62½"	= north end ℄ Δ rock
	R+	0°28'	54"	= another pr on do.
	R+	0°05'	58"	= " " "
	R+	19°50'	59"	= west edge of bounding bldr.
	L+	10°24'	9"	= edge bed rock in bottom ℄ gate
	L+	13°27'	21"	= do.

Notes: 8'4" from top sill to top 6×6" supporting operating wheels.

13' ± on west dam axis east = abutment on solid rock.

Top dam 5'3" below top 6×6"

Top flash bds 3'7" below do.

Top bldr marked x on opp page 2' below top 6×6"

Top ℄ central bldr = 19" above 6×6"

Top ℄ triangular bldr 6" above 6×6"

Top ditch wall 2'4½" below 6×6"

Flash boards in Ctr ℄ 2' crest.

Top sluice box in 1st dam 3' below top ℄ dam

Top sluice box in 2nd dam 3'8" below top dam

Gate 4'6" high = 4' operating dist.

Levels for new Cottonwood Intake — Aug 19 1912 — Wrusti, Santa bach

11.28			1510.82	= Bottom of conduit (when regular sect begins)
7.15			1514.95	= Top of conduit lining (north side)
3.31			1518.79	= Top of gate Pier
7.1	1522.10		1515.0	= Sand outside gates (assumed Elev)
		4.04	1518.06	Spike
3.38	1521.44			
		2.31	1519.13	stump
2.60	1521.73			
		1.23	1520.50	rock
8.00	1528.50			
		2.06	1526.44	rock
10.45	1536.89			
		0.44	1536.45	rock
31.53		10.08		

				Remarks
			1536.45	
11.31	1547.76			Just on rocky point about 30 feet above stream bed. (near dry stump)
		5.83	1541.93	rock
6.58	1548.51			
		11.39	1537.12	Spike
6.65	1543.77			
		8.08	1535.69	
5.34	1541.03			
		7.73	1533.30	
12.66	1545.96			
		9.99	1535.97	Fence post in river bed.
3.78	1539.75			
46.32		5.27	1534.48	Water surface at Salazar Camp dam site
	48.29	2.80	1536.95	BM. on tree = niche with nail
	45.82	2.73	1537.02	BM = drill steel driven in root of tree
	45.75			

Misc Notes on New Cottonwood Flume

See 2 preceding pages:

1510.82 = Bot Conduit
1534.48 = Water Surface New dam-site
23.66 = diff Elev.

1534.48 = Water surface dam site
1515.00 = assumed Elev Sand at sill of gate
19.48 = diff

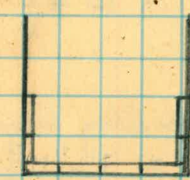
3150) 19480 (.006184' per foot
18900
5800
3150
26500
25200
13000
12600

.006184
5280
494720
12368
30920
32.651520 per mile

Russ Lohr prices 2x12 Rus $ 40
Select 4x6 29
Mesh 4x4 20

[illegible] 8-19-12

4) 3150
788 sets of flume posts, caps + sills.



Sills 788
Caps 788
Posts 1576
Braces 1576
2x12 25200 lin ft. 2x12 Rus 16 Bm per linear foot

3150
8
16) 25200 linear feet
1575 pcs

On hand

Sills 455
Caps 110
Posts 757
Braces 700
2x12 4806 lin ft.

Deficiency Sills 333 6 M Bm ft. 174
Posts 819 4½ M Bm feet 87
2x12 20494 lin ft = 41 M Bm. feet 1640
1901
Freight 1155
3056

Misc Notes on Job 108

P.C. Bridge:

Top operating stand to bot center trap
= 13' 4 3/8"

Top operating stand to bot #1 (east)
= 12' 11 3/8"

Top operating stand to bot #3 (west)
= 12' 10 7/8"

Bot size = 1 2' 3 3/4" x 3' 6 1/2"
" 2 1 1/2" x 3' 2 1/2"
3 2' 4 1/2 x 3' 4 3/4"

2' 2 1/2" top stands to top taps

Reconnaissance Notes on New Cottonwood Flume

Aug 18 1912 Ernest McIntosh.

Copied

Dist. across dam-site from tree to north bank = 92 feet.

From present intake to dam-site above = 3150' ±

11 Report Job 108 Sept 6 1912.

Amount of concrete lining 3" thick by 18" high (Invert) as follows:

			Total
Rt Side:			
Finished	1589		
Proposed		588	
Lft Side			
Finished	1244½		
Proposed		579	
	2833½	1167	4000½

Amount of Plaster lining ½" thick by 18" high as follows:

Rt Side	117½	
Lr Side	455	572½

Record of Cement this date.

Received from SO 395 sks = 98¾ bbls

Used on P.S. Dam	60	
On hand	81	141

Cement received from SO 395 sks
141
254 sks

Used on Concrete lining 254 sks

254) 2833½ (11.15 ft per sack
254
293
254
390
254
1360
1270

1115) 1167.00 (105 sks required for concrete
1115
5200

5725
15
28625
5725
858.75 sq ft = 35.7 cu ft and plaster ½" thick

2 to 1 plaster = 20 sks for above.

105
20
125 sks to order

12 notes on Dulzura Conduit

Wreath - Sinley. Sept 10 1912

Flume 5 Calk 1st seam up left side
when dried seam shows leak
having been.
Put posts under taps 3 sets near
middle
Remove batten on 1st seam up
on both side
Triangular battens are OK. Seams
they strengthen corners
Tar over them
X Sand 7" deep has wet & moist
Have cutting chisels made diffnt
sizes $\frac{1}{8}$ to $\frac{3}{8}$ in
Timber in good shape
Put cleats on posts & sills
with tar brush
Burn out brush
Flume 4 - 5 sec Firm planking in this sec on
Rt side
Several soft places at north
end Flume 5 inclined
Just a little watering to do

Sinley Repair Box
Keep posts free from earth
Sand 10" deep 6" wet
Wall of old ditch a possible ... are
posts show that earth lay around the

General

accident

13

Flume 4
Seams in better shape than on 5
Tighten up all bolts
Fix up place where 1912 accident
occurred
✓ Put in post on long unsupported
cap near south end
8 in sand 4½ wet
Timbers in good shape
Fix up opposite side 1912 accident

Flume 3 – Flume 4 arc

Just a little weeding
Cut off oak log south end

Flume 3
Clean up Spur Flat

Flume 3
4½" sand – dry
1 Spit board
All calking driven in
Clean out sand
Take up battens
Calk bottom
Ditch ground under north
30 feet of new run of plank
at north end
tar inside

General

Tarring

Bolts

Posts & Sills

Collect Single tool

14.

3-2 sec

75' north of Flume 3.
paster loosened
Bent below dam 20 feet of
plaster gone — concrete this!
Crossing below dam fix up
Put in guard rails.

Willow Creek Intake

Needs brushing
Intake could be fixed with
concrete dam
Look over supports
× Transverse joint bad shape
Put galv. iron over joint
Put cleats across top at joint
Tar inside

Flume 2

There are no cleats
Stand 4½" deep drop
Some seams in right side
very bad. Fully ½" wide
Take up cleats or something
Grading bay 4 center pins
are 6ft in ground.
One pin has been endangered
by freshet.

Ground

Stepped siding would make tar
lay on steps and keep OK.
Calking should be driven in
× in beyond surface of boards
and pointed over with tar.

15

Supr 11 1912

Pine Creek Intake

Sand 100' below gate 9" deep - pebble

Intake Improvements

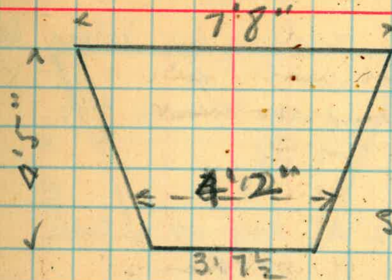
Road   Trail

Camp   Cost

Take out culvert near gate & seal opening

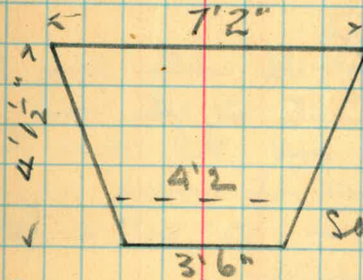
Take out Smiley trap

Wruster



Sand 10" deep

Section of Mahoney finished ditch above Smiley failure of 1912



Sand 10" deep

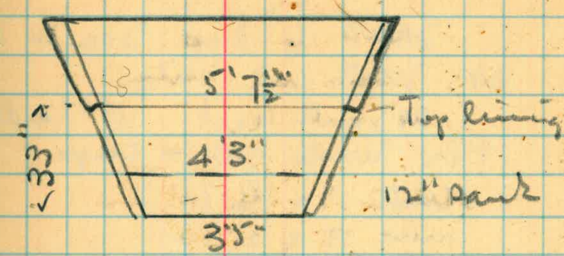
Section of Res finished ditch at rocky point where road descends to creek bottom. (Aug 1912 one)

Cottonwood Intake

Pain of plastering 90" elbow Mama Xing Covered 4"
12½" sand at Mama Xing.
Mama Xing OK.

Sand 2' 4" deep at intake
Intake a problem
The flume question at estimate

Sand outside gate 20" above sand inside.
Question whether any temporary improvements at gate would pay.
Clean out the sand chamber and put into working order.
Put in 12" sill on lower side chamber.
Repair collapsed section below gate.
We are repairing plate 300' above bridge



P.C. Bridge

Sand 6" deep boards damp
at North end bridge
at South end 10" (4 damp)
Fix waste gate & traps
Outside 18 x 2'8
new 18 x 2'10
8½ hole
10½ disc
¼" plate

Remove side batten
Trusses are sagged 1¼" (Fix)
1 3/4" seam up = worst
Fix old calking
4.1' U.S.G.S. B.M. to bottom plane
Tighten bolts
Timber 1st class

1 – 2 Arc

take out rails from drain tunnel
chamber
OK with a little weeding

Notes Dulzura Conduit
Oct 1 1912.

~~Flume 9 Dam 1½ deep S end.~~

~~Bad crack upper board at deflection - calk~~
~~Replace one bad running board~~
~~Dam 1¾ deep N end~~
~~All dry.~~

~~Side Flume seams in fair shape~~

8-9 am Take out disintegrated dam
2 or 3 rocks at 48 [from ditch]

Flume 8 Side seams in fair shape
caulk a few at N end.
2 batten battens need replacing
at south end.

~~3/4-10 am 61+75 looks bad~~
~~Disintegrated chunks at 63+75~~
~~Slab at 3/4 south form set.~~
~~Debris at 64+30 Remove from ditch~~

~~Bad looking loose disintegrated point at 70+00~~

Road boxes need recovering.

~~Rock at 92 + 00 will cause some day. Should remove with powder~~

~~83 + 00 2 small soft rocks - remove~~

~~84 + 75 mass of 'dobe pushing slab 30'~~

~~88 + 50 trim upper bank~~

~~89 + 00 both sides of sta. trim~~

~~Flume 10 Dam 3' deep - dry.~~
~~Side seams OK~~
~~Footings at south end lock bar - have seen [illegible] but will stand a long time yet. Caused by overflow 1st season.~~
~~Posts & sills are clean.~~
~~Wont overflow anymore [illegible] sides have been raised.~~
~~bottom seams & trans leaks~~
~~This is a possible [illegible]~~ ~~want~~ ~~get~~ oil

~~91+75 – 92+75 – Rocks above this section should be shot~~

~~95+15 – bad – [illegible] rocks on dome – plaster shoot. Slab 25' and cushion.~~

~~99+50 big rock above must be shot hard some time~~

~~Remove 1/8 yd rock at 99+75~~

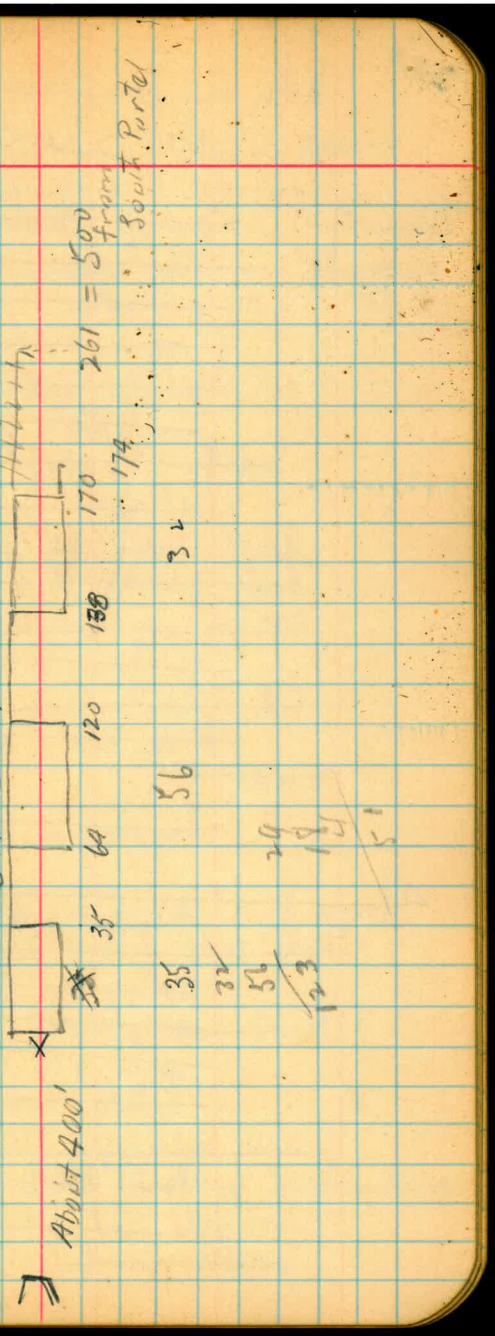
~~Small rocks will keep coming down at 110 but area S. of no consequence~~
~~Ditto at 112, 113 and 113+80 and 115+40~~

~~Tunnel #1~~
~~Sand under slabbing at north portal 6" deep – at rock dam in ctr 12 to 18" deep. Practically clear below dam.~~
~~North Portal should have 11' of slabbing put in~~
Station tunnel with copper washer.

About 400' (see later measurements) roof is 15' high and at this point

21

Slabbing should begin. From
here to north portal OK



22

Notes on Condition Dulzura Conduit
Oct 2 1912 - Wurste.

Flume 7

~~Sand - none at north end~~
~~Asphaltum at North end~~
~~on bottom has pulled off to~~
~~some extent - portion~~
~~white batten was damaged.~~
~~No battens on outside on right~~
~~Side for 1st 100 ft of length.~~

X ~~15' from N end 2 bottom batten~~
~~down mid by 1/4" - 1/4" square~~
~~hole results that no amount of~~
~~soaking up would stop.~~
~~75' from N end. 2nd board left~~
~~side needs nailing~~
~~Broken batten on bottom near South~~
~~end.~~
~~Chip rain at South end~~

~~Flume 8 42+50 One of 8 outer footings~~
~~ng end washed out.~~
~~at 43+05 ditto~~
~~at 43+30 "~~
~~at 43+50 "~~

X ~~A little more washing at 44+20~~
~~will endanger flume~~
~~No cleat connecting post~~
~~& sills but former generally honest~~
~~raised mark~~

Warping of running planks causes
Chip to rain at joint in the former.
This applies with single planks. Not with
say Triple planking with joint on staggered

etc Gather up small tools under flume

Must have been heavy
leakage here

X Also thin footings on South!

X X Give Post - Sill Cleating Individual
attention

~~Outside battens except Rv side~~
~~100' from 40 to 41~~

~~7-8 sect. Remove a few rocks.~~
~~not dangerous although some~~
~~rocks will come in at 39 yet~~

~~Flume 7 - 8 Batten partly on and partly off~~
Substructure OK

~~5/8 - 7 out OK no danger~~

~~Tunnel 5/8 [illegible]~~ OK

~~5/8 - 1/2~~ OK
~~Tunnel 1/2~~ OK 2" sand 5 [illegible]

Oct 3 1912

~~Flume 9 Substructure. Some of the piers~~
~~founded on earth & debris are~~
~~precarious.~~
~~outside batten are taught~~

X X ~~South [illegible] - posts [illegible] of~~
~~box show decay. Posts [illegible]~~
~~are [illegible] of [illegible] date —~~
~~only place on system~~

All evidences point to excessive
leakage of flume bottoms 1911 - 1912 —

2 2d

Only a few cleats at north end.

~~1 - 11 Ok~~

~~Flum 11 No outside batten no cleats~~
~~Seams in fair shape~~
~~Footings and timbers in good~~
~~Trap - 2d ... Flume~~
~~Bench should be set~~
~~Posts have raised somewhat~~
~~Brace rotting at South~~
~~cut - 132 + 50~~

~~Rattlesnake Intake: gate in on flume~~
~~and ...~~

~~11-12 Sect. Wholesale sloughing nature~~
~~of ground ... ...~~
~~underlying slope ... ...~~

~~Flume 12 Substructure OK~~
~~Remove cart~~
~~a little rusty~~
~~Side ... fair~~
~~No ...~~
~~No cleats or outside batten~~

~~Flume 12 - 162 OK~~
~~Rock at 162 + 00 should be~~

25

~~Vermont~~
~~Pudding gravel at 165 will move down although some will stay in~~
~~Ditto at 166~~
~~Rock at 166 + 60 may loose in - Remove~~
~~Ditto at 168 + 80~~
~~Remove rock at 186 + 75~~
~~Ugly [illegible] at 187 + 25 may~~ ~~cause [illegible] in [illegible] years~~ a few years.
~~2 bad-looking rocks at 190 + 65 3/4 yd & 1 1/4 yd~~
~~Slope [illegible] would be advisable 191 - 192 This is South of 1 3/4 tunnel~~
~~Remove small flat stone 213 + 50~~

~~2-3~~ ~~[illegible] ok.~~
~~cut drains on trail over~~
~~*2~~

~~*3 Trail [illegible] [illegible]. - Badly washed~~ ~~plan near 3 S.~~

3-4 [illegible]. Flat rock at 248 + 90 will come down eventually.

cut drains on all trails side-hill trail that have a grade - 3/4 tunnel
*2 *4 Johnson [illegible] rock

26

~~Boat Pudding joint at 253~~
~~1/4 yd Samp. Slats~~
~~Trim at 254~~
~~Remove stones above 257+75~~
~~and 258~~
~~Remove rock at 258+75 this~~
~~has slipped to edge of ditch and is~~
~~now supported by frozen.~~
~~Slabbing seen recently 259-~~
~~259+50 — large rocks on earth~~
~~above~~
~~Remove small rock 260+25~~
~~Trim 262~~
~~262+75 ditto~~
~~263 ditto~~
~~264 ditto~~
~~Clearing ditch[illegible] above~~
~~4 N Burn (litter no danger of~~
~~fire.~~
~~#4 Trail pretty good~~
4-5 Oct. ~~Slab 40' at 292~~
~~Balance OK~~
~~Remove rock at 45~~
~~Remove roots~~
~~Tunnel 5 a few disintegrated chunks~~
~~came in at South portal. 4" Sand~~
~~at South portal.~~

Report contains no [illegible]
detailed slabbing figures

~~Gen material of 3-4 Sec pudding~~
~~overlaying blue disintegrated[illegible] (Huston~~

Gen for [illegible] — Burn material
of no value in material piles and
straighten same up.

27

~~5-13 Sect — Trim at 304 (25 yds)~~
~~Remove timbers from sect at~~
~~306.~~
~~Chunks in ditch 319~~
~~320 + 25~~

~~329 + 75 Possibility of danger~~
~~Earth slipping in~~
~~Ground at 330 + 50 is safe~~
~~for several years~~
Remove propper rock at
331 + 25 (temporary props)
Trim 337 (10 yds)

~~Flume 13~~ ~~Batten ends~~ & ditch
~~Brushing urgent.~~
~~Entrails of flume~~ on rock
~~Caps nailed with~~ 2 nails
~~per post as they should be~~
~~Side seams~~ OK.
~~2" Dams.~~
~~Bar wash under cement~~
~~lining at south end~~
~~Earth in contact~~ with
~~stringer at north end~~

Improvement to 4' trail - widen
short rocks.
304 – 815

Ritch wants speak of trail improvement
slabbing, piers, timber, trimming, painting

Wild tobacco?

Works on knew on everything South
of 15

Later get detailed summation of
timing & slabbing

48

20' slabbing recommended at north [illegible] 13. with 8' spacing wall 5' high protecting flume

13-14 [illegible] [illegible] [illegible] [illegible] 338+60
slabbing of entire [illegible] would be well

Flume 14 Outside battens and [illegible]
Earth in contact with flume [illegible] at north end. [illegible] entire length of flume.
Earth should [illegible] [illegible] kept there at this flume because [illegible] will [illegible] constantly come down
Some trimming of upper side of [illegible] on which this flume is built advisable.
Fix raised cap near north end.
1" [illegible]
[illegible] [illegible] OK
[illegible] [illegible] footing OK but leakage would be [illegible] [illegible] to [illegible].
[illegible] going to [illegible] at 358

[illegible] has [illegible] station [illegible] in 15 - [illegible] [illegible] [illegible].

Breaks in 13-14-15-16-17 would wash out county road.

Evidence of [illegible] cattle at [illegible] [illegible]. [illegible] [illegible] as pathway

39

~~Flume 14 - 15 feet~~

~~Slab or trim 346 (50 feet)~~

~~Make figures to show the cheaper method~~

~~Extend slabbing at 348~~

~~20' South~~

Jap ~~Cut (thorough cut) slab from 361+75 to 363+25~~

~~368 to 373 red dots = rock mixed. a ton limitation of slabbing and timing. This is about John~~ camp.

~~Flume 15 = Johnson Flume~~

~~No Sand~~

~~Sauterbach began cutting today~~

~~Will throw up all oakum~~

~~asphalt. ladling water off bottom~~

~~Did seams all the same~~

X ~~Work throwing up white warm~~ ~~counter sink 3/8" and the seams with a plastic tar 1/16 or asphalt.~~

~~Outside bottom & cleats complete.~~

~~Upper pier at 379± ladling water~~

~~Ditto at 378+50~~

Tabulate waste gates.

Fiber brushes for tarring Der Ship Chandler.

Tighten up bolts on all flumes and gates.

a little earth on a [illegible]
Shimming under post at
376 + 85
Broken horizontal brace at
376
Shimming under post at 374 + 75
Otherwise sub structure in fine
OK
Should be braced
Alignment of structure perfect

Oct 8 1912
Notes on Delzene [illegible]

Sta 75. Open [illegible] [illegible] 7 5½
5 8" rails at 5½ ft
Rocks in ditch below camp
Xing.
Trench at 479 + 75

Flume 18
Seams OK no cracks
Outside batters & cleats
Footings & timbers OK
Bottom seams narrow in
this flume
Brush on left side

~~Ferguson Flume # 19~~

~~Outside battens & cleats~~
~~Earth on timbers South abutment~~
~~Evidence of leakage along bottom~~
~~Repair drains underneath~~
~~No sand~~
~~Side seams fair – a little dry~~
~~Repair bottom cleats in places & tar.~~
~~Bottom at north abutment rocked~~

~~Flume 20 – Outside battens & cleats~~
~~Just a little sand.~~
~~Seams OK~~
~~Timbers & footing OK.~~
~~Clean brush~~

~~Flume 21 – Outside battens & cleats~~
~~Clean brush~~
~~A little sand.~~
Seams OK.
~~Timbers & footing OK~~

~~Flume 22 – Bu[illegible] Canon.~~
~~Outside battens & cleats.~~
~~Piers & timbers OK~~
~~Clean brush~~
~~Sand 1/2" thick South end~~
~~Side seams fair~~

32

~~Open cut #6 N.~~

~~Clean ramp of growth of weeds & trees.~~

~~Cause at end of concrete during 4th days.~~

~~A 3 bar forms at the ... section.~~

~~Open-cut #65~~

~~Clean of weeds & trees.~~

~~Recommend to line with concrete~~

~~... See South ... recommendations~~

~~Remove Tank & pipe ...~~

~~Remove Rails ... cut line.~~

~~15 - xing ...~~

~~... 17. ... OK.~~

~~Timbers & ... OK.~~

~~although they show ... from ...~~

~~... fair.~~

~~Brush out~~

~~Debris loosens lining at 346.~~

Tool bxs. Some in good shape eq 6N.

Get list of tools & supplies in same.

Secure of those needing repairs.

~~Flume 16 outside walls & bottom~~
~~side seams only fair~~
~~Trim lines & jointing OK~~
~~Clean [illegible].~~
~~Evidence of leakage~~

~~Remove rock debris at 382+30~~
~~most will come down [illegible] time~~

Notes Nov 5 1912

Marrow Culvert – Smiley rush
20 pcs 2 x 12 – 16

Transfers

~~Arveen 65~~
~~1 pc 2 x 12 – 7 R.O.P.~~
~~2 panels 3/4 x 12 x 16 OP~~
~~1 old planks 2 x 12 – 16 OP~~
~~1 " " " Rw~~
~~Some pcs blocking value 25¢~~

35

Location of $\frac{1}{8}$ Tunnel
on Cantis Contour map
of upper site.

Set up on △ 4+90 of Stadia Base
and foresighted on RP #1

Turned to left 74°28' to ⊡ 1199+36.7
of Dulzura Conduit Traverse

Turned to right 62°42½' to ⊡ 1212+01.6
of Dulzura Conduit Traverse

Set up on △ 12+22 of Stadia Base
and foresighted on △ 4+90
of Stadia Base.

Turned to Rt. 44°07' to ⊡ 1199+36.7
of Conduit traverse

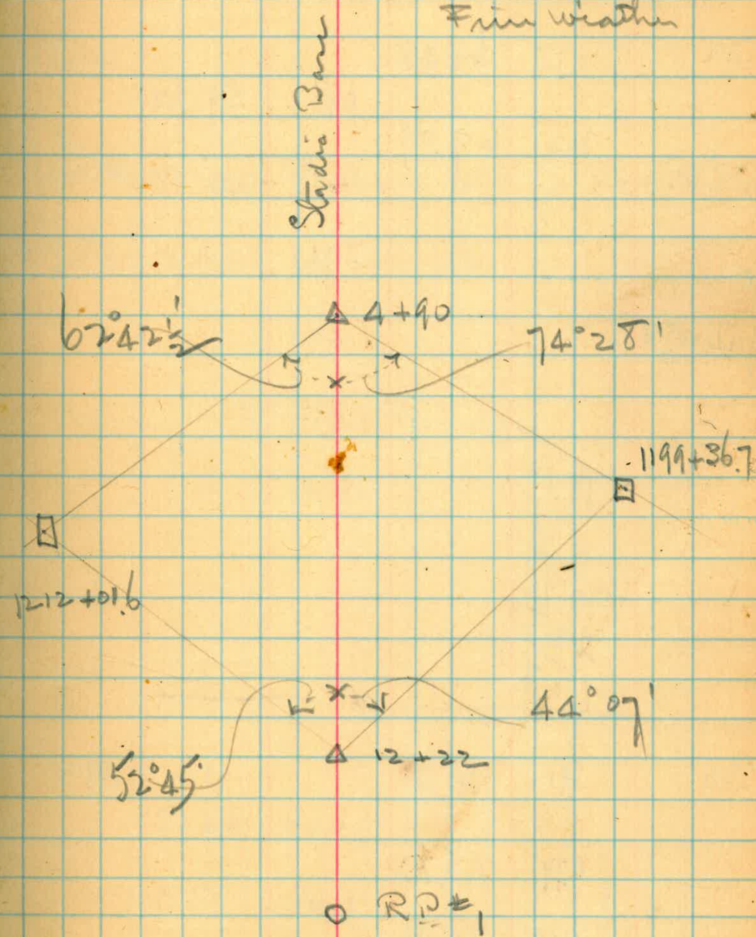
Turned to Lt 52°45' to ⊡ 1212+01.6
of Conduit traverse.

Then located $\frac{1}{8}$ tunnel from Conduit Traverse

SE ±

Nov 25 1912

Winter Smiling with
Fine weather



NW ±

36. Levels for Elevations

Of Conduit, Harris Dam

		ave.	105 Drift		
BM	10.75	60.48			49.729
			081	59.67	
	742	67.09			
Grade at 1/8 S			438	62.71	✓
			940		
Grade at 3/16 N			410		
			995		
	18.17		519		
	5.19				
	12.98				
	49.73				
=	62.71				
BM	590	55.63			49.73
			1120	44.43	
	079	45.22			
			1165	33.57	
	049	34.06			
			1085	23.21	
	148	24.69			

Barrett Dam Jan 15 1913

Weather Smiling

Use this as 5' above conduit floor at 1/8 S

= bottom of ditch at this sta.

= bottom of ditch at this sta.

= top 3x gauge (gauge crane tower and south)

37.

		28.69			
					5.92
					4.91
			3.45	21.24	
	1.20	22.44			
			8.34	14.10	
	0.73	14.83			
			4.70	10.13	
	11.80	21.93			
			0.54	21.39	
	12.06	33.45			
			0.09	33.36	
	11.34	44.70			
			3.53	41.17	
	10.66	51.83			
			0.12	51.71	
	8.08	59.79			
			10.05	49.74	

~~14..~~

2321
450
18.71

18.77

= 1 foot mark on b.s. gauge [?]

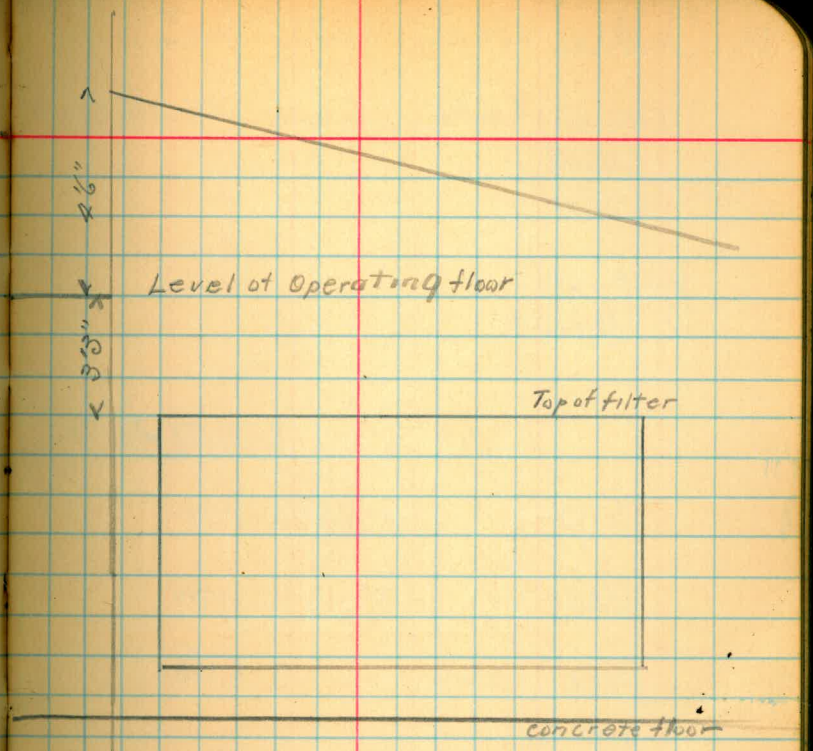
= Top Barrio Dam [?]

= Portal grade of Barrett Drift South end

44.73 = B.M. ✓

38

End Elev of Filter Plant Bldg.



39. Chollas Waste Water Res^r.

Traversed Contours 5 and 10 "Filter Plant" Waste Water Reservoir March 22 1913

~~Walsh~~
Hoffman

Showers

5' Contour

10			8757	N232E	✓
9	670		4728	N8535W	
8	344		5242	S4707W	
7	29.1	3106		S 536E	
6	33.6		13334	S2531W	
5	22.0		3515	N 7154E	
4	54.1	14632		N3639E	N3635E
3	50.9		14522	S311W	
2	48.7	1855		N3749E	
Sta 1	37.3		5414	N5644E	
				N230E	

= Sta 1

= Magnetic course of axis of Dam and assumed true bearing of ditto

40

Wiest Hoffman
March 23 13

12	278		4811	N 05½W
11	431		4204	N 49 07 W
10	699		17045	S 88 49 W
9	586	12255		S 81 56 E
8	674		6245	S 40 59 W
7	715		3839	S 21 46 E
6	496		4121	S 60 25 E S 60 30 E
5	390		3622	N 78 14 E
4	454	13523		N 41 52 E
3½	255	2949		S 2 45 E
3	1014		16139	S 27 04 W
2	1283	2529		N 39 37 E
Sta 1	414		6236	N 65 06 E
				N 23 a E

41.

	97.6	10832		S 73 58 W N 2 30 E	S 73 55 W
	86.0	9452		S 87 38 W N 2 30 E	S 87 40 W
	45.0	1308		S 81 27 W N 25 25 W	S 81 20 W
	49.3	2646		S 61 21 W N 28 52 W	S 61 25 W
16			8723	N 2 31 E	
15	744		5140	N 84 52 W	
14	484	3521		S 43 28 W	
13	201	10015	~~10015~~	S 78 49 W	
				N 0 56 W	

To CP below dam-site on 10' contour from Sta 10-1

To CP below dam-site on 5' contour from Sta 5-1

To CP below dam site on 5' contour from Sta 5-10

To CP below dam site on 10' contour from Sta 10-16

		8957		N 143W	N 135W
			85 44	N 88 14 E	N 88 40 E
				N 2 30 E	

Notes Gulley intersect fence 293' from 2' offset hub on axis of dam site

Measurements across axis of dam

10/16. 4.8' 5/083' ×307 5/1 422 10/1

Distances across lower dam site 5' contour 585
10' contour 952

Notes cont. April 6 1913 Wrench Rusha
Dist bet sta 5 to 2' offset north of fence-line on axis of dam = 11.5'

Dist. from 2' offset on axis to 2' offset = 206.2'

At cor offset to 2' offset west of fence

To 2' offset at fence cor N & W on outside
Set up on intersection of axis and 2' offset on north side fence

18" Tram for Cholla Filter Plant   Apr 6 1913 Wright, Kusba

Notes

Use 4×6 – 20^s for stringers

Use 6×6 – 18^s for posts

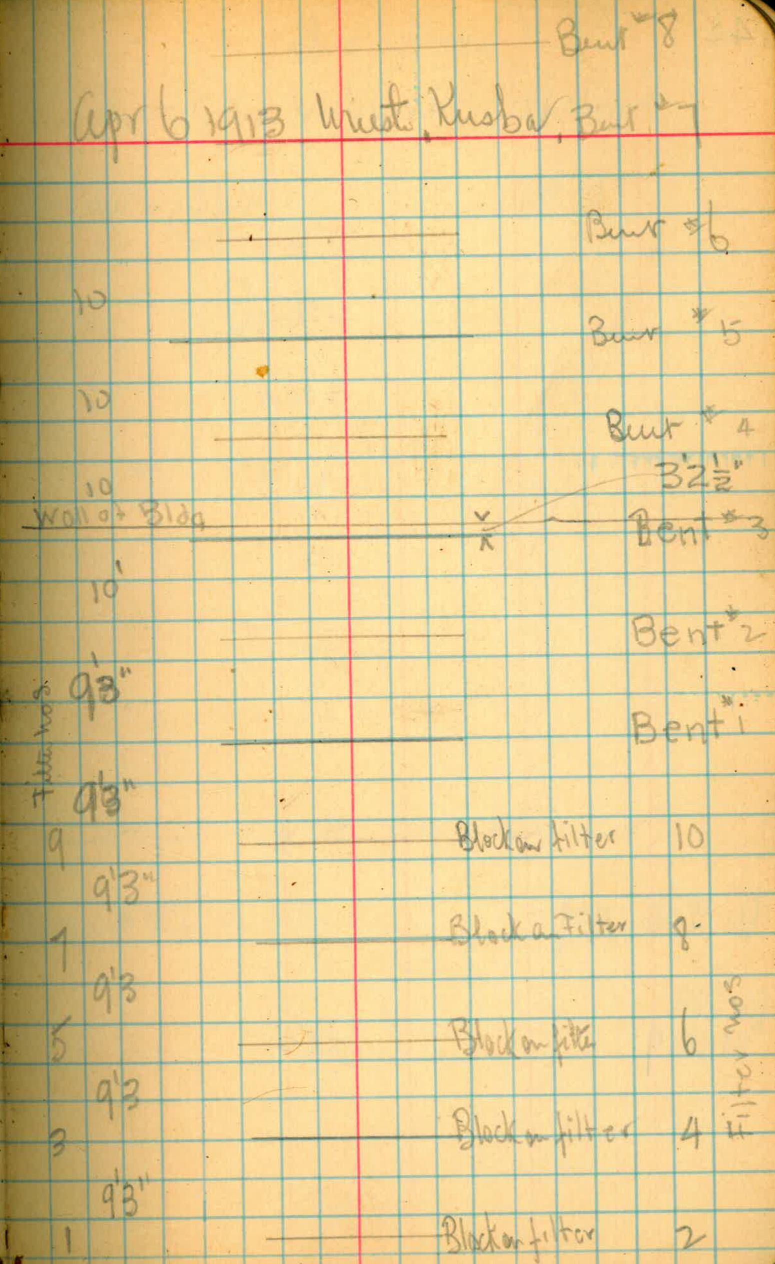
Grade of Tram = 3" per 100'

Caps to be 6×6 – 3'2"

Cross planking 1×12 – 3'6" also answer for ties

Batter posts 1 3/4" per foot

Posts 2'2" ctr to ctr at cap.



North side

Levels for Filter Plant Tram — Apr 6 1913 [illegible] [illegible]

0.66			8.50 = assumed Elev	of top of filter on concrete floors
		9.16		
		2.35		on #7 Bins
		3.10		on #6 "
		1.74		on #8 "
		1.02		on #9 "
		3.42		on #5 "
		8.42		on #4 "
On Filter 0.09			8.50 "	assumed Elev top filter
~~on~~ Bm at Sta 9		0.44		

Levels for Filter Plant Tram

apr 6 1913 Unester Kuska

South Side

0.75

8.50 assumed elev On Filter

on concrete

	9.30
Bmk 4	7.95
5	5.03
6	1.40
7	1.14
8	0.48
Bmk 8	0.46½

46 Levels for Road Improvement

Sycamore Valley Apr 10 1913 Wurster [illegible]

1.78	201.78			200.00 = assumed Elev of bump at sharp place
		11.62	190.16	
0.46	190.62			
		11.09	179.53	
0.17	179.70			
		11.80	167.90	
4.51	172.41			
		0.39	172.02	
6.50	178.52			
		6.31	172.21	
13.42		41.21		
		13.42		
		27.79		
		172.21		
		200.00		

783') 27.79 (.0355 = grade
23.49
4300
3915
3850
3915

Rough length = 783'

Diff Elev = 27.79'

Grade Stakes for Preceding Page 27

0+00	11.27	11.27		0.00	
0+50			9.50		
1+00			7.72		
1+50			5.95		
2+00			4.17		
	10.13			0.00	
2+50			8.36		
3+00			6.58		
3+50			4.81		
	11.79			0.00	
4+00			10.01		
+50			8.24		
5+00			6.46		

Prelim. [illegible] levels. April 10 1903

[illegible]

680
177
503

1013
177
836
178
658
177
481

355
177

1179
178
1001
177
834
178
656

1127
177
950
178
772
177
595
178
417

994
178
816
177
639
178
461

1057
177
875

671
177
494

1153
[illegible]
978
177
801

1142
178
964
177
787
178
609
178
589

875
177
698
178
520

285
41
244

1004
177
827
178
649
[illegible]
294

395
177
218
177
41

48

	1050		000
5+50		873	
6+00		695	
	1159		000
6+50		982	
7+00		804	
	463		000
+50		286	
8+00		108	

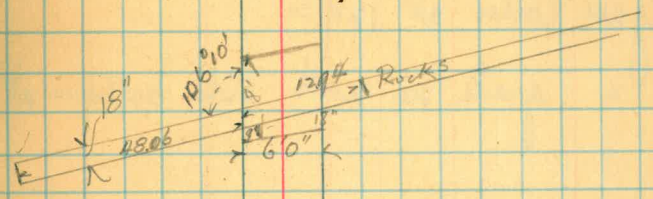
1050
177
873
178
695

1159
177
982
178
804

463
177
286
178
108

49

Sketch of Barnett wash box.



Head holes

on bot box 508
on top 4×4 251
on top down 261
on 1' mark 405
on bot box 8' from 518
front

Box 2×6

Barrett Drift.

August 8 1913 Worcester, Cuba

Gave center at 129^{5}

" grade on north side bottom at 137^{5}

4.22 = Portal grade

4.00 = margin at 137^{5}

 Survey of Ward Flat, Monona Dam — Sept. 18 1913 Wruste, Swenson, Grosse.

Sta	Dist	Lt	Rt	Cal to	Mag to	Stadia	Vert ∠	Declination 14°00 (229 Rt)
⊡8								
⊡8 - 7	339.7		229	S35-04E				
7e			6600			196	+7.00	C.P. west edge grain field
7d		9413				54	-2.00	C.P. on north end porphyry ledge
7c		13033				185	-2.00	C.P. in road to camp
7b		15447				118	-4.10	Ctr. Monona Entrance gate
7a		17745				123	-5.25	Junct Ward Flat & Camp Roads
⊡7								= hub at lower end Ward Flat.
⊡6 - 7	559.1	2544		S37-33E				= hub west side camp road.
⊡5 - 6	394.2	2143		S11-49E				= hub west side camp road where Kitchen tent stood.
⊡4 - 5	84.9		6000	S9-54W	S7-50W			= hub east side camp road
⊡3 - 4	403.0		1523	S50-06E				= hub east side camp road
⊡2 - 3	235.0	8729		S65-29E				= hub west side camp road in gulch
Sta 1 - 2	117.3			S22-00W	S22-00W			Set-up over stake on 150' contour where same intersects orchard lines behind Dam. = Sta 1

S38°30'E Lt 151

Sta	Dist	Lt	Rt	Stadia	Vert angle	
8n ~~8o~~		727		190	+105	CP on wash (South end flows north)
8m		110 44		113	+130	CP on porphyry ledge
8l		147 10		165	+115	= ctr of Rock Hse = also CP on ledge
8k		145 28		238 ~~138~~	+140	Proposed ctr of proposed house for keeper about 40x40 Sta 14
8j		167 25		240	−120	East end of gable of spring = also CP on outside fence
8i		175 00		233	−124	west end of gable of spring
8h			153 10	197	+040	cor inner pasture fence
8g			133 00	223	+310	cor hay stack fence
8f			124 38	192	+400	cor hay stack fence
8e			117 11	270	+430	~~CP fill~~ cor hay stack fence
8d			112 54	245 (244+)	+450	CP fill & cor of hay stack fence
8c			58 14	250 (249+)	+507	CP west edge fill
8b			38 11	173	+240	CP west edge fill
8a			31 10	270	+315	CP west edge fill

S35-04E

Sta	Dist	Lt	Rt	Cal to	Mag to	Stadia	Vert angle	
10 g			14228			415	+100	= CL on field
10 f			9005			333	+320	= CL on field
10 e			7430			416 / 477	+535	= CL on field & outside fence
10 d			4118			465	+130	= cor outside fence at throat
10 c			4752			262	+105	= cor of inside fence
10 b			1900			457	+105	= cor of inside fence
10 a		246				480	+100	= SE cor of inside fence
⊡11 -10	469.8	132		S38-27 E	S40 05 E			
⊡10								
⊡10-8	596.2	151		S36-55 E	S38 30 E			
8 R		17534				312	-307	= CL in wash
8 q			16410			250	-120	" CL in wash
8 p			14012			48	-416	= CL in wash
8 o		2800		S35-04 E		118	+130	= CL in wash

54

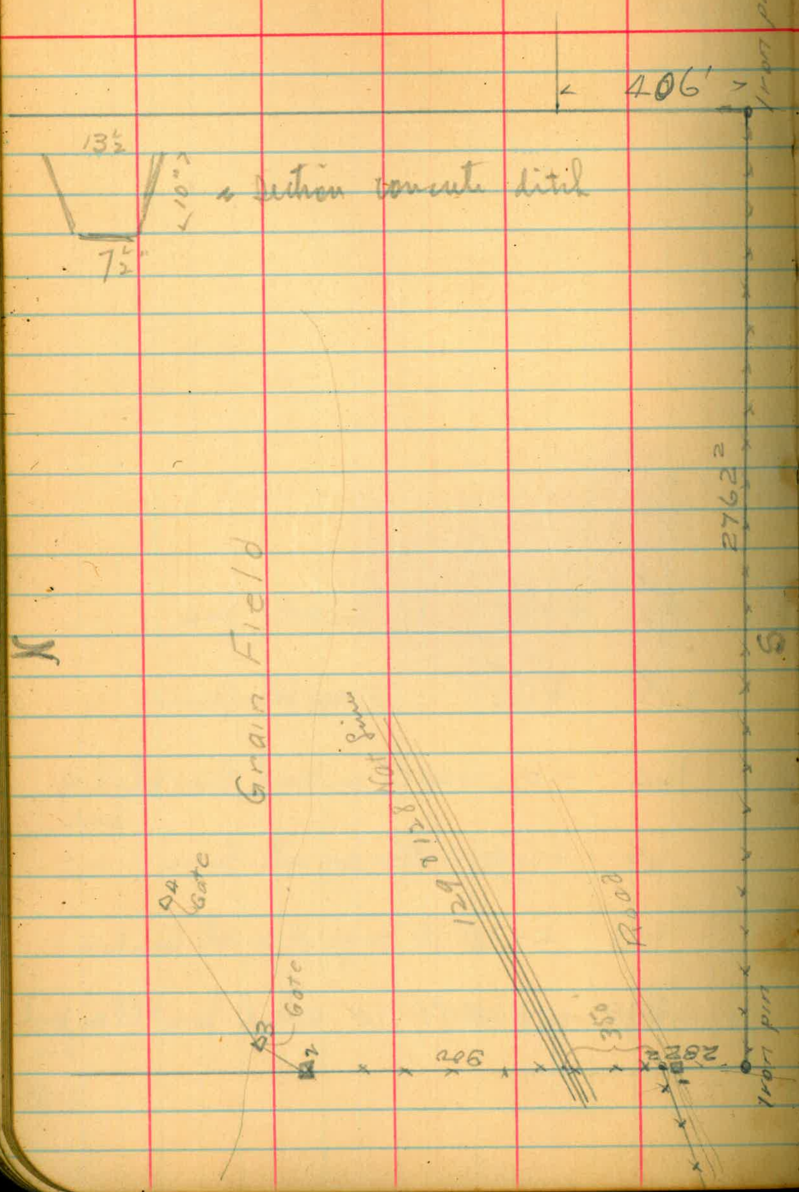
Sta	Dist	ht	Rt	Course	
13 – 12	5358		918	S30-49E	S32305E
12					
11 f		4150			
11 e		6446			
11 d		11550		—	
11 c			8657		
11 b			5052		
11 a			1151		
12 – 11	3883	1°40'		S40-07E	
11					
10 A		~~14038~~	14938		
10 j		14258			
10 j		11055			
10 h			17131	S38-27E	

373	+155	= CP at edge brush
425	+130	CP on Outer fence
297	+050	CP on Outer fence
325	+246	= CP on Inside line (outer)
340	+240	= CP of field & on fence line (outer)
295	+150	CP of field & Cor of outer fence
74	-045	= Cor of mark fence
275	-053	= Cor proposed barn 20 × 32 = obs 10
231	+045	= intersection of mark & outer fence
278	-215	Cor mark fence

55

Sta	Dist	Ht	Rt	Cal to	Mag to			
13 f		14303				395	+045	= UP on outside fence
13 e		8107				205	+150	= SE cor outside fence
13 d			342			164	−020	= UP on brush line outside of fence
13 c			~~342~~ 4727			66	+245	= SW cor outside fence
13 b			9126			103	+235	= angle pt on outside fence line
13 a			17136	N39-13W	N4030W	390	−040	= cor outside fence TCP on brush line
13								

Survey of Harvey Ranch



Loucks Logan
Sept 23 1923.

98
143
143

2|55
2640
2750
12
2762

/ / / / / / / / / /
/ / / / / / / / / /
/ / / / / / / / / /
/ / / / / / / / / /
/ / / / / cation / / / / /
/ / / / / + 12²

North

/ / / / /

/ / / / / / / / / /
/ / / / / / / Tdf

2139 Rt 148 N 20 55 E

443 N 54 20 E

N 38 15 E = line of trees in East orchard

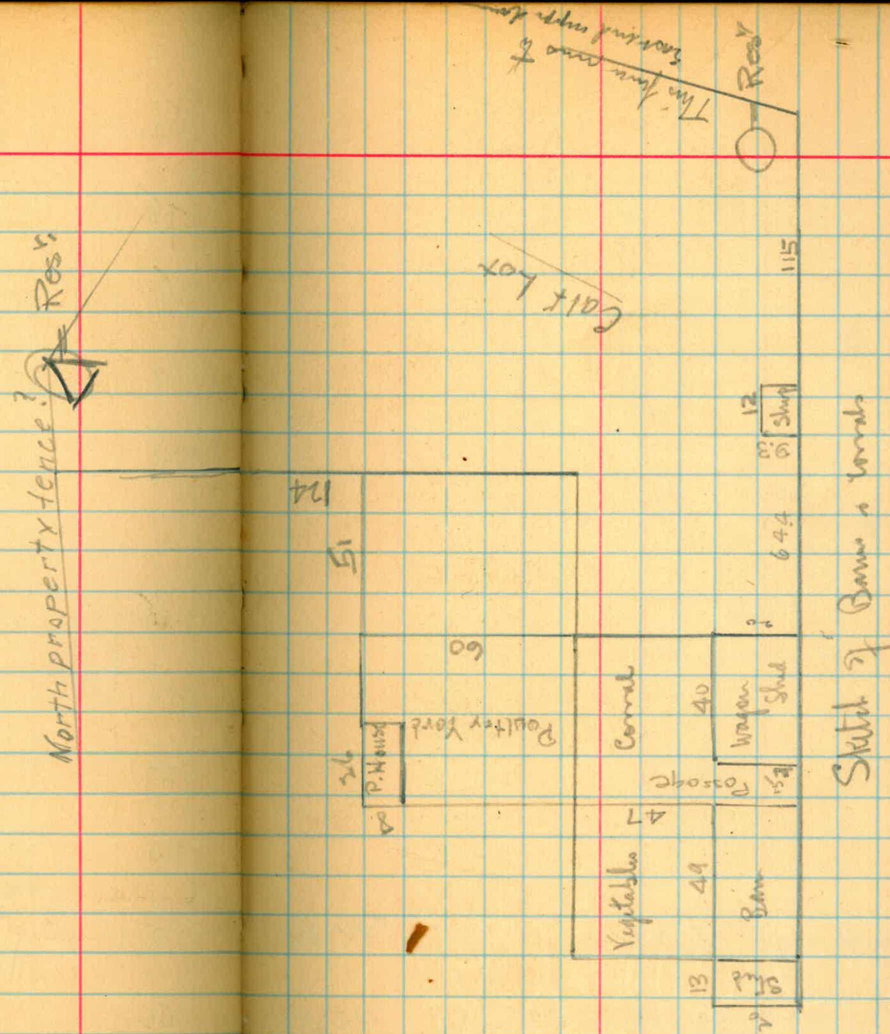
Concrete ditch runs parallel to course 6-8 (Ditch 15' south)

Fence cor West line to ⊡ 2	900.
Ctr S.O. Road to Fence cor W line	25.4
SW cor to Ctr S.O. Road	282.2
SE cor to SW cor	2762.2

Stadia & Compass notes. Harvey Ranch. See page 56

Wrecks Sogan
Sept 23 1913

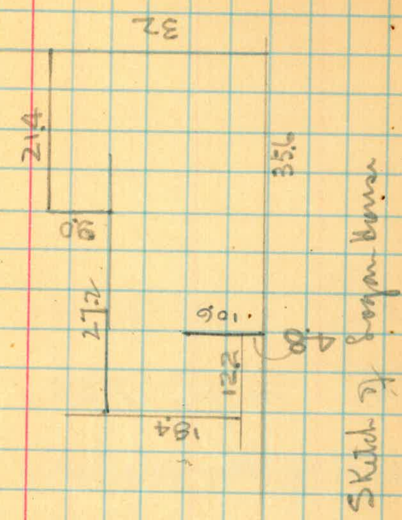
Sta	Dist	Lt	Rt	Cal to	Mag to	Stadia	
					N7150E	75	∠SE cor Wagon Shed
					N6225E	35	∠SW cor Wagon Shed
					N4845E	20	∠SE cor Barn
					N8620W	45	∠SW cor Barn
⊡8							
⊡8					N6705E	245	∠ wall south of barns.
					N2030E	[illegible]	∠ Cor toilet
					N3545W	127	∠SW cor Sogan Porch
					N2030W	110	∠ S.E. cor Sogan's Porch
⊡6					N205W	157 (pointing to ⊡7)	∠ Junct of orchard & grain field roads
⊡5					N255E	92 ✓	∠ N.E. cor West orchard
⊡4					N1330E	184 ✓	∠ Gate on north line of grain field
⊡3					N5420E	443 ✓	∠ Gate near creek on south line field
⊡2			2139		N2055E	148 ✓	∠ on N&S fence



N 77 30 E	210	to SE cor corrals
N 76 - E	151	to SE cor Shop
N 75 30 E	140	to SW cor Shop

S57 45 W	38
S40 30 W	12
N79 50 E	
N18 – W	146

Set up at ⊡ 7



⊥ NE cor. Logan House

⊥ Ctr well 3' dia 50' dep. 25 to wat.

⊥ Ctr 4x4 toilet

⊥ Ctr gate N fence line

Survey of Harvey Ranch (Cont)
Grain Field meander.

281	262
293	268
327	348
901	878

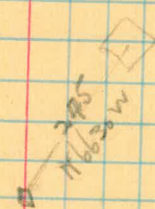
	S45 – E	43	
	S89 25 E	185	
	S56 30 E	240	
CP	S40 05 E	260	
~~CP~~ +118			= Nat 128 + 129 Line
CP ~~+~~	S24 20 E	181	~~= Nat 128 + 129~~ Line
Junction of Field + orchard fence	S77 55 E	71	= Eastern most cor of East orchard
CP	N40 35 E	154	
□ 4	S 14 55 E	901	= Ctr gate N side grain field
CP ×	S74 55 W	878	} This to 18' south of apiary Road
CP	N49 – E	290	
CP	N82 15 W	266	
CP	N70 35 W	210	
□ 3 See page 57	N50 15 W	300	
		3979	

61

◻3

N63 40 W	102
N81 55 W	177
N74 20 W	175
N59 10 W	222
N59 35 W	246
N87 35 W	101
N79 30 W	205
N68 - W	199
N73 40 W	200
N83 05 W	268
S81 - W	98
S53 10 W	341
	2234

□ = ◻3 South Side fields



= Old Harvey Res Site
House moved by Bodinet

61 62 Survey of Hanna Ranch (cont) — Wright Logan Sept 27 1903

North side ~~West~~ orchard (apiary road)

	S49 15 W	291	
3	(S42 55 W)	(168)	Side shot closing on grain field meander from preceding station
	S71 15 W	124	
	N88 05 W	168	
	N76 W	416	
	N85 10 W	91	= 6 page 57

East side East orchard

= SE cor cut[illegible] page 58

N85 35 W	76	
N49 50 W	160	
N44 10 W	140	
N28 05 W	101	
N19 30 W	264	= Eastern cor orchard see page 60

Logan's Apiary Lot.

S89° W	235	This shot from "southerly cor apiary lot" (see below) to westerly corner Letts along Reservoir ~~fence~~
		= Ctr County Road.
N51°45' W	267	
N52°5 W	125	
N52°10 W	226	
N36° W	132	
N61°25 W	88	
S78°40 W	312	
S29° W	258	= Side shot to corner Otay Res' fence = Southerly corner apiary lot.
S63°20 W	88	
S49°30 W	310	

Harvey Ranch Survey.

North Property Fence

N66-E	51		
N66-E	187 (179)	+1030	
S31 45 E	378	41° 73 34° 93	
S5 230 E	440		
S5 140 E	290		
S64 30 E	122		= west end lane
S50-W		Side Shot to NE cor Sogan Residence	
S49-E		Side Shot to SW cor Shop	
N64-E	264	Pointing to west end dam	
N87-E	933		This station 10' south of ctr of County Road.
N64 30 E	72		
N48 10 E	140		
N13 50 E	95		on top bluff
N32 15 W	120 (104)	+2048	= CP x page 60

~~S65 15 E~~	~~305~~	= the bridge crossing creek
N81 45 E	41	
N48 E.	144	, 5' south of the County Road
N41 35 E	370	This course still follows telephone line but fence turns N84 E at this point.
N42 15 E	500	This course follows Sugarman fence which follows telephone line.

66 Location of Otay creek through Harvey Ranch.

All station at ctr of creek unless otherwise stated

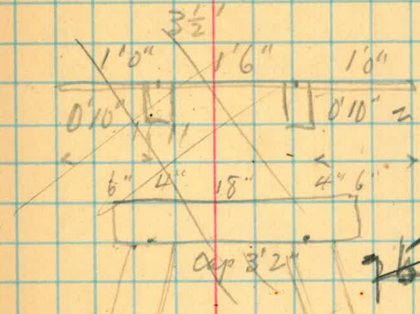
Wuest. Logan 9-27-13.

Course	Dist.		Remarks
N71 45E	86		45' wide
N81 10E	104	Bounded on south by bluff (104 – 153)	24' wide
S89 20E	224		5' from south bank of 20' sect.
S73 50E	240		5' from south bank of 21' section
S78 50E	113		opposite wash from south side (at south edge of 40' wide section
S60 - E	325		33' wide
S66 30E	145		This station at south edge of 40' wide section
S60 - E	153		66' wide
S53 - E	431		54' wide — This sta about 25' west of ford.
S65 15E	305		75' wide
S69 25E	207		
S88 05E	324		
N19 - E	274		36' wide here
S63 30E	96		= southwest corner of Logan's apiary lot

.4625
.25
23125
9250
.115625

N1430E	112	
N20-E	72	25' wid
N20-E	183	
N3945E	215	100' wid
~~N15~~ N1530E	281	~~76 wid~~ 75' wid
N2630E	113	
N320W	100	42' wid
N855E	149	24' wid
N1840E	78	44' wid
N3440E	124	
N6605E	212	
N7055E	108	30' wid
N8230E	121	63' wid
N8340E	112	

255
183
72



Partial List of lands conveyed by Seminole Co

Parcel	~~[illegible]~~		Sec			
114	62.44	Lots 1 & 2	Sec 4	18S	1E	L0
115	40	SW of NW	4		"	
116	40	NE of SW	4		"	
117	40	NW of SW	4		"	
118	160	NE	5		"	
119	80	$N\frac{1}{2}$ of SE	5		"	
120	154	Part of SW of SE	5			
121	80	$N\frac{1}{2}$ of SW	5			
122	80	$S\frac{1}{2}$ of SW	5			
123	80	$S\frac{1}{2}$ of NW	5			
124	40.19	NE of NW	5			
128	40	NW of NW	8			

= the bridge page 65

N12-E 161

18' wide

617 452 746

452

294

350

644

763

746 bot

452 top

350

102

746

102

644

617

102

515

763

102

661

484

350

134

677 770 823 741

134 134 134 134

543 636 689 607

5'5" 6'4½ 6'10½ 6'1

180

9222

8738

2333

105

1283

185

2

370

85

165

8.53

170.50

160

105

100

4204

8849

13053

180

4907

100 15

156

10141

150

7849

8525

1305

9833

1521

81

4328

5140

9508

170

8452

1800

10602

7338

18452

2647

1134

150

6821

5'

9'3

45

1'3

46'3"

46.25

18' 8'1"

9 8'10

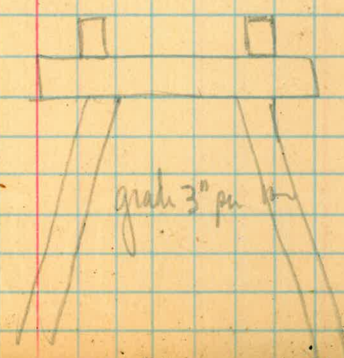
6

8'4

46

3

138



Lauterbach spent 9½ days in #1 and took out 30 yds sand & rock (15 yds rock)

R.B. Lauterbach memo.

Enr #6 Weir. Raise instr. mark 1'
Enlarge for stilling.
Instrument too close to weir
Improve float - cage.
345± earth.
Move car to Barrett.
" car & houses at School house
Cylindrical tank at Bee Cañon
Raise lining 6" for 1500' at 6 N
Remove battens & calk bottoms of 13 14 15 19
Phone line along ditch.
Put better quarters for Johnson Camp
Restocked & water proof tool-box.
Special care Flume 13 - Flume 15
Open - cut Tunnel 5½ 3 + slab.
Jap - cut to 15 N   cover pumps
Fence around Johnson camp.
× Sand trap in Flume 22

Oct 1942

Random Notes on Care of Flumes

What is the SD Flume Company Practice

Batten flumes: seams drain open so much. Batten form a backing for oakum to drive against. Also batten prevent seams becoming larger on outside than on inside.

Sto[?] a [?] seams [illegible] at start.

having tar or asphaltum with the oakum when same is put in.

A more liquid grade of asphaltum.

In Oct to Nov flume seams [illegible] very moist.

On other hand tarring should not be deferred until lumber becomes damp in Nov.

?? 2 Men calking flumes: one on outside one on in side.

If paint were stopped, tar would rest on [illegible].

Bottom ^clamps of all Company flumes in bad shape!

Could tar be sprayed on?

Or jetted on with steam????

Would outside painting of flumes [illegible]: tarring outside of seams.

Drummer suggests mixing sand with tar. [illegible] [illegible] ~~this~~ [illegible] because too brittle.

History of Flume 7 & 8.

1909 Sauterbach & Peterson & Hanson caulked sides of both, and tarred sides on 8 and seams on 7 bottom battens on 8 both tarred. Entire bottom of 7 tarred with ~~[illegible]~~ with pine tar on south end and asphaltum on north ½.
Sutley & Fay puts [illegible]

1910 8 calked bottom seams up both sides and tarred completely
Sauterbach & Wolfe & Hagen and Hurley
7 all seams caulked and all tarred.

1911 RB Sauterbach & BG.
7 & 8 new battens on bot where necessary. Calked some seams of 7.

1910 Sauterbach & 3 men tarred 12 flumes

Johnson Flume

1909 Watts at Johnson camp

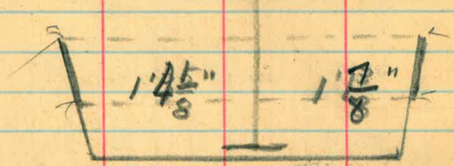
1910 " at Barrett.

1911 " RB Sauterbach goes over some of 15 seams.

Stem Guides for Valves in P.C. Bridge Sand traps

Lower chamber:

Dist across longitudinally 11½" up from floor = 2' 5"



22½" up = 2' 5 3/4

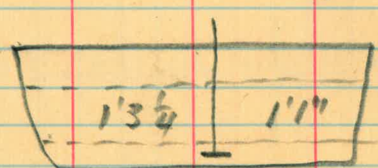
13' 3/8" Top stand to floor

Upper chamber:

Dist across longitudinally 11½" up from floor = 2' 4 1/4"

22½" up = 2' 4 3/4

13' ½" top stand to floor



Wright. Sept 19 1912

13' 5½" Top stand to floor

Middle chamber

Dist across longitudinally

22½" up = 2' 8"

11½" " = 2' 4 5/8"

Female screw 4½" high

Plate 1" high

60
18
588
14
574

Cement 17
17
8
3
3
2
1
51

175 387 336

1095 corner edge bead old

1045 " " " new

175 top mail

109.5
17.5
9.20
1.50
7.70

104.5
17.5
8.70
1.50
7.20

guard strap
tub
file
hammer
heading tool
clamp
tool

Keep X cut saw at Barnett

Rr side Sept 6 1912

cement 694½ Plaster

101		20
78		18
39½		21½
20		12
45		11
227		21
127½		14
63½		117½
86		455½
107	1589	572½

To go in 588 588

14½
5½
6½
46½
21½
14
40
20
33
43
32
~~101~~
96
15½
67
455½

58½
12½
95
15½ to go 330
12
98
381½

Lt side

20	
574	574
156½	5
91	579
126	
16	
47½	
64	
124	

to go in 5
16 663

List of Print & Maps
at Barrett Engr Hse
June 20 1902

1 T 17 S R 4 E S B M
1 T 18 S R 5 E S B M
2 T 18 S R 4 E S B M
1 Section of Proposed Concrete Arch Dam
Barrett by A E
1 Profile Barrett Dam Site 1897
1 Contour Map Barrett Res. site 1894
1 " "
mounted on muslin & with Table of Contents
1 Conduit Survey bet Secs 11 & 10 18 S 2 E
(Egg-shell paper)
1 Pine Creek Bridge Rough draft
1 U.S. G.S. Top San Diego Quadrangle
1 Transit for Concrete & Comparative Sections
of Ditch (SBM)
× 1 Black & white print MMOS Rough Draft
of Conduit line & Barrett Res. site.
1 Rough Detail of Dulzura Flume &
Sand chambers.
1 Blue-print of × above
1 Roll misc Profiles
1 Plan Concrete Arch Dam for Barrett (A.E. 1902)
1 Profile Barrett Dam Site and Unlabeled contour
maps of res. site.

Cont.

1 unlabeled Contour map
1 " " " of Dam Site
1 Draft Barrett Survey of Morena Conduit.
1 Unlabeled Profile.
1 Draft Flash Boards, Valve Tower & Sketch Plan
of Barrett Camp.
1 Barrett Dam Misc
1 Roll Barrett Survey Plan 1897-1907
1 Silt chamber for P.E. Bldg. SBM
1 Roll X-Sections Barrett Dam Site
1 Roll Barrett Dam Misc 1906-1907
1 Roll 36" Buff Detail paper with
Morena-Barrett phone line
1 pc 42" egg-shell paper
1 Small roll of ditch form print
1 Roll Lower Otay Gravel 1894 & Dam 1907
1 Roll 38" Tracing cloth
Mounted egg-shell roll of Survey. Res. [illegible] 1894
1 Small tracing of Barrett Spgs Bridge

9' 7½ 7' 7½

8' 8" 6' 8"

June 20 1912

Send to Barnet

5 sks coal (from SD)
2 bx #2
6 coils fuse
3 bx caps
2 double jack handles

from Amaraca

Dulzura Post Office

1 pr gloves
100 Durham
25 papers
25 matches
50 candles

1353
139.08
180
41.52
36
78
41.21
119.35
180
56.0 25

16135
3937
20172
18

16737
3937
20704
18
27

3941
2710
245

no flume
150' runway
buggy
plate

the fuel
Tres Tenny 2
" mudroye
Fire Sopas Dr

discharge at Barrett rim's flume

plate
violet glass from sunlight
throwing flumes
station in conduits
depth sand
cracks
solvent action of water in concrete

15½ ther
34-30 [illegible]
36 [illegible]
1 bx paper

3449

14522
3749
183.1
180

sulphur
fly paper
prime
glue
whitewash
plate tube

13337
7150
20531
18
2531