

BK 46 Dr 16

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Drainage Survey

Hamline Ave

From 1/4 Mi. No. of "C" To Ctr Sec 3

Road Acc't. No. 9

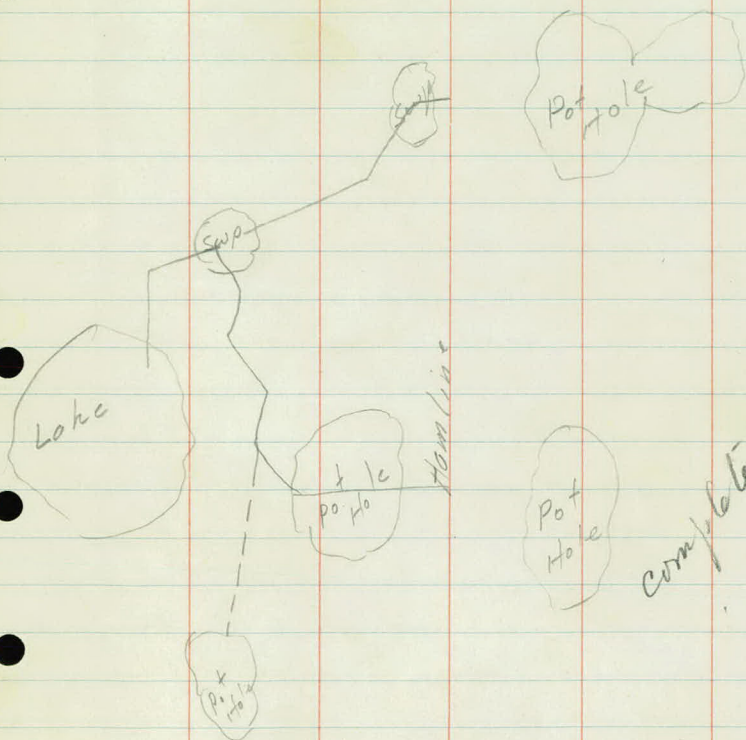
Date Filed.....

File.....

BK 46 Dr 16

Drainage Survey

Hamline Ave
No of Co. Rd "C"
□ Ctr. Sec. 3



□ Co. Rd. "C."

131 + 56.23 Mon. Ctr. Sec. 3

128 + 19.00

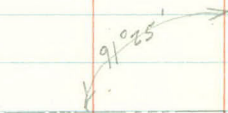
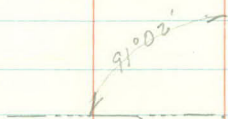
128 + 00

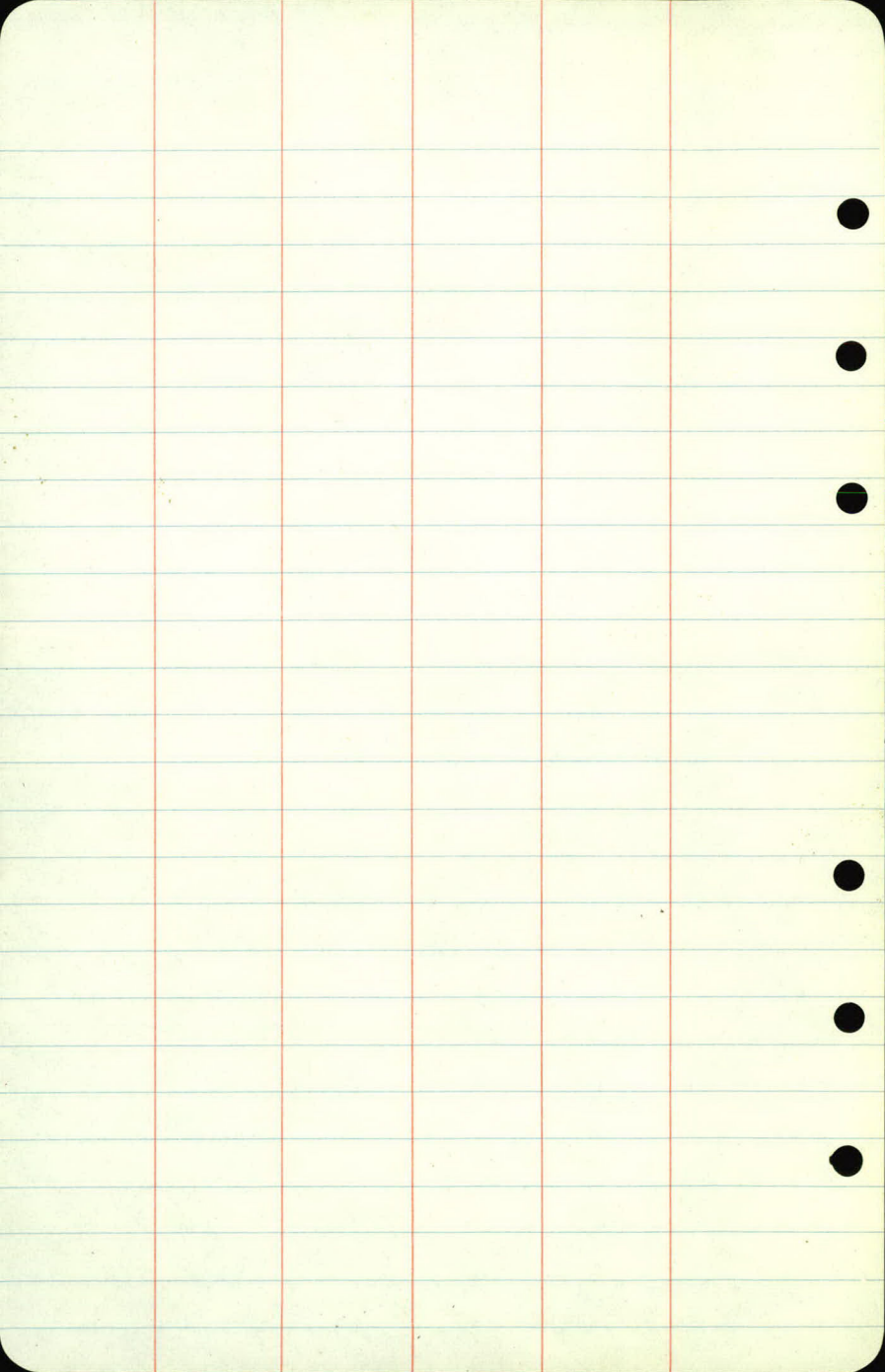
122 + 34.57.

120 + 00

105 + 37.30 Mon. at C-

Azimuth of $0^{\circ}00'$





Stadia Shots of Potholes
on East Side of Hamline.

Sta. 105+37.30 to Sta 131+56.23
is $0^{\circ}00'$ Azimuth

Transit	Site	Azim.	Dist.
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A

120+00

131+56.25

0°00'

Edge of
Pot Hole

163°45'

196'

4°40'

240'

11°40'

245'

144°05'

200'

19°05'

192'

126°50'

212'

30°45'

136'

113°52'

230'

48°35'

166'

58°40'

212'

89°30'

280'

63°05'

275'

102°45'

330'

72°15'

300'

78°10'

310'

92°00'

350'

84°00'

350'

90°05'

370'

Sta. 122

118

Sta. 121

117

Sta. 120

117

Sta. 119

116

Sta. 118

119

Transit	Site	Azim.	Dist.
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A

128+00

131+56.23

0°00'

Edge of Hole

10°30'

98'

168°10'

150'

22°15'

111'

57°55'

162'

22°35'

130'

162°35'

220'

35°20'

157'

144°25'

240'

59°07'

171'

79°30'

200'

124°01'

283'

93°00'

230'

109°50'

265'

small
Hole

100°00'

252'

105°00'

290'

98°25'

272'

110°55'

330'

93°45'

280'

111°10'

353'

87°15'

325'

121°13'

390'

85°04'

382'

166°15'

480'

129+00

20'

128+00

△ 16'

127+00

25'

5/29/11
170/10

80°30' 440'

110°20' 475'

186°15' 445'

107°15' 460'

94°20' 425'

103°10' 415'

29

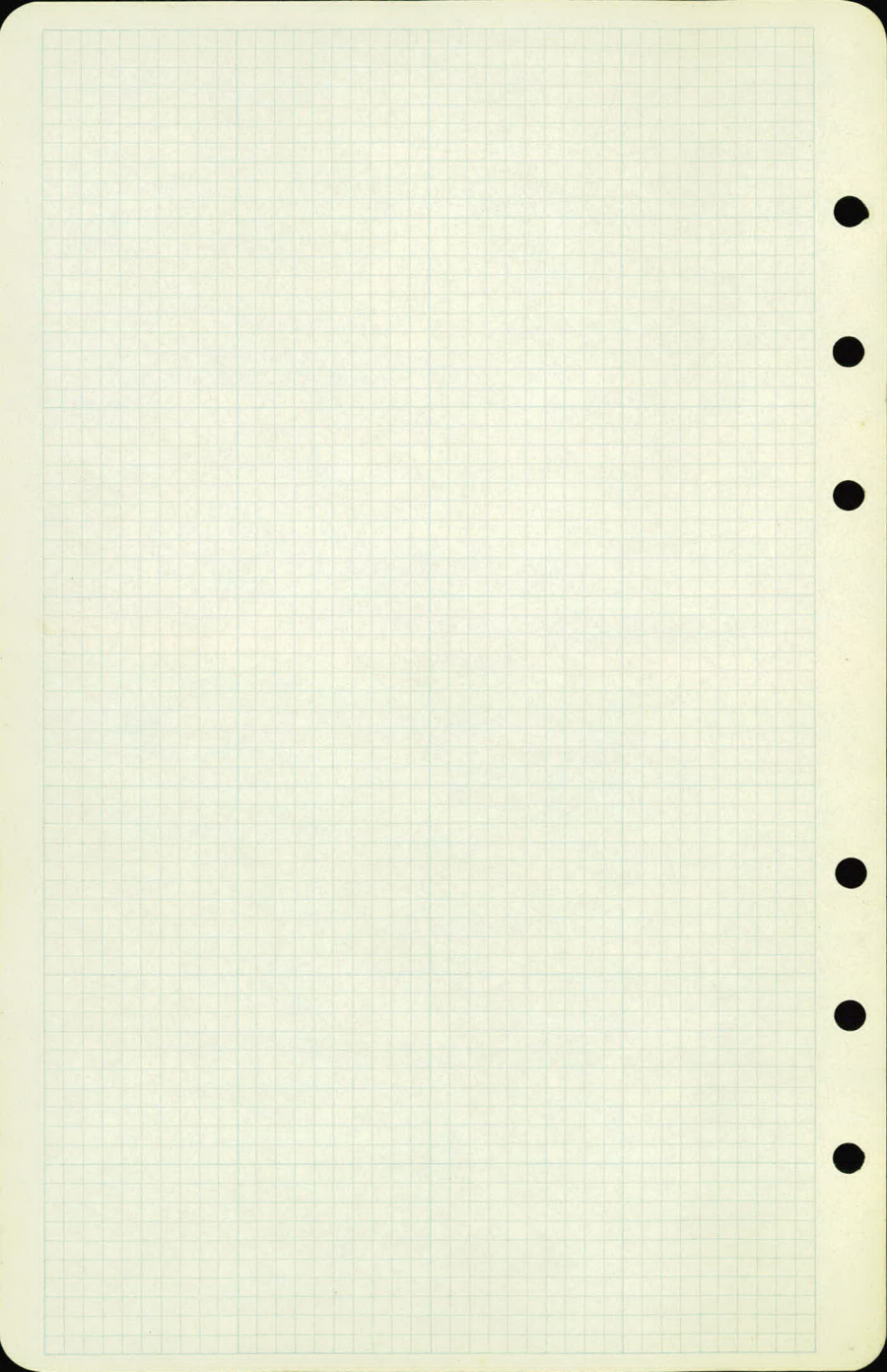
+70 - 28.58

+44 24.80

28 100 - 25.90

174 - 33 - 105

27



Cross Sections

Hamline Ave.

Sta.	T	π	-	Elev.
B.M.	10.53	922.50.		911.97
115+00			1.7	20.8
+50			2.8	19.7
116			4.4	18.1
+50			5.7	16.8
+ 79	Sec. thru Sanitary ditch Lt.			16.1
117			6.9	15.6
+50			8.3	14.2
118			9.3	13.2 Beg. Pot Hole
+50			9.9	12.6
119			10.0	12.5
T.P.	4.95	917.43.	10.02	912.48.
+50			4.8	12.6
120			4.8	12.6

Nail
Spike P.P. Lt. 120+32

$\frac{2.5}{50}$	$\frac{2.4}{24}$	$\frac{2.9}{22}$	$\frac{2.2}{13}$	1.7	$\frac{2.1}{11}$	$\frac{2.3}{17}$	$\frac{2.2}{27}$	$\frac{1.8}{50}$
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$\frac{2.6}{50}$	$\frac{2.8}{25}$	$\frac{3.4}{22}$	$\frac{3.1}{12}$	2.8	$\frac{3.4}{11}$	$\frac{3.8}{18}$	$\frac{3.3}{36}$	$\frac{3.5}{50}$
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$\frac{5.0}{50}$	$\frac{5.7}{23}$	$\frac{4.6}{11}$	4.4	$\frac{5.0}{11}$	$\frac{5.2}{18}$	$\frac{4.7}{30}$	$\frac{4.8}{50}$
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$\frac{8.8}{50}$	$\frac{9.0}{30}$	$\frac{9.5}{28}$	$\frac{6.5}{25}$	5.7	$\frac{6.1}{11}$	$\frac{6.5}{19}$	$\frac{5.8}{33}$	$\frac{5.6}{50}$
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Ditch from Cess Pool

$\frac{9.6}{161}$	$\frac{9.7}{150}$	$\frac{10.1}{100}$	$\frac{10.7}{50}$	$\frac{10.5}{29}$	$\frac{9.9}{20}$	$\frac{7.2}{19}$	$\frac{6.8}{11}$	6.4	$\frac{6.8}{11}$	$\frac{7.1}{18}$	$\frac{7.3}{22}$	$\frac{6.5}{33}$	$\frac{6.4}{50}$
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$\frac{10.0}{50}$	$\frac{10.2}{27}$	$\frac{7.8}{24}$	$\frac{7.2}{19}$	11.6	$\frac{7.3}{10}$	$\frac{7.6}{18}$	$\frac{8.0}{23}$	$\frac{7.3}{27}$	$\frac{6.9}{50}$
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$\frac{8.7}{50}$	$\frac{9.9}{36}$	$\frac{10.4}{27}$	$\frac{10.8}{25}$	$\frac{9.1}{22}$	$\frac{8.6}{18}$	11	8.3	$\frac{8.6}{12}$	$\frac{8.7}{18}$	$\frac{9.2}{20}$	$\frac{8.4}{50}$
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$\frac{8.8}{50}$	$\frac{9.1}{33}$	$\frac{11.4}{29}$	$\frac{9.8}{24}$	$\frac{9.5}{18}$	11	9.3	$\frac{9.9}{14}$	$\frac{10.4}{17}$	$\frac{11.1}{19}$	$\frac{11.0}{35}$	$\frac{10.7}{50}$
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$\frac{9.4}{50}$	$\frac{10.6}{33}$	$\frac{11.7}{29}$	$\frac{10.3}{22}$	$\frac{10.2}{11}$	9.9	$\frac{10.2}{14}$	$\frac{11.4}{17}$	$\frac{13.0}{27}$	10.1 Hole	911.32
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Water level - 11.18
5-13-40

$\frac{11.5}{50}$	$\frac{11.2}{30}$	$\frac{11.8}{28}$	$\frac{10.7}{23}$	$\frac{10.3}{19}$	11	10.0	$\frac{10.7}{15}$	$\frac{11.3}{17}$
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$\frac{6.1}{50}$	$\frac{5.7}{30}$	$\frac{6.2}{28}$	$\frac{5.4}{22}$	$\frac{5.4}{21}$	12	4.8	$\frac{5.2}{9}$	$\frac{5.6}{13}$	$\frac{6.8}{16}$
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$\frac{6.7}{50}$	$\frac{6.3}{30}$	$\frac{6.7}{28}$	$\frac{5.5}{23}$	$\frac{5.1}{21}$	12	4.8	$\frac{5.0}{9}$	$\frac{5.9}{16}$	$\frac{6.8}{16}$
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Sto.	+	π	-	Elev.
		917.43		
120+50			4.8	12.6
121			4.8	12.6
+50			4.9	12.5
122			4.8	12.6
+45			4.4	13.0 End Pot Hole
123			3.9	13.5
+50			3.2	14.2
124			2.7	14.7
+50			2.4	15.0
125			2.4	15.0
B.M.	2.59	918.72	1.30	916.13
+50			3.8	14.9
126			4.2	14.5 Beg Pot Hole

$\frac{7.0}{100}$	$\frac{7.6}{70}$	$\frac{7.3}{50}$	$\frac{7.0}{32}$	$\frac{6.6}{24}$	$\frac{5.3}{20}$	$\frac{5.1}{12}$	4.8	$\frac{5.1}{8}$	$\frac{5.5}{15}$	$\frac{6.7}{19}$
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$\frac{6.9}{50}$	$\frac{6.9}{38}$	$\frac{6.6}{25}$	$\frac{5.4}{22}$	$\frac{5.3}{11}$	4.8	$\frac{5.2}{8}$	$\frac{5.5}{15}$	Pot Hole $\left(\frac{7.1}{18} \frac{7.3}{32} \frac{7.0}{50} \frac{6.8}{75} \frac{6.6}{100} \right)$		
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$\frac{6.9}{50}$	$\frac{7.2}{32}$	$\frac{6.8}{23}$	$\frac{5.7}{20}$	$\frac{5.2}{12}$	4.9	$\frac{5.1}{9}$	$\frac{5.7}{17}$	Pot Hole $\left(\frac{6.6}{18} \frac{7.0}{34} \frac{6.5}{50} \frac{6.3}{60} \right)$		
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$\frac{8.1}{50}$	$\frac{7.7}{32}$	$\frac{7.1}{23}$	$\frac{5.4}{19}$	$\frac{5.2}{12}$	4.8	$\frac{5.2}{12}$	$\frac{5.6}{17}$	Pot Hole $\left(\frac{6.4}{19} \frac{6.8}{34} \frac{6.5}{50} \frac{6.2}{59} \right)$		
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$\frac{7.2}{50}$	$\frac{7.3}{33}$	$\frac{6.9}{23}$	$\frac{5.4}{20}$	$\frac{4.8}{12}$	4.4	$\frac{4.8}{9}$	$\frac{5.0}{17}$	Pot Hole $\left(\frac{6.0}{18} \frac{6.3}{29} \right) \frac{5.8}{50}$		
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$\frac{4.9}{50}$	$\frac{4.6}{32}$	$\frac{4.5}{22}$	$\frac{4.1}{13}$	3.9	$\frac{4.3}{13}$	$\frac{4.4}{17}$	$\frac{4.7}{37}$	$\frac{4.7}{50}$
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$\frac{4.2}{50}$	$\frac{3.2}{33}$	$\frac{4.0}{26}$	$\frac{3.6}{20}$	$\frac{3.6}{13}$	3.2	$\frac{3.6}{14}$	$\frac{3.4}{16}$	$\frac{3.0}{20}$	$\frac{3.0}{50}$
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$\frac{3.8}{50}$	$\frac{2.7}{32}$	$\frac{3.4}{24}$	$\frac{3.1}{22}$	$\frac{3.2}{14}$	2.7	$\frac{2.9}{14}$	$\frac{1.4}{18}$	$\frac{0.8}{32}$	$\frac{1.0}{50}$
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$\frac{3.0}{50}$	$\frac{2.4}{32}$	$\frac{3.0}{24}$	$\frac{2.8}{13}$	2.4	$\frac{2.6}{8}$	$\frac{1.5}{15}$	$\frac{0.5}{19}$	$\frac{0.0}{50}$
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$\frac{1.8}{50}$	$\frac{1.4}{33}$	$\frac{2.7}{24}$	$\frac{2.6}{13}$	2.4	$\frac{2.7}{10}$	$\frac{1.7}{17}$	$\frac{1.5}{31}$	$\frac{2.1}{50}$
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Spike PP 125+

$\frac{2.8}{50}$	$\frac{2.5}{34}$	$\frac{4.2}{22}$	$\frac{4.2}{15}$	$\frac{3.9}{12}$	3.8	$\frac{3.9}{10}$	$\frac{3.2}{15}$	$\frac{4.2}{25}$	$\frac{5.2}{50}$
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$\frac{3.1}{50}$	$\frac{3.3}{31}$	$\frac{4.3}{22}$	$\frac{4.3}{13}$	4.2	$\frac{4.2}{7}$	$\frac{4.2}{16}$	Pot Hole $\left(\frac{5.8}{25} \frac{6.9}{50} \frac{7.5}{70} \frac{7.7}{100} \frac{7.5}{115} \right)$		
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Sta	+	⌈	—	Elev	
		918.72			
126 + 50			4.5	14.2	*
127			4.9	13.8	
+ 50			5.3	13.4	
128			5.7	13.0	
+ 50			5.7	13.0	
129			5.4	13.3 End Pot Hole	
+ 50			4.5	14.2	
130			3.8	14.9	
B.M.			2.59	916.13	916.13
B.M.	5.06	917.03		916.97	
118 + 50				12.6	
119				12.5	
+ 50				12.6	
120				12.6	

6.4
278

Sta.	+	π	-	Elev.
120		917.03		
120+50				12.5

B.M.	1.12	917.25		916.13
127				13.8

+50				13.4
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128				13.0
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+50				13.3
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(5.4)

						$\frac{7.1}{260}$	$\frac{6.4}{280}$
$\frac{7.0}{35}$	$\frac{7.4}{63}$	$\frac{7.5}{98}$	$\frac{7.8}{140}$	$\frac{7.9}{170}$	$\frac{8.3}{200}$	$\frac{8.2}{220}$	$\frac{7.6}{240}$

Spike P.R. 126+00

(3.3)

$\frac{6.8}{75}$	$\frac{7.9}{100}$	$\frac{8.2}{130}$	$\frac{8.8}{150}$	$\frac{7.8}{185}$	$\frac{7.6}{200}$
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(3.9)

$\frac{7.5}{75}$	$\frac{8.4}{100}$	$\frac{8.9}{125}$	$\frac{8.5}{150}$	$\frac{8.0}{175}$	$\frac{7.5}{200}$	$\frac{6.6}{215}$
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(4.3)

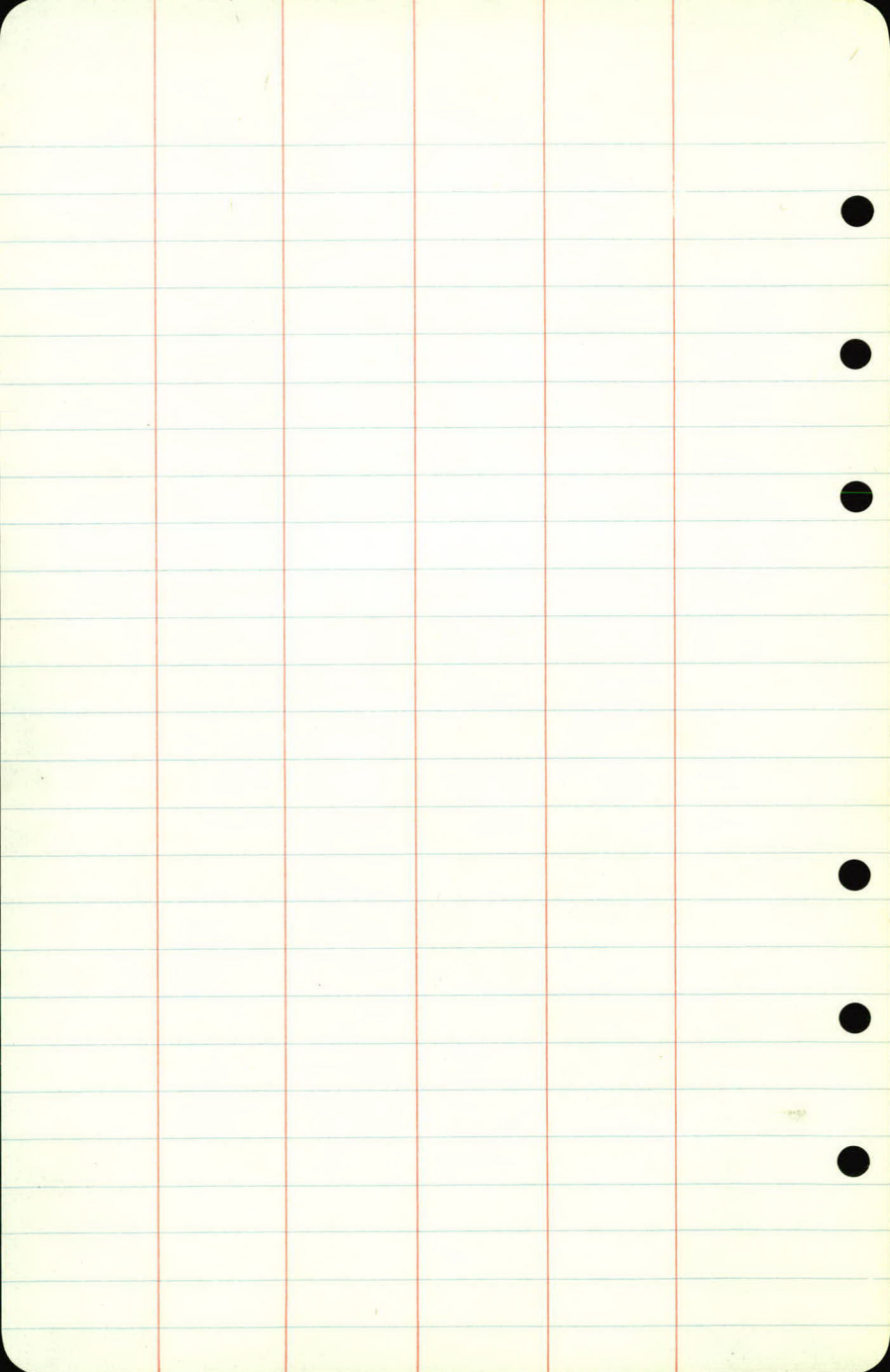
$\frac{8.6}{75}$	$\frac{8.7}{100}$	$\frac{8.4}{125}$	$\frac{7.6}{150}$	$\frac{7.6}{175}$	$\frac{6.6}{200}$
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(4.0)

$\frac{7.7}{75}$	$\frac{7.7}{100}$	$\frac{7.3}{110}$	$\frac{7.0}{120}$
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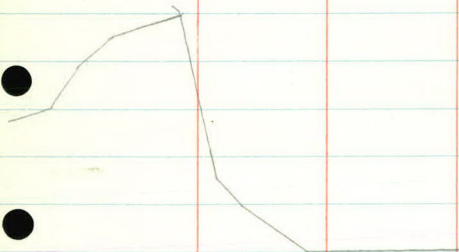
(09.25)

$\frac{8.0}{\text{Deepest Reading of for Pat Hole}}$



N.
↑

Ditch Leading Off
at 122+34.57.



Sta.	Pt.	Lt.	Rt.
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6+83.25	P.I.		12°45'
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5+86.35	P.I.		34°24'
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5+41.75	P.I.		10°35'
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3+49.5	P.I.		30°08'
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0+00	=	122+34.57	
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9/25

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Sta.	Pt	Ct	Rt.
18+58.00			Water Edge Pot Hole.

17+04.55			40°17'
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15+57.50		50°15'	
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13+42.15			13°30'
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11+72.80		8°02'	
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9+88.30		15°43'	
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9+05.78		108°20'	
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Cross Sections
Ditch Leading off of 122+34.57

Sta.	L	π	-	Elev.
B.M.	5.01	916.98.		911.97
0+00			4.1	12.9
+20			5.4	11.6
+24			6.7	10.3
+50			7.6	9.4
1			7.7	9.3
+50			7.9	9.1
2			8.0	9.0
+50	End Sidewalk		7.5	9.5
	Sec. thru Ditch	Lt. +71		0.88
3			8.1	8.9
+49.5			7.5	9.5
T.P.	5.33	914.96.	7.35	909.63.
4			6.2	08.8
+50			6.3	08.7

Nail P.P. Lt. 120 + 32

$$\frac{4.3}{50} \quad 4.1 \quad \frac{3.5}{50}$$

$$\frac{5.2}{50} \quad \frac{5.2}{25} \quad 5.4 \quad \frac{4.8}{25} \quad \frac{4.5}{50}$$

$$\frac{7.2}{50} \quad \left(\begin{array}{c} \text{Swp} \\ \frac{7.3}{23} \end{array} \right) \quad \frac{6.4}{19} \quad \frac{4.9}{50}$$

$$\left(\begin{array}{c} \text{Swp} \\ \frac{7.2}{50} \end{array} \right) \quad \frac{7.7}{26} \quad \left(\begin{array}{c} \text{Swp} \\ \frac{7.2}{7.6} \end{array} \right) \quad \frac{6.5}{26} \quad \frac{5.4}{50}$$

$$\left(\frac{7.4}{90} \quad \frac{7.7}{65} \quad \frac{7.8}{50} \quad \frac{7.7}{20} \quad 7.7 \quad \frac{7.4}{20} \right) \quad \frac{6.8}{31} \quad \frac{5.8}{50}$$

$$\left(\frac{7.3}{80} \quad \frac{7.5}{50} \quad \frac{7.3}{23} \quad 7.9 \quad \frac{7.6}{10} \quad \frac{7.6}{20} \quad \frac{7.2}{50} \quad \frac{6.9}{65} \right)$$

$$\frac{6.6}{50} \quad \left(\frac{6.7}{28} \quad \frac{7.7}{7} \quad 8.0 \quad \frac{8.0}{26} \quad \frac{7.9}{43} \quad \frac{7.5}{50} \quad \frac{7.3}{65} \right)$$

$$\frac{6.5}{50} \quad \frac{6.6}{23} \quad \left(\begin{array}{c} \text{Swp} \\ \frac{6.8}{7.4} \end{array} \quad \frac{7.2}{2} \quad \frac{8.3}{20} \quad \frac{8.3}{7.5} \right) \quad \left(\begin{array}{c} \text{Swp} \\ \frac{6.8}{20} \end{array} \right) \quad \frac{6.4}{25} \quad \frac{6.4}{50}$$

$$\frac{8.5}{191} \quad \frac{8.0}{179} \quad \frac{8.2}{150} \quad \frac{8.0}{100} \quad \frac{7.9}{87} \quad \frac{8.1}{50} \quad \frac{8.3}{7} \quad 8.2$$

$$\frac{6.6}{25} \quad \frac{6.7}{3} \quad \frac{8.1}{2} \quad 8.1 \quad \frac{8.0}{1} \quad \frac{6.4}{2} \quad \frac{5.7}{10} \quad \frac{5.7}{25}$$

$$\frac{6.9}{25} \quad \frac{7.1}{6} \quad 7.5 \quad \frac{8.3}{1-4} \quad \frac{7.0}{5} \quad \frac{7.1}{12} \quad \frac{6.6}{25}$$

$$\frac{4.6}{25} \quad \frac{5.0}{4} \quad \frac{6.4}{2.1} \quad 6.2 \quad \frac{5.0}{2} \quad \frac{4.6}{25}$$

$$\frac{5.0}{25} \quad \frac{5.3}{4} \quad \frac{6.7}{2.1} \quad 6.2 \quad \frac{5.4}{2} \quad \frac{4.6}{25}$$

Sta.	+	π	-	Elev
		914.96		
5			6.9	08.1
+41.75			7.1	07.9
+86.35			7.4	07.6
6			7.5	07.5
+50			7.9	07.1
+83.25			8.8	06.2
7			10.4	04.6
+50			12.0	03.0
T.P.	4.36	905.90.	13.42	901.54.
8			5.0	00.9
+50			6.2	99.7
9			6.8	99.1
+05.98			7.9	98.0

$$\frac{4.7}{25} \quad \frac{5.3}{4} \quad \frac{6.9}{2} \quad 6.9 \quad \frac{5.7}{1} \quad \frac{4.8}{25}$$

$$\frac{4.8}{25} \quad \frac{5.9}{2} \quad 7.1 \quad \frac{6.0}{2} \quad \frac{5.7}{25}$$

$$\frac{5.3}{25} \quad \frac{6.1}{17} \quad \frac{6.4}{2} \quad 7.4 \quad \frac{7.5}{2} \quad \frac{6.3}{4} \quad \frac{5.9}{25}$$

$$\frac{5.4}{25} \quad \frac{6.2}{3} \quad \frac{7.4}{1} \quad 7.5 \quad \frac{7.5}{1} \quad \frac{6.2}{3} \quad \frac{5.4}{25}$$

$$\frac{5.6}{25} \quad \frac{6.5}{5} \quad \frac{8.0}{2} \quad 7.9 \quad \frac{6.4}{2} \quad \frac{5.5}{13} \quad \frac{5.1}{25}$$

$$\frac{6.5}{25} \quad \frac{7.7}{3} \quad 8.8 \quad \frac{9.7}{1.2} \quad \frac{7.5}{5} \quad \frac{6.6}{25}$$

$$\frac{7.5}{25} \quad \frac{8.5}{4} \quad \frac{10.4}{2} \quad 10.4 \quad \frac{9.1}{2} \quad \frac{8.3}{6} \quad \frac{7.5}{25}$$

$$\frac{10.3}{25} \quad \frac{11.1}{5} \quad \frac{13.1}{3-1} \quad 12.0 \quad \frac{11.3}{4} \quad \frac{10.5}{10} \quad \frac{10.0}{25}$$

$$\frac{4.2}{25} \quad \frac{4.6}{2} \quad 5.0 \quad \frac{5.8}{2-3} \quad \frac{4.9}{4} \quad \frac{4.5}{14} \quad \frac{4.9}{25}$$

$$\frac{5.8}{25} \quad \frac{6.2}{15} \quad 6.2 \quad \frac{6.2}{6} \quad \frac{6.6}{25}$$

$$\frac{6.5}{25} \quad \frac{6.6}{12} \quad 6.8 \quad \frac{6.7}{10} \quad \frac{7.2}{25}$$

$$\frac{6.5}{25} \quad \frac{6.8}{8} \quad \frac{7.0}{1} \quad \frac{7.9}{1} \quad 7.9 \quad \frac{6.9}{1} \quad \frac{7.0}{25}$$

Sta.	+	$\bar{K}$	-	Elev.	
		905.90			
9+50			6.6	99.3	
+ 88.30			8.3	97.6	
10+ 22			8.3	97.6	
+ 52			8.3	97.6	
11			8.5	97.4	
+50			8.5	97.4	
+72.80			8.8	97.1	Reg. Swp.
T.P.	7.92	905.14.	8.68	897.22	
12			7.8	97.3	
+50			8.1	97.0	
13			7.6	97.5	
+42.15			8.9	96.2	
14			9.0	96.1	

$$\frac{5.4}{25} \quad \frac{5.2}{15} \quad \frac{6.0}{4} \quad 6.6 \quad \frac{6.6}{1} \quad \frac{8.2}{1-3} \quad \frac{6.6}{3} \quad \frac{5.5}{10} \quad \frac{5.3}{25}$$

$$\frac{4.5}{25} \quad \frac{5.7}{4} \quad \frac{8.3}{3} \quad 8.3 \quad \frac{5.9}{1} \quad \frac{4.3}{9} \quad \frac{3.7}{25}$$

$$\frac{5.6}{25} \quad \frac{5.9}{10} \quad \frac{6.8}{3} \quad 8.3 \quad \frac{8.3}{2} \quad \frac{7.5}{2} \quad \frac{6.4}{6} \quad \frac{5.4}{25}$$

$$\frac{7.0}{25} \quad \frac{7.0}{3} \quad \frac{8.3}{2} \quad 8.3 \quad \frac{8.3}{1} \quad \frac{6.9}{2} \quad \frac{6.4}{8} \quad \frac{7.2}{25}$$

$$\frac{6.7}{25} \quad \frac{7.3}{5} \quad \frac{8.5}{3} \quad 8.5 \quad \frac{7.1}{2} \quad \frac{7.3}{25}$$

$$\frac{7.3}{25} \quad \frac{7.7}{4} \quad \frac{8.5}{2} \quad 8.5 \quad \frac{7.5}{1} \quad \frac{8.0}{3} \quad \frac{8.0}{25}$$

Pat Hole Begin

$$\left(\frac{8.0}{25} \quad \frac{8.6}{12} \quad \frac{8.3}{5} \quad \frac{8.8}{3} \quad 8.8 \quad \frac{8.1}{2} \quad \frac{8.1}{3} \quad \frac{8.1}{25} \right)$$

$$\left(\frac{6.9}{60} \quad \frac{7.3}{50} \quad \frac{7.8}{30} \quad \frac{8.0}{11} \quad 7.8 \quad \frac{7.8}{9} \right) \quad \frac{7.6}{25}$$

$$\left(\frac{7.4}{46} \quad \frac{7.9}{29} \quad \frac{8.8}{25} \quad \frac{9.3}{19} \quad \frac{7.3}{16} \quad \frac{8.6}{12} \quad 8.1 \quad \frac{8.0}{13} \quad \frac{7.9}{19} \right) \quad \frac{7.8}{25}$$

End Pat Hole

$$\frac{6.8}{25} \quad \frac{6.6}{18} \quad \left(\frac{7.7}{14} \quad \frac{7.9}{4} \quad \frac{8.7}{4} \quad \frac{8.6}{2} \quad \frac{7.8}{2} \quad 7.6 \quad \frac{7.6}{9} \quad \frac{7.5}{17} \right) \quad \frac{7.3}{25}$$

$$\frac{5.9}{25} \quad \frac{6.4}{10} \quad \frac{5.9}{8} \quad \frac{6.5}{2} \quad \frac{8.9}{2} \quad 8.9 \quad \frac{8.9}{3} \quad \frac{7.1}{3} \quad \frac{6.0}{8} \quad \frac{5.7}{14} \quad \frac{6.4}{16} \quad \frac{6.4}{25}$$

$$\frac{4.9}{25} \quad \frac{5.3}{6} \quad \frac{6.3}{2} \quad \frac{9.0}{1} \quad 9.0 \quad \frac{9.0}{1.5} \quad \frac{7.6}{4} \quad \frac{5.0}{15} \quad \frac{5.3}{25}$$

Sta.	+	π	-	Elev.
		905.14		
14+50			9.7	95.4
15			10.8	94.3
+57.50			11.3	93.8
T.P.	5.02	902.24	7.92	897.22
16			8.6	93.2
+50			9.3	92.9
17			10.1	92.1
+50			11.0	91.2
18			13.4	88.8
+58			15.9	86.3

$$\frac{6.8}{25} \quad \frac{7.1}{16} \quad \frac{7.3}{3} \quad \frac{7.7}{2} \quad 9.7 \quad \frac{9.7}{1} \quad \frac{8.5}{2} \quad \frac{8.6}{7} \quad \frac{6.3}{15} \quad \frac{6.0}{25}$$

$$\frac{9.1}{25} \quad \frac{9.2}{13} \quad \frac{8.9}{3} \quad \frac{10.8}{2} \quad 10.8 \quad \frac{10.8}{1.5} \quad \frac{10.0}{2} \quad \frac{9.6}{7} \quad \frac{8.6}{14} \quad \frac{9.0}{20} \quad \frac{9.0}{25}$$

$$\frac{10.2}{25} \quad \frac{10.5}{20} \quad \frac{11.4}{15} \quad \frac{11.5}{8} \quad \frac{10.6}{2} \quad \frac{11.3}{1} \quad 11.3 \quad \frac{11.2}{1.5} \quad \frac{11.5}{12} \quad \frac{11.5}{25}$$

$$\frac{7.2}{25} \quad \frac{7.3}{15} \quad \frac{7.6}{3} \quad \frac{8.6}{2} \quad 8.6 \quad \frac{7.8}{2} \quad \frac{6.9}{13} \quad \frac{5.8}{25}$$

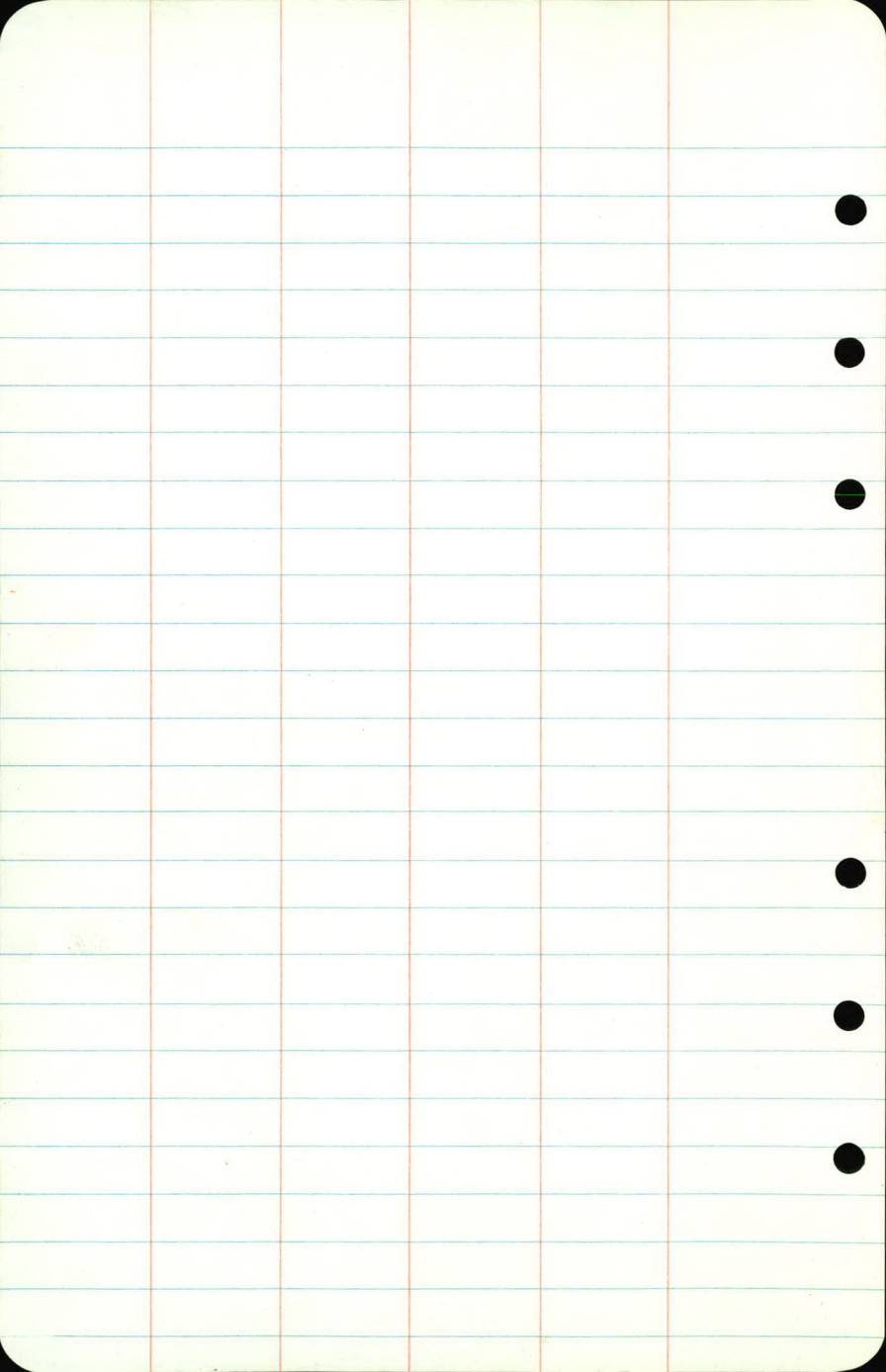
$$\frac{7.3}{25} \quad \frac{8.4}{10} \quad \frac{8.6}{2} \quad \frac{9.3}{1} \quad 9.3 \quad \frac{9.3}{1} \quad \frac{8.9}{2} \quad \frac{8.0}{11} \quad \frac{6.5}{25}$$

$$\frac{7.9}{25} \quad \frac{7.4}{12} \quad 10.1 \quad \frac{10.5}{2-3} \quad \frac{10.3}{4} \quad \frac{10.0}{13} \quad \frac{9.1}{25}$$

$$\frac{11.4}{25} \quad \frac{11.3}{14} \quad 11.0 \quad \frac{11.0}{7} \quad \frac{10.0}{17} \quad \frac{8.8}{25}$$

$$\frac{12.3}{25} \quad \frac{12.5}{12} \quad 13.4 \quad \frac{13.6}{9} \quad \frac{12.9}{25}$$

$$\frac{15.9}{25} \quad 15.9 \quad \frac{16.0}{25}$$



Proposed Ditch

at 128 + 19.00

Sta.	Pt.	Δ	Angle	lt.	rt.
------	-----	---	-------	-----	-----

6+24.23 = 9+05.75 4°53' to 9+88.30

4+12+95

17°31'

2+43.83

26°55'

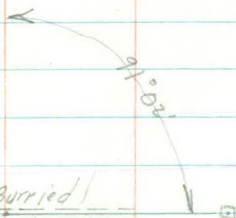
0+23

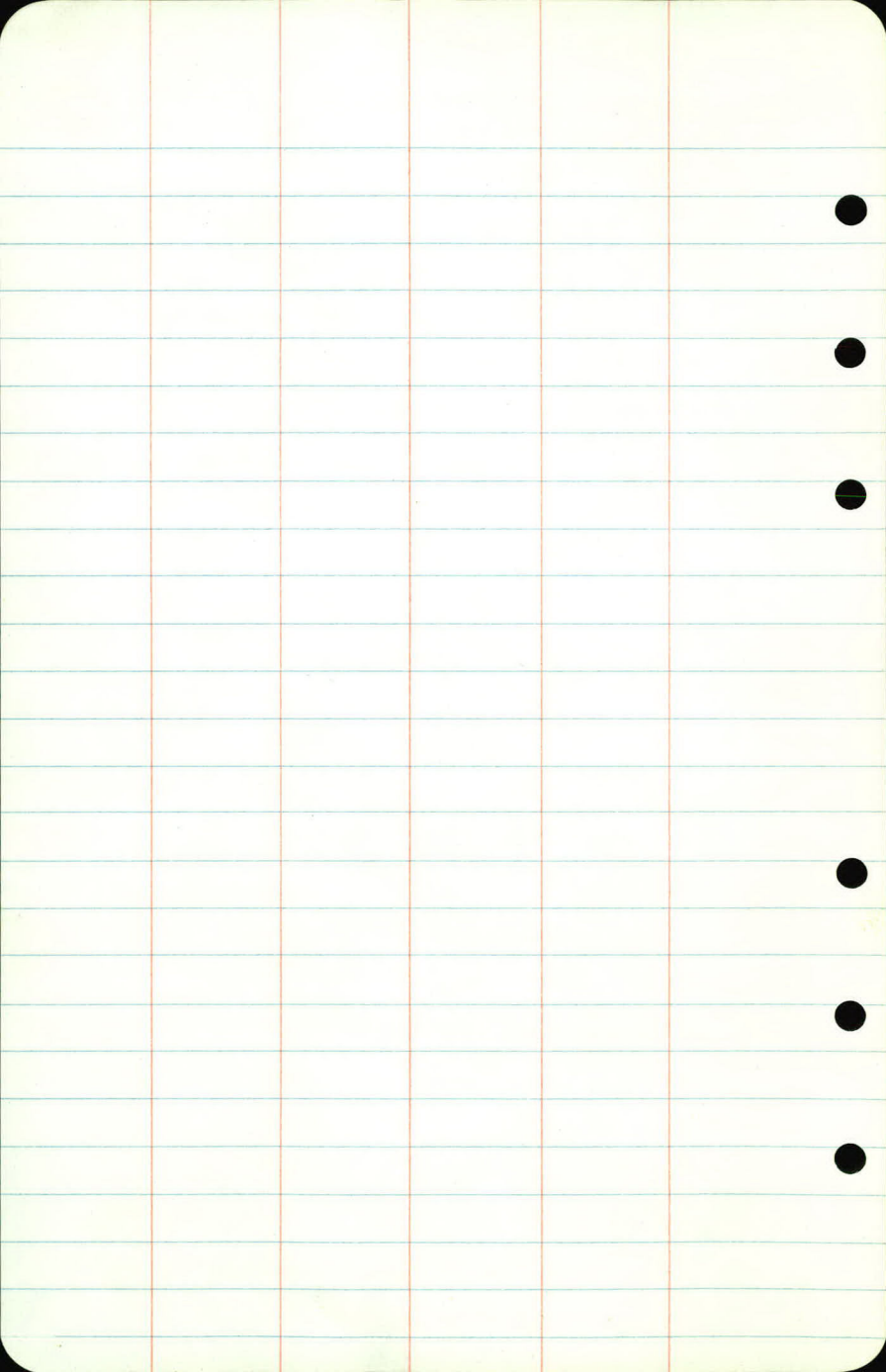
P.I.

25°14'

0+00 = 128+19

8" Vit (Buried)
16.0 $\longleftrightarrow$ 14.0 $\longrightarrow$





Cross Sections

Ditch 128+19

Sta.	+	π	-	Elev.
B.M.	0.50	916.63		916.13
0+00			3.7	12.9
+23			4.6	12.0
+25			5.7	10.9
+50			7.2	9.4
+75			7.0	9.6
1			6.6	10.0
+25			5.5	11.1
T.R	3.46	914.42	5.67	910.96
+50			3.2	11.2
2			3.9	10.5
+43.82			5.3	9.1
3			7.6	6.8
+50			9.3	5.1
4			10.7	3.7

Inu. W. End 8" Vit 7.44

Inu. E. end 8" Vit. - 0-14 = 6.85

Spike P.P. 126+00

$$\frac{3.6}{27} \quad 3.7 \quad \frac{3.5}{31}$$

$$\frac{4.6}{27} \quad 4.6 \quad \frac{4.5}{21} \quad \frac{4.5}{27}$$

Port Hole

$$\left(\frac{5.7}{27} \quad 5.7 \quad \frac{5.8}{27} \right)$$

$$\frac{47}{50} \left(\frac{5.6}{40} \quad \frac{6.8}{24} \quad \frac{6.8}{13} \quad 7.2 \quad 7.1 \quad \frac{6.8}{20} \quad \frac{6.0}{45} \quad \frac{5.4}{55} \right)$$

$$\left(\frac{5.7}{31} \quad \frac{6.2}{7} \quad \frac{7.0}{70} \quad \frac{6.4}{13} \quad \frac{5.5}{25} \quad \frac{5.5}{33} \right)$$

End Port Hole

$$\frac{5.5}{25} \left(\frac{5.7}{19} \quad \frac{6.0}{5} \quad \frac{6.5}{4} \quad 6.6 \quad \frac{6.3}{7} \quad \frac{5.7}{10} \right) \frac{5.4}{25}$$

$$\frac{5.3}{25} \quad \frac{5.2}{19} \quad \frac{5.6}{9} \quad 5.5 \quad \frac{5.4}{13} \quad \frac{5.6}{27}$$

$$\frac{2.9}{25} \quad \frac{3.1}{14} \quad 3.2 \quad \frac{3.1}{8} \quad \frac{3.0}{25}$$

$$\frac{4.1}{25} \quad \frac{4.1}{13} \quad 3.9 \quad \frac{4.2}{11} \quad \frac{3.5}{25}$$

$$\frac{4.6}{25} \quad \frac{5.0}{14} \quad 5.3 \quad \frac{5.6}{3} \quad \frac{5.1}{4} \quad \frac{5.0}{13} \quad \frac{4.4}{25}$$

$$\frac{5.8}{25} \quad \frac{6.5}{10} \quad \frac{6.9}{2} \quad 7.6 \quad \frac{7.7}{2} \quad \frac{7.1}{4} \quad \frac{6.4}{13} \quad \frac{6.1}{25}$$

$$\frac{9.1}{25} \quad \frac{9.0}{4} \quad \frac{9.3}{2} \quad 9.3 \quad \frac{9.3}{2} \quad \frac{9.0}{4} \quad \frac{8.4}{11} \quad \frac{8.3}{25}$$

$$\frac{10.6}{25} \quad \frac{10.3}{12} \quad \frac{10.2}{3} \quad \frac{10.6}{2} \quad 10.7 \quad \frac{10.5}{3} \quad \frac{10.1}{4} \quad \frac{9.9}{25}$$

Sta.	+	π	-	Elev.
------	---	-------	---	-------

914.42

4+50

12.8

01.2

T.P

1.96

905.49

10.89

903.53

5

5.9

99.6

+25

6.5

99.0

+50

6.7

98.8

+75

6.8

98.7

6

6.8

98.7

+24.23

7.5

98.0

$$\frac{12.8}{25} \quad \frac{12.7}{11} \quad 12.8 \quad \frac{12.4}{7} \quad \frac{18.2}{25}$$

$$\frac{5.7}{25} \quad \frac{5.4}{15} \quad 5.9 \quad \frac{6.0}{13} \quad \frac{6.2}{25}$$

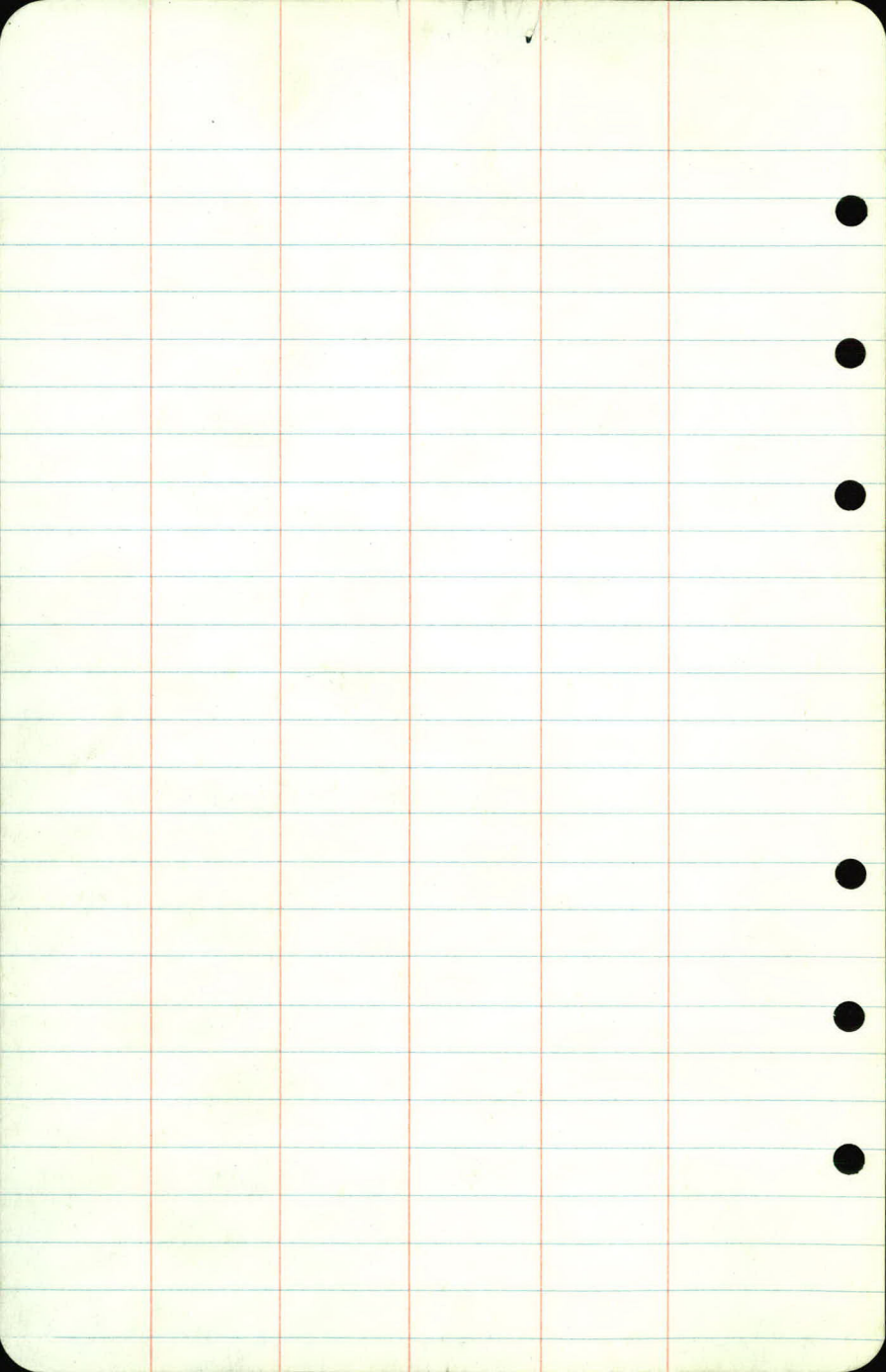
$$\frac{6.3}{34} \left(\frac{6.3}{19} \quad 6.5 \quad \frac{6.6}{25} \quad \frac{6.4}{50} \right) \frac{6.1}{65}$$

$$\frac{6.1}{65} \left(\frac{6.4}{50} \quad \frac{6.8}{25} \quad \frac{6.9}{6} \quad \frac{6.7}{2} \quad 6.7 \quad \frac{7.3}{24} \quad \frac{6.6}{5} \quad \frac{6.7}{29} \quad \frac{6.6}{55} \right)$$

$$\left(\frac{6.2}{70} \quad \frac{6.6}{50} \quad \frac{6.8}{30} \quad \frac{6.6}{11} \quad \frac{7.0}{10-8} \quad \frac{6.7}{7} \quad 6.8 \quad \frac{7.1}{14} \quad \frac{6.8}{31} \quad \frac{6.6}{44} \right)$$

$$\left(\frac{6.2}{70} \quad \frac{6.5}{50} \quad \frac{6.6}{32} \quad \frac{6.8}{14} \quad 6.8 \quad \frac{6.8}{16} \right) \frac{6.9}{25}$$

$$\frac{5.8}{50} \left(\text{End Pot Hole} \quad \frac{6.0}{25} \quad \frac{6.2}{15} \quad \frac{6.6}{101} \quad \frac{7.5}{7.5} \right) \frac{7.5}{1} \quad \frac{6.5}{1.5} \quad \frac{6.3}{8} \quad \frac{6.2}{25}$$



Slope stakes

Hamline Ave.

Lt. sta. 168 to 171.

Sta	+	π	-	Grade
-----	---	-------	---	-------

B.M.

168				10.5
-----	--	--	--	------

+50				11.7
-----	--	--	--	------

169				12.6
-----	--	--	--	------

+50				13.4
-----	--	--	--	------

170				14.0
-----	--	--	--	------

+50				14.4
-----	--	--	--	------

+80				14.5
-----	--	--	--	------

Gr. Rod.

Lt.

R.

Pt.

Sph. in root Cott. Tr. 70' Lt. Sta 171+00

$$32.4 / \begin{array}{r} 6.3 \\ \hline 12.7 \end{array}$$

2.9

$$34.6 / \begin{array}{r} 1.0 \\ \hline 13.8 \end{array}$$

7.8

$$35.8 / \begin{array}{r} 2.1 \\ \hline 14.4 \end{array}$$

6.5

$$36.6 / \begin{array}{r} 1.3 \\ \hline 14.5 \end{array}$$

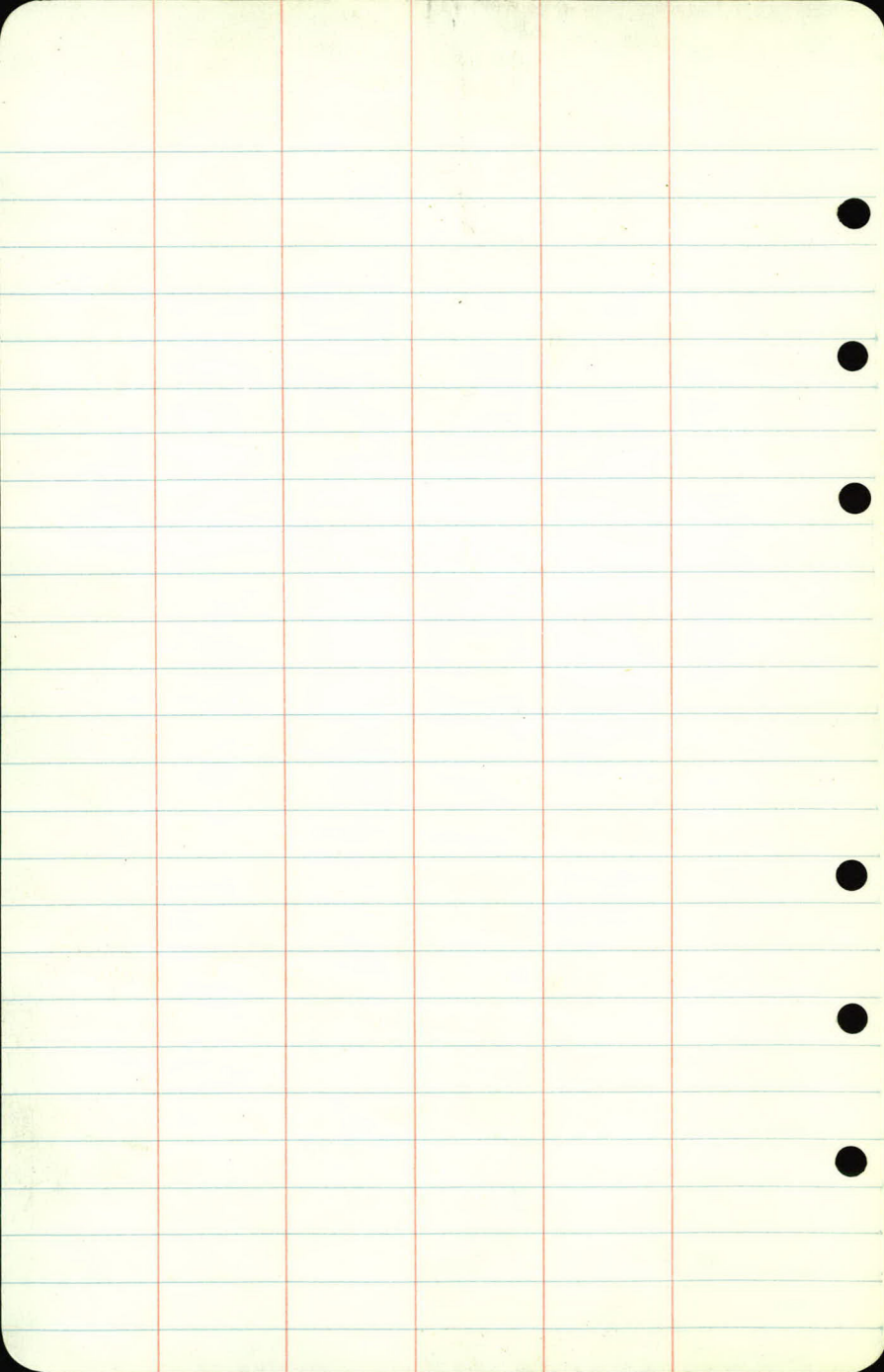
6.1

$$35.6 / \begin{array}{r} 1.6 \\ \hline 14.3 \end{array}$$

5.9

$$33.4 / \begin{array}{r} 2.5 \\ \hline 13.2 \end{array}$$

5.7



DRAINAGE HAMLINE AVE $\frac{1}{4}$ MILE N. "C"

Slope Stokes

12 Pages

9-24-40

Party:

R. Pease
A. Moeschler
L. Goldberg
C. Fewer

"A" LINE

Sta	+	π	-	Elev	
	5.10	917.07		911.97	
0-312				07.71	9.36
-262				07.66	9.41
-212				07.61	9.46
-162				07.56	9.51
-112				07.51	9.56
-62				07.46	9.61
-27				07.43	9.64
-12	X			07.41 X	
0				07.40 X	
+20	X			07.38 X	
+24				07.38	9.69
+50				07.35	9.72



Hold 12/w.

13pk PP 64 120 + 32 (600 = 122 + 44.57)

9.4
4.5
4.9

9.8
10.8
20.8

45

8.2
SDC 1.2
31.2

9.4 10° 29.0

44

7.6
SDC 1.8
32.6

9.5 5' 10" 29.2

44

7.3
SDC 2.2
33.0

9.5
4.5
5 29.0

45

7.1
SDC 2.4
33

9.6
4.5
5.1 29.2

45

6.5
SDC 3.1
33

9.6
4.5
5.1 29.1

45

6.3
SDC 3.3
33

9.6
4.5
5.1 29.6

43

5.9
SDC 3.7
33

6.3
SDC 3.3
33

9.7

7.1
C 2.6
14.0

6.69
C 3.0

6.5
C 3.2
17

7.7
C 2.0
11

7.72
C 2.0

7.1
C 2.6
14.0

9/7.07

1 07.30 9.77

+50 07.25 9.82

2 07.20 9.87

+50 07.15 9.92

3 07.10 9.97

+50 07.05 10.02

T.P 4.66 914.30 7.43 909.64

4 07.00 7.30

+50 06.95 7.35

5 06.90 7.40

+41.75 06.86 7.44

+86.35 06.81 7.49

6 06.80 7.50

9.8

$$\begin{array}{r} 7.6 \\ C 3.2 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 7.77 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.4 \\ C 2.4 \\ \hline 13 \end{array}$$

9.8

$$\begin{array}{r} 7.6 \\ C 2.2 \\ \hline 12.0 \end{array}$$

$$\begin{array}{r} 7.82 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.6 \\ C 2.2 \\ \hline 12 \end{array}$$

9.9

$$\begin{array}{r} 7.5 \\ C 2.4 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 7.87 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.0 \\ C 1.9 \\ \hline 10.5 \end{array}$$

9.9

$$\begin{array}{r} 6.7 \\ C 3.2 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 7.92 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.9 \\ C 3.0 \\ \hline 16 \end{array}$$

10.0

$$\begin{array}{r} 6.7 \\ C 3.3 \\ \hline 17.5 \end{array}$$

$$\begin{array}{r} 7.97 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.9 \\ C 2.1 \\ \hline 21.5 \end{array}$$

10.0

$$\begin{array}{r} 7.0 \\ C 3.0 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 7.02 \\ C 3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.7 \\ C 3.3 \\ \hline 17.5 \end{array}$$

7.2

$$\begin{array}{r} 4.3 \\ C 3.0 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 5.30 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 3.9 \\ C 3.4 \\ \hline 18 \end{array}$$

7.4

$$\begin{array}{r} 4.4 \\ C 3.2 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 5.35 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.0 \\ C 3.4 \\ \hline 18.0 \end{array}$$

7.4

$$\begin{array}{r} 4.2 \\ C 3.2 \\ \hline 17.0 \end{array}$$

$$\begin{array}{r} 5.40 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.2 \\ C 3.2 \\ \hline 17.0 \end{array}$$

7.6

$$\begin{array}{r} 4.7 \\ C 2.7 \\ \hline 14.5 \end{array}$$

$$\begin{array}{r} 6.46 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.1 \\ C 2.3 \\ \hline 12.5 \end{array}$$

7.5

$$\begin{array}{r} 5.5 \\ C 2.0 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 6.49 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.9 \\ C 2.6 \\ \hline 14.0 \end{array}$$

7.5

$$\begin{array}{r} 5.3 \\ C 2.2 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 6.50 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.7 \\ C 2.8 \\ \hline 15.0 \end{array}$$

9/4, 30

6 + 50

65.25

9.05

+ 83.25

0423

10.07

7

03.70

10.60

+ 50

02.15

12.15

8

00.60

13.70

T. P.

5.49

907.02

12.77

901.53

+ 50

99.05

7.97

9

97.5

7.52

+ 65.18

97.48

9.54

+ 50

97.30

9.72

+ 88.3

97.15

9.87

10 + 22

97.01

10.01

+ 52

96.89

10.13

9.0

$$\begin{array}{r} 5.0 \\ C 4.0 \\ \hline 2.1 \end{array}$$

$$\begin{array}{r} 7.05 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.5 \\ C 4.5 \\ \hline 23.0 \end{array}$$

10.1

$$\begin{array}{r} 6.1 \\ C 4.0 \\ \hline 21.0 \end{array}$$

$$\begin{array}{r} 8.07 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.9 \\ C 4.2 \\ \hline 22 \end{array}$$

10.6

$$\begin{array}{r} 7.1 \\ C 3.5 \\ \hline 78.5 \end{array}$$

$$\begin{array}{r} 9.60 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.0 \\ C 3.6 \\ \hline 79.0 \end{array}$$

12.2

$$\begin{array}{r} 10.0 \\ C 2.2 \\ \hline 72.0 \end{array}$$

$$\begin{array}{r} 11.75 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.9 \\ C 2.3 \\ \hline 12.5 \end{array}$$

12.7

$$\begin{array}{r} 13.0 \\ C 0.7 \\ \hline 4.5 \end{array}$$

$$\begin{array}{r} 12.70 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 13.7 \\ C 0.0 \\ \hline 1 \end{array}$$

Top of Sta 8.

9.0

$$\begin{array}{r} 7.3 \\ C 0.7 \\ \hline 4.5 \end{array}$$

$$\begin{array}{r} 6.97 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.6 \\ C 0.6 \\ \hline 4 \end{array}$$

9.5

$$\begin{array}{r} 7.6 \\ C 1.9 \\ \hline 10.5 \end{array}$$

$$\begin{array}{r} 7.52 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.8 \\ C 1.7 \\ \hline 9.5 \end{array}$$

9.5

$$\begin{array}{r} 8.50 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.8 \\ C 1.7 \\ \hline 9.5 \end{array}$$

9.7

$$\begin{array}{r} 7.6 \\ C 2.3 \\ \hline 12.5 \end{array}$$

$$\begin{array}{r} 6.72 \\ C 3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.9 \\ C 2.8 \\ \hline 7.5 \end{array}$$

9.9

$$\begin{array}{r} 5.7 \\ C 4.2 \\ \hline 23.0 \end{array}$$

$$\begin{array}{r} 8.87 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.1 \\ C 5.0 \\ \hline 26 \end{array}$$

10.0

$$\begin{array}{r} 7.1 \\ C 2.9 \\ \hline 75.5 \end{array}$$

$$\begin{array}{r} 9.01 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.9 \\ C 3.1 \\ \hline 16.5 \end{array}$$

10.1

$$\begin{array}{r} 8.3 \\ C 1.8 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 9.13 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.9 \\ C 2.2 \\ \hline 12 \end{array}$$

Sta.	+	π	-	Elev.	
		907.02			
11				96.70	10.32
	+50			96.50	10.52
	+72.8			96.41	10.61
12				96.30	10.72
	+50			96.10	10.92
13				95.9	11.12
	+42.15			95.73	11.29
14				95.5	11.52
	T.P.	5.54	901.48	11.08	895.94
	+50			94.8	6.68
	B.M.			902.60	
15				94.1	7.38
	+57.5			93.29	8.19
16				92.7	8.78

10.3

$$\begin{array}{r} 8.2 \\ C 2.1 \\ \hline 11.5 \end{array}$$

$$\begin{array}{r} 9.32 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.2 \\ C 2.1 \\ \hline 11.5 \end{array}$$

10.5

$$\begin{array}{r} 9.0 \\ C 1.5 \\ \hline 8.5 \end{array}$$

$$\begin{array}{r} 9.52 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.6 \\ C 1.9 \\ \hline 10.5 \end{array}$$

10.6

$$\begin{array}{r} 9.1 \\ C 1.2 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 9.61 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.1 \\ C 1.5 \\ \hline 8.5 \end{array}$$

10.7

$$\begin{array}{r} 9.8 \\ C 0.9 \\ \hline 8.5 \end{array}$$

$$\begin{array}{r} 9.72 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.6 \\ C 1.1 \\ \hline 6.5 \end{array}$$

10.9

$$\begin{array}{r} 10.2 \\ C 0.7 \\ \hline 4.5 \end{array}$$

$$\begin{array}{r} 9.92 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 10.0 \\ C 0.9 \\ \hline 5.5 \end{array}$$

11.1

$$\begin{array}{r} 9.4 \\ C 1.7 \\ \hline 9.5 \end{array}$$

$$\begin{array}{r} 9.12 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.4 \\ C 1.7 \\ \hline 9.5 \end{array}$$

11.3

$$\begin{array}{r} 8.0 \\ C 3.3 \\ \hline 17.5 \end{array}$$

$$\begin{array}{r} 10.29 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.1 \\ C 3.2 \\ \hline 17. \end{array}$$

11.5

$$\begin{array}{r} 6.9 \\ C 4.4 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 10.52 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.2 \\ C 4.3 \\ \hline 22.5 \end{array}$$

6.7

$$\begin{array}{r} 3.5 \\ C 3.2 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 5.68 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 2.4 \\ C 4.3 \\ \hline 22.5 \end{array}$$

Spike Fe Post set. 10-2-1940

7.4

$$\begin{array}{r} 5.4 \\ C 2.0 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 6.38 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 4.8 \\ C 2.2 \\ \hline 14 \end{array}$$

9.2

$$\begin{array}{r} 7.3 \\ C 0.9 \\ \hline 5.5 \end{array}$$

$$\begin{array}{r} 7.19 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.3 \\ C 0.9 \\ \hline 5.5 \end{array}$$

8.8

$$\begin{array}{r} 6.3 \\ C 2.5 \\ \hline 13.5 \end{array}$$

$$\begin{array}{r} 7.78 \\ C 1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.3 \\ C 2.6 \\ \hline 14 \end{array}$$

901.48

16 + 50

92.0

9.48

17 + 04.55

91.3

10.18

+ 50

90.6

10.88

18

88.6

12.88

+ 58

86.28

9.5

$$\begin{array}{r} 7.2 \\ \underline{C2.3} \\ 12.5 \end{array}$$

$$\begin{array}{r} 8.48 \\ \underline{C1.0} \end{array}$$

$$\begin{array}{r} 7.1 \\ \underline{C2.1} \\ 13 \end{array}$$

10.2

$$\begin{array}{r} 9.4 \\ \underline{C0.2} \\ 5 \end{array}$$

$$\begin{array}{r} 7.18 \\ \underline{C1.0} \end{array}$$

$$\begin{array}{r} 8.7 \\ \underline{C1.5} \\ 8.5 \end{array}$$

10.9

$$\begin{array}{r} 10.3 \\ \underline{C0.4} \\ 1 \end{array}$$

$$\begin{array}{r} 9.88 \\ \underline{C1.0} \end{array}$$

$$\begin{array}{r} 9.8 \\ \underline{C1.1} \\ 6.5 \end{array}$$

12.9

$$\begin{array}{r} 12.1 \\ \underline{C0.8} \\ 5 \end{array}$$

$$\begin{array}{r} 11.88 \\ \underline{C1.0} \end{array}$$

$$\begin{array}{r} 12.8 \\ \underline{C0.1} \\ 1.5 \end{array}$$

"B" LINE

B.M.	1.41	917.56	916.13	
-96			08.35	9.19
-46			08.30	9.24
-27			08.28	9.26
-12			08.26	X
0			08.25	X
+23			08.23	X
+25			08.23	9.21
+50			08.20	9.34
+75			08.18	9.36
1			08.15	9.39
+25			08.13	9.41
+50			08.10	9.44

Spk P.R 126400

(0+00 = 128+19)

9.2

$$\begin{array}{r} 7.8 \\ C 1.4 \\ \hline 32.0 \end{array}$$

29.2

41

5.6
10.2

9.2

$$\begin{array}{r} 7.3 \\ C 1.9 \\ \hline 32.0 \end{array}$$

28.4

47
9.0
4.5

9.3

$$\begin{array}{r} 6.9 \\ C 2.4 \\ \hline 32 \end{array}$$

28.4

47
9.4
4.6

9.2

$$\begin{array}{r} 6.0 \\ C 3.2 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 6.2 \\ C 3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.7 \\ C 2.5 \\ \hline 13.5 \end{array}$$

9.2

$$\begin{array}{r} 7.7 \\ C 1.6 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 7.3 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.9 \\ C 1.4 \\ \hline 8 \end{array}$$

9.4

$$\begin{array}{r} 7.9 \\ C 2.4 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 7.3 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.8 \\ C 1.6 \\ \hline 9 \end{array}$$

9.6

$$\begin{array}{r} 6.6 \\ C 2.8 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 7.3 \\ C 2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.5 \\ C 2.9 \\ \hline 15.5 \end{array}$$

9.6

$$\begin{array}{r} 6.3 \\ C 3.1 \\ \hline 16.5 \end{array}$$

$$\begin{array}{r} 6.4 \\ C 3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.1 \\ C 3.3 \\ \hline 17.5 \end{array}$$

9.4

$$\begin{array}{r} 6.4 \\ C 3.0 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 6.4 \\ C 3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 6.0 \\ C 3.4 \\ \hline 16 \end{array}$$

917.70

2

08.05

8.65

+43.82

08.01

9.69

3

06.1

11.60

+50

04.2

13.50

1.47

907.67

11.50

906.20

4

02.3

05.37

+50

00.4

07.27

5

98.5

09.17

+25

98.3

09.37

+50

98.1

09.57

+75

97.9

09.77

6

97.70

09.97

+24.23

97.51

10.16

9.7

$$\begin{array}{r} 7.4 \\ C2.3 \\ \hline 10.5 \end{array}$$

$$\begin{array}{r} 6.65 \\ C3.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.3 \\ C2.4 \\ \hline 13 \end{array}$$

9.7

$$\begin{array}{r} 8.1 \\ C1.6 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 8.62 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.4 \\ C1.3 \\ \hline 7.5 \end{array}$$

11.6

$$\begin{array}{r} 9.5 \\ C2.1 \\ \hline 11.5 \end{array}$$

$$\begin{array}{r} 10.60 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.8 \\ C1.8 \\ \hline 10 \end{array}$$

13.5

$$\begin{array}{r} 12.3 \\ C1.2 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 12.5 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 11.9 \\ C1.6 \\ \hline 9 \end{array}$$

5.4

$$\begin{array}{r} 3.6 \\ C1.8 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 3.37 \\ C2.0 \\ \hline 4.37 \\ C0 \end{array}$$

$$\begin{array}{r} 3.4 \\ C2.0 \\ \hline 11 \end{array}$$

7.2

$$\begin{array}{r} 6.0 \\ C1.3 \\ \hline 7.5 \end{array}$$

$$\begin{array}{r} 5.27 \\ C2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.7 \\ C1.6 \\ \hline 9 \end{array}$$

9.2

$$\begin{array}{r} 7.9 \\ C1.3 \\ \hline 7.5 \end{array}$$

$$\begin{array}{r} 7.12 \\ C2.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.2 \\ C1.0 \\ \hline 6 \end{array}$$

9.4

$$\begin{array}{r} 8.7 \\ C0.4 \\ \hline 4.5 \end{array}$$

$$\begin{array}{r} 8.37 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.7 \\ C0.7 \\ \hline 4.5 \end{array}$$

9.6

$$\begin{array}{r} 9.1 \\ C0.5 \\ \hline 3.5 \end{array}$$

$$\begin{array}{r} 8.57 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 8.9 \\ C0.7 \\ \hline 4.5 \end{array}$$

9.8

$$\begin{array}{r} 9.1 \\ C0.7 \\ \hline 4.5 \end{array}$$

$$\begin{array}{r} 8.77 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.4 \\ C0.6 \\ \hline 4 \end{array}$$

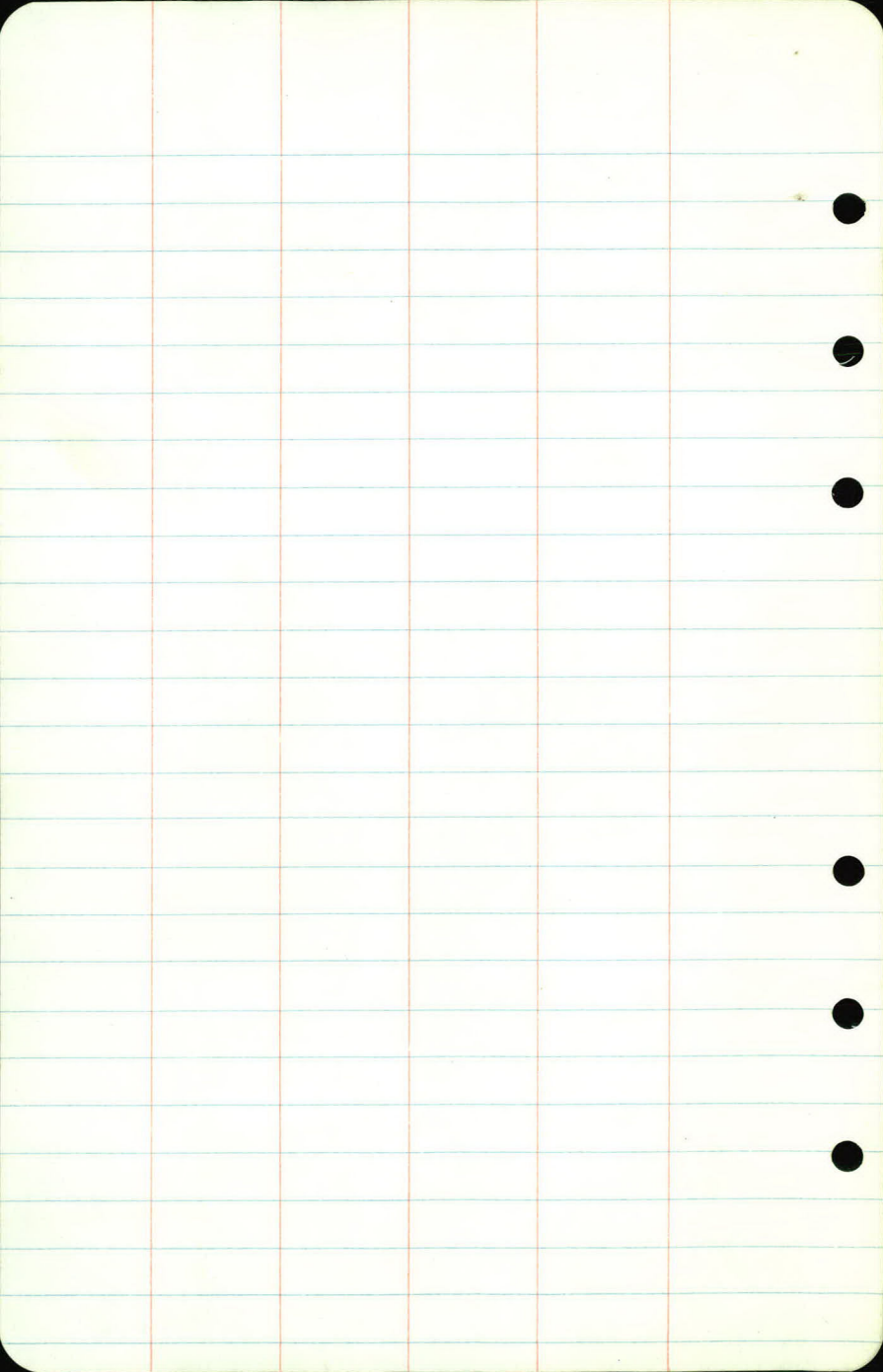
10.0

$$\begin{array}{r} 9.1 \\ C0.9 \\ \hline 5.5 \end{array}$$

$$\begin{array}{r} 8.97 \\ C1.0 \\ \hline \end{array}$$

$$\begin{array}{r} 9.0 \\ C1.6 \\ \hline \end{array}$$

10.2



105	528
255	155
205	15

9

-2.17.51

-2.00

-1.50

2.6

2.9

-1.00

4.2

4.5

-50

7.0

7.3

0 + 00

9.9

10.2

+50

12.2

12.5

1

1.9

2.2

+50

3.9

4.2

+91

5.4

5.7

+50

7.8

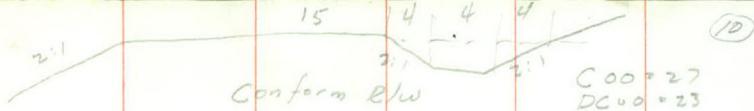
8.1

3

0.8

1.1

Drop 4. Below



$$\begin{array}{r} 2.1 \\ \text{C.O.O} \\ \hline 28.6 \end{array}$$

$$\begin{array}{r} + 4.4 \\ \text{C.O.O} \\ \hline 30 \end{array}$$

$$\begin{array}{r} 4.1 \\ \text{C.O.O} \\ \hline 27.8 \end{array}$$

$$\begin{array}{r} 0.7 \\ \text{C.O.O} \\ \hline 30 \end{array}$$

$$\begin{array}{r} 6.7 \\ \text{C.O.O} \\ \hline 28.2 \end{array}$$

$$\begin{array}{r} 4.7 \\ \text{C.O.O} \\ \hline 30 \end{array}$$

$$\begin{array}{r} 11.4 \\ \text{C.O.O} \\ \hline 24.6 \end{array}$$

$$\begin{array}{r} 10.0 \\ \text{C.O.O} \\ \hline 27.4 \end{array}$$

$$\begin{array}{r} 14.0 \\ \text{D.C.O.O} \\ \hline 24.0 \end{array}$$

$$\begin{array}{r} 12.4 \\ \text{C.O.O} \\ \hline 27.2 \end{array}$$

$$\begin{array}{r} 2.8 \\ \text{D.C.O.O} \\ \hline 25.8 \end{array}$$

$$\begin{array}{r} 0.8 \\ \text{C.O.O} \\ \hline 29.8 \end{array}$$

$$\begin{array}{r} 4.4 \\ \text{D.C.O.O} \\ \hline 26.2 \end{array}$$

$$\begin{array}{r} 2.5 \\ \text{C.O.O} \\ \hline 30 \end{array}$$

$$\begin{array}{r} 5.1 \\ \text{C.O.O} \\ \hline 28.2 \end{array}$$

$$\begin{array}{r} 4.3 \\ \text{C.O.O} \\ \hline 29.3 \end{array}$$

$$\begin{array}{r} 3.1 \\ \text{C.O.O} \\ \hline 30 \end{array}$$

$$\begin{array}{r} 9.6 \\ \text{D.C.O.O} \\ \hline 24.4 \end{array}$$

$$\begin{array}{r} 0.8 \\ \text{C.O.O} \\ \hline 30 \end{array}$$

$$\begin{array}{r} 3.1 \\ \text{D.C.O.O} \\ \hline 30 \end{array}$$

3 + 50

3.4

3.7

4

5.7

6.0

+ 53.88

7.9

8.2

5

3.6

3.9 4.6

9.4

9.7 12.6

+ 34

1.1

5.0

+ 50

4.7

5.0

6

4.4

4.7

50

3.7

4.0

7 + 03.88

2.5

2.8

+ 50

7.5

7.8

9

6.8

7.1

$$\begin{array}{r} 31 \\ 906 \\ \hline 282 \end{array}$$

$$\begin{array}{r} 60 \\ 600 \\ \hline 270 \end{array}$$

$$\begin{array}{r} 88 \\ 2116 \\ \hline 2508 \end{array}$$

$$\begin{array}{r} 59 \\ 200 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 80 \\ 1512 \\ \hline \end{array}$$

$$\begin{array}{r} 66 \\ 2001 \\ \hline 232 \end{array}$$

$$\begin{array}{r} 50 \\ 206 \\ \hline 242 \end{array}$$

$$\begin{array}{r} 40 \\ 203 \\ \hline 246 \end{array}$$

$$\begin{array}{r} 82 \\ 216 \\ \hline 262 \end{array}$$

$$\begin{array}{r} 78 \\ 213 \\ \hline 256 \end{array}$$

$$\begin{array}{r} 49 \\ 2008 \\ \hline 246 \end{array}$$

$$\begin{array}{r} 76 \\ 2004 \\ \hline 278 \end{array}$$

$$\begin{array}{r} 105 \\ 213 \\ \hline 192 \end{array}$$

$$\underline{130}$$

$$\begin{array}{r} 130 \\ 233 \\ \hline 216 \end{array}$$

$$\begin{array}{r} 116 \\ 173 \end{array}$$

$$\begin{array}{r} 61 \\ 216 \\ \hline 178 \end{array}$$

$$\begin{array}{r} 73 \\ 214 \\ \hline 78 \end{array}$$

$$\begin{array}{r} 61 \\ 21 \\ \hline 192 \end{array}$$

$$\begin{array}{r} 40 \\ 208 \\ \hline 246 \end{array}$$

$$\begin{array}{r} 88 \\ 219 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 88 \\ 203 \\ \hline 236 \end{array}$$

8 + 50

6.3

6.6

+75

5.8

6.1

9

5.4

5.7

+50

4.8

5.1

10

4.7

5.0

$$\begin{array}{r} 41 \\ C 2.5 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 1.5 \\ C 4.3 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 1.4 \\ C 4.3 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 0.1 \\ C 5.1 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 3.4 \\ C 1.6 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 8.2 \\ F 1.6 \\ \hline 18.2 \end{array}$$

$$\begin{array}{r} 8.1 \\ 000.0 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 7.4 \\ 000.3 \\ \hline 23.6 \end{array}$$

$$\begin{array}{r} 4.7 \\ 00.0 \\ \hline 27.8 \end{array}$$

$$\begin{array}{r} 4.4 \\ 00.6 \\ \hline 28.2 \end{array}$$

