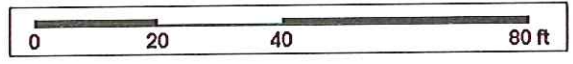


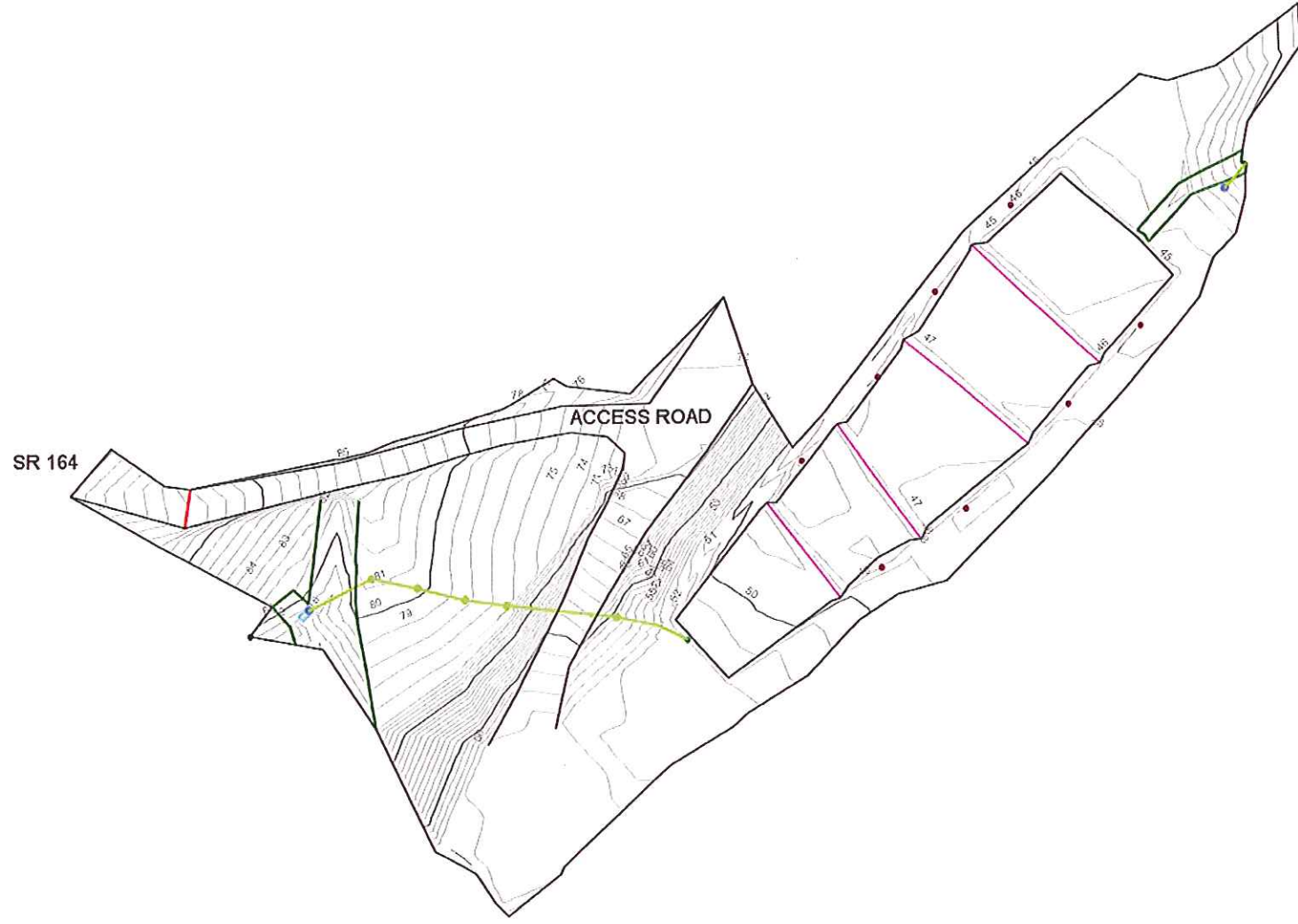
LEGEND

Border	—
Contour Labels	123
Major Contours	—
Minor Contours	—
Outline	—



Treatment Bed
Trout Run As Built Survey

Designed	Date	File Name
Drawn	L.A. Kopiczyk	Copy of TROUT RUN AB_FINAL.xml
Checked	10/17/12	Drawing Name
Approved		Trout Run Bed
EFT Version 3.0.6.2		10/26/2012
		Sheet ___ of ___



GATE

COLLECTION BOX

VALVE

UPPER BAFFLE

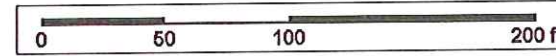
STONE

LOWER BAFFLE REBAR

STONE BED

PIPELINE

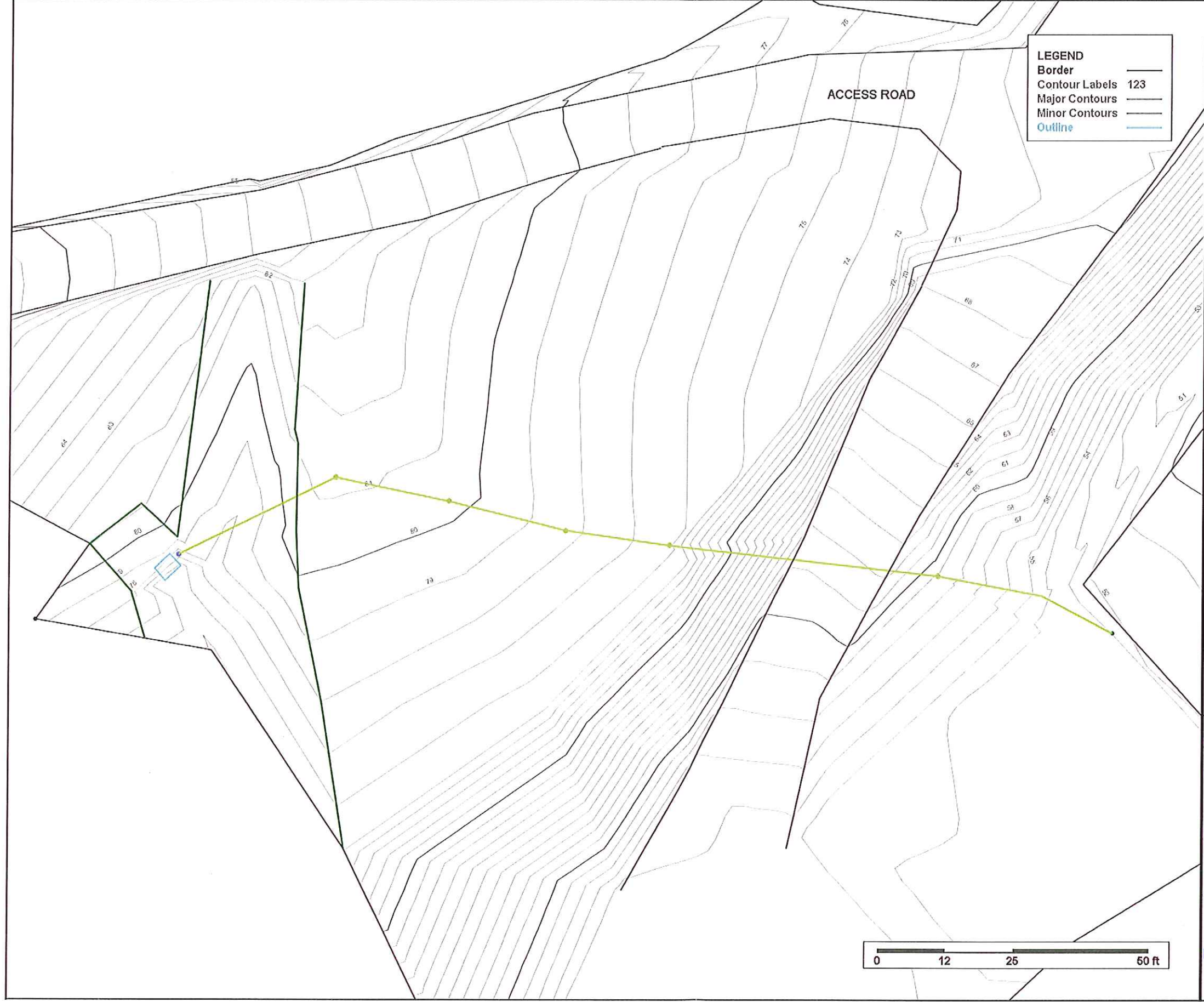
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Border	—
Contour Labels	123
Major Contours	—
Minor Contours	—
Outline	—



As Built
Trout Run As Built Survey

Designed	Date
Drawn	10/17/12
Checked	
Approved	
EFT Version 3.0.6.2	

File Name	Copy of TROUT RUN AB FINAL.xml
Drawing Name	Trout Run
Date	10/26/2012
Sheet	___ of ___



LEGEND
 Border
 Contour Labels 123
 Major Contours
 Minor Contours
 Outline

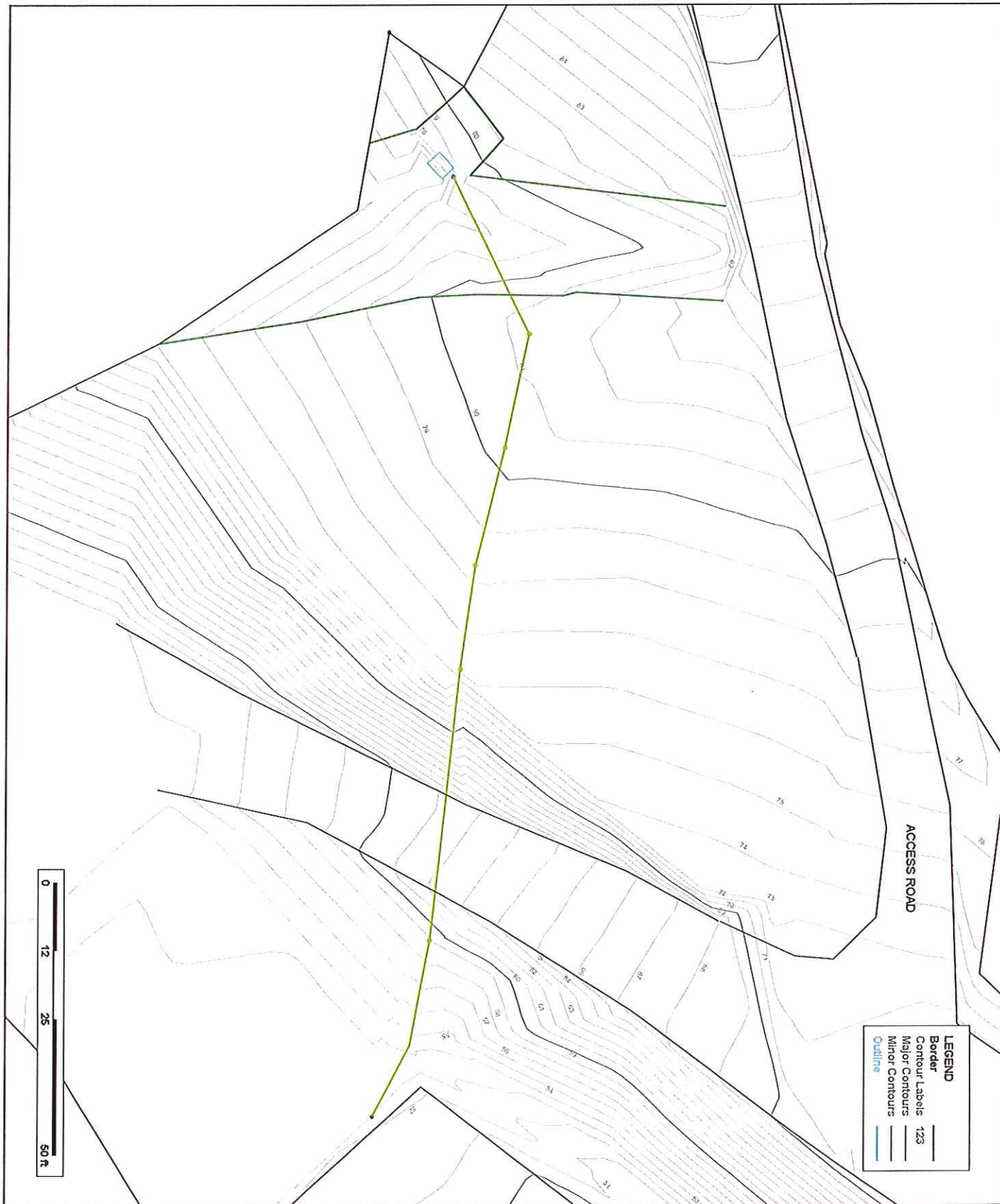
0 12 25 50 ft



Collection System
Trout Run As Built Survey

Designed	Date
Drawn	L.A. Kopczyk
Checked	10/17/12
Approved	
EFT Version 3.0.6.2	

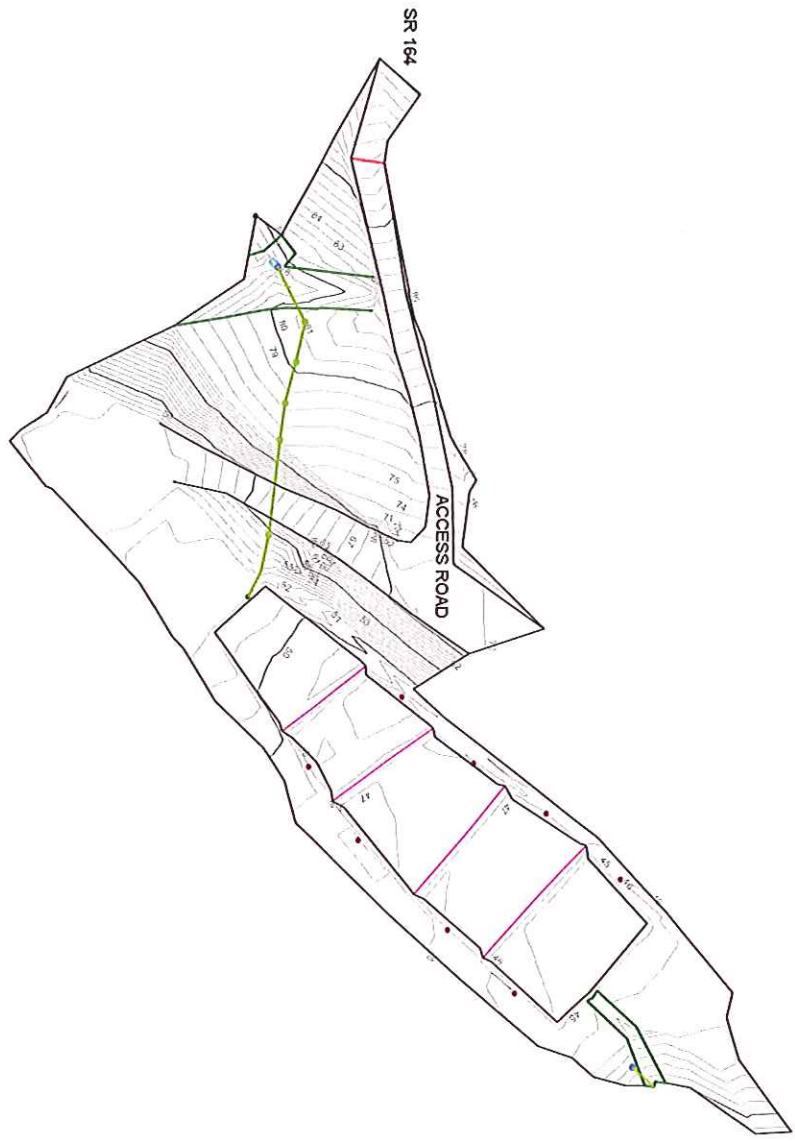
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Copy of TROUT RUN AB FINAL.xml	Trout Run Collection
10/26/2012	
Sheet	of



Collection System
Trout Run As Built Survey

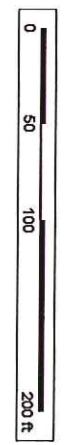
Designed _____ Date _____
 Drawn L.A.Kopczyk 10/17/12
 Checked _____
 Approved _____
 EFT Version 3.0.6.2

File Name
Copy of TROUT RUN
AB FINAL.xml
 Drawing Name
Trout Run Collection
 10/26/2012
 Sheet ____ of ____



- GATE
- VALVE
- STONE
- STONE BED
- PIPELINE
- UPPER BAFFLE
- LOWER BAFFLE REBAR
- COLLECTION BOX

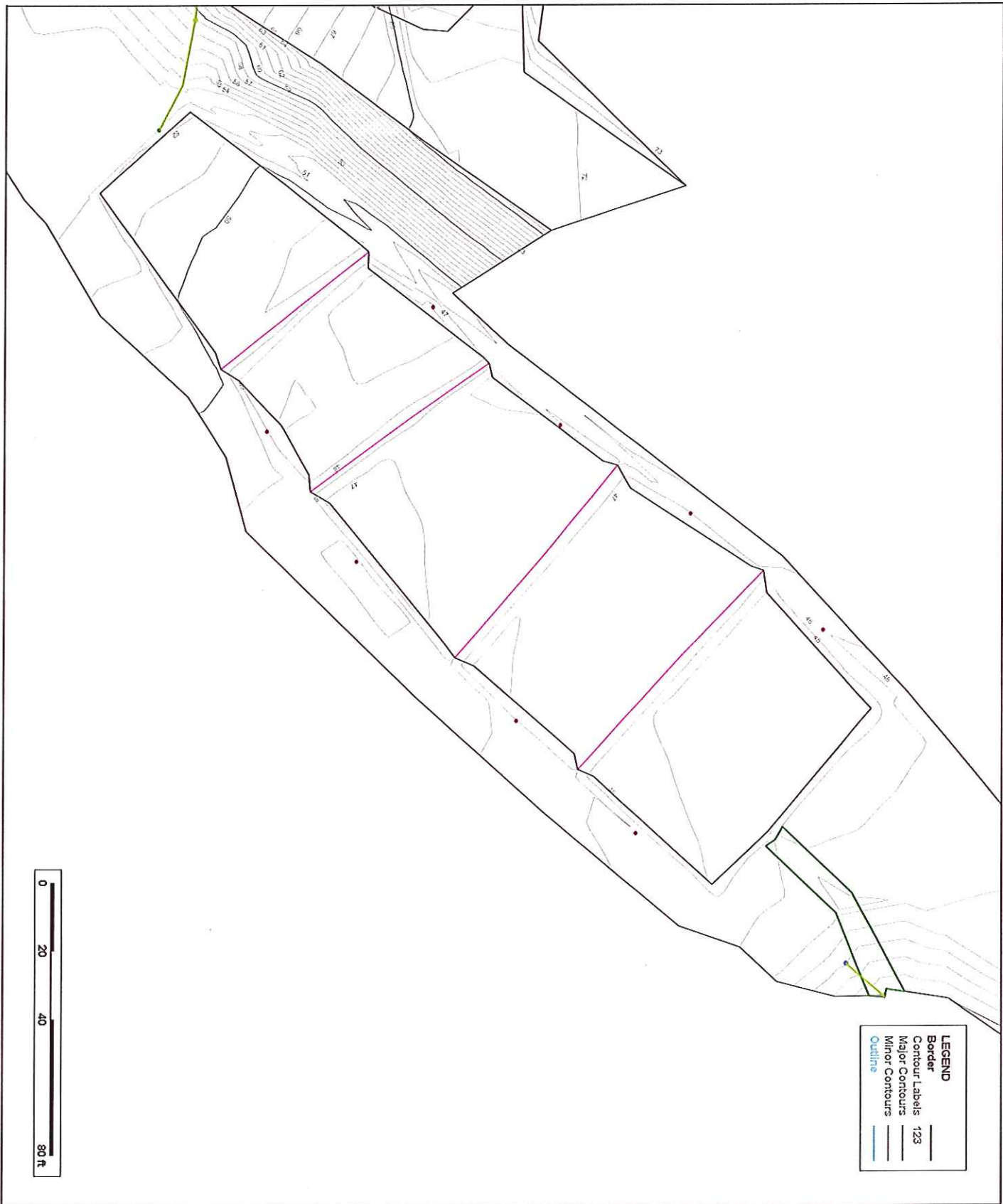
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Border	123
Contour Labels	123
Major Contours	123
Minor Contours	123
Outline	123



As Built
Trout Run As Built Survey

Designed _____ Date _____
 Drawn L.A.Kopczyk 10/17/12
 Checked _____
 Approved _____
 EFT Version 3.0.6.2

File Name
Copy of TROUT RUN
AB FINAL.xml
 Drawing Name
Trout Run
 10/26/2012
 Sheet ____ of ____



Treatment Bed
Trout Run As Built Survey

Designed	_____	Date	_____
Drawn	L.A.Kopczyk	10/17/12	
Checked	_____		
Approved	_____		

EFT Version 3.0.6.2

File Name	Copy of TROUT RUN AB FINAL.xml
Drawing Name	Trout Run Bed
	10/26/2012
Sheet	____ of ____



Reduced Radial Survey Data Report

Project Name: Trout Run As Built Survey **Location:**
Project Description: **Practice:**
Designed by: _____ **Date:** _____ **Checked by:** _____ **Date:** _____

Survey Name: TroutRunAB

Survey Settings

Zero Vertical Angle Reference: Horizon Distance Type: Stadia
 Backsight Vertical Angles Allowed: No

Setup Name: Setup1		Setup Type: Initial						
Instrument Location:								
X: 1000.00	Y: 1000.00	HI: 102.66	Reference Azimuth: 0.00					
Benchmark Information:								
BM Elevation: 100.00	BS Rod: 2.66	Description: SR164Cntr						
BS VA: 0.00	BS Distance: 0.00							
Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P1	8.51	94.15	22.00	102.00	0.00	1021.52	995.43	S Gate Post
P2	9.67	92.99	27.00	61.00	0.00	1023.61	1013.09	N Gate Post
P3	2.92	99.74	32.00	288.00	0.00	969.57	1009.89	SR164
P4	2.39	100.27	34.00	339.00	0.00	987.82	1031.74	SR164
P5	7.79	94.87	19.00	41.00	0.00	1012.47	1014.34	Road Edge
P6	6.54	96.12	14.00	65.00	0.00	1012.69	1005.92	Road
P7	6.65	96.01	72.00	111.00	0.00	1067.22	974.20	Road
P8	9.50	93.16	16.00	143.00	0.00	1009.63	987.22	Road Toe
P9	8.79	93.87	25.00	81.00	0.00	1024.69	1003.91	Road @ Gate
P10	21.60	81.06	92.00	85.00	0.00	1091.65	1008.02	Road Edge @ Ditch
P11	16.76	85.90	93.00	82.00	0.00	1092.09	1012.94	Road - TP
P12	17.02	85.64	96.00	75.00	0.00	1092.73	1024.85	Road - TP - Portageside
P13	20.20	82.46	96.00	74.00	0.00	1092.28	1026.46	Road Toe @ Ditch

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P53	11.39	74.78	113.00	114.00	0.00	1224.37	1055.33	TP tree w/ ribbon
P54	15.78	70.39	129.00	134.00	0.00	1253.08	1020.83	TP golden rod
P55	4.81	81.36	31.00	267.00	0.00	1108.51	974.40	Pipe1-2 ground
P56	5.82	80.35	31.00	225.00	0.00	1130.18	969.49	Pipe2-2 ground
P57	5.12	81.05	34.00	283.00	0.00	1099.79	978.22	stone edge
P58	6.31	79.86	55.00	261.00	0.00	1100.11	951.51	stone edge
P59	8.00	78.17	49.00	280.00	0.00	1090.04	966.62	ww bottom
P60	8.50	77.67	61.00	276.00	0.00	1084.32	955.40	ww bottom
P61	7.21	78.96	62.00	281.00	0.00	1079.83	958.51	valve riser top
P62	10.50	75.67	65.00	280.00	0.00	1078.38	955.66	box crnr ground
P63	11.06	75.11	70.00	280.00	0.00	1074.74	952.24	box crnr ground
P64	7.29	78.88	66.00	280.00	0.00	1077.65	954.98	box crnr
P65	7.38	78.79	71.00	280.00	0.00	1074.01	951.55	box crnr
P66	7.24	78.93	66.00	282.50	0.00	1075.48	957.41	box crnr
P67	7.35	78.82	70.00	282.00	0.00	1073.09	954.05	box crnr
P68	10.58	75.59	67.00	280.00	0.00	1076.92	954.29	box invert
P69	10.76	75.41	69.00	276.00	0.00	1078.88	949.53	channel bottom
P70	11.33	74.84	73.00	268.00	0.00	1084.11	940.21	channel bottom
P71	6.84	79.33	62.00	284.00	0.00	1077.71	960.97	stone edge
P72	5.04	81.13	64.00	292.00	0.00	1071.02	967.00	stone edge
P73	5.14	81.03	76.00	291.00	0.00	1061.45	959.65	stone edge
P74	7.96	78.21	75.00	282.00	0.00	1069.33	950.75	ww stone edge
P75	6.84	79.33	92.00	287.00	0.00	1051.53	945.81	2nd pipe
P76	2.27	83.90	26.00	340.00	0.00	1100.86	1007.68	stone edge

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P100	6.10	56.93	44.00	127.00	0.00	1161.98	902.97	BS to tree-dischargeside
P101	7.58	55.45	86.00	85.00	0.00	1179.39	844.62	BS to tree streamside
P102	9.32	53.71	43.00	323.00	0.00	1238.19	943.15	slope toe
P103	8.68	54.35	19.00	70.00	0.00	1198.61	909.67	slope toe
P104	7.75	55.28	26.00	94.00	0.00	1188.27	904.43	slope point
P105	7.46	55.57	50.00	122.00	0.00	1159.80	896.05	slope toe above road
P106	7.27	55.76	62.00	94.00	0.00	1175.19	870.89	topo
P107	7.14	55.89	88.00	75.00	0.00	1194.18	840.72	tree edge
P108	6.63	56.40	96.00	110.00	0.00	1139.54	852.28	div toe out, atv
P109	6.75	56.28	93.00	106.00	0.00	1146.65	850.92	div toe out, atv
P110	7.28	55.75	95.00	96.00	0.00	1160.13	841.40	div toe out
P111	7.95	55.08	105.00	89.50	0.00	1166.78	828.31	div toe out
P112	5.45	57.58	114.00	87.00	0.00	1169.55	818.18	slope top
P113	6.17	56.86	112.00	89.00	0.00	1166.28	821.15	div top
P114	6.08	56.95	99.00	97.00	0.00	1156.97	838.42	div top
P115	5.94	57.09	97.00	106.00	0.00	1144.45	847.58	div top, atv
P116	6.26	56.77	98.00	110.00	0.00	1138.32	850.69	div top, atv
P117	6.90	56.13	102.00	110.00	0.00	1135.90	847.51	div toe in
P118	6.88	56.15	101.00	107.00	0.00	1140.79	845.21	div toe in, atv
P119	7.21	55.82	101.00	98.00	0.00	1154.55	837.34	div toe in
P120	6.85	56.18	110.00	91.00	0.00	1163.17	824.21	div toe in
P121	7.22	55.81	100.00	98.00	0.00	1154.97	838.24	div toe in
P122	9.24	53.79	45.00	15.00	0.00	1235.75	904.60	topo
P123	3.98	59.05	33.00	291.00	0.00	1218.16	954.55	ground@cleanout

Setup Name: Setup15		BS Pt No: 89		BS Rod: 3.84		BS Dist: 16.00		Setup Type: Two Point Resection	
BS VA: 0.00		Instrument Location:		Y: 891.63		HI: 60.60		BS HA: 136.00	
X: 1175.22								Orient Pt No: 90	
Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description	
P256	4.98	55.62	20.00	28.00	0.00	1167.59	873.14	w/ survey stake	
P257	1.82	58.78	132.00	48.50	0.00	1084.78	795.49	w/	

Setup Name: Setup16		BS Rod: 6.13		BS Dist: 27.00		Setup Type: Two Point Resection		
BS Pt No: 54						BS HA: 210.00		
BS VA: 0.00								
Instrument Location:								
X: 1240.71		Y: 1044.83		HI: 76.52		Orient Pt No: 53		
Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P259	5.61	70.91	24.00	187.00	0.00	1259.17	1029.49	wl
P260	14.53	61.99	66.00	237.00	0.00	1185.36	1008.88	wl
P261	5.23	71.29	86.00	95.00	0.00	1293.34	1112.84	wl

Setup Name: Setup17		BS Pt No: 90		BS Rod: 2.60	BS Dist: 96.00	Setup Type: Two Point Resection		
BS VA: 0.00					BS HA: 322.00			
Instrument Location:								
X: 1250.32		Y: 909.32		HI: 58.09		Orient Pt No: 89		
Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P92	4.89	53.20	20.00	194.00	0.00	1270.06	906.12	TP TS-tree
P93	3.46	54.63	43.00	77.00	0.00	1237.18	950.26	TP TS-stake
P94	7.39	50.70	125.00	121.00	0.00	1305.51	1021.48	lb1 rebar treeside
P95	6.48	51.61	175.00	124.50	0.00	1393.96	809.36	lb2 rebar treeside
P96	7.33	50.76	161.00	149.00	0.00	1333.24	771.32	lb2 rebar streamside
P97	6.76	51.33	110.00	149.50	0.00	1305.60	814.22	lb1 rebar streamside
P98	2.32	55.77	91.00	341.00	0.00	1167.06	872.60	wl

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P15	3.04	83.64	55.00	359.00	0.00	1083.41	1008.01	Road/Ditch
P16	2.70	83.98	43.00	18.00	0.00	1090.46	1026.77	Uphill Road Toe/Ditch
P17	1.78	84.90	28.00	20.00	0.00	1105.29	1029.34	Original Ground
P18	1.79	84.89	16.00	35.00	0.00	1117.51	1034.36	Road Cut
P19	4.19	82.49	8.00	39.00	0.00	1125.49	1033.39	Road Edge
P20	4.19	82.49	8.00	127.00	0.00	1135.01	1039.13	Road Cut
P21	6.20	80.48	12.00	165.00	0.00	1142.53	1038.90	Road Edge
P22	8.24	78.44	38.00	176.00	0.00	1166.75	1049.22	Road Cut/Original Ground
P23	9.51	77.17	46.00	176.00	0.00	1173.80	1052.98	Ditch Bottom
P24	9.21	77.47	56.00	180.00	0.00	1184.35	1054.18	Ditch Berm Top
P25	10.78	75.90	64.00	175.00	0.00	1189.15	1062.44	Ditch Bottom
P26	10.18	76.50	68.00	180.00	0.00	1195.30	1059.08	Ditch Berm Top
P27	10.50	76.18	63.00	187.00	0.00	1193.44	1049.84	Road Edge
P28	8.14	78.54	33.00	202.00	0.00	1166.20	1032.53	Road Top
P29	8.53	78.15	28.00	215.00	0.00	1160.71	1026.03	Road Fill Toe
P30	6.08	80.60	13.00	224.00	0.00	1145.44	1026.90	Road Top
P31	6.01	80.67	12.00	277.00	0.00	1136.75	1019.86	Road Fill Toe
P32	3.51	83.17	16.00	336.00	0.00	1122.53	1019.42	Road Top
P33	12.10	74.58	70.00	207.00	0.00	1203.13	1027.77	Topo
P34	13.45	73.23	79.00	215.00	0.00	1210.79	1016.37	Topo
P35	13.55	73.13	80.00	224.00	0.00	1208.44	1004.08	Topo
P36	12.69	73.99	75.00	242.00	0.00	1192.39	985.24	Topo
P37	11.38	75.30	84.00	267.00	0.00	1171.46	956.54	Topo
P38	11.37	75.31	102.00	287.00	0.00	1145.80	930.11	Topo
P39	11.48	75.20	130.00	305.00	0.00	1108.60	903.68	Topo @ Ditch
P40	8.71	77.97	105.00	310.00	0.00	1104.42	930.36	Topo @ Ditch
P41	6.19	80.49	77.00	320.00	0.00	1099.57	962.07	Topo @ Ditch
P42	5.31	81.37	65.00	318.00	0.00	1106.87	971.91	Pipe 1 Ground
P43	6.30	80.38	64.00	299.00	0.00	1127.73	967.57	Pipe 2 Ground
P44	8.33	78.35	71.00	281.00	0.00	1149.29	962.17	Pipe 3 Ground
P45	10.40	76.28	80.00	268.00	0.00	1168.39	959.48	Pipe 4 Ground
P46	8.10	78.58	81.00	295.00	0.00	1131.92	950.34	Topo
P47	8.76	77.92	45.00	269.00	0.00	1152.30	990.57	Topo
P48	2.76	83.92	35.00	347.00	0.00	1105.30	1010.23	Road Toe/Ditch Edge
P49	5.41	81.27	61.00	328.00	0.00	1099.18	980.71	Ditch Edge
P50	8.83	77.85	82.00	328.00	0.00	1087.47	963.28	Ditch Bottom
P51	9.18	77.50	92.00	331.00	0.00	1077.96	957.78	Valve Ground

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P78	4.21	71.73	23.00	246.00	0.00	1233.52	1051.14	road cut toe
P79	3.34	72.60	78.00	273.00	0.00	1266.90	1099.12	road edge
P80	4.11	71.83	55.00	304.00	0.00	1279.86	1059.29	old road edge
P81	7.96	67.98	29.00	112.00	0.00	1214.54	1007.14	access road
P82	8.58	67.36	37.00	74.00	0.00	1230.94	991.33	road edge
P83	10.23	65.71	48.00	106.00	0.00	1205.27	990.10	slope toe @ road
P84	12.09	63.85	66.00	86.00	0.00	1214.63	965.23	bank top
P85	14.32	61.62	79.00	100.00	0.00	1193.19	960.83	slope toe
P86	17.45	58.49	104.00	90.00	0.00	1196.34	931.42	bank top
P87	19.24	56.70	126.00	98.00	0.00	1172.40	918.53	slope toe
P88	20.60	55.34	132.00	88.00	0.00	1190.38	903.76	slope point
P89	19.18	56.76	145.00	98.00	0.00	1163.04	902.00	TP tree dischargeside
P90	20.45	55.49	192.00	85.00	0.00	1179.87	844.10	TP tree streamside

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P125	10.90	53.59	27.00	8.00	0.00	1237.33	944.44	road slope toe
P126	5.73	58.76	28.00	322.00	0.00	1218.02	953.92	riser pipe
P127	5.65	58.84	40.00	331.00	0.00	1224.42	965.35	tree edge
P128	9.97	54.52	37.00	352.00	0.00	1236.57	957.73	div top
P129	10.88	53.61	34.00	0.00	0.00	1238.94	952.45	div bot
P130	10.95	53.54	35.00	2.00	0.00	1240.50	952.45	div top
P131	12.37	52.12	38.00	7.00	0.00	1244.88	952.46	stone cmr
P132	12.37	52.12	37.00	23.00	0.00	1250.26	943.46	ground@dischargepipe
P133	12.71	51.78	51.00	51.00	0.00	1268.68	926.19	stone cmr
P134	11.45	53.04	52.00	55.00	0.00	1269.57	922.56	earth slope top
P135	11.17	53.32	62.00	66.00	0.00	1277.65	910.19	tree edge
P136	12.78	51.71	87.00	51.00	0.00	1304.68	926.38	tree edge
P137	12.71	51.78	80.00	40.00	0.00	1296.13	941.60	berm top
P138	14.29	50.20	81.00	37.00	0.00	1296.17	945.93	stone edge
P139	14.79	49.70	75.00	23.00	0.00	1283.72	961.48	topo
P140	15.21	49.28	73.00	3.00	0.00	1266.24	980.42	stone edge
P141	13.33	51.16	74.00	359.00	0.00	1262.93	984.47	earth berm top
P142	13.16	51.33	72.00	358.00	0.00	1260.71	983.65	div top
P143	13.75	50.74	72.00	357.00	0.00	1259.69	984.39	div bot
P144	13.36	51.13	73.00	354.00	0.00	1257.12	987.35	tree edge
P145	14.56	49.93	106.00	357.00	0.00	1279.54	1012.00	tree edge
P146	15.14	49.35	105.00	358.00	0.00	1280.43	1010.11	div bot
P147	14.68	49.81	106.00	359.00	0.00	1282.50	1009.79	div top
P148	14.49	50.00	112.00	1.00	0.00	1289.22	1012.09	earth slope top
P149	15.69	48.80	101.00	2.00	0.00	1283.54	1002.49	stone edge, slope toe
P150	15.15	49.34	105.00	2.00	0.00	1286.15	1005.52	ub1 edge
P151	17.39	47.10	108.00	4.00	0.00	1290.92	1005.29	stone toe d
P152	15.66	48.83	98.00	15.00	0.00	1296.66	983.94	stone toe u
P153	15.04	49.45	103.00	15.00	0.00	1300.69	986.90	ub1
P154	17.39	47.10	108.00	15.00	0.00	1304.72	989.86	stone toe d
P155	15.21	49.28	104.00	32.00	0.00	1315.84	960.29	stone edge, stone toe u
P156	14.76	49.73	109.00	32.00	0.00	1320.55	961.95	ub1 edge
P157	16.53	47.96	114.00	30.00	0.00	1323.89	967.33	stone edge, stone toe d
P158	14.31	50.18	108.00	33.00	0.00	1320.22	959.83	earth slope top
P159	14.27	50.22	114.00	38.00	0.00	1328.62	952.15	tree edge
P160	15.07	49.42	134.00	35.00	0.00	1346.29	963.53	eop
P161	15.42	49.07	142.00	30.00	0.00	1349.98	977.50	slope top
P162	16.39	48.10	131.00	29.00	0.00	1338.88	975.63	lb1 rebar-stream - TP
P163	17.56	46.93	131.00	27.00	0.00	1337.07	979.83	stone edge
P164	17.42	47.07	132.00	17.00	0.00	1326.72	1000.31	stone top
P165	18.25	46.24	131.00	3.00	0.00	1304.83	1023.73	stone edge

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P166	17.98	46.51	130.00	2.00	0.00	1302.45	1024.48	lb1 rebar-trees - TP
P167	16.36	48.13	130.00	1.00	0.00	1300.72	1025.94	div top
P168	17.37	47.12	129.00	0.00	0.00	1298.34	1026.60	div bot
P169	16.76	47.73	132.00	359.00	0.00	1298.40	1030.36	tree edge

Setup Name: Setup7Adj2
 BS Pt No: 162 BS Rod: 5.75 BS Dist: 32.00 Setup Type: Two Point Resection
 BS VA: 0.00 BS HA: 309.00
 Instrument Location:
 X: 1368.59 Y: 987.51 HI: 53.85 Orient Pt No: 166

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P171	5.24	48.61	81.00	18.00	0.00	1313.56	1046.94	eop
P172	5.74	48.11	79.00	18.00	0.00	1314.91	1045.47	div bot
P173	5.05	48.80	74.00	18.00	0.00	1318.31	1041.81	div top
P174	6.02	47.83	73.00	16.00	0.00	1317.15	1039.31	stone toe
P175	5.34	48.51	73.00	18.00	0.00	1318.99	1041.07	ub2 edge
P176	6.97	46.88	71.00	21.00	0.00	1323.14	1042.06	stone toe d
P177	6.58	47.27	45.00	20.00	0.00	1339.19	1021.57	stone toe d
P178	5.36	48.49	45.00	13.00	0.00	1335.25	1017.74	ub2
P179	5.96	47.89	46.00	8.00	0.00	1331.95	1015.32	stone toe u
P180	6.20	47.65	17.00	333.00	0.00	1351.60	988.16	stone toe
P181	5.40	48.45	12.00	336.00	0.00	1356.64	988.60	ub2 edge
P182	7.31	46.54	11.00	9.00	0.00	1359.95	994.31	stone toe d
P183	5.00	48.85	11.00	327.00	0.00	1357.61	986.78	berm edge
P184	4.99	48.86	18.00	242.00	0.00	1368.21	969.51	eop
P185	6.26	47.59	17.00	91.00	0.00	1377.14	1002.20	TP lb2 rebar-stream
P186	5.32	48.53	81.00	38.00	0.00	1337.20	1062.18	TP lb2 rebar tree

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P188	4.24	48.57	96.00	62.00	0.00	1342.55	1084.95	eop
P189	4.87	47.94	93.00	61.00	0.00	1344.82	1082.39	div bot
P190	4.56	48.25	90.00	61.00	0.00	1347.65	1081.40	div top
P191	5.66	47.15	88.00	57.00	0.00	1347.72	1074.87	stone edge, stone toe u
P192	4.85	47.96	88.00	60.00	0.00	1349.05	1079.28	ub3 edge
P193	6.76	46.05	83.00	64.00	0.00	1355.80	1083.16	stone toe d
P194	5.26	47.55	59.00	44.00	0.00	1373.67	1054.05	stone toe u
P195	4.84	47.97	57.00	47.00	0.00	1375.87	1056.95	ub3
P196	6.74	46.07	53.00	52.00	0.00	1380.47	1061.17	stone toe d
P197	5.73	47.08	39.00	5.00	0.00	1401.39	1028.41	stone edge, stone toe u
P198	4.90	47.91	34.00	5.00	0.00	1405.39	1031.40	ub3 edge
P199	6.89	45.92	29.00	11.00	0.00	1407.71	1036.92	stone edge, stone toe d
P200	4.53	48.28	34.00	0.00	0.00	1407.27	1029.10	dike edge
P201	4.48	48.33	36.00	338.00	0.00	1416.72	1019.46	eop
P202	5.73	47.08	9.00	27.00	0.00	1423.93	1049.46	lb3 rebar - stream
P203	5.97	46.84	85.00	77.00	0.00	1363.20	1100.79	lb3 rebar-tree
P204	5.57	47.24	95.00	95.00	0.00	1375.77	1127.85	eop
P205	5.70	47.11	93.00	95.00	0.00	1376.96	1126.25	div bot
P206	6.20	46.61	86.00	93.00	0.00	1378.78	1118.80	stone edge, stone toe u
P207	5.86	46.95	88.00	95.00	0.00	1379.96	1122.25	ub4 edge
P208	7.87	44.94	85.00	99.00	0.00	1386.63	1123.22	stone toe d
P209	6.51	46.30	54.00	98.00	0.00	1402.62	1096.64	stone toe u
P210	5.85	46.96	54.00	101.00	0.00	1405.01	1098.15	ub4
P211	8.10	44.71	56.00	108.00	0.00	1410.06	1103.00	stone toe d
P212	6.66	46.15	15.00	135.00	0.00	1433.48	1066.73	stone toe u
P213	5.81	47.00	17.00	151.00	0.00	1438.23	1067.80	ub4 edge
P214	7.41	45.40	22.00	152.00	0.00	1440.24	1072.39	stone toe d
P215	5.37	47.44	16.00	161.00	0.00	1440.44	1065.71	dam top
P216	5.13	47.68	19.00	204.00	0.00	1450.72	1057.55	eop
P217	6.59	46.22	41.00	168.00	0.00	1456.86	1084.82	lb4 rebar-stream
P218	6.75	46.06	95.00	110.00	0.00	1397.40	1139.98	lb4 rebar-tree
P219	7.36	45.45	114.00	123.00	0.00	1415.26	1164.42	div bot, eop
P220	6.63	46.18	110.00	124.00	0.00	1417.76	1160.74	div top
P221	8.13	44.68	103.00	125.00	0.00	1420.49	1154.03	stone cmr
P222	6.43	46.38	107.00	126.00	0.00	1421.88	1158.21	berm cmr
P223	6.47	46.34	80.00	148.00	0.00	1454.99	1128.56	splwy stone edge
P224	6.95	45.86	79.00	151.00	0.00	1458.65	1126.34	splwy bot, pond edge
P225	8.19	44.62	76.00	150.00	0.00	1456.41	1123.93	stone edge
P226	6.30	46.51	77.00	153.00	0.00	1460.52	1123.52	splwy stne edge
P227	6.47	46.34	73.00	169.00	0.00	1476.80	1109.87	berm cmr
P228	7.79	45.02	68.00	167.00	0.00	1471.86	1107.29	stone cmr

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P229	6.41	46.40	69.00	180.00	0.00	1484.09	1097.71	eop
P230	6.81	46.00	86.00	174.00	0.00	1490.44	1115.43	eop
P231	7.13	45.68	96.00	165.00	0.00	1485.24	1132.05	topo
P232	7.61	45.20	104.00	159.00	0.00	1480.22	1144.22	splwy stone edge
P233	8.37	44.44	105.00	157.00	0.00	1477.39	1146.73	splwy bot
P234	7.50	45.31	106.00	155.00	0.00	1474.44	1149.15	splwy stone edge
P235	7.01	45.80	114.00	144.00	0.00	1456.79	1163.16	topo
P236	7.01	45.80	125.00	133.00	0.00	1435.32	1176.72	div edge
P237	7.29	45.52	128.00	132.00	0.00	1433.15	1179.75	div bot, eop

Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P238	7.17	45.64	149.00	141.00	0.00	1456.54	1198.82	eop
P239	7.66	45.15	149.00	146.00	0.00	1469.26	1196.18	eop
P240	8.67	44.14	162.00	153.00	0.00	1491.30	1202.75	eop
P241	8.53	44.28	154.00	156.00	0.00	1495.84	1192.18	topo
P242	8.03	44.78	134.00	154.00	0.00	1483.33	1175.79	topo
P243	14.15	38.66	203.00	160.00	0.00	1528.66	1230.60	eop
P244	14.22	38.59	187.00	163.00	0.00	1529.59	1211.65	eop
P245	12.78	40.03	145.00	162.00	0.00	1505.64	1177.03	eop
P246	12.76	40.05	133.00	164.00	0.00	1503.57	1164.25	splwy stone edge
P247	12.49	40.32	128.00	165.00	0.00	1502.78	1158.82	splwy bot, eop
P248	13.17	39.64	129.00	166.00	0.00	1505.20	1158.40	ground@dischargepipe
P249	12.51	40.30	125.00	167.00	0.00	1504.74	1153.85	splwy stone edge, eop
P250	10.90	41.91	117.00	170.00	0.00	1505.04	1143.65	eop
P251	8.76	44.05	114.00	165.00	0.00	1495.11	1147.10	valve riser
P252	8.30	44.51	106.00	166.00	0.00	1492.26	1139.39	topo
P253	7.95	44.86	101.00	174.00	0.00	1500.52	1126.53	eop
P254	7.58	45.23	121.00	153.00	0.00	1476.45	1164.54	topo

Setup Name: Setup9					Setup Type: Two Point Resection			
BS Pt No: 90		BS Rod: 4.90		BS Dist: 36.00		BS HA: 236.00		
BS VA: 0.00								
Instrument Location:								
X: 1186.20			Y: 879.54		HI: 60.39		Orient Pt No: 89	
Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P263	4.76	55.63	43.00	217.00	0.00	1192.84	837.06	eop
P264	5.58	54.81	41.00	148.00	0.00	1226.29	870.93	eop
P265	6.93	53.46	43.00	128.00	0.00	1228.79	885.44	topo
P266	7.07	53.32	57.00	129.00	0.00	1242.79	886.37	eop
P267	7.40	52.99	88.00	120.00	0.00	1270.84	903.62	bs tree w/ribbon

Control Points:								
Point Name	Foresight	Elevation	Distance	Horizontal Angle	Vertical Angle	X	Y	Description
P11	16.76	85.90	93.00	82.00	0.00	1092.09	1012.94	Road - TP
P12	17.02	85.64	96.00	75.00	0.00	1092.73	1024.85	Road - TP - Portageside
P53	11.39	74.78	113.00	114.00	0.00	1224.37	1055.33	TP tree w/ ribbon
P54	15.78	70.39	129.00	134.00	0.00	1253.08	1020.83	TP golden rod
P89	19.18	56.76	145.00	98.00	0.00	1163.04	902.00	TP tree dischargeside
P90	20.45	55.49	192.00	85.00	0.00	1179.87	844.10	TP tree streamside
P92	4.89	53.20	20.00	194.00	0.00	1270.06	906.12	TP TS-tree
P93	3.46	54.63	43.00	77.00	0.00	1237.18	950.26	TP TS-stake
P95	6.48	51.61	175.00	124.50	0.00	1393.96	809.36	lb2 rebar treeside
P96	7.33	50.76	161.00	149.00	0.00	1333.24	771.32	lb2 rebar streamside
P97	6.76	51.33	110.00	149.50	0.00	1305.60	814.22	lb1 rebar streamside
P162	16.39	48.10	131.00	29.00	0.00	1338.88	975.63	lb1 rebar-stream - TP
P166	17.98	46.51	130.00	2.00	0.00	1302.45	1024.48	lb1 rebar-trees - TP
P185	6.26	47.59	17.00	91.00	0.00	1377.14	1002.20	TP lb2 rebar-stream
P186	5.32	48.53	81.00	38.00	0.00	1337.20	1062.18	TP lb2 rebar tree



Project Points Report

Project Name: Trout Run As Built Survey

Location:

Project Description:

Practice:

Designed by: _____ **Date:** _____

Checked by: _____ **Date:** _____

Pt Name	X (Easting)	Y (Northing)	Z (Elevation)	Description
P1	1021.52	995.43	94.15	S Gate Post
P10	1091.65	1008.02	81.06	Road Edge @ Ditch
P100	1161.98	902.97	56.93	BS to tree-dischargeside
P101	1179.39	844.62	55.45	BS to tree streamside
P102	1238.19	943.15	53.71	slope toe
P103	1198.61	909.67	54.35	slope toe
P104	1188.27	904.43	55.28	slope point
P105	1159.80	896.05	55.57	slope toe above road
P106	1175.19	870.89	55.76	topo
P107	1194.18	840.72	55.89	tree edge
P108	1139.54	852.28	56.40	div toe out, atv
P109	1146.65	850.92	56.28	div toe out, atv
P11	1092.09	1012.94	85.90	Road - TP
P110	1160.13	841.40	55.75	div toe out
P111	1166.78	828.31	55.08	div toe out
P112	1169.55	818.18	57.58	slope top
P113	1166.28	821.15	56.86	div top
P114	1156.97	838.42	56.95	div top
P115	1144.45	847.58	57.09	div top, atv
P116	1138.32	850.69	56.77	div top, atv
P117	1135.90	847.51	56.13	div toe in
P118	1140.79	845.21	56.15	div toe in, atv
P119	1154.55	837.34	55.82	div toe in
P12	1092.73	1024.85	85.64	Road - TP - Portageside
P120	1163.17	824.21	56.18	div toe in
P121	1154.97	838.24	55.81	div toe in
P122	1235.75	904.60	53.79	topo
P123	1218.16	954.55	59.05	ground@cleanout
P125	1237.33	944.44	53.59	road slope toe
P126	1218.02	953.92	58.76	riser pipe
P127	1224.42	965.35	58.84	tree edge
P128	1236.57	957.73	54.52	div top
P129	1238.94	952.45	53.61	div bot
P13	1092.28	1026.46	82.46	Road Toe @ Ditch
P130	1240.50	952.45	53.54	div top
P131	1244.88	952.46	52.12	stone cmr

P132	1250.26	943.46	52.12	ground@dischargepipe
P133	1268.68	926.19	51.78	stone crnr
P134	1269.57	922.56	53.04	earth slope top
P135	1277.65	910.19	53.32	tree edge
P136	1304.68	926.38	51.71	tree edge
P137	1296.13	941.60	51.78	berm top
P138	1296.17	945.93	50.20	stone edge
P139	1283.72	961.48	49.70	topo
P140	1266.24	980.42	49.28	stone edge
P141	1262.93	984.47	51.16	earth berm top
P142	1260.71	983.65	51.33	div top
P143	1259.69	984.39	50.74	div bot

P144	1257.12	987.35	51.13	tree edge
P145	1279.54	1012.00	49.93	tree edge
P146	1280.43	1010.11	49.35	div bot
P147	1282.50	1009.79	49.81	div top
P148	1289.22	1012.09	50.00	earth slope top
P149	1283.54	1002.49	48.80	stone edge, slope toe
P15	1083.41	1008.01	83.64	Road/Ditch
P150	1286.15	1005.52	49.34	ub1 edge
P151	1290.92	1005.29	47.10	stone toe d
P152	1296.66	983.94	48.83	stone toe u
P153	1300.69	986.90	49.45	ub1
P154	1304.72	989.86	47.10	stone toe d
P155	1315.84	960.29	49.28	stone edge, stone toe u
P156	1320.55	961.95	49.73	ub1 edge
P157	1323.89	967.33	47.96	stone edge, stone toe d
P158	1320.22	959.83	50.18	earth slope top
P159	1328.62	952.15	50.22	tree edge
P16	1090.46	1026.77	83.98	Uphill Road Toe/Ditch
P160	1346.29	963.53	49.42	eop
P161	1349.98	977.50	49.07	slope top
P162	1338.88	975.63	48.10	lb1 rebar-stream - TP
P163	1337.07	979.83	46.93	stone edge
P164	1326.72	1000.31	47.07	stone top
P165	1304.83	1023.73	46.24	stone edge
P166	1302.45	1024.48	46.51	lb1 rebar-trees - TP
P167	1300.72	1025.94	48.13	div top
P168	1298.34	1026.60	47.12	div bot
P169	1298.40	1030.36	47.73	tree edge
P17	1105.29	1029.34	84.90	Original Ground
P171	1313.56	1046.94	48.61	eop
P172	1314.91	1045.47	48.11	div bot
P173	1318.31	1041.81	48.80	div top
P174	1317.15	1039.31	47.83	stone toe
P175	1318.99	1041.07	48.51	ub2 edge
P176	1323.14	1042.06	46.88	stone toe d
P177	1339.19	1021.57	47.27	stone toe d
P178	1335.25	1017.74	48.49	ub2
P179	1331.95	1015.32	47.89	stone toe u
P18	1117.51	1034.36	84.89	Road Cut
P180	1351.60	988.16	47.65	stone toe
P181	1356.64	988.60	48.45	ub2 edge
P182	1359.95	994.31	46.54	stone toe d
P183	1357.61	986.78	48.85	berm edge
P184	1368.21	969.51	48.86	eop
P185	1377.14	1002.20	47.59	TP lb2 rebar-stream
P186	1337.20	1062.18	48.53	TP lb2 rebar tree
P188	1342.55	1084.95	48.57	eop
P189	1344.82	1082.39	47.94	div bot

P19	1125.49	1033.39	82.49	Road Edge
P190	1347.65	1081.40	48.25	div top
P191	1347.72	1074.87	47.15	stone edge, stone toe u
P192	1349.05	1079.28	47.96	ub3 edge
P193	1355.80	1083.16	46.05	stone toe d
P194	1373.67	1054.05	47.55	stone toe u
P195	1375.87	1056.95	47.97	ub3
P196	1380.47	1061.17	46.07	stone toe d
P197	1401.39	1028.41	47.08	stone edge, stone toe u
P198	1405.39	1031.40	47.91	ub3 edge
P199	1407.71	1036.92	45.92	stone edge, stone toe d
P2	1023.61	1013.09	92.99	N Gate Post
P20	1135.01	1039.13	82.49	Road Cut
P200	1407.27	1029.10	48.28	dike edge
P201	1416.72	1019.46	48.33	eop
P202	1423.93	1049.46	47.08	lb3 rebar - stream
P203	1363.20	1100.79	46.84	lb3 rebar-tree
P204	1375.77	1127.85	47.24	eop
P205	1376.96	1126.25	47.11	div bot
P206	1378.78	1118.80	46.61	stone edge, stone toe u
P207	1379.96	1122.25	46.95	ub4 edge
P208	1386.63	1123.22	44.94	stone toe d
P209	1402.62	1096.64	46.30	stone toe u
P21	1142.53	1038.90	80.48	Road Edge
P210	1405.01	1098.15	46.96	ub4
P211	1410.06	1103.00	44.71	stone toe d
P212	1433.48	1066.73	46.15	stone toe u
P213	1438.23	1067.80	47.00	ub4 edge
P214	1440.24	1072.39	45.40	stone toe d
P215	1440.44	1065.71	47.44	dam top
P216	1450.72	1057.55	47.68	eop
P217	1456.86	1084.82	46.22	lb4 rebar-stream
P218	1397.40	1139.98	46.06	lb4 rebar-tree
P219	1415.26	1164.42	45.45	div bot, eop
P22	1166.75	1049.22	78.44	Road Cut/Original Ground
P220	1417.76	1160.74	46.18	div top
P221	1420.49	1154.03	44.68	stone crnr
P222	1421.88	1158.21	46.38	berm crnr
P223	1454.99	1128.56	46.34	splwy stone edge
P224	1458.65	1126.34	45.86	splwy bot, pond edge
P225	1456.41	1123.93	44.62	stone edge
P226	1460.52	1123.52	46.51	splwy stne edge
P227	1476.80	1109.87	46.34	berm crnr
P228	1471.86	1107.29	45.02	stone crnr
P229	1484.09	1097.71	46.40	eop
P23	1173.80	1052.98	77.17	Ditch Bottom
P230	1490.44	1115.43	46.00	eop
P231	1485.24	1132.05	45.68	topo

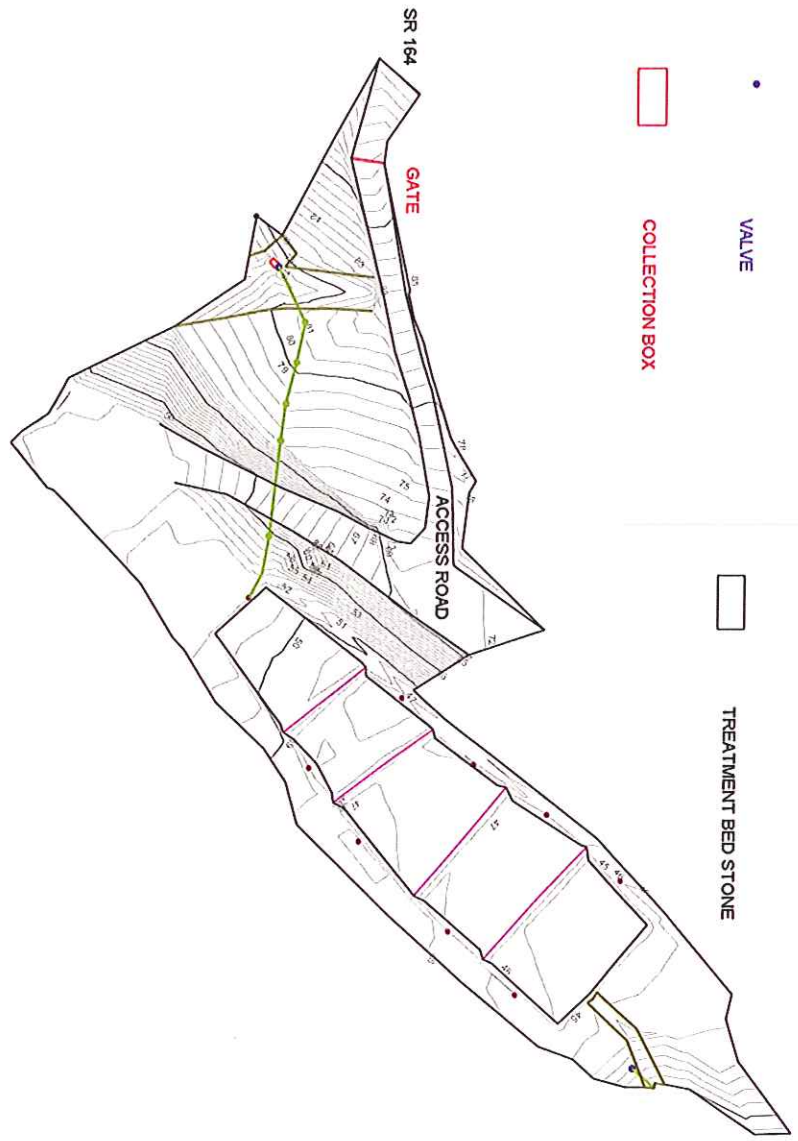
P232	1480.22	1144.22	45.20	splwy stone edge
P233	1477.39	1146.73	44.44	splwy bot
P234	1474.44	1149.15	45.31	splwy stone edge
P235	1456.79	1163.16	45.80	topo
P236	1435.32	1176.72	45.80	div edge
P237	1433.15	1179.75	45.52	div bot, eop
P238	1456.54	1198.82	45.64	eop
P239	1469.26	1196.18	45.15	eop
P24	1184.35	1054.18	77.47	Ditch Berm Top
P240	1491.30	1202.75	44.14	eop
P241	1495.84	1192.18	44.28	topo
P242	1483.33	1175.79	44.78	topo
P243	1528.66	1230.60	38.66	eop
P244	1529.59	1211.65	38.59	eop
P245	1505.64	1177.03	40.03	eop
P246	1503.57	1164.25	40.05	splwy stone edge
P247	1502.78	1158.82	40.32	splwy bot, eop
P248	1505.20	1158.40	39.64	ground@dischargepipe
P249	1504.74	1153.85	40.30	splwy stone edge, eop
P25	1189.15	1062.44	75.90	Ditch Bottom
P250	1505.04	1143.65	41.91	eop
P251	1495.11	1147.10	44.05	valve riser
P252	1492.26	1139.39	44.51	topo
P253	1500.52	1126.53	44.86	eop
P254	1476.45	1164.54	45.23	topo
P256	1167.59	873.14	55.62	wl survey stake
P257	1084.78	795.49	58.78	wl
P259	1259.17	1029.49	70.91	wl
P26	1195.30	1059.08	76.50	Ditch Berm Top
P260	1185.36	1008.88	61.99	wl
P261	1293.34	1112.84	71.29	wl
P263	1192.84	837.06	55.63	eop
P264	1226.29	870.93	54.81	eop
P265	1228.79	885.44	53.46	topo
P266	1242.79	886.37	53.32	eop
P267	1270.84	903.62	52.99	bs tree w/ribbon
P27	1193.44	1049.84	76.18	Road Edge
P28	1166.20	1032.53	78.54	Road Top
P29	1160.71	1026.03	78.15	Road Fill Toe
P3	969.57	1009.89	99.74	SR164
P30	1145.44	1026.90	80.60	Road Top
P31	1136.75	1019.86	80.67	Road Fill Toe
P32	1122.53	1019.42	83.17	Road Top
P33	1203.13	1027.77	74.58	Topo
P34	1210.79	1016.37	73.23	Topo
P35	1208.44	1004.08	73.13	Topo
P36	1192.39	985.24	73.99	Topo
P37	1171.46	956.54	75.30	Topo








P38	1145.80	930.11	75.31	Topo
P39	1108.60	903.68	75.20	Topo @ Ditch
P4	987.82	1031.74	100.27	SR164
P40	1104.42	930.36	77.97	Topo @ Ditch
P41	1099.57	962.07	80.49	Topo @ Ditch
P42	1106.87	971.91	81.37	Pipe 1 Ground
P43	1127.73	967.57	80.38	Pipe 2 Ground
P44	1149.29	962.17	78.35	Pipe 3 Ground
P45	1168.39	959.48	76.28	Pipe 4 Ground
P46	1131.92	950.34	78.58	Topo
P47	1152.30	990.57	77.92	Topo
P48	1105.30	1010.23	83.92	Road Toe/Ditch Edge
P49	1099.18	980.71	81.27	Ditch Edge
P5	1012.47	1014.34	94.87	Road Edge
P50	1087.47	963.28	77.85	Ditch Bottom
P51	1077.96	957.78	77.50	Valve Ground
P53	1224.37	1055.33	74.78	TP tree w/ ribbon
P54	1253.08	1020.83	70.39	TP golden rod
P55	1108.51	974.40	81.36	Pipe1-2 ground
P56	1130.18	969.49	80.35	Pipe2-2 ground
P57	1099.79	978.22	81.05	stone edge
P58	1100.11	951.51	79.86	stone edge
P59	1090.04	966.62	78.17	ww bottom
P6	1012.69	1005.92	96.12	Road
P60	1084.32	955.40	77.67	ww bottom
P61	1079.83	958.51	78.96	valve riser top
P62	1078.38	955.66	75.67	box crnr ground
P63	1074.74	952.24	75.11	box crnr ground
P64	1077.65	954.98	78.88	box crnr
P65	1074.01	951.55	78.79	box crnr
P66	1075.48	957.41	78.93	box crnr
P67	1073.09	954.05	78.82	box crnr
P68	1076.92	954.29	75.59	box invert
P69	1078.88	949.53	75.41	channel bottom
P7	1067.22	974.20	96.01	Road
P70	1084.11	940.21	74.84	channel bottom
P71	1077.71	960.97	79.33	stone edge
P72	1071.02	967.00	81.13	stone edge
P73	1061.45	959.65	81.03	stone edge
P74	1069.33	950.75	78.21	ww stone edge
P75	1051.53	945.81	79.33	2nd pipe
P76	1100.86	1007.68	83.90	stone edge
P78	1233.52	1051.14	71.73	road cut toe
P79	1266.90	1099.12	72.60	road edge
P8	1009.63	987.22	93.16	Road Toe
P80	1279.86	1059.29	71.83	old road edge
P81	1214.54	1007.14	67.98	access road
P82	1230.94	991.33	67.36	road edge

P83	1205.27	990.10	65.71	slope toe @ road
P84	1214.63	965.23	63.85	bank top
P85	1193.19	960.83	61.62	slope toe
P86	1196.34	931.42	58.49	bank top
P87	1172.40	918.53	56.70	slope toe
P88	1190.38	903.76	55.34	slope point
P89	1163.04	902.00	56.76	TP tree dischargeside
P9	1024.69	1003.91	93.87	Road @ Gate
P90	1179.87	844.10	55.49	TP tree streamside
P92	1270.06	906.12	53.20	TP TS-tree
P93	1237.18	950.26	54.63	TP TS-stake
P94	1305.51	1021.48	50.70	lb1 rebar treeside
P95	1393.96	809.36	51.61	lb2 rebar treeside
P96	1333.24	771.32	50.76	lb2 rebar streamside
P97	1305.60	814.22	51.33	lb1 rebar streamside
P98	1167.06	872.60	55.77	wl

This Project Points data was compiled from the following surveys entered into SET:

Survey		Survey Translation				
Name	Type	Mode	Rotation	Delta X	Delta Y	Delta Z
TroutRunAB	RadialSurvey	None	---	---	---	---



-  PIPELINE WITH CLEANOUTS
-  VALVE
-  COLLECTION BOX
-  UPPER BAFFLE
-  TREATMENT BED STONE
-  LOWER BAFFLE REBAR
-  STONE

LEGEND	
Border	—
Contour Labels	123
Major Contours	—
Minor Contours	—
Outline	—



As Built Survey
Trout Run As Built Survey

	Date
Designed	
Drawn	L.A.Kopczyk 10/17/12
Checked	
Approved	
EFT Version 3.0.6.2	

File Name	Copy of TROUT RUN AB FINAL.xml
Drawing Name	Trout Run Project
	10/19/2012
Sheet	___ of ___