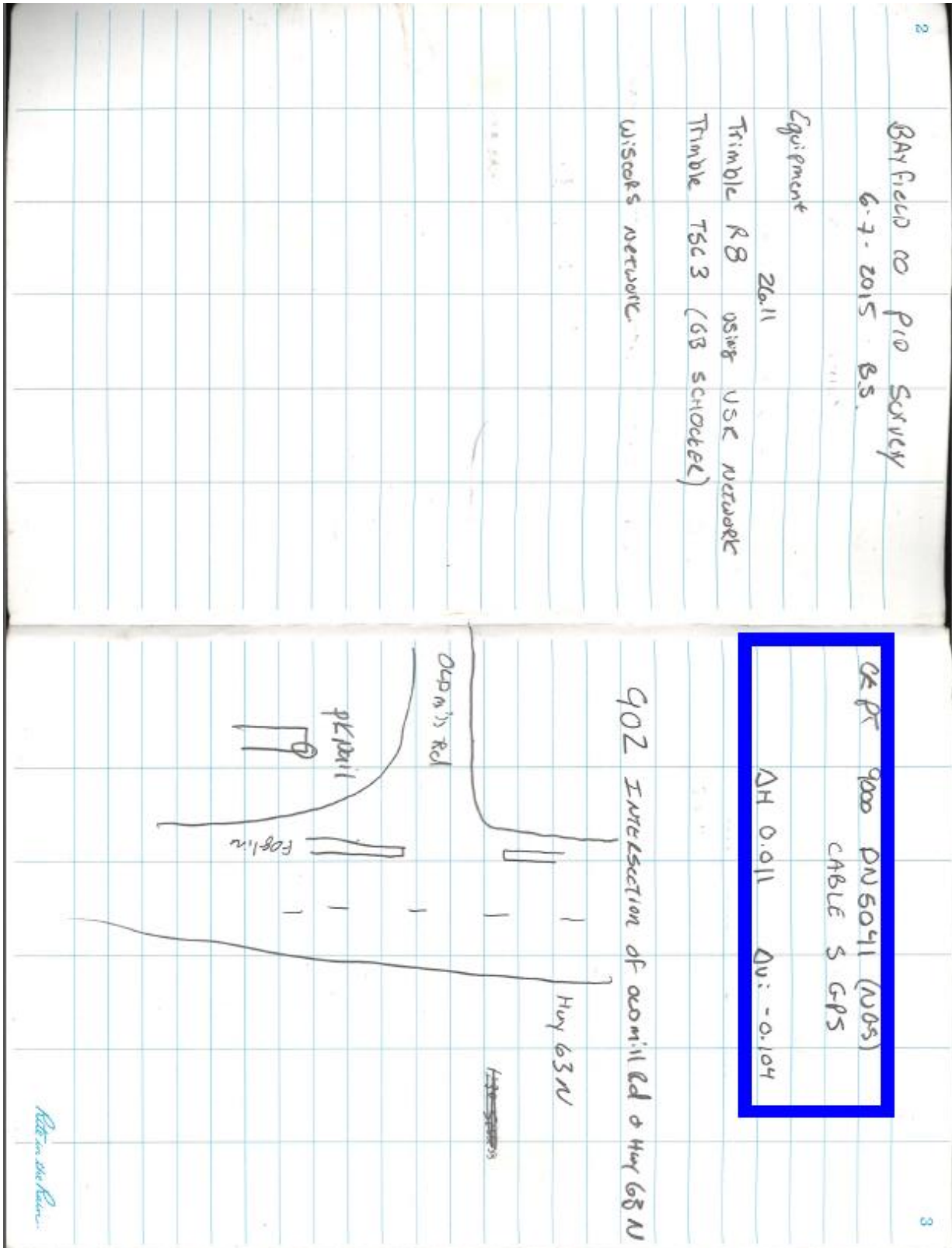


1.1.2.2 Bayfield County calibration points

WISCRS Bayfield County, NAD83 (2011), US survey feet; NAVD88 (Geoid 12A), US survey feet:

Point Number	Easting	Northing	Elevation	Description
103V	751412.45	335537.71	1443.54	Calibration
104V	802689.71	332939.72	1420.17	Calibration
105	717725.72	353038.29	1469.59	Calibration
105A	717731.57	353090.80	1469.96	Calibration
107	797256.38	372932.02	1131.02	Calibration
107A	797183.56	372887.03	1130.43	Calibration
108	775657.96	402601.74	947.12	Calibration
109	675625.64	411087.50	1285.96	Calibration
110	720446.79	415395.94	1026.70	Calibration
111	761542.53	377107.40	1060.28	Calibration
112	720022.82	382820.01	1291.13	Calibration
112A	720026.20	382758.32	1289.67	Calibration
113	651806.99	446297.80	1104.87	Calibration
114	690981.79	449103.16	1134.72	Calibration
115	743514.35	436881.01	981.18	Calibration
115a	743608.11	436869.25	981.79	Calibration
116	799450.53	457067.73	611.25	Calibration
117	816344.01	489414.98	668.34	Calibration
118	834987.72	539069.41	614.93	Calibration
119	840993.99	565034.48	720.54	Calibration
120	815717.29	588216.08	625.11	Calibration
121	806796.44	568160.20	840.93	Calibration
122	762391.80	555383.77	610.40	Calibration
123	723822.79	548069.33	608.76	Calibration
124	691285.63	525979.11	672.22	Calibration
125A	659608.62	519184.39	633.77	Calibration
125B	656418.53	517973.08	639.77	Calibration
126V	720054.78	467539.70	1264.03	Calibration
127	773704.11	510087.93	1250.54	Calibration
128H	725409.95	515369.13	1068.58	Calibration
128V	725423.57	515363.15	1068.76	Calibration
129H	771037.05	483814.85	1151.70	Calibration
129V	771051.06	483762.53	1152.63	Calibration
130	815963.73	517819.99	608.42	Calibration
131	785396.29	536171.36	958.61	Calibration
132	775547.39	461214.68	1050.55	Calibration
133A	675716.08	470137.07	1008.79	Calibration
134	775116.46	432927.75	868.90	Calibration

1.1.3 Field Notes



1.1.3 Field Notes (continued)

4

902 INTERSECTION OF RABBIT HOLE RD
HWY 27 NORTH

901

906 INTERSECTION OF HWY 27 W AND CTH W

4

105A

105 INTERSECTION OF HWY 63 & PIERCE RD

105A

105

Pierced Rd

ATV Trail

Fogline

PK Nail

EOP

5

CEPT 9001 DO BILL UGS
E40 CLAIR LAKES GPS
AH: 0.046 DV: 0.062

5

Ritter on the River

1.1.3 Field Notes (continued)

6

103 V INTERSECTION OF FR 212
Pioneer Rd WITH PRIVATE DRIVE

MOVE NORTHWEST BY 150 YARD TO GET
CELL COVERAGE FOR
INTERSECTION OF FR 212 AND
CANTERBURY TR. CLACK PENN

CPT DN 4998 NAMAKAGAW SE GPS (N85)
 9002 ΔN: -0.005 ΔE: 0.011
 ΔV: OUT 0.093

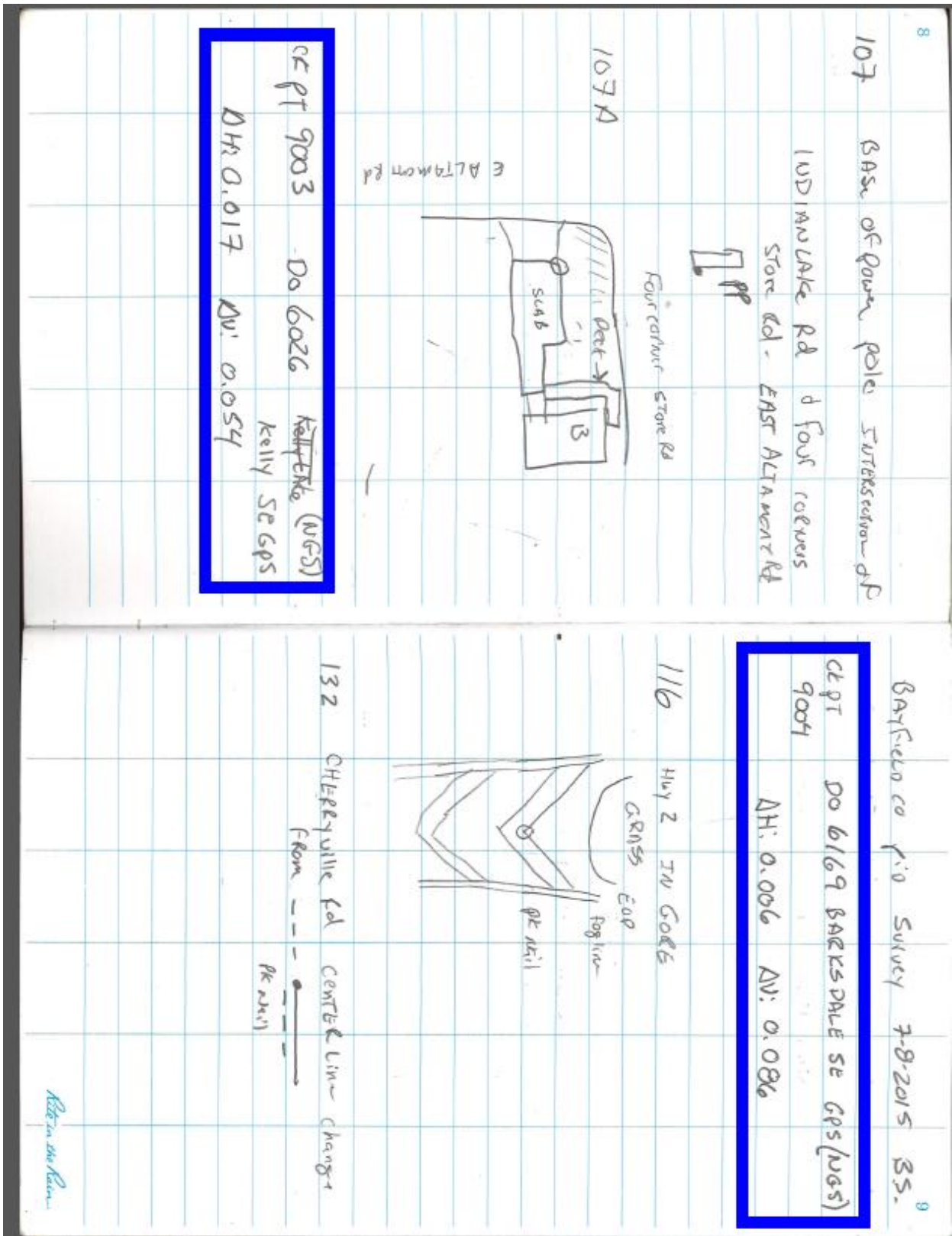
7

904 INTERSECTION OF CTH M & OLD GRADLE RD


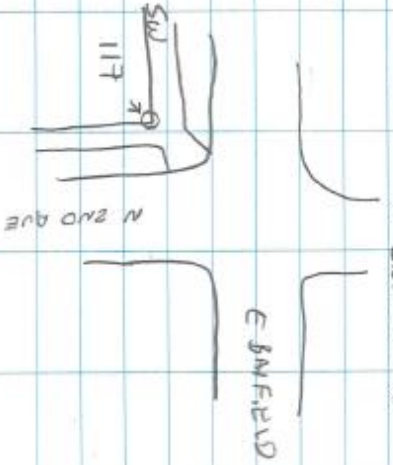
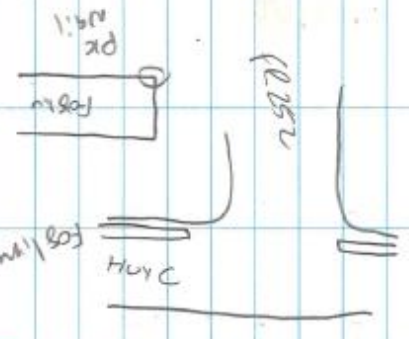
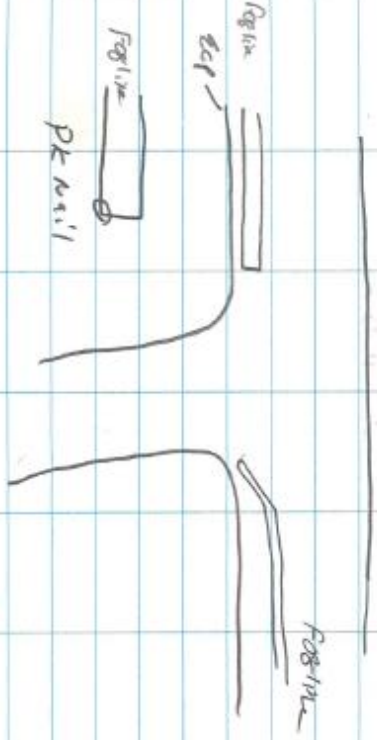
104V INTERSECTION OF SNAKE TRAIL RD & FR 196

Return to the Room

1.1.3 Field Notes (continued)

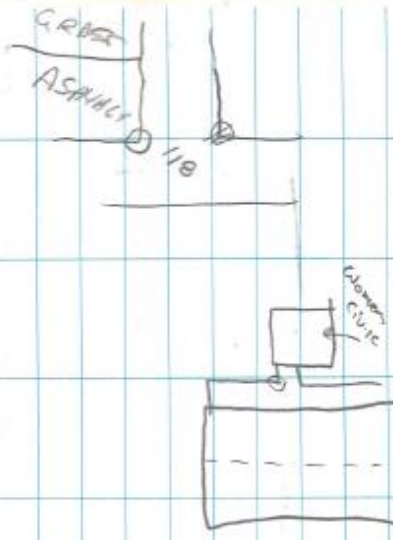




1.1.3 Field Notes (continued)

10	<p>129H Intersection of FR 251 & FR 252</p> <p>129H Base of Stop Sign</p> <p>129V CL + CL of Intersection</p>	
<p>Placed mini wifi; IN BAG placed on top of 25Foot survey Rod MATT H TIDEN looks great!</p>	<p>117 Intersection of E Duffield St and N 2nd Ave E</p>	
11	<p>127 Intersection of Hwy C & FR 252</p>	
<p>130 Intersection of Hwy 13 & McCulloch Rd</p> <p>End of PK Fog line</p>		

Return to Room

1.1.3 Field Notes (continued)

<p>118</p> <p>AT THE END OF RITTON HOUSE AVE NEXT TO Bayfield WOMEN'S CIVIC LEAGUE WAITING PAULION</p> 	<p>CLPT DOG153 Red cliff APS (UGS)</p> <p>90054 NO Cell coverage</p>	<p>119</p> <p>INTERSECTION OF N BROADWAY RD + RED RESU HWY 1</p> 	<p>121</p> <p>INTERSECTION of Hwy 13 & HOULT Rd</p> 
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1.1.3 Field Notes (continued)

14

120 SAND BAY PARK near east Rooms

122 Intersection of Hwy 13 & Superior St
Town of Cornucopia WI

15

131 ON STATE Rte Rd

DEPT BACK BAY GPS (NCS)

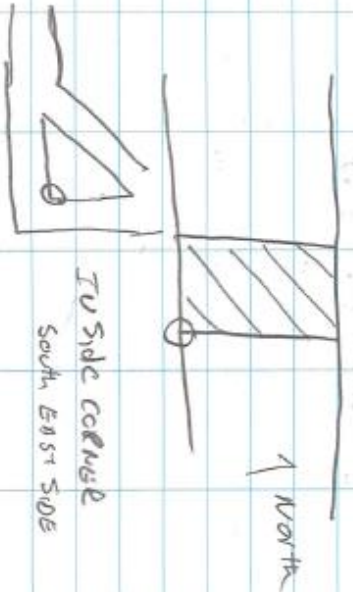
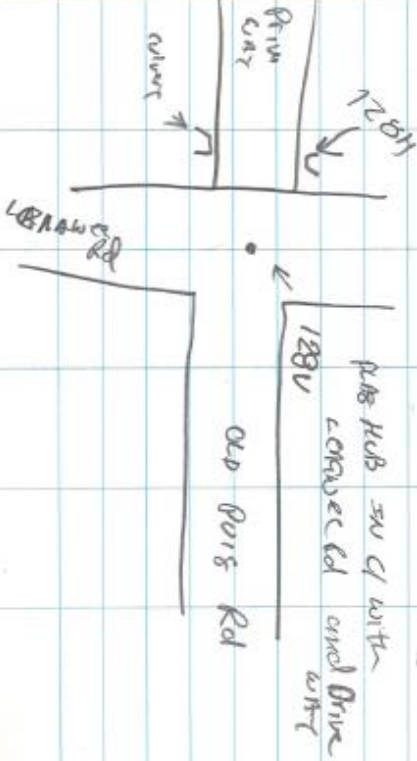
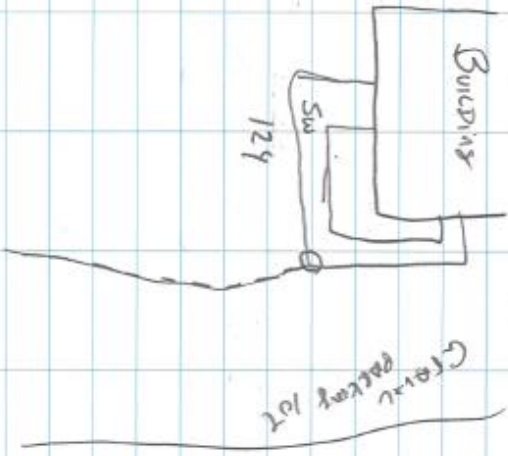
9004
Dip: Something wrong H 63275.3
V 3.3 Remainsd below

9005
checky pt Agiaw:
AM: -0.010 DE: -0.010
AV: Fill 0.023

9006 Remessum DH: 0.027 AV: 0.032

Reference on Notes

1.1.3 Field Notes (continued)

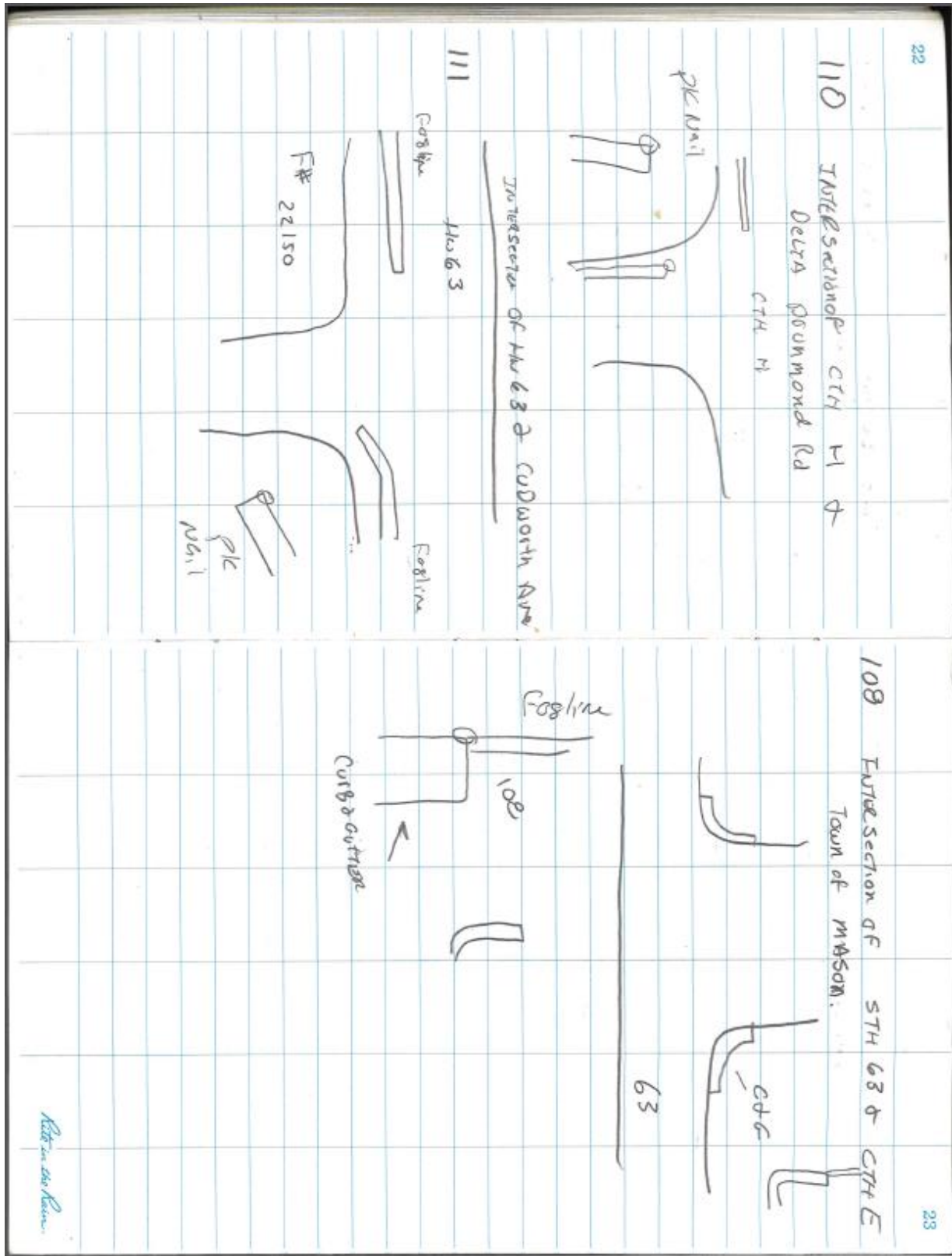
<p>16</p> <p>123 BANK POINT Rd cross walk paint</p>  <p>128 Intersection Lengueded + OLD Purg Rd</p> 	<p>17</p> <p>128H STOP SIGN HAS BEEN PULLED FROM LOCATION</p> <p>will use north end of C</p> <p>convent. IN private DR</p> <p>FE# BLOOS for private DR</p> <p>124</p> <p>Intersection Port wing AREA MUSEUM + Library.</p>  <p>Rickman and Kline</p>
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1.1.3 Field Notes (continued)

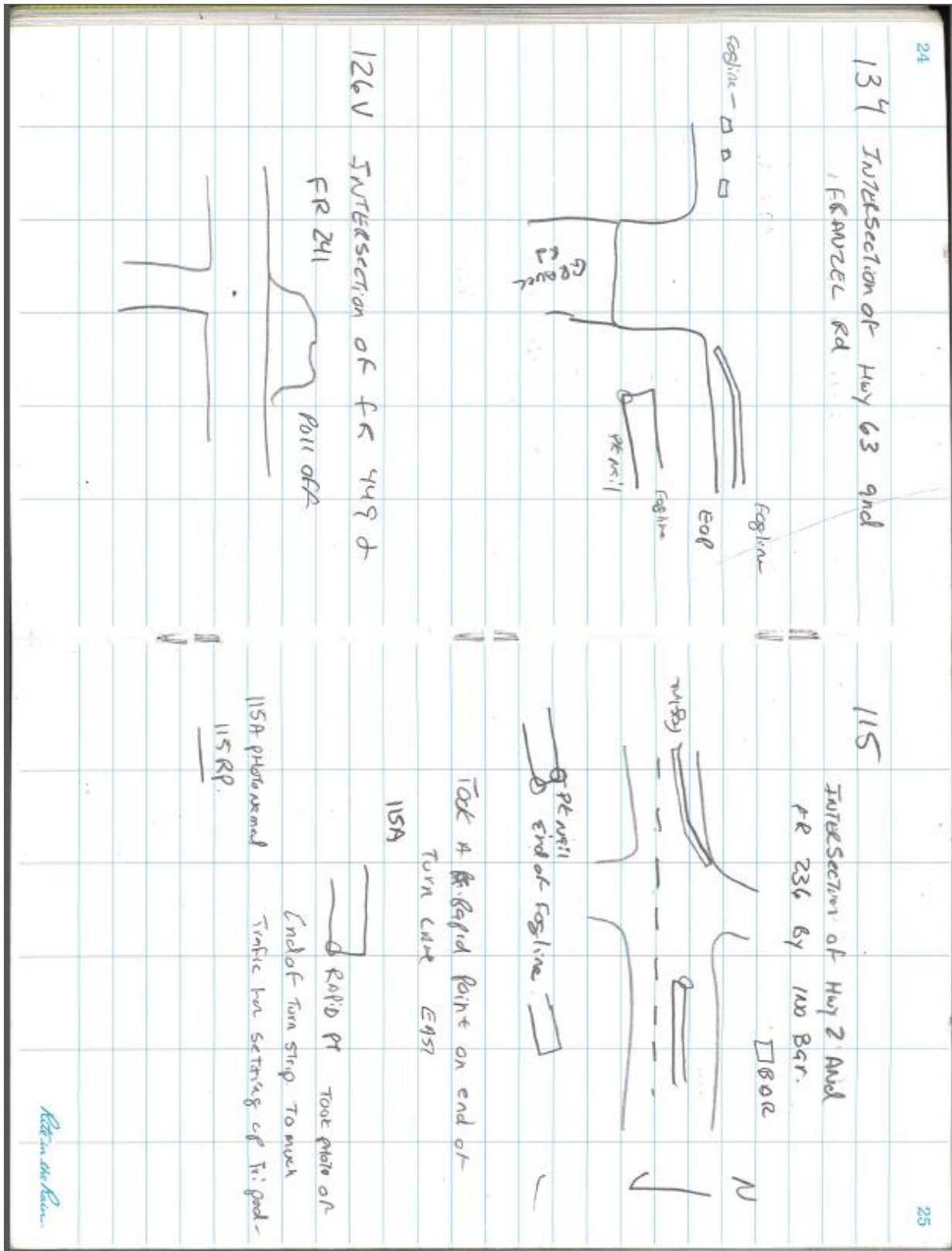
<p>125A</p> <p>May 13 by pole over next to UGS pt 006173 good cell coverage no cell coverage at original pt.</p> <p>Fog line</p> <p>125A</p>	<p>18</p> <p>ck pt 006173 ORIENTA N GRS (UGS)</p> <p>9007 DH: 0.039 DV: 0.100</p> <p>9008 DV: 0.023 DF: 0.003 DV: 0.073</p>
<p>133A</p> <p>1/2 mile north of Hwy B, North End of Odell power mermaid park FH# 72180</p>	<p>19</p> <p>125 B Hwy 13 & Lake Rd Fog line</p> <p>Lake Rd</p> <p>ck</p>

Ayres Associates

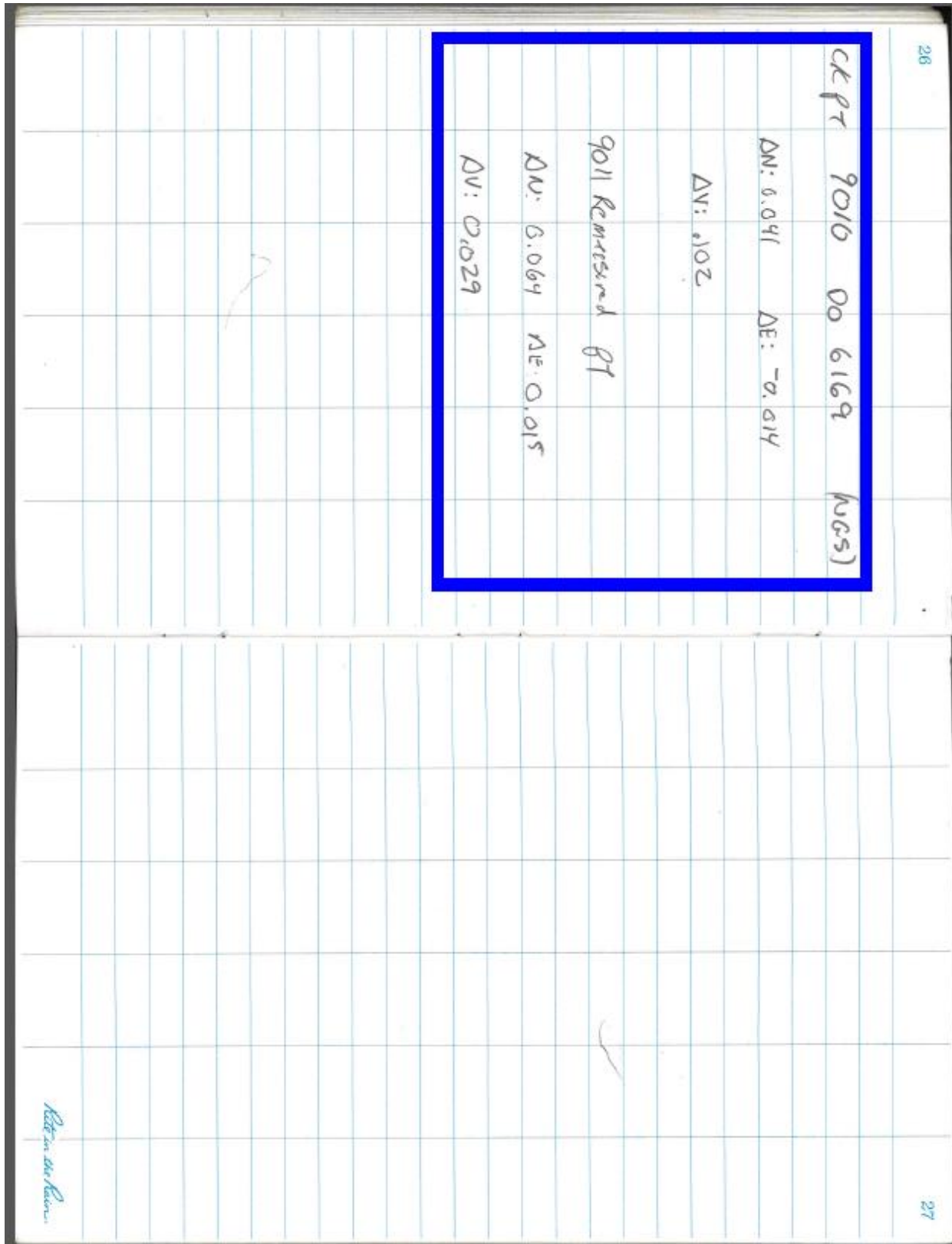
1.1.3 Field Notes (continued)



1.1.3 Field Notes (continued)



1.1.3 Field Notes (continued)



26

ckpt 9016 DO 6169 (NGS)

DN: 0.041 DE: -0.014

DV: 0.102

9011 Remesind RT

DN: 0.064 NE: 0.015

DV: 0.029

27

Peter de K...

1.1.4 Bayfield County LiDAR, calibration point statistics

The final step in using the calibration points is to run a statistical comparison against the raw swath surface to confirm that the vertical accuracy is within specification. The follow results indicate that the overall RMSEz of the calibration points is 0.163'. This is a separate check as compared to the Vertical Accuracy Report. These points are used in the calibration of the raw point cloud, and therefore are not an independent set of checkpoints like those used in the vertical accuracy testing.

1.1.4.1 Statistical Report for calibration points (US Survey Feet):

Number	Easting	Northing	Known Z	Laser Z	Dz
103V	751412.45	335537.71	1443.54	1443.37	-0.17
104V	802689.71	332939.72	1420.17	1420.23	+0.06
105	717725.72	353038.29	1469.59	1469.44	-0.15
105A	717731.57	353090.80	1469.96	1469.90	-0.06
107	797256.38	372932.02	1131.02	1131.09	+0.07
107A	797183.56	372887.03	1130.43	1130.66	+0.23
108	775657.96	402601.74	947.12	947.25	+0.13
109	675625.64	411087.50	1285.96	1286.02	+0.06
110	720446.79	415395.94	1026.70	1026.68	-0.02
111	761542.53	377107.40	1060.28	1060.20	-0.08
112	720022.82	382820.01	1291.13	1290.77	-0.36
112A	720026.20	382758.32	1289.67	1289.60	-0.07
113	651806.99	446297.80	1104.87	1104.89	+0.02
114	690981.79	449103.16	1134.72	1134.79	+0.07
115	743514.35	436881.01	981.18	981.44	+0.26
115a	743608.11	436869.25	981.79	982.05	+0.26
116	799450.53	457067.73	611.25	611.21	-0.04
117	816344.01	489414.98	668.34	668.59	+0.25
118	834987.72	539069.41	614.93	614.85	-0.08
119	840993.99	565034.48	720.54	720.70	+0.16
120	815717.29	588216.08	625.11	624.95	-0.16
121	806796.44	568160.20	840.93	840.76	-0.17
122	762391.80	555383.77	610.40	610.67	+0.27
123	723822.79	548069.33	608.76	608.80	+0.04
124	691285.63	525979.11	672.22	672.22	+0.00
125A	659608.62	519184.39	633.77	633.77	+0.00
125B	656418.53	517973.08	639.77	639.85	+0.08
126V	720054.78	467539.70	1264.03	1264.13	+0.10
127	773704.11	510087.93	1250.54	1250.47	-0.07
128H	725409.95	515369.13	1068.58	1068.29	-0.29
128V	725423.57	515363.15	1068.76	1068.79	+0.03
129H	771037.05	483814.85	1151.70	1151.57	-0.13
129V	771051.06	483762.53	1152.63	1152.49	-0.14
130	815963.73	517819.99	608.42	608.53	+0.11
131	785396.29	536171.36	958.61	958.22	-0.39
132	775547.39	461214.68	1050.55	1050.38	-0.17
133A	675716.08	470137.07	1008.79	1008.96	+0.17
134	775116.46	432927.75	868.90	868.95	+0.05
Average Dz	0.001				
Minimum Dz	-0.390				
Maximum Dz	0.270				
Root Mean Square	0.163				
Standard Deviation	0.170				