

Explosives Log 2020 10/11 Sat.

Laying out at 23 sites North of new HWD site 4" north of camp, 2x sets of 10m^{spaced} drill holes @ 50-120m N and NNE of HWD 4", then 3 add'l sites 10m^N from the HWD along lines between these & far bore hole installations. 23 sites at 2m deep, HWD sites @ 40, 30, 20m^{deep} deep, 3 charges (400g^{each}) per hole at diff depths. The 23x 2m sites will have 2x 150g Pentex charges, the 4x HWD expl. sites will have 1x 400g Pentex at each depth. All sites GPS'd.

Layout team: Hannah Bowman, Franz Lutz, B.a. GPS'ing by Holly
pardon snow + cold water to freeze in.

11th Jan 2020 Dets used: 27 150g Pentex: 46 400g Pentex: 4

<u>Time</u> in ground	<u>site</u> descr.	<u>depth</u> ice surf.	<u>what</u>	<u>lat/lon</u>
12:40p	800m N of HWD 4"	2.0	2x 150g + Det Pentex	Took 10L water to fill
12:55	600m N	2.0	2x 150g + Det	
12:59	400m N along glacier flow line	2.0	2x 150g + Det	
13:08	200m N of HWD 4"	2.0	2x 150g + Det	
13:20	800m NNE of HWD 4" line x-2019 borehole	2.0	2x 150g + Det	*crack 1m down hole, fill w/ water at surf.
13:40	(skipped 600m, used moraine) 400m NNE of HWD 4"	2.0	2x 150g + Det	Took heaps of water to fill
14:00	200m NNE of HWD 4"	2.0	2x 150g + Det	
14:21	10m N of HWD 4"	10 20 30 40	1x 400g + Det 1x 400g + Det 1x 400g + Det 1x 400g + Det	

time NEDT	Site descr:	depth	
14:30	120 _m N of HWD	2.0m	2x 150g Pentax + Det
.	100 _m "	2.0	"
.	100 _m "	2.0	" → In softer snow
.	90 _m "	2.0	"
.	80 _m "	2.0	"
.	70 _m "	2.05	"
.	60 _m "	2.05	"
14:50	50 _m N of HWD	2.05m	"
15:00	120 _m NNE of	2.0 m	2x 150g Pentax + Det
.	110 HWD "4"	2.0	"
.	100	2.0	"
.	90	2.0	"
.	80	2.0	"
.	70	2.0	"
.	60	2.0	"
15:20	50 _m	2.0m	"

- End of work for the day -

* All charges successfully detonated 13 Jan 2020 *

Surveys

① // to Flow line B4-B2

② Diagonal B4-B2

③ ⊥ to Flow line B1-B2-B3

④ Diagonal B3-B4 (ish)

12, 4, 5, TT

F	10	50	60	70	80	90	100
		200	400	600	800	...	

13/1/20

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Shot	Time U20T	(SM1) 12 (L)	4 (D)	(SM3) 5 (BU)	Comments
TEST	1214	12001	—	5003	
TEST	1216	12002	4001	5004	
TEST	1218	12003	4002	5005	
F50m	1232	12010	4009	5012	no blowout, frozen
F60m	1242	12015	4014	5017	
F10m (A)	1250	12019	4018	5021	40m depth exp.
F10m (B)	1256	12022	4021	5024	30m depth
F10m (C)	1302	12025	4024	5027	20m depth
F10m (D)	1308	12028	4027	5030	10m depth
F70m	1316	12032	4031	5034	flying flag, most action
F80m	1322	12035	4034	5037	
F90m	1330	12039	4038	5041	
F100m	1338	12043	4042	5045	
F110m	1344	12046	4045	5048	cracked ice =
F120m	1350	12049	4048	5051	HAPPY BIRTHDAY FRANZ
F200m	1400	12054	4053	5056	
F400m	1410	12059	4058	5061	
F600m	1420	12064	4063	5066	
F800m	1430	12071	4070	5072	

at 2m depth unless otherwise stated

13/1/20 (2)

<u>Shot</u>	<u>Time NZDT</u>	<u>12 (L)</u>	<u>4 (D)</u>	<u>6 (H)</u>	<u>Comments</u>
50m	1802	12116	4103	6013	moving flag
60m	1808	12119	4106	6016	6 didn't show up on LPA
70m	1814	12122	4109	6019	
80m	1822	12126	4113	6023	
90m	1830	12130	4117	6027	Big fine work
100m	1836	12133	4120	6030	
110m	1842	12136	4123	6033	
120m	1848	12139	4126	6036	
200m	1858	12144	4131	6041	
400m	1910	12150	4137	6047	
800m	1928	12159	4146	6056	no 100m - on morning

Explosives Log Wed. 15 Jan 2020

Laying out at 19 sites total; East of new HWD "3" installation which is over the moraine from camp on the way to black ridge. One site will be HWD'd to approx. 40m depth this morning for a vertical series of charges at (if enough hose) 40m, 30m, 20m, and 10m depths. These will be 400g Pentax at each depth. This site is 10m East (perpendicular to flow) of HWD3 gasphone installation. From there two lines spread out in lines perp. to glacial flow in line of sight to Drill tent in camp and out to new HWD "4" North of camp. These lines will have charges at 50-120m distant at 10m intervals, then a final one at 200m from HWD3. The near 8 are drilled to 1m of hard ice for sites 4-8 of each line. All others including 200m distant are drilled to 2m before freezing in with water. 1.2m deep will use 150g x 2 except for the two 80ms which will only have 1x. Layout team + GPSing same as for two previous HWD4 spreads.

Hannah Bowman, Franz, Bia deploying the charges, Holly doing the GPS.

Dets used: 22 150g Pentax: ~~34~~ 400g Pentax: 4.

Time in ground	Site descr.	depth from ice surface	what	lat/lon, comment
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- Run out of 150g Pentax charges, nearest 1m deep site to HWD3 will use 1 charge not two (at 80m) -

12:05 pm	200m E of HWD3 on line from drill tent to HWD3	2.0m	2x 150g Pentax + Det.	
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12:15 p.	200m SE of HWD3 on line from HWD4 to HWD3	2.0m	2x 150g Pentax + Det.	
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12:30 p	120m E of HWD3	1.0m	2x 150g + Det.	
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12:36 p	110m E of HWD3	1.6m	2x 150g + Det	
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12:40 p	100m E of HWD3	1.0m	2x 150g + Det	
12:45 p	90m E of HWD3	1.0m	2x 150g + Det.	

<u>NZDT</u> <u>time</u>	<u>site</u>	<u>depth</u>	<u>what</u>	<u>lat/lon, comments</u> ⁴
12:55p	120m SE of HWD3	1.0m	2x150g Pentax+Det	
13:00	110m SE of HWD3	1.0m	2x150g Pentax+Det	
13:05	100m SE of HWD3	1.0m	2x150g+Det.	
13:09	90m SE of HWD3	1.0m	2x150g+Det.	
13:15	80m SE of HWD3	1.0m	1x150g+Det	
13:20	70m SE of HWD3	2.0m	2x150g+Det.	
13:25	60m SE of HWD3	2.0m	2x150g+Det	
13:30	50m SE of HWD3	2.0m	2x150g+Det.	
13:40	80m E of HWD3	1.0m	1x150g+Det.	
13:45	70m E of HWD3	2.0m	2x150g+Det.	
13:48	60m E of HWD3	2.0m	2x150g+Det	
13:52	50m E of HWD3	2.0m	2x150g+Det	
15:05	~10m E of HWD3	40m	1x400g Pentax+Det	
		30m	1x400g - Det	
		20m	1x400g+Det.	
		10m	1x400g+Det.	

- All in the ground now & freezing in.

All shots successfully fired Jan 16, 2020. 1m deep holes except 150g's

blew out < 5m, all deeper holes did not blow out.

n.b. SE line does not align to HWD "4".

16/1/20 (3)

Shot	Time NZDT	12 (D)	4 (B)	3 (L)	Comments
P50m	1152	12521	4532	3011	2m deep unless stated !!
P60m	1202	12526	4537	3016	* geophones 2 & 4 in snow not ice *
P10m A	1210	12530	4541	3020	60m deep
P10m B	1216	12533	4544	3023	30m deep
P10m C	1222	12536	4547	3026	20m deep by Lisa
P10m D	1228	12539	4550	3029	10m deep by Holly
P70m	1238	12544	4555	3034	
P80m	1250	12550	4561	3040	1m deep - timer issue? no spunge less for all
P90m	1414	12592	4603	3079	1m deep blowout 30m?
P100m	1436	12603	4614	3090	1m deep "
P110m	1446	12608	4619	3095	1m deep "
P120m	1504	12616	4628	3104	1m deep "
P200m	1514	12621	4633	3109	

all 1m deep = 300g exp +
2m deep unless stated !! (4)

50m	1810	12807	4814	3122
60m	1818	12811	4818	3126
70m	1824	12814	4821	3129
80m	1832	12818	4825	3133
90m	1838	12821	4824	3136
100m	1846	12825	4832	3140
110m	1854	12829	4836	3144
120m	1902	12833	4840	3148
200m	1914	12839	4846	3154