

VELERO/DELTA - 2002

Date: 9-23-2002	Dive #: 5716	Grid No(s): C 4	Location: Curdall Bank			
Observer / Pilot: Howard / CHRIS JAMES		Recorder: Roberts				
Time Down: 07:52	Time Up: 09:00	APPROXIMATELY				
Water Visibility: 40 Ft. +	Weather Conditions: Overcast	SIX - GIELING 300ft				
Comments: Swell ~ 2 ft	from ~ 330	WIND - light wind chop - DO white				
how ambient light at surface due to thick overcast.						
FIRST DIVE OF 2002						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
08:07	38-03.51	123-29.14	108	045	Boulder	VIS = 40 FT. BEGIN TRANSECT A
08:12	38-03.56	123-29.07	85	045		2 other pieces boulder seen * 1 dive
08:17	38-03.58	123-29.02	92			END TRANSECT A
08:22	38-03.58	123-28.96	97			RUNNING TO NEXT TRANSECT
08:22	38-03.61	123-28.98		360		longline seen
08:29	38-03.62	123-28.94	85	045	Boulder	Start Transect B
08:34	38-03.68	123-28.86	78			
08:39	38-03.69	123-28.83	83			
08:44	38-03.70	123-28.74	90			END OF TRANSECT B

320  
- 160  
160

VELERO/DELTA - 2002

Date: 9/23/2002	Dive #: 5717	Grid No(s): C6	Location: CORDEL BANK			
Observer / Pilot: DAVE ROBERTS / DAVE SLATER	Recorder: MICHAEL CARNER					
Time Down: 9:20	Time Up:					
Water Visibility:	WEATHER CONDITIONS: OVERCAST SKY CURRENTS x 400FT WIND - 8-10 KTS OUT of NW SWELL - 3' 8 SECONDS 330°					
Comments: - ALL HEADINGS ARE IN TRUE NORTH FOR 02' DELTA CRUISE -						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
09:20	38-03.329	123-27.044	0	0	0	SUB C SURFACE
09:26	38-03.3623	123-27.0392	75M	130°	SEDIMENT BOULDER	TRANSECT A BEGINS
09:31	38-03.3615	123-27.0195	75M	130°	SAND	
09:36	38-03.2794	123-26.9640	81M	130°	BOUNDARY ROCK	
09:41	38-03.2323	123-26.9038	74M	140°		
09:45	38-03.1747	123-26.8582	73M	-	-	END TRANSECT A
09:51	38-03.1866	123-26.7139		EAST	-	TRANSITIONING
09:51:30	38-03.1866	123-26.7139	64M	130°	-	START TRANSECT B
09:57	38-03.1383	123-26.6494	72M	-	-	-
10:02	38-03.0984	123-26.6142	74M	145°	-	-



VELERO/DELTA - 2002

Date:	9/23/2002	Dive #:	5718	Grid No(s):	C8	Location:	NE Corner Cardell	
Observer / Pilot:	MICHAEL CARLIER / DE LILLY							
Time Down:	1036 <sup>hr</sup> water	Time Up:	1129 <sup>@ surface</sup>	Recorder:	Don Howard			
Water Visibility:		Weather Conditions: Swell 2-4' wind waves 1-2' foggy - medium ceiling						
Comments:	on bottom 105m - 104 hrs sandwaves, stopped transect A for 2 min							
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment		
1044	38° 03' 30.53	123° 25' 09.57	105	270°	Sand waves	Start 5718A 270°		
1049	38° 03' 34	123° 25' 20	107	270°	Sand	stop transect		
1051						resume transect		
1052	38° 03' 34	123° 25' 22			Habitat A to sandcut	Habitat change		
1057	38° 03' 36	123° 25' 29	102	242°	sand/rock			
1101	38° 03' 39	123° 25' 39	100	245°	boundary sand	END 5718 A		
						5 min run north		
1107	38° 03' 44	123° 25' 38	102		Sand	START 5718B		
1111	38° 03' 45	123° 25' 44	100			longline		
	38° 03' 46	123° 25' 48	100	282°				



VELERO/DELTA - 2002

Date: 23 Sept 02	Dive #: 5719	Grid No(s): D9	Location: NE Corner Bank
Observer / Pilot: Howard / CHRIS JAMES			
Time Down: 12:03	Time Up: 1:00	Recorder: ROBERTS	
Water Visibility:	wind light variable		
Comments:	Weather Conditions: Overcast sky SWell ~ 1 ft from 300°		

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
12:11	38-02.84	123-24.26	105	300	FLAT SAND	START TRANSECT A
12:16	38-02.92	123-24.37	105			
12:21	38-02.99	123-24.47	105			
12:25	38-03.01	123-24.49	105			STOPPED TRANSECT for ~ 1 min
12:29	38-03.0441	123-24.5836	105			END TRANSECT A
12:31	-	123-24.5695	-	-	-	TRANSITION
12:37	38-03.1692	123-24.5674	109		FLAT SAND	START TRANSECT B
12:42	38-03.2430	123-24.6538	110			
12:47	38-03.2809	123-24.7312	111			
12:52	38-03.3765	123-24.8297	110			END TRANSECT B

VELERO/DELTA - 2002

Date: 23 SEPT 2002	Dive #: 5720	Grid No(s): D7	Location: C, B,			
Observer / Pilot: ROBERTS / DAVE SLATER						
Time Down: 13:36	Time Up: 14:32	Recorder: <del>HONDA</del> CARVER	P.M.			
Water Visibility: 60' VIS	Weather Conditions: SWELL 2' 10 SECONDS SMOLE VIS SKYS VARIABLE					
Comments: 60' VIS						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
13:41	38 02.7822	123 25.9156	70M	300	COBBLE BOUNDARY	START TRANSECT A
13:46	38 02.8016	123 25.9974	68	-	-	-
13:51	38 02.8089	123 26.0960	69M	-	-	-
13:56	38 02.8269	123 26.1293	69M	-	-	LONG LINE
13:57	38 02.8438	123 26.1615	66M	-	-	END TRANSECT A
13:57						TRANSIT
14:04	38 02.8740	123 26.3147	70M			START TRANSECT B
14:09	38 02.9069	123 26.4000	72M			
14:14	38 02.9362	123 26.4705	70M			
14:19	38 02.9711	123 26.5513	71M			END TRANSECT B

VELERO/DELTA - 2002

Date: 23 2002 SEPT	Dive #: 5721	Grid No(s): D5	Location: CB - NW part of Bank			
Observer / Pilot: M CARVER / JOE LILLY						
Time Down: 1507 <sup>on surface</sup>	Time Up: 1600	Recorder: HOWARD				
Water Visibility: 40' VIS	Weather Conditions: SWELL 4-6' wind 15 knds NW	coming up a bit				
Comments: on bottom - 1514 hrs 80m						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
1514	38° 02.4708	123° 27.956	80		Boulder	longline gear ←
1516	38° 02.461	123° 27.934	80m	030°	"	start transect A
1521	38° 02.54	123° 27.95	90m	343°	"	
1526	38° 02.62	123° 27.94	90m	355°	sand/boulder	
1528	38° 02.65	123° 27.93	90m		sand waves	move into sand waves
1531	38° 02.71	123° 27.93	90m		sand/some rock	END TRANSECT A
		5 min turn				
1537	38° 02.73	123° 28.06	90m	351°	sand/boulder	START TRANSECT B
1542	38° 02.83	123° 28.06	85m	327°	"	
1547	38° 02.89	123° 28.10	80m	011°	hydro relief	long line - just passed





# VELERO/DELTA - 2002

Date: 9-24-2002	Dive #: 5722	Grid No(s): D3	Location: Curdall Bank
Observer / Pilot: Linda Swook / Chris			
Time Down: 8:15	Time Up: 8:56	Recorder: Roberts	
Water Visibility: 40 ft	SKY overcast SWELL 5250 2 ft SWELL WIND - LIGHT + VARIABLE.		
Comments: CURRENT TRANSECT <b>B</b> at STAGE	360 - SLIGHT		
"	"	"	END
Uploeking Camera tilted UP - was at 90° now			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
8:15	38 02.83	123-29.64	118	—	SANDY BOULDERS	ON BOTTOM
8:17	38-02.84	123-29.65	118	330		START TRANSECT A
8:19	38-02.88	123-29.65	118	330		LONG LINE GEAR
8:23	38-02.80	123-29.65	118	330	HIGH RELIANT	
8:23	38-02.90	123-29.68	108	330	HIGH RELIANT	
8:27	38-02.97	123-29.70	112	330	FAT ROCK COBBLE	BOULDERS
8:29	38-03.007	123-29.71	110	330		FISHING GEAR
8:33	38 03.036	123 29.72	110	330	ROCK BOULDERS	END TRANSECT A COBBLE
8:39	38-03.0854	123-29.8461	120	330	↓	BEGIN TRANSECT B
8:44	38-03.162	123-29.8671	123	330	FINE SEDIMENT HARD ROCK	EARLY LATE



VELERO/DELTA - 2002

Date: 24 SEPT 02	Dive #: 5723	Grid No(s): E-4	Location: Cardall Bank
Observer / Pilot: Yoklavich / Dave Slater			
Time Down: in water: 0944 on bottom:	Time Up: leave bottom 1045	Recorder: Dan Howard	
Water Visibility: 20-25'	Weather Conditions: High Fog 2-4's well NNW, 2 hrs NW		
Comments: Adjusted main camera to 27° (need to measure) prior to dive			
0952 - slight current from south	10:16 TRANSECT B 1/4 WAY OUT OF SE		
10:31	END TRANSECT B		

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
0952	38° 01.6902	123° 28.9533	114m		sand/boulder	
0956	38° 01.7122	123° 28.9769	114m	330°	sand/boulder	START TRANSECT A
10:01	38° 01.7776	123° 29.0371	114m	027°	boulder/sand	
10:06	38° 01.8004	123° 29.1030	114m	327°	boulder/sand	
10:11	38° 01.8683	123° 29.1618	114m	270°	boulder/sand	END TRANSECT A
10:11						IN TRANSIT
10:16	38° 01.8654	123° 29.2124	115m	330°		START TRANSECT B
10:21	38° 01.9392	123° 29.2489	111	330°	SMALL BOULDER	
10:26	38° 02.0026	123° 29.2912	110	330°	BED ROCK	
10:31	38° 02.0624	123° 29.3183	110		rock	END TRANSECT B



## VELERO/DELTA - 2002

Date: 9-24-2002	Dive #: 5724	Grid No(s): E-6	Location: CINDAL BANK
Observer/Pilot: Linda Snook / Joe Lilly		Recorder: D. Roberts	
Time Down: 11:26	Time Up:		
Water Visibility: 50 FT.	Weather Conditions: overcast wind LT + VARIABLE SWELL 2-4E, from 320°		
Comments: START CURRENT = 1/4 KNOT from 150°	APPROXIMATELY START TRANSECT "A"		
START CURRENT = 1/4 KNOT from 2150°			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
11:26	38-01.58	123-26.90	52m	330	TOP ROCK OUTCROP	ON BOTTOM
11:34	38-01.63	123-26.95	75m	330	ON SAND	Begin Transect A
11:35	38-01.74	123-26.85	75m	330		
11:39	38-01.70	123-27.00	75	330	HI relief Bedrock	
11:40	38-01.66	123-26.99	75	330	Fishing gear	
11:42	38-01.73	123-27.04	75	330	Sand waves	LONG LINE
11:44	38-01.77	123-27.06	75	330	ROCKS	FISHING GEAR
11:45	38-01.77	123-27.08	75	330		FISHING NET
11:49	38-01.82	123-27.03	75	330		END OF TRANSECT A
11:50	38-01.84	123-27.06	75	270		LONG LINE



## VELERO/DELTA - 2002

Date: 9-24-2002	Dive #: 5725	Grid No(s): E-8	Location: CORDELL BANK			
Observer/Pilot: Mary Yoklavich/Chris Jones						
Time Down: <sup>surface</sup> 1249 <sub>on bottom</sub> 1254	Time Up: off bottom: 1339	Recorder: Dan Howard				
Water Visibility: 60'	Weather Conditions: high fog, 2-4' swell NW, light wind 2-5 kts NW					
Comments: very slight current from south						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
1254			65m	-	sand waves w/ rock outcrops	on bottom
1256	38° 01.55	123° 25.28	65m	330°	"	START TRANSECT A
1301	38° 01.64	123° 25.32	67m	336°	"	no significant current LHC from behind
1306	38° 01.74	123° 25.35	67m	350°	"	
1311	38° 01.83	123° 25.38	67m	-	large rock outcrop	END TRANSECT A
						5 min west run
1317	38° 01.85	123° 25.48	70m	330°	rock/boulder some sand	START TRANSECT B
1320	38° 01.88	123° 25.50	68m	335°	"	long line
1323	38° 01.94	123° 25.52	68m	342°	"	
1327	38° 02.00	123° 25.58	67m		rock outcrop	





6- Paley 10/3

VELERO/DELTA - 2002

Date: 9-24-2002	Dive #: 2726	Grid No(s): E-10	Location: Cordell Bank			
Observer/Pilot: Howard	Dive Slater					
Time Down: 14:15	Time Up: 15:29	Recorder: D. Roberts				
Water Visibility: 30 to 40 ft	WEATHER SKY OVERCAST SWELL 2 ft from 30 degrees					
Comments:	No current at start of Transect A.					
	No current at end of Transect B					
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
14:15	38-01.81	123-23.26	106	--	Sand Flat	ON BOTTOM
14:18	38-01.80	123-23.26	106	180	Sand Flat	Begin Transect A.
14:23	38-01.74	123-23.29	106	180	Sand Flat	
14:25	38-01.70	123-23.29	102	180	Sand waves	
14:28	38-01.66	123-23.33	101	190	Sand waves	
14:33	38-01.58	123-23.33	100	180	Sand waves	END TRANSECT A
14:41	38-01.63	123-23.46	98	180	Sand waves	START TRANSECT B
14:46	38-01.56	123-23.51	96	180	Sand waves	
14:51	38-01.48	123-23.53	95	180	Flat Sand	
14:56	38-01.43	123-23.59	94	180	Sand waves	END TRANSECT B



## VELERO/DELTA - 2002

Date: 24 Sept 02	Dive #: 2727	Grid No(s): F-9	Location: Codelle Bank East Side			
Observer / Pilot: Dale Roberts / Joe Lilly		Recorder: Dan Howard / M. Carver				
Time Down: <sup>on surface: 15:38 hrs</sup> on bottom: 15:44 hrs	Time Up: 16:25	Weather Conditions: High Fog, such 4-6' NW wind 5-7 knots				
Comments: TRANSECT A = NO CURRENT    TRANSECT B = NO CURRENT						
- HEADED EAST BETWEEN TRANSECTS						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
15:44	38° 00.97	123° 24.46	63m	-	sand/boulder	on bottom
15:46	38° 00.97	123° 24.46	63m	180°	sand/boulder	START TRANSECT A
15:51	38° 00.88	123° 24.46	60m	180°	BIKAR	NO CURRENT
15:56	38° 00.78	123° 24.48	65m	190°	BOULDER BOULDER SAND	
16:01	38° 00.70	123° 24.54	65m	190	SMALL BOULDER SAND	END TRANSECT
16:06	38° 00.6492	123° 24.40	65m	180°	SMALL SAND BOULDER	START TRANSECT B
16:12	38° 00.54	123° 24.43	65m	180°	BOULDER CORAL	
16:17	38° 00.45	123° 24.46	65m	180°	"	
16:22	38° 00.36	123° 24.49	602	180	BEADY BOULDER	
16:22	38° 00.36	123° 24.49	62	180	"	END OF TRANSECT B

## VELERO/DELTA - 2002

Date: 9-25-2002	Dive #: 5728	Grid No(s): F-3	Location: CORPUS BANK SHALF BREAK
Observer / Pilot: Bob	Name: Chris ISAMES		
Time Down: 8:11	Time Up:	Recorder: R. BERTS	WIND SPEED: 5 KNOTS
Water Visibility:	Weather Conditions: SEAS <del>4-9ft</del> from 320'. OVERCAST		
Comments: ORIGINAL START POINT WAS IN WATER 7300M			
DELTA HAD TO TRANSIT EAST TO FIND BOTTOM			
CURRENT END OF TRANSECT A Slight from $\approx 140^\circ$			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
07:50	38-00.9595	123-30.7268		090	Blue water	NO BOTTOM
07:54	38-00.9328	123-30.5820		092	Blue water	NO BOTTOM
08:04	38-00.91	123-30.3625	365	090	SAND	ON BOTTOM
08:11	38-00.93	123-30.2798	330	090		ON BOTTOM
08:15	38-00.9570	123-30.2194	300	360	SAND	START TRANSECT A
08:20	38-01.0410	123-30.2960	300	295	SAND	
08:25	38-01.1076	123-30.3384	290	295	SAND	
08:30	38-01.171	123-30.3943	290	295	SAND	END TRANSECT A
08:37	38-01.2104	123-30.3260	250	295	SAND	30° SLOPE
08:42	38-01.2841	123-30.3761	245	295	SAND	START TRANSECT B



VELERO/DELTA - 2002

Date: 9-25-2002	Dive #: 5729	Grid No(s): D2	Location: CORDELL BANK			
Observer / Pilot: Linda Snook / <i>[Signature]</i> Steve Slater						
Time Down: 10:09	Time Up: 11 <sup>15</sup>	Recorder: J. Roberts + M. Corvett				
Water Visibility: 25 ft	WEATHER: OVERCAST WIND: LIGHT SEWELL 7-ft FROM 320°					
Comments: 1/2 knot current from 180 at start of transect A.						
Delta descended to zoofe and was in krill so thick that						
visibility was reported as "0". Sub ascended to get out						
of krill layer						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
NOT SURE	DIDNT	RECORD	205m	N/A	?	VISIBILITY 0 (KRILL)
10:09	38-02.7719	123-30.9897	182	300	SAND	START TRANSECT A
10:14	38-02.8247	123-31.0159	185	300	SAND	
10:19	38-02.8726	123-31.0858	185	300	Sand	
10:24	38-02.9483	123-31.1945	200m	090		END TRANSECT A
10:34	38-03.0371	123-30.9808	167	280	Gravel / Sediment	50 slope START TRANSECT B
10:39	38-03.0647	123-31.0499	165			CURRENT FROM SOUTH > 1/2 knot
10:44	38-03.1220	123-31.1189	172			GEAR
10:49	38-03.1932	123-31.1606	173	CNH 330	ROCK SEDIMENT	END OF TRANSECT B
10:59	38-03.3243	123-30.9815	150	280		START TRANSECT C





# VELERO/DELTA - 2002

Date: 7-25-2002	Dive #: 5730	Grid No(s): H-6	Location: CORDELL BANK Slope			
Observer / Pilot: Mary Yeklavich / Joe billy						
Time Down: in water: 1255 on bottom: 1253	Time Up: off bottom: 1401 on surface: 1407 OVERCAST	Recorder: Pete Roberts / Dan Howard				
Water Visibility: 30'	Weather Conditions: wind: 3-5 SW swell 6-8' NW windwaves - 1-2'					
Comments: Thinking current might be pushing ship off bank. Took a while to find bottom.						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
1253	37° 58.50	123° 27.16	295m			on bottom - moving up to 250m
1259	37° 58.50	123° 27.08	250m	030°	steep sediment slope	START TRANSECT A steep slope 30-35°
1304	37° 58.59	123° 27.08	245m	030°	"	
1309	37° 58.65	123° 27.11	240	030°	steep water 30-35°	
1314	37° 58.73	123° 27.13	238		steep slope	END TRANSECT A
-	10 minutes or up to 200m which ever comes first -					
1320	37° 58.75	123° 27.09	200	330°		START TRANSECT B
1325	37° 58.81	123° 27.12	198	330°	steep sediment slope	in krill - just entered @ 200m
1330	37° 58.87	123° 27.15	195	330°	"	
1335	37° 58.89	123° 27.18	194			END TRANSECT B



VELERO/DELTA - 2002

Date: 9-25-2002	Dive #: 5731	Grid No(s): G 6	Location: CURT ELL BANK			
Observer/Pilot: Bob	bea / Chris James					
Time Down: 14:45	Time Up: 15:31	Recorder: D. Roberts				
Water Visibility: 20ft	START COURSE Swell 7 ft from ≈ 310					
<p>Comments: This dive will begin near the point where 5730 ended. Many reported boulders at end of her dive and we thought this was beginning of high relief area however the sub dropped on flat sand bottom and could not find rocks after 10 min at level. - SEE BACK</p>						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
14:45	37-59.37	123-27.23	118	270	Flat Sand	OK Bottom Heading to deeper water
14:56	37-59.40	123-27.45	122	360	FLAT SAND BOTTOM	Begin Transect A
15:01	37-59.51	123-27.40	120	360	FLAT SAND	
15:06	37-59.58	123-27.32	110	360*	FLAT SAND	TRACK LINE = 038
15:11	37-59.6392	123-27.2690	105	360	ROCK OUTCROP	END TRANSECT "A"
15:31	37-59.612	123-27.2402	105	-	ROCK	LEAVE BOTTOM
RUNNING LOW ON ELECTRICAL POWER				NO TRANSECT B		



# VELERO/DELTA - 2002

Date: 9-26-2002	Dive #: 5732	Grid No(s): F-7	Location: Cordall Beach
Observer / Pilot: Dan Howard / Dave	Time Up: 08:15	Recorder: Roberts	
Time Down: 07:36	Weather Conditions: WIND LT VARIABLE SWELL 6 ft from 320		
Water Visibility: 50 ft	Comments: Ran ~8 minutes between A + B		
	Ran 090° between		

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
07:36	38-00.51	123-25.97	55		Barrock Sand Channel	JNL Bottom
07:37	38-00.5120	123-25.97	55	330		START TRANSECT A
07:42	38-00.5557	123-26.0213	55	330	Barrock Sand	LOTS FISH
07:47	38-00.6061	123-26.0723	55	330	Barrock Sand	
07:52	38-00.6613	123-26.1196	56	330	ROCKY OUTCROPS	END TRANSECT A
08:00	38-00.6725	123-26.0765	55	330	Rock	Start Transect B
08:05	38-00.7230	123-26.0985	55	330	Rock	
08:10	38-00.7762	123-26.1568	55	330	Rock	
08:15	38-00.8353	123-26.1872	58	330	Rock	END TRANSECT B

VELERO/DELTA - 2002

Date: 9-26-2002	Dive #: 5733	Grid No(s): F-0	Location: CRAMS
Observer / Pilot: BOB LEA / JOE LILLY			
Time Down: 9:16 / ON BOTTOM	Time Up: 9:59	Recorder: MICHAEL C. CARLIER	
Water Visibility: 50'	Weather Conditions:		

Comments: CURRENT OUT OF SE. 25 KTS

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
9:16	38° 00.535	123 27.277	70M		BEDROCK	ON BOTTOM
9:19	38° 00.5134	123 27.247	70M	130°		START TRANSECT A
9:25	38° 00.4530	123 27.2379	65M		HIGH RELIEF	
9:30	38° 00.4130	123 27.21	65M	180°	HIGH RELIEF	
9:35	38° 00.3511	123 27.1916	65M	170°	"	END TRANSECT A
9:42	38° 00.31	123 27.04	67M	130°	HIGH RELIEF	START TRANSECT B
9:47	38° 00.258	123 27.02	70M	170°	BED ROCK SAND	
9:52	38° 00.197	123 27.013	74M	180°	HIGH RELIEF SAND	
9:57	38° 00.1320	123 27.014	79M	180°	"	END TRANSECT B

VELERO/DELTA - 2002

Date: 26 Sept 02	Dive #: 5734	Grid No(s): Top F-5	Location: Co. rd. 22.5 - Middle Ground Street			
Observer / Pilot: Dale Roberts / Chris James						
Time Down: surface: 10:25 on bottom: 10:33	Time Up: surface: 11:24 hrs off bottom: 11:20 hrs	Recorder: Day Howard				
Water Visibility: 40'	Weather Conditions: High Fog Swell 4-6', seas 1-3' wind 5 kts. ENE					
Comments: thought we dropped on 80m but bottom had bottom: 102m water.						
No significant current.						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
10:33	38° 00.90	123° 27.98	102m	030°	rock reef/ boulder	1. He deeper than planned
10:35	38 00.90	123° 27.98	102m	030°	"	START Transect A
10:41	38° 00.97	123° 27.91	102m	030°	rocky boulder sand channel	
10:46	38 01.02	123° 27.84	97m	030°	"	
10:51	38 01.07	123° 27.76	93m	-	"	End Transect A
		5 min run to	the west			
10:57	38° 01.10	123° 27.85	95m	360°	rocky/boulder	new heading 360° START TRANSECT B
11:03	38° 01.18	123° 27.80	90m	360°	"	
11:07	38° 01.25	123° 27.77	90m	360°	"	
11:13	38° 01.31	123° 27.69	88m	-	"	END of TRANSECT B





VELERO/DELTA - 2002

Date: 26 SEPT 02	Dive #: 5736	Grid No(s): C-9	Location: Cordal Band SE			
Observer / Pilot: Bob Lee / Joe Lilly						
Time Down: <sup>on surface: 1353</sup> on bottom: 1359	Time Up: 14:47	Recorder: Dan Howard				
Water Visibility: 70'	Weather Conditions: High fog 4-7' swell wind - 5 knots SW					
Comments:						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
1403	37° 59.52	123° 24.49	65m	180°	cobble/ sand, some rocks	START TRANSECT A
1408	37° 59.47	123° 24.47	65m	180°	"	gear - trawl warp
1412						left transect to A
1413						battery on camera start transect
1415	37° 59.39	123° 24.45	65m	180°	"	
1420	37° 59.32	123° 24.45	65m	180°	"	END TRANSECT A
14:27	37° 59.29	123° 24.57	60m	180	"	Begin Transect B
14:32	37° 59.20	123° 24.59	60m	180	"	
14:37	37° 59.13	123° 24.59	66m	180		
14:42	37° 59.05	123° 24.59	70	180	cobble sand	END Transect B

# VELERO/DELTA - 2002

Date: 9-26-2002	Dive #: 5737	Grid No(s): H7 and G7	Location: CURDELL BANK
Observer / Pilot: <i>D. Howard</i> / <i>Chris I James</i>	Time Up: 14:47	END OF TRANSECT B	
Time Down: 15:37	Recorder: <i>D. Roberts</i>		
Water Visibility:	Weather Conditions:		
Comments: OVERCAST SKY WIND LT. + VARIABLE	Swell 5ft from 300		

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
15:37						ON BOTTOM
15:39	37-58.8609	123-26.2651	95	360	Sand channel low outcrop	START TRANSECT A
15:44	37-58.9350	123-26.2666	90	360	Rock + Sand	
15:49	37-59.0061	123-26.2357	85	360	Hi Relief Rock	
15:54	37-59.0805	123-26.1982	90	360	SAND + ROCK OUTCROP	END TRANSECT A
16:05	37-59.1365	123-26.3027	90	360	SAND + ROCK	START TRANSECT B
16:10	37-59.2285	123-26.3019	90		SAND WAVE	
16:15	37-59.3180	123-26.2723	90	360	↓	
16:18	37-59.35	123-26.25	85	360	↓	LONG LINE
16:20	37-59.38	123-26.25	82	360	Hi Relief Sand	END TRANSECT B



First Dive of Day 5

VELERO/DELTA - 2002

Date: 27 Sept 02 Dive #: 5738 Grid No(s): I-7 Location: <sup>Condell Bank</sup> south slope  
 Observer / Pilot: Bob Lee / Dave Stecker L Transect 0 ended in 11-7

Time Down: <sup>in water. 0735</sup> bottom 0745 Time Up: <sup>off bottom</sup> surface: Recorder: D. Howard

Water Visibility: 30' Weather Conditions: 5-7' NW seas 1-3' wind - 5-8 kts NW

Comments: Wind has flipped around from light SW to light NW

⊗ Dropped into large swarm krill - viz limited by krill

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
0747	37° 57.78	123° 26.60	200m	350°	sediment slope	30° slope START TRANSECT A
0752	37° 57.84	123° 26.64	200m	350°		out of krill
0757	37° 57.85	123° 26.72	200m	350°	small rocks	90°
0802	37° 57.92	123° 26.72	204m		sediment w/ rocks	15° slope - range of 10-15 - END TRANSECT A
		5 min	up slope	run		
0808	37° 57.91	123° 26.59	175m	360°	sediment slope	START TRANSECT B
0813	37° 57.98	123° 26.58	170m	355°	sediment slope	NO current
0818	37° 58.06	123° 26.61	170m	355°	"	
0823	37° 58.14	123° 26.60	170m	-	"	END TRANSECT B
		UP SLOPE	5 min			



div. A/R from  
5737 to 5739

Day 6

VELERO/DELTA - 2002

Date: 9-28-2002	Dive #: 5739	Grid No(s): 66	Location: CURDELL BANK			
Observer / Pilot: Tom Anderson / Joe Lilly	Recorder: Dale Roberts					
Time Down: 07:38	Time Up:					
Water Visibility: 25 ft	Weather Conditions: <sup>OVERCAST</sup> Swell 320° 7 kts		wind 5 knots			
Comments: 1st ~30 minutes orientation dive for TARA						
CURRENT on transect A variable from different directions - possibly due to small						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
07:38	38-00.12	123-27.53	92	360	ROCK HABITAT	25 ft vis
08:04	38-00.25	123-27.62	65	030	H. Relict <sup>Agaric</sup>	START TRANSECT A
08:09	38-00.31	123-27.58	70	030	H. Relict	COYSA WAS @ 90 NOT SURE WHY READING & DIVERSE LONG-LINE
08:11	38-00.3050	123-27.576	70	030	H. Relict	
08:14	38-00.30	123-27.50	72	030	H. Relict	
08:16	38-00.3396	123-27.49	70	30	H. Relict	END OF A
<del>08:26</del>	<del>38-00.00</del>	<del>123-</del>				
08:26	38-00.43	123-27.40	70	036	H. Relict Sand Channels	Fishing Boat
08:28	38-00.47	123-27.36	65	035	H. Relict	START B
08:33	38-00.52	123-27.33	60	035	H. Relict	



VELERO/DELTA - 2002

Date: 28 Sept 02	Dive #: 5740	Grid No(s): G-7	Location: Consider Bank mid bank south.
Observer/Pilot: Noelani Punua / Chris Jones			
Time Down: on surface: 0922 on bottom: 0927	Time Up: off bottom: 1037 on surface: 1042	Recorder: D. Howard	
Water Visibility: 50'	Weather Conditions: Sunny swell 7' NNW wind 8-10knot, SE		
Comments: Noelani - characterizing benthic invertebrate cover - will not run standard transect. Took 180 digital stills of inverts			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
0928	37° 59.87	123° 25.78	62m	170°	sand/rock	
0940	37° 59.84	123° 24.05	62m	360°	rock	low crustace farms not a lot of cover
0947	37° 59.91	123° 26.05	60m	40°		
1001	37° 59.99	123° 25.96	55m	40°	flat rock	taking inverte photos
1015	38° 00.00	123° 29.97	59m	40°	rock	
1074	38° 00.12	123° 25.86	97m	-	rock	inverte photos + id.
		END				



VELERO/DELTA - 2002

Date: 28 Sept 02	Dive #: 5741	Grid No(s): H-9	Location: Contable Bank south east corner			
Observer / Pilot: Dale Roberts / Dave Sklar						
Time Down: on surface: 1128 on bottom: 1133 m	Time Up: on bottom: 1256 on surface: 1259	Recorder: D. Howard				
Water Visibility: 50-60'	Weather Conditions: Sunny	7-8' NW seas 2-4'	wind 10-12 SE - confused			
Comments: no current - dropped on sand boulder 78m						
- never found sand on east side of Bank - stayed in rock ran east for 10 minutes after third transect to find shelf edge						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
1133	37° 58.76	123° 24.20	70m		sand w/ boulders	
1135	37° 58.78	123° 24.23	78m	360°	"	START TRANSECT A
1140	37° 58.93	123° 24.22	79m	360°		gear
		Pause transect				
1144	37° 58.87	123° 24.02	80m			
1150	37° 59.95	123° 24.03	76	360°	Rock pile	
1155	37° 59.01	123° 24.06	72		rocky rubble	END TRANSECT A
		East 090° for 5 min				
1203	37° 59.07	123° 23.93	72M	360°	rocky rubble	START TRANSECT B
1208	37° 59.16	123° 23.91	73M	360°		



VELERO/DELTA - 2002

Date: 29 Sept 2002	Dive #: 5742	Grid No(s): B5	Location: CURDELL BANK
Observer / Pilot: Howard	Joe		
Time Down: 07:24	Time Up: 8:30	Recorder: D. Roberts	
Water Visibility: 20	OVERCAST w/ ~ 800 foot ceiling		
Comments:	STRONG CURRENTS ON TOP OF BANK SWIRLING, NOTHING DOWN		

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment	
07:24	38-05.03	123-28.24	135		Buildors	On Bottom	
07:26	38-05.02	123-28.25	135	180		START TRANSECT A	
07:27	38-05.01	123-28.25	135	↓		Long line fishing gear	
07:29	38-04.98	123-28.25	135			Long line fishing gear	
07:32	38-04.96	123-28.25	135				
07:36	38-04.92	123-28.24	135			Long Line	
07:37	38-04.90	123-28.24	135		SEDDIMENT FLAT SOME	FLAT SOME ROCK	
07:41	38-04.83	123-28.26	134		FLAT SAND CL	END TRANSECT A	
07:50	38-04.79	123-28.37	132		Build-up	Begin Transect B	
07:55	38-04.72	123-28.38	130		↓		



# VELERO/DELTA - 2002

Date: 29 SEPT 02	Dive #: 5743	Grid No(s): C.5	Location: CBANK
Observer / Pilot: <del>Lars Anderson</del> / CHRIS JAMES			
Time Down:	Time Up:	Recorder: P. Roberts	
Water Visibility: 60 ft	Weather Conditions: overcast $\approx$ 800 ft ceiling - Sens 32.0° 4ft - seems to be coming down wind 5 knots		
Comments:			
NO Current end of transect B.			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
09:03	38-04.08	123-28.09	90m		Sandy + Hi Relief	lots fish ON BOTTOM
09:07	38-04.08	123-28.08	90m	180		START Transect A
09:12	38-04.05	123-28.10	88m	180	Hi Relief ROCK	
09:17	38-04.01	123-28.12	88m	180	Hi Relief ROCK	
09:22	38-03.95	123-28.14	80m	180	Hi Relief ROCK	END Transect A
	38 03.95	123 28.16	80m	5 min run between tran. A-B		gear/net up - off
		top of net	@ 70m			
09:30	38-03.96	123-28.19	80m	180	Hi Relief ROCK	START B
09:35	38-03.8990	123-28.2078	80m	180	Hi Relief ROCK	
09:40	38-03.8477	123-28.2405	88m	180	Hi Relief ROCK	

VELERO/DELTA - 2002

<b>Date:</b>	<b>Dive #:</b> 5743	<b>Grid No(s):</b>	<b>Location:</b>
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Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
09:45	38-03.58 (S)	123-28.2445	90M	180	Rock	<del>TEMPERATURE</del>

EQUAT 0000 V. 11000

VELERO/DELTA - 2002

Date: 9/29/2002	Dive #: 5744	Grid No(s): C4	Location: CB
Observer/Pilot: NOE / DAVE	Recorder: MICHAEL CARVER		
Time Down: 10:35	Time Up: 11:44		
Water Visibility: 30'	Weather Conditions: CLEAR		
Comments: PHOTO DIVE - CURRENT - NON EXISTANCE			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
10:35	38-03.9587	123-28.3456	55M		Pinnacles	
10:44	38-03.9736	123-28.3319	55M		"	LONG LINE
11:01	38-03.777	123-28.2419	90M		ROCKY	
11:22	38-03.5932	123-28.5316	85M		Pinnacles	LARGE BRANCHED
11:32	38-03.5219	123-28.7381	100		SAND WAVE	
11:40	38-03.4581	123-28.8466	100M		"	LONG LINE
11:42	DP					

# VELERO/DELTA - 2002

Date: 9-29-2002	Dive #: 5745	Grid No(s): B7	Location: CORDILL BANK
Observer / Pilot: Tom Anderson / Joe Lilly	Time Up: 14:09	Recorder: Roberts	
Time Down: 12:41	Weather Conditions: SKY Broken - 50% Clouds kinda SUNNY		
Water Visibility: 25 ft	SWELL 5 ft FROM 300 degrees		
Comments: New Sea Angler party boat observed launch of Sub	wind ~ 5 knots		
Current from EAST START TRANSECT A			
1/4 Knot Current from EAST			

  

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
12:41	38-04.69	123-26.07	135	180°	Flat Sand	on Bottom
12:44	38-04.69	123-26.07	135	180°	Flat Sand	START TRANSECT A
12:49	38-04.62	123-26.07	135	180	"	
12:54	38-04.57	123-26.11	135	180	"	
12:59	38-04.53	123-26.13	135	180	Few Rocks	END TRANSECT A
13:05	38-04.56	123-26.22	135	180	Few Rocks	Start Transect B
13:10	38-04.49	123-26.21	135	180	Mostly Sand -	Same Rock
13:15	38-04.43	123-26.21	135	180	Mostly Sand	
13:20	38-04.39	123-26.22	130	180	Mostly Sand	Trawl Trough in Sand
13:34	38-04.27	123-26.20	125	180	Mostly Sand	END Transect B Start Transect C





