

VELERO/DELTA - 2004

Date: 08-02-04	Dive #: 6233	Grid No(s): F6	Location: ^{COOR FILE} BANK			
Observer / Pilot: Kir Evans / Dore Slater						
Time Down: 07:46	Time Up: 09:52	Recorder: D. Roberts / Pam van der Leeden				
Water Visibility:	Weather Conditions: overcast, 2 foot swell					
Comments: Kir Evans Photo Dive						
Intent of dive was to shoot video + stills on						
Shallow - high relief region						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
07:50:29	38-01.2650	123-27	72	VARIOUS	Sand Channels W. Rock Buildings	ON Bottom
08:09:11	38-01.43	123-27.3569	74		Boulders	
08:14:51	38-01.4852	123-27.2955	74	130	Boulders Bedrock	Changed course to try to find shallows
08:19:15	38-01.3982	123-27.2351	76	120.3	Sand + small boulders	changed from 130° to 150°
08:24:23	38-01.3504	123-27.1177	80		boulders	filming an octopus
08:29	38-01. same as above	123-27. same as above	80		boulders	filming an octopus
08:34	38-01. same	123-27. same	"		"	"
08:39	38-01. same	123-27. same	"		"	"
08:44	38-01.	123-27.	"			Underway at 150°
08:49:47	38-01.2886	123-27.1642	79		sand	
08:52:45	38-01.2515	123-27.1092		90	beginning high relief rock	changed course to 90°E

VELERO/DELTA - 2004

side 2

Date: 8/2/04	Dive #: 6233	Grid No(s): FG	Location: Cordell Bank
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Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
08:53:45	38-01.2511	123-27.0892	65		high relief rock	
08:56:30	38-01.2554	123-27.0525	54		high relief rock	
08:59:15	38-01.2286	123-27.0277	42		pretty stuff	high spot they wanted
09:05	38-01.2289	123-27.0305	42		same	circling pinnacle
09:12	38-01. same	123-27. same	same		"	"
09:14:40	38-01.2037	123-27.0488	"		"	
09:24:29	38-01.2019	123-27.0236	38		water	in water column
09:29:07	38-01.2197	123-27.0332	44	VARIOUS	ROCKS	Filming a mole
09:34:00	38-01.1584	123-27.0506	44	VARIOUS	ROCKS	Filming cup of Pinnacle
09:41:57	38-01.1732	123-27.0882	36	VARIOUS	ROCK	Gear - longhouse.
09:44:51	38-01.1822	123-27.0676	39	VARIOUS	ROCKS	
09:52:39	38-01.1783	123-27.0731	39			off bottom end of dive

VELERO/DELTA - 2004

Date: 08-02-2004	Dive #: 6234	Grid No(s): F-6	Location: ^{Card 1} Bank			
Observer / Pilot: Hod: Pirela / Joe Lilly						
Time Down: 10:35	Time Up:	Recorder: D. Roberts				
Water Visibility:	Weather Conditions: ^{overcast} 2 foot swell Light wind					
Comments: Invertebrate Dive						
Initially headed SW East and then decided high relief area was in opposite direction so turned & headed West						
Goal of dive was to make 10min transects @ 3 different depths - had trouble finding a good location						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
10:40:00	38-01.2728	123-26.4240	60	090		On Bottom Moving to locate hi relief
11:02:17	38-01.3067	123-26.4363	55	240	Rock outcrop	Heading Change
11:11:31	38-01.2653	123-26.5100	55	240	Rock outcrop	
11:21:10	38-01.2220	123-26.6254	50	"	sand channels & rock	sand channels + D.H. rock
11:26:10	38-01.2188	123-26.6762	55	240	Sand & Rock	maybe coming up on relief D.H.
11:31:32	38-01.2316	123-26.6743	51	240		Exploring small feature
11:41:34	38-01.2057	123-26.7476	50	240	"	
11:51:00	38-01.1629	123-26.8973	50	240	"	Consolidated Rock and boulders over sand
12:14:11	38-01.1423	123-26.9925	50		Consolidated rock	
12:22:46	38-01.1792	123-27.0625	47m	following contour	consolidated reef/wall	Start 10m transect D.H.
12:29:00	38-01.1657	123-27.0914	47m			Monofilament line

VELERO/DELTA - 2004

side 2

Date: 2 AUGUST 2004	Dive #: 6234 (con't)	Grid No(s): F-6	Location: Cordell Bank - Mid
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VELERO/DELTA - 2004

Date: 08-02-2004	Dive #: 6235	Grid No(s): C-3	Location: Cordell Bank			
Observer / Pilot: Kip Evans / Chris James						
Time Down: 14:16	Time Up:	Recorder: D. Roberts				
Water Visibility:	Weather Conditions: START OF DIVE ~ 800 ft overcast / AT 16:00 w/ 2 foot swell / Clear Blue Sky					
Comments: VIDEO DIVE						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
14:16:57	38-04.2382	123-29.2735				
14:20:30	38-04.1881	123-29.2429	110	045		Longline gear
14:25:59	38-04.2613	123-29.2855	110	045		Photographing octopus
14:46:05	38-04.2725	123-29.2671	103		High Relief Rock	Long Line
14:59:09	38-04.2755	123-29.2712	102		Pinnacle	Crinoids
15:08:37	38-04.2391	123-29.2108	110			Long Line
15:19:23	38-04.2304	123-29.1807	107	maneuvering	Rock outcrop	Long Line
15:52:30	38-04.1503	123-29.1078	102		Sand Building	Long Line
			9		High Relief outcrop	
16:01:15	38-04.1224	123-29.0533	98		Sand channels	
16:11:53	38-04.0997	123-29.0245	86		Rock NICE PINNACLE	

VELERO/DELTA - 2004

side 2

Date: 8/2/04	Dive #: 6235	Grid No(s): C-3	Location: Cordell
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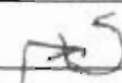
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VELERO/DELTA - 2004

Date: 08-03-2004	Dive #: 6236	Grid No(s): C-4	Location: ^{CURB 0022} BANK
Observer / Pilot: KIP EVANS / DUNE SKETER			
Time Down: 13:17	Time Up:	Recorder: D. Roberts	
Water Visibility:	Weather Conditions: High overcast / Light wind / 3 ft swell		
Comments: 1st Dive of day delayed because of high swells. WAITED FOR SWELLS TO COME DOWN.			

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
13:17:00	38-04.0043	123-28.5169				IN WATER
13:19:59	38-03.9860	123-28.5159	62	VARIOUS	Pinnae	ON N. reef NW. PART OF Cudjoe Bank
13:48:32	38-03.9725	123-28.4940		090		CONTOUR MAP SHOWED SHALLOWER Pinnae to EAST - DIRECTED HERE
13:57:06	38-03.9519	123-28.3818	58	VARIOUS	N. Patch Rock	MOVED TO AREA OF SUSPECTED N. REEF - NOT MUCH SHALLOWER
14:07:56	38-03.9651	123-28.3301	56		N. Patch Rock	
14:14:29	38-03.9574	123-28.3507	↑			56 off bottom ↑ to surface

VELERO/DELTA - 2004

Date: 8/3/04	Dive #: 6237	Grid No(s): C-4	Location: CORPUS BANK			
Observer / Pilot: Judi Pirele / Joe Lilly						
Time Down: 14:54	Time Up:	Recorder: D. Roberts				
Water Visibility:	Weather Conditions: OVERCAST					
Comments: Plan to do Invert Transects.						
Transect #3 was around a Pinnacle — went 3/4 way around a Pinnacle ^{START} 						
Transect #4 was on a contour at 60m depth ^{End}						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
14:54	38-04.3803	123-28.3781	101		Vertical Rock Sand/Rock	
14:59:30	38-04.3540	123-28.3905	100	140	Sand/Rock	START Transect 1
15:07:30	38-04.3794	123-28.4235	100	360		turned north to stay on contour at 100m
15:10:00	38-04.3845	123-28.4111	100	140	Boulder Field Vertical Rock	END TX 4 START TX 2
15:19:30	38-04.2815	123-28.3415	90	140		RESTARTING TX 1
15:21:30	38-04.2748	123-28.3356	85	180	Rock WALL	Interfalia
15:24:00	38-04.2767	123-28.3553	75	180	Rock	TOP OF STRUCTURE
15:28:14	38-04.2767	123-28.3635	80	Following Contour	Rock	START TX 3 = 80m transect
15:33:16	38-04.2550	123-28.3420	80	Following Contour	Rock	Vertical wall END TX 3
15:49:32	38-04.0611	123-28.3058	60		Rock wall	START TX 4
15:54:30	38-04.0089	123-28.2701	60	Following Contour		

VELERO/DELTA - 2004

side 2

Date: 8/3/04	Dive # 6237	Grid No(s): C-4	Location:
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VELERO/DELTA - 2004

Date: 08-04-04	Dive #: 623 A	Grid No(s):	Location: SE FARALLON ISLAND
Observer / Pilot: Linda Snook / Chris / James			
Time Down: 10:27	Time Up: 12:29	Recorder: Jodi Pirtle / Dale	
Water Visibility:	Weather Conditions: Fog ~ 1/2 mile VLS 16, 14 - 12 knot winds from 090		
Comments: DIPART start analog logger till 10:34:36			
Took photographs after end of transect 4			

	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
	10:27:00	37-41.2816	123-00.0705	30m	270	Small w/ Boulder	15 foot vis
	10:32:18	37-41.2903	123-00.0595	30m	270	" "	
x1	10:35:06	37-41.2967	123-00.0833	31	270	" "	
	10:40:20	37-41.3060	123-00.1662	31	270	" "	
	10:45:13	37-41.315	123-00.229	31	270	low relief rock	
x1	10:50:10	37-41.3388	123-00.2751	29	180	" "	end transect 1
x2	10:56:30	37-41.3015	123-00.3122	30	270	high relief rock	start transect 2
	11:02:30	37-41.3491	123-00.3809	30	270	small coral	encounter current 5
	11:08:50	37-41.3427	123-00.4939	33	270	small coral and brush	
x2	11:14:00	37-41.3539	123-00.5800	34	270	"boulder"	end transect 2 / 10:55
	11:20:32	37-41.2789	123-00.6253	36	270	flat sand with outcrop	in between transects

Shannon relief, Sep

VELERO/DELTA - 2004

Date: 08-04-04	Dive #: 6239	Grid No(s):	Location: SE FARALLON			
Observer / Pilot: Bob Lee / Chris Thomas DAVE SPATER						
Time Down: 13:05	Time Up: 14:39	Recorder: D. Roberts				
Water Visibility:	Weather Conditions:					
Comments: Visibility 20 feet						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
13:08:57	37-41.0889	123-00.0142				on bottom
13:13:24	37-41.0966	123-00.0302	33	240	Rock Flat	START TRANSECT 1
13:18:58	37-41.1175	123-00.1204	34	230	Rock sand	
13:22:12	37-41.1113	123-00.1854	39	220	Sand	interface
13:28:36	37-41.0836	123-00.2985	38	220		End Transect 1
13:35:00	37-40.9969	123-00.3058	39	090	low relief w/sand	
13:39:58	37-41.0197	123-00.1982	40	090	Sand	5 min Point
13:44:36	37-41.0351	123-00.1208	36	100	low Rock	
13:49:34	37-41.0252	123-00.0439	34	100	med relief rock	End Transect 2
13:55:26	37-41.0181	123-00.9232	40	100	Rock pools	Start Transect 3
14:01:01	37-41.0133	122-59.8347	41	100	low relief rock	

VELERO/DELTA - 2004

side 2

Date: 8/4/4

Dive #: 6239

Grid No(s):

Location: SE Farallon

[illegible]

270 - 180 - 090 - 5mi 090 - N 5mi - 270

VELERO/DELTA - 2004

Cordell Bank

Date: 08-06-04 Dive #: 6240 Grid No(s): H-7 Location: H-7-1

Observer / Pilot: Anderson

Time Down: 8:36 Time Up: Recorder: D. Roberts

Water Visibility: Weather Conditions:

Comments: Laying frog Chained to every 2 seconds
- Last year's 6058

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
08:51:56	37° 59.3191	123° 26.2111	80	180	Rock	Start tran. 1
08:57:22	37° 59.2641	123° 26.2431	89	180	Rock	were in sand waves
09:01:34	37° 59.2200	123° 26.2605	89	180	Sand waves	
09:07:14	37° 59.1513	123° 26.2646	89	will go 090 for 5	high relief rock	out of sand waves, end tran. 1
09:12:00	37° 59.1227	123° 26.1992	85	180	high relief rock	start tran. 2
09:17:12	37° 59.0481	123° 26.2198	86	180	boulder piles	
09:22:28	37° 58.9890	123° 26.2303	80	180	high relief rock	
09:27:22	37° 58.9316	123° 26.2294	90	90 for 5	sand waves	surrounded by rock end Tx 3
09:30:24	37° 58.9339	123° 26.1722	89	180	high relief rock w/ sand channels	
09:35:28	37° 58.8618	123° 26.1745	89	180	high relief rock w/ sand channels	
09:40:28	37° 58.8041	123° 26.1928	89	180	high relief rock w/ sand channels	

VELERO/DELTA - 2004

side 2

Date: 8/6/04	Dive #: 6240	Grid No(s): H-7	Location: H-7-1 Southwest bank.
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VELERO/DELTA - 2004

I-7-1

Date: 08-06-04	Dive #: 6241	Grid No(s): I-7	Location: southwest bank			
Observer / Pilot: Linda Snook / Chris L. James						
Time Down: 10:46	Time Up:	Recorder: J. Batten				
Water Visibility: good blue-green water	Weather Conditions: started foggy, cleared during dive, wind 10 kts from west					
Comments: Last year's 6059						
2 Humpbacks by ship for ~20 min						
Sub. did not have set course, followed contours						
Performed 5th transect in order to sample the boulder field - Never hit main part of field						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
10:54:23	37° 57.7352	123° 26.6537	214	—	20° sediment slope	hit bottom
10:56:45	37° 57.7574	123° 26.6464	210	350 - will follow contour	sand/mud	30 ft + us start tran. 1
11:00:45	37° 57.8183	123° 26.6318	210	350	sand & mud	20° sediment slope
11:07:27	37° 57.8471	123° 26.7101	210	350	mud w/ some rock rubble	
11:11:31	37° 57.8920	123° 26.7531	210	~20° for 5 min to 175m	soft bottom	end transect 1
11:27:37	37° 57.8794	123° 26.5545	175	~350° estm	sediment slope	start tran. 2
11:33:09	37° 57.9675	123° 26.5233	175	~350	sediment slope	
11:38:17	37° 58.0367	123° 26.5292	167	~360	sediment slope	
11:42:53	37° 58.1090	123° 26.5567	167	~20° for 5 min	sediment slope	end tran. 2
11:49:13	37° 58.0820	123° 26.4633	150	360	sediment slope	start tran. 3
11:54:51	37° 58.1502	123° 26.4844	150	360	sediment slope	

VELERO/DELTA - 2004

side 2

Date: 8/6/04	Dive #: 6241	Grid No(s): I-7	Location: Southwest bank
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Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
11:59:37	37° 58.2353	123° 26.5082	150	360°	Sediment	
12:05:01	37° 58.3214	123° 26.5526	150	~20° for 5 min	Sediment	end tran. 3
12:08:29	37° 58.3360	123° 26.4853	135	360	sediment	arrived @ 135 m
12:11:17	37° 58.3438	123° 26.4912	135	360	Sediment bottom	start tran. 4
12:16:25	37° 58.4693	123° 26.4684	130	360	Sediment bottom	
12:20:01	37° 58.4553	123° 26.5210	125	305	Sediment bottom	- slight course adjustment
12:24:07	37° 58.5056	123° 26.5617	125	305	boulders!	large boulders
12:29:59	37° 58.5809	123° 26.5970	120	270	sed. w/ scatt'd. boulders	end trans. 4
12:32:47	37° 58.5949	123° 26.6542	120	270	high relief rock/boulder	start trans. 5
12:36:41	37° 58.6240	123° 26.7036	120	270	"	long line
12:38:29	37° 58.6446	123° 26.7284	122	270	high relief rock at crop	
12:43:07	37° 58.688	123° 26.8153	128	260	sediment slope	turn left to go to his boulder field
12:48:18	37° 58.6949	123° 26.9202	140	250	sediment slope	END trans. 5

VELERO/DELTA - 2004

CORDELL
BANK

Date: 08-06-04	Dive #: 6242	Grid No(s): E-6	Location: E-6-1
Observer / Pilot: Howard / Slater			
Time Down: 13:45	Time Up:	Recorder: D. Roberts	
Water Visibility: blue-green Distant	Weather Conditions: started foggy, then clear sky, wind 10kts from West		
Comments: Last years Dive no 6057			

Sub is having difficult time maintaining course due to tail current -
tried to adjust their headinging → transect 2 ended early, only 10 min

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
			67		Rock Boulder	no relief Rock
13:55:21	38°01.6106	123°26.8680	67	330	Rock boulder	long line
14:00:49	38°01.6335	123°26.8652	64	330	Rock boulder	start tran. 2
14:06:51	38°01.7182	123°26.8753	70	330	high relief pinnacles	→ adjusted course by -30° → appeared to be 360°
14:11:34	38°01.7937	123°26.8977	76	330	boulders sand channels	
14:13:31	38°01.7981	123°26.8945	76	330	boulder sand	off transect → shark!
14:14:07	38°01.8052	123°26.9142	76	330	boulder sand	on transect
14:16:57	38°01.8359	123°26.9476	77	270	med relief rock pinn	end tran. 1
14:21:47	38°01.8283	123°26.0479	77	270	" "	long line
14:25:19	38°01.8308	123°26.0584	77	320	med relief rock	start tran. 2
14:31:01	38°01.8995	123°27.0941	72	310	big boulders	

Transect
#2 not
good
only first 5

VELERO/DELTA - 2004

CORDELL
BANK

Date: 08-06-04	Dive #: 6243	Grid No(s): C-4	Location: C-4-A
Observer / Pilot: J. H. Baltan			
Time Down: 16:05	Time Up: 17:31	Recorder: D. Roberts	
Water Visibility:	Weather Conditions: Sunny, Fog Bank east of us, wind 11 kts NW, swell 2-3'		
Comments: Same location as 6068 Lair Year			
High relief rock most of dive NW corner on reef top			

	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
	16:15:51	38° 03. 6294	123° 29. 4621	120	045	Sand	START TRANSECT 1
1 min	16:17:19	38° 03. 6461	123° 29. 4534	120	045	Sand	START TRANSECT 1
5 min	16:22:21	38° 03. 6914	123° 29. 3953	115	045	rock outcrop boulder	
10 min	16:27:17	38° 03. 7344	123° 29. 3271	117	045	boulder sediment	long line gear seen 30 seconds after 10 minute mark
15 min	16:32:17	38° 03. 7626	123° 29. 2671	111	045	Sand boulder, bedrock	END TRANSECT 1
		5 min interval			045		
1 min	16:39:01	38° 03. 7894	123° 29. 1870	100	090	rock wall	START TRANSECT 2
		38° 03. 8013	123° 29. 1312	87			Long line gear
5 min	16:44:08	38° 03. 8023	123° 29. 1188	87	090	high relief rock	
10 min	16:49:25	38° 03. 8008	123° 29. 0355	80	090	high relief rock	
15 min	16:53:55	38° 03. 8047	123° 28. 9705	80	090	"	END TRANSECT 2

side 2

Date: 6 AUGUST 04	Dive #: 6243	Grid No(s): C-4	Location: C 4 1
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VELERO/DELTA - 2004

Cordell Bank

Date: 8 Aug 04	Dive #: 6244	Grid No(s): H-9	Location: SE corner
Observer / Pilot: Dale Roberts / Chris I James			
Time Down: 8:23	Time Up: 10:05	Recorder: Linda Snook	
Water Visibility: 60 ft	Weather Conditions: High Fog, light winds, swell 4-6'		
Comments: First Dive of day			

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
8:29:14	37° 58.7876	123° 24.3242	75 m	60	sand/rock outcrop	on bottom
8:41:14	37° 58.8142	123° 24.2455	72	45	boulder rock	START TX #1
8:46:20	37° 58.8696	123° 24.1809	75	45	boulders/rock sand	5 min
8:51:55	37° 58.9117	123 24.1273	72	90	low relief rock	10 min
8:56:26	37 58.9009	123 24.0477	79	90	sand/rock	END #1
8:59:58	37° 58.9073	123 23.9983	90	360	sand, wave rock	START TX #2
9:05:02	37° 58.9840	123 24.0129	78	360	rock/sand	5 min
9:10:16	37° 59.0696	123° 24.0344	72	360	rock sand	10 min
9:15:08	37° 59.1472	123 24.0280	71	90	rock wall	END #2
9:21:48	37-59.1705	123 23.9227	75	0	sand boulder/rock	START TX #3
9:27:02	37 59.2641	123 23.9382	75	0	"	5 min

VELERO/DELTA - 2004

side 2

Date: 8 Aug 04	Dive #: 6244 (cont.)	Grid No(s): H-9	Location: SE Cordell Bank
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VELERO/DELTA - 2004

CORDELL

Date: 08-08-04	Dive #: 6245	Grid No(s): E-4	Location: E-4-1			
Observer / Pilot: Linda Snook / Dave Slaton						
Time Down: 11:20	Time Up:	Recorder: D. Roberts				
Water Visibility:	Weather Conditions: Fog - 3/4 mi vis					
Comments: Same location as Dive 6070 Last year						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
11:27:31	38-01.6649	123-29.0158	115	045	Silt	ON Bottom
TX1 11:30:41	38-01.7157	123-29.9650	114	330	Sand, Slope	START TRANSIT 1
TX1 11:37:33	38-01.79	123-29.0282	115	320	Sand Low Relief	05 min MARK
TX1 11:42:25	38-01.8631	123-29.0652	111	310	Boulders	10 min MARK
TX1 11:47:31	38-01.9064	123-29.1463	110	320	Boulder moderate relief	15 min MARK
TX2 11:53:49	38-01.9274	123-29.2648	114	330	Boulder Field	START TRANSIT 2
TX2 11:59:21	38-01.9526	123-29.3143	114	330	Boulders Small Boulder	
TX2 12:04:17	38-02.0620	123-29.3850	114	330	Boulders	
TX2 12:09:07	38-02.1342	123-29.3985	115	330	Sand Boulders	
→ 12:10:13	38-02.1350	123-29.3829	115	280		Between transects
TX3 12:13:41	38-02.1689	123-29.4713	115	330	SAND Boulder	START TRANSIT 3

VELERO/DELTA - 2004

side 2

Date: 08-08-04	Dive #: 6245	Grid No(s): E-4	Location: E-4-1
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[illegible]

VELERO/DELTA - 2004

D-2-2?

Date: 8/8/04	Dive #: 6246	Grid No(s): D2	Location: west bank
Observer / Pilot: Tara Anderson / Chris James			
Time Down: 13:35:	Time Up: 15:22	Recorder: J. Baltan	
Water Visibility: good, blue green	Weather Conditions: overcast, ~ 2 mile viz, wind is light; swell 4-6 NW ~ 1-3 swell		
Comments: dolphins in area during sub descent (Pac. white sided)			
May want to reconsider this track; transit of 175 m to 150 m is long distance (takes at least 10 min. if not 15 min)			

	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
	13:46:41	38° 02.7367	123° 30.9613	175	to 200m	boulders	25° slope; hit bottom
TX1	13:52:13	38° 02.7452	123° 31.0483	200	follow contour	sed. slope 20°	start transect 1
5m	13:58:11	38° 02.8276	123° 31.0670	200	follow contour	sed. slope 20°	
10m	14:03:09	38° 02.8981	123° 31.1060	200	follow contour	sed. slope 20°	
15m	14:07:55	38° 02.9672	123° 31.1426	200	up to 175	sed. slope.	End transect 1
	14:24:01	38° 03.0105	123° 31.0542	175	follow contour	20° sed. slope	arrived at 175m
TX2	14:26:05	38° 03.0160	123° 31.0556	175	follow contour	sed. slope w/ boulders	start tran. 2
5m	14:31:51	38° 03.0862	123° 31.0973	175	follow contour	20° slope w/ rocks/boulders	
10m	14:37:01	38° 03.1554	123° 31.1517	175	follow contour	10° scattered boulders on sed.	
TX2	14:42:05	38° 03.297	123° 31.1705	175	Go to 150m	10° sed. slope	End tran. 2
TX3	14:51:55	38° 03.1750	123° 30.9755	160	360°	10° sed. slope rock w/ algae	start tran. 3

VELERO/DELTA - 2004

side 2

Date: 8/8/04	Dive #: 6246	Grid No(s): D2	Location: p-2-2?
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VELERO/DELTA - 2004

Cordell Bank

Date: 8 AUG. 04	Dive #: 6247	Grid No(s): C-6	Location: NE section
Observer / Pilot: Jill Baltan / Dave Slater		STATION C-6-1	
Time Down: 16:15	Time Up: 17:57	Recorder: D. Roberts	
Water Visibility:	Weather Conditions: NO wind, Seas 6'		
Comments: Same location as 6072 last year			
Long line with hooks still attached on this dive			
1 Can cool off transect			

	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
	16:20:49	38-03.4003	123-27.1051	82m		Cobble Boulders	ON BOTTOM
X1	16:24:40	38-03.4005	123-27.0877	82m	130	Cobble Boulder	START TRANSECT 1
X1	16:29:37	38-03.3806	123-27.0190	79	130	Bedrock	5 min mark
X1	16:35:00	38-03.3520	123-26.9344	82	130	Sand waves	10 min MARK
X1	16:39:49	38-03.3192	123-26.8735	80	130	Sand waves	ROCKS around sand waves
-	16:41:11	38-03.3062	123-26.8602	80	125		TRANSFER TO TRANSECT 2
X2	16:46:27	38-03.2680	123-26.7865	70	145	Rock Boulder	START TRANSECT 2
X2	16:52:05	38-03.2065	123-26.7453	76	140	Boulder	5 min
X2	16:55:27	38-03.1730	123-26.7001	76	140	Boulder	Longline
X2	16:57:11	38-03.1667	123-26.6794	76	145	Rock Boulder	10 min
X2	17:01:59	38-03.1179	123-26.6263	74	145	Bedrock	End transect

VELERO/DELTA - 2004

side 2

Date: 08-08-04	Dive #: 6247	Grid No(s): C-6	Location: Station C-6-1
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VELERO/DELTA - 2004

CORDELL BANK

Date: 08-09-04	Dive #: 6248	Grid No(s): B-7	Location: B-7-1
Observer / Pilot: Linda Snook / Joe Lilly			
Time Down: 07:35	Time Up: 09:19	Recorder: D.R. Roberts	
Water Visibility: 30 ft	Weather Conditions: overcast ~ 800 feet visibility 10 miles		

Comments: Same location as

AT START LOTS OF KRILL - COULDN'T SURVEY BECAUSE OF
TICK SWARMS

	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
	07:46:12	38-04:74 26	123-26.0358	135	360	MUD	TRANSIT TO TRANSECT START
X1	07:50:38	38-04.8173	123-26.0371	135	195	MUD	START TRANSECT 1
X1	07:57:10	38-04.7929	123-26.0915	135	195	MUD	missed 5 min mark 7 min mark
FX1	07:59:50	38-04.6973	123-26.1223	135	190	MUD	10 min mark
FX1	08:04:00	38-04.6481	123-26.1406	132	190	Boulders	interface
FX1	08:05:06	38-04.1342 ^{WRONG}	123-26.1383	129	190	ROCKS	END Transact 1 / (CORRECTED)
-	08:10:30	38-04.6200	123-26.1557	?	190	?	STOPPED FOR PHOTOS Transit
	08:12:54	38-04.5845	123-26.1731		190	MUD	MUD Interface
X2	08:15:30	38-04.5706	123-26.1864	129	190	Small Boulders	START TRANSECT 2
X2	08:20:22	38-04.4957	123-26.2237	130	190	MUD	05 min MARK
X2	08:26:00	38-04.4092	123-26.2665	129	185	FLAT SEDIMENT	10 min mark

VELERO/DELTA - 2004

side 2

CORDELL

Date: 08-09-04	Dive #: 6248	Grid No(s): B-7	Location:
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	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
+2	08:30:44	38-04.3549	123-26.2912	127	185	FLAT SEDIMENT	END TRANSECT 2
-	08:34:22	38-04.3025	123-26.2967	127	180		TRANSIT
X3	08:36:42	38-04.2659	123-26.3013	125	195	FLAT SEDIMENT	START TRANSECT 3
X3	08:42:46	38-04.1965	123-26.3505	122	185	SEDIMENT BOULDERS	05m
X3	08:45:22	38-04.1606	123-26.3544	120	185	Boulder SLUR	interface
X3	08:47:22	38-04.1425	123-26.3644	116	185	Boulder SLUR	10m
X3	08:52:06	38-04.0784	123-26.4180	110	180	Boulder SAND	15min
-	08:56:18	38-04.0578	123-26.4743	110	170	MUD BOULDER	interface
X4	09:01:30	38-03.9764	123-26.3919	110	190	Sand Boulder	START 4
X4	09:06:58	38-03.9040	123-26.4391	105	190	Sand Small Rock	05 min
X4	09:12:00	38-03.8292	123-26.4812	100	180	SAND BOULDER	10 min
X4	09:16:50	38-03.7656	123-26.4839	95	180	BOULDER Low Relat Rock	15 min
-	09:19:24	38-03.7612	123-26.4771	95	-	-	END OF DIVE

VELERO/DELTA - 2004

CORDILL

Date: 08-09-04	Dive #: 6249	Grid No(s): E-10	Location: east Cordell bank
Observer / Pilot: Dale Roberts / Chris James			
Time Down: 10:20	Time Up: 11:43	Recorder: J. Baltan	
Water Visibility: blue-green	Weather Conditions: over cast; ~10 mile vis; light wind ~4 kts, NW; swell NW 2-4 ft. (ie perfect!)		
Comments: 2003 dive 6074			

Due to landing spot, did not run the original transect 1
 Several molas (3 counted) in area, BFALs next to them - TRANSECT 3 in an area which hasn't been surveyed before

	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment ^{heading to get back to orig. line}
	10:20:40	38° 01. 7489	123° 23. 4975	100	270	Sand waves	on bottom, good 1/2
TX1	10:35:48	38° 01. 7905	123° 23. 5529	100	185	Sand waves	start transect 1
5m	10:41:04	38° 01. 6586	123° 23. 5826	98	185	hummocky sand	→ adjusted heading to bring back to track line
10m	10:46:24	38° 01. 5532	123° 23. 5927	97	185	hummocky sand	
15m	10:50:48	38° 01. 4678	123° 23. 5803	95	270	sand	End transect 1
TX2	10:54:57	38° 01. 4440	123° 23. 6774	95	270	sand waves	start tran. 2
5m	11:00:20	38° 01. 4406	123° 23. 7900	90	270	cobble, sand	
10m	11:05:30	38° 01. 4239	123° 23. 8971	80	270	high relief rock	
15m	11:09:57	38° 01. 4273	123° 23. 9726	66	360	high relief rock	end tran. 2
	11:11:36	38° 01. 4486	123° 23. 9941	66	360	high relief rock	transit;
TX3	11:17:28	38° 01. 5179	123° 23. 0138	61	270	high relief rock	start tran. 3

VELERO/DELTA - 2004

side 2

Date: 8-9-04	Dive #: 6249	Grid No(s): E-10	Location: Neast Cordon bank
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VELERO/DELTA - 2004

Date: 08-09-04	Dive #: 6250	Grid No(s): F-9	Location: F-9-1			
Observer / Pilot: Howard / Slater						
Time Down: 12:12	Time Up: 13:25	Recorder: Ruby				
Water Visibility:	Weather Conditions: High overcast ~ 1000 ft 10 mi vis Light variable winds					
Comments: Not done in 2003 - Dive 5727 in 2002						
Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
12:17:10	38-00.9559	123-24.5238	62	130	Flat Boulder	Get start point
12:22:30	38-00.9611	123-24.4441	62	175	Bedrock cobbles	START Transect 1
12:27:20	38-00.8892	123-24.4290	62	175	Boulder Bedrock	05 m
12:32:52	38-00.8130	123-24.4345	62	180	Boulders High relief	10 m in
12:38:06	38-00.7450	123-24.4734	64	180	Small Boulders	End transect 1
12:40:00	38-00.7104	123-24.4061	64	180	Small Boulders	
12:43:36	38.00.6910	123.24.4249	64	180	low relief rock	start tran. 2
12:48:36	38.00.6191	123.24.4363	65	180	shell boulders	
12:54:30	38 00.5255	123° 24.4363	60	180	small boulders	
12:59:18	38° 00.4500	123° 24.4524	60	220	cobble, boulder bedrock	end tran. 2
13:02:14	38° 00.4262	123° 24.4954	60	195	cobble, boulder	start. tran. 3

VELERO/DELTA - 2004

side 2

Date: 8/9/04	Dive #: 6250	Grid No(s): F-9	Location:
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VELERO/DELTA - 2004

CORDELL BANK

Date: 08-09-04	Dive #: 6251	Grid No(s): G-5	Location:
Observer / Pilot: T. Anderson / Joe Lilly			
Time Down: 14:21	Time Up: 16:42	Recorder: [Signature] R. [Signature]	
Water Visibility:	Weather Conditions:		

Comments: NOT a "Standard" station but very close to Dive 5739 which Tara Ran in 2002

Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
14:25:27	38-00.1623	123-27.8650	—	—	—	HEADING ↓
14:28:17	38-00.1607	123-27.8609	101	045		ON BOTTOM
14:34:55	38-00.1959	123-27.8233	101	045	Buildups	START TRUNC 1
14:38:39	38-00.2222	123-27.8000	75m	045	Shoal Buildups	VERT START HIGH RELIEF
14:40:58	38-00.2438	123-27.7831	75m	045	VERTICAL WALL	5 MIN MARK
14:44:37	38-00.2353	123-27.7950	75m	045	VERTICAL WALL	BACK TRUNC 1 FOR PHOTOS RESTART HERE
14:48:55	38-00.2749	123-27.7867	69	045	H. Relief Rock	10 min
14:52:53	38-00.2875	123-27.7428	—	045	—	TIGER ROCKFISH
14:54:32	38-00.		75	045	H. Relief	END TRUNC 1
	38-00.			180	VERTICAL WALL	
14:59:30	38-00.2335	123-27.7327	65	180	VERTICAL WALL	START TR 2 TARA DECLARED START OF TR 2 NOT SURE OF INTENDED DIRECTION

742
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H1

VELERO/DELTA - 2004

side 2

Date: 08-09-04	Dive #: 6251	Grid No(s): G-5	Location: CORDELL Bank
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	Time	Latitude	Longitude	Depth (m)	Heading	Habitat	Comment
12	15:04:29	38-00.2602	123-27.7290	65	Follow Contour	Hi relat Vertical WALL	LLS
	15:05:33	38-00.419	123-27.46209	65		Vertical WALL	Break transect
	15:08:45	38-00.2731	123-27.6837	68	045	Relat.	Resume Transect
	15:12:49	38-00.2490	123-27.6672	65	Follow Contour	VERTICAL WALL	10 min
12	15:17:55	38-00.2000	123-27.6572	62	Follow Contour	VERTICAL WALL	END transect 2
	15:24:39	38-00.2518	123-27.6068	Descending	045	MID WATER	Transit to next transect
13	15:28:37	38-00.2822	123-27.5647	72	360	BOULDERS	START TRANSECT 3
	15:30:11	38-00.3037	123-27.5546	72	360	Boulders	
	15:32:00	38-00.3468	123-27.5166	74	360	Hi relat Rock/Sand	5 min
	15:39:15	38-00.4308	123-27.4873	74	360	Hi Relat Rock/Sand	10 min
13	15:44:22	38-00.4912	123-27.4365	65	360	Hi relat Rock/Sand	15 min / End 13
14	15:52:59	38-00.5573	123-27.3500	65	360	Hi relat Rock/Sand	Begin Transect 4
	15:57:51	38-00.6075	123-27.3555	65	Following Contour	Hi Relat Rock/Sand	8 min
	16:03:01	38-00.6194	123-27.2946	70	Following Contour	Hi Relat Rock/Sand	10 min
14	16:08:45	38-00.6260	123-27.2269	69	Follow Contour	Hi Relat + Sand	15 min END # 4

360

VELERO/DELTA - 2004[illegible]