NORSK INSTITUTT FOR VANNFORSKNING
Blindern

0-111/70

RESPIENTUNDERSØKELSE AV NEDRE SKIENSELVA, FRIERFJORDEN OG TILLIGGENDE FJORDOMRÅDER

Rapport 7

Hydrokjemiske data fra

tidsrommet mars 1974 - februar 1977

Blindern, 30. august 1977

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NIVAs hustrykkeri

FORORD

Foreliggende datarapport presenterer de hydrokjemiske måleresultatene fra en resipientundersøkelse i Skienselva og Grenlandsfjordene som Norsk institutt for vannforskning (NIVA) gjennomførte i tidsrommet mars 1974 - februar 1977.

NIVAs oppdragsgiver var Fylkesmannen i Telemark, ved Tilsynsutvalget for resipientundersøkelser i Skiensvassdraget og Skiensvassdragets fjordområder.

Dataene er tidligere delvis blitt presentert i to fremdriftsrapporter for tidsrommet 1974 - 1975, og en rekke toktrapporter.

Ved instituttet har siv.ing. Birger Bjerkeng og cand.mag. Norman Green hatt hovedansvaret for å tilrettelegge dataene for EDB, samt utlistingen av dataene. Disse er lagret i NIVAs databank.

Brekke, 30. august 1977

Jarle Molvær

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1. INNLEDNING

1.1 Generelt

I løpet av de tre år (1974-77) som NIVAs resipientundersøkelse av Skienselva og Grenlandsfjordene foregikk, ble det utført i alt 29 tokt med innsamling av vannprøver. 4 tokt pr. år har vært såkalte hovedtokt med innsamling av vannprøver for bestemmelse av vannmassens temperatur, saltholdighet, oksygeninnhold, konsentrasjon av fosfor- og nitrogenforbindelser, organisk stoff (som total organisk karbon), jern, metaller og til dels også forskjellige typer av klorerte hydrokarboner. Utover dette har det blitt samlet inn planktonprøver, vannprøver for bestemmelse av overflatelagets algevekstpotensial og klorofyllinnhold, samt en del prøver for bestemmelse av vannmassenes turbiditet og innhold av suspendert materiale. Man skal imidlertid være oppmerksom på at prøvetakingsprogrammet ikke var det samme for alle stasjoner, og at det ble gjort visse endringer i måleprogrammet underveis.

Mellom hvert hovedtokt ble det fram til juni 1975 utført to hydrografiske tokt, og deretter ett hydrografisk tokt mellom hvert hovedtokt. Siktemålet med de hydrografiske tokt var særlig å følge med i vannutskiftningen i de dypereliggende vannlag ved målinger av temperatur, saltholdighet og oksygeninnhold. Det er dertil gjort observasjoner på overflatelaget ved innsamling av planteplankton- og vannprøver til måling av algevekstpotensial og klorofyllinnhold.

Figur 1 viser stasjonsnettet som har vært benyttet. Stasjonene BD-1 og BC-2 ble tatt i tidsrommet september 1974 - januar 1975. Stasjon CD-1 ble erstattet av st. DD-1 fra september 1975. Da ble også st. BN-1 opprettet.

Med unntak av mai og juli 1974 har stasjonene i Skienselva blitt tatt under hovedtoktene.

Stasjonene i Gunnekleivfjorden ble tatt i september 1975 og under hovedtoktene i 1976.

På stasjonene har en vanligvis også observert værforhold, vind, skydekke, bølgehøyde og siktedyp.

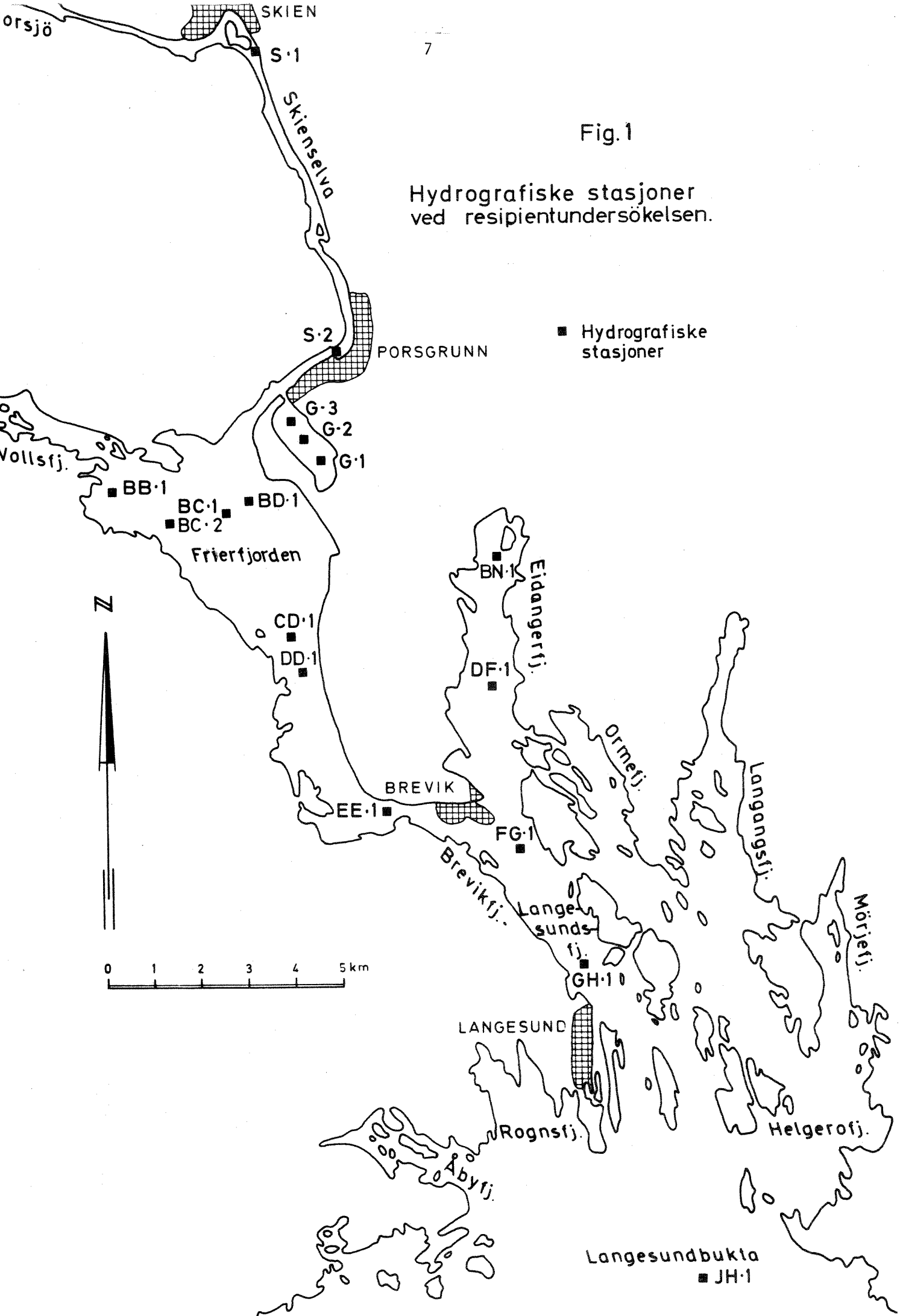

Fig. 1

Hydrografiske stasjoner ved resipientundersökelsen.

■ Hydrografiske stasjoner

1.2 Kort beskrivelse av det utlistede datamateriale

Ved NIVA har de innsamlede hydrokjemiske måleresultater for hvert tokt blitt tilrettelagt for EDB og listet ut stasjon for stasjon. Samtidig er det utført noen enkle beregninger som er til nytte under vurderingen og bruken av tallmaterialet. Disse vil bli nærmere omtalt nedenfor.

Av hensyn til at dataene skal inngå i en nasjonal databank ved Norsk Oseanografisk Datasenter i Bergen, hvor utveksling av data med utenlandske institusjoner foregår, er tabellteksten på engelsk.

Av praktiske grunner er ikke analyseresultatene for klorerte hydrokarboner tatt med i denne rapporten. Dette materialet er imidlertid allerede presentert i Fremdriftsrapport nr. 5 (NIVA 1976b) for tidsrommet 1974-75, og i rapportene fra hovedtoktene i 1976. Materialet vil også bli tatt med i sluttrapporten for 3-års undersøkelsen.
Det samme er tilfelle for målingene av algevekstpotensial, klorofyll, suspendert tørrstoff og gløderest.
Tabell 1 gir en kortfattet oversikt over parametre, analysemetoder, analyselaboratorier, samt presisjon og deteksjonsgrense ved sjøvannsanalysene.

Resultatene er listet ut kronologisk tokt for tokt, med 12.-14.3.1974 som tidspunkt for første tokt og 15.-16.2.1977 som siste tokt.

Hver utlisting begynner med stasjonen innerst i Frierfjorden (st. BB-1) og avsluttes med stasjonen på Langesundsbukta (st. JH-1) eller stasjonen i Langesundsfjorden (st. GH-1) i de tilfeller st. JH-1 ikke er tatt pga. dårlig vær.
I de tilfeller stasjonene i Skienselva og Gunnekleivfjorden er tatt, står disse sist under de enkelte tokt.
Vinterstid måtte iblant stasjonene i Eidangerfjorden sløyfes pga. is.

Vi gjør oppmerksom på at stasjonene ikke alltid er tatt i den rekkefølge de her er listet ut.

I tabellene står alle overflateprøvene for tungmetaller angitt ved 0 m dyp. Fra og med junitoktet 1975 ble imidlertid tungmetallprøvene innsamlet som blandingsprøver fra 0-2 m dyp. Av programmeringstekniske årsaker står imidlertid også disse resultater ved 0 m dyp.

Tabell 1. Oversikt over parametre, analysemetoder, analyselaboratorier, samt antatt presisjon og deteksjonsgrenser ved sjøvannsanalyser x)

Parameter		Metode	Laboratorium	Presisjon	Deteksjonsgrense
Temperatur	(TEMP.)	Vendetermometer aylest med lupe		± 0,01°C	-
Saltholdighet	(SAL.)	Konduktivitetsmåling ved laboratoriesalinometer	NIVA	± 0,003°/oo	2,846°/oo
Oksygen/Hydrogensulfid	(O_2/H_2S)	Jodometrisk titrering	NIVA	± 2-4 %	-
Ortofosfat	(PO_4-P)	Kolorimetrisk.Auto-Analyzer	NIVA	± 0,5 µg/l	2 µg/l
Totalfosfor	(Tot-P)	" U.V.-lys+H_2O_2 "	NIVA	± 0,5 "	2 "
Nitrat+nitritt	(NO_3-N)	" $NO_3 \xrightarrow[Cd-Cu]{red.} NO_2$ "	NIVA	± 10 "	10 "
Ammonium	(NH_4-N)	Fotometrisk.Indol-metoden	NIVA	± 5 "	10 "
Totalnitrogen	(Tot-N)	U.V.lys.Ellers som NO_3-N	NIVA	± 10 "	10 "
Total org. karbon	(TOC)	Persulfatoksydasjon, CO_2-bestemmelse	NIVA	± 0,05 mg/l	0,2 mg/l
Kopper	(Cu)	MIBK-APDC ekstraksjon.Atomabsorpsjon	S.I.	± 10 %	0,5 µg/l
Bly	(Pb)	" " "	S.I.	± 10 %	1,0 "
Sink	(Zn)	" " "	S.I.	± 10-15 %	1,0 "
Kvikksølv	(Hg)	H_2SO_4+$KMnO_4$.Flammeløs A.A.	S.I.	± 10 %	0,05 "
Kadmium	(Cd)	MIBK-APDC ekstraksjon.A.A.	S.I.	± 10 %	0,1 "
Krom	(Cr^{6+})	" " "	S.I.	± 10 %	1,0 "
Vanadium	(V)	" " "	S.I.	± 10 %	50,0 "
Nikkel	(Ni)	" " "	S.I.	± 10 %	0,5 "
Kobolt	(Co)	" " "	S.I.	± 10 %	0,5 "
Molybden	(Mo)	" " "	S.I.	± 15 %	20,0 "
Jern	(Fe)	" " "	S.I.	± 10 %	0,5 "
Mangan	(Mn)	Direkte atomabsorpsjon	S.I.	± 10 %	40,0 "
Fluor	(F)	Spektrofotometri	S.I.	± 10 %	0,05 mg/l

x) Presisjon vil for enkelte parametre kunne variere noe fra prøveserie til prøveserie avhengig av konsentrasjonsnivåene.

En tabellarisk datautskrift av dette omfang, må nødvendigvis bli knapp på beskrivende og forklarende tekst. I det etterfølgende skal vi gi en kort forklaring til enkelte av de målte og beregnede størrelser. For en mer detaljert forklaring til forkortelsene som er brukt, viser vi til Appendix, Fremdriftsrapporter nr. 4 og 5 (NIVA 1976a, 1976b) og sluttrapporten fra denne resipientundersøkelsen.

Vi gjør oppmerksom på at det under COMMENTS ofte er gitt en del tilleggsopplysninger om prøveinnsamlinger på den enkelte stasjon og dermed om resultater som av praktiske grunner ikke er tatt med i tabellene. Forkortelsene som er brukt under COMMENTS blir forklart i Appendix.

SHIP

Her er anført navn på båten som er benyttet ved feltarbeidet. Der NIVAs båt "H. H. Gran" ikke er brukt, er rubrikken blank, dvs. at man har benyttet lokal båt.

SECCHI-DISC

Under denne betegnelsen er siktedypet angitt. Siktedypet måles ved å senke en hvit skive (25 cm diameter) ned i vannmassen, og angis som dypet hvor skiven akkurat forsvinner av syne. Fargen angis som skivens farge når den er senket til halve siktedypet.

CLOUDS

I følge vanlig meteorologisk praksis er skydekket angitt ved åttendedelen. Skyfri himmel angis ved 0/8 og helt overskyet vær som 8/8.

DENS, SIGMA-T

Dette er et mål på vannmassens tetthet (egenvekt). Størrelsen σ_t (sigma-t) er beregnet som $\sigma_t = (\rho - 1) \cdot 1000$, der ρ er egenvekten ved atmosfæretrykk.

ORG P og ORG N

Organisk fosfor (ORG P) defineres som differansen mellom totalfosfor (TOT P) og ortofosfat (PO4P). I enkelte tilfeller vil en se at konsentrasjonen av ortofosfat er litt høyere enn for totalfosfor. Dette kan ha sammenheng med hvor lenge prøvene er lagret før analysene er utført. Det er da rimelig å anta at TOT P-verdien er korrekt mens PO4P-verdien er litt for høy.

Organisk nitrogen (ORG N) defineres som differansen mellom totalnitrogen (TOT N) og ammonium (NH4N) pluss nitrat+nitritt (NO3N).

For 1974-75 vil en se at ORG N i 0 m og 4 m dyp ofte er negativ, noe som åpenbart ikke er riktig. Årsaken er at man på denne tiden hadde vanskeligheter med bestemmelsene av totalnitrogen og ammonium i brakkvannslaget. Her ble ammoniumkonsentrasjonene i områder med store mengder nitrogenforbindelser målt 2-3 ganger for høye. For totalnitrogen var forholdet at de målte konsentrasjoner kan har vært for lave.

Forholdene NO3N/PO4P, TOC/TOTN, TOC/TOTP og TOTP/TOTN

Dette er beregnede verdier til hjelp under tolkningen av dataene.

2

Hydrokjemiske måleresultater for tidsrommet mars 1974 - februar 1977

Tokt i 1974

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	59	740312	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	2			3.3		PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO		

COMMENTS

TRB+TSM+SUP 0-2,4,50M, VH.FOR 50M TOUCHED BOTTOM

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.80	<2.846	<2.384	8.87		(90.5)	19	12	7	960	450	520	-10	4.55	30.0
4	1.84	3.403	2.855	8.23		86.7	24	11	13	920	490	850	-420	3.65	50.0
5	2.45	10.775	8.697	7.88		88.7	36	25	11	2400	470	1200	730	2.85	30.0
8	2.37	23.128	18.508	8.94		109.1									
12	3.00	24.638	19.674	8.44		105.8									
16	3.20	26.291	20.974	7.66		97.5	27	14	13	325	130	60	135	1.70	
20	3.99	28.748	22.863	6.67		88.1									
30	8.14	33.440	26.071	2.27		34.1	64	59	5	240	180	15	45	1.05	30.0
40	7.29	33.827	26.497	0.24		3.5									
50	6.98	33.933	26.623		0.88		180	190	-10	220	<10	140	>70	1.05	130.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	83	6	618	112	<0.05	10.0	4.1	<0.05	0.20			<1.0	
4	99	5	392	85	0.10	S	S	CA0.12	S			S	
5	42	1	204	147									
8													
12													
16	21	6	162	27									
20													
30	7	5	42	8									
40													
50	<0	6	15	3	<0.05	9.3	0.3	CA0.12	0.10			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

CA :APPROXIMATE VALUE S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	86	740312	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	2			3.2		PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

GP 0-2M, TRB+TSM+SUP 0-2,80M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	2.60	3.293	2.778	8.51		91.5	41	31	10	2400	650	2500	-750	4.35	100.0
4	2.25	4.787	3.956	4.97		53.5	37	30	7	3600	760	3800	-960	3.05	100.0
5	2.49	10.253	8.283	8.16		91.6	52	43	9	3400	600	3750	-950	2.95	50.0
8	2.52	23.254	18.601	8.34		102.3									
12	2.87	25.114	20.060	7.98		100.0									
16	3.21	26.567	21.193	7.73		98.6	33	21	12	335	120	80	135	1.70	40.0
20	4.09	28.939	23.006	6.53		86.5									
30	8.24	33.483	26.090	3.12		47.0	55	51	4	305	210	20	75	0.85	30.0
40	7.29	33.819	26.491	0.17		2.5									
50	6.98	33.921	26.614		1.40		180	190	-10	260	<10	175	>75	1.15	140.0
60	6.85	33.991	26.686		1.01		190	200	-10	120	<10	175	>-65	0.95	130.0
80	6.65	34.070	26.775		2.23		220	240	-20	365	<10	315	>40	1.25	130.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	46	2	274	129	0.15	12.0	5.8	<0.05	0.15			<1.0	
4	56	1	213	215	0.07	5.5	3.3	<0.05	0.10			<1.0	
5	31	1	146	145									
8													
12													
16	13	6	133	22									
20													
30	9	3	40	12	0.05	2.7	3.3	<0.05	<0.05			<1.0	
40													
50	<0	5	16	3									
60	<0	9	13	1									
80	<0	4	15	4	0.19	<1.0	0.2	<0.05	<0.05			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	96	740313	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	2			3.0		PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
TRB+TSM+SUP 0-2,4,90M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	1.50	<2.846	<2.406	8.57		(89.2)	23	22	1	1560	530	970	60	4.20	80.0
4	1.71	4.120	3.421	8.50		89.7	34	27	7	2400	620	2150	-370	3.60	40.0
8	2.31	23.326	18.669	8.78		107.1	14	5	9	315	60	50	205	3.25	60.0
12	2.73	24.796	19.816	8.29		103.3									
16	3.16	26.363	21.034	7.59		96.6	L	L		130	100	L		L	L
20	4.11	28.643	22.769	6.63		87.7									
30	8.07	33.461	26.098	3.10		46.5	61	59	2	390	230	10	150	0.85	40.0
40	7.31	33.797	26.471	0.25		3.7									
50	7.02	33.999	26.669		0.77		180	190	-10	290	<10	200	>80	1.05	180.0
60	6.88	33.981	26.674		0.84		190	200	-10	285	<10	190	>85	0.85	130.0
80	6.66	34.090	26.790		2.32										
90	6.61	34.098	26.802		2.61		250	260	-10	500	<10	360	>130	1.00	130.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	53	3	471	150	<0.05	<1.0	1.2	<0.05	<0.05			<1.0	
4	51	2	273	156	<0.05	7.7	CA1.2	0.05	<0.05			<1.0	
8	27	12	599	50									
12													
16													
20													
30	9	3	36	14	<0.05	<1.0	0.3	<0.05	<0.05			<1.0	
40													
50	<0	4	15	4									
60	<0	3	12	3									
80													
90	<0	2	10	4	<0.05	<1.0	<0.1	<0.05	<0.05			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
CA :APPROXIMATE VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	740313	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	29			3.0		PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
TRB+TSM+SUP 0-2,4,50M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	1.80	3.130	2.638	8.54		89.7	25	20	5	2000	560	1500	-60	3.60	50.0
4	1.90	4.645	3.840	8.40		89.4	29	22	7	2200	560	1750	-110	3.10	70.0
8	2.15	22.492	18.012	9.17		110.8	10	3	7	300	30	40	230	2.55	40.0
12	2.71	24.961	19.948	8.18		102.0									
16	3.12	26.103	20.830	7.76		98.5	22	14	8	370	110	80	180	2.10	100.0
20	4.36	29.414	23.358	6.17		82.6									
30	6.53	33.017	25.962	4.59		66.3	48	45	3	330	170	<10	>150	1.75	40.0
40	6.35	33.274	26.187	5.22		75.2									
50	6.46	33.422	26.290	7.25		104.8	37	35	2	270	150	20	100	1.25	40.0

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	62	2	371	177	<0.05	<1.0	0.3	<0.05	<0.05			<1.0	
4	56	2	276	168	0.05	12.5	4.3	CA0.05	0.10			<1.0	
8	22	10	658	66									
12													
16	17	7	246	37									
20													
30	8	6	94	15									
40													
50	9	5	87	16	<0.05	4.5	3.9	<0.05	0.20			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE CA :APPROXIMATE VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	104	740313	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			5.5		PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	-

COMMENTS

TRB+TSM+SUP 0-2,4,95M, VH. FOR 80+95M TURNED EARLY

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.40	10.403	8.403	8.78		98.5	21	14	7	1140	420	600	120	3.75	80.0
4	2.02	21.025	16.849	9.91		118.2	9	3	6	290	50	100	140	3.05	40.0
8	2.07	21.864	17.515	9.53		114.4	8	2	6	280	30	55	195	2.90	30.0
12	2.16	22.951	18.377	9.21		111.7									
16	2.82	25.407	20.296	8.46		106.1	20	5	15	430	90	60	280	3.60	30.0
20	4.35	30.612	24.307	6.46		87.1									
30	5.90	34.235	27.002	5.96		85.5	29	27	2	240	120	<10	>110	0.80	50.0
40	5.72	34.443	27.188	6.53		93.4									
50	5.79	34.623	27.321	6.63		95.1									
60	5.81	34.702	27.381	7.16		102.8	23	20	3	L	L	<10		0.80	40.0
(80)	5.18NA	33.965R	(26.874)	5.82		(81.9)									
(95)	5.68NA	34.462R	(27.224)	6.74		(96.3)	25	22	3	250	110	<10	>130	1.30	80.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	66	4	461	120	0.05	4.5	4.4	<0.05	0.10				
4	37	12	874	71	0.06	7.3	2.4	CA0.05	<0.05				
8	33	12	935	77									
12													
16	40	10	464	48									
20													
30	10	4	71	18	<0.05	5.5	3.3	CA0.05	<0.05				
40													
50													
60			90										
(80)													
(95)	11	6	134	22	0.08	1.0	0.3	<0.05	<0.05				

< :LESS THAN VALUE
R :REPEATED ANALYSIS
L :LACKING FOR UNKNOWN REASONS
> :GREATER THAN VALUE
CA :APPROXIMATE VALUE
() :UNCERTAIN VALUE
NA :NONACCLIMATED (TEMPERATURE)

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59,2.7	9,43.2	105	740314	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	15			4.4		PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS

TSM+TRB+SUP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.30	9.522	7.705	8.72		97.0	22	14	8	1120	410	850	-140	3.60	120.0
4	1.93	21.190	16.984	9.53		113.5	17	4	13	285	20	30	235	3.30	70.0
8	2.12	22.622	18.117	8.93		107.9	12	2	10	275	20	30	225	2.60	40.0
12	2.78	25.287	20.203	8.26		103.4									
16	5.01	30.385	24.062	6.19		84.7	38	(104)	(-66)	345	170	45	130	1.60	60.0
20	7.22	34.094	26.716	5.45		80.5									
30	5.69	34.427	27.179	6.41		91.6	36	25	11	200	100	<10	>90	0.95	50.0
40	5.78	34.611	27.313	7.51		107.7									
50	5.82	34.725	27.398	6.35		91.2									
60	5.88	34.800	27.450	6.74		97.0	24	24	0	210	90	<10	>110	0.80	40.0
80	5.93	34.902	27.524	6.51		93.8									
100	5.96	34.937	27.548	6.39		92.2	22	26	-4	190	100	<10	>80	0.80	60.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	65	4	422	113	0.07	2.0	1.3	<0.05	0.15			<1.0	
4	11	14	501	37	0.13	45.0	3.0	<0.05	<0.05			<1.0	
8	22	11	559	51									
12													
16	(4)	5	109	20									
20													
30	9	6	68	12	0.05	4.9	1.0	<0.05	<0.05			<1.0	
40													
50													
60	8	4	86	19									
80													
100	9	5	94	19	0.07	11.0	4.6	<0.05	<0.05			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	112	740314	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	13			4.5		PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

TRB+TSM+SUP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.30	9.640	7.799	8.61		95.8	25	15	10	1080	410	900	-230	3.85	50.0
4	1.86	21.290	17.066	9.46		112.5	18	4	14	295	20	30	245	3.35	40.0
8	2.27	23.007	18.417	8.57		104.2	15	2	13	245	10	15	220	2.85	20.0
12	2.92	25.674	20.502	7.94		100.0									
16	5.09	31.786	25.161	6.07		84.0	33	27	6	280	150	20	110	1.45	40.0
20	6.83	33.942	26.650	5.68		83.1									
30	5.73	34.431	27.177	6.32		90.4	24	20	4	220	110	<10	>100	1.00	40.0
40	5.78	34.592	27.298	6.28		90.0									
50	5.85	34.697	27.372	6.42		92.2									
60	5.89	34.788	27.439	6.46		93.0	23	21	2	200	110	<10	>80	0.85	20.0
80	5.94	34.870	27.498	6.35		91.5									
100	5.94	34.925	27.541	6.32		91.1	24	22	2	205	110	<10	>85	1.00	40.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	60	4	397	96	0.15	1.0	1.0	<0.05	<0.05			<1.0	
4	11	13	480	36	0.21	3.9	2.8	<0.05	<0.05			<1.0	
8	11	14	490	36									
12													
16	12	6	113	19									
20													
30	12	5	107	20	0.08	6.9	3.3	<0.05	<0.05			<1.0	
40													
50													
60	12	5	95	19									
80													
100	11	6	107	19	0.07	5.9	1.3	CA0.05	<0.05			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE CA :APPROXIMATE VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	205	740314	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.5	1			4.5		PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

TRB+TSM+SUP 0-2.4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.80	16.928	13.594	8.86		102.2	3	4	-1	1060	410	370	280	4.30	20.0
4	2.05	22.681	18.167	8.82		106.4	13	3	10	235	20	10	205	2.65	10.0
8	2.11	23.408	18.743	8.82		107.1	16	3	13	300	50	<10	>240	2.80	40.0
12	2.24	24.310	19.456	8.61		105.6									
16	4.41	32.275	25.619	6.91		94.4	16	17	-1	250	120	10	120	1.40	30.0
20	5.32	34.259	27.091	6.49		91.8									
30	5.73	34.914	27.559	6.74		96.7	22	18	4	180	90	<10	>80	0.80	20.0
40	5.91	34.980	27.588	6.56		94.6									
60	6.00	35.028	27.615	6.00		86.7	25	20	5	175	100	<10	>65	1.35	30.0
80	6.04	35.055	27.631	5.89		85.2									
100	6.04	35.059	27.634	L			33	21	12	205	110	<10	>85	0.65	30.0
150	6.05	35.067	27.639	6.32		91.5									
200	6.10	35.086	27.648	6.28		91.0	31	25	6	250	130	<10	>110	1.15	40.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	227	5	3696	781	0.06	5.9	3.9	<0.05	0.20			<1.0	
4	15	13	526	40	0.07	5.9	4.1	<0.05	<0.05			<1.0	
8	37	11	451	41									
12													
16	16	7	226	35									
20													
30	11	5	94	18	0.07	7.7	1.2	<0.05	<0.05			<1.0	
40													
60	11	9	139	15									
80													
100	12	4	51	14									
150													
200	11	5	96	18	<0.05	5.0	3.3	CA0.05	0.10			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE CA :APPROXIMATE VALUE

L :LACKING FOR UNKNOWN REASONS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	740424	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	36			2.5	BROWN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.20	3.153	2.600	7.67		90.4									
4	7.43	8.118	6.390	7.03		88.2									
6		33.075		2.24											
8	7.18	33.634	26.361	0.78		11.5									
12	L	33.857			0.42										
16	7.01	33.892	26.587		0.42										
20	6.94	33.931	26.627		1.06										
30	6.49	34.002	26.743		0.92										
40	6.25	34.037	26.801		0.14										
50	6.01	34.049	26.841		2.39										

L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	87	740424	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	36			3.5	BROWN/YELLOW	PARTLY CLOUDY	5/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.60	4.058	3.285	7.85		94.0	25	21	4	1196	610	1800	-1214	2.50	60.0
4	6.35	7.933	6.319	7.38		90.1									
6	6.24	29.083	22.901	4.69		65.6									
8	5.99	33.427	26.353	2.17		31.0									
12	5.99	33.665	26.541	1.24		17.8									
16	6.03	33.857	26.687	0.14		2.0									
20	6.06	33.861	26.687	0.04		0.6									
30	5.19	33.173R	(26.247)	0.39		(5.5)									
40	5.09	34.049	26.951	0.18		2.5									
50	6.68	34.053	26.758	4.01		58.5									
60	6.92	34.088	26.753	4.58		67.2									
70	6.88	34.116	26.781	4.54		66.6									
85	6.67	34.135	26.824	4.47		65.2									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	64	2	258	106									
4													
6													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59.5.2	9.38.3	96	740424	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	30			3.5	YELLOW/BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	6.20	3.658	2.993	7.77		91.9	32	11	21	696	490	720	-514	3.15	50.0
4	4.93	3.773	3.131	7.77		89.1									
6	5.61	29.048	22.944	4.30		59.2									
8	7.53	33.438	26.158	1.88		27.9									
12	6.86	33.724	26.475	1.35		19.7									
16	6.78	33.834	26.572	0.78		11.4									
20	6.56	33.881	26.638	0.96		14.0									
30	6.29	33.939	26.719	1.03		14.9									
40	6.04	34.037	26.828	2.80		40.2									
50	6.08	34.073	26.851	4.15		59.7									
60	6.07	34.088	26.864	4.40		63.3									
80	6.09	34.131	26.896	4.12		59.3									
90	6.09	34.147	26.908	4.15		59.7									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	99	5	254	48									
4													
6													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	740423	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	27			3.0	YELLOW/BROWN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
CP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.80	3.479	2.871	8.02		93.8	16	12	4	916	460	1200	-744	2.70	50.0
4	5.20	4.083	3.365	7.74		89.5									
8	6.98	33.372	26.182	2.70		39.5									
12	6.66	33.614	26.415	3.05		44.4									
16	6.28	33.888	26.680	4.08		58.9									
20	5.94	34.316	27.060	5.33		76.5									
30	5.88	33.783R	(26.647)	5.75		(82.2)									
40	5.86	34.575	27.275	5.89		84.6									
50	5.87	34.630	27.317	5.93		85.2									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	85	3	435	127									
4													
8													
12													
16													
20													
30													
40													
50													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	740424	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	36			4.5	BROWN/YELLOW	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.20	13.893	10.906	7.77		100.7									
4	6.18	20.613	16.253	7.24		95.6									
8	6.31	30.785	24.232	5.50		77.9									
12	6.18	33.661	26.514	5.04		72.5									
16	5.94	34.112	26.899	5.36		76.9									
20	5.85	34.312	27.068	5.50		78.8									
30	5.83	34.171R	(26.960)	6.18		(88.4)									
40	5.89	34.843	27.483	6.21		89.4									
50	5.91	34.890	27.517	6.07		87.4									
60	5.92	34.906	27.529	6.18		89.1									
80	6.04	34.965	27.560	6.07		87.8									
90	6.08	34.972	27.560	6.07		87.8									

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	FG1	59,2.8	9,43.2	104	740423	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	35			4.0	YELLOW/BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	6.20	8.857	7.050	7.63		93.4									
2	5.47	10.641	8.488	7.38		89.7									
4	5.75	28.303	22.341	6.57		90.3									
8	6.26	33.626	26.476	4.15		59.8									
12	5.91	33.932	26.761	5.36		76.7									
16	5.95	34.245	27.003	5.08		72.9									
20	5.90	34.477	27.192	5.43		78.0									
30	5.85	34.681	27.360	6.14		88.2									
40	5.90	34.819	27.462	6.18		89.0									
50	5.94	34.874	27.501	6.04		87.1									
60	5.93	33.466R	(26.391)	6.11		(87.2)									
80	6.03	34.921	27.526	6.11		88.3									
100	6.08	34.981	27.567	6.11		88.4									

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	110	740423	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	35			4.5	YELLOW/BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.50	10.002	7.924	7.60		94.4									
4	5.82	27.784	21.925	6.67		91.5									
8	6.25	32.749	25.786	4.62		66.2									
12	5.77	33.756	26.639	5.68		80.9									
16	5.83	34.199	26.982	5.61		80.3									
20	5.80	34.689	27.372	6.11		87.7									
30	5.85	34.277R	(27.041)	5.57		(79.8)									
40	5.93	34.933	27.549	6.18		89.1									
50	5.93	34.902R	(27.524)	6.11		(88.1)									
60	5.98	34.858R	(27.483)	6.25		(90.2)									
80	6.02	34.827	27.454	6.14		88.6									
105	6.07	34.976	27.565	6.11		88.4									

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	205	740423	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	36			5.5	YELLOW/BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.00	20.156	15.708	7.95		109.3	36	5	31	500	110	240	150	1.75	90.0
4	6.28	23.313	18.362	7.88		106.2									
8	5.38	33.076	26.148	6.46		90.8									
12	5.62	33.991	26.843	6.21		88.3									
16	5.74	34.214	27.005	6.25		89.3									
20	5.71	34.312	27.086	6.14		87.7									
40	5.81	34.756	27.424	6.25		89.7									
50	5.87	34.835	27.479	6.39		91.9									
60	5.92	34.878	27.506	6.28		90.5									
70	5.99			6.14											
100	6.03	34.857	27.476	6.46		93.3									
150	6.12	35.008	27.584	6.28		91.0									
190	6.13	35.024	27.595	6.28		91.0									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	49	4	125	31									
4													
8													
12													
16													
20													
40													
50													
60													
70													
100													
150													
190													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	58	740521	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.2	BROWN/YELLOW	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NTR OM

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	PE
0	10.20	<2.846	<2.073	7.21		(93.5)	24	8	16	980	430	1200	-650	4.95	
4	7.81	8.634	6.761	7.06		89.7									
8	8.78	23.815	18.464	6.60		94.6									
12	7.79	26.833	20.948	5.25		75.0									
16	7.10	33.759	26.470	0.00		0.0									
20	6.52	33.943	26.692		0.74										
30	6.01	34.057	26.847	3.27		47.0									
40	6.09	34.077	26.853	3.62		52.1									
50	6.16	34.167	26.915	2.84		41.0									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MYG/L	NI MYG/L	CR MYG/L	F MG/L
0	119	6	532	90									
4													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	92	74052.1	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	36					CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M, VH. FOR 85M DISTURBED BOTTOM

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	9.40	<2.846	<2.148	7.60		(96.7)	30	14	16	1380	530	2200	-1350	4.00	
4	8.22	15.110	11.756	6.99		93.5									
8	8.74	24.783	19.223	6.75		97.3									
12	7.87	27.660	21.585	5.08		73.1									
16	7.11	33.697	26.420	0.43		6.3									
20	6.51	33.928	26.682	0.00		0.0									
30	6.00	34.057	26.849	3.80		54.6									
40	6.07	27.690R	(21.824)	3.27		(45.1)									
50	6.13	34.147	26.903	3.69		53.2									
60	6.16	(34.084)	(26.850)	3.44		(49.6)									
85	6.18	34.241	26.971	2.27		32.8									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	84	3	344	102									
4													
8													
12													
16													
20													
30													
40													
50													
60													
85													

< :LESS THAN VALUE () :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	740521	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.5	36			3.0	YELLOW/GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	8.40	<2.846	<2.229	S			34	20	14	1320	570	2000	-1250	2.95	
4	8.11	11.354	8.848	7.14		93.0									
8	9.58	15.497	11.903	7.63		105.7									
12	8.49	27.026	21.006	6.43		93.5									
16	7.24	33.142	25.966	1.07		15.7									
20	6.53	33.924	26.676	0.00		0.0									
30	6.05	34.049	26.836	2.95		42.4									
40	6.05	34.112	26.886	4.19		60.3									
50	6.12	34.151	26.908	3.69		53.2									
60	6.14	34.182	26.930	3.83		55.2									
80	6.13	33.996R	(26.784)	3.91		(56.3)									
90	6.12	34.245	26.982	3.73		53.8									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	63	3	224	86									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

< :LESS THAN VALUE () :UNCERTAIN VALUE R :REPEATED ANALYSIS
S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	55	740520	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.5		CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	9.40	<2.846	<2.148	7.60		(96.7)	31	12	19	1320	520	2000	-1200	3.70	
4	8.78	<2.846	<2.200	7.63		(95.6)									
6	10.29	21.493	16.451	7.49		109.5									
8	9.94	23.476	18.039	7.49		110.0									
12	8.91	26.342	20.415	7.06		103.2									
16	6.62	33.316	26.186	2.02		29.3									
20	6.39	33.860	26.644	1.67		24.2									
30	6.23	34.186	26.921	2.95		42.6									
40	6.15	34.280	27.006	3.55		51.2									
50	6.15	34.288	27.012	3.16		45.6									

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	96	3	308	94									
4													
6													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	103	740521	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	1			2.5	GREEN/YELLOW	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	13.10	7.150	5.016	8.17		116.2									
4	10.13	21.867	16.764	8.38		122.4									
8	8.41	25.080	19.498	6.96		99.8									
12	7.88	27.949	21.809	6.43		92.7									
16	6.96	31.749	24.909	4.54		65.7									
20	6.28	33.861	26.659	3.20		46.2									
30	5.94	34.398	27.125	5.33		76.6									
40	5.94	34.595	27.281	5.50		79.1									
50	5.93	34.811	27.452	6.04		87.0									
60	5.95	34.894	27.515	6.18		89.1									
80	6.02	34.929	27.534	5.93		85.7									
90	6.05	34.961	27.555	5.50		79.5									

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:18:17 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FGI	59,2.7	9,43.2	104	740520	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	16			2.5	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.30	7.158	5.380	7.56		101.0	27	17	10	1380	490	2000	-1110	3.20	
4	10.68	21.563	16.448	7.99		117.9									
8	10.10	24.035	18.450	7.28		107.7									
12	9.15	26.029	20.137	7.35		107.8									
16	7.89	28.994	22.626	7.03		102.1									
20	6.67	32.976	25.912	3.37		48.8									
30	6.11	34.394	27.101	4.12		59.4									
40	5.98	34.606	27.284	5.36		77.2									
50	5.97	34.827	27.460	5.96		85.9									
60	5.98	34.874	27.496	6.11		88.2									
80	6.02	34.925	27.531	5.86		84.7									
100	6.05	34.968	27.561	5.82		84.2									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	64	3	306	113									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	110	740520	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	16			2.7	BROWN/YELLOW	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP (MICROGR./L)	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.00	7.974	6.042	7.56		100.8	31	16	15	1460	470	2.000	-1010	3.75	
2	10.12	12.075	9.192	7.63		104.7									
4	11.00	22.028	16.760	7.92		118.0									
8	11.00	24.626	18.769	7.21		109.2									
12	8.85	26.868	20.833	7.31		107.1									
16	6.81	31.575	24.792	6.46		93.0									
20	6.44	33.648	26.470	2.91		42.1									
30	6.10	34.355	27.071	4.33		62.4									
40	6.00	34.697	27.354	5.43		78.3									
50	5.99	34.850	27.476	6.28		90.6									
60	6.01	34.909	27.520	5.96		86.1									
80	6.03	34.953	27.552	5.89		85.1									
105	6.05	34.976	27.567	6.07		87.8									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	65	3	312	104									
2													
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
105													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JHI	58,58.1	9,47.0	200	740520	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	16			2.0	BROWN/YELLOW	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	13.40	18.552	13.691	7.85		120.6	19	6	13	820	130	800	-110	4.65	
4	11.52	20.997	15.882	7.85		117.6									
8	10.49	24.061	18.411	7.03		104.9									
12	9.15	26.682	20.646	7.38		108.7									
15	7.80	29.521	23.050	7.53		109.5									
20	6.14	33.195	26.151	6.04		86.5									
40	5.75	34.543	27.263	6.11		87.5									
60	5.91	34.795	27.442	6.11		88.0									
80	6.03	34.787	27.421	6.04		87.2									
100	6.10	35.024	27.599	6.21		89.9									
150	6.00	35.067	27.645	6.28		90.8									
190	6.01	35.095	27.666	6.25		90.4									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	48	7	631	95									
4													
8													
12													
15													
20													
40													
60													
80													
100													
150													
190													

() :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:18:26 PAGE:9

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1		740522	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED	-	-	-	-	-

COMMENTS

TRB+TSM+SUP+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0							6	5	1	460	360	(10)	(90)	4.30	

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	159	11	1848	170	5.24	0.5	0.5	<10.00	1.62			3.0	

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		740522	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

TRB+TSM+SUP+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							6	3	3	485	360	(10)	(115)	4.25	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	265	10	1827	179	0.40	2.0	1.0	<10.00	0.75			<1.0	

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	740619	18

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	10			1.3	BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.50	5.456	2.988	7.18		111.0	22	8	14	1350	550	2000	-1200	5.05	210.0
4	10.43	22.778	17.426	6.37		94.2	21	11	10	770	180	260	330		250.0
8	10.07	28.030	21.556	5.95		90.2	18	16	2	250	30	100	120	1.55	230.0
12	9.43	28.701	22.177	5.81		87.2									
16	8.59	29.786	23.147	4.97		73.7	33	32	1	250	60	80	110	1.30	220.0
20	7.31	31.635	24.773	2.91		42.4									
30	6.06	34.041	26.828	2.84		40.8	61	61	0	250	130	20	100	0.70	210.0
40	6.12	34.135	26.895	2.77		39.9									
50	6.17	34.166	26.913	1.16		16.7	70	69	1	220	70	50	100	0.80	230.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	152	4	592	136		3.7	6.0	28.00					
4	36			81		3.7	6.0	32.00					
8	4	7	222	31									
12													
16	4	6	102	17									
20													
30	5	3	30	9		1.9	2.0	72.00					
40													
50	2	4	29	7		13.3	8.0	121.00					

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:23:15 PAGE:2

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,0.7	9,36.5	90	740620	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	36			1.5	BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

. GP 0-2M, LAST WATER SAMPLER DISTURBED BOTTOM

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.30	5.456	3.210	6.90		104.1	37	19	18	4200	740	6000	-2540	4.10	210.0
4	11.50	23.100	17.509	6.06		91.9	31	17	14	950	220	420	310	1.85	220.0
8	10.67	28.194	21.587	5.92		91.1	15	11	4	240	20	60	160	1.05	200.0
12	9.84	28.931	22.293	5.78		87.7	65	62	3	205	90	60	55	1.15	210.0
16	7.89	30.733	23.987	4.34		63.7	48	44	4	240	80	70	90	1.05	210.0
20	6.77	33.390	26.224	0.95		13.8	100	100	0	310	100	180	30	0.65	210.0
30	6.05	34.040	26.829	3.26		46.9	70	69	1	255	160	20	75	0.65	230.0
40	6.13	34.131	26.891	3.33		48.0	59	52	7	240	160	10	70	0.60	<20.0
50	6.15	34.170	26.919	3.12		45.0	68	66	2	245	150	10	85	0.60	20.0
60	6.15	34.194	26.938	3.33		48.0	66	63	3	240	140	10	90	0.55	20.0
70	6.14	34.210	26.952	3.22		46.4	70	66	4	230	130	20	80	0.60	30.0
90	6.15	34.233	26.969	2.52		36.4	81	78	3	240	110	150	-20	0.65	20.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	86	1	286	251		3.0	8.0	39.00					
4	29	2	154	68		3.0	2.0	14.00					
8	4	5	181	35									
12	3	7	46	7									
16	4	5	56	11									
20	2	2	17	7									
30	5	3	24	8		3.0	11.0	79.00					
40	7	3	26	9									
50	5	3	23	8									
60	5	3	21	8									
70	4	3	22	7									
90	3	3	21	7		3.2	3.0	73.00					

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:23:17 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	740620	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.5	36			1.7	BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.40	5.084	2.911	6.23		93.9	29	11	18	2600	600	4000	-2000	4.55	210.0
4	12.55	23.684	17.783	5.92		92.2	21	11	10	830	180	360	290	1.85	220.0
8	11.75	28.354	21.527	5.74		90.5	26	11	15	195	20	70	105	1.20	210.0
12	9.94	29.046	22.366	5.64		85.8	21	16	5	205	30	80	95	3.00	210.0
16	9.68	30.475	23.519	3.64		55.6	23	17	6	210	30	60	120	0.85	210.0
20	8.54	32.267	25.094	4.10		61.7	47	43	4	225	40	100	85	0.80	210.0
30	6.06	34.060	26.843	3.36		48.3	L	L		295	160	60	75	0.45	L
40	6.11	34.135	26.896	3.50		50.4	62	60	2	245	150	<10	>85	L	210.0
50	6.15	34.170	26.919	3.85		55.5	59	57	2	240	140	30	70	1.80	200.0
60	6.15	34.190	26.935	3.64		52.5	62	60	2	230	130	40	60	1.05	210.0
80	6.15	34.225	26.962	2.21		31.9	78	77	1	250	120	60	70	0.85	200.0
90	6.16	34.229	26.964	2.56		36.9	89	87	2	280	110	120	50	1.05	210.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	121	2	405	198		3.2	5.0	20.00					
4	36	3	227	87		9.0	6.0	57.00					
8	4	7	119	17									
12	4	17	368	22									
16	4	5	95	20									
20	2	4	44	11									
30		2				12.6	16.0	118.00					
40	6			9									
50	5	9	79	9									
60	5	5	44	8									
80	3	4	28	7									
90	3	4	30	7		<1.0	<0.1	2.00					

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	740620	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	9			1.6	BROWN/YELLOW	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.60	6.046	3.414	7.25		112.7	26	16	10	1730	640	4.000	-29.10	6.35	<20.0
4	12.21	27.053	20.440	5.99		94.6	17	9	8	85	40	140	-95	2.00	<20.0
8	10.99	28.365	21.666	5.74		89.0	18	11	7	80	20	70	-10	1.70	<20.0
12	10.54	29.306	22.471	6.06		93.6	17	10	7	85	20	60	5	1.60	<20.0
16	9.86	30.610	23.596	5.67		87.0	23	16	7	65	20	50	-5	2.25	<20.0
20	9.05	32.206	24.968	5.25		79.9	28	26	2	50	30	40	-20	1.35	<20.0
30	6.34	33.935	26.709	1.16		16.8	97	95	2	95	80	80	-65	1.10	<20.0
40	6.31	33.970	26.741	1.86		26.9	98	95	3	110	80	90	-60	1.15	<20.0
50	6.24	34.124	26.871	1.26		18.2	84	81	3	165	100	90	-25	1.25	<20.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	88	4	630	147		2.8	3.0	12.00					
4	10	27	303	11		2.8	2.0	34.00					
8	4	25	244	10									
12	4	22	243	11									
16	3	40	252	6									
20	3	31	124	4									
30	2	14	29	2									
40	2	12	30	2									
50	3	9	38	4		5.2	5.0	16.00					

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	95	740620	17

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
9.0	1			2.5	YELLOW/GREEN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	20.00	15.191	9.791	6.76		116.4	20	8	12	1210	390	730	90	3.00	300.0
4	12.97	26.852	20.147	6.93		111.1	12	5	7	265	30	80	155	2.00	280.0
8	10.72	28.524	21.835	5.46		84.3	10	5	5	220	<10	90	>120	1.80	250.0
12	9.30	30.000	23.209	5.53		83.5	27	23	4	215	20	60	135	1.65	970.0
16	9.01	31.369	24.321	5.32		80.5	20	17	3	195	30	40	125	1.00	270.0
20	8.91	31.771	24.650	5.18		78.4	23	20	3	175	30	40	105	1.00	270.0
30	7.75	32.497	25.389	4.20		62.2	46	45	1	225	50	60	115	1.05	290.0
40	7.16	32.968	25.840	3.64		53.3	53	53	0	L	L	70		2.05	280.0
50	6.64	33.403	26.251	4.10		59.5	52	52	0	275	90	80	105	1.05	320.0
60	6.34	33.928	26.704	3.96		57.3	51	51	0	240	120	20	100	0.85	250.0
80	5.97	34.815	27.450	5.39		77.7	33	30	3	205	120	<10	>75	0.60	250.0
90	6.01	34.870	27.489	5.18		74.8	40	38	2	216	130	<10	>76	0.70	340.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	108	3	387	134		<1.0	2.0	6.00					
4	13	9	430	49									
8	<4	10	464	49									
12	2	9	158	18									
16	4	6	129	22									
20	3	7	112	17									
30	2	5	59	11									
40			100										
50	4	4	52	12									
60	5	4	43	10									
80	9	3	47	14									
90	8	4	45	12									

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:23:20 PAGE:5

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	740620	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	18			1.8	BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.10	7.929	4.931	7.21		112.2	25	8	17	S	610	3000		3.55	280.0
4	12.48	27.493	20.731	6.69		106.6	14	6	8	230	20	70	140	1.45	320.0
8	10.57	29.155	22.349	5.60		86.5	19	11	8	220	20	60	140	1.50	260.0
12	9.80	30.660	23.644	5.36		82.2	16	11	5	190	20	50	120	1.20	240.0
16	9.84	31.584	24.357	5.67		87.5	16	12	4	170	20	30	120	1.00	270.0
20	9.60	31.910	24.650	5.64		86.8	20	15	5	170	20	50	100	1.00	260.0
30	8.78	32.536	25.267	5.15		78.1	29	26	3	180	30	40	110	1.10	240.0
40	7.57	32.985	25.797	3.71		54.9	61	53	8	225	70	60	95	1.10	230.0
50	7.27	33.360	26.133	4.13		60.8	55	51	4	200	70	60	70	1.05	260.0
60	6.28	34.135	26.875	4.48		64.8	47	46	1	220	130	10	80	0.95	220.0
80	5.98	34.839	27.468	5.53		79.8	34	32	2	200	120	10	70	0.75	230.0
100	6.02	34.866	27.500	5.22		75.4	42	37	5	225	130	20	75	0.70	250.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	169		366			0.9	2.0	10.00					
4	7	7	267	36		1.2	2.0	42.00					
8	4	8	204	26									
12	4	7	193	26									
16	4	7	161	23									
20	3	7	129	19									
30	3	7	98	14		13.5	14.0	67.00					
40	3	6	47	8									
50	3	6	49	8									
60	6	5	52	10									
80	8	4	57	13									
100	8	4	43	12		1.6	1.0	10.00					

S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	107	740621	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	0			2.5	BROWN-YELLOW	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.40	15.584	10.664	6.57		107.7	20	5	15	1310	340	850	120	4.05	290.0
4	15.07	24.727	18.107	6.75		111.6	12	4	8	375	<10	160	>205	2.30	270.0
8	13.40	27.918	20.867	6.89		112.2	10	3	7	165	<10	15	>140	1.45	260.0
12	10.97	29.759	22.751	6.14		96.0	10	5	5	185	<10	43	>132	2.35	260.0
16	10.50	31.399	24.104	6.18		96.7	11	7	4	155	<10	30	>115	0.40	290.0
20	10.55	31.873	24.464	6.11		96.0	9	5	4	145	<10	20	>115	0.30	260.0
30	9.92	32.647	25.172	5.89		91.7	14	10	4	160	10	20	130	0.35	260.0
40	7.75	32.897	25.702	4.30		63.8	47	46	1	240	60	50	130	1.25	260.0
50	7.18	33.515	26.267	4.30		63.2	47	45	2	225	90	60	75	0.70	260.0
60	6.57	34.087	26.799	4.76		69.3	44	40	4	205	80	30	95	0.85	260.0
80	5.99	34.858	27.482	5.79		83.6	35	30	5	200	90	<10	>100	0.75	310.0
100	6.01	34.890	27.505	5.36		77.4	47	42	5	190	140	<10	>40	0.70	470.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	150	4	522	145		<1.0	1.0	10.00					
4	<6	7	494	69									
8	<7	10	374	36									
12	<4	15	606	41									
16	<3	3	94	31									
20	<4	2	86	36									
30	2	3	64	25									
40	3	6	69	11									
50	4	4	38	11									
60	4	5	50	10									
80	7	4	55	13									
100	7	4	38	9									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH-1	58,58.1	9,47.0	225	740621	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	9			10.5	GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

GP 0-2M STATION TAKEN AGAIN 740624

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.40	26.044R	(18.610)	6.25		(109.2)	9	4	5	200	<10	60	>130	1.45	250.0
4	S	26.014R	(19.092)	6.18			8	2	6	165	<10	10	>145	1.85	260.0
8	S	27.469		6.39			7	<2	>5	140	<10	<10	>120	1.50	230.0
12	S	28.299		6.50			6	<2	>4	135	<10	<10	>115	2.55	230.0
16	S	30.298		6.25			10	4	6	155	<10	30	>115	1.30	260.0
20	S	31.768		6.46			8	3	5	120	<10	<10	>100	0.80	250.0
30	S	32.569		6.32			12	6	6	120	<10	20	>90	0.90	300.0
40	S	33.077		6.00			11	7	4	120	<10	20	>90	0.90	270.0
50	S	33.566		5.82			18	13	5	150	20	30	100	1.15	260.0
60	S	33.903		5.93			17	12	5	170	20	20	130	0.95	260.0
80	S	34.626		6.21			17	13	4	170	40	20	110	0.75	280.0
100	S	34.882		6.11			19	14	5	210	40	<10	>160	L	260.0
150	6.65	35.020	27.523	6.14		90.1	20	17	3	165	60	<10	>95	0.45	250.0
200	6.51	35.035	27.554	6.11		89.4	25	22	3	210	90	10	110	0.70	330.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	<6	8	415	49		4.0	3.0	12.00					
4	<11	13	596	46									
8		12	553	44									
12		22	1096	50									
16	<6	10	335	34									
20	<7	8	258	33									
30	<4	9	193	22									
40	<3	9	211	24									
50	3	9	165	18									
60	4	7	144	22									
80	7	5	114	22									
100	6			24									
150	8	3	58	18									
200	9	4	72	19									

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS L :LACKING FOR UNKNOWN REASONS S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH-1	58,58.1	9,47.0	205	740624	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	13	18.5		9.5	BLUE-GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
STAION TAKEN RECENTLY: 740621

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	19.20	24.233	16.813	6.16		110.2	S	4		340	<10	70	>260	2.55	
4	18.28	24.188	16.996	6.21		109.1	S	2		130	<10	10	>110	L	
8	17.96	24.312	17.165	6.18		108.0	S	6		130	<10	<10	>110	2.15	
12	17.00	25.162	18.029	6.20		106.9	S	3		250	10	25	215	2.15	
20	10.77	30.755	23.558	5.88		92.1	S	7		300	10	15	275	1.20	
30	9.87	32.705	25.226	5.78		89.9	S	9		165	10	10	145	L	
40	9.13	33.505	25.970	5.78		88.9	S	12		160	20	10	130	0.85	
50	8.42	34.057	26.512	5.85		88.8	S	15		180	30	10	140	L	
60	7.60	34.575	27.040	6.02		90.0	S	14		190	50	<10	>130	0.70	
80	7.17	34.831	27.303	6.06		89.9	S	15		145	50	10	85	0.55	
100	7.06	34.890	27.365	6.02		89.1	S	17		185	60	10	115	0.55	
125	6.83	34.949	27.443	6.28		92.5	S	18		185	80	<10	>95	0.55	
150	6.58	35.024	27.536	6.18		90.5	S	16		165	60	<10	>95	0.55	
200	6.45	35.106	27.618	6.07		88.7	S	23		220	120	<10	>90	L	

DEPTH M	RATIOS NO3/ PO4	MOL/MOL TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	<6	9											
4	<11												
8	<4	19											
12	7	10											
20	3	5											
30	2												
40	4	6											
50	4												
60	8	4											
80	7	4											
100	8	3											
125	10	3											
150	8	4											
200	12												

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS
S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB-1	59,6.6	9,34.2	58	740717	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.0	36			1.8	BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	17.30	4.360	2.200	4.80		73.4	50	28	22	1320	630	210	480	8.50	
4	15.14	21.048	15.280	4.31		69.8									
8	9.69	29.007	22.375	4.59		69.4									
12	9.49	30.389	23.482	4.62		70.2									
16	9.21	31.389	24.306	4.76		72.3									
20	8.78	31.610	24.544	3.92		59.1									
30	6.28	33.756	26.576	0.74		10.7									
40	6.13	34.136	26.895	2.42		34.9									
50	6.17	33.638R	(26.497)	1.40		(20.1)									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	50	8	438	58									
4													
8													
12													
16													
20													
30													
40													
50													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC-1	59,6.7	9,36.5	90	740718	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	29			2.4	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-26

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.90	7.383	4.740	5.64		85.3	27	12	15	1410	750	740	-80	5.00	100.0
4	14.73	25.093	18.456	4.90		80.6									
8	10.77	29.697	22.736	5.22		81.2									
12	10.22	30.752	23.648	4.90		75.9									
16	9.68	31.428	24.262	4.94		75.9									
20	8.86	32.037	24.865	4.17		63.1									
30	6.21	34.026	26.798	0.95		13.7									
40	6.11	34.140	26.900	2.80		40.3									
50	6.15	34.163	26.929	3.19		46.0									
60	6.15	34.198	26.941	3.22		46.4									
70	6.18	34.206	26.943	2.98		43.0									
85	6.15	34.222	26.960	2.56		36.9									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	138	4	478	115									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD-1	59,5.2	9,38.3	96	740718	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.0	BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.00	6.864	4.329	5.46		82.5	18	5	13	980	530	260	190	4.35	70.0
4	14.88	23.158	16.944	4.73		77.1									
8	13.19	30.458	22.884	5.60		92.2									
12	11.19	30.901	23.598	5.18		82.0									
16	9.69	31.261	24.130	4.62		70.9									
20	9.07	32.005	24.808	4.06		61.8									
30	6.19	34.041	26.812	1.89		27.3									
40	6.14	34.147	26.902	2.87		41.4									
50	6.14	34.171	26.921	2.91		42.0									
60	6.15	34.198	26.941	2.94		42.4									
80	6.16	34.226	26.962	2.59		37.4									
90	6.15	34.163R	(26.913)	2.80		(40.4)									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	234	5	623	120									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE-1	59,3.2	9,40.6	56	740718	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	27			2.0	BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.60	8.120	5.171	6.20		95.6	20	6	14	1300	790	620	-110	6.00	80.0
4	14.58	27.365	20.228	5.43		90.3									
8	13.66	30.736	23.005	5.78		96.3									
12	13.48	31.308	23.482	5.67		94.5									
16	10.72	31.707	24.305	4.94		77.8									
20	9.50	31.971	24.714	4.48		68.8									
30	6.61	33.857	26.613	1.72		25.0									
40	6.47	33.932	26.690	1.47		21.3									
50	6.35	34.014	26.770	0.91		13.2									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	291	5	774	144									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	96	740718	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	18			3.8		PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	18.30	20.011	13.823	6.25		107.2	13	4	9	1020	470	180	370	3.70	120.0
4	14.54	29.924	22.201	5.96		100.6									
8	13.18	30.852	23.190	5.64		93.1									
12	13.85	31.560	23.601	5.96		100.2									
16	13.53	31.726R	(23.794)	5.81		(97.1)									
20	12.66	31.641R	(23.900)	5.67		(93.0)									
30	10.57	31.843	24.437	5.04		79.2									
40	9.57	32.239	24.911	4.90		75.5									
50	8.31	32.783	25.532	3.94		59.2									
60	6.98	33.509	26.290	3.78		55.3									
80	6.08	34.717	27.359	5.18		74.8									
90	6.01	34.850	27.473	4.87		70.3									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	260	4	734	173									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG-1	59,2.7	9,43.2	103	740718	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	18					PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	17.00	13.686	9.308	5.92		95.2	17	5	12	960	590	250	120	3.95	70.0
4	14.65	30.085	22.302	5.96		100.9									
8	14.16	31.204	23.264	5.74		96.9									
12	13.95	31.691	23.682	5.79		97.6									
16	13.73	31.916	23.900	5.88		98.8									
20	13.58	31.932	23.943	5.85		98.0									
30	11.57	32.013	24.392	5.43		87.3									
40	10.15	32.328	24.885	4.83		75.4									
50	9.12	32.916	25.511	4.48		68.6									
60	7.26	33.681	26.386	4.27		63.0									
80	6.24	34.701	27.326	5.43		78.7									
100	6.01	34.874	27.492	4.80		69.3									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MYG/L	NI MYG/L	CR MYG/L	F MG/L
0	261	5	599	125									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	108	740719	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	17			3.9	YELLLOW-BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	17.10	15.759	10.859	5.75		93.8	18	6	12	>500	450	260	>-210	3.55	50.0
4	15.54	30.759	22.628	5.89		102.0									
8	15.32	31.103	22.940	5.72		98.8									
12	15.26	31.196	23.024	5.79		100.0									
16	15.05	31.316	23.162	5.75		98.9									
20	14.35	31.614	23.540	5.89		100.1									
30	13.08	32.025	24.115	5.72		94.9									
40	10.77	32.149	24.640	5.08		80.3									
50	9.84	32.554	25.113	4.79		74.4									
60	7.72	33.411	26.110	4.19		62.4									
80	6.33	34.772	27.370	5.43		78.9									
100	6.02	34.870	27.487	5.08		73.4									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	166	<8	509	>61									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH-1	58,58.1	9,47.0	204	740719	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	19			20.0	LIGHT-GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.10	28.479	20.535	5.96		105.0	11	5	6	310	80	80	150	2.20	
4	15.61	30.994	22.793	5.86		101.8									
8	15.22	31.210	23.044	5.79		99.9									
12	15.08	31.299	23.142	5.68		97.8									
16	15.04	31.323	23.169	5.72		98.4									
20	15.03	31.336	23.183	5.82		100.1									
30	14.82	31.497	23.350	5.82		99.8									
40	14.64	31.621	23.484	5.86		100.2									
50	14.44	31.764	23.636	5.96		101.6									
60	13.22	32.421	24.392	5.75		95.9									
80	9.32	34.359	26.606	5.75		89.3									
100	7.80	34.776	27.169	6.04		90.9									
150	7.20	35.102	27.512	5.75		85.5									
200	7.05	35.150	27.570	5.75		85.2									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	35	8	516	62									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1		740718	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

SURFACE STATION, TRB+TSM+SUP+COD

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.25	2.5	11.0	20.00	0.26			1.5	

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		740718	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED					

COMMENTS

SURFACE STATION, TRB+TSM+SUP+COD

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.20	1.0	6.0	<10.00	CA0.30			2.0	

< :LESS THAN VALUE CA :APPROXIMATE VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:28:44 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	58	740814	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
9.0	14			1.4	YELLOW/BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	17.80	8.528	5.246	5.84		92.5	29	9	20	2600	700	2600	-700	7.00	210.0
4	14.91	26.061	19.161	4.57		75.9									
8	14.22	30.283	22.543	4.67		78.5									
12	12.23	30.741	23.286	4.50		72.8									
16	10.73	31.085	23.821	4.08		64.0									
20	9.93	31.603	24.357	3.57		55.2									
30	6.49	33.999	26.740	0.46		6.7									
40	6.30	34.132	26.870	1.79		25.9									
50	6.37	34.171	26.891	0.99		14.3									

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	172	3	622	198									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	90	740815	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
12.0	33			1.2	YELLOW/BROWN	FOG,THICK DUST OR HAZE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.00	8.752	5.573	4.79		74.8	44	17	27	3400	880	5000	-2480	30.00	230.0
4	15.99	27.192	19.800	4.79		81.9									
8	14.68	30.541	22.646	4.68		79.5									
12	12.51	30.895	23.352	4.38		71.3									
16	11.34	31.255	23.846	4.22		67.2									
20	10.08	31.700	24.408	3.55		55.1									
30	6.20	34.026	26.799	0.42		6.1									
40	6.13	34.144	26.901	2.71		39.1									
50	6.15	34.183	26.929	2.65		38.2									
60	6.16	34.202	26.943	2.72		39.2									
70	6.15	34.202	26.944	1.86		26.8									
85	6.15	34.242	26.976	1.87		27.0									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	114	10	1758	171									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	740815	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			1.2	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.50	9.373	5.944	5.63		89.1	45	15	30	4000	1050	5000	-2050	6.00	230.0
4	16.25	29.311	21.363	5.47		95.2									
8	15.05	30.568	22.588	4.98		85.3									
12	12.97	30.911	23.276	4.52		74.3									
16	11.08	31.251	23.889	4.19		66.3									
20	10.78	31.824	24.386	3.84		60.6									
30	6.27	34.003	26.772	0.77		11.1									
40	6.15	34.132	26.889	2.24		32.3									
50	6.15	34.183	26.929	2.57		37.1									
60	6.16	34.202	26.943	2.25		32.5									
80	6.16	34.230	26.965	2.18		31.5									
90	6.17	34.230	26.964	0.75		10.8									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	155	2	344	197									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	56	740815	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.5	19			1.2	YELLOW/BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	18.40	10.891	6.906	6.66		108.3	41	12	29	3800	950	5000	-2150	5.50	250.0
4	17.54	25.192	17.930	5.64		98.3									
8	15.70	30.156	22.131	5.52		95.5									
12	13.30	31.166	23.408	4.54		75.3									
16	12.13	31.398	23.813	4.31		69.8									
20	11.36	31.754	24.229	3.91		62.4									
30	6.94	33.740	26.477	1.30		19.0									
40	6.50	33.936	26.689	0.77		11.2									
50	6.44	33.991	26.741	0.25		3.6									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	175	2	346	205									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	740816	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	8			2.0	YELLOW/BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	18.10	20.050	13.898	6.61		112.9	22	7	15	2500	550	1600	350	4.20	250.0
4	17.56	28.142	20.172	5.90		104.7									
8	16.16	30.279	22.123	5.52		96.5									
12	14.72	31.065	23.040	4.89		83.4									
16	13.16	31.448	23.654	4.50		74.5									
20	12.87	31.776	23.964	4.40		72.6									
30	12.24	32.216	24.425	4.43		72.3									
40	11.58	32.344	24.647	4.29		69.1									
50	11.09	32.605	24.938	4.26		68.0									
60	9.43	32.897	25.447	4.12		63.5									
80	6.15	34.674	27.316	4.69		67.9									
90	6.04	34.874	27.488	3.94		56.9									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	174	.2	492	251									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59,2.7	9,53.2	103	740815	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	22			1.8	YELLOW/BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	18.40	19.038	13.063	6.60		112.7	28	8	20	3000	600	2000	400	4.50	190.0
4	17.57	27.967	20.036	6.02		106.7									
8	16.65	29.952	21.763	5.77		101.7									
12	15.63	30.810	22.648	5.38		93.4									
16	13.91	31.394	23.461	4.87		81.9									
20	13.65	31.603	23.675	4.61		77.2									
30	12.49	32.057	24.254	4.38		71.8									
40	11.93	32.270	24.525	4.28		69.4									
50	11.10	32.461	24.824	3.79		60.5									
60	9.95	33.084	25.507	4.29		67.0									
80	6.21	34.740	27.361	5.00		72.5									
100	6.04	34.862	27.479	4.03		58.2									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	166	2	414	237									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GHI	59,1.3	9,45.1	108	740816	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	18			2.3	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
VH. TURNED AT WRONG DEPTH BELOW 30M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	18.00	20.266	14.084	6.59		112.5	23	5	18	2200	540	1250	410	4.10	180.0
4	17.27	28.371	20.413	5.74		101.4									
8	15.75	30.648	22.497	5.36		93.2									
12	15.04	31.425	23.248	5.12		88.1									
16	14.69	31.921	23.704	5.12		87.8									
20	14.32	32.204	24.000	5.12		87.3									
30	13.81	32.531	24.357	5.01		84.7									
(40)	13.08	32.671	24.613	4.98		83.0									
(50)	15.39	31.510	23.237	5.28		91.6									
(60)	14.39	32.290	24.051	5.36		91.5									
(80)	13.02	32.647	24.607	4.68		77.9									
(100)	8.92	34.803	27.018	4.82		74.4									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	239	2	460	212									
4													
8													
12													
16													
20													
30													
(40)													
(50)													
(60)													
(80)													
(100)													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	55	740924	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	12	10.0		3.5	GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS

TRB+TSM+SUP 0-2,6,30M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.80	<2.846	<1.773	5.64		(77.6)	19	8	11	1100	380	275	445	5.00	
4	13.16	<2.846	<1.724	5.45		(75.6)	23	9	14	1000	490	620	-110	2.35	
8	14.52	27.162	20.085	4.35		72.2	23	22	1	360	100	145	115	2.25	
12	15.89	28.810	21.059	4.05		69.8	23	18	5	325	90	115	120	1.15	
16	14.99	29.986	22.154	3.98		67.8	23	19	4	265	100	45	120	1.00	
20	12.57	30.922	23.362	3.23		52.7	37	32	5	L	170	10		0.70	
30	6.55	33.975	26.714	0.29		4.2	100	100	0	195	100	20	75	0.60	
40	6.13	34.148	26.904	1.22		17.6	90	86	4	305	190	40	75	0.55	
50	6.18	34.191	26.932	0.47		6.8	102	95	7	195	50	50	95	4.20	

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	105	5	679	128	L	L	L	L	L			L	
4	120	3	263	96	0.14	<1.0	2.2	25.00	0.10			<1.0	
8	10	7	252	35									
12	11	4	129	31									
16	12	4	112	25									
20	12		49										
30	2	4	15	4	0.19	7.4	3.7	26.00	0.15			<1.0	
40	5	2	16	7									
50	1	25	106	4	0.22	1.0	1.2	7.00	0.06			<1.0	

< :LESS THAN VALUE () :UNCERTAIN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	87	740924	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	11	10.0		3.5	BROWN/GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS

TRB+TSM+SUP 0-2,5-6,30M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	11.80	3.033	2.041	5.69		76.6	37	23	14	1600	590	900	110	3.10	
4	13.44	3.902	2.490	5.55		78.0	52	40	12	1260	770	1300	-810	2.90	
8	16.54	26.934	19.482	4.41		76.1	25	19	6	340	100	145	95	1.10	
12	15.94	28.665	20.937	4.12		71.0	27	23	4	320	100	130	90	0.85	
16	14.80	29.706	21.979	3.95		67.0	27	23	4	300	110	110	80	0.75	
20	13.09	30.726	23.110	3.55		58.4	30	26	4	260	140	20	100	0.65	
30	6.58	32.177	25.294	2.07		29.8	62	57	5	305	190	15	100	0.50	
40	6.15	34.101	26.864	1.89		27.2	87	83	4	310	220	20	70	0.45	
50	6.15	34.167	26.916	1.99		28.7	85	81	4	285	210	10	65	3.20	
60	6.16	34.202	26.943	1.89		27.3	85	83	2	285	180	10	95	0.40	
70	6.17	34.218	26.954	2.02		29.2	83	80	3	255	180	<10	>65	0.40	
85	6.16	34.230	26.965	2.00		28.9	84	81	3	255	210	<10	>35	0.35	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	57	2	216	96	0.13	3.6	1.5	10.00	0.06			<1.0	
4	43	3	144	54	0.08	22.9	2.8	24.00	0.17			<1.0	
8	12	4	113	30									
12	10	3	81	26	0.15	1.0	1.1	4.00	0.10			<1.0	
16	11	3	72	25									
20	12	3	56	19									
30	7	2	21	11	0.18	<1.0	0.5	4.00	<0.05			<1.0	
40	6	2	13	8									
50	6	13	97	7									
60	5	2	12	7	0.10	(230.0)	0.3	5.00	<0.05			<1.0	
70	5	2	12	7									
85	6	2	11	7	0.28	1.2	0.9	7.00	<0.05			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC2	59,6.4	9,35.7	55	740924	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	2			3.0	GREY/GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.70	<2.846	<1.786	5.62		(77.1)									
4	13.02	2.859	1.753	5.55		76.7									
8	16.42	26.904	19.486	4.27		73.5									
12	15.90	28.833	21.074	4.13		71.2									
16	15.06	29.890	22.065	4.20		71.6									
20	13.37	31.131	23.368	L											
30	6.51	33.952	26.701	0.29		4.2									
40	6.13	34.144	26.901	2.00		28.8									
50	6.15	34.175	26.923	1.78		25.7									

< :LESS THAN VALUE () :UNCERTAIN VALUE L :LACKING FOR UNKNOWN REASONS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:33:30 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BD1	59,6.9	9,37.1	44	740924	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0	10.0		3.3	GREY/GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.70	2.920	1.842	5.34		73.3									
4	13.35	3.287	2.034	4.22		58.9									
8	16.34	26.295	19.038	4.84		82.9									
12	15.91	28.554	20.859	4.06		69.9									
16	14.81	29.806	22.054	3.85		65.3									
20	12.75	31.007	23.393	3.32		54.4									
30	6.52	33.905	26.662	2.30		33.4									
40	6.14	34.140	26.896	0.24		3.5									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	740924	17

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DRY	AIR TEMP. WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	GREEN/YELLOW	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS

GP 0-2M, TRB+SUP+TSM 0-2,5-6,30M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	PE
0	12.90	3.082	1.939	5.41		74.7	32	21	11	1600	650	900	50	4.00	
4	13.52	4.437	2.886	5.04		71.2	49	36	13	1020	640	1100	-720	2.85	
8	15.53	26.363	19.264	5.04		85.0	18	13	5	255	70	90	95	1.60	
12	15.30	28.863	21.119	4.13		71.1	24	19	5	285	90	L		L	
16	14.64	29.833	22.110	3.84		64.9	27	22	5	265	100	80	85	1.20	
20	13.04	31.007	23.337	3.42		56.3	31	28	3	250	140	15	95	0.95	
30	6.50	34.003	26.742	0.64		9.3	100	100	0	270	210	45	15	0.55	
40	6.15	34.144	26.898	1.78		25.7	83	80	3	265	80	<10	>175	0.50	
50	6.18	34.183	26.925	L			83	80	3	255	80	<10	>165	0.95	
60	6.17	34.206	26.945	1.64		23.7	83	80	3	240	80	<10	>150	0.95	
80	6.18	34.234	26.965	0.64		9.2	99	97	2	310	220	<10	>80	0.90	
90	6.18	34.246	26.975	0.36		5.2	110	110	0	390	170	110	110	1.00	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	68	3	322	111	0.14	8.7	3.6	21.00	0.18			<1.0	
4	39	3	150	46	0.14	<1.0	1.1	5.00	<0.05			<1.0	
8	12	7	229	31									
12	10			26									
16	10	5	115	22									
20	11	4	79	18									
30	5	2	14	6	0.10	1.5	0.9	5.00	<0.05			<1.0	
40	2	2	16	7									
50	2	4	30	7									
60	2	5	30	6	0.07	<1.0	0.5	4.00	<0.05			<1.0	
80	5	3	23	7									
90	3	3	23	8	0.12	<1.0	0.7	3.00	<0.05			<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	740925	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.4	BROWN/YELLOW	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
GP 0-2M, TRB+TSM+SUP 0-2,5-6M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.20	3.140	2.074	5.66		77.2	26	18	8	1400	530	820	50	3.40	
4	12.88	3.197	2.030	5.64		77.9	25	15	10	980	540	870	-430	3.10	
8	14.42	25.241	18.631	5.69		93.1	12	6	6	220	40	65	115	1.70	
12	15.59	28.523	20.904	4.71		80.5	18	14	4	240	70	75	95	1.25	
16	15.34	29.480	21.691	4.47		76.5	20	17	3	230	80	60	90	1.40	
20	14.15	30.533	22.750	3.63		61.0	26	23	3	270	120	35	115	1.25	
30	10.26	32.912	25.321	2.09		32.8	66	62	4	270	170	<10	>90	0.75	
40	6.84	33.819	26.552	0.14		2.0	100	100	0	360	180	60	120	0.85	
50	6.55	33.956	26.699	0.07		1.0	120	120	0	310	20	230	60	0.80	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	65	3	337	119	0.08	30.1	7.2	70.00	1.15			<1.0	
4	80	4	320	87	<0.05	3.7	8.6	41.00	0.64			<1.0	
8	15	9	365	41									
12	11	6	179	29									
16	10	7	181	25									
20	12	5	124	23									
30	6	3	29	9	0.08	<1.0	6.4	15.00	0.61			<1.0	
40	4	3	22	8									
50	0	3	17	6									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	740926	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	16	12.5		2.5	YELLOW/BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-NEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO				-	-

COMMENTS
TRB+TSM+SUP 0-2,5-5M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.40	7.392	5.299	6.98		97.9	24	4	20	1400	460	475	465	4.10	
3	13.96	19.631	14.419	5.34		83.6	22	6	16	580	190	285	105	2.55	
4	14.97	24.866	18.234	5.13		84.7	14	9	5	240	50	70	120	1.65	
7	14.65	25.410	18.715	5.43		89.4	13	7	6	235	50	75	110	2.00	
8	15.32	26.095	19.103	5.24		87.8	15	8	7	270	60	95	115	1.75	
11	15.78	28.169	20.592	4.64		79.5	18	12	6	450	100	50	300	2.35	
21	14.37	31.649	23.562	4.13		70.2	20	15	5	190	80	<10	>100	0.95	
31	14.47	32.644	24.306	4.56		78.2	15	13	2	300	50	<10	>240	1.20	
41	13.85	33.049	24.748	4.96		84.2	15	13	2	160	50	<10	>100	0.75	
51	13.18	33.205	25.005	4.52		75.7	17	15	2	155	60	<10	>85	0.65	
71	10.05	33.584	25.880	3.95		62.0	32	29	3	180	110	<10	>60	0.50	
81	6.51	34.603	27.213	3.67		53.5	51	47	4	245	180	<10	>55	0.40	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	254	3	441	129									
3	70	5	299	58									
4	12	8	304	38									
7	16	10	397	40									
8	17	8	301	40									
11	18	6	337	55									
21	12	6	122	21									
31	9	5	206	44									
41	9	5	129	24									
51	9	5	99	20									
71	8	3	40	12									
81	8	2	20	11									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.7	9,43.2	104	740925	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	12			3.5	YELLOW/GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO				-	-

COMMENTS

TRB+TSM+SUP 0-2,5-6M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.80	6.277	4.392	5.88		82.6	26	19	7	1400	520	820	60	3.60	
4	14.37	22.334	16.413	5.68		91.2	15	7	8	300	110	125	65	1.95	
8	14.38	25.001	18.455	5.71		93.2	12	5	7	175	40	45	90	2.00	
12	14.30	25.655	18.972	5.55		90.8	9	5	4	175	20	25	130	2.10	
16	15.08	26.881	19.754	5.43		91.0	12	7	5	195	30	40	125	1.50	
20	15.44	28.951	21.264	4.63		79.1	20	14	6	195	60	35	100	1.30	
30	14.66	31.088	23.070	4.40		75.0	21	16	5	175	80	<10	>85	1.00	
40	14.23	32.344	24.126	4.26		72.5	18	14	4	150	70	<10	>70	0.90	
50	13.84	33.349	24.982	4.57		77.7	15	11	4	130	50	<10	>70	0.60	
60	12.87	33.560	25.342	4.54		75.7	18	14	4	150	60	<10	>80	0.75	
80	7.34	34.477	27.001	4.12		61.2	40	35	5	240	140	<10	>90	0.50	
100	6.10	34.831	27.447	3.07		44.4	62	57	5	300	200	<10	>90	0.70	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	61	3	357	119	0.07	3.7	4.5	20.00	0.12			<1.0	
4	35	8	335	44	0.06	1.0	3.3	17.00	0.10			<1.0	
8	18	13	430	32									
12	9	14	602	43									
16	9	9	322	36									
20	9	8	168	22									
30	11	7	123	18									
40	11	7	129	18									
50	10	5	103	19									
60	9	6	107	18									
80	9	2	32	13									
100	8	3	29	11									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	740925	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.5	6			4.0	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO				-	-

COMMENTS
TRB+TSM+SUP 0-2,5-6M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.20	6.491	4.637	5.90		81.9	20	11	9	520	500	800	-780	3.20	
4	14.06	22.515	16.610	5.50		87.8	21	8	13	330	100	105	125	1.70	
8	14.13	25.249	18.694	5.69		92.6	12	4	8	200	20	25	155	1.35	
12	14.19	25.508	18.881	5.64		92.0	11	5	6	180	20	20	140	1.35	
16	14.39	25.911	19.151	5.50		90.3	12	5	7	170	20	25	125	2.00	
20	15.46	28.104	20.611	5.10		86.8	16	10	6	190	40	45	105	1.85	
30	14.69	30.760	22.812	4.40		74.9	23	18	5	180	80	<10	>90	1.45	
40	14.29	32.095	23.922	4.17		71.0	24	17	7	170	70	<10	>90	1.00	
50	14.05	33.314	24.911	4.56		77.8	15	11	4	150	50	<10	>90	1.15	
60	13.26	33.658	25.339	4.61		77.6	17	15	2	120	60	<10	>50	0.70	
80	7.15	34.579	27.107	4.22		62.5	39	36	3	220	140	<10	>70	0.80	
100	6.11	34.827	27.442	3.55		51.4	54	52	2	280	190	35	55	0.50	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	101	7	413	57									
4	28	6	209	35	0.18	2.7	4.3	28.00	<0.05			<1.0	
8	11	8	290	37									
12	9	9	316	36									
16	9	14	430	31									
20	9	11	298	26									
30	10	9	163	17									
40	9	7	107	16									
50	10	9	198	22									
60	9	7	106	16									
80	9	4	53	12									
100	8	2	24	11									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHORAN	0-111/70	LANGESUNDSBUKTA	JHI	58,58.1	9,47.0	208	740925	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	20			6.0	GREEN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
MODERATE; WAVES 1.25-2.5M	NO				-	-

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	12.80	25.264	18.955	5.90		93.3	26	17	9	40	30	30	-20	2.80	
4	14.10	25.365	18.789	5.67		92.2	17	7	10	L	20	25		1.40	
8	14.17	25.760	19.078	5.57		91.0	17	5	12	225	10	30	185	1.30	
12	14.15	25.794	19.108	5.57		90.9	13	5	8	200	10	15	175	1.30	
16	14.22	25.911	19.184	5.57		91.1	14	5	9	180	10	10	160	1.20	
20	15.36	29.292	21.543	5.04		86.2	12	8	4	165	30	35	100	0.80	
30	14.82	32.231	23.914	4.52		77.8	12	10	2	180	40	L		2.90	
40	14.63	32.760	24.362	4.78		82.3	14	10	4	170	40	<10	>120	0.65	
50	15.41	33.752	24.953	4.85		85.3	10	6	4	160	10	25	125	0.50	
60	15.28	33.881	25.081	4.78		83.9	10	8	2	140	10	25	105	0.50	
80	14.94	34.269	25.455	4.76		83.2	10	6	4	130	20	25	85	0.40	
100	14.71	34.446	25.641	4.70		81.9	14	10	4	140	20	25	95	0.50	
150	8.38	35.000	27.257	5.10		77.9	25	20	5	280	80	30	170	L	
200	7.57	35.091	27.450	5.10		76.5	28	25	3	190	110	<10	>70	0.35	

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	4	82	278	3									
4	6		212		0.07	2.4	5.0	40.00	<0.05			<1.0	
8	4	7	197	29									
12	4	8	258	34									
16	4	8	221	28									
20	8	6	172	30									
30	9	19	623	33									
40	9	4	120	27									
50	4	4	129	35									
60	3	4	129	31									
80	7	4	103	29									
100	4	4	92	22									
150	9			25									
200	10	2	32	15									

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1		740926	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

TRB+TSM+SUP+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							8	4	4	530	400	25	105	3.00	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	221	7	967	146	0.07	2.4	2.6	16.00	<0.05			<1.0	

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		740926	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED					

COMMENTS

TRB+TSM+SUP+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							17	11	6	585	430	20	135	4.00	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	86	8	607	76	0.09	<1.0	1.1	8.00	<0.05			<1.0	

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	55	741022	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	36			2.5	YELLOW/BROWN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP (MICROGR./L)	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.00	<2.846	<2.321	7.17		(86.1)	17	<2	>15	370R	370	175	(-175)	4.50	
4	8.31	3.112	2.442	6.47		80.3									
8	14.67	29.550	21.887	3.42		57.8									
12	14.13	30.641	22.837	3.38		56.8									
16	13.57	31.293	23.452	3.14		52.4									
20	12.90	31.591	23.815	3.31		54.6									
30	6.70	33.863	26.606	0.11		1.6									
40	6.15	34.125	26.883	0.70		10.1									
50	6.17	34.133	26.887	0.11		1.6									

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		(14)	683	(48)									
4													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	87	741022	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.5				2.5	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
OP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.60	4.205	3.265	6.99		88.0	49	35	14	540R	700	2000	(-2160)	3.60	
4	8.99	5.464	4.205	6.25		80.1									
8	14.47	29.098	21.581	3.97		66.6									
12	14.14	30.818	22.971	3.53		59.4									
16	12.99	31.324	23.591	3.38		55.7									
20	12.90	31.589	23.813	3.16		52.1									
30	8.77	33.780	26.241	0.08		1.2									
40	6.90	34.093	26.760	1.44		21.1									
50	6.15	34.160	26.911	1.47		21.2									
60	6.16	34.179	26.925	1.18		17.0									
70	6.18	34.199	26.938	0.93		13.4									
85	6.18	34.219	26.954	0.59		8.5									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	44	(8)	189	(24)									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC2	59,6.4	9,35.7	55	741022	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.5	1			3.0	GREY/GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.10	2.946	2.329	6.76		83.4	15	9	6	395R	430	170	(-205)	3.60	
4	8.35	2.974	2.332	6.62		82.2									
8	14.44	29.163	21.637	3.97		66.6									
12	14.39	30.383	22.585	3.53		59.6									
16	13.65	31.231	23.389	3.09		51.6									
20	12.98	31.649	23.844	3.05		50.4									
30	6.92	33.835	26.554	0.18		2.6									
40	6.17	34.027	26.804	2.09		30.1									
50	6.19	34.164	26.909	1.51		21.8									

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	106	(11)	619	(58)									
4													
8													
12													
16													
20													
30													
40													
50													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BD1	59,6.9	9,37.1	44	741022	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
9.5	1			3.0	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.80	4.042	3.199	6.63		81.8	43	31	12	560R	650	1500	(-1590)	3.60	
4	8.95	7.438	5.734	5.59		72.5									
8	14.50	29.194	21.648	3.79		63.6									
12	14.28	30.606	22.779	3.33		56.2									
16	13.74	31.200	23.346	4.23		70.8									
20	12.95	31.583	23.799	2.94		48.5									
30	7.15	33.710	26.424	0.15		2.2									
40	6.16	34.133	26.888	1.62		23.4									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	46	(7)	216	(29)									
4													
8													
12													
16													
20													
30													
40													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	741022	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
11.5	35			3.0	GREEN/YELLOW	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT; WAVES 0.5-1.25M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.30	3.734	2.924	6.91		86.1	42	32	10	540R	650	1500	(-1610)	3.60	
4	8.56	3.691	2.871	6.94		87.0									
8	13.99	29.496	21.985	4.06		67.6									
12	13.48	30.583	22.923	4.34		72.0									
16	13.79	31.258	23.381	3.82		64.0									
20	13.50	31.676	23.762	3.53		59.0									
30	6.69	33.957	26.681	0.33		4.8									
40	6.17	34.145	26.897	1.62		23.4									
50	6.19	34.176	26.918	1.25		18.0									
60	6.18	34.192	26.932	1.58		22.8									
70	6.17	34.195	26.936	1.69		24.4									
80	6.18	34.215	26.950	1.10		15.9									
90	6.17	34.215	26.952	0.88		12.7									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	45	(8)	221	(28)									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
80													
90													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.5	57	741023	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	33			2.7	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.20	3.908	3.066	6.69		83.3	27	16	11	580R	590	1000	(-1010)	3.60	
4	8.35	3.915	3.060	6.80		84.9									
8	11.44	28.782	21.913	5.41		85.0									
12	10.79	29.797	22.811	5.94		92.6									
16	12.13	30.866	23.401	5.22		84.3									
20	12.96	31.574	23.790	4.75		78.4									
30	12.22	33.097	25.110	3.77		61.8									
40	8.47	33.475	26.049	0.69		10.5									
50	6.77	33.905	26.629	0.15		2.2									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	82	(7)	344	(48)									
4													
8													
12													
16													
20													
30													
40													
50													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DFI	59,4.6	9,42.5	96	741023	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.2	36			6.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.50	22.925	17.807	5.96		84.4	24	16	8	200R	200	165	(-165)	3.00	
4	11.30	29.320	22.354	5.85		91.9									
8	11.70	29.711	22.586	L											
12	10.79	29.769	22.789	5.78		90.0									
16	11.80	30.118	22.883	5.52		88.1									
20	11.84	30.330	23.040	5.70		91.2									
30	13.27	31.433	23.620	4.75		78.8									
40	14.08	32.158	24.014	4.38		74.3									
50	11.65	33.572	25.586	4.05		65.8									
60	10.44	34.273	26.349	4.24		67.4									
80	8.31	34.607	26.960	3.96		60.2									
90	6.59	34.740	27.311	2.63		38.5									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	28	(17)	322	(18)									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	741023	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	34			3.5	GREEN/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.70	12.116	9.381	6.36		84.4	23	15	8	410R	400	700	(-690)	3.50	
4	9.78	23.120	17.786	6.14		89.7									
8	10.36	29.321	22.513	5.88		90.5									
12	10.81	29.639	22.685	6.10		95.0									
16	11.30	30.192	23.029	5.85		92.4									
20	11.52	30.404	23.155	5.55		88.2									
30	12.69	31.454	23.750	5.12		84.0									
40	13.60	31.976	23.973	4.76		79.8									
50	12.01	33.436	25.413	4.13		67.6									
60	11.46	34.434	26.290	4.61		75.0									
80	8.70	34.721	26.988	4.31		66.2									
100	6.29	34.772	27.375	2.69		39.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	59	(10)	392	(39)									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	741023	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	35			4.5	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.50	13.483	10.463	6.50		86.7	24	13	11	375R	370	580	(-575)	3.00	
4	9.91	28.625	22.044	6.21		94.2									
8	10.08	29.072	22.364	6.10		93.1									
12	10.22	29.241	22.473	5.81		89.1									
16	10.90	30.008	22.956	5.74		89.8									
20	11.54	30.485	23.214	5.55		88.3									
30	12.78	31.457	23.735	5.19		85.3									
40	13.51	32.081	24.072	L											
50	12.33	33.659	25.524	4.35		71.8									
60	11.61	34.442	26.268	4.75		77.6									
80	9.28	34.772	26.935	4.61		71.7									
100	6.70	34.764	27.315	3.37		49.4									

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	63	(9)	322	(35)									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS L :LACKING FOR UNKNOWN REASONS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:33:49 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58.58.1	9.47.0	208	741023	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	36			7.5	LIGHT-GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	9.10	27.465	21.263	6.21		91.8	19	10	9	85R	60	40	(-15)	2.40	
4	9.69	27.681	21.343	6.21		93.2									
8	9.72	28.736	22.160	6.29		95.1									
12	9.85	28.881	22.252	6.21		94.2									
16	9.83	28.992	22.342	5.81		88.2									
20	10.08	29.256	22.507	5.86		89.6									
30	11.19	30.285	23.120	5.59		88.1									
40	13.72	33.874	25.411	4.56		77.6									
50	7.96	35.039	27.351	5.15		77.9									
60	7.51	35.083	27.452	5.22		78.2									
80	7.10	35.130	27.548	5.29		78.5									
100	6.98	35.150	27.580	5.37		79.5									
150	6.80	35.169	27.620	5.29		78.0									
200	6.53	35.169	27.657	5.52		80.8									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	13	(33)	326	(10)									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	55	741120	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	4			2.5	BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.60	<2.846	<2.413	7.76		(87.7)	11.5	3	8.5	330	330	18	-18	4.50	130.0
4	5.06	<2.846	<2.402	7.45		(85.2)									
8	10.27	29.241	22.465	5.03		77.2									
12	12.21	30.974	23.470	3.47		56.2									
16	11.91	32.178	24.457	3.47		56.2									
20	11.11	32.653	24.972	3.55		56.7									
25	10.30	33.015	25.394	3.12		49.1									
30	8.72	33.397	25.950	1.27		19.3									
40	6.28	34.081	26.832	0.50		7.2									
50	6.20	34.132	26.883	0.50		7.2									

DEPTH M	RATIOS NO3/ P04	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	243	16	1009	63									
4													
8													
12													
16													
20													
25													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	90	741120	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	2			3.0	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M LAST VH. TOUCHED BOTTOM

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	5.20	2.895	2.436	7.59		87.1	31.5	22	9.5	940	600	470	-130	3.30	130.0
4	5.54	2.980	2.491	7.59		87.9									
8	9.64	27.203	20.979	5.60		83.7									
12	12.42	31.372	23.738	3.19		52.0									
16	11.99	32.081	24.367	3.58		58.1									
20	11.28	32.532	24.847	3.33		53.4									
30	9.91	33.624	25.935	3.55		55.6									
40	6.29	34.066	26.819	0.85		12.3									
50	6.23	34.117	26.867	1.20		17.3									
60	6.19	34.136	26.887	1.34		19.3									
70	6.21	34.164	26.906	0.64		9.2									
85	6.27	(34.105)	(26.852)		(0.91)										

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	60	4	270	66									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC2	59,6.4	9,35.7	55	741120	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.5	3			2.0	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.00	2.001	1.710	7.38		85.9	76	69	7	1200	950	2500	-2250	3.30	160.0
4	5.79	3.069	2.552	7.52		87.7									
8	10.21	28.904	22.213	5.25		80.3									
12	11.35	30.755	23.457	3.90		61.9									
16	11.88	32.136	24.430	3.40		55.0									
20	11.26	32.576	24.885	3.90		62.5									
30	9.45	33.542	25.947	2.70		41.8									
40	6.27	34.089	26.840	0.85		12.3									
50	6.22	34.124	26.874	0.64		9.2									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	30	3	112	35									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BDI	59,6.9	9,37.1	44	741120	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	2			2.8	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	5.30	2.895	2.433	7.52		86.5	37.5	27	10.5	960	680	530	-250	4.60	120.0
4	6.19	30.354R	(23.907)	4.68		(65.9)									
8	10.13	28.644R	(22.024)	4.68		(71.3)									
12	10.75	L		(7.09)											
16	11.79	32.108	24.425	3.62		58.5									
20	11.22	32.567	24.885	3.40		54.4									
30	8.84	33.667	26.142	1.84		28.1									
40	6.25	34.101	26.852	0.99		14.3									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	56	6	316	57									
4													
8													
12													
16													
20													
30													
40													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	741120	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	1			3.0	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NTR OM GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.30	<2.846	<2.395	7.52		(86.5)	24	14	10	740	530	340	-130	4.05	120.0
4	5.46	<2.846	<2.389	8.02		(92.6)									
8	9.08	28.916	22.397	6.03		89.9									
12	9.51	29.858	23.066	5.67		85.9									
16	11.61	32.066	24.426	3.47		55.8									
20	11.03	32.699	25.021	4.26		68.0									
30	9.01	33.573	26.042	2.41		37.0									
40	6.42	34.101	26.830	1.13		16.4									
50	6.25	34.121	26.867	1.13		16.3									
60	6.22	34.128	26.877	1.06		15.3									
70	6.22	34.144	26.889	1.06		15.3									
80	6.23	34.156	26.898	0.92		13.3									
90	6.22	34.172	26.911	0.92		13.3									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	84	6	435	68									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
80													
90													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59.3.2	9.40.5	57	741120	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.5	30			3.0	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	5.30	<2.846	<2.395	7.38		(84.9)	27.5	16	11.5	860	580	350	-70	2.15	110.0
4	5.39	<2.846	<2.392	7.38		(85.1)									
8	8.37	28.977	22.546	6.31		92.6									
12	9.38	30.123	23.292	5.64		85.3									
16	10.71	31.624	24.243	4.75		74.7									
20	10.80	32.590	24.977	4.68		74.2									
30	10.22	33.354	25.672	3.90		61.4									
40	10.70	34.156	26.212	S											
50	10.72	34.266	26.294	4.33		69.3									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	80	3	202	69									
4													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	741119	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	36			7.5	GREEN/YELLOW	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.10	10.049	8.043	7.09		85.1	25	18	7	780	490	300	-10	3.65	80.0
4	8.82	27.989	21.711	6.03		88.9									
8	8.83	29.084	22.564	6.10		90.6									
12	9.97	30.419	23.429	5.46		83.9									
16	9.20	31.218	24.174	5.89		89.4									
20	9.25	31.667	24.516	5.75		87.6									
30	10.84	32.765	25.106	5.10		81.1									
40	11.10	33.335	25.503	5.10		81.8									
50	10.22	34.121	26.269	4.96		78.4									
60	9.80	34.501	26.637	4.89		76.8									
80	7.44	34.843	27.274	3.76		56.1									
90	7.33	34.858	27.301	3.97		59.1									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	60	5	377	69									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	BREVIKFJORD	FG1	59,2.7	9,43.2	104	741119	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	36			4.5	YELLOW/GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.30	6.085	4.928	7.09		83.3	25.5	15	10.5	760	480	240	40	3.40	110.0
4	8.43	26.605	20.686	6.45		93.4									
8	7.97	29.061	22.667	6.17		89.8									
12	8.79	29.363	22.788	6.03		89.6									
16	9.53	31.380	24.248	5.75		88.0									
20	9.37	31.837	24.630	5.82		89.0									
30	10.67	32.785	25.152	4.96		78.5									
40	10.62	33.346	25.597	5.10		81.0									
50	9.93	34.066	26.276	5.17		81.2									
60	9.61	34.458	26.635	4.96		77.6									
80	7.79	34.902	27.269	4.40		66.2									
100	7.46	34.835	27.265	4.19		62.6									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	71	5	344	66									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	741119	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	36			4.5	YELLOW/BROWN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.80	9.819	7.825	7.06		86.1	25	15	10	740	420	180	140	3.35	80.0
4	7.68	24.690	19.286	5.89		82.8									
8	8.23	28.805	22.431	6.38		93.3									
12	8.41	29.356	22.837	6.24		91.9									
16	9.14	31.465	24.376	6.10		92.6									
20	9.23	31.977	24.761	6.03		92.0									
30	10.34	32.890	25.290	5.46		85.9									
40	10.42	33.627	25.850	5.17		81.9									
50	9.68	34.085	26.333	5.32		83.1									
60	9.06	34.485	26.746	5.32		82.2									
80	7.71	34.910	27.287	4.61		69.3									
100	7.56	34.957	27.346	4.33		64.9									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	62	5	346	65									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	741119	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	25			7.5	GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT; WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
CP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.20	26.877	21.056	6.66		93.9	22	14	8	(120)	1.20	44	(-44)	3.50	90.0
4	7.93	28.233	22.025	6.45		93.3									
8	8.08	28.602	22.293	6.45		93.8									
14	8.23	28.965	22.557	6.52		95.4									
16	8.52	29.398	22.854	6.24		92.2									
20	8.82	30.712	23.837	6.24		93.6									
30	8.79	32.074	24.905	6.10		92.2									
40	9.43	33.011	25.536	5.89		90.9									
50	9.38	33.620	26.019	5.89		91.1									
60	9.20	33.968	26.320	6.03		93.1									
70	9.23	34.093	26.413	5.82		90.0									
90	9.30	34.211	26.494	6.03		93.5									
140	9.21	34.336	26.606	5.60		86.7									
211	8.71	34.827	27.070	6.39		98.2									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	19	(34)	410	(12)									
4													
8													
14													
16													
20													
30													
40													
50													
60													
70													
90													
140													
211													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.1	9,34.2	57	741210	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	YELLOW/BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS

TRB+TSM+SUP 0-2,5-6,30M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP (MICROGR./L)	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.60	3.026	2.568	6.67		73.5	22	16	6	1000	440	190	370	1.00	160.0
4	6.44	15.208	11.997	5.70		73.1	37	33	4	1000	430	280	290	1.90	70.0
8	10.71	30.476	23.351	4.17		65.1	40	37	3	270	160	30	80	0.75	60.0
12	11.82	31.882	24.245	2.92		47.1	50	49	1	285	170	10	105	0.60	60.0
16	10.75	32.775	25.130	3.16		50.1	50	48	2	280	180	25	75	0.65	70.0
20	9.04	33.016	25.602	3.41		52.2	49	48	1	305	190	10	105	0.95	70.0
30	6.92	33.976	26.665	0.21		3.1	120	100	20	120	80	<10	>30	0.60	70.0
40	6.24	34.137	26.881	0.38		5.5	100	97	3	245	160	25	60	0.60	140.0
50	6.22	34.149	26.893	0.17		2.5	95	93	2	170	80	<10	>80	0.50	60.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	61	1	117	101	0.05	10.5	6.5	22.00	0.88		2.0		
4	29	2	132	60	0.08	1.8	2.3	17.00	0.15		1.2		
8	10	3	48	15									
12	8	2	31	13									
16	8	3	34	12									
20	9	4	50	14									
30	2	6	13	2	0.07	<1.0	1.1	5.00	<0.10		1.1		
40	4	3	15	5									
50	2	3	14	4	0.26	<1.0	1.1	6.00	<0.10		1.1		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BCI	59,6.7	9,36.5	90	741210	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.2	GREY/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS

TRB+TSM+SUP 0-2,5-6,30M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.80	3.908	3.240	7.26		83.0	26	22	4	1200	580	<10	>610	3.10	100.0
4	5.74	10.019	7.985	6.50		79.2	27	24	3	1400	480	80	840	2.95	90.0
8	9.59	29.843	23.041	4.90		74.4	34	33	1	235	130	20	85	1.65	80.0
12	11.91	31.953	24.283	3.20		51.8	48	46	2	240	180	<10	>50	1.10	60.0
16	10.53	32.711	25.119	3.48		54.9	49	45	4	320	160	25	135	0.95	70.0
20	10.08	32.917	25.356	3.75		58.7	49	44	5	290	160	<10	>120	0.75	70.0
30	8.59	33.631	26.153	2.36		35.9	76	9	67	230	230	<10	>-10	0.60	70.0
40	6.32	34.117	26.855	0.56		8.1	100	72	28	225	180	<10	>35	0.60	60.0
50	6.23	34.140	26.885	0.94		13.6	98	97	1	90	190	<10	>-110	0.60	50.0
60	6.20	34.168	26.911	1.29		18.6	94	93	1	225	190	<10	>25	0.60	50.0
70	6.21	34.187	26.925	0.52		7.5	120	91	29	205	170	<10	>25	0.40	50.0
85	6.20	34.195	26.932	0.52		7.5	130	95	35	195	150	<10	>35	0.45	50.0

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	58	3	307	102	<0.05	8.0	4.4	19.00	0.11		2.0		
4	44	2	282	115	0.05	1.5	4.1	12.00	0.12		1.0		
8	9	8	125	15									
12	9	5	59	11	0.09	<1.0	1.9	5.00	<0.10		0.6		
16	8	3	50	14									
20	8	3	39	13									
30	57	3	20	7	0.32	<1.0	1.0	3.00	<0.10		0.6		
40	6	3	15	5									
50	4	8	16	2									
60	5	3	16	5	0.30	<1.0	1.8	3.00	<0.10		0.6		
70	4	2	9	4									
85	3	3	9	3	0.27	<1.0	0.7	3.00	<0.10		0.5		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC2	59,6.4	9,35.7	48	741210	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.3	GREY/GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.50	3.081	2.599	7.30		82.4	14	13	1	620	390	190	40	3.00	110.0
4	6.91	20.484	16.082	5.60		75.2									
8	10.88	30.249	23.146	3.65		57.1									
12	11.86	31.928	24.273	2.85		46.1									
16	10.34	32.681	25.128	3.55		55.8									
20	9.47	33.028	25.543	4.52OT		(69.8)									
30	8.50	33.683	26.207	1.42		21.6									
40	6.27	34.137	26.877	0.63		9.1									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	66	6	553	98									
4													
8													
12													
16													
20													
30													
40													

() :UNCERTAIN VALUE OT :OVER-TITRATED VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BD1	59,6.9	9,37.1	48	741210	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				2.0	BROWN/GREEN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.20	3.419	2.846	7.12		82.0	190	180	10	2600	1120	140	1340	3.45	150.0
4	6.18	14.153	11.191	6.22		78.8									
8	10.89	30.284	23.172	4.17		65.3									
12	10.98	31.987	24.478	3.89		61.7									
16	10.34	32.452	24.950	3.89		61.0									
20	10.02	32.837	25.303	3.86		60.3									
30	8.34	33.629	26.189	1.53		23.1									
45	6.28	34.137	26.876	0.73		10.6									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	14	2	47	30									
4													
8													
12													
16													
20													
30													
45													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	741210	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	16			4.5	BROWN/GREEN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	

COMMENTS

TRB+TSM+SJP 0-2,5-6,30M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.10	3.700	3.092	6.95		77.9	45	(100	) (-55	) 960	500	320	140	2.70	110.0
4	6.39	16.406	12.938	6.12		79.0	47	32	15	390	360	390	-360	2.75	80.0
8	9.22	30.096	23.296	5.00		75.4	36	36	0	225	120	25	80	1.05	50.0
12	9.53	31.655	24.463	4.55		69.8	47	32	15	190	120	<10	>60	0.45	60.0
16	9.45	32.279	24.962	4.94		75.9	42	28	14	190	100	20	70	0.90	50.0
20	9.29	32.761	25.363	5.04		77.4	36	28	8	160	100	<10	>50	0.90	50.0
30	7.69	33.788	26.410	1.74		25.9	87	81	6	265	200	<10	>55	0.60	60.0
40	6.40	34.152	26.873	0.80		11.6	100	97	3	230	180	<10	>40	0.55	60.0
50	6.29	34.156	26.890	0.87		12.6	100	97	3	225	180	<10	>35	0.60	60.0
60	6.26	34.168	26.903	0.63		9.1	100	99	1	210	190	<10	>10	0.60	60.0
80	6.23	34.187	26.922	0.63		9.1	100	100	0	275	190	15	70	0.75	50.0
90	6.23	34.187	26.922	0.49		7.1	120	120	0	270	200	<10	>60	0.90	240.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	(11)	3	155	47	<0.05	3.5	3.2	18.00	<0.10		1.2		
4	25	8	151	18	0.11	8.0	4.1	23.00	0.15		1.2		
8	7	5	75	14									
12	8	3	25	9									
16	8	6	55	10									
20	8	7	64	10									
30	5	3	18	7	0.44	<1.0	0.7	3.00	<0.10		<0.5		
40	4	3	14	5									
50	4	3	15	5									
60	4	3	15	5	0.28	<1.0	0.9	4.00	<0.10		<0.5		
80	4	3	19	6									
90	4	4	19	5	0.24	5.0	1.7	9.00	<0.10		<0.5		

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	O-111/70	FRIERFJORD	EE1	59,3.2	9,40.5	57	741210	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				3.0	BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	-

COMMENTS

TRB+TSM+SJP 0-2,5-6M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.60	4.161	3.461	7.37		81.8	34	19	15	1400	580	460	360	3.20	70.0
4	5.19	7.339	5.914	6.95		82.1	32	18	14	1600	530	470	600	2.60	70.0
8	8.10	29.839	23.258	6.19		90.8	31	21	10	200	110	25	65	2.50	40.0
12	8.60	31.794	24.715	5.80		87.2	28	20	8	170	90	<10	>70	0.95	30.0
16	8.90	32.707	25.383	5.70		86.8	27	19	8	150	80	<10	>60	0.90	40.0
20	8.90	33.065	25.662	5.77		88.0	100	90	10	130	80	<10	>40	1.00	500.0
30	8.90	33.241	25.800	5.84		89.2	39	29	10	285	60	<10	>215	0.85	180.0
40	8.92	33.311	25.651	5.63		86.1	34	25	9	140	70	<10	>60	0.80	100.0
50	8.99	33.381	25.895	5.87		89.9	31	21	10	165	90	<10	>65	0.90	50.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	68	3	243	91	<0.05	7.0	0.7	23.00	0.18		0.5		
4	65	2	210	111	0.05	1.8	1.0	9.00	<0.10		0.5		
8	12	15	208	14									
12	10	7	87	13									
16	9	7	86	12									
20	2	9	26	3									
30	5	3	56	16	1.00	<1.0	0.7	2.00	<0.10		<0.5		
40	6	7	61	9									
50	9	6	75	12	0.17	<1.0	1.0	2.00	<0.10		<0.5		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	741211	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				11.0	GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO		

COMMENTS
TRB+TSM+SUP 0-2,5-6M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.40	12.625	10.139	7.12		83.2	30	17	13	1200	400	310	490	2.40	40.0
4	7.15	28.729	22.514	6.22		88.6	37	27	10	600	100	35	465	1.10	160.0
5															
8	10.37	32.308	24.833	4.94		77.5	35	23	12	175	190	<10	>-25	0.85	50.0
12	9.65	33.422	25.821	5.18		80.5	31	20	11	200	80	20	100	0.70	50.0
16	9.73	33.730	26.048	5.07		79.1	30	21	9	140	70	<10	>60	0.55	50.0
20	9.16	33.789	26.187	5.49		84.6	88	72	16	130	80	25	25	0.60	470.0
30	9.46	34.039	26.333	5.21		81.0	31	22	9	140	70	<10	>60	0.70	50.0
40	9.17	34.094	26.423	5.63		87.0	36	25	11	130	70	<10	>50	0.50	250.0
50	9.14	34.203	26.513	5.63		87.0	45	33	12	110	70	<10	>30	0.90	50.0
60	9.14	34.290	26.581	5.42		83.8	29	19	10	135	5	<10	>120	5.10	80.0
80	8.22	34.725	27.066	3.96		60.1	51	37	14	180	150	60	-30	3.20	100.0
90	7.44	34.882	27.304	3.48		52.0	60	48	12	205	180	<10	>15	0.50	60.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	52	2	206	88	0.11	5.0	5.1	27.00	0.15		0.9		
4	8	2	77	36									
5					0.28	<1.0	1.0	3.00	<0.10		<0.5		
8	18	6	63	11									
12	9	4	58	14									
16	7	5	47	10									
20	2	5	18	3									
30	7	6	58	10									
40	6	4	36	8									
50	5	10	52	5									
60	1	44	454	10									
80	9	21	162	8									
90	8	3	21	8									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	FG1	59,2.7	9,43.2	104	741211	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	20			7.5	BROWN/GREEN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS

TRB+TSM+SUP 0-2,5-6M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.40	6.750	5.481	7.09		81.8	60	32	28	1400	510	360	530	2.30	440.0
4	6.94	28.546	22.396	6.26		88.7	140	100	40	600	90	35	475	2.10	540.0
8	9.38	32.732	25.326	5.35		82.3	29	21	8	130	90	<10	>30	0.75	50.0
12	9.37	33.468	25.902	5.42		83.8	41	36	5	135	80	<10	>45	0.80	270.0
16	9.06	33.695	26.129	5.80		89.2	26	17	9	165	70	<10	>85		50.0
20	9.10	33.824	26.224	5.77		88.8	32	23	9	145	70	<10	>65	1.35	60.0
30	9.18	34.023	26.366	5.84		90.2	65	53	12	140	60	<10	>70		220.0
40	9.24	34.121	26.433	5.98		92.5	25	16	9	120	60	<10	>50	0.75	40.0
50	9.18	34.133	26.452	5.84		90.3	26	17	9	130	70	<10	>50		40.0
60	9.26	34.250	26.531	5.84		90.5	(140)	13	(127)	145	70	<10	>65	0.60	820.0
80	8.61	34.654	26.950	4.54		69.5	55	33	22	215	130	<10	>75		140.0
100	7.49	34.921	27.328	3.87		57.9	55	46	9	250	170	10	70	0.30	70.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	35	2	99	52	<0.05	10.2	8.0	24.00	0.20		0.8		
4	2	4	39	9	0.20	2.2	1.4	5.00	<0.10		<0.5		
8	9	7	67	10									
12	5	7	50	7									
16	9			14									
20	7	11	109	10									
30	3			5									
40	8	7	77	11									
50	9			11									
60	12	5	(11)	(2)									
80	9			9									
100	8	1	14	10									

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GHI	59,1.3	9,45.1	108	741211	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	21			7.5	GREEN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
TRB+TSM+SUP 0-2,5-6M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.00	9.084	7.328	7.25		84.0	56	35	21	1.000	470	320	210	1.10	280.0
4	7.22	27.727	21.720	4.75		67.4	36	26	10	600	120	40	440	0.75	130.0
8	9.51	32.738	25.310	5.49		84.7	32	23	9	170	90	<10	>70	0.60	110.0
12	9.00	33.342	25.863	5.91		90.5	28	20	8	140	70	<10	>60	0.60	170.0
16	9.06	33.698	26.132	5.77		88.7	28	19	9	180	60	<10	>110		60.0
20	9.08	33.792	26.202	5.84		89.9	23	15	8	140	60	<10	>70	0.60	40.0
30	9.13	33.991	26.349	5.98		92.2	24	16	8	145	50	<10	>85		40.0
40	9.11	34.077	26.420	5.91		91.2	28	18	10	165	50	<10	>105	0.40	50.0
50	9.10	34.172	26.496	5.98		92.3	32	24	8	150	50	<10	>90		150.0
60	9.21	34.281	26.563	5.77		89.3	27	18	9	145	60	<10	>75	0.50	40.0
80	8.31	34.717	27.046	4.29		65.3	45	35	10	210	140	<10	>60		200.0
100	7.52	34.941	27.339	4.15		62.1	57	45	12	270	170	<10	>90	0.30	120.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	30	1	51	39	0.05	3.2	1.1	12.00	<0.10		<0.5		
4	10	1	54	37	0.33	<1.0	0.9	4.00	<0.10		<0.5		
8	9	4	48	12									
12	8	5	55	11									
16	7			14									
20	9	5	67	13									
30	7			13									
40	6	3	37	13									
50	5			10									
60	7	4	48	12									
80	9			10									
100	8	1	14	10									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	741211	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
10.0	22					PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
ROUGH; WAVES 2.5-4M	NO	NO	NO	NO	-	-

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.40	23.480	18.577	6.96		91.9	30	30	0	600	200	160	240	1.35	<10.0
4	8.01	31.971	24.940	6.33		94.0	31	24	7	400	80	30	290	0.60	130.0
8	8.11	33.223	25.906	6.19		92.8	46	36	10	240	60	20	160	0.60	370.0
12	8.31	33.492	26.087	5.98		90.3	31	25	6	225	60	<10	>155	0.55	170.0
16	8.49	33.699	26.221	6.40		97.1	26	25	1	255	60	30	165		70.0
20	8.55	33.812	26.301	6.19		94.1	30	24	6	235	50	44	141	0.70	60.0
30	8.54	33.828	26.315	5.91		89.9	31	26	5	235	50	<10	>175		100.0
40	8.60	33.933	26.387	5.91		90.0	30	25	5	215	50	<10	>155	0.70	220.0
50	8.66	33.976	26.412	5.84		89.1	30	25	5	235	50	40	145		60.0
60	8.51	33.984	26.441	6.05		92.0	31	25	6	225	50	45	130	0.75	60.0
80	8.54	34.004	26.452	5.98		91.0	30	24	6	230	50	25	155		50.0
100	8.57	34.031	26.469	5.91		90.0	55	49	6	240	50	10	180	0.80	210.0
150	8.90	34.106	26.476	5.98		91.8	28	25	3	190	50	<10	>130		80.0
200	9.50	34.384	26.596	6.12		95.4	27	21	6	145	50	<10	>85		110.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	15	3	116	44	0.11	1.0	1.7	9.00	0.20		0.5		
4	7	2	50	29									
8	4	3	34	12									
12	5	3	46	16									
16	5			22									
20	5	3	60	17									
30	4			17									
40	4	4	60	16									
50	4			17									
60	4	4	62	16									
80	5			17									
100	2	4	38	10									
150	4			15									
200	5			12									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1		741211	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
TRB+TSM+SUP+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							30	26	4	400	390	40	-30	3.00	120.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	33	9	258	29									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		741211	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
TRB+TSM+SUP COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							14	10	4	460	380	10	70	4.50	30.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	84	11	829	73									

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MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:39:50 PAGE:8

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	750114	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.6	GREEN/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP (MICROGR./L)	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.00	3.407	2.870	7.17		78.0	14	10	4	475	400	100	-25	5.50	100.0
4	3.02	6.104	4.997	6.60		73.1									
8	7.94	31.668	24.712	4.97		73.5									
12	9.04	32.382	25.107	4.12		62.8									
16	9.50	33.033	25.542	3.69		57.0									
20	9.11	33.247	25.771	3.55		54.5									
30	8.35	33.615	26.177	1.99		30.1									
40	6.57	34.038	26.761	0.36		5.2									
50	6.41	34.085	26.818	0.21		3.0									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	88	14	1013	75									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	90	750114	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.5	17			2.4	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.80	4.793	3.956	7.53		84.4	24	16	8	1220	620	600	0	3.30	140.0
4	4.85	15.226	12.123	6.24		77.0									
8	6.88	31.234	24.515	5.75		82.8									
12	8.91	32.308	25.069	4.33		65.7									
16	9.21	32.923	25.503	4.12		63.2									
20	8.73	33.247	25.831	4.19		63.7									
30	8.46	33.478	26.053	3.34		50.6									
40	6.51	34.061	26.786	0.71		10.3									
50	6.38	34.069	26.810	0.28		4.1									
60	6.38	34.065	26.807	0.36		5.2									
70	6.38	34.065	26.807	0.28		4.1									
85	6.43	(34.033)	(26.775)	0.36		(5.2)									

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	86	3	355	112									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC2	59,6.4	9,35.7	48	750114	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	10			2.5	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	4.20	3.824	3.188	7.53		84.7	.21	17	4		540	480		3.50	110.0
4	4.26	10.104	8.122	6.60		77.5									
8	7.41	31.161	24.388	5.54		80.7									
12	8.96	32.433	25.159	4.33		65.9									
16	9.05	32.861	25.479	4.05		61.9									
20	8.86	33.126	25.716	4.05		61.7									
30	8.22	33.673	26.242	1.85		27.9									
40	6.58	34.030	26.753	0.43		6.3									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	70		430										
4													
8													
12													
16													
20													
30													
40													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BD1	59,6.9	9,37.1	48	750114	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.5	17			2.5	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.40	4.459	3.698	7.53		83.3	22	15	7	620	580	580	-540	3.45	120.0
4	3.54	4.484	3.716	7.53		83.6									
8	6.65	31.033	24.386	5.40		77.2									
12	8.96	32.281	25.041	4.26		64.7									
16	9.23	32.888	25.472	3.98		61.1									
20	8.86	33.153	25.737	4.26		65.0									
30	8.12	33.681	26.263	1.78		26.8									
45	6.37	34.065	26.808	0.28		4.1									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	86	6	404	62									
4													
8													
12													
16													
20													
30													
45													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	750114	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	16			2.4	BROWN/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO		

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.60	4.876	4.024	7.53		84.0	19	12	7	1260	590	500	170	3.55	110.0
4	4.38	10.669	8.562	6.67		78.9									
8	6.01	31.342	24.707	6.32		89.2									
12	8.53	32.432	25.224	4.26		64.2									
16	9.12	32.954	25.541	4.19		64.2									
20	8.76	33.114	25.722	4.33		65.9									
30	7.81	33.364	26.060	4.33		64.6									
40	6.53	34.033	26.762	0.64		9.3									
50	6.44	34.061	26.796	0.43		6.2									
60	6.37	34.077	26.817	0.36		5.2									
80	6.34	34.080	26.824	0.21		3.0									
90	6.33	34.100	26.841	0.21		3.0									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	109	3	482	147									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750115	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.0	YELLOW/BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.90	5.155	4.239	7.10		80.0	24	17	7	700	600	620	-520	3.15	150.0
4	4.07	10.583	8.506	6.89		80.8									
8	5.85	31.183	24.600	6.39		89.7									
12	7.28	32.152	25.183	5.61		82.0									
16	7.80	32.791	25.612	5.11		75.9									
18	7.69	32.974	25.771	5.40		80.1									
20	7.65	33.005	25.801	5.25		77.8									
30	7.64	33.184	25.943	5.25		77.9									
40	7.65	33.267	26.007	5.40		80.2									
50	7.69	33.333	26.053	5.47		81.3									

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	78	5	338	64									
4													
8													
12													
16													
18													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	750114	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	17			4.0	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.40	13.252	10.634	7.38		86.6	25	19	6	980	430	850	-300	2.30	80.0
4	4.13	27.521	21.879	6.89		90.6									
8	5.15	30.632	24.243	6.60		90.8									
12	7.38	32.273	25.264	5.82		85.3									
16	8.32	33.142	25.811	5.61		84.5									
20	8.50	33.400	25.986	5.54		83.9									
30	7.76	33.513	26.184	5.89		87.8									
40	7.14	33.616	26.352	6.11		89.8									
50	7.36	33.673	26.366	5.96		88.1									
60	8.19	33.916	26.437	5.47		82.6									
80	8.09	34.132	26.621	5.25		79.2									
90	8.21	34.607	26.975	3.83		58.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	50	3	237	87									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-13:39:18 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	750115	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	17			2.8	BROWN/GREEN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.80	11.233	9.027	7.10		83.1	21	16	5	580	480	1000	-900	2.55	120.0
4	4.64	27.090	21.493	7.10		94.2									
8	5.02	30.747	24.347	6.67		91.5									
12	6.63	32.242	25.339	5.82		83.8									
16	7.50	33.032	25.843	5.82		86.0									
20	7.35	33.165	25.969	5.96		87.8									
30	7.08	33.313	26.122	6.04		88.5									
40	7.12	33.509	26.271	6.04		88.7									
50	7.00	33.614	26.369	6.11		89.6									
60	7.27	33.763	26.449	5.96		88.0									
80	7.88	34.151	26.667	5.18		77.8									
100	7.71	34.819	27.216	3.27		49.1									

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	66	5	313	61									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	750115	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	17			3.3	BROWN/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	3.60	10.073	8.119	7.24		83.6	20	15	5	680	500	380	-200	2.50	110.0
4	4.38	27.542	21.874	7.03		93.0									
8	5.33	30.921	24.452	6.67		92.3									
12	6.07	31.888	25.130	6.46		91.6									
16	6.60	32.678	25.686	6.18		89.2									
20	7.08	32.992	25.870	5.96		87.2									
30	6.50	33.257	26.155	6.39		92.4									
40	6.73	33.435	26.265	6.32		91.9									
50	6.92	33.614	26.380	6.11		89.4									
60	6.92	33.736	26.476	6.11		89.5									
80	7.22	33.928	26.586	5.68		83.8									
100	7.76	34.799	27.193	3.41		51.3									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	74	4	322	75									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HIGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	750213	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	1			2.8	YELLOW	PARTLY CLOUDY	5/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.00	<2.846	<2.417	7.77		(81.9)	15	.11	4	1200	450	410	340	8.00	80.0
4	3.38	11.546	9.287	7.18		83.3									
8	4.50	28.286	22.452	6.83		91.1									
12	5.02	29.176	23.106	6.58		89.4									
16	5.44	29.800	23.555	6.34		87.3									
20	7.51	31.500	24.640	4.76		69.6									
30	7.64	33.741	26.380	0.70		10.4									
40	6.60	33.968	26.701	0.25		3.6									
50	6.53	33.972	26.714	0.21		3.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	90	8	1375	177									
4													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	90	750213	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	LIGHT YELLOW	FOG,THICK DUST OR HAZE	8/8

SEA	ICE	OIL	WRECK	SEA-NEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.30	4.105	3.367	7.63		77.4	23	19	4	2000	700	2700	-1400	2.90	60.0
4	4.09	18.698	14.904	6.72		83.2									
8	4.80	28.156	22.321	6.79		91.1									
12	5.28	29.639	23.445	6.41		87.9									
16	5.90	30.339	23.929	6.06		84.7									
20	7.69	31.794	24.846	4.55		67.0									
30	7.59	33.745	26.390	0.63		9.4									
40	6.50	33.952	26.702	0.35		5.1									
50	6.50	33.964	26.711	0.28		4.1									
60	6.49	33.976	26.722	0.21		3.0									
70	6.50	33.976	26.721	0.25		3.6									
85	6.50	33.991	26.733	0.18		2.6									

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	81	2	325	192									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	750213	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	YELLOW	FOG,THICK DUST OR HAZE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.70	3.818	3.181	7.98		84.0	24	21	3	2000	600	2150	-750	4.30	120.0
4	3.78	16.191	12.941	7.14		86.3									
8	4.30	28.206	22.406	6.90		91.5									
12	4.80	29.153	23.109	6.76		91.3									
16	5.42	29.927	23.657	6.30		86.8									
20	7.57	31.508	24.638	5.18		75.9									
30	7.53	33.710	26.371	1.26		18.7									
40	6.57	33.972	26.709	0.42		6.1									
50	6.52	33.976	26.718	0.28		4.1									
60	6.48	33.976	26.723	0.25		3.6									
80	6.48	33.976	26.723	0.28		4.1									
90	6.49	33.987	26.731	0.28		4.1									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	63	3	462	184									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750212	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	YELLOW	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	2.00	3.930	3.275	7.60		80.7	34	28	6	1800	670	1900	-770	2.80	130.0
4	3.68	19.353	15.445	7.00		86.2									
8	4.25	28.479	22.627	6.93		91.9									
12	4.89	29.408	23.302	6.79		92.1									
16	5.22	29.764	23.550	6.51		89.2									
20	6.77	31.003	24.347	5.74		82.3									
30	8.12	33.292	25.958	2.91		43.7									
40	7.97	33.370	26.041	2.84		42.5									
50	7.95	33.382	26.054	2.52		37.7									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	53	2	212	117									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	750212	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			8.5	GREEN/YELLOW	FOG,THICK DUST OR HAZE	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.90	13.147	10.590	7.75		85.0	18	15	3	1200	470	700	30	2.65	40.0
4	3.83	27.108	21.576	7.05		91.7									
8	4.23	28.022	22.267	6.95		91.9									
12	4.61	28.895	22.923	6.77		90.9									
16	4.82	29.554	23.424	6.63		89.8									
20	4.99	30.129	23.862	6.63		90.5									
30	5.49	31.104	24.579	6.42		89.3									
40	6.42	32.083	25.241	5.80		83.0									
50	7.63	33.211	25.966	5.62		83.4									
60	8.20	33.804	26.347	5.20		78.4									
80	8.01	34.246	26.722	4.71		71.0									
90	8.10	34.454	26.872	3.98		60.2									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	69	3	380	147									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	750212	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.2	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.20	4.698	3.885	7.82		84.0	18	12	6	1800	560	S		3.30	<10.0
4	3.67	26.790	21.336	7.12		92.1									
8	4.07	28.068	22.317	6.95		91.5									
12	4.42	28.750	22.826	6.88		91.8									
16	4.67	29.462	23.366	6.77		91.3									
20	4.82	29.910	23.706	6.67		90.6									
30	6.05	31.111	24.520	5.76		81.2									
40	7.07	32.180	25.233	4.89		71.1									
50	7.13	32.222	25.258	5.73		83.5									
60	7.74	33.796	26.409	5.62		83.9									
80	6.71	34.019	26.727	5.59		81.6									
100	7.88	34.639	27.049	3.21		48.3									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	103	2	473	221									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE S :SPOILED OR DAMAGED SAMPLE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:33:25 PAGE:2

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	750212	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	36			5.0	YELLOW/GREEN	FOG,THICK DUST OR HAZE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.20	10.328	8.345	7.54		84.1	.21	16	5	2200	490	950	760	2.70	80.0
4	3.49	26.797	21.355	7.25		93.3									
8	3.95	27.886	22.183	7.21		94.6									
12	4.39	28.869	22.923	6.93		92.5									
16	4.62	29.550	23.441	6.84		92.2									
20	4.80	30.029	23.802	6.77		92.0									
30	6.03	31.258	24.638	5.87		82.8									
40	6.99	32.184	25.247	4.89		71.0									
50	6.73	33.164	26.052	6.01		87.3									
60	6.98	33.659	26.408	5.88		86.2									
80	6.52	34.015	26.749	5.95		86.5									
100	7.86	34.654	27.064	3.21		48.3									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	68	1	332	232									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:33:22 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	750212	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			7.0	LIGHT GREEN	FOG,THICK DUST OR HAZE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	1.00	19.237	15.451	7.77		89.1	25	24	1	.2600	350	650	1600	2.65	90.0
4	3.27	26.763	21.344	7.32		93.7									
8	3.64	27.407	21.828	7.21		93.5									
12	4.24	28.479	22.628	7.07		93.8									
16	4.64	29.630	23.502	6.90		93.1									
20	4.75	29.983	23.771	6.86		93.1									
30	5.02	30.699	24.309	6.79		93.1									
40	5.44	31.908	25.219	6.65		92.9									
50	5.92	33.117	26.117	6.30		89.7									
60	6.17	34.090	26.853	6.48		93.4									
80	6.36	34.521	27.168	6.44		93.5									
100	6.57	34.831	27.385	6.34		92.7									
150	6.69	34.914	27.434	6.37		93.5									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	32	1	273	230									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	750317	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	36	5.5		2.0	BROWN	NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, TRB 0-2,4,30M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.50	3.476	2.922	8.32		89.3	19	10	9	1600	350	215	1035	4.95	70.0
4	2.49	7.192	5.860	7.91		87.0	26	17	9	3000	450	775	1775	2.95	100.0
8	3.43	24.256	19.344	7.56		95.5	25	18	7	445	150	100	195	2.85	60.0
12	3.98	26.965	21.451	6.90		90.0	30	25	5	415	180	50	185	1.40	40.0
16	5.17	29.301	23.189	6.02		82.1									
20	7.93	32.036	25.002	3.34		49.5	45	45	0	305	180	<10	>115	0.80	30.0
30	7.55	33.716	26.373	0.49		7.3	90	89	1	370	240	<10	>120	0.60	30.0
40	6.61	33.932R	(26.672)	0.11		(1.6)									
50	6.59	33.802R	(26.572)	0.00		(0.0)	99	95	4	80	10	<10	>60	0.55	20.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	77	4	672	186	0.06	<1.0	1.9	8.00	0.20	0.04	<1.0		
4	59	1	293	255	0.05	<1.0	1.6	8.00	0.10	0.04	<1.0		
8	18	7	294	39									
12	16	4	120	31									
16													
20	9	3	46	15									
30	6	2	17	9	0.25	<1.0	0.8	3.00	<0.10	<0.02	<1.0		
40													
50	0	8	14	2	<0.05	<1.0	0.4	2.00	<0.10	0.08	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BCI	59,6.7	9,36.5	90	750317	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	36	7.0		2.0	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, TRB 0-2,4,30M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	2.40	4.418	3.666	8.57		92.3	28	22	6	2600	490	700	1410	3.60	90.0
4	2.88	12.294	9.892	7.94		91.3	26	20	6	2200	360	550	1290	2.50	60.0
8	3.47	24.772	19.750	6.55		83.1	30	26	4	500	150	95	255	1.85	30.0
12	3.94	26.817	21.337	6.55		85.3	33	30	3	420	170	60	190	1.40	20.0
16	5.23	29.167	23.077	4.70		64.2									
20	7.80	31.431	24.546	3.59		52.9	41	40	1	345	200	<10	>135	0.95	20.0
30	7.41	33.540	26.255	2.44		36.1	67	64	3	290	170	10	110	0.75	40.0
40	6.54	33.908	26.662	0.11		1.6									
50	6.53	33.932	26.682	0.07		1.0	95	90	5	205	120	10	75	0.75	50.0
60	6.53	33.925R	(26.677)	0.21		(3.1)	98	90	8	225	120	10	95	0.80	60.0
70	6.53	33.925	26.677	0.07		1.0									
85	6.52	33.937	26.688	0.21		3.1	99	90	9	200	100	10	90	0.70	50.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MYG/L	NI MYG/L	CR MYG/L	F MG/L
0	49	2	332	205	0.05	1.8	2.5	12.00	<0.10	0.06	<1.0		
4	40	1	248	187	0.09	3.1	2.5	14.00	<0.10	0.08	<1.0		
8	13	4	159	37									
12	13	4	109	28									
16													
20	11	3	60	19									
30	6	3	29	10	0.22	<1.0	0.7	3.00	<0.10	0.03	<1.0		
40													
50	3	4	20	5									
60	3	4	21	5									
70													
85	2	4	18	4	0.30	(110.0)	0.6	5.00	<0.10	0.09	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	O-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	95	750317	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	36	3.0		2.5	GREY/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4M, TRB 0-2,4,30M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.20	4.145	3.448	8.22		87.9	37	30	7	2600	510	825	1265	3.60	100.0
4	2.67	12.008	9.670	7.87		89.9	32	24	8	3000	410	850	1740	3.05	90.0
8	3.42	24.506	19.543	7.80		98.7	30	19	11	400	120	70	210	3.05	120.0
12	4.01	27.322	21.731	6.90		90.3	42	36	6	540	180	50	310	1.40	210.0
16	5.52	29.738	23.497	5.85		80.7									
20	8.10	32.343	25.218	3.34		49.8	52	47	5	480	190	10	280	0.95	50.0
30	6.77	33.646	26.426	3.13		45.6	52	47	5	245	130	<10	>105	0.70	40.0
40	6.59	33.912	26.659	0.07		1.0									
50	6.53	33.928	26.679	0.14		2.0	100	95	5	225	120	10	95	0.75	80.0
60	6.53	33.932	26.682	0.07		1.0	100	95	5	215	120	20	75	0.70	60.0
80	6.54	33.939	26.686	0.07		1.0	100	91	9	230	120	10	100	0.70	60.0
90	6.55	33.939	26.685	0.21		3.1	100	94	6	225	130	10	85	0.65	30.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	38	2	251	155	0.10	3.1	1.8	12.00	<0.10	0.12	<1.0		
4	38	1	246	207	0.06	<1.0	0.9	6.00	<0.10	0.07	<1.0		
8	14	9	262	29									
12	11	3	86	28									
16													
20	9	2	47	20									
30	6	3	35	10	0.29	<1.0	0.6	3.00	<0.10	<0.02	<1.0		
40													
50	3	4	19	5									
60	3	4	18	5									
80	3	4	18	5									
90	3	3	17	5	0.08	<1.0	0.8	4.00	<0.10	0.09	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750317	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.5	36			2.5	GREY/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, TRB 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.90	4.346	3.603	8.22		87.3	24	16	8	1800	440	480	880	3.50	90.0
4	1.96	6.779	5.532	8.18		88.5	26	17	9	800	390	420	-10	3.40	130.0
8	3.51	25.035	19.956	7.49		95.3	25	17	8	800	120	50	630	2.40	30.0
12	3.94	27.147	21.598	7.03		91.7	33	28	5	800	180	50	570	1.70	30.0
16	4.95	28.952	22.936	6.30		85.3									
20	6.16	31.385	24.723	5.64		79.9	36	32	4	1000	160	20	820	1.30	110.0
30	6.86	34.018	26.706	5.54		81.1	49	28	21	1000	120	<10	>870	0.75	40.0
40	6.84	34.057	26.739	5.47		80.1									
50	6.81	34.088	26.768	4.81		70.4	32	27	5	1000	120	<10	>870	0.75	60.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	61	2	376	166	0.07	<1.0	1.2	9.00	<0.10	0.08	<1.0		
4	51	5	337	68	0.09	<1.0	0.7	7.00	<0.10	0.08	<1.0		
8	16	3	248	71									
12	14	2	133	54									
16													
20	11	2	93	61									
30	9	1	39	45	1.03	<1.0	0.6	2.00	<0.10	<0.02	<1.0		
40													
50	10	1	60	69	0.49	<1.0	0.5	2.00	<0.10	<0.02	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:35:19 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	750317	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	36	0.8		3.5	GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4,8,12M, TRB 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.10	19.378	15.535	8.71		102.9	16	8	8	1200	120	125	955	2.65	70.0
4	3.05	21.978	17.559	9.05		111.5	17	7	10	800	70	30	700	2.90	30.0
8	3.37	23.517	18.761	8.29		104.1	20	10	10	380	80	45	255	2.55	20.0
12	3.49	25.271	20.145	6.83		87.0	22	17	5	365	130	50	185	1.90	10.0
16	5.13	29.980	23.730	5.78		79.1									
20	7.79	33.787	26.394	4.49		67.1	31	29	2	265	120	10	135	1.00	30.0
30	6.83	34.359	26.978	5.15		75.6	36	34	2	250	120	15	115	1.15	70.0
40	6.53	34.461	27.099	5.99		87.3	26	25	1	210	100	<10	>100	1.45	60.0
50	6.58	34.559	27.169	6.13		89.5									
60	6.64	34.650	27.233	6.09		89.1	27	25	2	600	110	<10	>480	1.45	80.0
80	6.73	34.740	27.292	7.52		110.3									
90	6.74	34.732	27.284	6.06		88.9	27	25	2	220	110	10	100	1.15	60.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	33	3	427	166	0.14	<1.0	2.3	7.00	<0.10	<0.02	<1.0		
4	22	4	440	104	0.77	<1.0	1.1	3.00	<0.10	<0.02	<1.0		
8	18	8	329	42									
12	17	6	223	37									
16													
20	9	4	83	19									
30	8	5	82	15									
40	9	8	144	18	0.57	<1.0	0.5	3.00	<0.10	<0.02	<1.0		
50													
60	10	3	138	49									
80													
90	10	6	110	18	0.18	<1.0	0.8	7.00	<0.10	<0.02	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	750317	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	36			2.5	GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS, QP 0-2,4,8,12M, TRB 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.10	9.001	7.293	8.50		93.7	23	14	9	1400	350	360	690	3.35	100.0
2															
4	3.20	22.000	17.569	7.38		91.3	21	5	16	600	50	20	530	2.95	40.0
8	3.39	23.074	18.409	8.36		104.7	19	9	10	365	80	35	250	2.65	50.0
12	3.67	25.361	20.203				25	16	9	360	120	60	180	2.20	50.0
16	4.60	28.601	22.692	5.99		80.2									
20	6.67	33.083	25.996	5.50		79.7	31	29	2	285	140	10	135	1.00	60.0
30	7.46	34.175	26.746	5.05		75.1	36	32	4	400	120	<10	>270	0.80	50.0
40	6.64	34.355	27.001	5.54		80.9	31	31	0	210	110	<10	>90	0.65	70.0
50	6.55	34.477	27.109	6.06		88.4									
60	6.63	34.618	27.209	6.13		89.7	26	25	1	240	100	<10	>130	0.70	70.0
80	6.66	34.740	27.301	6.13		89.8									
100	6.73	34.827	27.360	5.99		87.9	30	28	2	220	110	<10	>100	0.70	80.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	55	3	376	135	<0.05	<1.0	0.9	8.00	<0.10	0.05	<1.0		
2					0.10	<1.0	1.7	16.00	<0.10	<0.02	2.0		
4	22	6	362	63									
8	20	8	360	42									
12	17	7	227	32									
16													
20	11	4	83	20									
30	8	2	57	25									
40	8	4	54	15	0.12	<1.0	0.5	2.00	<0.10	<0.02	<1.0		
50													
60	9	3	69	20									
80													
100	9	4	60	16	0.20	<1.0	0.8	2.00	<0.10	<0.02	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	GH1	59,1.3	9,45.1	108	750318	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	18	3.1		3.2	BROWN/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS, OP 0-2,4,12M, TRB 0-2M VH. TURNED AT WRONG DEPTH

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.60	10.399	8.397	8.53		96.2	21	14	7	1600	310	900	390	2.60	60.0
2															
4	3.09	21.974	17.554	8.78		108.3	12	5	7	800	20	100	680	2.60	20.0
5	3.14NA	22.095R	(17.647)	8.85		(109.4)	16	5	11	260	20	<10	>230	2.60	10.0
8	3.16	22.624	18.066	8.60		106.8	14	6	8	315	40	10	265	2.30	20.0
12	3.42	23.802	18.984	8.22		103.5									
15	3.81NA	27.066	(21.544)	7.10		(92.3)	28	22	6	360	140	25	195	1.50	30.0
16	4.68NA	28.289	(22.438)	6.65		(89.0)									
25	6.34NA	33.949	(26.720)	5.71		(82.6)	30	28	2	235	120	<10	>105	0.50	30.0
35	6.69NA	34.352	(26.992)	4.94		(72.2)									
45	6.54NA	34.486	(27.117)	6.09		(88.8)	26	25	1	220	110	<10	>100	0.55	30.0
65	6.63NA	34.701	(27.275)	5.08		(74.3)									
85	6.67NA	34.819	(27.362)	5.11		(74.9)	27	26	1	225	120	<10	>95	0.45	30.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	49	2	319	168	0.11	<1.0	0.9	8.00	<0.10	0.06	<1.0		
2					0.20	<1.0	1.1	3.00	<0.10	<0.02	<1.0		
4	9	4	559	147									
5	9	12	419	36									
8	15	9	424	50									
12													
15	14	5	138	28									
16													
25	9	2	43	17									
35													
45	10	3	55	19	<0.05	<1.0	2.6	3.00	<0.10	<0.02	2.0		
65													
85	10	2	43	18									

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS NA :NONACCLIMATED (TEMPERATURE)

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	750318	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	18			3.5	GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4,8,12M, TRB 0-2M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.10	20.716	16.556	8.57		104.9	17	6	11	1000	30	155	815	2.95	30.0
4	3.04	21.830	17.442	9.05		111.4	16	6	10	800	10	140	650	3.25	10.0
8	2.80	22.214	17.760	8.67		106.3	13	5	8	255	<10	<10	>235	2.70	20.0
12	3.10	22.609	18.057	8.57		106.2									
14															
16	4.20	27.176	21.600	7.31		96.0									
20	5.66	32.292	25.497	6.27		88.3	26	25	1	325	140	<10	>175	0.95	20.0
30	6.33	34.450	27.116	6.20		89.9	25	24	1	200	110	<10	>80	0.55	20.0
40	6.54	34.756	27.330	6.27		91.6	23	22	1	185	90	<10	>85	0.90	30.0
50	6.82	34.972	27.462	5.36		78.9									
60	6.81	35.059	27.532	5.68		83.7	26	26	0	185	120	<10	>55	0.85	30.0
80	6.69	35.138	27.611	5.61		82.4									
100	6.76	35.161	27.619	5.50		81.0	30	28	2	270	130	<10	>130	0.65	20.0
150	6.65	35.157R	(27.631)	6.13		(90.0)	28	27	1	230	130	<10	>90	0.40	30.0
200	6.52	35.149	27.642	5.75		84.2	30	29	1	230	130	<10	>90	0.25	30.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	11	3	448	130	0.06	<1.0	1.7	7.00	<0.10	<0.02	<1.0		
4	4	5	524	111									
8	<4	12	536	43									
12													
14					0.23	<1.0	1.1	5.00	<0.10	<0.02	<1.0		
16													
20	12	3	94	28									
30	10	3	57	18									
40	9	6	101	18									
50													
60	10	5	84	16									
80													
100	10	3	56	20									
150	11	2	37	18									
200	10	1	21	17									

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:35:41 PAGE:9

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,8.5	9,37.1		750317	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED					

COMMENTS

TRB+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0							7	3	4	620	320	<10	>290	2.50	60.0

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
					HEAVY METALS								
0	236	5	921	196	<0.05	2.0	4.0	<5.00	0.14			<0.5	

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		750317	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

TRB+COD SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							11	7	4	1000	310	15	675	4.00	80.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	98	5	938	201	<0.05	1.5	4.0	<5.00	<0.50			<0.5	

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:49:7 PAGE:6

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.1	9,34.2	57	750423	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.1	30			1.5	BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.40	<2.846	<2.391	7.02		(80.9)	18	7	11	1600	450	250	900	11.00	
4	3.96	7.542	6.115	7.48		85.7									
8	4.13	25.529	20.302	7.34		95.2									
12	5.01	28.491	22.566	5.51		74.5									
16	7.48	33.251	26.018	2.42		35.8									
20	7.03	33.666	26.406	2.21		32.4									
30	6.66	33.666	26.456	0.95		13.8									
40	6.58	33.912	26.660	0.18		2.6									
50	6.58	33.912	26.660		8.50										

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	142	8	1576	197									
4													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BCI	59,6.7	9,36.5	90	750423	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.2	13			2.5	YELLOW/BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.00	<2.846	<2.369	7.58		(88.7)	19	11	8	1200	570	1390	-760	3.30	
4	4.86	7.813	6.299	7.44		87.4									
8	4.68	25.446	20.191	6.99		91.9									
12	4.90	27.665	21.924	6.11		81.9									
16	7.29	32.807	25.696	3.05		44.8									
20	7.00	33.494	26.275	3.12		45.7									
30	6.59	33.877	26.631	0.32		4.7									
40	6.56	33.908	26.659	0.49		7.1									
50	6.55	33.916	26.667	0.35		5.1									
60	6.55	33.916	26.667	0.39		5.7									
70	6.53	33.916	26.670	1.40		20.3									
85	6.49	33.928	26.684	2.42		35.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	115	3	448	140									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CDI	59,5.2	9,38.3	95	750423	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.3	16			2.5	YELLOW/BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.00	2.896	2.442	7.62		87.0	20	10	10	1100	530	710	-140	3.80	
4	4.32	9.945	7.995	7.34		86.3									
8	4.95	26.120	20.699	7.09		94.2									
12	4.75	27.365	21.701	6.32		84.3									
16	7.23	32.511	25.472	3.02		44.2									
20	6.95	33.521	26.303	2.84		41.6									
30	6.54	33.873	26.635	1.97		28.6									
40	6.55	33.904	26.658	0.81		11.8									
50	6.53	33.908	26.663	1.05		15.3									
60	6.53	33.912	26.667	1.37		19.9									
80	6.52	33.924	26.677	2.11		30.6									
90	6.50	33.932	26.686	2.28		33.1									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	117	4	490	122									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:49:4 PAGE:5

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750422	1630

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.9	18			2.5	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.20	3.076	2.577	7.06		81.1	20	7	13	2000	570	1320	110	3.10	
4	4.36	6.656	5.408	7.08		81.5									
8	4.79	25.871	20.517	7.09		93.7									
12	5.24	29.509	23.346	5.93		81.1									
16	6.29	32.678	25.725	4.70		67.3									
20	6.60	33.439	26.285	3.90		56.6									
25	6.57	33.705	26.498	4.00		58.1									
30	6.51	33.771	26.558	4.04		58.6									
40	6.46	34.120	26.840	5.41		78.6									
50	6.44	34.171	26.882	5.51		80.0									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	180	2	400	221									
4													
8													
12													
16													
20													
25													
30													
40													
50													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:49:0 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/79	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	750422	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.3	18			3.5	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	6.60	7.988	6.347	8.03		98.7	17	4	13	2200	440	870	890	2.80	
4	5.35	22.943	18.159	8.29		108.9									
8	4.61	26.305	20.876	6.90		91.0									
12	4.73	28.049	22.243	6.44		86.2									
16	5.22	30.771	24.345	6.16		85.0									
20	5.60	31.924	25.213	5.74		80.5									
30	6.44	33.767	26.564	5.18		75.0									
40	6.52	34.379	27.036	5.60		81.6									
50	6.66	34.705	27.274	5.67		83.0									
60	6.71	34.799	27.341	5.67		83.2									
80	6.73	34.882	27.404	5.78		84.9									
90	6.73	34.933	27.444	5.56		81.7									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	243	1	425	286									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	750422	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.7	18			3.5	YELLOW-GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.60	7.667	6.152	7.84		93.8	20	7	13	1800	430	960	4.10	2.30	
4	5.39	22.802	18.044	8.50		111.7									
8	5.04	25.243	19.999	7.70		102.0									
12	4.72	26.509	21.027	6.83		90.5									
16	5.19	30.516	24.147	6.20		85.3									
20	5.64	31.963	25.240	5.81		81.6									
30	6.44	33.771	26.567	4.87		70.5									
40	6.46	34.281	26.966	5.60		81.4									
50	6.63	34.701	27.275	5.78		84.6									
60	6.69	34.791	27.337	5.81		85.2									
80	6.69	34.890	27.415	5.95		87.3									
100	6.73	34.933	27.444	5.88		86.4									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	136	1	297	199									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GHI	59,1.3	9,45.1	108	750422	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.7	18			4.0	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.50	6.682	5.387	7.88		93.4	22	6	16	2200	440	1060	700	3.00	
4	5.87	22.776	17.980	8.09		107.6									
8	5.42	24.793	19.609	7.70		102.6									
12	4.64	27.194	21.576	7.04		93.5									
16	5.15	30.428	24.082	6.58		90.4									
20	5.60	32.231	25.456	6.05		85.0									
30	6.34	33.818	26.617	5.28		76.3									
40	6.45	34.359	27.029	5.81		84.5									
50	6.60	34.681	27.263	5.88		86.0									
60	6.61	34.780	27.339	6.05		88.5									
80	6.66	34.878	27.410	5.95		87.2									
100	6.68	34.925	27.444	5.91		86.7									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	162	2	352	221									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	750422	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.8	18	7.0		6.0	GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS GP 0-2M QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.70	20.158	15.847	8.31		110.8	22	18	4	1000	60	275	665	3.25	
4	5.94	24.321	19.188	7.75OT		(104.3)									
8	5.77	25.074	19.797	7.74		104.2									
12	5.03	26.373	20.891	7.50		100.0									
16	5.15	30.332	24.006	6.79		93.2									
20	5.49	31.749	25.088	4.72		65.9									
30	6.08	33.881	26.700	5.98		85.9									
40	6.13	34.387	27.092	6.83		98.6									
50	5.84	34.508	27.224	6.48		93.0									
60	5.90	34.603	27.292	6.51		93.6									
80	5.85	34.642	27.329	6.55		94.1									
100	5.86	34.689	27.365	6.58		94.6									
150	6.18	34.847	27.449	6.44		93.3									
200	6.36	35.047	27.583	6.27		91.4									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	7	4	381	101									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

() :UNCERTAIN VALUE OT :OVER-TITRATED VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	750514	1530

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0	8.7		3.0	GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	5.60	<2.846	<2.385	8.28		(96.0)	12	3	9	530	430	110	-10		
4	5.22	<2.846	<2.397	8.14		(93.4)									
8	5.38	22.606	17.891	6.56		86.1									
12	5.20	25.580	20.250	6.35		84.6									
16	5.50	28.603	22.604	4.97		68.0									
20	6.91	32.531	25.530	2.83		41.1									
30	6.67	33.840	26.591	1.10		16.0									
40	6.59	33.887	26.639	0.41		6.0									
50	6.57	33.786R	(26.562)	0.28		(4.1)									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	317			98									
4													
8													
12													
16													
20													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	87	750514	1645

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0	9.7		2.5	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	6.60	<2.846	<2.342	8.14		(96.7)	14	3	11	1.000	490	780	-270		
4	6.51	<2.846	<2.346	7.94		(94.2)									
8	6.00	22.754	17.951	6.62		88.3									
12	5.30	25.957	20.538	6.35		85.0									
16	5.34	28.412	22.470	5.31		72.3									
20	6.64	32.789	25.768	3.31		47.9									
30	6.64	33.821	26.580	1.73		25.2									
40	6.51	33.835	26.609	1.38		20.0									
50	6.52	33.918R	(26.673)	1.14		(16.6)									
60	6.54	33.894	26.651	1.17		17.0									
80	6.54	33.902	26.657	0.97		14.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	361			158									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													

< :LESS THAN VALUE () :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	100	750514	1400

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.0	18	9.9		2.9	GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	YES	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M PEN

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.40	<2.846	<2.391	8.31		(95.8)	13	4	9	1020	480	500	40		
4	5.40	<2.846	<2.391	8.07		(93.1)									
8	6.28	22.688	17.872	6.69		89.8									
12	6.41	25.727	20.244	6.21		85.3									
16	5.34	28.667	22.671	5.24		71.5									
20	6.73	32.630	25.632	3.17		45.9									
30	6.61	33.817	26.581	1.59		23.1									
40	6.54	33.880	26.640	1.14		16.6									
50	6.53	33.884	26.644	1.17		17.0									
60	6.53	33.884	26.644	1.17		17.0									
80	6.51	33.892	26.653	1.31		19.0									
90	6.52	33.896	26.655	1.24		18.0									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	265			173									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	58	750514	1035

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.0	10	10.6		3.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	NO	YES	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M PEN

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	6.20	<2.846	<2.361	8.25		(97.1)	14	4	10	1080	480	730	-130		
4	5.70	<2.846	<2.381	7.94		(92.3)									
8	8.27	23.572	18.340	6.76		95.6									
12	6.91	26.785	21.018	6.14		85.9									
16	5.75	29.258	23.094	5.18		71.6									
20	6.46	32.290	25.399	3.66		52.5									
25	6.55	33.175	26.084	3.11		45.0									
30	6.55	33.523	26.358	2.83		41.0									
40	6.39	33.656	26.483	2.83		40.9									
50	6.36	33.735	26.549	4.21		60.8									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	265			171									
4													
8													
12													
16													
20													
25													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:54:12 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	98	750513	1440

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
9.0	18	11.1		3.5	GREEN	PARTLY CLOUDY	5/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.90	7.333	5.658	7.88		101.9	11	3	8	980	390	670	-80		
4	8.33	18.845	14.649	8.19		112.6									
8	6.88	24.660	19.355	6.81		93.9									
12	6.71	26.493	20.812	6.33		88.0									
16	6.84	27.240	21.383	6.33		88.7									
20	6.77	28.092	22.060	6.30		88.6									
30	6.58	32.391	25.463	4.82		69.4									
40	6.31	33.601	26.450	5.02		72.4									
50	6.35	34.064	26.810	5.47		79.2									
60	6.44	34.358	27.030	5.57		81.0									
80	6.70	34.795	27.339	5.19		76.1									
95	6.73	34.870	27.394	5.06		74.3									

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	287			197									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
95													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	105	750514	905

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0	10.3				CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO		

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.60	<2.846	<2.342	8.00		(95.1)	13	4	9	1020	430	660	-70		
4	7.87	15.081	11.769	7.52		99.8									
8	8.48	24.031	18.671	6.83		97.4									
12	7.30	26.270	20.568	6.35		89.4									
16	6.69	27.875	21.899	6.07		85.1									
20	6.33	29.078	22.887	5.97		83.6									
30	6.09	32.660	25.736	4.73		67.4									
40	6.03	33.492	26.399	5.31		76.0									
50	6.17	34.103	26.863	5.59		80.6									
60	6.23	34.374	27.069	5.66		81.9									
80	6.68	34.783	27.332	5.31		77.8									
100	6.71	34.866	27.394	5.04		74.0									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	238			173									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GHI	59,1.3	9,45.1	109	750513	1940

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.0	15	8.4		3.5	LIGHT-GREEN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS .5M QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.10	10.352	8.070	7.59		98.2	19	8	11	940	320	680	-60		
4	8.05	12.060	9.402	7.14		93.3									
8	9.45	23.863	18.410	6.76		98.4									
12	8.56	25.272	19.628	6.62		95.3									
16	7.07	27.357	21.448	6.35		89.5									
20	6.86	28.214	22.145	6.14		86.6									
30	6.02	32.333	25.487	5.00		71.0									
40	6.02	33.429	26.351	5.31		76.0									
50	6.07	34.040	26.826	5.59		80.4									
60	6.10	34.221	26.965	5.59		80.5									
80	6.60	34.740	27.309	5.38		78.7									
100	6.68	34.862	27.395	5.24		76.9									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	88			109									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	212	750513	1735

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
9.0	17	8.1		4.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT: WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
NS, GP 0-2M, OP 0-2,4,8,12M, VH. TURNED AT WRONG DEPTH

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.30	19.063	14.569	7.11		102.4	14	3	11	385	90	230	65		
4	10.47	22.413	17.138	6.97		102.9									
8	10.17	23.490	18.017	6.83		100.9									
12	9.56	24.656	19.011	6.49		95.2									
15	9.20NA	26.425R	(20.438)	6.49		(95.5)									
16	7.74	27.156	21.207	6.42		91.8									
20	6.99	29.147	22.862	6.42		91.4									
25	6.51NA	31.525	(24.790)	6.18		(88.3)									
30	5.75	32.570	25.706	6.14		86.8									
35	5.85NA	33.097	(26.110)	6.07		(86.3)									
55	5.55NA	33.942	(26.813)	6.52		(92.5)									
75	5.58NA	34.303	(27.094)	6.35		(90.4)									
100	6.41NA	34.744	(27.338)	5.38		(78.3)									
125	5.99NA	34.803	(27.438)	6.21		(89.6)									
175	6.25NA	34.968	(27.551)	6.07		(88.2)									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	66			61									
4													
8													
12													
15													
16													
20													
25													
30													
35													
55													
75													
100													
125													
175													

NA *NONACCLIMATED (TEMPERATURE)

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:37:33 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	750610	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.5	4			2.3	BROWN/RED	PARTLY CLOUDY	5/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M,

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.00	<2.846	<1.606	5.96		(84.2)	11	3	8	1400	400	580	420	4.75	40.0
4	9.73	4.158	3.129	6.69		86.5	16	7	9	1600	430	930	240	3.50	80.0
8	8.85	25.276	19.592	5.96		86.4	9	6	3	255	80	65	110	2.05	20.0
12	7.70	27.153	21.210	5.43		77.6	15	10	5	345	90	110	145	2.20	40.0
16	6.25	31.024	24.428	3.31		46.9									
20	6.50	32.916	25.886	3.24		46.7	52	47	5	330	210	55	65	0.75	20.0
30	6.67	33.734	26.508	1.59		23.1	76	68	8	280	180	<10	>90	0.85	30.0
40	6.58	33.883	26.637	0.66		9.6									
50	6.57	33.887	26.642	0.60		8.7	88	82	6	175	70	<10	>95	0.90	120.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	295	4	1114	281	0.08	1.4	1.7	9.00	<0.10	0.06	<1.0		
4	136	3	564	221	0.08	3.7	4.7	420.00	0.20	0.06	<1.0		
8	29	9	587	63									
12	20	7	378	51									
16													
20	10	3	37	14									
30	6	4	29	8									
40													
50	2	6	26	4	0.21	<1.0	1.6	7.00	<0.10	0.09	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.7	9,36.5	87	750610	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0	19.0		2.5	BROWN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4M, GP 0-2M,

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.00	3.169	2.121	6.29		85.2	18	7	11	4800	470	560	3770	3.50	60.0
4	8.90	15.467	11.959	6.02		82.0	19	12	7	1600	320	800	480	2.35	60.0
8	8.80	25.133	19.488	5.96		86.2	9	9	0	270	70	55	145	1.60	20.0
12	9.54	28.044	21.649	5.49		82.3	13	8	5	250	60	60	130	1.80	20.0
16	6.36	31.690	24.939	3.91		55.8									
20	6.45	33.002	25.960	3.11		44.8	53	47	6	330	220	<10	>100	0.85	40.0
30	6.54	33.754	26.541	1.85		26.8	74	69	5	285	180	<10	>95	0.65	30.0
40	6.54	33.856	26.621	0.79		11.5									
50	6.55	33.863	26.625	0.66		9.6	89	85	4	255	140	<10	>105	0.90	60.0
60	6.54	33.863	26.627	0.53		7.7	88	84	4	250	140	<10	>100	0.85	80.0
80	6.53	33.867	26.631	0.66		9.6	92	89	3	260	150	10	100	0.85	50.0

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	148	1	501	590	<0.05	1.2	1.5	7.00	<0.10	0.07	<1.0		
4	59	2	319	186	0.09	3.4	6.7	70.00	<0.10	0.07	1.0		
8	17	7	458	66									
12	17	8	357	43									
16					0.33	3.0	4.8	60.00	<0.10	0.04	<1.0		
20	10	3	41	14									
30	6	3	23	9									
40					0.05	3.5	6.6	250.00	<0.10	0.07	<1.0		
50	4	4	26	6									
60	4	4	25	6									
80	4	4	24	6	0.07	5.7	4.0	90.00	<0.10	0.10	2.0		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	CD1	59,5.2	9,38.3	98	750610	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.5	17			2.5	YELLOW/GREEN	PARTLY CLOUDY	5/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS, QP 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.60	3.252	2.109	6.29		86.4	18	5	13	1800	440	1350	10	4.15	60.0
4	9.32	16.176	12.460	6.02		83.2	17	9	8	1400	280	530	590	2.70	50.0
8	10.51	25.404	19.449	6.16		92.8	9	5	4	185	40	25	120	2.20	20.0
12	8.88	26.933	20.880	5.69		83.4	13	9	4	300	70	70	160	1.95	<20.0
16	6.29	31.016	24.417	3.91		55.4									
20	6.44	33.010	25.968	3.31		47.7	50	46	4	330	220	50	60	1.05	60.0
30	6.42	33.746	26.550	2.12		30.7	69	64	5	265	170	<10	>85	0.85	20.0
40	6.50	33.856	26.626	1.08		15.7									
50	6.54	33.871	26.633	0.72		10.5	88	85	3	225	140	<10	>75	0.90	30.0
60	6.54	33.887	26.646	0.68		9.9	89	85	4	220	130	<10	>80	0.75	40.0
70	6.53	33.879R	(26.641)	0.65		(9.4)	90	87	3	225	140	<10	>75	0.75	60.0
80	6.54	33.887	26.646	0.72		10.5	90	90	0	205	140	<10	>55	0.80	60.0
95	6.55	33.891	26.647	0.65		9.4	90	84	6	200	120	<10	>70	0.85	40.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	195	3	595	221									
4	69	2	410	182									
8	18	14	630	45									
12	17	8	387	51									
16													
20	11	4	54	15									
30	6	4	32	8									
40													
50	4	5	26	6									
60	3	4	22	5									
70	4	4	21	6									
80	3	5	23	5									
95	3	5	24	5									

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750611	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DRY DEG.CELS	AIR TEMP. WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	16	20.0		3.2	YELLOW/GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4M, GP 0-2M,

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	13.30	3.227	1.995	6.70		93.4	12	4	8	1800	460	360	980	3.80	70.0
4	10.84	7.741	5.767	6.70		90.9	15	6	9	2000	510	345	1145	3.60	90.0
8	11.47	25.129	19.081	6.70		102.9	7	4	3	185	20	<10	>155	2.30	30.0
12	10.29	27.218	20.891	6.34		96.1	7	6	1	190	30	40	120	1.95	30.0
16	7.49	29.959	23.435	5.04		73.0									
20	6.41	32.577	25.631	3.82		54.8	(52)	48	(4)	375	220	55	100	1.20	70.0
25	6.40	32.995	25.961	3.60		51.8	(53)	49	(4)	330	200	30	100	0.95	40.0
30	6.40	33.233	26.149	3.53		50.9	53	50	3	295	190	85	20	1.25	40.0
40	6.39	33.397	26.279	3.31		47.8									
50	6.46	33.738	26.539	5.33		77.2	30	27	3	385	150	<10	>225	0.95	20.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	254	2	817	332	0.06	1.0	2.3	9.00	<0.10	0.07	<1.0		
4	188	2	619	295	0.05	2.2	7.5	60.00	<0.10	0.07	<1.0		
8	11	14	847	58									
12	11	12	718	60									
16													
20	10	4	(60)	(16)									
25	9	3	(46)	(14)									
30	8	5	61	12									
40													
50	12	3	82	28	0.08	8.1	18.3	160.00	<0.10	0.04	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DFI	59,4.6	9,42.5	98	750611	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	17	19.2		4.0	YELLOW/BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4,8,12M,

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.80	9.272	5.808	6.90		109.8	25	8	17	1200	420	760	20	4.40	50.0
4	12.58	23.219	17.419	6.84		106.3	12	6	6	450	240	45	165	3.95	30.0
8	12.11	24.679	18.626	6.63		102.9	7	3	4	210	20	<10	>180	2.85	<20.0
12	10.11	25.837	19.847	6.43		96.2	17	5	12	205	30	20	155	2.35	40.0
16	9.07	28.158	21.807	5.71		84.7									
20	7.35	30.298	23.719	5.13		74.2	11	6	5	315	100	40	175	1.65	30.0
30	6.21	32.768	25.806	4.38		62.7	34	29	5	295	160	20	115	1.20	20.0
40	6.01	33.546	26.444	5.13		73.4	35	28	7	265	150	10	105	1.10	70.0
50	6.12	33.989	26.780	5.20		74.8									
60	6.30	34.307	27.008	5.26		76.2	36	24	12	275	160	<10	>105	0.55	<20.0
80	6.48	34.645	27.250	4.99		72.7									
95	6.63	34.783	27.339	4.44		65.0	48	42	6	530	400	<10	>120	0.45	50.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	116	4	454	106	0.06	<1.0	2.0	5.00	<0.10	0.06	<1.0		
4	88	10	849	83	0.06	1.6	6.1	22.00	<0.10	0.03	2.0		
8	15	16	1050	66									
12	13	13	356	27									
16													
20	37	6	387	63									
30	12	5	91	19									
40	12	5	81	17									
50													
60	15	2	39	17									
80													
95	21	1	24	24	0.08	2.2	0.5	3.00	<0.10	0.10	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FGI	59,2.8	9,43.2	104	750611	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	18	17.8		8.5	YELLOW/GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4,8,12M,

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.50	10.693	7.138	6.63		103.6	15	(6)	(9)	1520	350	880	290	3.25	40.0
4	13.20	23.598	17.601	6.63		104.7	11	3	8	260	30	35	195	2.95	20.0
8	11.55	25.016	18.981	6.43		98.8	7	4	3	250	30	25	195	2.00	20.0
12	10.66	26.195	20.038	6.77		102.8	6	3	3	225	20	25	180	2.05	30.0
16	9.55	28.299	21.845	6.12		91.9									
20	7.92	30.367	23.696	5.69		83.4	13	10	3	300	90	40	170	1.15	30.0
30	6.44	32.737	25.753	4.25		61.1	45	38	7	340	170	30	140	0.95	30.0
40	5.99	33.444	26.366	5.48		78.3	29	25	4	255	140	<10	>105	1.10	30.0
50	6.09	33.962	26.762	5.69		81.8									
60	6.20	34.331	27.039	5.62		81.2	26	23	3	290	140	<10	>140	0.75	20.0
80	6.33	34.638	27.265	5.20		75.5									
100	6.59	34.779	27.341	4.51		66.0	45	40	5	S	3300	<10		0.50	80.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	(129)	2	559	224	<0.05	1.7	1.4	15.00	<0.10	0.05	<1.0		
4	22	13	692	52	0.08	3.0	5.1	24.00	<0.10	0.03	<1.0		
8	17	9	737	79									
12	15	11	881	83									
16					0.08	1.5	3.3	16.00	<0.10	0.03	<1.0		
20	20	4	228	51									
30	10	3	54	17									
40	12	5	98	19									
50													
60	13	3	74	25									
80													
100	182		29		0.06	<1.0	0.7	3.00	<0.10	0.07	<1.0		

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	750611	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.5	18	18.0		6.0	YELLOW/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS, QP 0-2,4,8,12M,

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.30	10.798	7.611	6.22		92.9	25	16	9	940	350	910	-320	2.90	180.0
4	13.52	23.360	17.359	6.70		106.3	12	4	8	250	30	35	185	2.15	<20.0
8	11.97	25.144	19.009	6.63		102.9	11	4	7	205	<10	15	>180	1.95	60.0
12	10.95	26.581	20.291	6.36		97.4	12	6	6	235	<10	<10	>215	1.60	70.0
16	9.54	28.811	22.246	5.88		88.6									
20	8.43	31.136	24.225	5.54		82.6	16	9	7	230	60	30	140	0.85	20.0
30	6.40	32.780	25.792	4.51		64.8	34	28	6	280	160	15	105	0.65	30.0
40	6.09	33.546	26.434	5.20		74.6	27	22	5	300	140	<10	>150	0.95	20.0
50	6.12	34.036	26.817	5.47		78.8									
60	6.13	34.323	27.042	5.47		78.9	27	23	4	225	130	<10	>85	0.50	40.0
80	6.21	34.614	27.261	5.33		77.2									
100	6.52	34.767	27.341	L			41	36	5	240	170	<10	>60	0.40	40.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	48	4	299	83	<0.05	<1.0	1.3	7.00	<0.10	0.06	<1.0		
4	17	10	462	46	0.08	<1.0	1.3	2.00	<0.10	0.02	<1.0		
8	<6	11	457	41									
12	<4	8	344	43									
16													
20	15	4	137	32									
30	13	3	49	18									
40	14	4	91	25									
50													
60	12	3	48	18									
80													
100	10	2	25	13									

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	8,37.1		750611	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED					

COMMENTS

TRB+TSM+SUP+COD 0-2M, TEMP+SAL BY SLN, SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.40	0.900	0.725				10	12	-2	S	350	10		10.00	140.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	64		2579		<0.05	<1.0	3.5	8.00	<0.10	0.02	<1.0		

< :LESS THAN VALUE S :SPOILED OR DAMAGED SAMPLE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:37:45 PAGE:9

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		750611	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED					

COMMENTS

TRB+TSM+SUP+COD 0-2M, SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							19	7	12	530	360	50	120	3.90	90.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	114	9	529	62	<0.05	<1.0	1.6	6.00	<0.10	0.02	<1.0		

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.1	9,34.2	57	750730	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.3	14			1.8	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
NS OP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	19.60	4.122	1.562	5.65		90.4	8			500		4		4.40	
4	17.30	16.177	11.134	4.31		70.8									
8	16.26	25.941	18.785	5.01		85.5									
12	13.45	26.534	19.812	4.87		78.7									
16	11.88	27.817	21.089	4.87		76.7									
20	10.54	28.971	22.211	4.62		71.2									
30	6.56	33.597	26.415	1.55		22.5									
40	6.56	33.844	26.609	0.28		4.1									
50	6.55	33.859	26.622	OT											

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		10	1418	138									
4													
8													
12													
16													
20													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BCI	59,6.7	9,36.5	90	750730	1030

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.1	14			2.0	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	20.20	4.429	1.663	5.87		95.2	15			520		900		4.15	
4	17.30	19.701	13.809	4.49		75.3									
8	16.39	26.213	18.965	4.90		84.0									
12	15.08	26.989	19.837	5.07		85.0									
16	11.96	27.901	21.140	4.83		76.3									
20	11.03	29.212	22.316	4.55		71.0									
30	6.41	33.542	26.391	3.35		48.4									
40	6.80	33.840	26.574	0.48		7.0									
50	6.86	33.859	26.581	0.89		13.0									
60	6.61	33.859	26.614	0.49		7.1									
70	6.59	33.867	26.623	0.21		3.1									
85	6.59	33.867	26.623	0.14		2.0									

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		9	713	77									
4													
8													
12													
16													
20													
30													
40													
50													
60													
70													
85													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	CDI	59,5.2	9,38.3	95	750730	1130

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.2	15			2.0	BROWN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	20.50	4.401	1.576	6.00		97.9	15			820		520R		3.80	
4	18.00	19.489	13.495	5.18		88.0									
8	17.16	26.175	18.765	5.38		93.6									
12	15.66	26.795	19.567	5.04		85.4									
16	12.85	27.654	20.787	4.70		75.5									
20	10.96	29.397	22.472	4.59		71.6									
30	6.54	33.381	26.247	2.28		33.0									
40	6.73	33.832	26.577	0.48		7.0									
50	6.67	33.855	26.603	0.35		5.1									
60	6.54	33.855	26.620	0.28		4.1									
80	6.54	33.867	26.630	0.21		3.1									
90	6.54	33.867	26.630	0.10		1.5									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		5	653	121									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750730	1345

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.3	14			2.0	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
										MICROGR./L					
0	21.00	5.584	2.349	6.83		113.3	14			500		600		3.20	
4	17.85	23.384	16.485	OT											
8	16.80	26.667	19.220	5.18		89.7									
12	15.52	27.627	20.233	5.04		85.6									
16	13.61	28.558	21.338	4.83		79.3									
20	11.63	29.305	22.284	4.69		74.2									
25	7.50	32.623	25.523	2.80		41.3									
30	6.85	33.311	26.151	1.79		26.1									
40	6.73	33.397	26.235	1.73		25.2									
50	6.58	33.452	26.298	1.45		21.0									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		7	589	79									
4													
8													
12													
16													
20													
25													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	750729	1535

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	15			2.0	BROWN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	20.90	13.715	8.468	7.20		125.1	12			460		240		2.70	
4	18.10	24.606	17.356	6.35		111.5									
8	17.42	25.945	18.530	5.93		103.5									
12	16.83	26.652	19.202	5.58		96.7									
16	14.85	28.059	20.705	5.15		86.5									
20	12.87	29.003	21.824	4.84		78.5									
30	10.40	30.871	23.710	4.59		71.4									
40	7.91	33.314	26.006	4.94		73.8									
50	6.49	33.965	26.714	4.94		71.7									
60	6.38	34.287	26.981	5.01		72.7									
80	6.49	34.594	27.209	4.72		68.8									
90	6.53	34.653	27.250	4.20		61.3									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		7	580	85									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	750730	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	15			2.0	BROWN-GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	20.60	8.470	4.602	6.28		105.2	12			500		440R		3.75	
4	18.30	24.465	17.202	5.80		102.1									
8	17.43	25.943	18.527	5.52		96.4									
12	16.95	26.889	19.356	5.38		93.6									
16	15.32	28.228	20.736	4.83		82.0									
20	14.25	28.962	21.521	4.83		80.6									
30	10.97	30.315	23.182	4.42		69.4									
40	7.76	33.213	25.949	4.83		71.9									
50	7.21	34.055	26.687	5.11		75.5									
60	6.88	34.350	26.965	4.97		73.0									
80	6.52	34.602	27.211	4.62		67.4									
100	6.58	34.649	27.240	4.07		59.5									

DEPTH M	RATIOS NO3/ P04	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		9	806	92									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	750729	1330

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.2	15			2.0	BROWN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12,30M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	20.70	12.644	7.711	7.20		123.8	11			530		4		3.10	
4	18.15	24.087	16.950	6.04		105.8									
8	17.64	25.875	18.427	6.00		105.2									
12	17.04	26.821	19.284	5.51		96.0									
16	15.94	28.106	20.509	5.37		92.2									
20	14.26	29.070	21.602	5.22		87.2									
30	11.70	30.639	23.304	4.94		78.9									
40	8.63	33.029	25.676	5.37		81.4									
50	7.50	34.134	26.708	5.65		84.1									
60	7.11	34.425	26.992	5.51		81.4									
80	6.65	34.594	27.188	5.22		76.4									
100	6.65	34.673	27.250	4.94		72.3									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		7	727	107									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:10:51 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	750729	1130

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	15			12.0	GREEN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT; WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
NS QP 0-2,4,8,12M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	19.22	23.423	16.194	5.72		101.9	6			2		50		4.15	
4	18.40	24.488	17.196	5.93		104.6									
8	17.73	25.709	18.280	5.86		102.8									
12	17.23	26.771	19.203	6.01		105.1									
16	16.62	27.850	20.164	5.63		97.9									
20	15.89	28.805	21.055	5.58		96.2									
30	10.05	32.237	24.831	5.22		81.3									
40	8.42	33.781	26.296	5.79		87.8									
50	8.10	34.287	26.741	6.21		93.8									
60	7.87	34.330	26.809	6.07		91.2									
80	7.74	34.503	26.963	6.07		91.0									
100	7.30	34.626	27.123	5.86		87.1									
150	7.09	34.819	27.304	5.79		85.7									
200	6.89	34.957	27.441	5.72		84.4									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		3227	1784	1									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:12:47 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	750916	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.5	YELLOW/BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4M, SES 3-5M, GP 0-2M, HC 0,4-5,50M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.80	4.869	3.020	4.49		65.4	17	6	11	1400	350	275	775	13.00	
4	16.45	12.577	8.576	3.82		60.3	29	16	13	2200	560	810	830	3.10	
8	15.71	28.151	20.594	4.49		76.8	16	13	3	270	130	30	110	2.95	
12	14.91	28.941	21.369	4.08		69.0	19	17	2	265	140	20	105	1.30	
16	12.77	29.615	22.315	3.97		64.5									
20	12.92	30.654	23.088	3.97		65.1	97	95	2	235	130	<10	>95	1.10	
30	6.61	33.548	26.370	1.12		16.3	80	74	6	275	170	10	95	0.65	
40	6.54	33.830	26.601	0.15		2.2									
50	6.55	33.841	26.608	0.15		2.2	100	99	1	125	<10	50	>65	1.70	

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	129	11	1972	182	0.60	1.2	1.7	26.00	<0.10	0.04	<2.0	<1.0	0.26
4	77	2	276	168	0.61	3.5	4.0	13.00	<0.10	0.10	<2.0	<1.0	0.49
8	22	13	475	37									
12	18	6	176	31									
16													
20	3	5	29	5									
30	5	3	21	8									
40													
50	<0	16	44	3	3.29	1.0	3.5	8.00	<0.10	0.16	<2.0	<1.0	1.18

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.4	9,37.1	90	750916	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	18			2.3	YELLOW/BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS, QP 0-2,4M, SES 3-5M, GP 0-2M, HC 0,4-5,85M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.60	5.837	3.787	5.69		83.0	12	5	7	2000	470	540	990	4.50	
4	16.37	18.949	13.433	4.27		70.0	31	25	6	1800	470	640	690	2.15	
8	16.21	28.635	20.855	4.79		83.0	15	11	4	230	100	15	115	1.20	
12	14.46	29.596	21.965	4.34		73.0	18	16	2	240	120	10	110	1.00	
16	13.05	30.046	22.594	4.04		66.2									
20	13.86	31.145	23.280	4.19		70.3	22	19	3	210	110	<10	>90	0.80	
25	11.28	31.563	24.096	3.89		61.9									
30	6.66	33.341	26.200	1.87		27.1	90	65	25	305	220	<10	>75	0.70	
40	6.58	33.826	26.592	0.22		3.2									
50	6.60	33.849	26.608	0.22		3.2	100	98	2	185	100	10	75	0.75	
60	6.56	33.849	26.613	0.22		3.2	100	99	1	165	60	20	85	0.70	
80	6.57	33.853	26.615	0.15		2.2									
90	6.58	33.841	26.604	0.07		1.0	120	110	10	175	<10	90	>75	0.80	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	208	3	967	369	0.80	1.7	1.4	16.00	<0.10	0.08	<2.0	<1.0	0.29
4	42	1	179	128	0.50	1.7	1.7	7.00	<0.10	0.04	<2.0	<1.0	0.71
8	20	6	206	34									
12	17	5	143	29									
16					0.47	1.7	1.5	4.00	<0.10	<0.04	<2.0	<1.0	1.07
20	13	4	94	21									
25													
30	7	3	20	7	3.05	<1.0	0.8	2.00	<0.10	<0.04	<2.0	<1.0	1.18
40													
50	2	5	19	4									
60	1	5	18	4									
80													
90	<0	5	17	3	1.08	<1.0	0.5	2.00	<0.10	0.62	<2.0	<1.0	1.18

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	DD1	59,4.6	9,38.6	60	750916	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.5	19			2.0	YELLOW/BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0,5M, QP 0-2,4M, GP 0-2M, SES 3-5M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	15.50	5.743	3.567	5.47		81.3	15	4	11	485	1600	380	-1495	3.95	
4	16.17	21.980	15.782	5.24		87.1	14	9	5	320	1.000	250	-930	2.20	
8	16.35	28.012	20.347	5.54		95.9	7	5	2	175	30	45	100	1.45	
12	16.23	29.291	21.352	5.17		90.0	10	8	2	185	30	20	135	1.90	
16	13.61	29.827	22.315	4.12		68.2									
20	13.89	30.990	23.154	4.12		69.1	26	23	3	235	130	10	95	1.00	
25	12.64	31.601	23.873	4.12		67.6									
30	6.60	33.631	26.436	OT			90	86	4	240	180	<10	>50	0.80	
40	6.51	33.819	26.596	0.11		1.6									
55	6.57	33.850	26.612	L			100	90	10	170	80	25	65	0.80	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	884	9	679	71									
4	246	8	405	51									
8	13	10	534	55									
12	8	12	490	41									
16													
20	12	5	99	20									
25													
30	5	4	23	6									
40													
55	2	5	21	4									

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	750916	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	24			2.3	BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, HC 0,4-5,50M, GP 0-2M, SES 2-4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.20	6.230	3.987	5.99		88.7	19	5	14	2000	520	500	980	4.25	
4	16.14	20.718	14.827	5.32		87.7	13	8	5	1200	240	300	660	2.05	
8	16.51	28.538	20.714	5.47		95.3	8	6	2	180	10	40	130	1.30	
12	15.89	29.536	21.615	4.94		85.5	13	11	2	185	40	25	120	1.20	
16	13.92	29.904	22.312	4.19		69.8									
20	13.63	30.809	23.068	4.12		68.6	23	21	2	215	110	10	95	1.00	
25	13.67	31.240	23.391	4.27		71.4	23	21	2	205	100	<10	>95	0.90	
30	10.17	32.664	25.143	2.55		39.9	70	55	15	225	150	10	65	0.65	
40	6.90	33.370	26.191	0.75		10.9									
50	6.73	33.428	26.259	0.26		3.8	110	100	10	290	200	<10	>80	0.60	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	230	2	577	233	0.75	<1.0	1.3	9.00	<0.10	0.08	<2.0	<1.0	0.28
4	66	2	407	204	0.68	<1.0	0.7	3.00	<0.10	0.06	<2.0	<1.0	0.72
8	4	8	419	50									
12	8	8	238	31									
16													
20	12	5	112	21									
25	11	5	101	20									
30	6	3	24	7									
40													
50	4	2	14	6	0.93	<1.0	0.6	3.00	<0.10	0.32	<2.0	<1.0	1.16

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	750917	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	17			2.3	BROWN	SHOWERS	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO		

COMMENTS
NS, QP 0-2,4,8,12M, HC 0,4,90M, SES 2-4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.20	16.065	11.466	5.62		88.4	11	3	8	1400	330	220	850	3.55	
4	16.37	26.434	19.138	6.13		105.1	7	5	2	50	20	40	-10	1.60	
8	16.67	28.667	20.776	5.15		90.1	7	5	2	230	20	50	160	1.40	
12	15.42	30.627	22.553	4.31		74.4	14	10	4	230	100	<10	>120	0.80	
16	14.99	31.446	23.275	4.54		78.1									
20	15.04	32.062	23.737	4.92		85.0	16	13	3	180	60	<10	>110	0.80	
30	14.84	32.544	24.150	4.92		84.9	13	12	1	175	40	<10	>125	0.70	
40	13.99	32.800	24.527	L			16	14	2	180	50	<10	>120	0.95	
50	12.52	33.167	25.107	4.92		81.3									
60	9.19	33.303	25.802	4.92		75.7	28	27	1	235	70	<10	>155	0.55	
80	6.48	34.450	27.097	4.62		67.3									
90	6.55	34.607	27.211	3.41		49.8	61	61	0	325	230	<10	>85	0.45	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	243	3	832	281	0.58	<1.0	1.2	5.00	<0.10	0.04	<2.0	<1.0	0.63
4	9	37	589	16	0.98	<1.0	0.5	1.00	<0.10	0.04	<2.0	<1.0	0.89
8	9	7	516	73									
12	22	4	147	36									
16													
20	10	5	129	25									
30	7	5	139	30									
40	8	6	153	25									
50													
60	6	3	51	19									
80													
90	8	2	19	12	0.28	<1.0	0.5	2.00	<0.10	0.10	<2.0	<1.0	1.16

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	750916	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.3	22			2.5	BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4,12M, HC 0,4,100M, SES 2-4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.60	13.539	9.468	6.14		95.8	14	6	8	1600	370	350	880	2.80	
4	16.42	26.167	18.923	6.44		110.4	8	4	4	60	40	60	-40	1.95	
8	16.45	27.871	20.218	5.77		100.0	7	4	3	175	10	35	130	1.25	
12	16.53	28.679	20.817	5.47		95.4	6	5	1	180	10	35	135	1.15	
16	16.61	29.946	21.767	5.09		89.6									
20	15.65	30.146	22.134	4.87		84.2	12	11	1	160	50	10	100	0.90	
25	15.21	30.839	22.761	4.69		80.7									
30	14.41	31.140	23.162	4.34		73.6	20	18	2	235	90	<10	>135	1.55	
40	15.02	31.868	23.592	4.92		84.9	14	13	1	180	60	<10	>110	0.70	
50	12.20	33.085	25.105	5.00		82.0									
60	10.34	33.624	25.861	5.15		81.4	21	19	2	180	100	<10	>70	0.65	
80	6.69	34.391	27.022	5.07		74.1									
100	6.59	34.603	27.203	3.63		53.0	57	55	2	280	125	<40	>115	0.45	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	136	2	516	253	0.54	<1.0	1.1	6.00	<0.10	<0.04	<2.0	<1.0	0.86
4	22	38	629	17	0.90	<1.0	0.5	1.00	<0.10	<0.04	<2.0	<1.0	0.94
8	6	8	461	55									
12	4	7	494	66									
16													
20	10	7	193	29									
25													
30	11	8	200	26									
40	10	5	129	28									
50													
60	12	4	80	19									
80													
100	5	2	20	11	0.91	2.6	2.3	4.00	<0.10	0.10	<2.0	<1.0	1.19

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:13:27 PAGE:7

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	750917	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	20			2.5	BROWN	SHOWERS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	MICROGR./L TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0		14.925		6.66		104.0	22	7	15	1600	400	390	810	3.40	
4	16.31	26.722	19.371	6.06		87.7	9	4	5	90	30	45	15	1.50	
8	16.37	30.208	22.022	5.00		79.8	16	8	8	195	30	<10	>155	0.95	
12	15.37	30.866	22.747	4.62		84.4	15	11	4	210	60	<10	>140	0.85	
16	15.57	31.759	23.388	4.84		88.7	13	9	4	205	30	10	165	0.75	
20	15.72	31.926	23.483	5.07		93.7	11	8	3	155	10	<10	>135	0.85	
30	16.00	32.684	24.001	5.30		87.0	12	9	3	155	20	30	105	0.75	
40	15.02	33.249	24.653	5.00		59.5									
50	12.94	33.616	25.371	3.56		81.0	22	18	4	190	80	<10	>100	0.60	
60	10.76	33.901	26.003	5.07		71.1									
80	6.85	34.521	27.103	4.84		56.4	52	48	4	295	210	<10	>75	0.45	
100	6.55	34.631	27.230	3.86											

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	126	2	399	161									
4	17	19	430	22									
8	8	6	153	27									
12	12	5	146	31									
16													
20	7	4	149	35									
30	3	6	199	31									
40	5	6	161	29									
50													
60	10	4	70	19									
80													
100	10	2	22	13									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	750917	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	24			4.5	GREEN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT; WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
NS, OP 0-2,4,8,12M, HC 0,50,100M, GP 0-2M, SES 2-4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.60	24.435	17.775	6.28		104.8	17	7	10	315	100	155	60	1.85	
4	16.02	30.525	22.343	5.22		91.1	14	8	6	195	30	15	150	1.10	
8	16.55	32.216	23.517	5.45		97.2	13	8	5	150	10	L		1.40	
12	16.36	32.321	23.641	5.15		91.5	13	8	5	150	10	15	125	0.80	
16	16.52	32.593	23.812	OT											
20	16.03	32.609	23.937	5.22		92.3	12	9	3	155	10	<10	>135	0.85	
30	15.87	32.889	24.188	5.30		93.6	14	11	3	150	10	<10	>130	0.95	
40	15.93	33.115	24.347	5.07		89.8	13	9	4	150	10	<10	>130	0.80	
50	15.48	33.447	24.703	5.07		89.1									
60	14.10	33.795	25.271	5.00		85.7	15	11	4	150	20	10	120	0.65	
80	10.06	34.403	26.516	5.53		87.3									
100	8.61	34.780	27.049	5.83		89.3	19	16	3	155	30	<10	>115	0.50	
150	7.43	34.996	27.395	5.83		87.1	26	23	3	255	90	<10	>155	0.55	
200	7.22	35.079	27.491	5.75		85.5	36	31	5	245	130	<10	>105	0.75	

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	32	7	281	41	2.49	1.7	1.6	6.00	<0.10	<0.04	<2.0	<1.0	0.87
4	8	7	203	31									
8	3	11	278	26									
12	3	6	159	26									
16													
20	2	6	183	29									
30	2	7	175	24									
40	2	6	159	26									
50					8.48	<1.0	0.5	1.00	<0.10	<0.04	<2.0	<1.0	1.15
60	4	5	112	22									
80													
100	4	4	68	18									
150	9	3	55	22									
200	9	4	54	15	1.21	1.8	0.7	3.00	<0.10	<0.04	<2.0	<1.0	1.20

< :LESS THAN VALUE > :GREATER THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-1	59,7.1	9,38.7	4	750918	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DRY DEG.CELS	AIR TEMP. WET DEG.CELS	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	+

COMMENTS

TEMP 0,3M+SALT OM BY SLN

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.50	6.300	3.989												
3	16.00	7.090	4.500	4.62		69.9	11	3	8	3800	650	2050	1100	1.65	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					1.01	3.1	2.0	6.00	<0.10	<0.04	<2.0	<1.0	0.14
3	479	1	387	764	1.12	1.3	2.5	6.00	<0.10	<0.04	<2.0	<1.0	0.12

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	O-111/70	GUNNEKLEIVFJORD	G-2	59,7.4	9,38.4	4	750918	10 5

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0		5.295		L			12	3	9	3800	580	2500	720	3.10	
3		5.817		5.15			12	3	9	3200	550	2300	350	3.05	

DEPTH M	RATIOS NO3/ P04	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	428	1	666	700	1.59	1.0	1.2	4.00	<0.10	<0.04	<2.0	<1.0	0.14
3	405	1	655	590	1.30	1.9	3.0	7.00	<0.10	<0.04	<2.0	<1.0	0.15

< :LESS THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-3	59,7.7	9,38.2	10	750918	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	+

COMMENTS

TEMP BY SLN.

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.20	5.305	3.114	L			15	3	12	3600	560	2650	390	3.10	
3	16.10	5.788	3.497	5.22		78.5	11	3	8	3200	500	2250	450	3.30	
8	17.60	13.339	8.922		0.60		17	43	-26	2000	40	1380	580	2.45	

DEPTH M	RATIOS NO3/ PO4	MOL/MOL TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	413	1	533	531	1.76	1.5	1.3	5.00	<0.10	<0.04	<2.0	<1.0	0.14
3	369	1	774	643	0.38	3.5	4.2	12.00	<0.10	<0.04	<2.0	<1.0	0.17
8	2	1	372	260	1.92	2.0	1.3	11.00	<0.10	0.25	<2.0	<1.0	0.32

< :LESS THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1		750918	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	+

COMMENTS

TRB+TSM+SUP+COD 0-2M, TEMP 0,10M+SALT 10M BY SLN

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.80	0.000	-0.828				16	8	8	410	290	15	105	9.50	30.0
10	14.90	28.405	20.960		0.31		16	6	10	50	30	50	-30	1.80	30.0

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	80	27	1531	57	0.11	2.5	2.9	7.00	<0.10			<1.0	
10	11	42	290	7	0.13	5.0	1.2	33.00	0.40			<1.0	

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		750918	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

TRB+TSM+SUP+COD 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0							11	4	7	310	290	20	0	2.85	20.0
10		28.493			4.01		15	11	4	60	50	60	-50	1.30	30.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	160	11	668	62	0.22	<1.0	0.8	5.00	<0.10			<1.0	
10	10	25	224	9	0.42	4.5	5.7	19.00	<0.10			<1.0	

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.1	9,34.2	57	751029	925

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0	4.5		2.8	BROWN	FOG,THICK DUST OR HAZE	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	YES	NO	NO	-	+

COMMENTS
NS QP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.50	3.784	2.947	6.00		75.2	14	4	10	1200	360	55	785	6.50	
4	11.02	15.077	11.391	5.40		77.1									
8	13.65	30.618	22.916	3.98		66.3									
12	13.70	31.409	23.516	3.83		64.1									
16	13.08	31.995	24.091	3.53		58.6									
20	12.31	32.379	24.538	3.60		58.9									
25	11.21	32.445	24.792	3.08		49.2									
30	7.61	33.049	25.841	1.28		19.0									
40	6.57	33.822	26.590	0.08		1.2									
50	6.57	33.838	26.603		0.28										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	199	6	1197	190									
4													
8													
12													
16													
20													
25													
30													
40													
50													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:38:35 PAGE:6

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BCI	59,6.4	9,37.1	95	751029	1045

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0		9.1		5.2	YELLOW/GREEN	FOG,THICK DUST OR HAZE	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.60	4.269	3.314	6.51		82.0	17	9	8	1400	470	280	650	2.90	
4	11.59	22.678	17.168	OT											
8	13.73	30.660	22.933	3.85		64.2									
12	13.81	31.541	23.595	3.77		63.3									
16	13.51	31.932	23.957	3.74		62.6									
20	13.48	32.297	24.244	4.00		67.0									
25	13.02	32.737	24.676	3.92		65.3									
30	7.30	33.267	26.056	1.41		20.8									
40	6.63	33.822	26.583	0.22		3.2									
50	6.59	33.838	26.600	(0.00)		(0.0)									
60	6.59	33.842	26.604		0.21										
80	6.57	33.854	26.616		0.14										
90	6.57	33.862	26.622		0.14										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	115	2	440	182									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:38:37 PAGE:7

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	DD1	59,4.6	9,38.6	60	751029	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0		7.3		4.5	YELLOW/GREEN	FOG,THICK DUST OR HAZE	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	-

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	9.10	4.257	3.263	6.51		83.0	14	8	6	1200	450	205	545	3.00	
4	12.46	22.208	16.662	5.07		78.1									
8	13.81	30.795	23.020	3.85		64.4									
12	13.82	31.618	23.652	3.70		62.2									
16	13.96	32.212	24.081	4.40		74.4									
20	13.90	32.554	24.357	4.37		74.0									
25	13.65	33.088	24.820	4.81		81.3									
30	6.94	33.482	26.274	1.04		15.2									
40	6.60	33.822	26.587	0.19		2.8									
55	6.58	33.858	26.617	0.40		5.8									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	124	3	553	190									
4													
8													
12													
16													
20													
25													
30													
40													
55													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	751029	1415

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0		7.2		3.5	YELLOW/GREEN	FOG,THICK DUST OR HAZE	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	9.00	4.785	3.679	6.36		81.1	19	10	9	1600	510	300	790	2.65	
4	9.84	6.897	5.228	6.07		80.1									
8	13.27	30.367	22.798	4.43		73.0									
12	13.71	31.436	23.534	4.43		74.2									
16	13.77	32.511	24.350	4.99		84.3									
20	13.87	33.131	24.807	5.18		88.0									
25	13.88	33.224	24.877	5.18		88.0									
30	13.88	33.310	24.943	5.10		86.7									
40	13.88	33.334	24.962	5.33		90.7									
50	13.89	33.369	24.987	5.18		88.1									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	113	2	360	186									
4													
8													
12													
16													
20													
25													
30													
40													
50													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:38:32 PAGE:4

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	EIDANGERFJORD	BN1				751028	

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
SURFACE STATION,

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP (MICROGR./L)	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	9.10	9.947	7.660				15	8	7	440	410	235	-205	2.50	

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	113	7	430	65									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	751028	1510

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				3.5	BROWN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	MICROGR./L TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	9.20	10.256	7.889	7.13		94.7	13	4	9	1400	400	250	750	2.30	
4	13.32	29.617	22.211	5.29		86.9									
8	14.48	32.624	24.289	4.58		78.5									
12	14.08	33.002	24.664	5.10		86.9									
16	13.95	33.236	24.872	5.25		89.4									
20	13.89	33.356	24.977	5.33		90.7									
25	13.94	33.505	25.081	5.40		92.1									
30	13.95	33.626	25.172	5.33		91.0									
40	13.32	33.666	25.333	5.03		84.7									
50	12.68	33.740	25.518	4.95		82.3									
60	11.94	33.822	25.725	5.03		82.4									
80	7.69	34.057	26.621	4.35		65.0									
90	6.57	34.540	27.156	2.93		42.8									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	221	2	456	238									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FGI	59,2.8	9,43.2	104	751029	1510

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0		8.5		7.0	GREEN	FOG,THICK DUST OR HAZE	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.00	14.769	11.288	4.58		63.7	18	11	7	1200	370	190	640	2.00	
4	13.46	29.994	22.474	4.95		81.8									
8	13.83	32.262	24.146	5.25		88.6									
12	13.53	32.589	24.459	5.70		95.8									
16	13.62	32.842	24.636	5.55		93.6									
20	13.77	33.037	24.756	5.10		86.4									
25	13.90	33.209	24.861	5.25		89.3									
30	13.91	33.342	24.962	5.25		89.4									
40	13.94	33.650	25.193	5.40		92.1									
50	13.61	33.705	25.304	5.10		86.5									
60	13.10	33.916	25.571	5.33		89.5									
80	8.99	34.057	26.423	4.65		71.5									
100	6.58	34.579	27.185	3.15		46.0									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	74	2	287	147									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	751028	1320

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0		13.1		8.5	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS GP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.60	11.007	8.310	6.08		83.8	15	6	9	1400	370	235	795	2.50	
4	13.34	30.520	22.903	5.18		85.6									
8	14.14	32.456	24.231	4.80		81.6									
12	13.93	32.624	24.404	5.03		85.3									
16	13.69	32.931	24.690	5.40		91.3									
20	13.82	33.197	24.869	5.36		91.0									
25	13.92	33.447	25.040	5.33		90.8									
30	13.96	33.701	25.228	5.18		88.5									
40	13.76	33.885	25.411	5.10		86.8									
50	13.41	34.002	25.574	5.25		88.8									
60	12.91	34.092	25.745	5.14		86.1									
80	7.48	34.249	26.802	4.43		65.9									
100	6.58	34.583	27.188	3.38		49.4									

DEPTH M	RATIOS NO3/ P04	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	136	2	430	206									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
100													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:38:26 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	751028	1055

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	190	14.3		13.5	GREEN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT: WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
NS OP 0-2,4,8,12M NTR OM GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	11.70	25.190	19.090	6.65		102.7	12	7	5	800	150	72	578	1.10	
4	13.09	32.204	24.251	6.16		102.4									
8	13.23	32.468	24.427	6.32		105.5									
12	13.40	32.612	24.504	5.63		94.4									
16	13.45	32.709	24.568	5.48		92.0									
20	13.44	32.822	24.657	5.55		93.3									
25	13.73	33.267	24.941	5.76		97.6									
30	13.72	33.361	25.016	5.84		99.0									
40	13.70	33.376	25.031	5.40		91.5									
50	13.71	33.447	25.084	5.48		92.9									
60	13.84	33.666	25.226	5.33		90.8									
80	13.03	34.312	25.891	5.60		94.2									
100	8.14	34.969	27.269	6.00		91.1									
150	7.56	35.063	27.429	5.70		85.4									
200	7.31	35.095	27.490	5.78		86.2									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	47	2	236	147									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
100													
150													
200													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	751216	915

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	27			2.5	BROWN	DRIZZLE	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4-5,50M, MCL

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.80	4.623	3.800	7.09		81.5	12	6	6	5800	460	160	5180	5.25	
4	6.69	12.762	10.065	5.59		71.0	22	17	5	3000	460	280	2260	2.45	
8	11.36	32.283	24.640	3.95		63.3	32	33	-1	225	120	<10	>95	0.95	
12	11.28	32.781	25.040	3.43		55.0	37	39	-2	280	130	<10	>140	0.85	
16	10.56	33.008	25.344	3.29		52.1									
20	10.08	33.139	25.528	3.18		49.8	46	46	0	230	120	<10	>100	0.80	
25	9.49	33.292	25.745	3.69		57.1	43	43	0	215	100	<10	>105	1.95	
30	8.74	33.405	25.953	1.43		21.8	70	69	1	300	150	50	100	0.80	
40	6.68	33.784	26.546		0.38										
50	6.56	33.839	26.605		1.04		112	140	-28	150	<10	<50	>90	0.85	

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	170	1	1128	1069	0.08	<1.0	1.4	6.00	<0.10	0.06			
4	60	1	287	302	0.80	<1.0	1.5	7.00	<0.10	<0.04			
8	8	5	77	16									
12	7	4	59	17									
16													
20	6	4	45	11									
25	5	11	117	11									
30	5	3	29	9									
40													
50	<0	7	20	3	0.09	1.0	0.9	3.80	<0.10	0.19			

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BCI	59,6.4	9,37.1	95	751216	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.6	27			3.2	YELLOW	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4-5,90M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.00	4.361	3.589	7.56		87.2	18	14	4	2900	510	340	2050	3.55	
4	8.27	19.599	15.243	4.97		68.5	28	27	1	2900	390	<10	>2500	2.35	
8	10.84	32.124	24.609	4.60		72.8	29	29	0	220	100	<10	>110	0.85	
12	10.90	32.575	24.948	4.28		68.0	30	30	0	210	100	<10	>100	0.75	
16	10.41	32.925	25.306	4.17		65.7									
20	10.01	33.104	25.513	4.09		64.0	36	36	0	200	110	<10	>80	0.60	
25	9.57	33.284	25.726	3.51		54.4	49	48	1	210	110	<10	>90	1.15	
30	8.88	33.459	25.973	2.08		31.8	66	65	1	245	130	<10	>105	0.70	
40	6.88	33.811	26.541	0.07		1.0									
50	6.57	33.831	26.598		0.74		120	130	-10	150	<10	65	>75	0.65	
60	6.58	33.835	26.599		0.74		120	130	-10	195	<10	65	>120	0.85	
80	6.55	33.854	26.618		0.74										
90	6.56	33.854	26.617		1.04		160	170	-10	220	<10	80	>130	1.00	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	81	1	509	356	0.18	<1.0	2.2	7.60	<0.10	0.14			
4	32	1	216	229	0.34	<1.0	1.5	5.80	<0.10	0.08			
8	8	5	76	17									
12	7	4	64	15									
16					0.40	<1.0	0.6	1.10	<0.10	<0.04			
20	7	3	43	12									
25	5	6	61	9									
30	4	3	27	8	0.26	<1.0	0.7	6.00	<0.10	0.04			
40													
50	<0	5	14	3									
60	<0	5	18	4	0.20	<1.0	0.2	1.90	<0.10	0.23			
80													
90	<0	5	16	3	0.14	<1.0	<0.1	1.20	<0.10	0.25			

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:39:6 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	DD1	59,4.6	9,38.6	60	751216	1210

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.2	27			3.2	YELLOW	CONTINOUS LAYER OF CLOUDS	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0,1-0,5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.80	5.088	4.165	7.38		85.0	14	8	6	2800	510	285	2005	3.35	
4	9.18	21.810	16.851	4.79		68.4	33	29	4	2400	320	245	1835	1.60	
8	11.32	32.221	24.599	4.17		66.7	33	33	0	255	130	<10	>115	1.90	
12	10.86	32.579	24.958	4.20		66.7	32	32	0	220	110	<10	>100	1.00	
16	9.85	32.793	25.297	5.30		82.4									
20	9.65	32.960	25.460	5.48		85.0	22	22	0	205	90	<10	>105	1.20	
25	9.39	33.233	25.716	5.52		85.2									
30	9.11	33.463	25.940	5.04		77.4	32	31	1	190	70	<10	>110	0.85	
40	6.94	33.800	26.524	0.15		2.2									
55	6.61	33.835	26.595		0.38		110	130	-20	170	10	65	95	1.30	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	141	1	617	442									
4	24	1	125	161									
8	9	9	148	17									
12	8	5	81	15									
16													
20	9	7	141	21									
25													
30	5	5	69	13									
40													
55	0	9	30	3									

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:39:9 PAGE:4

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-11/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	751216	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.6	27			3.8	YELLOW/BROWN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2M, GP 0-2M, HC 0.5,4-5,50M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.70	6.146	4.998	7.20		83.3	13	7	6	2600	460	205	1935	3.30	
4	5.37	8.039	6.455	6.65		79.3	15	9	6	2800	470	135	2195	3.40	
8	11.41	31.852	24.296	4.24		67.8	34	32	2	250	130	25	95	1.90	
12	10.43	32.392	24.888	4.75		74.6	29	28	1	230	110	<10	>110	1.35	
16	9.65	32.808	25.342	5.33		82.5									
20	9.47	33.417	25.846	5.59		86.6	27	27	0	200	80	<10	>110	0.80	
25	9.41	33.561	25.968	5.55		85.9									
30	9.36	33.612	26.016	5.59		86.5	23	23	0	215	80	<10	>125	0.90	
40	9.37	33.651	26.045	5.55		85.9									
50	9.36	33.682	26.071	5.59		86.5	20	21	-1	180	80	<10	>90	0.80	

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	145	1	655	442	0.04	2.9	0.8	6.30	<0.10	0.07			
4	115	1	585	413	0.08	<1.0	0.8	4.50	<0.10	0.06			
8	9	9	144	16									
12	9	7	120	18									
16													
20	7	5	76	16									
25													
30	8	5	101	21									
40													
50	8	5	103	20	0.22	<1.0	0.6	1.70	<0.10	<0.04			

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	BN-1	59,6.1	9,42.7		751217	

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.60	17.978	14.434				35	33	2	1400	320	105	975	1.65	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	21	1	122	88									

() :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:39:36 PAGE:8

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	751217	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	36			11.0	GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 0.5,4,90M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.60	18.322	14.678	7.27		86.4	18	14	4	2000	300	105	1595	1.50	
4	10.72	33.061	25.357	5.15		81.8	21	19	2	1200	80	<50	>1070	0.55	
8	10.44	33.612	25.835	5.19		82.2	24	21	3	235	80	<10	>145	0.64	
12	9.30	33.631	26.041	5.70		88.1	20	18	2	195	70	<10	>115	0.55	
16	9.19	33.710	26.120	5.74		88.5									
20	9.55	33.850	26.171	5.63		87.6	19	18	1	230	70	15	145	0.75	
30	9.70	34.042	26.296	5.26		82.2	21	19	2	210	80	<10	>120	0.40	
40	9.31	34.054	26.369	5.74		88.9									
50	9.45	34.148	26.420	5.41		84.1	21	19	2	220	80	<10	>130	0.35	
60	9.54	34.266	26.497	5.08		79.2									
80	8.97	34.450	26.734	4.60		70.9	28	30	-2	230	120	<10	>100	0.30	
90	8.51	34.521	26.862	4.02		61.4	36	39	-3	255	150	<10	>95	0.40	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	47	1	215	246	0.34	<1.0	0.6	2.30	<0.10	<0.04			
4	9	1	68	126	0.27	<1.0	0.8	1.50	<0.10	<0.04			
8	8	3	69	22									
12	9	3	71	22									
16													
20	9	4	102	27									
30	9	2	49	22									
40													
50	9	2	43	23									
60													
80	9	2	28	18									
90	9	2	29	16	0.54	<1.0	0.2	1.40	<0.10	0.04			

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	751216	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	35			5.5	GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC .5,4,100M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.20	13.633	10.850	6.54		80.5	15	13	2	2000	380	<10	>1610	2.75	
4	8.50	23.429	18.199	5.88		83.6	21	21	0	1600	230	66	1304	1.60	
8	8.81	32.855	25.512	5.85		88.9	18	21	-3	235	80	130	25	1.70	
12	9.19	33.155	25.687	5.55		85.3	S	25		225	80	20	125	0.70	
16	8.84	33.456	25.977	5.85		89.3									
20	8.79	33.518	26.033	6.21		94.8	18	22	-4	210	70	<10	>130	1.15	
25	8.90	33.659	26.126	6.21		95.1									
30	9.09	33.784	26.194	6.21		95.6	19	20	-1	220	70	20	130	0.75	
40	9.13	33.956	26.322	3.36		51.8									
50	9.10	34.062	26.410	6.14		94.7	29	20	9	220	70	10	140	0.70	
60	9.32	34.168	26.457	5.77		89.5	46	28	18	180	80	<10	>90	0.65	
80	9.10	34.403	26.676	5.26		81.3									
100	8.19	34.579	26.956	4.09		62.0	45	46	-1	260	160	<10	>90	0.80	

DEPTH M	RATIOS NO3/ P04	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	65	2	473	295	0.13	<1.0	0.7	7.00	<0.10	<0.04			
4	24	1	196	168	0.28	<1.0	0.8	4.00	<0.10	<0.04			
8	8	8	244	29									
12	7	4											
16													
20	7	6	165	26									
25													
30	8	4	102	26	0.22	4.8	0.7	2.80	<0.10	<0.04			
40													
50	8	4	62	17									
60	6	4	36	9	0.55	<1.0	0.6	1.20	<0.10	<0.04			
80													
100	8	4	46	13	0.46	21.9S	0.4	0.90	<0.10	<0.04			

< :LESS THAN VALUE > :GREATER THAN VALUE S :SPOILED OR DAMAGED SAMPLE
S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	751217	1225

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.0	36			6.0	GREEN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, OP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.00	13.661	10.884	6.69		82.0	14	11	3	1800	360	120	1320	1.75	
4	9.10	29.294	22.688	5.48		82.0	21	20	1	2600	140	<50	>2410	0.65	
8	9.16	33.132	25.674	5.70		87.5	19	17	2	245	90	<10	>145	0.45	
12	8.73	33.440	25.982	6.03		91.9	19	17	2	225	70	20	135	0.45	
16	8.65	33.495	26.037	6.18		94.0									
20	8.75	33.639	26.134	6.04		92.2	69	53	16	220	70	40	110	0.45	
30	8.84	33.784	26.234	5.99		91.7	20	18	2	225	70	40	115	0.45	
40	8.94	33.921	26.325	5.99		92.0									
50	9.00	34.019	26.392	5.92		91.1	19	18	1	195	70	20	105	0.55	
60	9.07	34.179	26.506	5.70		87.9									
80	8.96	34.450	26.735	5.07		78.1	27	28	-1	215	100	15	100	0.45	
100	8.15	34.591	26.971	3.73		56.5	47	44	3	300	160	<10	>130	<0.20	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	72	1	322	284									
4	15	0	80	274									
8	12	2	61	29									
12	9	2	61	26									
16													
20	3	2	17	7									
30	9	2	58	25									
40													
50	9	3	75	23									
60													
80	8	2	43	18									
100	8	<1	<11	14									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JHI	58,58.1	9,47.0	208	751217	1115

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DRY DEG.CELS	AIR TEMP. WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	36			9.0	GREEN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, GP 0-2M, HC 0.5,50,200M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	2.95	22.298	17.819	6.87		84.6	17	16	1	1600	230	60	1310	1.35	
4	7.96	33.307	25.993	6.39		95.6	21	18	3	2600	60	<50	>2490	0.70	
8	8.02	33.370	26.034	6.32		94.7	20	18	2	230	70	<10	>150	0.60	
12	7.81	33.436	26.116	6.36		94.9	17	17	0	230	60	30	140	0.60	
16	8.15	33.663	26.244	6.43		96.8									
20	8.27	33.729	26.278	6.44		97.3	21	21	0	265	60	20	185	2.10	
30	8.44	33.800	26.308	6.50		98.6	20	20	0	180	60	35	85	0.55	
40	8.59	33.862	26.333	6.18		94.1									
50	8.64	33.913	26.366	6.30		96.1	19	19	0	230	60	25	145	0.60	
60	8.47	33.933	26.407	6.25		94.9									
80	8.78	34.077	26.472	6.36		97.4	19	19	0	175	60	25	90	0.55	
100	9.13	34.254	26.555	6.25		96.6	18	18	0	200	60	20	120	<0.20	
150	9.04	34.772	26.974	5.96		92.2	18	17	1	200	60	10	130	0.60	
200	8.29	34.961	27.240	5.88		89.6	25	26	-1	240	90	<10	>140	<0.20	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	32	1	205	208	0.66	<1.0	0.9	3.40	<0.10	<0.04			
4	7	0	86	274									
8	9	3	77	25									
12	8	3	91	30									
16													
20	6	9	258	28									
30	7	4	71	20									
40													
50	7	3	81	27	0.33	<1.0	0.7	1.00	<0.10	<0.04			
60													
80	7	4	75	20									
100	7	<1	<29	25									
150	8	3	86	25									
200	8	<1	<21	21	0.27	2.2	0.4	0.70	<0.10	<0.04			

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1	14	751218	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.2		CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
TRB+TSM+SUP 0-2,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.76	<2.846	<2.425	7.63		(84.3)	13	8	5	1200	410	<50	>740	8.50	
12	10.20	26.427	20.291	1.63		24.5	26	15	11	310	110	95	105	1.95	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	113	8	1686	204	0.13	<1.0	0.9	6.00	<0.10	<0.04			
12	16	7	193	26	0.28	<1.0	0.4	2.50	<0.10	0.11			

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		751218	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				4.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
TRB+TSM+SUP 0-2,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.67	<2.846	<2.411	7.78		(88.0)	8	6	2	1200	380	<50	>770	2.90	
12	11.26	32.509	24.833	2.48		39.7	34	32	2	235	110	<10	>115	0.88	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	140	3	935	332	0.06	<1.0	0.9	5.80	<0.10	<0.04			
12	8	4	67	15	0.13	<1.0	0.7	5.80	<0.10	0.20			

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

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COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	760203	1310

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				2.5	BROWN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.OM	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.70	3.647	3.018	6.53		66.8	15	9	6	1800	410	90	1300	16.50	
4	6.01	23.367	18.431	5.29		70.8									
8	8.95	33.300	25.838	4.17		63.8									
12	8.46	33.461	26.040	4.46		67.5									
16	8.07	33.445	26.085	4.50		67.5									
20	7.96	33.481	26.130	3.95		59.1									
25	7.90	33.547	26.190	3.05		45.6									
30	7.71	33.598	26.258	2.83		42.2									
40	7.12	33.734	26.447	0.36		5.3									
50	6.65	33.813	26.573		0.88										

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	101	11	2837	265									
4													
8													
12													
16													
20													
25													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.4	9,37.1	95	760203	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				4.0	YELLOW/GREEN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.70	5.333	4.360	7.69		79.6	34	29	5	2800	700	750	1350	3.00	
4	6.81	26.967	21.173	4.86		67.9									
8	8.79	33.352	25.904	4.79		73.0									
12	8.47	33.402	25.992	4.86		73.6									
16	7.12	33.274	26.086	5.37		78.8									
20	7.39	33.387	26.138	4.86		71.8									
25	7.02	33.399	26.198	5.51		80.7									
30	7.54	33.570	26.260	3.81		56.5									
40	7.02	33.758	26.480	0.22		3.2									
50	6.68	33.820	26.574	0.20		2.9									
60	6.62	33.836	26.595		0.01										
80	6.56	33.856	26.619		0.14										
90	6.57	33.859	26.620		0.27										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	53	1	228	182									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	DD1	59,4.6	9,38.6	60	760203	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				4.0	YELLOW/GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.OM	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	0.70	5.177	4.235	7.87		81.4	16	15	1	2000	480	205	1315	3.20	
4	7.10	29.043	22.767	5.62		80.2									
8	7.91	33.180	25.901	5.08		75.8									
12	6.37	33.048	26.007	5.87		84.5									
16	6.28	33.122	26.076	6.02		86.5									
20	6.33	33.204	26.135	5.87		84.5									
25	6.46	33.266	26.167	5.95		85.9									
30	7.26	33.520	26.260	4.71		69.4									
40	6.95	33.730	26.467	1.60		23.4									
55	6.65	33.820	26.578		0.01										

DEPTH M	RATIOS NO3/P04	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	71	2	516	276									
4													
8													
12													
16													
20													
25													
30													
40													
55													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:17:35 PAGE:5

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	760203	1715

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				3.5	YELLOW/GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	0.10	5.609	4.559	7.87		80.3	29	24	5	3200	650	660	1890	3.10	
4	1.13	6.279	5.123	7.47		78.7									
8	4.20	32.565	25.870	6.85		93.2									
12	5.06	32.869	26.021	6.53		91.0									
16	5.31	32.931	26.042	6.56		92.0									
20	5.86	33.122	26.128	6.31		89.7									
25	6.19	33.278	26.211	6.16		88.4									
30	6.36	33.352	26.247	6.02		86.8									
40	6.57	33.434	26.285	6.02		87.3									
50	6.66	33.481	26.310	6.02		87.5									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	60	1	276	244									
4													
8													
12													
16													
20													
25													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	760203	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				6.5	GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.40	15.251	12.265	7.32		82.6	26	22	4	2600	430	385	.1785	2.00	
4	3.28	32.146	25.623	6.89		91.4									
8	3.84	32.468	25.828	7.18		96.8									
12	4.39	32.686	25.947	6.85		93.8									
16	4.71	32.857	26.049	6.53		90.2									
20	5.44	33.040	26.113	6.49		91.3									
25	6.49	33.375	26.249	5.95		86.0									
30	7.13	33.621	26.357	5.73		84.2									
40	8.05	34.039	26.554	5.29		79.7									
50	7.49	34.102	26.685	5.44		80.9									
60	7.43	34.212	26.780	5.22		77.6									
80	6.69	34.188	26.863	5.87		85.7									
100	6.08	34.192	26.945	6.53		94.0									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	43	1	198	221									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	760204	1130

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.6	36			6.5	YELLOW/GREEN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.20	16.865	13.554	7.40		84.0	21	19	2	2600	360	230	2010	2.55	
4	2.66	31.560	25.206	7.18		93.4									
8	3.54	32.444	25.837	6.89		92.2									
12	3.82	32.607	25.940	6.82		92.0									
16	4.50	32.766	25.999	6.60		90.6									
20	4.83	32.891	26.063	6.74		93.4									
30	6.54	33.441	26.294	5.95		86.2									
40	6.90	33.730	26.474	5.91		86.5									
50	7.32	34.133	26.733	5.51		81.6									
60	6.85	34.168	26.825	S											
80	6.33	34.152	26.882	6.16		89.2									
100	6.06	34.199	26.953	6.53		94.0									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	42	1	313	274									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JHI	58,58.1	9,47.0	208	760204	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.3	36			8.5	BLUE/GREEN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	-0.40	29.087	23.385	7.54		89.0	21	20	1	2000	160	40	1800	3.35	
4	1.04	30.425	24.403	7.32		90.7									
8	1.85	31.088	24.887	7.22		91.7									
12	2.17	31.393	25.109	7.03		90.2									
16	3.49	32.339	25.758	6.74		90.0									
20	3.90	32.665	25.979	6.85		92.6									
30	4.66	33.121	26.264	6.74		93.1									
40	5.19	33.460	26.474	6.64		93.1									
50	5.44	33.753	26.676	6.74		95.3									
60	5.78	34.078	26.892	6.64		94.9									
80	5.83	34.329	27.084	6.56		94.0									
100	6.11	34.670	27.318	6.60		95.4									
150	6.49	34.886	27.439	6.53		95.4									
200	6.74	34.992	27.489	6.53		96.0									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	18	2	411	211									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:18:15 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB1	59,6.6	9,34.2	57	760316	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	YELLOW/GREEN	CLEAR	NO

SEA
CALM: WAVES 0.0M

ICE
CLOSE PACK ICE <1 NAUT.MILE DISTANT

OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, HC 0,54, SES IN PYC, MCL

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	0.60	3.388	2.808	8.35		85.0	23	11	12	1600	500	540	560	4.00	70.0
4	1.94	23.471	18.801	7.31		88.4	35	25	10	1200	210	940	50	1.85	20.0
8	2.93	29.527	23.567	6.79		87.8	36	27	9	405	130	55	220	1.75	30.0
12	4.86	31.271	24.778	5.86		80.4	38	34	4	465	130	20	315	1.15	30.0
16	6.57	32.757	25.752	4.67		67.4									
20	7.72	33.443	26.135	3.41		50.8	60	55	5	300	140	<10	>150	1.10	20.0
25	7.41	33.537	26.252	3.04		45.0									
30	7.35	33.662	26.359	1.15		17.0	84	79	5	205	110	<10	>85	1.30	10.0
40	6.98	33.721	26.456		0.30										
50	6.72	33.780	26.538		1.05		150	100	50	205	30R	55	(120)	1.25	90.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
					HEAVY METALS								
0	101	3	449	154	0.06	1.3	2.5	9.10		0.05			0.08
4	19	2	136	76	0.20	<1.0	1.0	3.40		<0.04			0.88
8	11	5	125	25									
12	8	3	78	27									
16													
20	6	4	47	11									
25													
30	3	7	40	5									
40					0.06	<1.0	0.7	4.80		0.38			1.24
50	(1)	7	21	3	0.11	1.7	1.8	10.30		0.39			1.24

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
R :REPEATED ANALYSIS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:18:19 PAGE:2

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC1	59,6.4	9,37.1	90	760316	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			4.0	YELLOW/GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	CLOSE PACK ICE <1 NAUT.MILE DISTANT	NO	NO	NO	-	+

COMMENTS
NS, GP 0-2M, QP 0-2,4M, SES IN PYC, MCL, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.70	4.572	3.754	8.79		90.5	34	22	12	2000	650	700	650	2.80	60.0
4	1.88	17.299	13.887	7.90		91.5	36	25	11	1800	480	600	720	2.25	60.0
8	2.67	29.251	23.366	7.75		99.3	21	11	10	295	60	15	220	1.55	30.0
12	4.76	31.209	24.740	6.05		82.8	38	32	6	340	120	25	195	1.15	30.0
16	6.30	32.800	25.820	5.06		72.6									
20	7.49	33.338	26.085	3.93		58.2	58	52	6	265	130	<10	>125	1.00	10.0
30	6.96	33.600	26.364	2.67		39.1	76	70	6	255	120	<10	>125	1.00	20.0
40	6.84	33.741	26.491	0.52		7.6									
50	6.72	33.780	26.538		0.30		150	100	50	180	<10	70	>100	1.10	30.0
60	6.58	33.792	26.566				140	100	40	200	<10	65	>125	1.15	80.0
80	6.58	33.811	26.580		0.78										
90	6.59	33.787	26.560		0.99		170	130	40	270	<10	100	>160	1.10	80.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	65	2	212	130	0.06	1.3	1.4	8.50		0.08			0.18
4	42	1	161	111	0.21	<1.0	0.9	5.40		0.05			0.62
8	12	6	190	31									
12	8	4	78	20									
16					0.14	<1.0	1.0	2.20		0.04			1.18
20	6	4	44	10									
30	4	5	34	7	0.32	<1.0	0.5	1.50		0.08			1.21
40													
50	<0	7	19	3	0.30	<1.0	0.4	1.60		0.44			1.24
60	<0	7	21	3	0.19	1.0	1.5	4.30		0.43			1.21
80													
90	<0	5	17	4	0.22	<1.0	0.3	0.70		0.37			1.24

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:18:23 PAGE:4

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	DD1	59,4.6	9.38.6	59	760316	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			4.0	GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	OPEN PACK ICE <1 NAUT. MILE DISTANT	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, GP 0-2M, HC 0.5M+PYC, SES IN PYC, MCL

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.10	3.958	3.278	8.55		88.6									
4	1.74	23.711	19.001	7.88		95.0									
8	2.38	28.947	23.143	8.10		102.8									
12	3.79	30.915	24.600	7.24		96.5									
16	6.06	32.441	25.567	5.59		79.5									
20	7.02	33.197	26.039	4.35		63.6									
25	6.22	33.314	26.235	4.95		71.1									
30	5.98	33.357	26.299	5.48		78.3									
40	5.90	33.533	26.448	5.63		80.4									
55	6.34	33.711	26.533	2.52		36.4									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.15	2.5	1.5	11.00		0.07			0.14
4					0.53	<1.0	1.3	4.00		0.06			0.88
8													
12													
16													
20													
25													
30					0.60	<1.0	0.4	0.90		0.05			1.20
40													
55					0.44	1.0	0.7	2.30		0.19			1.24

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	760316	1430

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	33			3.5	GREEN/YELLOW	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	OPEN PACK ICE <1 NAUT. MILE DISTANT	NO	NO	NO	-	+

COMMENTS
NS, GP 0-2,4M, GP 0-2M, HC 0.5M+PYC, SES IN PYC, PEN, MCL

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.30	4.252	3.517	8.74		91.3	28	12	16	1800	580	310	910	3.80	60.0
4	1.55	21.162	16.974	8.48		100.0	20	13	7	1600	230	165	1205	2.00	60.0
8	1.90	28.633	22.922	8.55		107.0	12	5	7	235	30	40	165	1.85	10.0
12	3.82	31.169	24.798	7.28		97.3	21	15	6	240	80	<10	>150	1.45	40.0
16	4.88	32.328	25.612	6.60		91.2									
20	5.52	32.826	25.935	6.04		85.0	36	27	9	250	110	<10	>130	1.05	60.0
25	5.69	33.154	26.174	5.74		81.3									
30	5.82	33.290	26.266	5.78		82.2	35	29	6	245	120	<10	>115	1.20	20.0
40	5.96	33.830	26.675	6.08		87.1									
50	6.03	33.885	26.709	6.00		86.1	34	27	7	250	140	<10	>100	0.90	30.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	107	2	350	142	0.10	1.3	1.5	8.90		0.07			0.19
4	39	1	258	177	0.21	3.2	1.2	6.40		<0.04			0.83
8	13	9	398	43									
12	12	7	178	25									
16													
20	9	5	75	15									
25													
30	9	6	88	15									
40													
50	11	4	68	16	0.37	1.9	1.3	3.00		0.07			1.25

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HEGRAN	0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	760317	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			7.0	LIGHT-GREEN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	OPEN PACK ICE <1 NAUT. MILE DISTANT	NO	NO	NO	-	-

COMMENTS
NS, QP 0-2,4,8,12M, SES IN PYC, MCL

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.80	14.692	11.823	8.96		99.1	16	8	8	1400	340	135	925	2.35	10.0
4	2.16	27.344	21.878	8.51		106.3	16	6	10	1000	60	15	925	1.60	<10.0
8	2.27	28.810	23.041	8.28		104.7	20	6	14	245	40	10	195	1.50	<10.0
12	2.80	29.833	23.820	8.09		104.4	16	7	9	210	30	<10	>170	1.60	30.0
16	3.99	31.727	25.226	7.11		95.8									
20	5.10	32.741	25.915	6.20		86.4	31	22	9	250	120	<10	>120	0.95	10.0
30	6.38	34.222	25.930	5.93		86.0	34	25	9	270	110	<10	>150	0.80	20.0
40	6.04	34.442	27.147	6.54		94.2									
50	6.05	34.588	27.261	6.62		95.5	28	20	8	230	100	<10	>120	0.70	10.0
60	6.05	34.571	27.248	6.58		94.9									
80	5.97	34.658	27.327	6.58		94.8	30	22	8	230	110	10	110	0.50	40.0
90	6.10	34.764	27.394	6.46		93.4	32	23	9	240	110	10	120	1.10	50.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	94	2	379	193	0.32	<1.0	0.9	3.40		0.05			0.67
4	22	2	258	138	0.48	<1.0	1.3	1.50		<0.04			1.07
8	15	7	193	27									
12	9	9	258	29									
16													
20	12	4	79	18									
30	10	3	61	18									
40													
50	11	4	64	18									
60													
80	11	3	43	17									
90	11	5	89	17	0.23	<1.0	1.0	1.40		0.04			1.29

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG1	59,2.8	9,43.2	104	760316	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	18			4.5	LIGHT-GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	OPEN PACK ICE <1 NAUT. MILE DISTANT	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4,8,12M, SES IN PYC, HC 0.5,4M, MCL

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	1.30	10.372	8.381	8.74		95.1									
4	1.20	27.228	21.835	8.85		107.7									
8	1.53	28.495	22.832	8.63		106.8									
12	1.99	29.176	23.350	8.40		105.7									
16	3.06	30.193	24.087	7.88		102.6									
20	3.93	31.788	25.280	7.24		97.4									
25	5.52	33.204	26.233	6.23		87.9									
30	6.12	33.803	26.633	6.00		86.3									
40	6.16	34.363	27.070	6.41		92.6									
50	6.00	34.469	27.174	6.60		95.0									
60	6.04	34.516	27.206	6.64		95.7									
80	5.96	34.709	27.368	6.71		96.7									
100	6.11	34.819	27.436	6.53		94.5									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.26	1.9	1.3	7.90		<0.04			1.81
4					0.12	<1.0	0.9	2.10		<0.04			1.04
8													
12													
16					0.69	<1.0	0.6	1.30		<0.04			1.14
20													
25													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:18:43 PAGE:8

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	760317	1415

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.2	18			5.5	LIGHT-GREEN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	OPEN PACK ICE <1 NAUT. MILE DISTANT	NO	NO	NO	-	-

COMMENTS
NS 0.5M, OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.70	15.393	12.374	8.69		98.9	19	10	9	1000	310	175	515	2.40	30.0
4	1.35	28.099	22.525	8.73		107.3	16	4	12	1200	20	<10	>1170	1.70	20.0
8	1.83	29.256	23.424	8.54		107.1	16	4	12	170	20	<10	>140	1.70	20.0
12	2.92	30.382	24.248	7.82		101.6	16	7	9	270	30	<10	>230	1.20	10.0
16	3.87	31.796	25.292	7.33		98.5									
20	4.81	32.631	25.860	6.58		91.0	29	19	10	260	100	<10	>150	0.90	60.0
30	6.04	34.143	26.911	6.31		90.7	31	21	10	225	110	<10	>105	0.95	10.0
40	6.07	34.450	27.150	6.43		92.7	29	20	9	265	100	<10	>155	0.65	10.0
50	6.01	34.501	27.198	6.58		94.8	27	19	8	195	100	<10	>85	0.85	30.0
60	5.97	34.540	27.233	6.65		95.7									
80	6.12	34.725	27.360	6.58		95.2	29	22	7	235	120	<10	>105	0.50	10.0
100	6.22	34.854	27.449	6.43		93.3	30	22	8	280	120	<10	>150	0.70	10.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	69	3	326	116									
4	11	2	274	166									
8	11	12	274	23									
12	9	5	193	37									
16													
20	12	4	80	20									
30	12	5	79	16									
40	11	3	58	20									
50	12	5	81	16									
60													
80	12	2	44	18									
100	12	3	60	21									

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	760317	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			9.0	BLUE/GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	OPEN PACK ICE <1 NAUT. MILE DISTANT	NO	NO	NO	-	-

COMMENTS
NS, QP 0-2,4,8,12M, HC 0-2,4M, SES IN PYC

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.40	22.746	18.270	8.99		103.9									
4	1.07	29.000	23.260	8.51		104.5									
8	1.39	29.797	23.881	8.40		104.5									
12	1.53	30.339	24.307	8.32		104.3									
16	1.90	30.770	24.629	8.14		103.3									
20	4.28	32.413	25.742	6.91		94.2									
30	5.23	33.924	26.836	6.58		92.7									
40	5.92	34.815	27.457	6.54		94.2									
50	6.28	34.961	27.526	6.43		93.5									
60	6.58	35.071	27.573	6.27		91.9									
80	6.43	35.106	27.620	6.16		90.0									
100	6.16	35.106	27.656	6.39		92.7									
150	5.88	35.079	27.670	6.77		97.6									
200	5.77	35.079	27.684	6.84		98.3									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.17	1.2	1.2	3.20		<0.04			1.00
4					0.10	<1.0	0.5	0.90		<0.04			1.10
8													
12													
16													
20													
30					0.36	<1.0	0.8	5.50		<0.04			1.24
40													
50					0.62	<1.0	0.9	0.50		<0.04			1.25
60													
80													
100					0.26	<1.0	2.1	2.60		0.04			1.26
150													
200													

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:18:49 PAGE:10

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-1	59,7.1	9,38.7		760318	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0					CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO		- +

COMMENTS
TEMP DETERMINED BY SLN,

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.60	5.576	4.517	6.54		77.2	21	6	15	3200	510	1860	830	3.80	30.0
3	5.60	3.474	2.875	6.80		79.1	18	5	13	2800	530	1460	810	3.75	40.0

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	188	1	467	337	0.32	<1.0	1.6	5.40		0.05			0.08
3	234	2	537	344	0.34	3.2	6.3	15.10		<0.04			0.06

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	O-111/70	GUNNEKLEIVFJORD	G-3	59,7.7	9,38.2		760318	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0					CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
TEMP DETERMINED BY SLN,

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.00	3.613	3.025	7.03		78.6	24	4	20	3200	500	1640	1060	3.65	30.0
3	5.50	7.665	6.156	7.52		89.7	22	10	12	2800	560	1280	960	2.95	20.0
8	9.20	15.467	11.925	4.95		67.9	11	4	7	2800	410	1380	1010	2.40	20.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	276	1	392	295	0.34	1.3	1.9	8.60		<0.04			0.10
3	124	1	346	281	0.27	1.7	6.0	8.30		<0.04			0.06
8	227	1	563	563	0.69	1.3	1.2	2.70		<0.04			0.04

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1	14	760317	915

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				4.0	GREY-GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS

HC 0.5,5,10M, TRB+TSM+SUP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.00	<2.800	<2.355	8.80		(90.3)	9	7	2	1600	420	<10	>1170	7.00	50.0
5	1.32	<2.800	<2.365	8.66		(89.6)	11	5	6	1600	410	<10	>1180	5.00	20.0
10	2.22	21.186	16.969	5.09		61.1	43	25	18	415	180	35	200	2.35	20.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	133	5	2006	393	0.06	<1.0	0.9	6.30	<0.10	<0.04		<1.0	
5	181	4	1172	322	0.15	1.8	1.3	35.00	0.20	<0.04		<1.0	
10	16	7	141	21	0.11	<1.0	0.8	4.20	<0.10	0.12		<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7		760317	1015

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				5.5	LIGHT-GREEN	CLEAR	NO

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM: WAVES 0.0M	NO	NO	NO		-	+

COMMENTS

HC 0.5,5,10M, TRB+TSM+SUP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	1.00	<2.800	<2.355	8.88		(91.1)	12	6	6	1600	390	<10	>1200	3.60	20.0
5	2.06	22.826	18.282	7.65		92.4	35	23	12	1000	180	<10	>810	2.35	10.0
10	3.07	29.335	23.403	5.57		72.2	46	34	12	340	130	95	115	1.50	50.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	144	3	774	295	0.06	<1.0	1.1	6.50	<0.10	<0.04		<1.0	
5	17	3	173	63	0.55	<1.0	0.8	4.70	<0.10	0.07		<1.0	
10	8	5	84	16	0.15	<1.0	0.8	3.80	<0.10	0.22		<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB1	59,6.7	9,36.5	95	760428	845

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	36			3.0	BROWN	CLEAR	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	3.55	3.499	2.941	8.27		91.3	11	<2	>9	1200	440	100	660	5.40	
4	4.29	12.233	9.796	8.05		96.0									
8	4.55	26.538	21.065	7.70		101.6									
12	3.54	28.219	22.480	7.38		96.0									
16	4.10	30.471	24.219	6.11		81.8									
20	6.65	33.000	25.933	3.65		52.9									
25	7.09	33.410	26.197	2.38		34.9									
30	7.01	33.626	26.378	1.49		21.8									
40	6.79	33.744	26.500		0.69										
50	6.70	33.782	26.542		1.44										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		5	1266	241									
4													
8													
12													
16													
20													
25													
30													
40													
50													

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BCI	59,6.4	9,37.1	95	760428	1020

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.9	36			3.5	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	3.90	4.901	4.039	8.53		95.9	14	5	9	1400	540	365	495	3.25	
4	4.71	15.035	11.981	8.16		100.2									
8	4.78	26.970	21.386	7.67		102.1									
12	3.82	28.232	22.468	7.38		96.7									
16	4.19	30.718	24.407	6.26		84.2									
20	6.42	32.895	25.880	4.21		60.6									
25	6.84	33.446	26.259	3.32		48.4									
30	6.70	33.579	26.382	2.53		36.8									
40	6.58	33.665	26.466	1.04		15.1									
50	6.54	33.727	26.520	0.00		0.0									
60	6.58	33.782	26.558		0.55										
80	6.48	33.762	26.571		0.48										
90	6.44	33.782	26.576		0.34										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	239	3	599	221									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	DD1	59,4.6	9,38.6		760428	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.3	36			4.5	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4M GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.20	4.214	3.494	8.64		97.5									
4	4.39	7.501	6.071	8.38		97.1									
8	5.23	26.712	21.140	7.82		105.0									
12	4.02	28.152	22.388	7.49		98.6									
16	4.36	31.035	24.642	6.00		81.2									
20	5.76	32.817	25.900	5.36		75.9									
25	6.89	33.434	26.243	3.28		47.9									
30	6.51	33.508	26.351	3.58		51.8									
40	5.88	33.586	26.492	3.50		50.0									
55	6.30	33.727	26.551	0.78		11.3									

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:38:48 PAGE:9

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE1	59,3.2	9,40.6	57	760428	1640

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	23			4.0	BROWN/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2M, GP 0-2M, PEN

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	5.10	4.579	3.757	8.57		99.2	12	4	8	1800	520	300	980	3.40	
4	5.27	20.689	16.391	8.27		106.9									
8	5.35	26.886	21.266	7.97		107.5									
12	4.19	28.686	22.796	7.30		96.8									
16	4.34	30.506	24.224	6.56		88.4									
20	5.29	32.311	25.554	5.44		75.9									
25	5.46	33.141	26.191	5.25		74.0									
30	5.43	33.274	26.299	5.29		74.5									
40	5.16	33.547	26.546	6.26		87.8									
50	5.16	33.563	26.559	6.30		88.4									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	287	2	731	332									
4													
8													
12													
16													
20													
25													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	BN1	59,6.1	9,42.7		760427	1345

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NO	NO	NO	NO	-	-

COMMENTS
SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.00	26.145	20.616	8.87		120.9	160	<2	>158	1200	10	10	1180	2.40	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		2	39	17									

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:38:42 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF1	59,4.6	9,42.5	96	760427	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.6	0			6.5	GREEN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.90	25.723	20.295	8.90		120.7	S	S		600	10	(25)	(565)	2.40	
4	5.89	25.749	20.316	8.94		121.3									
8	5.86	25.964	20.488	9.05		122.8									
12	5.13	27.030	21.401	8.20		110.1									
16	4.46	29.322	23.275	7.67		102.9									
20	4.73	32.337	25.635	6.71		92.4									
30	5.21	33.559	26.550	6.63		93.1									
40	5.43	34.041	26.905	6.78		96.0									
50	5.79	34.320	27.082	6.78		97.0									
60	5.85	34.528	27.239	6.74		96.7									
80	6.06	34.720	27.364	6.26		90.4									
90	6.05	34.732	27.375	6.33		91.4									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0		5											
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE S :SPOILED OR DAMAGED SAMPLE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:38:47 PAGE:8

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG1	59.2.8	9.43.2	104	760428	1430

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.6	21			5.5	GREEN/BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.50	13.413	10.659	8.34		103.3									
4	5.83	25.764	20.334	8.31		112.6									
8	5.63	26.323	20.794	7.90		106.9									
12	5.23	27.334	21.631	7.86		106.0									
16	4.59	30.278	24.020	6.85		92.7									
20	5.01	32.723	25.911	6.18		85.9									
25	5.09	33.336	26.387	6.44		90.0									
30	5.20	33.798	26.740	6.44		90.6									
40	5.36	34.170	27.015	6.48		91.7									
50	5.64	34.449	27.202	6.26		89.3									
60	5.59	34.602	27.329	6.41		91.5									
80	5.61	34.667	27.378	6.30		90.0									
100	5.45	34.689	27.415	6.71		95.5									

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/71	LANGESUNDSFJORD	GH1	59,1.3	9,45.1	108	760427	1115

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.9	0			4.0	BROWN/GREEN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.05	12.074	9.634	8.49		103.1	10	3.5	6.5	1600	350	210	1040	2.70	
4	5.78	20.774	16.415	8.23		107.8									
8	5.81	25.956	20.487	7.90		107.1									
12	5.43	26.817	21.203	7.86		106.2									
16	4.93	31.809	25.197	6.18		85.2									
20	4.93	32.961	26.108	6.41		89.1									
30	4.82	33.872	26.841	6.78		94.5									
40	5.00	34.159	27.048	6.74		94.5									
50	5.39	34.406	27.198	6.63		94.0									
60	5.69	34.559	27.283	6.37		91.1									
80	5.44	34.634	27.373	6.85		97.4									
100	5.46	34.693	27.417	7.11		101.2									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	221	2	696	354									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:38:39 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH1	58,58.1	9,47.0	208	760427	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
9.8	0			8.0	GREEN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT: WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
NS GP 0-2M OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.60	24.117	19.060	7.97		106.2	8	2	6	1600	50	50	1500	2.95	
4	5.87	25.098	19.806	8.60		116.1									
8	5.77	25.888	20.438	7.79		105.4									
12	5.66	26.507	20.936	7.75		105.0									
16	5.50	26.761	21.152	7.86		106.3									
20	4.70	31.114	24.670	S											
30	4.53	33.234	26.367	7.15		98.6									
40	4.64	33.970	26.939	6.48		90.0									
50	4.77	34.108	27.034	7.08		98.7									
60	5.00	34.320	27.176	6.85		96.2									
80	5.35	34.646	27.393	6.74		95.7									
100	5.64	34.913	27.569	6.67		95.5									
150	5.80	35.051	27.658	6.93		99.7									
200	5.84	35.087	27.682	6.74		97.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	55	2	951	442									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:42:27 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB-1	59,6.6	9,34.2	57	760609	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.5	GREY/BROWN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	11.50	4.368	3.099	7.13		96.2	10	8	2	1600	410	630	560	5.40	40.0
4	9.39	23.310	17.988	6.86		99.4	10	8	2	600	40	110	450	2.15	<10.0
8	5.26	28.066	22.221	6.75		91.6	15	16	-1	235	40	65	130	1.75	10.0
12	5.49	31.327	24.755	5.52		76.9	30	31	-1	305	90	70	145	1.40	20.0
16	5.92	32.621	25.726	4.55		64.6									
20	6.03	33.073	26.069	4.92		70.2	35	35	0	250	110	<10	>130	1.15	10.0
25	6.57	33.383	26.245	2.58		37.4									
30	6.75	33.539	26.344	1.70		24.8	71	72	-1	225	110	15	100	1.05	10.0
40	6.61	33.700	26.489	0.11		1.6									
50	6.60	33.750	26.530		1.29		140	140	0	150	<10	65	>75	1.20	60.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	113	4	1393	354	0.08	<1.0	0.8	11.10		0.08			0.20
4	11	4	554	133	0.22	<1.0	0.7	6.50		0.07			0.52
8	6	9	301	35									
12	6	5	120	22									
16													
20	7	5	85	16									
25													
30	3	5	38	7									
40					0.07	<1.0	<0.5	4.50		0.47			1.20
50	<0	9	22	2	0.31	<1.0	<0.5	3.30		0.63			1.20

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:42:30 PAGE:2

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC-1	59,6.4	9,37.1	95	760609	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	21			3.2	GREY/GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	12.00	4.721	3.308	7.02		96.0	14	15	-1	1600	430	440	730	4.75	55.0
4	11.15	15.826	11.950	7.00		100.7	19	13	6	3000	310	655	2035	3.65	60.0
8	6.29	26.625	20.963	7.08		97.5	13	12	1	225	40	85	100	1.95	10.0
12	5.62	30.726	24.266	5.96		83.0	27	23	4	215	80	55	80	1.45	10.0
16	5.91	32.470	25.608				36	35	1	300	120	80	100	1.15	<10.0
20	6.03	32.926	25.953	4.92		70.2	36	37	-1	260	120	25	115	1.10	<10.0
25	6.13	33.324	26.254	4.40		63.1									
30	6.32	33.492	26.363	2.69		38.8	63	65	-2	230	120	<10	>100	0.90	25.0
40	6.41	33.680	26.499	1.33		19.2	76	77	-1	210	100	<10	>100	1.00	<10.0
50	6.56	33.727	26.517		0.07		130	120	10	145	<10	10	>125	1.20	20.0
60	6.58	33.762	26.542		0.62		140	130	10	140	<10	100	>30	1.25	80.0
80	6.53	33.762	26.548		0.75		140	140	0	190	<10	95	>85	1.10	80.0
90	6.53	33.743	26.533		1.17		190	200	-10	260	<10	165	>85	1.25	55.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	63	3	875	253									
4	53	1	495	349	0.10	<1.0	0.7	8.50		0.09			0.60
8	7	10	387	38									
12	8	8	138	18									
16	8	4	82	18	0.40	<1.0	<0.2	3.80		0.08			1.02
20	7	5	79	16									
25													
30	4	5	37	8	0.40	<1.0	<0.2	1.50		0.08			1.17
40	3	6	34	6	0.04	<1.0	<0.2	0.70		0.09			1.20
50	<0	10	24	2									
60	<0	10	23	2	0.13	<1.0	<0.2	<0.50		0.65			1.23
80	<0	7	20	3									
90	<0	6	17	3	0.12	<1.0	<0.2	<0.50		0.70			1.21

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	DD-1	59,4.6	9,38.6	59	760609	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
50.0	16			3.5	BROWN/GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M						

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HM 0-2M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	13.30	5.420	3.667	7.11		100.5									
4	10.42	23.340	17.863	7.09		105.2									
8	9.63	27.602	21.291	7.04		105.4									
12	5.58	31.351	24.764	6.37		89.0									
16	6.13	32.637	25.713	5.44		77.6									
20	6.10	33.054	26.045	4.85		69.3									
25	6.29	33.312	26.225	3.93		56.5									
30	6.24	33.367	26.274	3.78		54.3									
40	5.99	33.574	26.469	2.74		39.2									
55	6.41	33.696	26.512	OT											

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.06	2.8	<0.2	7.80		0.08			0.32
4					0.03	1.5	<0.2	3.30		0.07			0.88
8													
12													
16													
20													
25													
30					0.06	1.1	<0.2	1.30		0.08			1.21
40													
55					0.15	<1.0	<0.2	<0.50		0.80			1.21

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE-1	59,3.2	9,40.6	57	760609	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.3	20			3.7	GREEN/BROWN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4M, PEN

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.40	5.705	3.718	7.25		105.2	13	4	9	2000	470	550	980	3.70	40.0
4	11.99	23.707	17.896	7.25		111.6	11	5	6	800	50	135	615	100.00	20.0
8	10.30	28.030	21.520	6.96		106.1	8	4	4	190	10	45	135	1.85	10.0
12	6.47	31.553	24.817	6.59		94.1	15	13	2	185	40	25	120	1.25	<10.0
16	6.84	32.268	25.333	6.30		91.2	18	14	4	185	40	15	130		<10.0
20	6.55	32.762	25.759	6.07		87.5	24	20	4	200	60	25	115	1.10	<10.0
25	6.46	32.961	25.927	5.85		84.3									
30	6.35	33.141	26.083	5.59		80.4	29	27	2	190	70	25	95	0.85	<10.0
40	6.34	33.258	26.176	5.52		79.5	32	29	3	200	70	10	120		<10.0
50	6.32	33.328	26.234	5.52		79.5	31	29	2	185	70	10	105	0.90	<10.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	260	2	734	340	0.10	1.1	1.1	6.30		0.07			0.47
4	22	146	23444	161	0.10	<1.0	0.7	1.50		0.06			0.91
8	6	11	596	53									
12	7	8	215	27									
16	6			23									
20	7	6	118	18									
25													
30	6	5	76	14									
40	5			14									
50	5	6	75	13	0.22	<1.0	0.6	1.90		0.10			1.17

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:42:32 PAGE:3

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	O-111/70	EIDANGERFJORD	BN-1	59,6.1	9,42.7		760610	1332

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				2.5	GREEN	NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NO	NO	NO	NO	-	-

COMMENTS
SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.10	16.170	11.565	7.98		125.3	19	6	13	270	240	195	-165	4.45	55.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	88	19	604	31									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	96	760610	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.0	18			3.0	YELLOW/GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M					-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 0.5,3.5M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.80	14.865	10.625	7.75		119.9	15	4	11	1200	290	275	635	4.20	45.0
4	12.42	23.779	17.878	8.13		126.4	22	12	10	1000	60	85	855	2.80	15.0
8	11.70	26.253	19.911	7.16		111.3	6	<2	>4	200	10	20	170	2.40	<10.0
12	10.09	27.093	20.825	7.01		105.7	7	2	5	280	20	35	225	1.90	<10.0
16	7.15	30.922	24.235	6.56		94.8									
20	6.56	32.352	25.435	6.41		92.2	16	17	-1	210	60	10	140	1.05	<10.0
30	6.23	33.152	26.106	6.34		91.0	19	17	2	205	80	15	110	0.85	<10.0
40	5.64	33.739	26.642	6.19		87.9									
50	5.59	34.178	26.994	6.11		86.9	27	25	2	255	130	10	115	0.70	<10.0
60	5.68	34.504	27.241	6.34		90.6									
80	5.71	34.740	27.424	5.78		82.8	38	34	4	245	150	20	75	0.75	<10.0
90	5.74	34.803	27.470	6.67		95.6	36	32	4	230	140	<10	>80	0.65	10.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	160	4	722	177	0.13	1.4	2.0	9.50		0.07			0.60
4	11	3	328	101	0.07	4.5	0.5	2.20		0.06			0.91
8		14	1032	74									
12	22	8	700	88									
16													
20	8	6	169	29									
30	10	5	115	24									
40													
50	11	3	67	21									
60													
80	10	4	51	14									
90	10	3	47	14	0.09	<1.0	<0.2	<0.00		0.10			1.20

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG-1	59,2.8	9,43.2	104	760609	16

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.3	20			4.0	GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-NEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 05,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	13.90	14.816	10.745	7.18		109.0									
4	12.65	25.008	18.785	7.11		111.9									
8	11.63	26.901	20.424	7.04		109.7									
12	10.86	27.718	21.187	7.04		108.4									
16	9.08	29.997	23.240	6.92		103.9									
20	7.79	31.750	24.798	6.70		98.8									
25	7.15	32.618	25.567	6.44		94.1									
30	7.04	32.903	25.805	6.55		95.7									
40	6.14	33.520	26.408	4.66		66.9									
50	5.52	34.029	26.885	6.52		92.5									
60	5.67	34.488	27.230	6.00		85.7									
80	5.73	34.775	27.449	6.07		87.0									
100	5.90	34.862	27.496	6.18		89.0									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.15	<1.0	0.7	7.30		0.07			0.64
4					0.05	<1.0	0.7	2.40		0.05			0.93
8													
12													
16					0.15	<1.0	0.5	1.50		0.06			1.08
20													
25													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:42:40 PAGE:9

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH-1	59.1.3	9,45.1	108	760610	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	18			3.8	YELLOW/GREEN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	14.40	13.532	9.679	7.31		111.3	12	4	8	1600	390	375	835	4.15	45.0
4	13.07	24.452	18.281	7.31		115.7	7	3	4	1400	10	30	1360	2.80	<10.0
8	11.91	26.510	20.074	6.78		106.0	7	2	5	170	10	10	150	2.20	<10.0
12	10.65	27.838	21.314	7.01		107.5	8	2	6	185	10	<10	>165	2.00	<10.0
16	7.70	31.514	24.625	6.71		98.6									
20	7.19	32.500	25.468	6.49		94.9	14	12	2	165	40	15	110	1.05	<10.0
30	6.68	33.187	26.076				16	14	2	165	60	10	95	1.05	<10.0
40	6.62	33.704	26.491	6.56		95.4	19	18	1	175	60	15	100	0.95	<10.0
50	6.15	34.406	27.105				22	21	1	280	100	10	170	0.65	
60	5.98	34.606	27.284	6.34		91.3									
80	5.79	34.787	27.451				28	28	0	240	130	10	100	0.65	<10.0
100	5.89	34.874	27.507	6.30		90.7	27	27	0	260	130	30	100	5.00	<10.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP
0	216	3	892	295
4	7	2	1032	442
8	11	15	811	54
12	11	13	645	51
16				
20	7	7	193	26
30	9	7	169	23
40	7	6	129	20
50	11	3	76	28
60				
80	10	3	60	19
100	11	22	478	21

DEPTH M	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
	HEAVY METALS								

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSBUKTA	JH-1	58,58.1	9,47.0	208	760610	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	17			6.6	GREEN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M					-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, GP 0-2M, HC 0.5M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	13.70	24.943	18.542	6.89		110.9									
4	13.46	24.920	18.569	6.92		110.8									
8	12.45	25.774	19.411	7.11		112.0									
12	11.29	27.275	20.772	7.18		111.3									
16	8.66	32.178	25.006	6.96		105.0									
20	7.86	32.910	25.697	6.74		100.3									
30	7.23	33.896	26.560	6.78		100.1									
40	6.83	34.206	26.858	6.70		98.2									
50	6.55	34.473	27.106	6.67		97.3									
60	6.49	34.567	27.188	6.67		97.2									
80	6.28	34.803	27.401	6.52		94.7									
100	6.27	34.866	27.452	6.59		95.7									
150	6.19	34.976	27.549	6.44		93.4									
200	6.11	35.032	27.604	L											

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.16	<1.0	0.5	4.60		0.05			0.92
4					0.13	<1.0	0.7	2.20		0.05			0.93
8													
12													
16													
20													
30					0.03	<1.0	0.5	2.50		0.08			1.17
40													
50					0.07	1.0	0.7	1.30		0.07			1.20
60													
80													
100					0.08	<1.0	1.4	1.90		0.07			1.23
150													
200													

< :LESS THAN VALUE L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-1	59,7.1	9,38.7		760611	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.0	33					PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.20	<2.846	<1.255	6.78		(100.4)	27	7	20	4800	700	3960	140	9.00	55.0
3	13.50	<2.846	<1.677	7.80		(109.0)	19	4	15	4400	650	3320	430	7.00	45.0

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	221	2	860	393	0.55	1.1	5.3	16.90		0.05			0.16
3	359	2	950	512	0.32	1.4	1.8	8.10		<0.05			0.19

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-3	59,7.7	9,38.2		760611	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	36					PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	15.70	<2.846	<1.340	6.41		(93.9)	20	4	16	4000	630	3080	290	9.50	90.0
3	12.30	3.700	2.490	6.04		82.6	16	4	12	2800	490	1600	710	7.00	70.0
8	10.20	5.631	4.215	5.96		78.6	15	4	11	1600	360	580	660	4.65	70.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
					HEAVY METALS								
0	348	3	1225	442	0.60	1.5	3.0	10.50		0.60			0.16
3	271	3	1128	387	0.27	1.4	2.3	9.80		0.60			0.19
8	199	3	799	236	0.24	1.4	1.4	15.40		0.10			0.24

< :LESS THAN VALUE () :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.8.3-15:3:43 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1		760610	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
HM 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.10	<2.846	<2.083	7.60		(98.3)	19	11	8	1000	400	50	550	9.50	70.0
5	8.70	10.491	8.122	5.81		76.3	25	9	16	1000	250	100	650	3.35	80.0
10	7.60	25.733	20.111	1.49		21.0	19	5	14	295	30	95	170	2.30	35.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	80	11	1289	116	0.11	<1.0	2.2	6.50	<0.10	<0.05		<1.0	
5	61	4	346	88	0.02	<1.0	0.8	8.30	<0.10	0.09		<1.0	
10	13	9	312	34	0.02	<1.0	0.3	5.90	<0.10	0.25		<1.0	

< :LESS THAN VALUE ( ) :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.8.3-15:3:44 PAGE:2

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-2	59.8.5	9.38.7		760610	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED					

COMMENTS
HM 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	10.70	<2.846	<2.022	7.31		(95.9)	12	6	6	1200	360	50	790	5.50	120.0
5	9.54	19.277	14.837	6.71		95.1	14	8	6	1000	120	120	760	2.35	30.0
10	5.51	28.821	22.775	2.01		27.6	29	19	10	345	50	155	140	1.50	<10.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	133	5	1182	221	0.05	<1.0	0.7	6.10	<0.10	0.05		<1.0	
5	33	3	433	158	0.22	1.3	0.9	6.10	<0.10	0.12		<1.0	
10	6	5	133	26	0.17	1.4	1.0	5.90	<0.10	0.47		<1.0	

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	FRIERFJORD	BB-1	59,6.1	9,34.2	57	760728	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.5	30			2.5	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M		-	-	-	-	-

COMMENTS
NS 0.5M, QP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	18.20	11.515	7.419	6.20		100.8	14	3	11	2400	430	700	1270	4.20	45.0
4	18.42	20.772	14.373	6.10		105.3									
8	15.90	27.902	20.362	5.50		94.3									
12	12.89	28.435	21.382	5.30		85.7									
16	10.80	29.975	22.947	5.20		81.1									
20	9.72	30.696	23.685	5.00		76.5									
30	6.41	33.297	26.198	3.10		44.7									
40	6.47	33.649	26.467	0.70		10.1									
50	6.53	33.724	26.519		0.33										

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	317	2	774	379									
4													
8													
12													
16													
20													
30													
40													
50													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.8.22-11:20:6 PAGE: 1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	FRIERFJORD	BC-1	59,6.4	9,37.1	95	760723	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.6	32			3.5	YELLOW/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, OP 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	18.10	8.770	5.368	5.70		91.0	10	2	8	2000	260	180	1560	<0.20	75.0
4		24.928		6.10											
8	15.79	28.241	20.645	5.40		92.6									
12	13.20	29.822	22.392	5.40		88.6									
16	11.78	30.445	23.140	5.30		84.7									
20	9.48	31.090	24.030	5.10		77.8									
25	6.54	33.016	25.960	4.50		65.0									
30	6.43	33.286	26.187	3.80		54.8									
40	6.49	33.622	26.443	1.20		17.4									
50	6.48	33.716	26.519		0.33										
60	6.54	33.739	26.529		0.59										
80	6.54	33.755	26.542		1.24										
90	6.53	33.755	26.543		1.56										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	287	<0	<52	442									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	DD-1	59,4.6	9,38.6	59	760728	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.9	315			3.0	YELLOW/GREEN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M					-	-

COMMENTS
NS 0.5M, OP 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	18.30	8.425	5.067	6.20		99.2									
4	18.19	10.522	6.671	6.10		98.6									
8	17.14	28.233	20.338	5.40		95.1									
12	14.85	29.922	22.134	5.30		90.0									
16	13.37	30.727	23.056	5.20		86.1									
20	10.59	31.453	24.130	4.90		76.8									
30	6.20	33.352	26.268	2.90		41.6									
40	6.41	33.626	26.457	0.50		7.2									
50	6.44	33.692	26.505	0.00	0.00	0.0									
55	6.46	33.720	26.524		0.36										

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE-1	59,3.2	9,40.6	57	760728	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.1	315			2.5	GREEN/BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, PEN

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	18.40	9.228	5.652	6.20		99.9	19	11	8	1200	450	480	270	L	180.0
4	18.15	9.191	5.676	6.40		102.5									
8	17.46	27.997	20.084	5.60		99.1									
12	15.41	29.495	21.688	5.50		94.3									
16	12.62	30.951	23.375	5.30		86.5									
20	10.18	31.981	24.610	4.90		76.4									
25	7.62	32.786	25.634	3.80		56.2									
30	7.16	32.962	25.835	3.50		51.3									
40	6.76	33.184	26.063	3.10		45.1									
50	6.77	33.356	26.197	3.00		43.7									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	90			140									
4													
8													
12													
16													
20													
25													
30													
40													
50													

L :LACKING FOR UNKNOWN REASONS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BN-1	59,6.1	9,42.7		760729	1230

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.40	29.246	21.279	5.70		99.5	10	4	6	1200	10	930	260	L	60.0

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	6			265									

L :LACKING FOR UNKNOWN REASONS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:42:52 PAGE:19

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	96	760729	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.1	19			4.5	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SM(X)TH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.40	28.317	20.342	5.50		97.4	8	4	4	1200	10	70	1120	2.30	35.0
4	15.70	29.680	21.766	5.50		94.9									
8	13.29	30.854	23.170	5.20		86.0									
12	12.93	31.372	23.640	5.20		85.7									
16	12.93	32.035	24.152	5.40		89.3									
20	12.02	32.467	24.661	5.30		86.2									
30	9.27	33.020	25.569	5.30		81.5									
40	7.75	33.634	26.280	5.40		80.5									
50	6.44	34.021	26.764	5.50		79.8									
60	6.66	34.316	26.967	5.40		78.9									
80	6.31	34.550	27.198	5.40		78.4									
90	6.05	34.630	27.294	5.30		76.5									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	6	2	741	332									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKFJORD	FG-1	59,2.8	9,43.2	64	760728	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.1	32			2.5	BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M					-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	18.60	16.703	11.252	6.40		108.2									
4	17.92	27.502	19.600	6.30		112.1									
8	14.34	30.530	22.708	5.40		91.1									
12	12.57	31.349	23.692	5.20		85.0									
16	11.78	32.482	24.717	5.30		85.8									
20	11.43	32.876	25.087	5.50		88.6									
25	9.21	33.794	26.183	5.50		84.9									
30	8.46	33.853	26.346	5.50		83.5									
40	7.79	34.241	26.751	5.50		82.4									
50	7.37	34.489	27.006	5.60		83.3									
60	7.33	34.599	27.098	5.60		83.2									
80	6.51	34.642	27.244	5.50		80.2									
100	5.90	34.748	27.406	4.70		67.6									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	108	760729	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.2	33			4.5	GREEN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M		-	-	-	-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	17.30	20.416	14.352	5.80		97.7	9	3	6	1800	190	260	1350	3.05	45.0
4	16.60	26.532	19.162	5.90		101.7									
8	15.68	30.349	22.283	5.70		98.7									
12	14.51	30.900	22.957	5.40		91.7									
16	14.31	31.864	23.740	5.50		93.5									
20	13.62	32.767	24.578	5.60		94.4									
30	10.16	33.665	25.924	5.60		88.2									
40	8.85	34.194	26.553	5.60		85.9									
50	7.86	34.414	26.876	5.60		84.2									
60	7.38	34.567	27.066	5.60		83.3									
80	7.05	34.713	27.227	5.50		81.3									
100	6.10	34.764	27.394	4.90		70.8									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	140	2	874	442									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	JH-1	58,58.1	9,47.0	208	760729	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.5	33			10.0	LIGHT/GREEN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M					-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	17.00	25.621	18.378	6.10		105.4									
4	17.59	28.816	20.678	5.70		101.6									
8	17.90	29.968	21.483	5.40		97.5									
12		30.866		5.60											
16	16.13	30.993	22.676	6.10		107.0									
20	15.54	31.577	23.255	5.60		97.5									
30	12.49	33.387	25.283	5.70		94.2									
40	8.42	34.112	26.555	5.50		83.6									
50	8.32	34.473	26.853	5.90		89.6									
60	7.88	34.646	27.055	5.60		84.3									
80	7.51	34.886	27.297	6.00		89.7									
100	7.34	34.996	27.408	6.00		89.4									
150	7.00	35.028	27.481	5.90		87.3									
200	6.81	35.075	27.545	5.70		84.0									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	FRIERFJORD	BB-1	59,6.6	9,34.2	57	760908	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.4	28			2.3	BROWN	PARTLY CLOUDY	4/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4M HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.30	8.702	5.846	4.95		74.6	11.5	6	5.5	1800	430	950	420		85.0
4	17.15	28.879	20.829	4.21		74.4	8	7.5	0.5	800	50	100	650		40.0
8	13.15	30.625	23.021	4.14		68.2	11	10.5	0.5	285	120	<10	>155		50.0
12	11.33	31.313	23.893	4.10		65.3	16	15	1	325	150	<1050	>-875		
16	9.40	31.936	24.702	3.52		53.9	30	29	1	490	200	145	145		55.0
20	9.03	32.815	25.447	3.66		55.9	38	35	3	355	200	<10	>145		50.0
25	7.60	33.068	25.858	3.19		47.2	44	43	1	330	180	<10	>140		50.0
30	6.50	33.342	26.222	2.27		32.8	55	52	3	325	190	<10	>125		70.0
40	6.46	33.654	26.472	0.18		2.6	160	140	20	155	<10	40	>105		40.0
50	6.51	33.729	26.525		1.22		160	150	10	206	<10	120	>76		120.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	158			346	0.20	1.0	2.2	4.40		0.15			0.39
4	15			221	0.12	1.0	1.8	3.20		<0.05			1.01
8	25			57									
12	22			45									
16	15			36									
20	13			21									
25	9			17									
30	8			13									
40	<0			2	1.36	<1.0	1.5	1.80		0.35			1.17
50	<0			3	0.13	<1.0	0.7	1.20		0.63			1.18

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	O-111/70	FRIERFJORD	BC-1	59,6.4	9,37.1	95	760908	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	28			2.5	YELLOW-BROWN	PARTLY CLOUDY	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, , HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.20	8.863	5.986	5.39		81.1	20	38	-18	1600	430	960	210		90.0
4	18.05	27.389	19.483	5.28		94.1	14	6	8	1000	70	120	810		30.0
8	14.27	30.729	22.876	4.58		77.3	13	11	2	295	120	<10	>165		35.0
12	12.81	31.680	23.901	4.62		76.1	15	14	1	260	120	<10	>130		40.0
16	11.35	32.080	24.484	4.36		69.8	22	20	2	370	150	80	140		30.0
20	10.62	32.983	25.314	4.25		67.3	31	27	4	280	120	<10	>150		40.0
25	9.69	33.400	25.797	4.18		65.0	51	34	17	250	100	20	130		40.0
30	8.26	33.627	26.200	2.71		40.9	73	60	13	250	90	15	145		60.0
40	6.41	33.650	26.476	0.51		7.4	100	79	21	255	120	<10	>125		65.0
50	6.45	33.689	26.501	0.07		1.0	130	125	5	215	<10	70	>135		40.0
60	6.48	33.717	26.520		0.69		200	150	50	250	<10	115	>125		105.0
80	6.53	33.760	26.547		1.43		180	160	20	330	<10	150	>170		130.0
90	6.54	33.764	26.549		1.37		180	160	20	315	<10	155	>150		115.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	25			177	0.23	1.0	1.4	6.90		0.17			0.32
4	26			158	0.40	1.0	1.1	2.40		<0.05			1.00
8	24			50									
12	19			38									
16	17			37	0.12	<1.0	1.0	3.90		0.07			1.11
20	10			20									
25	7			11									
30	3			8	0.53					0.17			1.17
40	3			6	0.24	<1.0	0.9	2.40		0.09			1.18
50	<0			4									
60	<0			3	0.08	<1.0	0.4	2.20		0.69			1.18
80	<0			4									
90	<0			4	0.19	<1.0	0.4	1.80		0.63			1.19

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	FRIERFJORD	DD-1	59,4.6	9,38.6	59	760908	1025

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.3	28			2.5	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.50	9.309	6.444	5.72		65.0									
4	17.56	27.232	19.478	5.06		89.3									
8	14.65	30.532	22.645	6.45		109.5									
12	13.47	31.482	23.618	4.58		76.4									
16	13.11	32.375	24.379	4.98		82.9									
20	11.98	32.814	24.937	4.98		81.1									
25	10.25	33.697	25.934	5.13		81.0									
30	8.59	33.806	26.290	3.33		50.7									
40	6.58	33.681	26.478	0.22		3.2									
55	6.52	33.736	26.529		0.96										

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.23	<1.0	0.2	10.00		0.20			0.35
4					0.23	<1.0	0.6	2.60		<0.05			0.96
8													
12													
16													
20													
25													
30					0.39	<1.0	0.7	1.40		0.25			1.19
40													
55					0.23					0.64			1.19

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	FRIERFJORD	EE-1	59,3.2	9,40.6	57	760907	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.3	31			2.5	BROWN	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, OP 0-2,4M, GP 0-2M, HC 0.5,4M, PEN,

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	16.00	9.474	6.307	6.38		98.0	16	5.5	10.5	2000	500	1500	0		200.0
4	17.97	26.719	18.992	5.31		94.2	11	6	5	1000	70	145	785		30.0
8	15.56	30.689	22.570	5.50		95.2	9	4.5	4.5	195	30	20	145		40.0
12	14.72	31.547	23.410	5.20		89.0	16	15	1	175	40	10	125		50.0
16	11.22	33.231	25.400	5.31		85.3	23	17	6	195	70	<10	>115		45.0
20	10.00	33.845	26.092	5.50		86.4	38	32	6	190	80	<10	>100		200.0
25	9.57	33.959	26.253	5.35		83.3	22	21	1	185	90	<10	>85		50.0
30	9.28	34.010	26.340	5.57		86.2	25	21	4	185	100	<10	>75		30.0
40	9.05	34.108	26.454	5.35		82.4	36	30	6	190	100	<10	>80		45.0
50	9.14	34.155	26.476	5.46		84.3	29	25	4	220	90	<10	>120		50.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	201			276	0.20	<1.0	0.9	5.50		0.17			0.32
4	26			201	0.44	<1.0	1.1	4.40		<0.05			0.95
8	15			48									
12	6			24									
16	9			19									
20	6			11									
25	9			19									
30	11			16									
40	7			12									
50	8			17	0.13	2.1	1.2	4.00		<0.05			1.20

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	EIDANGERFJORD	BN-1	59,6.1	9,42.7		760907	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	32			5.0	GREEN	PARTLY CLOUDY	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	14.90	18.228	13.172	6.57		104.0	13	6	7	1600	360	410	830		60.0

DEPTH M	RATIOS NO3/ PO4	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	133			272									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	96	760907	1300

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.5	32			5.5	BROWN	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.90	18.460	13.349	6.53		103.5	10	3.5	6.5	1200	250	375	575		40.0
4	16.40	30.007	21.861	5.63		98.7	6	2	4	600	10	10	580		25.0
8	14.69	31.582	23.443	4.33OT		(74.1)	7	3	4	210	70	<10	>130		30.0
12	11.43	32.939	25.136	4.73		76.2	17	14	3	200	100	<10	>90		35.0
16	9.28	33.822	26.193	5.23		80.9									
20	8.79	34.060	26.473	5.34		81.8	23.5	21	2.5	195	100	<10	>85		45.0
30	8.33	34.540	26.904	5.52		83.9	22	20	2	175	90	<10	>75		40.0
40	6.74	34.500	27.102	5.41		79.3									
50	7.08	34.693	27.207	5.27		77.9	30	28	2	245	130	<10	>105		30.0
60	7.04	34.740	27.249	5.27		77.9									
80	6.71	34.752	27.304	4.94		72.5	37	34	3	245	150	40	55		65.0
90	6.61	34.760	27.324	4.76		69.7	40	38	2	265	180	<10	>75		75.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	158			265	0.36	<1.0	1.3	16.10		0.05			0.90
4	11			221	0.11	<1.0	0.8	2.40		<0.05			1.03
8	52			66									
12	16			26									
16													
20	11			18									
30	10			18									
40													
50	10			18									
60													
80	10			15									
90	10			15	0.23					0.07			1.21

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
OT :OVER-TITRATED VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	BREVIKFJORD	FG-1	59,2.8	9,43.2	104	760907	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.8	35			5.0	GREEN-BROWN	CONTINOUS LAYER OF CLOUDS	3/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	16.40	20.408	14.537	5.56		92.0									
4	15.90	30.257	22.164	5.59		97.2									
8	15.00	31.522	23.331	4.58		78.8									
12	11.80	33.041	25.146	4.91		79.8									
16	10.57	34.081	26.177	5.34		85.1									
20	10.20	34.297	26.410	5.48		86.7									
30	8.70	34.701	26.973	5.63		86.4									
40	8.61	34.729	27.009	5.63		86.2									
50	8.06	34.815	27.161	5.63		85.2									
60	7.73	34.847	27.235	5.59		84.0									
80	7.46	34.874	27.295	5.79		86.5									
100	7.30	34.910	27.346	5.34		79.5									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.38	1.6	1.5	20.90		0.05			0.79
4					0.33	<1.0	0.7	4.30		<0.05			1.05
8													
12													
16					0.62	<1.0	<0.2	<0.50		0.05			1.17
20													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	108	760907	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.2	25			6.0	BROWN	PARTLY CLOUDY	6/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.70	18.120	12.936	5.70		91.7	11	4.5	6.5	1400	250	450	700		80.0
4	15.87	30.184	22.115	5.63		97.8	6.5	6	0.5	600	10	<10	>580		50.0
8	13.71	32.506	24.359	4.84		81.6	10.5	10	0.5	185	40	<10	>135		40.0
12	12.25	33.270	25.238	5.050T		(83.0)	15	14	1	145	50	<10	>85		60.0
16	11.43	33.822	25.821	5.30		85.9									
20	10.21	34.390	26.480	5.48		86.8	15	13	2	125	40	<10	>75		40.0
30	8.98	34.701	26.928	5.56		85.9	18	15	3	155	50	<10	>95		40.0
40	8.66	34.764	27.028	5.59		85.7	19	16	3	145	50	<10	>85		45.0
50	8.33	34.854	27.150	5.56		84.7	19	16	3	145	60	<10	>75		45.0
60	8.21	34.874	27.184	5.56		84.5									
80	7.77	34.945	27.306	5.67		85.3	22	19	3	155	80	<10	>65		45.0
100	7.64	34.949	27.328	5.63		84.5	24	22	2	175	90	<10	>75		45.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	123			281									
4	4			204									
8	9			39									
12	8			21									
16													
20	7			18									
30	7			19									
40	7			17									
50	8			17									
60													
80	9			16									
100	9			16									

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
OT :OVER-TITRATED VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	LANGESUNDSFJORD	JH-1	58,58.1	9,47.0	208	760907	940

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
7.0	27			8.0	GREEN	CONTINOUS LAYER OF CLOUDS	7/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
MODERATE; WAVES 1.25-2.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, OP 0-2,4,8,12M, GP 0-2M, HC 0.5,4M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.50	24.626	18.144	6.10		99.6	11	4	7	80	100	135	-155		
4	13.86	32.596	24.397	5.70		96.5									
8	13.33	33.415	25.137	5.56		93.5									
12	12.06	33.920	25.778	5.52		90.7									
16	11.31	33.116	25.295	5.56		89.5									
20	10.41	34.371	26.431	5.59		88.9									
30	9.63	34.618	26.757	5.52		86.4									
40	8.88	34.811	27.030	5.63		86.8									
50	8.39	34.898	27.175	5.77		88.0									
60	8.02	34.961	27.281	5.81		87.9									
80	7.69	34.996	27.358	5.74		86.3									
100	7.56	35.020	27.395	5.70		85.4									
150	7.32	35.047	27.451	5.74		85.5									
200	7.19	35.067	27.485	5.77		85.7									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	55			16	0.59	26.3	15.6	65.00		0.08			0.74
4					1.20	<1.0	0.4	1.80		0.05			1.15
8													
12													
16													
20													
30					0.25	<1.0	0.2	6.50		0.05			1.20
40													
50					1.30	<1.0	0.4	3.80		0.05			1.23
60													
80													
100					0.21	<1.0	0.2	3.80		0.05			1.23
150													
200													

< :LESS THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:40:38 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	GUNNEKLEIVFJORD	G-1	59,7.1	9,38.7	4	760909	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.8	30					CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS

HC

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.50	3.967	2.221	5.53		81.3	46	39	7	4600	460	6600	-2460		140.0
3	16.40	9.222	6.042	3.66		56.6	19	10	9	4200	410	2900	890		60.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	26			221	0.92	<1.0	1.9	10.00		<0.05			0.12
3	91			489	0.47	<1.0	1.7	5.10		0.17			0.35

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	GUNNEKLEIVFJ.	G-3	59,7.7	9,38.2	10	760908	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS

HC

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	14.80	4.434	2.689	5.72		83.0	27	13	14	4600	460	2550	1590		190.0
3	16.20	8.495	5.529	3.44		52.7	9	3200	-3191	300	1350	70	-1120		
8	16.40	19.515	13.857		0.42		120	105	15	2200	10	300	1890		60.0

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	78			377	0.62	<1.0	2.0	4.70		0.05			0.11
3	1			74	0.38	2.7	1.5	5.70		0.24			0.39
8	0			41	0.23	<1.0	0.4	6.20		0.57			0.65

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	SKIENSELV	S-1	59,11.8	9,37.1		760908	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			2.5	YELLOW	PARTLY CLOUDY	1/8 OR LESS

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

HC 0.5,10M, TRB+TSM+SUP 0-2,10M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	15.30	<2.000	<0.765	4.58		(66.2)	14	4.5	9.5	1000	320	25	655		60.0
5	15.97	26.743	19.461	0.92		15.7	24	5.5	18.5	800	50	30	720		70.0
10	15.46	29.130	21.397	0.73		12.5	22	4.5	17.5	310	40	40	230		70.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	157			158	0.09		0.8		<0.20	<0.05		<1.0	
5	20			74	0.15	1.0	0.2	2.60	<0.20	0.13		<1.0	
10	20			31	0.15	<1.0	1.3	3.90	<0.20	0.11		<1.0	

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	H H GRAN	0-111/70	SKIEN/SELV	S-2	59,8.5	9,38.7		760908	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	28			2.5	YELLOW	PARTLY CLOUDY	2/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS

HC 0.5,10M, TRB+TSM+SUP 0-2,10M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	14.90	4.841	2.982	4.95		72.2	12	<2	>10	1000	290	30	680		70.0
5		29.168		4.40			19	11	8	800	60	90	650		50.0
10	14.17	30.328	22.588	3.48		58.5	18	10.5	7.5	310	110	15	185		50.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0				184	0.36				<0.20	<0.05		<1.0	
5	12			93	1.39				<0.20	<0.05		<1.0	
10	23			38	0.37	1.4	0.6	4.90	0.20	0.13		<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:46:28 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB-1	59,6.6	9,34.2	57	761020	845

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
5.2	5			2.3	BROWN	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.40	<2.846	<2.351	7.42		(87.7)	12	4	8	1000	360	<10	>630	2.50	130.0
4	7.50	<2.846	<2.291	7.07		(85.9)									
8	11.82	24.247	18.342	5.64		86.8									
12	12.33	25.897	19.527	5.22		82.1									
16	13.36	28.268	21.164	4.76		77.6									
20	13.34	30.547	22.923	3.43		56.7									
25	9.21	32.431	25.119	2.68		41.0									
30	7.22	33.351	26.133	2.69		39.6									
40	6.47	33.624	26.448		0.79										
50	6.50	33.694	26.499		1.05										

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	199	3	537	184									
4													
8													
12													
16													
20													
25													
30													
40													
50													

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BC-1	59,6.4	9,37.1	95	761020	1030

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.4	5			3.0	BROWN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, QP 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.15	<2.846	<2.312	7.07		(85.2)	16	.11.5	4.5	1800	690	460	650	2.60	60.0
4	8.46	4.538	3.534	6.43		80.9									
8	11.80	24.415	18.475	5.73		88.2						45			
12	12.28	26.037	19.644	5.44		85.5						70			
16	12.84	28.170	21.187	4.98		80.3									
20	13.36	30.551	22.922	3.96		65.5						<10			
25	9.38	32.474	25.125	2.66		40.9									
30	7.73	33.495	26.174	2.33		34.7						<10			
40	6.53	33.620	26.437	0.53		7.7						<10			
50	6.51	33.686	26.491		0.60							100			
60	6.53	33.714	26.511		0.99							130			
80	6.54	33.726	26.519		1.71							170			
90	6.55	33.726	26.517		1.57							165			

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	133	2	419	249									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	DD-1	59,4.6	9,38.6	59	761020	1305

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	5			3.0	BROWN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, GP 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.80	<2.846	<2.272	6.65		(81.4)	11	7	4	1200	570	200	430	3.15	55.0
4	8.14	3.286	2.589	6.43		79.6									
8	11.86	24.981	18.902	5.66		87.6									
12	12.00	26.576	20.109	5.59		87.6									
16	11.65	28.402	21.582	5.37		84.5									
20	12.21	30.644	23.215	4.10		66.2									
25	9.03	32.937	25.542	2.69		41.1									
30	7.64	33.542	26.224	1.77		26.3									
40	6.89	33.695	26.448	0.14		2.0									
55	6.56	33.722	26.513		0.92										

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	180	3	738	241									
4													
8													
12													
16													
20													
25													
30													
40													
55													

< :LESS THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	EE-1	59,3.2	9,40.6	57	761019	1640

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.9	5			2.8	BROWN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4M, OP 0-2M, PEN

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.30	<2.846	<2.303	6.79		(82.1)	10	5	5	1400	600	240	560	2.70	115.0
4	8.10	<2.846	<2.251	6.83		(84.2)									
8	S	24.389		5.67											
12	11.87	25.777	19.515	5.60		87.1									
16	12.06	28.612	21.671	5.18		82.3									
20	11.64	30.243	23.008	4.62		73.5									
25	9.49	32.688	25.274	2.77		42.7									
30	8.89	33.078	25.674	2.45		37.4									
40	9.16	34.223	26.526	3.50		54.1									
50	9.11	34.340	26.625	3.43		53.0									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MYG/L	NI MYG/L	CR MYG/L	F MG/L
0	265	2	696	310									
4													
8													
12													
16													
20													
25													
30													
40													
50													

< :LESS THAN VALUE () :UNCERTAIN VALUE S :SPOILED OR DAMAGED SAMPLE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	BN-1	59,6.1	9,42.7		761019	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				6.5	GREEN		

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
					-	-

COMMENTS
SURFACE STATION

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	7.40	13.102	10.272	6.65		86.1	16	11	5	1200	550	275	375	2.70	140.0

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
					HEAVY METALS								
0	111	3	435	166									

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	96	761019	1335

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.4	5			7.0	GREEN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.70	11.767	9.288	7.14		90.2	12	9	3	1400	540	390	470	2.45	80.0
4	11.41	24.149	18.334	5.83		88.9									
8	11.87	25.673	19.434	5.94		92.3									
12	11.66	27.278	20.711	5.76		90.0									
16	11.71	27.939	21.213	5.73		90.0									
20	12.11	28.804	21.811	5.44		86.7									
30	12.81	30.114	22.692	5.16		84.1									
40	12.63	32.335	24.442	4.38		72.1									
50	10.86	33.601	25.752	4.88		78.0									
60	8.98	34.270	26.591	5.09		78.4									
80	6.74	34.623	27.198	4.67		68.5									
90	7.11	34.866	27.339	4.45		65.9									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	133	2	527	258									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
90													

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-18:46:37 PAGE:8

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	BREVIKSFJORD	FG-1	59,2.8	9,43.2	104	761019	1515

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.5	5			4.0	GREEN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS, OP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	7.25	4.095	3.276	6.89		83.9	17	6.5	10.5	1600	600	290	710	2.60	80.0
4	11.24	24.044	18.280	5.90		89.5									
8	11.02	26.220	20.000	6.01		92.0									
12	10.84	27.115	20.722	5.88		90.2									
16	11.67	28.060	21.314	5.80		91.1									
20	11.63	28.754	21.858	5.73		90.3									
25	11.97	29.569	22.427	5.30		84.6									
30	12.39	30.395	22.989	5.02		81.3									
40	12.38	32.556	24.661	4.38		71.9									
50	11.43	33.616	25.661	5.09		82.4									
60	9.01	34.356	26.654	5.09		78.5									
80	6.91	34.764	27.286	4.88		71.9									
100	7.37	34.961	27.377	5.09		75.9									

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	204	2	394	208									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	108	761019	1200

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.0	5			5.5	GREEN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M					-	-

COMMENTS
NS, QP 0-2,4,8,12M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.40	S		6.48			9	7	2	1400	450	430	520	1.95	60.0
4	11.55	25.046	19.004	5.67		87.2									
8	10.64	26.084	19.956	5.95		90.3									
12	10.43	26.850	20.583	6.06		91.9									
16	10.84	27.772	21.232	5.99		92.2									
20	10.95	28.007	21.396	5.74		88.7									
30	12.01	30.425	23.082	5.18		83.2									
40	12.40	32.172	24.360	4.97		81.4									
50	11.73	33.726	25.690	5.11		83.3									
60	9.37	34.348	26.589	5.08		79.0									
80	7.01	34.756	27.266	4.69		69.3									
100	7.44	34.972	27.375	5.25		78.4									

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	142	2	559	344									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													

S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH-1	58,58.1	9,47.0	208	761019	1010

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.1	5			7.5	GREEN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT; WAVES 0.5-1.25M						

COMMENTS
NS QP 0-2,4,8,12M GP 0-2M, SAMPLING MISTAKE BELOW 50M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	9.75	23.761	18.288	6.23		91.3	11	10	1	60	90	55	-85	1.65	50.0
4	10.20	25.749	19.764	6.09		91.3									
8	10.41	26.461	20.284	6.06		91.7									
12	10.43	26.843	20.578	6.06		91.9									
16	10.48	27.161	20.816	6.09		92.7									
20	10.58	27.369	20.962	5.92		90.4									
30	11.13	32.844	25.116	5.88		94.1									
40	12.46	33.652R	(25.493)	5.18		(85.7)									
50	12.50	33.613R	(25.455)	5.39		(89.2)									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	20	32	387	12									
4													
8													
12													
16													
20													
30													
40													
50													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BB-1	59,6.6	9,34.2	57	761207	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	9					DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, OP 0-2,4M, HC 0.5,4M, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.50	4.657	3.835				11	4	7	1200	530	360	310	3.30	
4	6.10	18.372	14.503	4.80		62.4	29	25	4	1600	570	370	660	2.10	
8	10.87	32.170	24.639	3.30		52.3	32	32	0	425	250	<10	>165	0.70	
12	10.52	32.675	25.092	3.73		58.8	33	30	3	495	200	125	170	0.50	
16	10.37	33.023	25.389	3.80		59.9	32	30	2	440	180	85	175	0.40	
20	10.26	33.247	25.582	3.94		62.0	31	30	1	370	170	30	170	0.85	
25	10.07	33.259	25.624	4.44		69.6	33	32	1	365	170	<10	>185	0.30	
30	9.28	33.329	25.808	2.87		44.2	45	44	1	345	200	<10	>135	0.35	
40	6.62	33.532	26.356	0.11		1.6	79	75	4	190	10	15	165	0.85	
50	6.51	33.664	26.474		0.84		140	140	0	245	20	90	135	0.80	

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	293	3	774	241	0.22	(3.2)	3.1	(16.20)		<0.05			0.24
4	50	2	187	122	0.36	(1.0)	1.7	(10.90)		<0.05			0.69
8	17	2	56	29									
12	15	1	39	33									
16	13	1	32	30									
20	13	3	71	26									
25	12	1	23	24									
30	10	1	20	17									
40	0	5	28	5	0.22S	4.2S	0.5S	3.50S		0.20S			1.20S
50	0	4	15	4	0.21	(41.6)	0.5	(8.80)		0.48			1.20

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	BC-1	59,6.4	9,34.1	95	761207	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
				3.1	YELLOW-GREEN	NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4M, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.50	5.372	4.396				21	9	12	2000	730	440	830	2.85	
4	7.08	13.981	10.985	4.87		63.0	23	14	9	1600	510	280	810	2.25	
8	8.81	31.396	24.372	5.66		85.2	22	18	4	330	120	<10	>200	1.20	
12	10.77	32.659	25.036	4.22		66.9	27	23	4	390	170	30	190	0.90	
16	10.49	33.017	25.363	4.08		64.5	29	27	2	430	190	80	160	0.95	
20	10.52	33.216	25.513	4.30		68.1	29	26	3	345	130	35	180	1.05	
25	10.35	33.360	25.654	4.44		70.1	30	27	3	325	130	<10	>185	1.00	
30	9.14	33.399	25.885	2.80		43.0	49	46	3	395	210	15	170	0.85	
40	6.79	33.629	26.409	0.14		2.0	44	33	11	295	90	30	175	0.75	
50	6.61	33.684	26.477		0.31		140	140	0	270	20	110	140	0.80	
60	6.56	33.700	26.496		0.71		150	150	0	320	<10	140	>170	0.80	
80	6.54	33.702	26.500		0.98		160	150	10	330	<10	150	>170	0.95	
90	6.55	33.707	26.503		1.64		170	160	10	385	<10	210	>165	3.15	

DEPTH M	RATIOS NO3/ P04	RATIOS TOC/ TOTN	MOL/MOL TOC/ TOTP	MOL/MOL TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	179	2	350	211	0.11	(34.7)	7.3	(16.70)		0.12			0.31
4	81	2	252	154	0.09	(117.0)	6.4	(17.40)		0.08			0.61
8	15	4	141	33									
12	16	3	86	32									
16	16	3	84	33	0.21	(14.5)	3.7	(10.30)		<0.05			1.20
20	11	4	93	26									
25	11	4	86	24									
30	10	3	45	18	0.49	(52.0)	2.9	(9.20)					1.20
40	6	3	44	15	0.63	(1.0)	1.0	(4.80)		0.23			1.20
50	0	3	15	4									
60	<0	3	14	5	0.10S	11.9S	0.3S	2.70S		0.54S			1.17S
80	<0	3	15	5									
90	<0	10	48	5	0.14	<(1.0)	0.5	(4.90)		0.57			1.20

< :LESS THAN VALUE
<() :UNCERTAIN UPPER LIMIT
> :GREATER THAN VALUE
S :SPOILED OR DAMAGED SAMPLE
() :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	DD-1	59,4.6	9,38.6	59	761207	18

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
2.0	16					DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4M, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
							16	8	8	2100	780	480	840	2.95	
0	4.80	6.182	5.022												
4	5.43	10.703	8.538	6.11		74.2									
8	8.12	31.056	24.208	5.93		87.7									
12	7.81	31.822	24.851	5.46		80.6									
16	10.56	32.990	25.330	4.49		71.0									
20	10.68	33.222	25.490	4.67		74.2									
25	10.40	33.343	25.632	4.82		76.2									
30	9.69	33.422	25.814	3.66		57.0									
40	7.04	33.659R	(26.399)	0.07		(1.0)									
55	6.56	33.656R	(26.461)		0.98										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
					HEAVY METALS								
0	216	2	475	290	0.22	(2.1)	2.6	(9.90)		0.09			0.36
4					0.14	(1.0)	2.4	(9.50)		0.06			0.44
8													
12													
16													
20													
25					0.14	<(1.0)	1.0	(2.20)		<0.05			1.17
30													
40					0.24S	8.7S	0.5S	4.20S		0.06S			1.20S
55													

< :LESS THAN VALUE
R :REPEATED ANALYSIS
() :UNCERTAIN VALUE
S :SPOILED OR DAMAGED SAMPLE
<() :UNCERTAIN UPPER LIMIT

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:41:36 PAGE:5

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	FRIERFJORD	EE-1	59,3.2	9,40.6	57	761207	15

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	10			3.0	GREY	RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	NO	NO	NO	NO	-	+

COMMENTS
NS 0.5M, QP 0-2,4M, GP 0-2M, HC 0.5,4M, PEN, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.50	7.834	6.329				15	6	9	1800	620	350	830	2.55	
4	6.83	15.542	12.225	5.30		68.8	20	15	5	1600	480	310	810	1.95	
8	7.21	30.864	24.181	6.09		88.1	20	17	3	365	140	<10	>215	1.20	
12	9.44	32.073	24.803	5.37		82.4	20	19	1	315	120	<10	>185	0.95	
16	10.63	32.982	25.312	L			22	21	1	295	110	<10	>175	0.90	
20	10.67	33.068	25.372	4.66		73.9	23	22	1	255	110	<10	>135	0.80	
25	10.57	33.200	25.492	4.87		77.2	23	23	0	240	100	<10	>130	0.75	
30	10.47	33.243	25.543	4.73		74.8	25	24	1	220	100	<10	>110	0.85	
40	10.32	33.305	25.617	4.58		72.2	28	28	0	215	100	<10	>105	0.80	
50	10.22	33.352	25.670	4.62		72.7	30	29	1	210	100	<10	>100	0.90	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	228	2	438	265	0.31	(15.0)	5.1	(14.20)		0.08			0.40
4	71	1	251	177	0.71	(14.9)	3.1	(7.60)		<0.05			0.57
8	18	4	155	40									
12	14	4	122	35									
16	12	4	105	30									
20	11	4	90	25									
25	10	4	84	23									
30	9	5	88	19									
40	8	4	74	17									
50	8	5	77	15	0.21S	14.0S	1.7S	60.40S		0.06S			1.15S

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE
L :LACKING FOR UNKNOWN REASONS S :SPOILED OR DAMAGED SAMPLE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	BN-1	59,6.1	9,42.7		761208	13

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	18			6.4	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
SURFACE STATION 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.30	15.474	12.349				22	15	7	510	490	270	-250	2.20	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	72	5	258	51									

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.31-16:41:39 PAGE:6

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	EIDANGERFJORD	DF-1	59,4.6	9,42.5	96	761208	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
6.1	23			6.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	YES	NO	NO		

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 0.5,4M, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	4.70	16.009	12.748				20	14	6	1200	450			2.05	
4	6.85	29.630	23.258	6.40		91.1	19	16	3	800	410	50	340	1.25	
8	7.19	30.810	24.142	6.25		90.4	22	16	6	275	130	<10	>135	1.20	
12	7.43	31.141	24.370	6.11		89.0	19	16	3	250	120	<10	>120	1.20	
16	7.32	31.354	24.551	6.11		88.9									
20	8.00	31.733	24.755	6.00		88.9	21	18	3	255	110	<10	>135	1.00	
30	10.36	32.912	25.304	5.25		82.6	22	19	3	240	100	<10	>130	0.85	
40	10.71	33.348	25.582	5.10		81.1									
50	10.65	33.696	25.863	5.00		79.6	20	19	1	215	80	<10	>125	1.25	
60	9.85	34.059	26.284	5.03		78.9									
80	7.24	34.847	27.305	4.53		67.3	38	38	0	295	170	(100)	(25)	0.75	
90	7.26	34.933	27.370	4.67		69.5	42	42	0	265	160	<10	>95	0.55	

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	71	2	264	133	0.19	1.6	2.0	6.30		<0.05			0.60
4	57	2	170	93	0.24	<1.0	1.5	3.00		<0.05			1.05
8	18	5	141	28									
12	17	6	163	29									
16					0.19	<1.0	1.0	1.90		<0.05			1.10
20	14	5	123	27									
30	12	4	100	24									
40													
50	9	7	161	24									
60													
80	10	3	51	17									
90	8	2	34	14	0.21	<1.0	0.7	1.20		<0.05			1.17

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	BREVIKFJORD	FG-1	59,2.8	9,43.2	104	761207	17

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
4.0	16					RAIN	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH; WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4,3,12M, HC 0.5,4M, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
0	5.30	14.427	11.467												
4	6.34	27.348	21.526	6.33		87.7									
8	6.89	30.444	23.893	6.47		92.7									
12	6.90	30.729	24.115	6.40		91.8									
16	7.67	31.323	24.480	6.12		89.8									
20	8.38	31.822	24.769	5.89		88.1									
25	9.29	32.314	25.015	5.46		83.6									
30	10.16	32.955	25.372	5.15		80.7									
40	10.37	33.257	25.571	5.25		82.8									
50	10.60	33.745	25.910	5.10		81.1									
60	9.67	34.141	26.378	5.04		78.8									
80	7.28	34.839	27.293	4.74		70.5									
100	7.29	34.961	27.388	4.74		70.6									

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0					0.35	1.0	1.4	7.10		<0.05			0.51
4					0.11	1.0	1.7	3.60		<0.05			0.97
8													
12													
16					0.25	4.1	3.8	3.60		<0.05			1.10
20													
25													
30													
40													
50													
60													
80													
100													

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	108	761208	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
8.3	23			5.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SLIGHT; WAVES 0.5-1.25M	NO	NO	NO	NO	-	-

COMMENTS
NS 0.5M, QP 0-2,4,8,12M, HC 0.5,4M SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	5.80	21.090	16.662				19	14	5	1000	340	260	400	1.80	
4	6.73	29.534	23.198	6.30		89.4	19	17	2	600	160	50	390	1.40	
8	6.93	30.752	24.130	6.33		90.9	18	17	1	275	130	15	130	1.20	
12	7.04	31.203	24.470	6.33		91.4	18	16	2	265	110	<10	>145	1.15	
16	7.12	31.462	24.663	6.19		89.7									
20	8.39	32.170	25.040	5.90		88.5	19	16	3	225	100	<10	>115	1.30	
30	9.17	32.675	25.315	4.03		61.7	20	18	2	250	100	<10	>140	1.05	
40	10.20	33.146	25.513	5.34		83.9									
50	10.30	33.602	25.851	5.25		82.9	20	18	2	195	90	<10	>95	0.95	
60	9.90	34.004	26.233	5.25		82.4									
80	7.31	34.894	27.332	4.75		70.7	34	34	0	265	160	<10	>95	0.55	
100	7.30	34.945	27.374	5.04		75.0	36	36	0	310	180	<10	>120	0.75	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	54	2	244	116	0.16	13.6	2.8	8.70		0.06			0.61
4	21	3	190	70	0.33	1.0	2.3	2.80		<0.05			1.00
8	17	5	172	34									
12	15	5	165	33									
16					0.54	<1.0	1.5	4.00		<0.05			1.07
20	14	7	176	26									
30	12	5	135	28									
40													
50	11	6	122	22									
60													
80	10	2	42	17									
100	11	3	54	19	0.24	<1.0	0.6	1.10		<0.05			1.18

< :LESS THAN VALUE > :GREATER THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-1	59,7.1	9,38.7	5	761208	945

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED	-	-	-	-	-

COMMENTS
HC 0.5M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	6.90	<2.846	<2.326	5.36		(64.2)	24	6	18	5600	1030	3500	1070	3.00	
3	7.10	4.208	3.373	4.86		59.0	29	10	19	5800	1040	3900	860	2.95	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	380	1	322	516	0.46	1.4	3.8	9.00		<0.05			0.19
3	230	1	262	442	0.58	2.1	8.6	16.10		<0.05			0.19

< :LESS THAN VALUE () :UNCERTAIN VALUE

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	GUNNEKLEIVFJORD	G-3	59,7.7	9,38.2	10	761208	1030

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
						NOT OBSERVED	NOT OBSERVED

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
NOT OBSERVED	NOT OBSERVED				-	-

COMMENTS
HC 0.5,8M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	P04P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	8.90	2.928	2.254	5.04		63.4	27	10	17	5400	830	640	3930	2.80	
3	7.20	3.286	2.651	4.97		60.1	21	6	15	5200	850	3600	750	2.95	
8	7.30	12.095	9.496	3.38		43.4	50	37	13	1800	410	3900	-2510	2.65	

DEPTH M	RATIOS NO3/ P04	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	184	1	267	442	0.50	4.9	4.4	12.70		<0.05			0.17
3	313	1	362	548	0.48	2.6	5.1	10.40		<0.05			0.24
8	25	2	137	80	0.20	2.7	8.6	22.80		0.09			0.51

< :LESS THAN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HHGRAN	0-111/70	SKIENSELVA	S-1	59,11.8	9,37.1	15	761207	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.0	GREEN	DRIZZLE	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
HC 0.5,10M TRB+SUP+TSM, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.50	<2.846	<2.415				10	6	4	1000	490	<10	>500	4.65	
5	4.83	<2.846	<2.408	7.45		(84.7)	8	4	4	800	460	<10	>330	3.30	
10	10.37	30.467	23.401	1.08		16.7	30	15	15	495	160	40	295	1.55	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	181	5	1199	221	0.11	8.1	3.9	23.20	<0.20	<0.05		<1.0	
5	254	5	1064	221	0.12	7.9	4.2	10.20	<0.20	<0.05		<1.0	
10	24	4	133	36	0.30	8.9	4.6	14.80	<0.20	0.09		<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE () :UNCERTAIN VALUE

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	HEGRAN	0-111/70	SKIENSELVA	S-2	59,8.5	9,38.7	15	761207	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.3	GREY-GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	NO	NO	NO	NO	-	+

COMMENTS
HC 0.5,10M TRB+SUP+TSM, SURFACE SAMPLES 0-2M

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							MICROGR./L								
0	4.80	<2.846	<2.408				10	7	3	1000	480	<10	>510	3.15	
5	10.23	29.569	22.726	3.30		50.7	33	27	6	600	190	50	360	1.35	
10	10.72	32.093	24.605	2.15		33.9	33	22	11	410	150	40	220	1.15	

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
					HEAVY METALS								
0	152	4	812	221	0.07	6.7	2.5	7.40	<0.20	<0.05		<1.0	
5	16	3	105	40	0.36	3.9	4.4	17.60	<0.20	0.08		<1.0	
10	15	3	90	27	0.24	6.1	4.0	15.70	<0.20	0.14		<1.0	

< :LESS THAN VALUE > :GREATER THAN VALUE

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MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:45:52 PAGE:1

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	BB-1	59,6.6	9,34.2	57	770216	12

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			1.5	BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.OM	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	-

COMMENTS
SURFACE SAMPLE 0-2M, QP

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
							16	9	7	1900	490	310	1100	5.60	70.0
0	0.10	3.669	3.011												
4	1.08	9.131	7.391	8.11		87.0									
8	0.55	28.014	22.491	7.68		92.4									
12	0.71	28.532	22.900	7.68		93.1									
16	2.37	29.673	23.723	6.96		88.8									
20	6.85	32.162	25.248	4.16		60.2									
25	7.83	33.182	25.914	2.98		44.4									
30	7.24	33.295	26.086	3.02		44.4									
40	6.94	33.553	26.330	0.14		2.0									
50	6.71	33.643	26.431		1.06										

DEPTH M	RATIOS NO3/PO4	RATIOS TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	120	3	903	263									
4													
8													
12													
16													
20													
25													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-.111/70	FRIERFJORD	BC-1	59,6.4	9,37.1	96	770216	10

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.5	YELLOW-GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	+

COMMENTS
SURFACE SAMPLE 0-2M, OP,GP,PHENOL

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.20	5.241	4.269				21	18	3	2800	750	1150	900	3.10	
4	0.88	13.207	10.638												
8	1.70	26.425	21.169	7.18		88.1									
12	1.74	29.163	23.355	7.25		90.7									
16	2.15	29.688	23.749	6.96		88.3									
20	4.61	31.410	24.914	6.25		85.3									
25	7.75	33.123	25.880	4.31		64.1									
30	7.01	33.307	26.127	3.41		49.9									
40	6.82	33.514	26.315		0.50										
50	6.68	33.643	26.435		0.39										
60	6.63	33.572R	(26.386)		0.66										
80	6.59	33.649	26.452		0.99										
90	6.57	33.698	26.493		1.39										

DEPTH M	RATIOS NO3/ PO4	TOC/ TOTN	MOL/MOL TOC/ TOTP	TOTN/ TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	92	1	381	295									
4													
8													
12													
16													
20													
25													
30													
40													
50													
60													
80													
90													

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	FRIERFJORD	DD-1	59,4.6	9,38.6	58	770216	9

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0	0			3.5	GREEN-YELLOW	SNOW,OR RAIN AND SNOW MIXED	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	-

COMMENTS
SURFACE SAMPLE 0-2M, GP+QP

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS MICROGR./L TOTP	PO4P	ORGP	TOTN	NO3N	NH4N	ORGN	TOC MG/L	FE
							22	17	5	2400	600	1100	700	4.50	
0	-0.20	4.418	3.595												
4	0.84	7.761	6.297	8.11		85.7									
8	0.34	27.953	22.450	7.83		93.6									
12	0.53	28.551	22.923	7.75		93.5									
16	1.60	29.285	23.460	7.54		94.0									
20	5.38	31.704	25.065	5.95		82.9									
25	7.46	33.119	25.917	4.13		61.0									
30	6.96	33.268	26.103	3.63		53.0									
40	6.73	33.537	26.345	0.43		6.3									
55	6.61	33.667	26.463		0.79										

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	78	2	527	241									
4													
8													
12													
16													
20													
25													
30													
40													
55													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA	....	0-111/70	FRIERFJORD	EE-1	59.3.2	9,40.6	57	770215	1500

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
0.0				3.5	BROWN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
CALM; WAVES 0.0M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	-

COMMENTS
SURFACE SAMPLE 0-2M, GP+QP

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	0.10	4.412	3.603				17	11	6	2200	550	900	750	4.80	
4	0.40	6.464	5.251	8.56		88.5									
8	0.05	27.869	22.392	7.98		94.6									
12	0.13	28.376	22.797	7.90		94.2									
16	1.01	29.056	23.307	7.47		91.6									
20	5.44	31.941	25.245	5.15		72.0									
25	6.79	32.843	25.791	4.21		61.1									
30	6.99	33.287	26.114	3.77		55.1									
40	6.69	33.287	26.154	5.08		73.8									
50	6.65	33.389	26.239	5.44		79.0									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	111	3	728	286									
4													
8													
12													
16													
20													
25													
30													
40													
50													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		O-111/70	BREVIKFJORD	FG-1	59,2.8	9,43.2	103	770215	14

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
1.7	5			10.5	LIGHT-GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED; WAVES 0.0-0.1M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	-

COMMENTS
SURFACE SAMPLE 0-2M, OP

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	NUTRIENTS NO3N	NUTRIENTS NH4N	NUTRIENTS ORGN	TOC MG/L	FE
							MICROGR./L								
0	-0.10	16.915	13.599												
4	0.03	27.839	22.368	8.04		95.2									
8	-0.27	28.178	22.649	8.11		95.5									
12	-0.20	28.380	22.810	8.11		95.8									
20	2.57	28.181R	(22.520)	6.96		(88.3)									
30	6.32	33.979	26.747	6.17		89.2									
40	6.66	34.391	27.026	6.10		89.2									
50	7.01	34.572	27.121	5.74		84.7									
60	6.99	34.634	27.173	5.74		84.7									
80	7.05			5.53											
100	6.67	34.733	27.294	6.16		90.2									

() :UNCERTAIN VALUE R :REPEATED ANALYSIS

MARINE HYDROGRAPHIC DEPTH STATION, TYPE B. CONTROLLED DATA 77.5.26-15:46:5 PAGE:6

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSFJORD	GH-1	59,1.3	9,45.1	108	770215	1242

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.2	5			10.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
RIPPLED: WAVES 0.0-0.1M	IN VICINITY, TYPE/AMOUNT UNKNOWN	NO	NO	NO	-	-

COMMENTS
SURFACE SAMPLE 0-2M, QP

DEPTH M	TEMP. DEG.C VT.	SAL. 0/00 VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT 0/0	NUTRIENTS TOTP	NUTRIENTS PO4P	NUTRIENTS ORGP	NUTRIENTS TOTN	MICROGR./L NO3N	MICROGR./L NH4N	MICROGR./L ORGN	TOC MG/L	FE
							22	.20	.2	1400	200	180	1020	1.80	
0	-0.60	23.665	19.022												
4	0.20	27.892	22.405	8.24		98.1									
8	-0.50	28.224	22.692	8.03		94.0									
12	-0.40	28.391	22.824	8.38		98.5									
20	2.43	30.153	24.101	7.11		91.1									
30	6.12	33.956	26.754	6.24		89.8									
40	6.36	34.124	26.856	6.16		89.2									
50	6.26	34.438	27.116	6.27		90.8									
60	6.25	34.493	27.161	6.41		92.8									
80	6.22	34.548	27.208	6.74		97.6									
100	6.54	34.685	27.274	6.05		88.3									

DEPTH M	RATIOS NO3/PO4	MOL/MOL TOC/TOTN	MOL/MOL TOC/TOTP	MOL/MOL TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
	22	1	211	141									
0													
4													
8													
12													
20													
30													
40													
50													
60													
80													
100													

COUNTRY	INSTITUTION	SHIP	PROJECT	LOCATION	STATION	POSITION NORTH	POSITION EAST	DEPTH M	DATE	TIME
NORWAY	NIVA		0-111/70	LANGESUNDSBUKTA	JH-1	58,58.1	9,47.0	208	770215	11

WIND SPEED M/S	WIND DIRECTION (0-36)	AIR TEMP. DEG.CELS DRY	AIR TEMP. DEG.CELS WET	SECCHI-DISC DEPTH M	SECCHI-DISC COLOUR	WEATHER	CLOUDS
3.7	5			11.0	GREEN	CONTINOUS LAYER OF CLOUDS	8/8

SEA	ICE	OIL	WRECK	SEA-WEED	BATHY-SLIDE	SALINOTHERM
SMOOTH: WAVES 0.1-0.5M	NO	NO	NO	NO	-	-

COMMENTS
SURFACE SAMPLE 0-2M, GP+QP

DEPTH M	TEMP. DEG.C VT.	SAL. O/OO VH.	DENS. SIGMA-T	O2 ML/L	H2S ML/L	O2-SAT O/O	NUTRIENTS TOTP	PO4P	ORGP	TOTN	MICROGR./L NO3N	NH4N	ORGN	TOC MG/L	FE
0	-0.60	26.014	20.914				26	22	4	480	160	230	90	2.10	
4	-0.74	28.182	22.664	8.17		95.0									
8	-0.85	28.300	22.761	8.17		94.8									
12	-0.86	28.323	22.780	8.24		95.6									
16	-0.80	28.368	22.815	8.31		96.6									
20	1.58	30.145	24.149	7.53		94.4									
30	5.38	34.128	26.980	6.62		93.7									
40	5.41	34.293	27.107	6.48		91.9									
50	5.37	34.395	27.192	6.62		93.8									
60	5.54	34.101R	(26.940)	6.55		(93.0)									
80	5.66	34.403	27.164	6.48		92.5									
100	5.77	34.517	27.240	6.27		89.8									
150	6.22	34.843	27.441	6.27		91.0									
200	6.34	34.941	27.502	5.98		87.1									

DEPTH M	RATIOS NO3/PO4	TOC/TOTN	MOL/MOL TOC/TOTP	TOTN/TOTP	HEAVY METALS HG MYG/L	PB MYG/L	CU MYG/L	ZN MYG/L	CD MYG/L	MN MG/L	NI MYG/L	CR MYG/L	F MG/L
0	16	5	208	41									
4													
8													
12													
16													
20													
30													
40													
50													
60													
80													
100													
150													
200													

') :UNCERTAIN VALUE R :REPEATED ANALYSIS

3. REFERANSER

NIVA 1976a

0-111/70 Resipientundersøkelse av nedre Skienselva, Frierfjorden og tilliggende fjordområder.
Rapport nr. 4. Fremdriftsrapport fra undersøkelser av vannutskiftningen i fjordområdene mars 1974-desember 1975.
Saksbehandler: Jarle Molvær.
Stensilert, 49s.+figurer. 18.5.1976.

NIVA 1976b

0-111/70 Resipientundersøkelse av nedre Skienselva, Frierfjorden og tilliggende fjordområder.
Rapport nr. 5. Fremdriftsrapport fra de hydrokjemiske undersøkelsene mars 1974-desember 1975.
Saksbehandler: Jarle Molvær.
Stensilert, 143s. 25.11.1976.

APPENDIX

I datautskriftene fra de enkelte stasjoner opptrer endel forkortelser og betegnelser som ikke aller er like lette å forstå. Dette gjelder spesielt for rubrikken COMMENTS, men tildels også listen over parametre som er målt. Det følgende gir en oversikt over de forkortelser og tegn som er brukt.

Generelle kommentarer (COMMENTS)

COD	Chemical Oxygen Demand	*Kjemisk oksygenforbruk (dikromattall)*
GP	Growth Potential	*Algevekstpotensial*
HC	HydroCarbons	*Hydrokarboner*
HM	Heavy Metals	*Tungmetaller*
MCL	MiCroLayer, surface film sample	*Mikrolag, overflatefilmprøve*
NH4N	Ammonium NH_4N	*Ammonium* NH_4N
NS	Near Surface Plankton haul	*Plankton tatt ved overflatehåvtrekk*
NTR	NuTRients, which includes TOC and Fe	*Næringssalter, omfatter TOC og Fe*
PEN	PENdulum current measurement taken	*Pendelstrømmåler brukt*
PYC	PYCnocline	*Sprangsjiktet*
QP	Quantitative Plankton	*Kvantitativ plankton prøve*
SES	SESton net sample (subsurface)	*Seston håvtrekk*

SLN	SaLiNOterm (salinity and temperature measuring bridge)	*Salinoterm*
SUP	SUsPended inorganic particulate matter	*Suspendert gløderest (EDB-kode:S-GR)*
TRB	TuRBidity	*Turbiditet*
TSM	Total Suspended Matter (organic+inorganic)	*Suspendert tørrstoff*
VH	Water sampler	*VannHenter*
VT	Reversing thermometer	*VendeTermometer*

Parameternavn og måleenheter

CD	cadmium (Cd)	*kadmium (Cd)*
CR	cromium (Cr)	*krom (Cr)*
CU	copper (Cu)	*kopper (Cu)*
DENS	DENSity Sigma t (σ_t)	*tetthet, sigma t (σ_t)*
F	fluorine (F)	*fluor (F)*
FE	iron (Fe)	*jern (Fe)*
H2S	hydrogen sulphide H_2S	*hydrogensulfid H_2S*
HG	mercury (Hg)	*kvikksølv (Hg)*
M	meter	*meter*
MG/L	MilliGram/Liter, mg/l	*mg/l*
MICROGR/L	MICROGRam/Liter, µg/l	*µg/l*

ML	MilliLiter	*milliliter*
ML/L	MilliLiter/Liter, ml/l	*ml/l*
MN	manganese (Mn)	*mangan (Mn)*
MYG/L	microgram/liter, µg/l	*µg/l*
NI	nickel (Ni)	*nikkel (Ni)*
NO3N	nitrate NO_3N	*nitrat* NO_3N
O2	molecular oxygen - O_2	*molekylær oksygen-*O_2
O2-SAT%	oxygen-SATuration %	*oksygenmetning %*
ORG N	ORGanic Nitrogen	*organisk nitrogen*
ORG P	ORGanic Phosphate	*organisk fosfat*
PB	lead (Pb)	*bly (Pb)*
PO4P	ortophosphate PO_4P	*ortofosfat -* PO_4P
SAL	SALinity	*saltholdighet*
SAL°/oo	SALinity in parts per thousand	*saltholdighet i promille*
TEMP	TEMPerature	*temperatur*
TEMP DEG C	TEMPerature in DEGrees Celsius	*temperatur i grader Celsius*
TOC	Total Organic Carbon	*total organisk karbon*
TOT N	TOTal Nitrogen	*total nitrogen*

TOT P	TOTal Phosphate	*total fosfat*
ZN	zinc (Zn)	*sink (Zn)*

Diverse forkortelser og tegn

<	less than value	*mindre enn verdi*
>	greater than value	*større enn verdi*
(*)	uncertain value	*usikker verdi*
ca.	approximate value	*cirka*
L	value planned but lacking for unknown reason	*verdi planlagt, men mangler av ukjent grunn*
NA	value NonAcclimated, usually refers to temperature which hasn't been given enough time to adequately adjust to ambient conditions	*temperatur registrert før termometret var helt innstilt på omgivelsenes temperatur (oftest pga. vannhenteren har snudd for tidlig)*
OT	Over-Titrated value	*over-titrert verdi*
R	Repeated analysis	*reanalysert prøve*
S	Spoiled or damaged sample	*ødelagt prøve*

MOL/KAR
30.8.1977