

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



oct opoodle

Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1	✓	✓	18	3134	10.0	3.475	3.473					1					
Event:	19 20	2	✓	✓	19	1059	11.6		4.930					2					
Station:	GBS-04	3	✓	✓	20 A	1054	11.9		→ 5.330					3	200	3021	11.9		5.336
Event Date (Local):	18 July 2020	4	✓	✓	21	3104	12.8		6.447					4					
Analysis Date (Local):	19 July 2020	5	✓	✓	22	3150	15.1		6.792					5					
Analyst:	TF	6	✓	✓	23	639	15.4		6.788					6					
Stdization Date (Local):	19 July 2020	7												7					
KIO ₃ N:	0.0119007	8												8					
Standard Titer:	0.4813991	9												9					
Blank Titer:	0.0006136	10												10					
THIO N:	0.247474	11												11					
Sample Flask Water Seal?	Yes	12												12					
	No	13												13					
Reagent Change?	MnCl ₂	14												14					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15												15					
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	16												16					
	KIO ₃	17												17					
	THIO	18												18					
Notes:		19												19					
		20												20					
		21												21					
		22												22					
		23												23					
		24												24					

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

18	19	20A	20B	21	22	23
OXY	OXY	OXY	OXY	OXY	OXY	OXY
GBS-04	GBS-04	GBS-04	GBS-04	GBS-04	GBS-04	GBS-04
2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
b-5 m	30 m	20 m	20 m	10 m	5 m	0 m
bot 1	bot 2	bot 3	bot 3	bot 4	bot 5	bot 6

24-32

octo

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1	✓	24A	3034	9.0		A	1.856	1	24B	3034	8.7		B	1.852			
Event:	22	2	✓	25	1002	8.8		2.379	2										
Station:	CPE1	3	✓	26	3035	8.2		2.714	3										
Event Date (Local):	18/07/20	4	✓	27	1647	10.3		3.869	4										
Analysis Date (Local):	19 July 2020	5	✓	28	3061	10.9		4.643	5										
Analyst:	TF	6	✓	29	1673	11.2		5.441	6										
Stdization Date (Local):	19 July 2020	7	✓	30	2063	12.0		7.018	7										
KIO ₃ N:	0.0119007	8	✓	31	3028	12.3		7.984	8										
Standard Titer:	0.4813991	9	✓	32	1631	12.4		8.019	9										
Blank Titer:	0.0006136	10							10										
THIO N:	0.247474	11							11										
Sample Flask Water Seal?	Yes	12							12										
	No	13							13										
Reagent Change?	MnCl ₂	14							14										
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15							15										
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ None	16							16										
	KIO ₃	17							17										
	THIO	18							18										
Notes:		19							19										
		20							20										
		21							21										
		22							22										
		23							23										
		24							24										

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

24A	24B	25	26	27	28	29	30	31	32
OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
CPEI	CPEI	CPEI	CPEI	CPEI	CPEI	CPEI	CPEI	CPEI	CPEI
2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
b-5 m	b-5 m	100 m	75 m	50 m	30 m	20 m	10 m	5 m	0 m
bot 1	bot 1	bot 2	bot 3	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Octopus

Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1	✓✓	39	3134	8.9		1.716		1					
Event:	31						2		40				no oxy	2						
Station:	CS09						3		41				no oxy	3						
Event Date (Local):	19 July 2020						4	✓✓	42	1059	9.0		1.854	4						
Analysis Date (Local):	20 July 2020						5	✓✓	43A	1054	9.7		→ 2.762	5	43B	3021	9.7		2.759	
Analyst:	TF						6	✓✓	44	3104	10.5		4.091	6						
Stdization Date (Local):	19 July 2020						7	✓✓	45	3170	11.0		4.711	7						
KIO ₃ N:	0.0119007						8		46				no oxy	8						
Standard Titer:	0.4813991						9	✓✓	47	3150	13.3		5.788	9						
Blank Titer:	0.0006136						10	✓✓	48	639	14.7		6.278	10						
THIO N:	0.247474						11	✓✓	49	3056	16.7		6.307	11						
Sample Flask Water Seal?	Yes						12	✓✓	50	3034	16.3		6.297	12						
	No						13	✓✓	51	2084	16.2		6.295	13						
Reagent Change?	MnCl ₂						14		52				no oxy	14						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15		53				no oxy	15						
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						16							16						
	KIO ₃						17							17						
	THIO						18							18						
Notes:	19	39	42	43A	43B	44	45	47	48	49	50	51								
	20	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY								
	21	CS09	CS09	CS09	CS09	CS09	CS09	CS09	CS09	CS09	CS09	CS09								
	22	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069								
	23	b-5 m	150 m	100 m	100 m	75 m	50 m	30 m	20 m	10 m	5 m	0 m								
	24	bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 9	bot 10	bot 11	bot 12	bot 13								

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1	✓	54	3035	10.9		3.953		1					
Event:	34						2		55				no oxy	2						
Station:	CS06						3		56				no oxy	3						
Event Date (Local):	20 July 2020						4	✓	57	647	11.0		4.435	4						
Analysis Date (Local):	20 July 2020						5		58				no oxy	5						
Analyst:	TF						6	✓	59A	3061	12.3		→ 5.442	6	59B	673	12.2		5.438	
Stdization Date (Local):	19 July 2020						7	✓	60	2063	13.3		6.660	7						
KIO ₃ N:	0.0119007						8	✓	61	3028	14.6		7.030	8						
Standard Titer:	0.4813991						9	✓	62	631	14.7		7.025	9						
Blank Titer:	0.0006136						10	✓	63	3125	14.7		-9.0 7.023 ← this not in sample for 1st km	10						
THIO N:	0.247474						11		64				no oxy	11						
Sample Flask Water Seal?	(Yes) No						12		65				no oxy	12						
Reagent Change?	MnCl ₂ none						13							13						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14							14						
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						15							15						
	KIO ₃						16							16						
	THIO						17							17						
							18							18						
Notes:	19	54	57	59A	59B	60	61	62	63											
	20	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY											
	21	CS06	CS06	CS06	CS06	CS06	CS06	CS06	CS06											
	22	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069											
	23	b-5 m	50 m	30 m	30 m	20 m	10 m	5m	0 m											
	24	bot 1	bot 4	bot 6	bot 6	bot 7	bot 8	Bot 9	bot 10											

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069	1		68	3134	7.3	0.434								1					
Event: 39	2		69	1059	7.0	0.458								2					
Station: C106	3		70	1054	7.4	0.753								3					
Event Date (Local): 20 JUL/20	4		71	3021	7.8	0.990								4					
Analysis Date (Local): 20 July 2020	5		72	3104	8.1	1.501								5					
Analyst: TF	6		73	3170	8.3	2.039								6	73B	3150	8.4	2.038	
Stdization Date (Local): 19 July 2020	7		74	3639	8.8	2.396								7					
KIO ₃ N: 0.0119007	8		75	3056	9.2	2.635								8					
Standard Titer: 0.481399	9		76	3034	9.5	3.850								9					
Blank Titer: 0.0006136	10		77	2084	9.7	4.131								10					
THIO N: 0.247474	11		78	1002	10.5	5.063								11					
Sample Flask Water Seal? ☒ Yes	12		79	3035	12.6	5.995								12	79B	647	12.7	5.999	
Reagent Change? ☐ MnCl ₂ ☒ none	13		80	3061	14.2	6.420								13					
(Please circle reagent that was changed prior to sampling and standardization)	14		81	673	15.9	6.226								14					
NOTE NEW BATCH IN LOG BOOK	15		82	2063	16.2	6.223								15					
	16		83	3028	16.4	6.211								16					
	17	68	69	70	71	72	73A	73B	74	75	76	77	78	79A					
	18	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY					
	19	C106	C106	C106	C106	C106	C106	C106	C106	C106	C106	C106	C106	C106					
	20	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069					
	21	b-5 m	750 m	500 m	400 m	300 m	250 m	250 m	200 m	150 m	100 m	75 m	50 m	30 m					
	22	bot 1	bot 2	bot 3	bot 4	bot 5	bot 6	bot 6	bot 7	bot 8	bot 9	bot 10	bot 11	bot 12					
	23	79B	80	81	82	83													
	24	OXY	OXY	OXY	OXY	OXY													
		C106	C106	C106	C106	C106													
		2020-069	2020-069	2020-069	2020-069	2020-069													
		30 m	20 m	10 m	5 m	0 m													
		bot 12	bot 13	bot 14	bot 15	bot 16													

Bottle integrity: First test the top vent (V) by o

in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



bender

Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1	✓	84	2089	6.7		1.507		1					
Event:	42						2							2						
Station:	CI08						3							3						
Event Date (Local):	20 July 2020						4	✓	87	371	6.7		0.672	4						
Analysis Date (Local):	21 July 2020						5	✓	88	3009	7.1		0.262	5						
Analyst:	TF						6	✓	89A	3100	7.4		0.300	6	89B	2043	7.4		0.302	
Stdization Date (Local):	21 July 2020						7	✓	90	2019	7.9		0.755	7						
KIO ₃ N:	0.0119007						8	✓	91	2027	8.2		1.150	8						
Standard Titer:	0.481399						9	✓	92	3000	8.5		1.605	9						
Blank Titer:	0.0006136						10	✓	93	3032	8.6		1.887	10						
THIO N:	0.247424						11	✓	94	2047	8.9		2.116	11						
Sample Flask Water Seal?	Yes						12	✓	95	3072	9.5		2.950	12						
Reagent Change?	MnCl ₂						13	✓	96A	3030	9.9		4.112	13	96B	3109	10.0		4.118	
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14	✓	97	3055	10.5		4.577	14						
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						15	✓	98	3049	10.7		5.799	15						
	KIO ₃						16							16						
	THIO						17	✓	100	3057	11.9		5.676	17						
Notes:							18	✓	101	1429	13.8		6.542	18						
							19	✓	102	930	15.8		6.180	19						
							20	✓	103	1409	16.2		6.202	20						
							21	✓	104	2032	16.3		6.198	21						
							22							22						

84	87	88	89A	89B	90	91	92	93	94	95	96A	96B	97	98	100	101
OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08	CI08
2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
b-5 m	1500 m	1000 m	750 m	750 m	500 m	400 m	300 m	250 m	200 m	150 m	100 m	100 m	75 m	50 m	30 m	20 m
bot 1	bot 4	bot 5	bot 6	bot 6	bot 7	bot 8	bot 9	bot 10	bot 11	bot 12	bot 13	bot 13	bot 14	bot 15	bot 17	bot 18

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments		
Cruise Number: 2020-069	1		107	2016			1						no oxy	1							
Event: 43	2	✓	108	2016	6.5		2					1.399		2							
Station: CS01	3		109				3						no oxy	3							
Event Date (Local): 20 July 2020	4		110				4						no oxy	4							
Analysis Date (Local): 20 July 2020	5	✓	111	3173	7.4		5					6.8 temp	0.628 bubbles in flask	5					(not before opened) - made curve		
Analyst: TF	6	✓	112	3116	6.8		6					0.248		6							
Stdization Date (Local): 19 July 2020	7	✓	113	3090	7.5		7					→ 0.289		7	113B	2015	7.5		0.282		
KIO ₃ N: 0.0119007	8	✓	114	3036	7.8		8					0.980		8							
Standard Titer: 0.481399	9	✓	115	1422	8.3		9					1.308		9							
Blank Titer: 0.0006136	10	✓	116	712	8.4		10					1.810		10							
THIO N: 0.247474	11	✓	117	1416	8.9		11					2.259		11							
Sample Flask Water Seal? Yes	12	✓	118	2094	9.2		12					2.661		12							
Reagent Change? MnCl ₂	13	✓	119	3054	9.4		13					3.140		13							
(Please circle reagent that was changed prior to sampling and standardization)	14	✓	120	2025	9.9		14					→ 4.492	suspect vent not tightened enough	14	120B	1408	9.9		4.489		
NOTE NEW BATCH IN LOG BOOK	15	✓	121	3010	9.9		15					6.636	108	111	112	113A	113B	114	115	116	117
	16	✓	122	458	10.5		16					6.615	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
	17		123				17						CS01	CS01	CS01	CS01	CS01	CS01	CS01	CS01	CS01
	18	✓	124	1442	12.0		18					6.495	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	19	✓	125	3038	14.1		19					6.577	b-5 m	1500 m	1000 m	750 m	750 m	500 m	400 m	300 m	250 m
	20	✓	126	3162	15.3		20					6.414	bot 2	bot 5	bot 6	bot 7	bot 7	bot 8	bot 9	bot 10	bot 11
	21	✓	127	3094	15.9		21					6.269	118	119	120A	120B	121	122	124	125	126
	22	✓	128	3143	16.2		22					6.226	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
	23		129				23						CS01	CS01	CS01	CS01	CS01	CS01	CS01	CS01	CS01
	24		130				24						2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
													200 m	150 m	100 m	100 m	75 m	50 m	30 m	20 m	10 m
													bot 12	bot 13	bot 14	bot 14	bot 15	bot 16	bot 18	bot 19	bot 20

Bottle integrity: First test the top vent (V) by opening the lower snoot (S) then test the spigot by opening

128
OXY
CS01
2020-069
0 m
bot 22
127
OXY
CS01
2020-069
5 m
bot 21

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments		
Cruise Number:	2020-069						1	✓	✓	146	2016	8.2	1.499		1						
Event:	49						2		147				no oxy	2							
Station:	Scotts2						3		148				no oxy	3							
Event Date (Local):	21 July 2020						4		149	3173	8.1	1.607		4							
Analysis Date (Local):	22 July 2020						5		150A	3116	8.7	→ 2.184		5	1506	3090	8.6		2.180		
Analyst:	TF						6		151	2015	9.0	2.484		6							
Stdization Date (Local):	22 July 2020						7		152	3036	9.2	3.054		7							
KIO ₃ N:	0.0119007						8		153	1422	9.5	3.697		8							
Standard Titer:	0.4812021						9		154	712	10.1	4.419		9							
Blank Titer:	0.000534						10		155				no oxy	10							
THIO N:	0.247458						11		156	1416	10.6	4.984		11							
Sample Flask Water Seal?	Yes						12		157A	2094	11.0	→ 5.232		12	157B	3054	11.1		5.229		
	No						13		158	2025	13.0	6.148		13							
Reagent Change?	MnCl ₂						14		159	1408	15.5	6.201		14							
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15		160	3010	16.1	6.150		15							
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						16		161	458	16.2	6.148		16							
	KIO ₃						17		162				no oxy	17							
	THIO						18		163				no oxy	18							
Notes:	shark						19		146	149	150A	150B	151	152	153	154	156	157A	157B	158	159
							20		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	
							21		Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	Scotts2	
							22		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	
							23		b-5 m	250 m	200 m	200 m	150 m	100 m	75 m	50 m	40 m	30 m	30 m	20 m	10 m
							24		bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 11	bot 12	bot 12	bot 13	bot 14

Bottle integrity: First test the top vent (V) by opening the lower spout (S) then test the spout by opening the top vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

bot 15
5 m
2020-069
Scotts2
OXY
160
bot 16
0 m
2020-069
Scotts2
OXY
161

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069	1		131A	3038	8.8	1.539								1	131B	3162	8.8	1.537	
Event: 51	2		134											2					
Station: C104	3		135											3					
Event Date (Local): 21-JUL-2020	4		134	3094	8.5	1.637								4					
Analysis Date (Local): 22 July 2020	5		135A	3193	9.2	2.295								5	135B	3175	9.3	2.283	
Analyst: IF	6		136	570	9.6	3.077								6					
Stdization Date (Local): 22 July 2020	7		137	3144	10.4	4.243								7					
KIO ₃ N: 0.0119007	8		138	3121	11.0	4.855	131A	131B	134	135A	135B	136	137	138	140				
Standard Titer: 0.4812021	9						OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY				
Blank Titer: 0.000534	10		140	3192	13.1	5.534	CI04	CI04	CI04	CI04	CI04	CI04	CI04	CI04	CI04				
THIO N: 0.247458	11		141	3083	15.0	6.150	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069				
Sample Flask Water Seal? Yes	12		142	3164	16.3	6.280	b-5 m	b-5 m	200 m	150 m	150 m	100 m	75 m	50 m	30 m				
	13		143	612	16.7	6.263	bot 1	bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 10				
Reagent Change? MnCl ₂	14		144	3135	16.8	6.256	141	142	143	144									
(Please circle reagent that was changed prior to sampling and standardization)	15						OXY	OXY	OXY	OXY									
NOTE NEW BATCH IN LOG BOOK	16						CI04	CI04	CI04	CI04									
	17						2020-069	2020-069	2020-069	2020-069									
	18						20 m	10 m	5 m	0 m									
Notes: shark	19						bot 11	bot 12	bot 13	bot 14									
	20																		
	21																		
	22																		
	23																		
	24																		

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments			
Cruise Number:	2020-069	1	✓	165A	2089	9.5		1.595 suspect chl's thumb on needle	1	165B	371	9.0		1.597			
Event:	55	2							2								
Station:	HAK1	3							3								
Event Date (Local):	21 July 2020	4	✓	168	3009	9.6		3.002	4								
Analysis Date (Local):	22 July 2020	5	✓	169	3100	10.5		3.846	5								
Analyst:	TF	6	✓	170	2043	11.1		4.324	6								
Stdization Date (Local):	22 July 2020	7							7								
KIO ₃ N:	0.0119007	8	✓	172	2019	11.4		4.415	8								
Standard Titer:	0.4812021	9	✓	173	2027	12.7		5.495 (mixed flask 3032 when labeling)	9	173B	3000	12.8		5.498			
Blank Titer:	0.000534	10	✓	174	2047	13.8	5.927	no temp recorded - made this value up	10								
THIO N:	0.247458	11	✓	175	3072	16.3		6.692	11								
Sample Flask Water Seal?	Yes	12	✓	176	3030	16.9		6.730	12								
	No	13	✓	177	3109	17.3		6.696	13								
Reagent Change?	MnCl ₂	14			165A		165B	168	169	170	172	173A	173B	174	175	176	177
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15			OXY		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ None	16			HAK1		HAK1	HAK1	HAK1	HAK1	HAK1	HAK1	HAK1	HAK1	HAK1	HAK1	HAK1
	KIO ₃	17			2020-069		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	THIO	18			b-5 m		b-5 m	100 m	75 m	50 m	40 m	30 m	30 m	20 m	10 m	5 m	0 m
		19			bot 1		bot 1	bot 4	bot 5	bot 6	bot 8	bot 9	bot 9	bot 10	bot 11	bot 12	bot 13
Notes:		20															
		21															
		22															
		23															
		24															

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information																
Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments				
1	✓✓	180A	3049	9.1		1.479	1	180B	3057	8.7	0.002	over-titrated bc curve started early				
2							2									
3							3									
4	✓✓	183	1429	9.3		2.972	4									
5	✓✓	184	930	9.8		4.047	5									
6	✓✓	185	1409	10.4		4.752	6									
7							7									
8							8									
9	✓✓	188A	2032	13.8		5.645	9	188B	3127	14.0	8.644					
10							10									
11	✓✓	190	3145	15.7		8.190	11									
12	✓✓	191	2092	15.7		7.844	12									
13							13									
14						180A	180B	183	184	185	188A	188B	190	191		
15						OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY		
16						CI01	CI01	CI01	CI01	CI01	CI01	CI01	CI01	CI01		
17						2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069		
18						b-5 m	b-5 m	100 m	75 m	50 m	20 m	20 m	5 m	0 m		
19						bot 1	bot 1	bot 4	bot 5	bot 6	bot 9	bot 9	bot 11	bot 12		
20																
21																
22																
23																
24																

2) maybe I didn't add one of the pickling reagents if understood
1) don't why this is so different from A

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Bender

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



OCTOPUS

Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments								
Cruise Number:	2020-069	1	✓	✓	194	3134	9.0		1.931					1													
Event:	59	2											NO DO	2													
Station:	MS01	3											NO DO	3													
Event Date (Local):	22 July 2020	4	✓	✓	197	1059	8.9		2.185					4													
Analysis Date (Local):	23 July 2020	5	✓	✓	198A	1054	9.3		(A) 2.897					5	198B	3021	9.4		B 2.892								
Analyst:	TF	6	✓	✓	199	3104	10.0		4.431					6													
Stdization Date (Local):	22 July 2020	7	✓	✓	200	3170	11.3		5.366					7													
KIO ₃ N:	0.0119007	8											NO DO	8													
Standard Titer:	0.4812021	9	✓	✓	202	3150	12.7		5.546					9													
Blank Titer:	0.000534	10	✓	✓	203A	639	13.0		(A) 5.634					10	203B	3056	13.1		B 5.632								
THIO N:	0.247458	11	✓	✓	204	3034	15.7		6.370					11													
Sample Flask Water Seal?	Yes	12	✓	✓	205	2084	16.5		6.329					12													
	No	13	✓	✓	206	1002	16.7		6.278					13													
Reagent Change?	MnCl ₂	14												14													
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15			194		197		198A		198B		199		200		202		203A		203B		204		205		206
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	16			OXY		OXY		OXY		OXY		OXY		OXY		OXY		OXY		OXY		OXY		OXY		OXY
	KIO ₃	17			MS01		MS01		MS01		MS01		MS01		MS01		MS01		MS01		MS01		MS01		MS01		MS01
	THIO	18			2020-069		2020-069		2020-069		2020-069		2020-069		2020-069		2020-069		2020-069		2020-069		2020-069		2020-069		2020-069
Notes:		19			b-5 m		150 m		100 m		100 m		75 m		50 m		30 m		20 m		20 m		10 m		5 m		0 m
		20			bot 1		bot 4		bot 5		bot 5		bot 6		bot 7		bot 9		bot 10		bot 10		bot 11		bot 12		bot 13
		21																									
		22																									
		23																									
		24																									

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1		209	647	8.1	1.291		1					
Event:	63	2							2					
Station:	MS04	3							3					
Event Date (Local):	22-Jul-20	4		212A	3061	7.9	1.629		4	212B	673	8.0	1.625	
Analysis Date (Local):	23 July 2020	5		213	2063	8.1	1.763		5					
Analyst:	TF	6		214	3028	8.5	2.009		6					
Stdization Date (Local):	22 July 2020	7		215	631	9.1	2.890		7					
KIO ₃ N:	0.0119007	8		216	3125	9.3	3.388		8					
Standard Titer:	0.4812021	9		217	657	9.9	4.668		9					
Blank Titer:	0.000534	10		218	638	11.1	5.164		10					
THIO N:	0.247458	11							11					
Sample Flask Water Seal?	Yes	12		220A	1312	13.2	5.822		12	220B	462	13.3	5.820	
	No	13		221	2097	14.3	6.160		13					
Reagent Change?	MnCl ₂	14		222	2095	15.5	6.256		14					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15		223	3042	15.7	6.246		15					
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	16		224	1050	15.6	6.245		16					
	KIO ₃	17												
	THIO	18												
Notes:		19		209	212A	212B	213	214	215	216	217	218	220A	220B
		20		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
		21		MS04	MS04	MS04	MS04	MS04	MS04	MS04	MS04	MS04	MS04	MS04
		22		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
		23		b-5 m	300 m	300 m	250 m	200 m	150 m	100 m	75 m	50 m	30 m	30 m
		24		bot 1	bot 4	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 12	bot 12
		25		223	224									
		26		OXY	OXY									

Bottle integrity: First test the top vent (V) by MS04 2020-069 5 m bot 15

MS04 2020-069 0 m bot 16

en test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

**Institute of Ocean Sciences
Water Properties Group**



Last Updated: July 2018

[illegible]

Bottle integrity: First test the

246
OXY
MS08b
2020-069
5 m
bot 20

247
OXY
MS08b
2020-069
0 m
bot 21

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments			
Cruise Number:	2020-069						1	✓✓	250	2016	6.8		0.412		1							
Event:	28 710						2	✓✓	251	3173			no oxy		2							
Station:	M11 MT11B						3		252	3173			no oxy		3							
Event Date (Local):	22 July 2020						4	✓✓	253	3116	6.8		→ 0.440		4	253B	3116	6.9		0.436		
Analysis Date (Local):	23 July 2020						5	✓✓	254	3090	7.3		0.826		5							
Analyst:	TF						6	✓✓	255	2015	7.5		0.938		6							
Stdization Date (Local):	22 July 2020						7	✓✓	256	3036	7.9		1.686		7							
KIO ₃ N:	0.0119007						8	✓✓	257	1422	8.3		1.892		8							
Standard Titer:	0.481221						9	✓✓	258	712	8.5		2.193		9							
Blank Titer:	0.000534						10	✓✓	259	1416	8.9		2.778		10							
THIO N:	0.247458						11	✓✓	260	2094	9.2		→ 3.1471		11	260B	3054	9.3		3.1474		
Sample Flask Water Seal?	Yes						12	✓✓	261	2025	10.1		4.244		12							
	No						13	✓✓	262	1408	10.5		5.246		13							
Reagent Change?	MnCl ₂						14		263				no oxy		14							
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15	✓✓	264	3010	11.2		5.690	250	253A	253B	254	255	256	257	258	259
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						16	✓✓	265	458	12.1		6.043	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
	KIO ₃						17	✓✓	266	1442	13.5		6.362	MT11b	MT11b	MT11b	MT11b	MT11b	MT11b	MT11b	MT11b	MT11b
	THIO						18	✓✓	267	3038	13.7		6.413	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
Notes:							19	✓✓	268	3162	13.7		6.377	b-5 m	750 m	750 m	500 m	400 m	300 m	250 m	200 m	150 m
							20		260A	260B	261			bot 1	bot 4	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10
							21		OXY	OXY	OXY		262	264	265	266	267	268				
							22		MT11b	MT11b	MT11b		OXY	OXY	OXY	OXY	OXY	OXY				
							23		2020-069	2020-069	2020-069		MT11b	MT11b	MT11b	MT11b	MT11b	MT11b				
							24		100 m	100 m	75 m		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069				
									bot 11	bot 11	bot 12		50 m	30 m	20 m	10 m	5 m	0 m				
													bot 13	bot 15	bot 16	bot 17	bot 18	bot 19				

Bottle integrity: First test the top vent (V) by o

nd explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069	1		271	3134	8.0	1.406								1					
Event: 77	2					NO DO								2					
Station: MT05	3					NO DO								3					
Event Date (Local): July 23 rd	4		274	1059	8.1	1.933								4					
Analysis Date (Local): 24 July 2020	5		275	1054	8.6	2.468								5					
Analyst: TF	6		276	3021	9.1	3.698								6					
Stdization Date (Local): 22 July 2020	7		277	3104	9.5	4.244								7					
KIO ₃ N: 0.0119007	8		278A	3170	10.4	A 5.271								8	278B	3150	10.5	B 5.268	
Standard Titer: 0.4812021	9					NO DO								9					
Blank Titer: 0.000534	10		280	639	11.4	5.614								10					
THIO N: 0.247458	11		281	3056	12.5	6.073								11					
Sample Flask Water Seal? ☒ Yes	12		282	3034	14.9	6.449								12					
	13		283	2084	15.7	6.293								13					
Reagent Change? MnCl ₂	14		284	1002	15.7	6.287								14					
(Please circle reagent that was changed prior to sampling and standardization)	15													15					
NOTE NEW BATCH IN LOG BOOK	16													16					
	17													17					
		271	274	275	276	277	278A	278B	280	281	282	283	284						
		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY						
		MT05	MT05	MT05	MT05	MT05	MT05	MT05	MT05	MT05	MT05	MT05	MT05						
		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069						
		b-5 m	150 m	100 m	75 m	50 m	50 m	30 m	20 m	10 m	5 m	0 m							
		bot 1	bot 4	bot 5	bot 6	bot 7	bot 8	bot 8	bot 10	bot 11	bot 12	bot 13	bot 14						
	23													23					
	24													24					

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069	1		287	647	8.3		1.511	1						
Event:	83	2							2						
Station:	SRN1	3							3						
Event Date (Local):	23 July 2020	4		290	3061	8.5		2.051	4						
Analysis Date (Local):	24 July 2020	5		291	673	9.1		2.997	5						
Analyst:	TF	6		292	2063	9.7		4.016	6						
Stdization Date (Local):	22 July 2020	7		293	3028	10.7		A 4.902	7	293	631	10.8		B 4.904	
KIO ₃ N:	0.019007	8							8						
Standard Titer:	0.4812021	9		295	3125	11.8		5.206	9						
Blank Titer:	0.000534	10		296	657	12.9		5.778	10						
THIO N:	0.247458	11		297	638	14.3		A 6.524	11	297	1312	14.4		B 6.525	
Sample Flask Water Seal?	Yes	12		298	462	14.7		6.578	12						
	No	13		299	2097	14.8		6.586	13						
Reagent Change?	MnCl ₂	14		287	290	291	292	293A	293B	295	296	297A	297B	298	299
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	16		SRN1	SRN1	SRN1	SRN1	SRN1	SRN1	SRN1	SRN1	SRN1	SRN1	SRN1	SRN1
	KIO ₃	17		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	THIO	18		b-5 m	150 m	100 m	75 m	50 m	50 m	30 m	20 m	10 m	10 m	5 m	0 m
Notes:		19		bot 1	bot 4	bot 5	bot 6	bot 7	bot 7	bot 9	bot 10	bot 11	bot 11	bot 12	bot 13
		20													
		21													
		22													
		23													
		24													

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1	✓	302	2089	10.2		3.612	1					
Event:	89	2		303				no oxy	2					
Station:	JPS7	3		304				no oxy	3					
Event Date (Local):	23 July 2020	4	✓	305	371	10.0		4.018	4					
Analysis Date (Local):	24 July 2020	5	✓	306A	3009	10.1		→ 4.253	5	306B	3100	10.2		4.248
Analyst:	TC	6	✓	307	2043	10.5		4.530	6					
Stdization Date (Local):	22 July 2020	7		308				no oxy	7					
KIO ₃ N:	0.0119007	8	✓	309	2019	11.6		5.373	8					
Standard Titer:	0.4812021	9	✓	310	2027	12.1		5.878	9					
Blank Titer:	0.000534	10	✓	311A	3000	13.0		→ 6.910	10	311B	3032	13.1		6.935 °
THIO N:	0.247458	11	✓	312	2047	14.8		~~6.935~~ 7.100	11					
Sample Flask Water Seal?	(Yes) No	12	✓	313	3072	15.1		7.030	12					
Reagent Change?	MnCl ₂	13		314				no oxy	13					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH <i>None</i>	14		315				no oxy	14					
NOTE NEW BATCH IN LOG BOOK		15		302	305	306A	306B	307	309	310	311A	311B	312	313
		16		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
		17		JPS7	JPS7	JPS7	JPS7	JPS7	JPS7	JPS7	JPS7	JPS7	JPS7	JPS7
		18		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
Notes:		19		b-5 m	100 m	75 m	75 m	50 m	30 m	20 m	10 m	10 m	5 m	0 m
		20		bot 1	bot 4	bot 5	bot 5	bot 6	bot 8	bot 9	bot 10	bot 10	bot 11	bot 12
		21												
		22												
		23												
		24												

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments		
Cruise Number:	2020-069						1	✓	316	3109	9.1		2.823		1						
Event:	93						2		317				no oxy		2						
Station:	JPS 4						3		318				no oxy		3						
Event Date (Local):	24 July 2020						4	✓	319A	505	8.9		→ 2.854		4	319B	3049	8.9		2.847	
Analysis Date (Local):	24 July 2020						5	✓	320	3057	8.9		2.880		5						
Analyst:	TF						6	✓	321	1429	8.9		2.906		6						
Stdization Date (Local):	22 July 2020						7	✓	322	930	9.1		3.096		7						
KIO ₃ N:	0.019007						8	✓	323	1409	9.8		4.003		8						
Standard Titer:	0.4812021						9	✓	324	2032	10.8		4.940		9						
Blank Titer:	0.000534						10	✓	325	3127	11.5		5.410		10						
THIO N:	0.247458						11		326				no oxy		11						
Sample Flask Water Seal?	(Yes) No						12	✓	327A	3145	11.7		→ 5.575		12	327B	2092	11.7		5.577	
Reagent Change?	MnCl ₂						13	✓	328	3074	11.9		vent 5.881		13						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14	X	329	471	12.4	6.389	spigot failed absolutely not tighter		14	eno 5A					
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						15	✓	330	3046	12.5		6.489		15						
	KIO ₃						16	✓	331	3073	12.5		6.519		16						
	THIO						17		316	319A	319B	320	321	322	323	324	325	327A	327B	328	329
							18		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
							19		JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4	JPS4
							20		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
							21		b-5 m	300 m	300 m	250 m	200 m	150 m	100 m	75 m	50 m	30 m	30 m	20 m	10 m
							22		bot 1	bot 4	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 12	bot 12	bot 13	bot 14
							23		330	331											
							24		OXY	OXY											

Bottle integrity: First test the top vent (V) by opening the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

JPS4
2020-069
5 m
bot 15

JPS4
2020-069
0 m
bot 16

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069	1	✓✓	334	2016	9.9		3.142	1						
Event:	97	2	✓✓	335	2193			no oxy	2						
Station:	JPS 1	3	✓✓	336	3193	9.4		→ 3.154	3	336	3116	9.4		3.163	
Event Date (Local):	24 July 2020	4	✓✓	337	3090	9.7		3.705	4						
Analysis Date (Local):	25 July 2020	5	✓✓	338	2015	10.3		4.650	5						
Analyst:	TF	6	✓✓	339	3036	10.9		5.141	6						
Stdization Date (Local):	25 July 2020	7		340				no oxy	7						
KIO ₃ N:	0.0119007	8	✓✓	341	1422	11.5		5.421	8						
Standard Titer:	0.4815288	9	✓✓	342A	712	11.5		→ 5.576	9	342B	1416	11.7		5.574	
Blank Titer:	0.0009687	10	✓✓	343	2094	12.0		5.779	10						
THIO N:	0.247556	11	✓✓	344	3054	12.2		6.134	11						
Sample Flask Water Seal?	Yes	12	✓✓	345	2005	12.3		6.237	12						
Reagent Change?	MnCl ₂	13		334	336A	336B	337	338	339	341	342A	342B	343	344	345
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	14		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	15		JPS1	JPS1	JPS1	JPS1	JPS1	JPS1	JPS1	JPS1	JPS1	JPS1	JPS1	JPS1
	KIO ₃	16		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	THIO	17		b-5 m	b-5 m	b-5 m	100 m	75 m	50 m	30 m	20 m	20 m	10 m	5 m	0 m
		18		bot 1	bot 3	bot 3	bot 4	bot 5	bot 6	bot 8	bot 9	bot 9	bot 10	bot 11	bot 12
Notes:		19													
		20													
		21													
		22													
		23													
		24													

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments		Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1		348	3010	11.2	4.851			1					
Event:	103	2		349			no oxy			2					
Station:	JPN 3	3		350A			→ no oxy			3	350				
Event Date (Local):	24 July 2020	4		351	458	11.0	4.856			4					
Analysis Date (Local):	25 July 2020	5		352	1442	11.1	4.998			5					
Analyst:	TF	6		353	3038	11.7	5.588			6					
Stdization Date (Local):	25 July 2020	7		354			no oxy			7					
KIO ₃ N:	0.0119007	8		355	3162	12.3	5.848			8					
Standard Titer:	0.4815288	9		356A	3094	12.6	→ 5.991			9	356B	3143	12.7	5.996	
Blank Titer:	0.0009687	10		357	3175	12.9	6.204			10					
THIO N:	0.247556	11		358	570	12.9	6.303			11					
Sample Flask Water Seal?	(Yes) No	12		359	3144	13.1	6.449			12					
Reagent Change?	MnCl ₂	13		360			no oxy			13					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	14		361			no oxy			14					
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	15								15					
	KIO ₃	16		348	351	352	353	355	356A	356B	357	358	359		
	THIO	17		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY		
		18		JPN3	JPN3	JPN3	JPN3	JPN3	JPN3	JPN3	JPN3	JPN3	JPN3		
		19		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069		
		20		b-5 m	100 m	75 m	50 m	30 m	20 m	20 m	10 m	5 m	0 m		
		21		bot 1	bot 4	bot 5	bot 6	bot 8	bot 9	bot 9	bot 10	bot 11	bot 12		
		22													
		23													
		24													

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Shark

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069	1		362	3192	11.9	5.434	1							1					
Event: 108	2		363	3083	11.9	5.549	2							2					
Station: JUAN 2	3		364	3164		5.808	3						no temp recorded - used 12.0	3					
Event Date (Local): 24-Jul/20	4						4							4					
Analysis Date (Local): 25 July 2020	5		362		363	364	5							5					
Analyst: TF	6		OXY		OXY	OXY	6							6					
Stdization Date (Local): 25 July 2020	7		JUAN2		JUAN2	JUAN2	7							7					
KIO ₃ N: 0.0119007	8		2020-069		2020-069	2020-069	8							8					
Standard Titer: 0.481528	9		50 m		40 m	30 m	9							9					
Blank Titer: 0.0009687	10		bot 1		bot 2	bot 3	10							10					
THIO N: 0.247556	11						11							11					
Sample Flask Water Seal? ☒ Yes	12						12							12					
	13						13							13					
Reagent Change? MnCl ₂	14						14							14					
(Please circle reagent that was changed prior to sampling and standardization)	15						15							15					
NOTE NEW BATCH IN LOG BOOK	16						16							16					
	17						17							17					
	18						18							18					
Notes:	19						19							19					
	20						20							20					
	21						21							21					
	22						22							22					
	23						23							23					
	24						24							24					

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069	1						1							1					
Event: 122	2		366	3134	5.8	2.161	2							2					
Station: HG4	3		367	1059	5.8	1.355	3							3					
Event Date (Local): July 25 th	4		368	1054	6.1	0.589	4							4					
Analysis Date (Local): 25 July 2020	5		369	3021	6.6	0.358	5							5					
Analyst: JF	6		370	3104	7.2	0.267	6							6					
Stdization Date (Local): 25 July 2020	7		371	3170	7.5	0.281	7							7					
KIO ₃ N: 0.019007	8		372	3150	7.5	A 0.276	8	372	639	7.5	B 0.271			8					
Standard Titer: 0.4816368	9		373	3056	7.8	0.325	9							9					
Blank Titer: 0.0010465	10		374	3034	8.2	0.774	10							10					
THIO N: 0.24748	11		375	2084	8.5	1.165	11							11					
Sample Flask Water Seal? ☒ Yes ☐ No	12		376	1002	9.0	1.797	12							12					
Reagent Change? MnCl ₂	13		377	3035	9.8	A 2.632	13	377	647	9.8	B 2.622			13					
(Please circle reagent that was changed prior to sampling and standardization)	14		378	3061	9.8	2.637	14							14					
NOTE NEW BATCH IN LOG BOOK	15		379	673	10.1	2.980	15							15					
	16		380	2063	10.5	4.868	16							16					
	17		381	3028	10.6	5.693	17							17					
	18		382	631	15.7	6.283	18							18					
Notes:	19		383	3125	16.1	6.142	19							19					
 Soft Bay	20		366	367	368	369	370	371	372A	372B	373	374	375	376	377A				
	21		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY				
	22		HG4	HG4	HG4	HG4	HG4	HG4	HG4	HG4	HG4	HG4	HG4	HG4	HG4				
	23		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069				
	24		b-10 m	2000 m	1500 m	1200 m	1000 m	900 m	800 m	800 m	700 m	600 m	500 m	400 m	300 m				
			bot 2	bot 3	bot 4	bot 5	bot 6	bot 7	bot 8	bot 8	bot 9	bot 10	bot 11	bot 12	bot 13				

Bottle integrity: First test the top vent (V) by c

2020-069
300 m
bot 13

2020-069
HG4
OXY
377B
bot 14

2020-069
HG4
OXY
378
bot 15

2020-069
HG4
OXY
379
bot 16

2020-069
HG4
OXY
380
bot 17

2020-069
HG4
OXY
381
bot 18

2020-069
HG4
OXY
382
bot 19

2020-069
HG4
OXY
383
bot 20

2020-069
HG4
OXY
384
bot 21

2020-069
HG4
OXY
385
bot 22

2020-069
HG4
OXY
386
bot 23

2020-069
HG4
OXY
387
bot 24

2020-069
HG4
OXY
388
bot 25

2020-069
HG4
OXY
389
bot 26

2020-069
HG4
OXY
390
bot 27

2020-069
HG4
OXY
391
bot 28

2020-069
HG4
OXY
392
bot 29

2020-069
HG4
OXY
393
bot 30

2020-069
HG4
OXY
394
bot 31

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments			
Cruise Number:	2020-069						1		385				no oxy		1							
Event:	125						2	✓	386	2089	7.8		0.313		2							
Station:	HG1						3	✓	387	371	8.1		1.449		3							
Event Date (Local):	26 July 2020						4	✓	388	3009	8.	1.677	forgot to record temp- used 8.5		4							
Analysis Date (Local):	26 July 2020						5	✓	389	3100	8.8		→ 2.062		5	389	2043	8.9		2.064		
Analyst:	TF						6	✓	390	2099	9.3		2.877		6							
Stdization Date (Local):	26 July 2020						7	✓	391	2027	10.0		4.239		7							
KIO ₃ N:	0.0119007						8	✓	392	3000	10.9		5.081		8							
Standard Titer:	0.4815197						9	✓	393	3032	11.1		→ 5.686		9	393	2047	11.2		5.683		
Blank Titer:	0.0008442						10	✓	394	3072	11.6		5.945		10							
THIO N:	0.247369						11	✓	395	3030	12.0		6.079		11							
Sample Flask Water Seal?	Yes						12	✓	396	3109	12.2		6.147		12							
	No						13	✓	397	505	12.4		6.218		13							
Reagent Change?	MnCl ₂						14	✓	398	3049	14.4		6.417		14							
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15	✓	399	14.7	3057		6.431		15							
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						16		400				no oxy		16							
	KIO ₃						17		386	387		388	389A	389B	390	391	392	393A	393B	394	395	396
	THIO						18		OXY	OXY		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
Notes:	bender						19		HG1	HG1		HG1	HG1	HG1	HG1	HG1	HG1	HG1	HG1	HG1	HG1	HG1
							20		2020-069	2020-069		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
							21		b-10 m	300 m		250 m	200 m	200 m	150 m	100 m	75 m	50 m	50 m	30 m	20 m	15 m
							22		bot 2	bot 3		bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 9	bot 10	bot 11	bot 12
							23		397	398		399										
							24		OXY	OXY		OXY										

Bottle integrity: First test the top vent (V) by o

HG1 HG1 HG1
2020-069 2020-069 2020-069
10 m 5 m 0 m
bot 13 bot 14 bot 15

by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069		1		452	3134	8.6		1.510	1					
Event: 148		2		—					2					
Station: D1X4		3		—					3					
Event Date (Local): 27-JUL-20		4		455	1059	8.5		1.953	4					
Analysis Date (Local): 28 July 2020		5		456	1054	8.7		A 2.372	5	456	3021	8.7		B 2.364
Analyst: TF		6		457	3104	9.0		2.719	6					
Stdization Date (Local): 26 July 2020		7		458	3170	9.3		3.260	7					
KIO ₃ N: 0.0119007		8		459	3150	9.5		3.459	8					
Standard Titer: 0.4815197		9		—					9					
Blank Titer: 0.0008442		10		—					10					
THIO N: 0.247369		11		462	639	13.7		6.124	11					
Sample Flask Water Seal? ☒ Yes ☐ No		12		—					12					
Reagent Change? MnCl ₂		13		—					13					
(Please circle reagent that was changed prior to sampling and standardization)		14		465	3056	14.2		6.306	14					
NOTE NEW BATCH IN LOG BOOK		15		452	455	456A	456B	457	458	459	462	465		
		16		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY		
		17		Dix4	Dix4	Dix4	Dix4	Dix4	Dix4	Dix4	Dix4	Dix4		
		18		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069		
Notes:		19		b-5 m	300 m	200 m	200 m	150 m	100 m	75 m	15 m	0 m		
		20		bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 11	bot 14		
		21												
		22												
		23												
		24												

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments		
Cruise Number:	2020-069						1	✓✓	503	2084	8.9		1.902		1						
Event:	156						2		—						2						
Station:	DIX1						3		—						3						
Event Date (Local):	27 July 2020						4	✓✓	506	1002	8.5		1.908		4						
Analysis Date (Local):	28 July 2020						5	✓✓	507	3035	8.5		A 2.056		5	507	647	8.5		B 2.052	
Analyst:	TF						6	✓✓	508	3061	8.7		2.508		6						
Stdization Date (Local):	26 July 2020						7	✓✓	509	673	9.1		2.803		7						
KIO ₃ N:	0.019007						8	✓✓	510	2063	9.3		3.421		8						
Standard Titer:	0.4815197						9	✓✓	511	3028	9.9		3.919		9						
Blank Titer:	0.0008442						10		—						10						
THIO N:	0.247369						11	✓✓	513	631	11.0		4.784		11						
Sample Flask Water Seal?	(Yes) No						12	✓✓	514	3125	11.5		A 5.002		12	514	657	11.7		B 5.007	
Reagent Change?	MnCl ₂						13	✓✓	515	638	12.7		5.632		13						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14	x	✓✓	516	1312	13.9	6.278	vent not tightened enough	14						
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						15	✓✓	517	462	14.2		6.401		15						
	KIO ₃						16	✓✓	518	2097	14.4		6.479		16						
	THIO						17		503	506	507A	507B	508	509	510	511	513	514A	514B	515	516
							18		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
							19		Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1	Dix1
							20		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
							21		b-5 m	250 m	200 m	200 m	150 m	100 m	75 m	50 m	30 m	20 m	20 m	15 m	10 m
							22		bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 11	bot 12	bot 12	bot 13	bot 14
							23		517	518											
							24		OXY	OXY											
									Dix1	Dix1											

Bottle integrity: First test the top vent (V) by o

n test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

2020-069
5 m
bot 15

2020-069
0 m
bot 16

Octavian

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1		614	3134	9.3	3.308	] NO DO	1						Inland
Event:	165						2							2						
Station:	CHAT1						3							3						
Event Date (Local):	28 July 2020						4		617	1059	9.3	3.308		4						} used 2ml acid in each sample - did again
Analysis Date (Local):	31 July 2020						5						5							
Analyst:	TF						6		619	1051	9.5	3.552		6						
Stdization Date (Local):	30 July 2020						7						7							
KIO ₃ N:	0.0119803368 0.4813368						8		621A	3021	10.0	A 4.038		8	621B	3104	10.0	B 4.041		
Standard Titer:	0.000912						9							9						
Blank Titer:	0.000912						10		623	3170	11.1	4.788		10						
THIO N:	0.247467						11							11						
Sample Flask Water Seal?	Yes ☒ No ☐						12		625	3150	12.3	5.363	didn't get thio tip	12						
Reagent Change?	MnCl ₂ NaI/NaOH H ₂ SO ₄ KIO ₃ THIO						13							13						
(Please circle reagent that was changed prior to sampling and standardization)	none						14		627	639	12.9	5.626		14						
NOTE NEW BATCH IN LOG BOOK							15							15						
							16		629	3056	13.1	5.802		16						
							17							17						
							18		631	3034	13.5	6.059		18						
Notes:	Octo						19		614	617	619	621A	621B	623	625	627	629	631		
							20		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY		
							21		CHAT1	CHAT1	CHAT1	CHAT1	CHAT1	CHAT1	CHAT1	CHAT1	CHAT1	CHAT1		
							22		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069		
							23		b-5 m	100 m	75 m	50 m	50 m	30 m	20 m	10 m	5 m	0 m		
							24		bot 1	bot 4	bot 6	bot 8	bot 8	bot 10	bot 12	bot 14	bot 16	bot 18		

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information						Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020 - 069					1								1					
Event:	182					2								2					
Station:	CHAT 2					3								3					2ml acid in each sample
Event Date (Local):	29 July 2020					4								4					
Analysis Date (Local):	31 July 2020					5								5					
Analyst:	TF					6								6					
Stdization Date (Local):	30 July 2020					7		745	1002	10.6		4.174		7					
KIO ₃ N:	0.0119007					8								8					
Standard Titer:	0.4813368 → 747					9		747	3035	10.6		4.406		9					
Blank Titer:	0.000912					10		748	647	11.1		→ 4.671		10	748 B3061			4.668 no temp recorded, used 11.1	
THIO N:	0.247467					11								11					
Sample Flask Water Seal?	☒ Yes ☐ No					12		745	747		748A	748B	12						
						13		OXY	OXY		OXY	OXY	13						
Reagent Change?	MnCl ₂ none					14		2020-069	2020-069		2020-069	2020-069	14						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH					15		Chat 2	Chat 2		Chat 2	Chat 2	15						
	H ₂ SO ₄					16		50m	40m		30m	30m	16						
NOTE NEW BATCH IN LOG BOOK	KIO ₃					17		bot 7	Bot 9		Bot 10	Bot 10	17						
	THIO					18							18						
Notes:						19							19						
						20							20						
						21							21						
						22							22						
						23							23						
						24							24						

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1		755	2063	9.4		2.974	1					
Event:	184	2		—					2					
Station:	CH16	3		—					3					
Event Date (Local):	29 July 2020	4		758	3028	9.0		2.983	4					
Analysis Date (Local):	31 July 2020	5		759	631	9.1		3.105	5					
Analyst:	TF	6		760	3125	9.5		3.456	6					
Stdization Date (Local):	30 July 2020	7		761	657	10.1		A 3.972	7	761	638	10.2		B 3.980
KIO ₃ N:	0.0119007	8		7	1312	11.0			8					
Standard Titer:	0.4813368	9		763	1312	11.8		5.052	9					
Blank Titer:	0.000912	10		764	4462	12.9		5.516	10					
THIO N:	0.247467	11		765	2097	12.95		Bottle 16	11					
Sample Flask Water Seal?	☒ Yes ☐ No	12		766	2095	13.9		6.650	12					
Reagent Change?	MnCl ₂ (Please circle reagent that was changed prior to sampling and standardization) NOTE NEW BATCH IN LOG BOOK	13		767	3042	15.1		7.055	13					
	NaI/NaOH	14							14					
	H ₂ SO ₄	15							15					
	KIO ₃	16		765	2097	13.2		5.573	16					
	THIO	17		755	758	759	760	761A	761B	763	764	766	767	765
		18		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
		19		CH16	CH16	CH16	CH16	CH16	CH16	CH16	CH16	CH16	CH16	CH16
		20		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
		21		b-5 m	150 m	100 m	75 m	50 m	50 m	30 m	20 m	5 m	0 m	10 m
		22		bot 1	bot 4	bot 5	bot 6	bot 7	bot 7	bot 9	bot 10	bot 12	bot 13	bot 16
		23												
		24												

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1	✓	896	2089	8.7	2.593		1						
Event:	202						2		897					2						
Station:	PI4						3		898	34				3						
Event Date (Local):	30 July 2020						4	✓	899	3009	8.7	2.643	Flask 371	4						
Analysis Date (Local):	31 July 2020						5	✓	900	A3009	8.7	→ 2.676		5	900B	3100	8.7		2.674	
Analyst:	TF						6	✓	901	2019	8.7	2.716		6						
Stdization Date (Local):	30 July 2020						7	✓	902	2019	8.7	2.736		7						
KIO ₃ N:	0.0119007						8	✓	903	2027	8.7	2.793		8						
Standard Titer:	0.4813368						9	✓	904	3000	8.7	2.999		9						
Blank Titer:	0.000912						10	✓	905	3032	8.7	3.177		10						
THIO N:	0.247467						11	✓	906	A2047	9.1	→ 3.571		11	906B	3072	9.1			
Sample Flask Water Seal?	Yes						12		907					12						
	No						13	✓	908	3030	10.0	4.384		13						
Reagent Change?	MnCl ₂						14	✓	909	3109	10.8	4.699		14						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15	✓	910	505	11.0	4.803		15						
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						16	✓	911	3049	12.5	6.147	] lots of glacial till in samples depressed curve heights	16						
	KIO ₃						17	✓	912	3057	13.7	7.111		17						
	THIO						18		913					18						
Notes:							19		914					19						
bender	20	896	899	900A	900B	901	902	903	904	905	906A	906B	908	909						
	21	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY						
	22	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4	PI4						
	23	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069						
	24	B-5 m	400 m	300 m	300 m	250 m	200 m	150 m	100 m	75 m	50 m	50 m	30 m	20 m						
	bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 11	bot 11	bot 13	bot 14							

Bottle integrity: First test the top vent (V) by or

2020-069
bot 15
10 m
PI4
910
OXY
2020-069
bot 16
5 m
PI4
911
OXY
2020-069
bot 17
0 m
PI4
912
OXY

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1		928	2016	9.5		2.758	1					
Event:	KH-3	2		—					2					
Station:	205	3		—					3					
Event Date (Local):	30 Jul/20	4		931	3173	9.5		4.115	4					
Analysis Date (Local):	31 July 2020	5		932	3116	9.7		5.680	5					
Analyst:	TF	6		933	3090	10.3		A 6.071	6	933	2015	10.4	B 6.070	
Stdization Date (Local):	30 July 2020	7		934	3036			6.931	7					
KIO ₃ N:	0.0119007	8		935	1422			8.006	8					
Standard Titer:	0.4813368	9							9					
Blank Titer:	0.000912	10		928	931	932	933A	933B	934	935				
THIO N:	0.247467	11		OXY	OXY	OXY	OXY	OXY	OXY	OXY				
Sample Flask Water Seal?	(Yes) No	12		KH3	KH3	KH3	KH3	KH3	KH3	KH3				
		13		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069				
Reagent Change?	MnCl ₂ none	14		B-5 m	30 m	20 m	10 m	10 m	5 m	0 m				
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15		bot 1	bot 4	bot 5	bot 6	bot 6	bot 7	bot 8				
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	16												
	KIO ₃	17												
	THIO	18												
Notes:		19												
		20												
		21												
		22												
		23												
		24												

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1		915	930	9.9		3.743		1					
Event:	206						2								2					
Station:	KH1						3								3					
Event Date (Local):	30 July 2020						4		918	1409	9.5		3.912		4					
Analysis Date (Local):	31 July 2020						5		919	2032	9.7		4.070		5					
Analyst:	TF						6								6					
Stdization Date (Local):	30 July 2020						7		921	3127	10.2		4.400		7					
KIO ₃ N:	0.0119007						8		922	3145	10.7		→ 4.688		8	922	2022 3145	10.8		4.695
Standard Titer:	0.4813368						9		923	3074			no sample		9					
Blank Titer:	0.000912						10		924	471	13.0		6.488		10					
THIO N:	0.247467						11		925	3046	16.0		7.790		11					
Sample Flask Water Seal?	Yes						12		915				921		12					
	No						13		OXY				OXY		13					
Reagent Change?	MnCl ₂						14		KH1				KH1		14					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15		2020-069				2020-069		15					
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						16		B-5 m				30 m		16					
	KIO ₃						17		bot 1				bot 7		17					
	THIO						18						bot 8		18					
							19						bot 10		19					
Notes:							20								20					
							21								21					
							22								22					
							23								23					
							24								24					

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

**Institute of Ocean Sciences
Water Properties Group**



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments					Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments						
Cruise Number:	2020-069						1		954	1416	9.7		3.159						1										
Event:	212						2		—										2										
Station:	OBS 2						3		—										3										
Event Date (Local):	30 July 2020						4		957	2094	9.5		3.186						4										
Analysis Date (Local):	31 July 2020						5		958	3054	9.3		3.267						5										
Analyst:	TF						6		959	2025	9.2		3.299						6										
Stdization Date (Local):	30 July 2020						7		960	1408	9.2		3.324						7										
KIO ₃ N:	0.0119007						8		961	3010	9.4		A 3.343						8	961	458	9.2		B	3.336				
Standard Titer:	0.4813368						9		962	1442	9.2		3.344						9										
Blank Titer:	0.000912						10		963	3038	9.4		3.352						10										
THIO N:	0.247467						11		964	3162	9.5		3.493						11										
Sample Flask Water Seal?	☒ Yes except for						12		—										12										
	☐ No 968						13		966	3094	9.9		3.810						13										
Reagent Change?	MnCl ₂						14		967	3143	10.6		A 4.064						14	967	3175	10.4		B	4.062				
(Please circle reagent that was changed prior to sampling and standardization) NOTE NEW BATCH IN LOG BOOK	NaI/NaOH none						15		~~968~~	~~570~~	~~10.9~~		Flask broke no water seal						15										
	H ₂ SO ₄						16		969	3144	11.4		4.755						16										
	KIO ₃						17		~~970~~	~~3121~~	~~15.8~~								17										
	THIO						18		—										18										
Notes:							19		970	3121	15.8		7.972						19										
Bottle integrity: First test the	954	957	958	959	960	961A	961B	962	963	964	966	967A	967B	968															
	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY															
	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2	Obs2															
	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069															
	B-5 m	400 m	300 m	250 m	200 m	150 m	150 m	100 m	75 m	50 m	30 m	20 m	20 m	10 m															
	bot 1	bot 4	bot 5	bot 6	bot 7	bot 8	bot 8	bot 9	bot 10	bot 11	bot 13	bot 14	bot 14	bot 15															

Bottle integrity: First test the

Sham

970
OXY
Obs2
2020-069
0 m
bot 17
969
OXY
Obs2
2020-069
5 m
bot 16

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int VS	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments				
Cruise Number:	2020-069						1	✓	973	3050	11.1		3.244		1								
Event:	215						2							2									
Station:	OBS 5						3							3									
Event Date (Local):	30 July 2020						4	✓	976	3091	10.3	9.8	3.309		4								
Analysis Date (Local):	30 July 2020						5	✓	977	1407	9.8	9.7	A 3.242		5	977	3047	9.8		B 3.248			
Analyst:	TF						6	✓	978	3194	9.6		3.206		6								
Stdization Date (Local):	30 July 2020						7	✓	979	3114	9.7		3.241		7								
KIO ₃ N:	0.0119007						8	✓	980	621	9.7		3.193		8								
Standard Titer:	0.481368						9	✓	981	620	9.7		3.179		9								
Blank Titer:	0.000912						10	✓	982	3106	9.8		3.235		10								
THIO N:	0.247467						11	✓	983	3096	9.6		3.449		11								
Sample Flask Water Seal?	(Yes) No						12							12									
Reagent Change?	MnCl ₂						13	✓	985	3089	10.1		3.835		13								
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14	X	✓	986	3066	10.5	3.995	vent not tightened enough	14								
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						15	✓	987	3146	11.2		4.384		15								
	KIO ₃						16	✓	988	3110	14.3		A 7.672		16	988	3147	14.6		B 7.765			
	THIO						17	✓	989	3065	15.1		8.193		17								
Notes:							18		973	976		977A	977B	978	979	980	981	982	983	985	986	987	
							19		OXY	OXY		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	
							20		Obs5	Obs5		Obs5	Obs5	Obs5	Obs5	Obs5	Obs5	Obs5	Obs5	Obs5	Obs5	Obs5	
							21		2020-069	2020-069		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	
							22		B-5 m	400 m		300 m	300 m	250 m	200 m	150 m	100 m	75 m	50 m	30 m	20 m	10 m	
									bot 1	bot 4		bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 11	bot 13	bot 14	bot 15	
									988A	988B		989											
									OXY	OXY		OXY											
									Obs5	Obs5		Obs5											
									2020-069	2020-069		2020-069											
									5 m	5 m		0 m											
									bot 16	bot 16		bot 17											

Bottle integrity

lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1		1024	435	9.4		2.635		1					
Event:	221						2								2					
Station:	HECS7						3								3					
Event Date (Local):	31 July 2020						4		1027	3209	9.1		A 2.796		4	1027	3084	9.2		B 2.792
Analysis Date (Local):	31 July 2020						5		1028	1223	9.7		3.305		5					
Analyst:	TF						6		1029	3023	11.2		4.429		6					
Stdization Date (Local):	30 July 2020						7								7					
KIO ₃ N:	0.0119007						8		1031	3199	13.2		5.520		8					
Standard Titer:	0.4813368						9		1032	3062	13.6		5.748		9					
Blank Titer:	0.000912						10		1033	3117	14.3		6.297		10					
THIO N:	0.247467						11		1034	3018	14.9		6.527		11					
Sample Flask Water Seal?	☒ Yes No						12		1035	3053	16.1		7.254		12					
Reagent Change?	MnCl ₂						13		1024	1027A	1027B	1028	1029	1031	1032	1033	1034	1035		
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY		
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						15		HECS7	HECS7	HECS7	HECS7	HECS7	HECS7	HECS7	HECS7	HECS7	HECS7		
	KIO ₃						16		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069		
	THIO						17		b-5 m	100 m	100 m	75 m	50 m	30 m	20 m	10 m	5 m	0 m		
							18		bot 1	bot 4	bot 4	bot 5	bot 6	bot 8	bot 9	bot 10	bot 11	bot 12		
Notes:							19													
							20													
							21													
							22													
							23													
							24													

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069	1		1038	3134	9.5	1.541	1							1					
Event: 225	2		—				2							2					
Station: HECS4	3		—				3							3					
Event Date (Local): July 31st	4		1041	1059	9.7	2.451	4							4					
Analysis Date (Local): 31 July 2020	5		1042	1054	11.5	4.350	5							5					
Analyst: TF	6		—				6							6					
Stdization Date (Local): 30 July 2020	7		1044	3021	12.8	A 5.304	7		1044	3104	12.9	B 5.304 ☺ ☺		7					
KIO ₃ N: 0.0119007	8		1045	3170	13.4	5.697	8							8					
Standard Titer: 0.4813368	9		1046	3150	15.8	7.839	9							9					
Blank Titer: 0.000912	10		1047	639	16.6	7.939	10							10					
THIO N: 0.247467	11		1048	3056	16.7	7.913	11							11					
Sample Flask Water Seal? ☒ Yes	12						12							12					
	13		1038	1041	1042	1044A	1044B	1045	1046	1047	1048								
	14		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY								
Reagent Change? MnCl ₂	15		HECS4	HECS4	HECS4	HECS4	HECS4	HECS4	HECS4	HECS4	HECS4								
(Please circle reagent that was changed prior to sampling and standardization)	16		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069								
NOTE NEW BATCH IN LOG BOOK	17		b-5 m	75 m	50 m	30 m	30 m	20 m	10 m	5 m	0 m								
	18		bot 1	bot 4	bot 5	bot 7	bot 7	bot 8	bot 9	bot 10	bot 11								
	19													19					
	20													20					
	21													21					
	22													22					
	23													23					
	24													24					

Notes:

octopuddle

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1	✓✓	1051	1002	10.7		3.927	1					
Event:	231	2							2					
Station:	OGCH46	3							3					
Event Date (Local):	31 July 2020	4	✓✓	1054	3035	10.5		redrawn 4.127	4					
Analysis Date (Local):	01 Aug 2020	5	x✓	1055	647	10.5		vent not tightened 4.181	5					
Analyst:	TF	6	✓✓	1056	3061	10.5		A 4.338	6	1056	2063	10.5		B 4.337
Stdization Date (Local):	30 July 2020	7							7					
KIO ₃ N:	0.0119007	8	✓✓	1058	3028	10.8		4.511	8					
Standard Titer:	0.4813368	9	✓✓	1059	631	11.7		4.938	9					
Blank Titer:	0.000912	10	✓✓	1060	3125	12.5		5.235	10					
THIO N:	0.247467	11	✓✓	1061	657	13.4	6.168	bubble entrained & stir bar (both times) - overestimated	11	←	wasn't a bubble			- critter in sample
Sample Flask Water Seal?	Yes	12	✓✓	1062	638	14.0		6.450	12					
	No	13							13					
Reagent Change?	MnCl ₂	14		1051	1054		1055	1056A	1056B	1058	1059	1060	1061	1062
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15		OXY	OXY		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none	16		OGCH46	OGCH46		OGCH46	OGCH46	OGCH46	OGCH46	OGCH46	OGCH46	OGCH46	OGCH46
	KIO ₃	17		2020-069	2020-069		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	THIO	18		b-5 m	100 m		75 m	50 m	50 m	30 m	20 m	10 m	5 m	0 m
		19		bot 1	bot 4		bot 5	bot 6	bot 6	bot 8	bot 9	bot 10	bot 11	bot 12
Notes:		20												
		21												
		22												
		23												
		24												

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1		1215	930				1					
Event:		2		~~1216~~					2					
Station:	HBC1	3		~~1217~~					3					
Event Date (Local):		4		1218	1409				4					
Analysis Date (Local):		5		1219	2032				5					
Analyst:		6		1220	3127				6					
Stdization Date (Local):		7		~~1221~~					7					
KIO ₃ N:		8		1222	3145				8					
Standard Titer:		9		1223	A 2092				9	1223 ^B	3094			
Blank Titer:		10		1224	471				10					
THIO N:		11		1225	3046				11					
Sample Flask Water Seal?	Yes	12		1226	3093				12					
	No	13		~~1227~~					13					
Reagent Change?	MnCl ₂	14		~~1228~~					14					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15							15					
	H ₂ SO ₄	16							16					
NOTE NEW BATCH IN LOG BOOK	KIO ₃	17							17					
	THIO	18							18					
Notes:		19							19					
		20							20					
		21							21					
		22							22					
		23							23					
		24							24					

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1		1119						1					
Event:	280						2		1119	3050	9.7		3.596 + 2ml acid	2						
Station:	KIT1						3							3						
Event Date (Local):	02 Aug 2020						4		1121	3091	9.6		3.702 + 2ml acid	4						
Analysis Date (Local):	04 Aug 2020						5		1122	1407	9.6		3.786 + 2ml acid	5						
Analyst:	TF						6		1123	3017	9.9		2.917 + 2ml acid	6						
Stdization Date (Local):	04 Aug 2020						7		1124	3194	10.2		3.640 + 2ml acid	7						
KIO ₃ N:	0.0119007						8		1125	3114	9.9		4.051 + 2ml acid	8						
Standard Titer:	0.4824254						9		1126	621	10.1		4.595 + 2ml acid	9						
Blank Titer:	0.0009089						10		1127	620	11.1		5.187 + 2ml acid	10						
THIO N:	0.247112						11		1128	3106	12.1		6.062 + 2ml acid	11						
Sample Flask Water Seal?	Yes						12		1129	3096	18.4		A 6.740 + 2ml acid	12	1129	3089	18.5		B 6.733 + 2ml acid	
							13							13						
Reagent Change?	MnCl ₂ none						14		1119	1121	1122	1123	1124	1125	1126	1127	1128	1129A	1129B	
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						15		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						16		Kit1	Kit1	Kit1	Kit1	Kit1	Kit1	Kit1	Kit1	Kit1	Kit1	Kit1	
	KIO ₃						17		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	
	THIO						18		b-5 m	150 m	100 m	75 m	50 m	30 m	20 m	10 m	5 m	0 m	0 m	
							19		bot 2	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 11	bot 12	bot 12	
Notes:	turtle						20													
							21													
							22													
							23													
							24													

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069						1	✓	1177	2009	9.3		redrawn 2.698	1						
Event:	329						2		1178					2						
Station:	SC61						3		1179					3						
Event Date (Local):	3 Aug 2020						4	✓	1180	371	9.4		2.871	4						
Analysis Date (Local):	04 Aug 2020						5	✓	1181	3009	9.3		→ 2.987	5	1181B	3100	9.3		2.980	
Analyst:	TF						6	✓	1182	2013	9.3		3.031	6						
Stdization Date (Local):	04 Aug 2020						7	✓	1183	2019	9.4		3.146	7						
KIO ₃ N:	0.0119007						8	✓	1184	2027	9.4		3.299	8						
Standard Titer:	0.4824254						9	✓	1185	3000	9.5		3.596	9						
Blank Titer:	0.0009089						10	✓	1186	3032	9.6		3.596	10						
THIO N:	0.247112						11	✓	1187	2047	9.9		3.826	11						
Sample Flask Water Seal?	(Yes) No						12		1188					12						
Reagent Change?	MnCl ₂						13	✓	1189	3072	10.2		4.042	13						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14	X	1190A	3030	11.1		→ 4.590	14	1190B	3109	11.2		4.598	
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄						15	✓	1191	505	12.5		5.614	15						
	KIO ₃						16	✓	1192	3049	13.1		6.059	16						
	THIO						17	✓	1193	3057	14.5		6.963	17						
							18		1194					18						
							19		1195					19						

Notes:	1177	1180	1181A	1181B	1182	1183	1184	1185	1186	1187	1189	1190A	1190B	1191
bender	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61	SC61
	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	b-5 m	400 m	300 m	300 m	250 m	200 m	150 m	100 m	75 m	50 m	30 m	20 m	20 m	10 m
	bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 11	bot 13	bot 14	bot 14	bot 15

Bottle integrity: First test the top v

2020-069
5 m
bot 16

2020-069
0 m
bot 17

1193
OXY
SC61

**Institute of Ocean Sciences
Water Properties Group**



Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1	✓	1196	3146	9.7		2.655	1					
Event:	331	2		~~1197~~					2					
Station:	5c69	3		~~1198~~					3					
Event Date (Local):	4 Aug 2020	4	✓	1199	3110	9.7		2.796	4					
Analysis Date (Local):	04 Aug 2020	5	✓	1200	3147	9.7		A → 2.864	5	1200	3065	9.8		B 2.865
Analyst:	F	6	✓	1201	3093	9.7		2.873	6					
Stdization Date (Local):	04 Aug 2020	7	✓	1202	745	9.9		2.926	7					
KIO ₃ N:	0.0119007	8	✓	1203	435	9.9		3.015	8					
Standard Titer:	0.4824254	9	✓	1204	3084	9.9		A → 3.416	9	3209	9.9			B 3.410
Blank Titer:	0.0009089	10	✓	1205	1223	10.1		3.625	10					
THIO N:	0.247112	11	✓	1206	3023	10.5		3.905	11					
Sample Flask Water Seal?	Yes No	12		~~1207~~					12					
Reagent Change?	MnCl ₂	13	✓	1208	3199	11.1		4.275	13					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH ~~None~~	14	✓	1209	3147	11.8	4.691	A flask 3062	14	1209	3117	11.8	4.698	B
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	15	✓	1210	3018	13.3		5.842	15					
	KIO ₃	16	✓	1211	3053	13.9		6.329	16					
	THIO	17	✓	1212	3161	14.0		6.452	17					
		18		~~1213~~					18					
Notes:		19		~~1214~~					19					

turtle

Bottle integrity: First test the top

119620	1199	1200A	1200B	1201	1202	1203	1204A	1204B	1205	1206	1208	1209A	1209B
OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69	SC69
2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
b-5 m	400 m	300 m	300 m	250 m	200 m	150 m	100 m	100 m	75 m	50 m	30 m	20 m	20 m
bot 1	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 9	bot 10	bot 11	bot 13	bot 14	bot 14
2020-069	1210	2020-069	1211	2020-069	1212	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
10 m	OXY	5 m	OXY	0 m	OXY	0 m	0 m	0 m	0 m	0 m	0 m	0 m	0 m
bot 15	SC69	bot 16	SC69	bot 17	SC69	bot 18	bot 19	bot 20	bot 21	bot 22	bot 23	bot 24	bot 25

Turtle. 

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information							Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments		
Cruise Number:	2020-069						1	✓	1230	3050	11.7		3.283		1						
Event:	382						2	✓	1231	3091	11.5		3.312		2						
Station:	16						3	✓	1232	1407	11.5		(A) 3.341		3	1232	3047	11.5		(B) 3.340 ☺	
Event Date (Local):	8 Aug 2020						4	✓	1233	3124	11.5		3.342		4						
Analysis Date (Local):	8 Aug 2020						5	✓	1234	3114	12.3		3.627		5						
Analyst:	TF						6	✓	1235	621	12.3		3.613		6						
Stdization Date (Local):	08 Aug 2020						7	✓	1236	620	12.4		3.636		7						
KIO ₃ N:	0.0119007						8	✓	1237	3106	13.2		3.991		8						
Standard Titer:	0.4815862						9	✓	1238	3096	13.8		(A) 4.262		9	1238	3089	13.9		(B) 4.262 ☺ ☺	
Blank Titer:	0.0010277						10	✓	1239	3066	16.1		5.128		10						
THIO N:	0.247468						11	✓	1240	3146	17.8		5.627		11						
Sample Flask Water Seal?	Yes						12								12						
Reagent Change?	MnCl ₂						13		1230	1231	1232A	1232B	1233	1234	1235	1236	1237	1238A	1238B	1239	1240
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH						14		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none						15		16	16	16	16	16	16	16	16	16	16	16	16	16
	KIO ₃						16		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
	THIO						17		b-5 m	125 m	100 m	100 m	75 m	50 m	40 m	30 m	20 m	10 m	10 m	5 m	0 m
							18		bot 1	bot 2	bot 3	bot 3	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 9	bot 10	bot 11
Notes:							19														
							20														
							21														
							22														
							23														
							24														

Bottle integrity: First test the top vent (V) by opening the lower spigot (S) then test the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information						Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number:	2020-069	1		1241	3134	11.4		3.265		1								
Event:	386	2		1242	1059	11.1		3.395		2								
Station:	14	3		1243	1054	11.1		3.425		3								
Event Date (Local):	Aug 08	4		1244	A302	11.1		→ 3.363		4	1244B	3104	11.1		3.363	😊😊		
Analysis Date (Local):	9 Aug 20	5		1245	3170	11.1		3.324		5								
Analyst:	TF	6		1246	3150	11.1		3.289		6								
Stdization Date (Local):	8 Aug 20	7		1247	639	11.4		3.339		7								
KIO ₃ N:	0.0119007	8		1248	3056	11.5		3.389		8								
Standard Titer:	0.4815862	9		1249	A303	12.5		→ 3.760		9	1249B	2084	12.6		3.764			
Blank Titer:	0.0010277	10		1250	1002	12.8		3.833		10								
THIO N:	0.247468	11		1251	3035	13.2		3.961		11								
Sample Flask Water Seal?	☒ Yes ☐ No	12		1252	647	13.5		4.080		12								
Reagent Change?	MnCl ₂	13		1253	3061	15.5		4.752		13								
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	14	X	1254	2063	17.1		5.330		14								
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	15		1255	3028	18.6		5.951		15								
	KIO ₃	16		1241	1242	1243	1244A	1244B	1245	1246	1247	1248	1249A	1249B	1250	1251		
	THIO	17		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	
		18		14	14	14	14	14	14	14	14	14	14	14	14	14	14	
		19		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	
		20		b-5 m	250 m	200 m	175 m	175 m	150 m	125 m	100 m	75 m	50 m	50 m	40 m	30 m		
		21		bot 1	bot 2	bot 3	bot 4	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 9	bot 10	bot 11		
		22		1252	1253	1254	1255				22							
		23		OXY	OXY	OXY	OXY				23							
		24		14	14	14	14				24							

Bottle integrity: First test the top vent (V) by oxygenating the water in the bottle. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

2020-069 20 m bot 12
2020-069 10 m bot 13
2020-069 5 m bot 14
2020-069 0 m bot 15

octobuddy

Turtle.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments
Cruise Number: 2020-069		1		1256	3147	11.3		3.207	1					
Event: 388		2						NO DO	2					
Station: SOG-N		3		1258	3065	11.1		3.276	3					
Event Date (Local): Aug 8 th		4		1259	3093	11.1		(A) 3.340	4	1259	745	11.2		B 3.342
Analysis Date (Local): 9 Aug 2020		5		1260	435	11.1		3.415	5					
Analyst: TF		6		1261	3084	11.1		3.433	6					
Stdization Date (Local): 08 Aug 2020		7		1262	3209	11.4		3.380	7					
KIO ₃ N: 0.0119007		8		1263	1223	11.5		3.297	8					
Standard Titer: 0.4815862		9		1264	3023	11.9		A 3.484	9	1264	3199	12.0		B 3.482
Blank Titer: 0.0010277		10						NO DO	10					
THIO N: 0.247468		11		1266	3062	13.1		3.870	11					
Sample Flask Water Seal? ☒ Yes		12		1267	3018	13.5		3.964	12					
	No	13		1268	3053	16.2		5.231	13					
Reagent Change? MnCl ₂		14		1269	3161	17.3		5.650	14					
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15		1270	3132	18.1		5.937	15					
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄ none	16		1271				NO DO	16					
	KIO ₃	17		1256	1258	1259A	1259B	1260	1261	1262	1263	1264A	1264B	1266
	THIO	18		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
Notes:		19		SOGN	SOGN	SOGN	SOGN	SOGN	SOGN	SOGN	SOGN	SOGN	SOGN	2020-069
		20		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	SOGN
		21		b-5 m	300 m	250 m	250 m	200 m	150 m	100 m	75 m	50 m	50 m	30m
		22		bot 1	bot 3	bot 4	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 9	Bot 11
		23		1269	1270									
		24		OXY	OXY									

Bottle integrity: First test the top vent (V) by opening the spigot by opening the vent. Mark 'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

2020-069
5 m
bot 14

2020-069
0 m
bot 15

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments		Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments	
Cruise Number:	2020-069	1		1272	2016	11.6		3.087		1						
Event:	393	2		1273	3173	11.5		3.252		2						
Station:	12	3		1274	3116	11.4		3.316		3						
Event Date (Local):	08-Aug-20	4		1275	3090	11.3		3.381		4						
Analysis Date (Local):	9 Aug 20	5		1276	2015	11.2		A 3.429		5	1276	3036	11.4		B 3.430	☺
Analyst:	TF	6		1277	1422	11.2		3.416		6						
Stdization Date (Local):	08 Aug 20	7		1278	712	11.3		3.469		7						
KIO ₃ N:	0.0119007	8		1279	1416	11.4		3.437		8						
Standard Titer:	0.4815862	9		1280	2094	11.5		3.456		9						
Blank Titer:	0.0010277	10		1281	3054	12.1		A 3.443		10	1281	2025	12.3		B 3.441	
THIO N:	0.247468	11		1282	1408	12.4		3.528		11						
Sample Flask Water Seal?	☒ Yes ☐ No	12		1283	3010	12.7		3.623		12						
Reagent Change?	MnCl ₂ none	13		1284	458	13.7		4.089		13						
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	14		1285	1442	17.1		5.431		14						
NOTE NEW BATCH IN LOG BOOK	H ₂ SO ₄	15		1286	3038	20.4		6.150		15						
	KIO ₃	16		1287	3162	20.9		6.136		16						
	THIO	17		1272	1273	1274	1275	1276A	1276B	1277	1278	1279	1280	1281A	1281B	1282
		18		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
		19		12	12	12	12	12	12	12	12	12	12	12	12	12
		20		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
		21		b-5 m	300 m	250 m	200 m	175 m	175 m	150 m	125 m	100 m	75 m	50 m	50 m	40 m
		22		bot 1	bot 2	bot 3	bot 4	bot 5	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 10	bot 11
		23		1283	1284	1285	1286	1287								
		24		OXY	OXY	OXY	OXY	OXY								
Notes:	shark			12	12	12	12	12								
				2020-069	2020-069	2020-069	2020-069	2020-069								
				30 m	20 m	10 m	5 m	0 m								
				bot 12	bot 13	bot 14	bot 15	bot 16								

Bottle integrity: First test the top vent (V) by

'x' in the appropriate column if either fails the integrity check and explain this in the comments column.

Dissolved Oxygen Analysis Log Sheet

Institute of Ocean Sciences
Water Properties Group



Last Updated: July 2018

Cruise and Analysis Information		Nisk ID	Nisk Int V S	Sample ID	Flask 1	Draw T 1 (°C)	OXY-1 (mL/L)	OXY-1 Comments	Nisk ID	Sample ID	Flask 2	Draw T 2 (°C)	OXY-2 (mL/L)	OXY-2 Comments		
Cruise Number:	2020-069	1	✓	1340	2089	11.1	3.160		1							
Event:	405	2	✓	1341	A 371	11.1	→ 3.292		2	1341B	3009	11.0	3.292	😊😊		
Station:	27	3	✓	1342	3009	10.9	3.311	Flask 3100	3							
Event Date (Local):	9 Aug 2020	4	✓	1343	2043	11.0	3.467		4							
Analysis Date (Local):	9 Aug 20	5	✓	1344	2019	11.1	3.478		5							
Analyst:	TF	6	✓	1345	2027	11.0	3.595		6							
Stdization Date (Local):	9 Aug 20	7	✓	1346	3000	11.2	3.562		7							
KIO ₃ N:	0.0118929	8	✓	1347	3032	11.3	3.552		8							
Standard Titer:	0.4811278	9	✓	1348	2047	11.4	3.582		9							
Blank Titer:	0.0004715	10	✓	1349A	3092	11.7	→ 3.767		10	1349B	3030	11.9	3.783	☹️		
THIO N:	0.247289	11	✓	1350	3109	11.9	3.645		11							
Sample Flask Water Seal?	Yes	12	✓	1351	505	12.3	3.749		12							
	No	13	✓	1352	3049	13.1	4.143		13							
Reagent Change?	MnCl ₂	14	✓	1353	3057	13.8	4.317		14							
(Please circle reagent that was changed prior to sampling and standardization)	NaI/NaOH	15	✓	1354	1429	19.1	6.050		15							
NOTE NEW BATCH IN LOG BOOK	KIO ₃	16	✓	1355	930	19.6	6.109		16							
	THIO	17		1340	1341A	1341B	1342	1343	1344	1345	1346	1347	1348	1349A	1349B	1350
		18		OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY	OXY
		19		27	27	27	27	27	27	27	27	27	27	27	27	27
		20		2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
		21		b-5 m	300 m	300 m	250 m	200 m	175 m	150 m	125 m	100 m	75 m	50 m	50 m	40 m
				bot 1	bot 2	bot 2	bot 3	bot 4	bot 5	bot 6	bot 7	bot 8	bot 9	bot 10	bot 10	bot 11
				2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069	2020-069
				1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363
				bot 12	bot 13	bot 14	bot 15	bot 16	bot 17	bot 18	bot 19	bot 20	bot 21	bot 22	bot 23	bot 24

Bottle integrity: First

ther fails the integrity check and explain this in the comments column.

new iodate batch 1904 30 April 2019 1/2 bottle 610
 new NaI/NaOH batch 1902 24 April 2019 1/4 bottle 118
 (0.0118929) N } sorry, couldn't be helped ☹️