

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2015-56

(SOG 2015-14)

DATE:

From: 15 SEP 2015

to: 08 OCT 2015

VESSEL:

W.E. RICKER

PROJECT(S):

Salmon Marine Interactions

SOG Juv Salmon / High Seas (Book 1 of 1)

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

Captain: Al Young First Officer: Bennett Light
Second Officer: Chris Wyman Third Officer: _____
Fishing Master: Les Hahk

Mission Participants / Agencies: DFO / PSF

Scientific Personnel:

Chief Scientist: Chris Neville (15SEP-29SEP)

LEG1
Name Watch Cabin
Svetlana Esenkulova (15-18SEP)
Julia Bradshaw (18-25SEP)
Lenora Turcotte (18-25SEP)
Carol Cooper (19-25SEP)
Mary Thiess (15-18SEP)
Claire Rycroft (15-25SEP)
Michelle Bogg (20-25SEP)

Name Watch Cabin
Bryan Recalma (15SEP-04OCT)
Bernie Taekama (15-18SEP)
Mel Sheng (18-20SEP)

Second leg of Mission:

Chief Scientist: Mary Thiess (30SEP-11OCT)

LEG2
LEG3
Name Watch Cabin
Carol Cooper (29-02OCT)
Julia Bradshaw (29SEP-02OCT)
Claire Rycroft (25-30SEP, 07-11OCT)
Iris Kemp (02-06OCT)
Kristin Connolly " "
WERNAN " "
Lenora Turcotte " "
Medoli Bresch (07-11OCT)

Name Watch Cabin
NAME WERNAN (29SEP-02OCT)
Bryan Recalma (29SEP-06OCT)
Adam Hansen (02-10OCT)
NAME WERNAN (29SEP-02OCT)
Tyler Zubkowski (07-11OCT)
John Morris (07-11OCT)

Data logging computer: WP10

Data acquisition program: Seasave v7.21d

CTD deck unit make: SBE model: 11plus serial number: 0424

con file: Ricker 550 july primary.xml.com

Primary CTD

Make: SBE model: 9 serial number: 0550 (calibrated 17-Dec-14)

Primary temperature serial number: 2374 (calibrated 17-Dec-14)

Primary conductivity serial number: 2128 (calibrated 10-Mar-15)

Secondary temperature serial number: 2710 (calibrated 23-Dec-14)

Secondary conductivity serial number: 3184 (calibrated 19-Dec-14)

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model Seapoint Cable gain: 3x 0-50µg/Ls/n: 3641 P, S or NO pump?

Oxygen sensor: _____ Model: SBE 43 s/n: 1176 P, S or NO pump?

PAR sensor: _____ Model: _____ s/n: _____

Other sensors: pH s/n: 0851 P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

Oxygen sensor: _____ Model: _____ s/n: _____ P, S or NO pump?

PAR sensor: _____ Model: _____ s/n: _____

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

Other sensors: _____ s/n: _____ P, S or NO pump?

CTD calibration bottle location (height above CTD in metres): _____

* Note: Fish samples collected 16 SEP - 06 OCT will be labelled with SOG2015-14 (Neville cruise numbers). CTD/Bongo/Water samples will be labelled IOS2015-56

* Problems with COM port settings at start of survey (perhaps Sasant reverted to an old set-up file?). Settings should be:

- CTD → COM3
- 914 water sampling pump → COM4
- NMEA → COM5
- ... Saved as "550 SEP2015 Riden Setup file .psa"

* Deployment protocol: CTD at surface, pumps on, down to 10m and back to surface, sit for 1 min. start archiving, go to depth (max 250 or 10m from bottom), return to surface, pumps off, stop archiving. [If using Nispen, stop at 15m on upcast to deploy messenger.]

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Ocean Sciences Division, Institute of Ocean Sciences

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Month SEP

Year 2015

Ship W.E. RICKER

Cruise ID 2015-56

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom		Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude	Depth	Max Depth					
16	Set 1	1900	BE	SET		001	49°28.45	124°08.56	210						TRAWL - Surface
16		1949	BE	CTD		002	49°30.424	124°11.002	190				MT	-	T:13.6 S:28.9
		1953	BO				49°30.438	124°11.014		180					
		1956	EN				49°30.470	124°11.038							
16	↓	2006	BE	NET		003	49°30.502	124°11.051	203	190					BONGO - VNH
16	Set 2	2025	BE	SET		004	49°30.93	124°12.10	312						TRAWL - 15m
16	Set 3	2117	BE	SET		005	49°32.54	124°16.78	260						TRAWL - Surface
16	SOG 30	2301	BE	CTD		006	49°28.180	124°29.987	323						T:15.0 S:28.2
		2305	BO				49°28.199	124°29.946		250					BOT @ 10m NUTS & CHL
		2311	EN				49°28.222	124°29.914							
16	↓	2326	BE	NET		007	49°28.234	124°29.924	321	250					BONGO - VNH
17	SOG 33	0144	BE	CTD		008	49°45.046	124°44.807	355						T:14.38 S:28.35
		0150	BO				49°45.052	124°44.710		250					BOT @ 10m NUTS & CHL
		0156	EN				49°45.052	124°44.626							
17	↓	0208	BE			009	49°45.029	124°44.442	356	250					BONGO - VNH

Cast Type:
 BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 7 July 2014

Set 1 CTD: Pump not turned on. 13h

SOG30 Niskin deployed after CTD cast was completed. Data archiving left on until Niskin (COPRA 2) reached sampling depth then turned off.

SOG33 = COPRA NORTH BASIN

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Month SEP

Year 2015

Ship W.E. RICKER

Cruise ID 2015-56

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
17	Set 4	1406	BE	SET		010	50°33.308	125°7.267	265						TRAWL-Surface
17	↓	1457	BE	CTD	✓	011	50°3.815	125°7.772	259			-	SE	-	T:12.9 S:28.9
		1501	BO				50°3.852	125°7.777		249					
		1507	EN				50°3.888	125°7.841							
17	↓	1516	BE	NET		012	50°03.943	125°07.861	258	248					BONGO-VNH
17	SET 5	1537	BE	SET		013	50°4.910	125°7.549	252						TRAWL-15m
17	SET 6	1630	BE	SET		014	50°7.836	125°5.770	145						TRAWL-Surface
		1810	BE	CTD		015	50°11.870	124°59.908	514			-	SE	-	T:12.4 S:26.9
		1814	BO				50°11.866	124°59.911		250					
		1819	EN				50°11.860	124°59.915							SET through I recovered on
	↓		BE	NET		016									Red 55-60-75-100-150-200-250-300-350-400-450-500-550-600-650-700-750-800-850-900-950-1000-1050-1100-1150-1200-1250-1300-1350-1400-1450-1500-1550-1600-1650-1700-1750-1800-1850-1900-1950-2000-2050-2100-2150-2200-2250-2300-2350-2400-2450-2500-2550-2600-2650-2700-2750-2800-2850-2900-2950-3000-3050-3100-3150-3200-3250-3300-3350-3400-3450-3500-3550-3600-3650-3700-3750-3800-3850-3900-3950-4000-4050-4100-4150-4200-4250-4300-4350-4400-4450-4500-4550-4600-4650-4700-4750-4800-4850-4900-4950-5000-5050-5100-5150-5200-5250-5300-5350-5400-5450-5500-5550-5600-5650-5700-5750-5800-5850-5900-5950-6000-6050-6100-6150-6200-6250-6300-6350-6400-6450-6500-6550-6600-6650-6700-6750-6800-6850-6900-6950-7000-7050-7100-7150-7200-7250-7300-7350-7400-7450-7500-7550-7600-7650-7700-7750-7800-7850-7900-7950-8000-8050-8100-8150-8200-8250-8300-8350-8400-8450-8500-8550-8600-8650-8700-8750-8800-8850-8900-8950-9000-9050-9100-9150-9200-9250-9300-9350-9400-9450-9500-9550-9600-9650-9700-9750-9800-9850-9900-9950-10000-10050-10100-10150-10200-10250-10300-10350-10400-10450-10500-10550-10600-10650-10700-10750-10800-10850-10900-10950-11000-11050-11100-11150-11200-11250-11300-11350-11400-11450-11500-11550-11600-11650-11700-11750-11800-11850-11900-11950-12000-12050-12100-12150-12200-12250-12300-12350-12400-12450-12500-12550-12600-12650-12700-12750-12800-12850-12900-12950-13000-13050-13100-13150-13200-13250-13300-13350-13400-13450-13500-13550-13600-13650-13700-13750-13800-13850-13900-13950-14000-14050-14100-14150-14200-14250-14300-14350-14400-14450-14500-14550-14600-14650-14700-14750-14800-14850-14900-14950-15000-15050-15100-15150-15200-15250-15300-15350-15400-15450-15500-15550-15600-15650-15700-15750-15800-15850-15900-15950-16000-16050-16100-16150-16200-16250-16300-16350-16400-16450-16500-16550-16600-16650-16700-16750-16800-16850-16900-16950-17000-17050-17100-17150-17200-17250-17300-17350-17400-17450-17500-17550-17600-17650-17700-17750-17800-17850-17900-17950-18000-18050-18100-18150-18200-18250-18300-18350-18400-18450-18500-18550-18600-18650-18700-18750-18800-18850-18900-18950-19000-19050-19100-19150-19200-19250-19300-19350-19400-19450-19500-19550-19600-19650-19700-19750-19800-19850-19900-19950-20000-20050-20100-20150-20200-20250-20300-20350-20400-20450-20500-20550-20600-20650-20700-20750-20800-20850-20900-20950-21000-21050-21100-21150-21200-21250-21300-21350-21400-21450-21500-21550-21600-21650-21700-21750-21800-21850-21900-21950-22000-22050-22100-22150-22200-22250-22300-22350-22400-22450-22500-22550-22600-22650-22700-22750-22800-22850-22900-22950-23000-23050-23100-23150-23200-23250-23300-23350-23400-23450-23500-23550-23600-23650-23700-23750-23800-23850-23900-23950-24000-24050-24100-24150-24200-24250-24300-24350-24400-24450-24500-24550-24600-24650-24700-24750-24800-24850-24900-24950-25000-25050-25100-25150-25200-25250-25300-25350-25400-25450-25500-25550-25600-25650-25700-25750-25800-25850-25900-25950-26000-26050-26100-26150-26200-26250-26300-26350-26400-26450-26500-26550-26600-26650-26700-26750-26800-26850-26900-26950-27000-27050-27100-27150-27200-27250-27300-27350-27400-27450-27500-27550-27600-27650-27700-27750-27800-27850-27900-27950-28000-28050-28100-28150-28200-28250-28300-28350-28400-28450-28500-28550-28600-28650-28700-28750-28800-28850-28900-28950-29000-29050-29100-29150-29200-29250-29300-29350-29400-29450-29500-29550-29600-29650-29700-29750-29800-29850-29900-29950-30000-30050-30100-30150-30200-30250-30300-30350-30400-30450-30500-30550-30600-30650-30700-30750-30800-30850-30900-30950-31000-31050-31100-31150-31200-31250-31300-31350-31400-31450-31500-31550-31600-31650-31700-31750-31800-31850-31900-31950-32000-32050-32100-32150-32200-32250-32300-32350-32400-32450-32500-32550-32600-32650-32700-32750-32800-32850-32900-32950-33000-33050-33100-33150-33200-33250-33300-33350-33400-33450-33500-33550-33600-33650-33700-33750-33800-33850-33900-33950-34000-34050-34100-34150-34200-34250-34300-34350-34400-34450-34500-34550-34600-34650-34700-34750-34800-34850-34900-34950-35000-35050-35100-35150-35200-35250-35300-35350-35400-35450-35500-35550-35600-35650-35700-35750-35800-35850-35900-35950-36000-36050-36100-36150-36200-36250-36300-36350-36400-36450-36500-36550-36600-36650-36700-36750-36800-36850-36900-36950-37000-37050-37100-37150-37200-37250-37300-37350-37400-37450-37500-37550-37600-37650-37700-37750-37800-37850-37900-37950-38000-38050-38100-38150-38200-38250-38300-38350-38400-38450-38500-38550-38600-38650-38700-38750-38800-38850-38900-38950-39000-39050-39100-39150-39200-39250-39300-39350-39400-39450-39500-39550-39600-39650-39700-39750-39800-39850-39900-39950-40000-40050-40100-40150-40200-40250-40300-40350-40400-40450-40500-40550-40600-40650-40700-40750-40800-40850-40900-40950-41000-41050-41100-41150-41200-41250-41300-41350-41400-41450-41500-41550-41600-41650-41700-41750-41800-41850-41900-41950-42000-42050-42100-42150-42200-42250-42300-42350-42400-42450-42500-42550-42600-42650-42700-42750-42800-42850-42900-42950-43000-43050-43100-43150-43200-43250-43300-43350-43400-43450-43500-43550-43600-43650-43700-43750-43800-43850-43900-43950-44000-44050-44100-44150-44200-44250-44300-44350-44400-44450-44500-44550-44600-44650-44700-44750-44800-44850-44900-44950-45000-45050-45100-45150-45200-45250-45300-45350-45400-45450-45500-45550-45600-45650-45700-45750-45800-45850-45900-45950-46000-46050-46100-46150-46200-46250-46300-46350-46400-46450-46500-46550-46600-46650-46700-46750-46800-46850-46900-46950-47000-47050-47100-47150-47200-47250-47300-47350-47400-47450-47500-47550-47600-47650-47700-47750-47800-47850-47900-47950-48000-48050-48100-48150-48200-48250-48300-48350-48400-48450-48500-48550-48600-48650-48700-48750-48800-48850-48900-48950-49000-49050-49100-49150-49200-49250-49300-49350-49400-49450-49500-49550-49600-49650-49700-49750-49800-49850-49900-49950-50000-50050-50100-50150-50200-50250-50300-50350-50400-50450-50500-50550-50600-50650-50700-50750-50800-50850-50900-50950-51000-51050-51100-51150-51200-51250-51300-51350-51400-51450-51500-51550-51600-51650-51700-51750-51800-51850-51900-51950-52000-52050-52100-52150-52200-52250-52300-52350-52400-52450-52500-52550-52600-52650-52700-52750-52800-52850-52900-52950-53000-53050-53100-53150-53200-53250-53300-53350-53400-53450-53500-53550-53600-53650-53700-53750-53800-53850-53900-53950-54000-54050-54100-54150-54200-54250-54300-54350-54400-54450-54500-54550-54600-54650-54700-54750-54800-54850-54900-54950-55000-55050-55100-55150-55200-55250-55300-55350-55400-55450-55500-55550-55600-55650-55700-55750-55800-55850-55900-55950-56000-56050-56100-56150-56200-56250-56300-56350-56400-56450-56500-56550-56600-56650-56700-56750-56800-56850-56900-56950-57000-57050-57100-57150-57200-57250-57300-57350-57400-57450-57500-57550-57600-57650-57700-57750-57800-57850-57900-57950-58000-58050-58100-58150-58200-58250-58300-58350-58400-58450-58500-58550-58600-58650-58700-58750-58800-58850-58900-58950-59000-59050-59100-59150-59200-59250-59300-59350-59400-59450-59500-59550-59600-59650-59700-59750-59800-59850-59900-59950-60000-60050-60100-60150-60200-60250-60300-60350-60400-60450-60500-60550-60600-60650-60700-60750-60800-60850-60900-60950-61000-61050-61100-61150-61200-61250-61300-61350-61400-61450-61500-61550-61600-61650-61700-61750-61800-61850-61900-61950-62000-62050-62100-62150-62200-62250-62300-62350-62400-62450-62500-62550-62600-62650-62700-62750-62800-62850-62900-62950-63000-63050-63100-63150-63200-63250-63300-63350-63400-63450-63500-63550-63600-63650-63700-63750-63800-63850-63900-63950-64000-64050-64100-64150-64200-64250-64300-64350-64400-64450-64500-64550-64600-64650-64700-64750-64800-64850-64900-64950-65000-65050-65100-65150-65200-65250-65300-65350-65400-65450-65500-65550-65600-65650-65700-65750-65800-65850-65900-65950-66000-66050-66100-66150-66200-66250-66300-66350-66400-66450-66500-66550-66600-66650-66700-66750-66800-66850-66900-66950-67000-67050-67100-67150-67200-67250-67300-67350-67400-67450-67500-67550-67600-67650-67700-67750-67800-67850-67900-67950-68000-68050-68100-68150-68200-68250-68300-68350-68400-68450-68500-68550-68600-68650-68700-68750-68800-68850-68900-68950-69000-69050-69100-69150-69200-69250-69300-69350-69400-69450-69500-69550-69600-69650-69700-69750-69800-69850-69900-69950-70000-70050-70100-70150-70200-70250-70300-70350-70400-70450-70500-70550-70600-70650-70700-70750-70800-70850-70900-70950-71000-71050-71100-71150-71200-71250-71300-71350-71400-71450-71500-71550-71600-71650-71700-71750-71800-71850-71900-71950-72000-72050-72100-72150-72200-72250-72300-72350-72400-72450-72500-72550-72600-72650-72700-72750-72800-72850-72900-72950-73000-73050-73100-73150-73200-73250-73300-73350-73400-73450-73500-73550-73600-73650-73700-73750-73800-73850-73900-73950-74000-74050-74100-74150-74200-74250-74300-74350-74400-74450-74500-74550-74600-74650-74700-74750-74800-74850-74900-74950-75000-75050-75100-75150-75200-75250-75300-75350-75400-75450-75500-75550-75600-75650-75700-75750-75800-75850-75900-75950-76000-76050-76100-76150-76200-76250-76300-76350-76400-76450-76500-76550-76600-76650-76700-76750-76800-76850-76900-76950-77000-77050-77100-77150-77200-77250-77300-77350-77400-77450-77500-77550-77600-77650-77700-77750-77800-77850-77900-77950-78000-78050-78100-78150-78200-78250-78300-78350-78400-78450-78500-78550-78600-78650-78700-78750-78800-78850-78900-78950-79000-79050-79100-79150-79200-79250-79300-79350-79400-79450-79500-79550-79600-79650-79700-79750-79800-79850-79900-79950-80000-80050-80100-80150-80200-80250-80300-80350-80400-80450-80500-80550-80600-80650-80700-80750-80800-80850-80900-80950-81000-81050-81100-81150-81200-81250-81300-81350-81400-81450-81500-81550-81600-81650-81700-81750-81800-81850-81900-81950-82000-82050-82100-82150-82200-82250-82300-82350-82400-82450-82500-82550-82600-82650-82700-82750-82800-82850-82900-82950-83000-83050-83100-83150-83200-83250-83300-83350-83400-83450-83500-83550-83600-83650-83700-83750-83800-83850-83900-83950-84000-84050-84100-84150-84200-84250-84300-84350-84400-84450-84500-84550-84600-84650-84700-84750-84800-84850-84900-84950-85000-85050-85100-85150-85200-85250-85300-85350-85400-85450-85500-85550-85600-85650-85700-85750-85800-85850-85900-85950-86000-86050-86100-86150-86200-86250-86300-86350-86400-86450-86500-86550-86600-86650-86700-86750-86800-86850-86900-86950-87000-87050-87100-87150-87200-87250-87300-87350-87400-87450-87500-87550-87600-87650-87700-87750-87800-87850-87900-87950-88000-88050-88100-88150-88200-88250-88300-88350-88400-88450-88500-88550-88600-88650-88700-

CTD 016 note SE. I nudged I turned the pump at
new file trail and turned the pump off.

This page is for any notes or observations
but CTD not. SO I started

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month			Year			Ship			Cruise ID						
SEP			2015			W E RICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
17	SET 8	20:32	BE	CTD		018	50°25.576	125°5.418	656			-	SE	-	T107 S1246
		20:37	BO				50°25.556	125°5.410		250					
		20:42	EN				50°25.540	125°5.399							
17		21:00	BE	NET		019	50°25.587	125°05.365	656	250					BONGD-VNH
17		21:24	BE	SET		020	50°24.69	125°04.92	657						TRAWL-SURF
17	SET 9	22:21	RE	SET		021	50°20.74	125°06.62	504						TRAWL-15m
17	SET 10	23:17	BE	SET		022	50°18.86	125°02.24	851						TRAWL-SURF
18	SET 11	00:56	RE	SET		023	50°18.06	124°57.14	513						TRAWL-SURF
18	SET 12	14:09	BE	SET		024	50°13.494	124°37.864	735						TRAWL-Surface
18		14:58	BE	CTD		025	50°11.713	124°38.440	727			-	SE	-	T1401 S1265
		15:03	BO				50°11.713	124°38.441		250					
		15:08	EN				50°11.724	124°38.442							
18		15:21	BE	NET		026	50°11.722	124°38.453	575	250					BONGD-VNH
18	SET 13	16:47	BE	SET		027	50°11.891	124°45.621	431						TRAWL-SURF

Cast Type:
 BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Notes:

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Ocean Sciences Division, Institute of Ocean Sciences

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Month			Year			Ship			Cruise ID						
Sept			2015			N.E. Ricken			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
18	SET14	17:28	BE	SET		028	50° 08.993	124° 44.866	534						TRAWL-15m
18		18:05	BE	CTD	✓	029	50° 7.448	124° 46.330	440			-	SE	-	T:14.4 S:25.2
		18:10	BO				50° 7.463	124° 46.380		250					
		18:15	EN				50° 7.483	124° 46.379							
18	✓	18:27	BE	NET		030	50° 07.484	124° 46.376	437	250					BONGO-VNH
18	SET15	19:16	BE	SET		031	50° 06.977	124° 46.90	477						TRAWL-80m
18	SET16	19:57	BE	SET		032	50° 06.89	124° 47.19	495						TRAWL-SURF
18	SET17	21:01	BE	SET		033	50° 01.95	124° 53.53	344						TRAWL-SURF
18	SET18	21:41	BE	SET		034	50° 59.795	124° 51.499	271						TRAWL-15m
18	SET19	22:41	BE	SET		035	49° 56.81	124° 44.13	138						TRAWL-SURF
18	SET20	23:47	BE	SET		036	49° 51.06	124° 47.57	110						TRAWL-SURF
19	SET21	14:11	BE	SET		037	49° 48.626	124° 33.371	239						TRAWL-SURF
19		14:45	BE	CTD		038	49° 45.892	124° 32.402	207			-	LT	-	T:13.5 S:28.17
		14:50	BO				49° 45.870	124° 32.359		197					
		14:55	EN				49° 45.844	124° 32.284							
19	✓	15:14	BE	NET		039	49° 45.841	124° 32.292	204	190					BONGO-VNH
19	SET22	15:35	BE	SET		040	49° 45.689	124° 30.421	286						TRAWL-15m
19	SET23	16:36	BE	SET		041	49° 45.013	124° 23.092	199						TRAWL-SURF

Cast Type:
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NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:
US = Up / Stop
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Time Code:
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Transmissometer & Fluorometer are to be cleaned before each cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Ship			Cruise ID						
Sept			2015			M.E. Rickson			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	SET24	17.37	BE	SET		042	49° 42.594	124° 17.986	164						TRAWL-30M
19		18.10	BE	CTD✓		043	49° 40.576	124° 18.365	316				LT		T: 13.07 S: 28.8
		18.15	BO				49° 40.543	124° 18.277		306					
		18.20	EN				49° 40.553	124° 18.260							
19	↓	18.45	BE	NET		044	49° 40.568	124° 18.280	319	250					BONGO-VNH
19	SET25	19.50	BE	SET		045	49° 45.97	124° 10.64	355						TRAWL-SURF
19	SET26	20.32	BE	SET		046	49° 44.63	124° 14.39	313						TRAWL-SURF
19	SET27	21.27	BE	SET		047	49° 40.65	124° 15.95	349						TRAWL-60m
19	SET28	22.21	BE	SET		048	49° 40.02	124° 14.22	327						TRAWL-60m
20		01.11	BE	CTD✓		049	49° 38.322	124° 11.768	241				LT		T: 13.2 S: 28.3
		01.15	BO				49° 38.316	124° 11.776		231					
		01.20	EN				49° 38.318	124° 11.792							
END = 20	↓	01.31	BE	NET		050	49° 38.337	124° 11.820	252	240					BONGO-VNH
BN = 20	SET29	14.12	BE	SET		051	49° 37.549	124° 11.931	362						TRAWL-Surface
20		15.00	BE	CTD✓		052	49° 35.0'11	124° 11.096	310				LT		T: 12.3 S: 28.7
		15.05	BO				49° 34.936	124° 11.038		250					
		15.10	EN				49° 34.	124° 11.							
20	↓	15.23	BE	NET		053	49° 34.886	124° 11.009	320	250					BONGO-VNH
20	SET30	15.45	BE	SET		054	49° 34.658	124° 09.444	421						TRAWL-30m

Cast Type:

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DRF = Drifter

Bottle Firing Method:

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UN = Up / No stop

DN = Down / No stop

Time Code:

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Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

WaterProperties.ca

Version: 7 July 2014

Date: 20 Sep 2015

Event 049(CTD) → File name = Set 29 → needs to be changed to set 28

Event 052(CTD) → File name = Set 29B → needs to be changed to set 29

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Ocean Sciences Division, Institute of Ocean Sciences

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Month SEP.

Year 2015

Ship N.E. Rickel

Cruise ID 2015-56

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	SET31	1645	BE	SET		055	49°33.593	124°05.693	287						TRAWL-15m
20	SET32	1747	BE	SET		056	49°29.566	124°05.710	422						TRAWL-Surface
20		1829	BE	CTD		057	49°27.208	124°06.845	319				LT		T-13.9 S.28.6
		1834	BD				49°27.224	124°06.818		250					
		1840	EN				49°27.224	124°06.815							
20	↓	1857	BE	NET		058	49°27.306	124°06.848	339	250					BONGD-VNH
20	SET33	1953	BE	SET		059	49°21.42	124°11.61	279						TRAWL-15m
20	SET34	2053	BE	SET		060	49°22.51	124°15.17	324						TRAWL-Surface
20	SET35	2152	BE	SET		061	49°26.078	124°16.178	233						TRAWL-15m
20	SET36	2248	BE	SET		062	49°26.89	124°21.87	337						TRAWL-30m
20		23:34	BE	CTD		063	49°26.544	124°25.499	340				LT		T-12.8 S-28.9
		23:38	BD				49°26.500	124°25.599		250					
		23:43	FN				49°26.4	124°25.6							
20	↓	2356	BE	NET		064	49°26.420	124°25.759	342	250					BONGD-VNH
21	SET37	14:09	BE	SET		065	49°25.900	124°26.028	338						BONGD-VNH
21		1453	BE	CTD		066	49°22.984	124°23.386	98				LT		T-12.5 S-28.8
		1455	BD				49°22.996	124°23.402		88					
		1457	EN				49°22.033	124°23.420							
21	↓	1504	BE	NET		067	49°22.998	124°27.438	98	88					BONGD-VNH

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 DN = Down / No stop

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 EN = End Time of Cast

Transmissometer & Fluorometer are to be cleaned before each cast

Notes:

Produced by the Water Properties Group, IOS

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 Version: 7 July 2014

This page is for any notes or observations

~~CVE event #006 Kilauea is currently #005 (needs to be changed to 006)~~ CHANGED 23/09/2015

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Ocean Sciences Division, Institute of Ocean Sciences

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Month		Year		Ship		Cruise ID		Page							
Sept		2015		W.E. RICKER		2015-56		41							
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
21	SET38	15:42	BE	SET		068	49° 23.500	124° 27.937	129						TRAWL-30M
21	SET39	16:34	BE	SET		069	49° 24.232	124° 32.403	105						TRAWL-SURF
21	SET40	17:24	BE	SET		070	49° 26.237	124° 37.126	72						TRAWL-15M
21	↓	18:09	BE	CTD		071	49° 28.318	124° 27.767	109				LT		T:12.3 S:29.2
		18:11	BO				49° 28.315	124° 39.764		99					
		18:12	EN				49° 28.310	124° 39.761							
21	↓	18:19	BE	NET		072	49° 28.314	124° 39.781	109	99					BOND-VNA
21	SET41	17:03	BE	SET		073	49° 29.14	124° 33.40	67						TRAWL-OM
21	SET42	19:54	BE	SET		074	49° 30.41	124° 31.18	215						TRAWL-45M
21	SET43	20:51	BE	SET		075	49° 32.42	124° 27.67	171						TRAWL-30M
21	SET44	21:46	BE	SET		076	49° 34.01	124° 24.71	246						TRAWL-15M
21	SET45	22:37	BE	SET		077	49° 36.72	124° 27.59	340						TRAWL-OM
21	SET46	23:30	BE	SET		078	49° 39.03	124° 31.75	334						TRAWL-15M
22	↓	00:17	BE	CTD		079	49° 40.706	124° 34.741	200				LT		T:13.9 S:28.5
		00:21	BO				49° 40.714	124° 34.775		190					
		00:25	EN				49° 40.708	124° 34.750							
22	↓	00:35	BE	NET		080	49° 40.712	124° 34.646	194	184					BOND-VNA (NO RBR)
22	SET47	14:26	BE	SET		081	49° 57.819	125° 06.700	182						TRAWL-SURF
	↓ CDR'd														

Cast Type: USW = Sea Water 100m Bottle Firing Method: T: Time of Day

Cast Type:
 BOT = Bottle cast, no CTD
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Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
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RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 7 July 2014

~~CID EVENT # 071 (the name is currently #070 needs to be changed to event #071)~~
CHANGED 25/09/2015

~~CH EVENT # 079 (the name is currently #078 needs to be changed to event #079)~~
CHANGED 25/09/2015

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Ship			Cruise ID						
Sept.			2015			W.E. PICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	Set 47	15:11	BE	CTD		082	49° 58.103	124° 02.171	159				LT	-	T:13.15:28.7
	↓	15:15	BO				49° 58.116	124° 02.192		149					
	↓	15:18	EN				49° 58.144	124° 02.208							
22	↓	15:26	BE	NET		083	49° 58.191	124° 02.243	160	150					BONGO-VNH (NO RPR)
22	SET 48	15:49	BE	SET		084	49° 58.409	124° 59.814	149						TRAWL-15M
22	SET 49	16:39	BE	SET		085	49° 56.932	124° 56.222	181						TRAWL-SURF
22	SET 50	17:30	BE	SET		086	49° 53.908	124° 55.567	185						TRAWL-45M
22	↓	18:14	BE	CTD		087	49° 52.740	124° 58.648	303				LT	-	T:13.6.5.28.6
	↓	18:19	BO				49° 52.800	124° 58.682		250					
	↓	18:24	EN				49° 52.805	124° 58.675							
22	↓	18:34	BE	NET		088	49° 52.828	124° 58.693	302	250					BONGO-VNH
22	SET 51	19:19	BE	SET		089	49° 52.25	124° 58.98	301						TRAWL-15M
22	SET 52	20:09	BE	SET		090	49° 49.56	124° 59.80	106						TRAWL-30M
22	SET 53	21:01	BE	SET		091	49° 27.29	124° 56.57	65						TRAWL-0M
22	SET 54	21:52	BE	SET		092	49° 45.795	124° 52.870	74						TRAWL-30M
22	SET 55	22:44	BE	SET		093	49° 45.25	124° 49.61	177						TRAWL-15M
22	SET 56	23:33	BE	SET		094	49° 48.28	124° 48.11	305						TRAWL-0M
	(cont'd)														
	↓														

Cast Type:
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Time Code:
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Transmissometer & Fluorometer are to be cleaned before each cast
DE = Deployment Time
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Notes:

Produced by the Water Properties Group, IOS

Water Properties, ca
Version: 7 July 2014

CAD Event ~~#082~~ File name is currently #081 (needs to be changed to event #082)
CHANGED 25/09/2015

CAD Event ~~#087~~ File name is currently #086 (needs to be changed to event #087)
CHANGED 25/09/2015

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Ocean Sciences Division, Institute of Ocean Sciences

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Month		Year		Ship		Cruise ID									
Sept.		2015		M.E. PICKER		2015-56									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	SET 56	00:55	BE	CTD		095	49° 50.410	124° 45.455	168			—	LT	—	T: 13.8 S: 28.5
		00:58	BO				49° 50.408	124° 45.400		158					
		01:01	EN				49° 50.417	124° 45.394							
23	↓	01:13	BE	NET		096	49° 50.447	124° 45.367	169	159					BONGO-VNH
23	SET 57	14:00	BE	SET		097	49° 50.194	124° 45.806	181						TRAWL-SURF
23	↓	14:55	BE	CTD		098	49° 48.382	124° 42.751	191			—	LT	—	T: 13.5 S: 28.4
		14:58	BO				49° 48.350	124° 42.703		181					
		15:02	EN				49° 48.347	124° 42.641							
23	↓	15:11	BE	NET		099	49° 48.320	124° 42.557	187	175					BONGO-VNH
23	SET 58	15:35	BE	SET		100	49° 47.334	124° 41.223	187						TRAWL-30M
23	SET 59	16:28	BE	SET		101	49° 45.205	124° 44.875	355						TRAWL-SURF
23	SET 60	17:30	BE	SET		102	49° 41.718	124° 48.361	82.8						TRAWL-15M
23	↓	18:13	BE	CTD		103	49° 39.634	124° 47.080	101			—	LT	—	T: 13.0 S: 28.3
		18:15	BO				49° 39.628	124° 47.074		91					
		18:17	EN				49° 39.631	124° 47.081							
23	↓	18:24	BE	NET		104	49° 39.641	124° 47.100	102	92					BONGO-VNH
23	SET 61	19:11	BE	SET		105	49° 38.29	124° 45.29	124						TRAWL-60M
23	SET 62	20:06	BE	SET		106	49° 35.43	124° 48.08	101						TRAWL-0M
23	SET 63	20:56	BE	SET		107	49° 35.07	124° 39.24	157						TRAWL-15M

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Produced by the Water Properties Group, IOS

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~~CAD event 095 file name is currently D11 (needs to be changed to 095)~~
CHANGED 25/09/2015

~~CAD event 098 file name is currently 097 (needs to be changed to 098)~~
CHANGED 25/09/2015

DAILY SCIENCE LOG

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Month		Year		Ship		Cruise ID									
Sept.		2015		W.E. PICKER		2015-56									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23	SET 64	21:47	BE	SET		108	49°38.256	124°37.034	83						TRAWL - 15M
23	SET 65	23:40	BE	SET		109	49°34.30	124°25.15	269						TRAWL - 30M
24	SET 66	01:00	BE	SET		110	49°32.14	124°28.56	188						TRAWL - 45M
24		01:31	BE	CTD		111	49°30.898	124°29.038	157			-	LT	-	T: 12.9 S: 28.9
		01:34	BO				49°30.898	124°29.015		147					
		01:37	EN				49°30.894	124°28.985							
24	↓	01:46	BE	NET		112	49°30.901	124°28.939	167	157					BONGO - VNA
24	SET 67	14:07	BE	SET		113	49°22.387	124°09.239	314						TRAWL - SURF
24	↓	14:54	BE	CTD		114	49°24.655	124°06.918	275			-	LT	-	T: 13.2 S: 28.5
		14:56	BO				49°24.610	124°06.808		250					
		15:00	EN				49°24.571	124°06.726							
24	↓	15:13	BE	NET		115	49°24.520	124°06.665	280	250					BONGO - VNA
24	SET 68	15:33	BE	SET		116	49°24.758	124°06.144	175						TRAWL - 30M
24	SET 69	16:29	BE	SET		117	49°27.73	124°02.272	304						TRAWL - SURF
24	SET 70	17:22	BE	SET		118	49°26.983	123°56.653	214						TRAWL - 15M
24	↓	18:05	BE	CTD		119	49°27.124	123°53.100	216			-	LT	-	T: 13.8 S: 23.4
		18:10	BO				49°27.118	123°53.088		206					
		18:14	EN				49°27.124	123°53.083							
24	↓	18:23	BE	NET		120	49°27.126	123°53.110	216	206					BONGO - VNA

Cast Type:
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Produced by the Water Properties Group, IOS

Water Properties, ca
 Version: 7 July 2014

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Ship			Cruise ID						
SEA			2015			W.E. DICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
24	SET 71	19:19	BE	SET		121	49° 21.68	123° 49.84	371						TRAWL - 45M
24	SET 72	20:20	BE	SET		122	49° 23.40	123° 54.24	337						TRAWL - 01M
24	SET 73	21:23	BE	SET		123	49° 26.45	123° 50.58	188						TRAWL - 15M
24	SET 74	22:21	BE	SET		124	49° 24.89	123° 46.43	145						TRAWL - 30M
24	SET 75	23:13	BE	SET		125	49° 21.92	123° 48.15	229						TRAWL - 01M
25	SET 76	00:08	BE	SET		126	49° 17.89	123° 48.26	414						TRAWL - 15M
25		00:58	BE	CTD		127	49° 15.672	123° 48.442	408			—	LT	—	T: 12.8 S: 28.6
		01:18	BO				49° 15.710	123° 48.410		251.05					CTD/NOTES & PHOTOS
		01:14	EN				49° 15.730	123° 48.436							measure / track
25		01:26	BE	NET		128	49° 15.740	123° 48.471	413	250					
25	SET 77	14:08	BE	SET		129	49° 20.479	123° 30.195	206						TRAWL - 3.2F
25		15:02	BE	CTD		130	49° 21.697	123° 33.818	170			—	LT	—	T: 13.6 S: 20.9
		15:05	BO				49° 21.689	123° 33.823		160					
		15:08	EN				49° 21.682	123° 33.827	170	160					BOND - VNH
25		15:17	BE	NET		131	49° 21.665	123° 33.798							
25	SET 78	15:36	BE	SET		132	49° 22.094	123° 34.587	171						TRAWL - 15M
25	GEO 1	18:08	BE	CTD		133	49° 15.040	123° 44.974	403			—	LT	—	T: 13.3 S: 23.5
	(CORRASIN)	18:14	BO				49° 15.034	123° 44.982		250					
		18:18	EN				49° 15.031	123° 44.988							

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:
US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Notes:

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⊗ Due to issues with the third wire/transducer sensors, wireless Notus sensors were tested for depth accuracy by measuring them on the CTD frame. The CTD was then stopped every 50m for 10 seconds to verify their depth reading.

Set 78: Major hydraulic leak in main trawl winch. Survey on hold until repairs are made.

GE01: Stopped to do CTD/bongo @ CPRA Sta GE01 on the way back to PBS.
(CTD & Bongo may have been labelled Set 78, but they are not geographically close to fishing Set 78.
(RKR cast 10)

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Month			Year			Ship			Cruise ID						
Sea.			2015			W.E.R.TICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
75	GEO1	1830	BE	NET		134	49°15.048	123°45.007	402	250					BONGO-VNH

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GE01: RBR sensor downloaded. Scheduled to start logging 28SEP2015, 1200
This file covers bridge casts from Set 50 to GE01 (10 casts).

Set 79 Edge of Fraser R phone

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Month SEP			Year 2015			Ship WE RICKER			Cruise ID 2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
29	Set83	1926	BE	SET		143	49°15.48	123°30.41	324						TRAWL-30m
29	Set84	2032	BE	SET		144	49°18.90	123°25.0	239(?)						TRAWL-Surface
29	Set85	2115	BE	SET		145	49°20.77	123°20.34	239						TRAWL-Surface
29	Set86	2208	BE	SET		146	49°24.99	123°16.99	244						TRAWL-15m
29	Set87	2255	BE	SET		147	49°28.14	123°16.54	249						TRAWL-Surface
29	Set88	2334	BE	SET		148	49°30.82	123°16.19	233						TRAWL-Surface
30	Set89	0045	BE	SET		149	49°33.326	123°16.114	72						TRAWL-Surface
30		0125	BE	CTD		150	49°35.156	123°14.309	271			—	MT	—	T:12.6 S:25.3
		0130	Bo				49°35.159	123°14.300		250					
		0135	EN				49°35.183	123°14.272							
30	✓	0147	BE	NET		151	49°35.193	123°14.239	257	247					BONGO-VNH
✗ END OF DAY															

Cast Type:
 BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

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Month <u>SEP</u>			Year <u>2015</u>			Ship <u>WE RICKER</u>			Cruise ID <u>2015-56</u>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
30	Set 90	1425	BE	SET		152	49°28.387	123°27.857	161						TRAWL - Surface
30		1504	BE	CTD		153	49°26.530	123°27.684	90				MT		T:13.3 S:22.5
		1506	BO				49°26.528	123°27.685		80					
		1507	EN				49°26.522	123°27.688							
30	↓	1514	BE	NET		154	49°26.524	123°27.688	90	80					BONGO-VNH
30	Set 91	1540	BE	SET		155	49°25.129	123°24.866	214						TRAWL - Surface
30	Set 92	1647	BE	SET		156	49°23.075	123°26.714	163						TRAWL - Surface
30	↓	1723	BE	CTD		157	49°24.208	123°24.608	215						T:13.3 S:24.6
		1727	BO				49°24.208	123°24.606		205					
		1731	EN				49°24.208	123°24.608							
30	↓	1739	BE	NET		158	49°24.195	123°24.616	215	205					BONGO-VNH
30	Set 93	1852	BE	SET		159	49°23.44	123°37.19	157						TRAWL - 15m
30	Set 94	1958	BE	SET		160	49°21.11	123°39.59	159						TRAWL - Surface
30	Set 95	2058	BE	SET		161	49°16.44	123°38.32	295						TRAWL - 15m

Cast Type:

BOT = Bottle cast, no CTD

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ROS = Rosette plus CTD

SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

Bottle Firing Method:

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Time Code:

BE = Beginning Time of Cast

BO = Bottom Time of Cast

EN = End Time of Cast

Transmissometer & Fluorometer are to be cleaned before each cast

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

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Sat 9D: Howe Sound.

This page is for any notes or observations

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Month SEP / OCT			Year 2015			Ship WE RICKER			Cruise ID 2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
30	Set 96	2148	BE	SET		162	49°12.87	123°37.84	378						TRAWL-45m
30	Set 97	2242	BE	SET		163	49°10.684	123°39.939	176						TRAWL-15m
30	Set 98	2333	BE	SET		164	49°12.23	123°44.85	191						TRAWL-Surface
01	Set 99	0051	BE	SET		165	49°14.86	123°51.13	274						TRAWL-60m
01	↓	0140	BE	CTD		166	49°15.212	123°54.838	306	250					T:14.5 S:27.0
	↓	0144	BO				49°15.236	123°54.910							
	↓	0149	EN				49°15.251	123°54.946							
01	↓	0200	BE	NET		167	49°15.295	123°55.026	292	250					BONGO-VNH
=END OF DAY															
01	Set 100	14:09	BE	SET		168	49°01.735	123°15.815	98.2						TRAWL-Surface
01	↓	14:55	BE	CTD		169	49°4.360	123°19.264	104				-LT-		T:12.6 S:25.4
	↓	14:57	BO				49°4.342	123°19.243		94					
	↓	14:59	EN				49°3.364	123°19.240							
01	↓	15:05	BE	NET		170	49°04.401	123°19.248	99	89					BONGO-VNH
01	Set 101	15:31	BE	SET		171	49°07.100	123°19.797	113						TRAWL-15m

Cast Type:
 BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

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 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

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Month <u>OCT</u>			Year <u>2015</u>			Ship <u>W.E. RICKER</u>			Cruise ID <u>2015-56</u>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
01	SET 102	16:34	BE	SET		172	49° 12.512	123° 18.896	141						TRAWL - 30M
01	SET 103	17:38	BE	SET		173	49° 16.886	123° 18.677	98.4						TRAWL - Surface.
01	Set 104	18:21	BE	CTD		174	49° 17.365	123° 22.943	256			-	-LT-	-	T: 14.1 S: 24.5
		18:26	BO				49° 17.368	123° 22.943		246					
		18:31	EN				49° 17.362	123° 22.944							
01		19:01	BE	NET		175	49° 17.326	123° 22.943	255	245					BONGO - VNA
01	✓	19:27	BE	SET		176	49° 16.28	123° 23.98	232						TRAWL - 45M
01	SET 105	20:36	BE	SET		177	49° 12.77	123° 25.64	299						TRAWL - 15M
01	SET 106	21:36	BE	SET		178	49° 07.481	123° 26.597	288						TRAWL - 30M
01	SET 107	22:32	BE	SET		179	49° 03.38	123° 27.24	323						TRAWL - Surface
01	SET 108	23:22	BE	SET		180	48° 59.37	123° 27.34	148						TRAWL - 15M
02	SET 109	00:47	BE	SET		181	48° 56.634	123° 24.492	158						TRAWL - Surface

Cast Type: (CDT) A

BOT = Bottle cast, no CTD

CTD = CTD without Rosette

ROS = Rosette plus CTD

SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

Bottle Firing Method:

US = Up / Stop

UN = Up / No stop

DN = Down / No stop

Time Code:

BE = Beginning Time of Cast

BO = Bottom Time of Cast

EN = End Time of Cast

Transmissometer & Fluorometer are to be cleaned before each cast

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

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Month			Year			Ship			Cruise ID						
OCT			2015			WE RICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
02	SET 109	01:21	BE	CTD		182	48° 55.735	123° 21.569	131			—	LT-	—	T: 14.1 S: 24.7
		01:23	BO				48° 55.741	123° 21.545		121					
		01:26	EN				48° 55.746	123° 21.568							
02	↓	01:34	BE	NET		183	48° 55.751	123° 21.444	145	135					BONGO-VN4
= END OF DAY =															
02	SET 110	14:10	BE	SET		184	48° 55.018	123° 20.113	81						TRAWL-SURFACE
02	↑	15:00	BE	CTD		185	48° 53.206	123° 16.820	110				LT-		T: 12.3 S: 28.1
		15:03	BO				48° 53.243	123° 16.871		90					CTD (185) & BONGO (186) is w/SET 111
		15:06	EN				48° 53.242	123° 16.909							
02	↓	15:14	BE	NET		186	48° 53.167	123° 16.802	101	90			LT-		BONGO-VN14
02	SET 111	15:35	BE	SET		187	48° 52.994	123° 14.567	208						TRAWL- 30 M
02	SET 112	16:39	BE	SET		188	48° 51.777	123° 08.561	149						TRAWL- 15 M
02		17:21	BE	CTD		189	48° 50.150	123° 5.248	201				LT		T: 13.6 S: 26.1
		17:24	BO				48° 50.132	123° 5.226		191					
		17:28	EN				48° 50.102	123° 5.182							
02	↓	17:40	BE	NET		190	48° 50.164	123° 05.265	201	191					BONGO-VN4
= TRAWLING TO COMBICAN BAY															
02	SET 113	20:04	BE	SET		191	48° 43.28	123° 26.48	78						TRAWL-SURFACE

Cast Type: BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method: US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code: BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

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Notes:

CTD EVENT 185/BONGAD 186 is associated to TRAWL SET 111 (EVENT 187) as we travelled south of Active Pass due to TRAFFIC

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Set 118-119: Puget Sound

This page is for any notes or observations

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month OCT			Year 2015			Ship WE RICKER			Cruise ID 2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
03	SET 120	17:02	BE	SET		201	47° 53.495	122° 30.097	140						Trawl - 15M
03	SET 121	18:19	BE	SET		202	47° 44.764	122° 25.158	246						Trawl - SURFACE
03		19:00	BE	CTD		203	47° 43.190	122° 25.712	210						T: 13.45: 30.6
		19:04	BE				47° 43.198	122° 25.732		200					
		19:08	EN				47° 43.210	122° 25.746							
03	SET 122	19:26	BE	SET		204	47° 43.478	122° 25.79	235						Trawl - 45M
03	SET 123	20:58	BE	SET		205	47° 33.08	122° 25.33	179						Trawl - 30M
03	SET 124	21:41	BE	SET		206	47° 30.31	122° 24.23	194						Trawl - SURFACE
03	SET 125	22:27	BE	SET		207	47° 26.01	122° 22.478	180						Trawl - 30M
03	SET 126	23:12	BE	SET		208	47° 22.27	122° 20.89	188						Trawl - SURFACE
03	SET 127	23:54	BE	SET		209	47° 22.08	122° 24.63	162						Trawl - 15M
		↓ (don't d)													

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:
US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Notes:

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Sat 120-127: Puget Sound

This page is for any notes or observations

DAILY SCIENCE LOG

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Month			OCT			Year			2015			Ship			W/E RICKER			Cruise ID			2015-56		
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments								
							Latitude	Longitude															
04	SET 127	00:54	BE	CTD		210	47° 21.3112	122° 25.776	177						T: B. 6 S. 30.6								
		00:57	BO				47° 21.338	122° 25.780		167													
		01:00	EN				47° 21.358	122° 25.798															
= END OF DAY																							
04	SET 128	14:18	BE	SET		211	47° 17.909	122° 49.341	34						TRAWL - SURFACE								
04		14:53	BE	CTD		212	47° 16.216	122° 50.921	53						T: 15.0 S: 30.0								
		14:55	BO				47° 16.204	122° 50.918		43													
		14:56	EN				47° 16.198	122° 50.916															
04	SET 129	15:15	BE	SET		213	47° 14.240	122° 50.645	65						TRAWL - 15M								
04	SET 130	16:01	BE	SET		214	47° 10.976	122° 48.341	89						TRAWL - SURFACE								
04	SET 131	16:57	BE	SET		215	47° 10.981	122° 43.985	60.9						TRAWL - SURFACE								
04	SET 132	18:00	BE	SET		216	47° 07.759	122° 40.777	109						TRAWL - 15M								

Cast Type:
 BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

Transmissometer & Fluorometer are to be cleaned before each cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Notes:

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Set 127-132: Puget Sound

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DAILY SCIENCE LOG

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Month	Station	Time	Time	Cast	Firing	Event	Positional Information		Bottom	Max	Sample	# of	Watch	Trans.	Comments
Day	Name	(UTC)	Code	Type	Method	Number	Latitude	Longitude	Depth	Depth	Numbers	Bottles	Keepers	Cleaned	
04	↑	19:48	BE	CTD		217	47° 20.173	122° 41.710	58				-LT-		T: 14.88 S: 30.0
		19:49	BO				47° 20.182	122° 41.704		48					
		19:50	EN				47° 20.189	122° 41.698							
04	SET 133	20:01	BE	SET		218	47° 19.82	122° 42.05	61						Trawl = 30M
04	SET 134	22:06	BE	SET		219	47° 21.12	122° 32.44	99						Trawl = 15M
04	SET 135	—	BE	SET		220	CANCELLED								NO TRAWL - POOR VIS
04	SET 136	23:43	BE	SET		221	47° 29.65	122° 29.80	103						Trawl = Surface
05	SET 137	00:50	BE	SET		222	47° 24.984	122° 31.563	119						Trawl = 60M
05	↓	01:20	BE	CTD		223	47° 26.449	122° 31.222	114						T: 13.7 S: 30.5
		01:22	BO				47° 26.471	122° 31.216		104					
	↓	01:24	EN				47° 26.490	122° 31.268							
	= END OF DAY														

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

Bottle Firing Method:

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

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Notes:

Set 133-137 Puget Sound

Set 135.

→ NET drawn back in due to presence of marine mammals.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Ship			Cruise ID						
October			2015			W.E. PICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
05	SET 138	14:07	BE	SET		224	48° 13.045	122° 34.979	54						TRAWL-SURFACE
		14:45	BE	CTD		225	48° 11.070	122° 33.646	85						T: 13.4 S: 28.2
		14:47	BO				48° 11.060	122° 33.640		75					
		14:49	EN				48° 11.047	122° 33.634							
05	SET 139	15:00	BE	SET		226	48° 10.465	122° 33.287	88						TRAWL-30M
05	SET 140	15:42	BE	SET		227	48° 08.211	122° 31.785	89						TRAWL-15M
05	SET 141	16:24	BE	SET		228	48° 06.078	122° 28.601	145						TRAWL-SURFACE
05	SET 142	17:10	BE	SET		229	48° 03.737	122° 24.205	132						TRAWL-15M
05	↑	18:47	BE	CTD		230	48° 9.840	122° 27.088	48						T: 13.2 S: 29.4
		18:48	BO				48° 9.845	122° 27.095		38					
		18:49	EN				48° 9.850	122° 27.098							
05	SET 143	19:03	BE	SET		231	48° 9.443	122° 26.33	86						TRAWL-SURFACE
05	SET 144	19:44	BE	SET		232	48° 07.39	122° 23.52	120						TRAWL-60M

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:
US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

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Version: 7 July 2014

Set 138-144: Puget Sd

This page is for any notes or observations

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Month			Year			Ship			Cruise ID						
October			2015			W. E. TRICKER			2015-56						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
05	SET 145	20:44	BE	SET		233	48° 04.61	122° 20.59	125						TRAWL-SURFACE
05	SET 146	21:47	BE	SET		234	48° 06.185	122° 22.333	123						TRAWL-SURFACE
05	SET 147	22:46	BE	SET		235	48° 04.50	122° 20.75	125						TRAWL-15M
		23:26	BE	CTD		236	48° 2.970	122° 19.336	119				-LT-		T:13.45:29.1
		23:22	BO				48° 2.956	122° 19.370		109					
		23:24	EN				48° 2.944	122° 19.386							
= END OF DAY															
06	SET 148	14:06	BE	SET		237	48° 01.162	122° 17.250	93						TRAWL-SURFACE
06	SET 149	14:54	BE	SET		238	48° 01.627	122° 20.891	158						TRAWL-SURFACE
06	SET 150	15:47	BE	SET		239	47° 56.761	122° 20.419	178						TRAWL-SURFACE
		16:22	BE	CTD		240	47° 54.641	122° 21.377	183				-LT-		T:13.35:29.8
		16:26	BO				47° 54.646	122° 21.395		173					
		16:29	EN				47° 54.636	122° 21.415							
06	SET 151	16:59	BE	SET		241	47° 56.668	122° 20.204	178						TRAWL-45M

USW	= Sea Water Loop
MOR	= Mooring
NET	= Plankton Net Haul
DRF	= Drifter
==	

Bottle Firing Method:	Time Code:
US = Up / Stop	BE = Beginning Time of Cast
UN = Up / No stop	BO = Bottom Time of Cast
DN = Down / No stop	EN = End Time of Cast
	DE = Deployment Time
	MR = Messenger Release Time
	RE = Recover Mooring Time
Notes:	

Transmissometer & Fluorometer are to be cleaned before each cast

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Set 145-151: Puget Sound

This page is for any notes or observations

Page 24 of 47

CREM CHANGE CAMPBELL RIVER ==
START HIGH SEAS (TRIDEL) LEG OF TRIP.

Transmissometer & Fluorometer are to be cleaned before each cast

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Set 152 - 155: Puget Sound

This page is for any notes or observations

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month	Year	Ship	Cruise ID												
OCT	2015	ME RICKER	2015-56												
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
07	DI01	2206	BE	CTD		248	50°18.638	125°16.846	119			—	MT	—	(OKISD) T:10.7 S:29.6
		2208	BO				50°18.638	125°16.852		109					BONGO-VNH
		2211	EN				50°18.637	125°16.864							
07		2218	BE	NET		249	50°18.631	125°16.897	119						BONGO-VNH
07	↓	2233	BE	SET		250	50°18.48	125°17.87	118						TRAWL-Surface
07	DI02	2324	BE	SET		251	50°18.65	125°24.82	180						TRAWL-Surface
08	DI03	0038	BE	SET		252	50°21.284	125°24.107							(NOVATES) TRAWL-Surface
08		0114	BE	CTD		253	50°22.074	125°21.888	220			1	MT	—	T:10.5 S:29.6
		0118	BO				50°22.082	125°21.880		210					BOT @ 10m: NUTS&G
		0122	EN				50°22.085	125°21.892							
	↓	0133	BE	NET		254	50°22.084	125°21.889	217						BONGO-VNH
= ENDS OF DAY															
08	QCST01	1404	BE	CTD		255	50°49.321	127°39.024	373			1	MT	—	Goleias Chond T:10.6 S:32.1
		1409	BO				50°49.306	127°38.930		250					BOT @ 10m: NUTS&G
		1414	EN				50°49.270	127°38.839							
08		1425	BE	NET		256	50°49.213	127°38.690	373						BONGO-VNH
08	↓	1447	BE	SET		257	50°48.775	127°37.159	377						TRAWL-Surface

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:
US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

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Notes:

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2015-56

DATE:

From: 08 OCT 2015

To: 26 OCT 2015

VESSEL:

W.E. RICKER

PROJECT(S):

Salmon Marine Interactions
High Seas Salmon (Book 2 of 3)

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

**** The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board ****

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist MUST verify that all relevant sections are completed prior to leaving the vessel. Any mid-cruise changes to be noted by watch leader in the notes.

Data logging computer: WP10

Data acquisition program: SeaSave v.7.21d

CTD deck unit make: SBE model: 11plus serial number: 0424
config: Ricker 550 july primary.xmlcom

Primary CTD

Make: SBE model: 9 serial number: 0550

Primary temperature serial number: 2374

Primary conductivity serial number: 2128

Secondary temperature serial number: 2710

Secondary conductivity serial number: 3184

Transmissometer: — Model: — s/n: —

Transmissometer: — Model: — s/n: —

Fluorometer: Model Seapoint Cable gain: 3x0.50 s/n: 3641 (P, S or NO pump?)

Fluorometer: Model — Cable gain: — s/n: — P, S or NO pump?

Oxygen sensor: — Model: SBE43 s/n: 1176 (P, S or NO pump?)

PAR sensor: — Model: — s/n: — Surface PAR? Y / N

Other sensors: ph s/n: 0851 (P, S or NO pump?)

Other sensors: — s/n: — P, S or NO pump?

Other sensors: — s/n: — P, S or NO pump?

Other sensors: — s/n: — P, S or NO pump?

Secondary CTD

Make: — model: — serial number: —

Primary temperature serial number: —

Primary conductivity serial number: —

Secondary temperature serial number: —

Secondary conductivity serial number: —

Transmissometer: — Model: — s/n: —

Transmissometer: — Model: — s/n: —

Fluorometer: Model — Cable gain: — s/n: — P, S or NO pump?

Fluorometer: Model — Cable gain: — s/n: — P, S or NO pump?

Oxygen sensor: — Model: — s/n: — P, S or NO pump?

PAR sensor: — Model: — s/n: — Surface PAR? Y / N

Other sensors: — s/n: — P, S or NO pump?

Other sensors: — s/n: — P, S or NO pump?

Other sensors: — s/n: — P, S or NO pump?

Other sensors: — s/n: — P, S or NO pump?

CTD calibration bottle location (height above CTD in metres): —

This also includes the bottle location above the CTD on non-rosette casts (e.g., W.E. Ricker)

Scientific Equipment Used During Cruise

This sheet allows you to enter all of the equipment used while on board. Please use the separate CTD sheet for entry for SBE 9/16/19/25.

Other CTD units:

RBR Serial Number: Sensors: RBR Solo (bongo net)

Others:

Plankton Nets:

Bongo #1 Frame Size: 58 cm Mesh: 250 µm Flowmeter: SK 1217/6069 (switched 20 Sep 2015)
Bongo #2 Frame Size: cm Mesh: µm Flowmeter:
Frame Size: cm Mesh: µm Flowmeter:
Frame Size: cm Mesh: µm Flowmeter:

Multinet ☐ BIONESS ☐ Neuston ☐ Others:

Trawl Gear:

Midwater Trawls: SOG ☐ Highseas ☒ Pelagic ☐ Other:

Bottom Trawls: Atlantic Western IIA ☐ Yankee 36 Hard & Soft Bottom ☐ Other:

American Shrimp Trawl ☐

Notes:

Trawl Doors: USA Jet ☒ Tyburon ☐

Sounders : Wesmar 380 ☐ Others: Neocaligns

Acoustics:

Echosounder #1 Frequencies (KHz): 12 ☐ 18 ☐ 38 ☐ 70 ☐ 120 ☐ 200 ☐

Others:

Echosounder #2 Frequencies (KHz): 12 ☐ 18 ☐ 38 ☐ 70 ☐ 120 ☐ 200 ☐

Others:

Software & Notes:

Other Gear in Operation:

-
-
-
-
-

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month OCT			Year 2015			Vessel THE RICKER			Cruise ID 2015-150						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
258	QCST02	07	15:50	BE	CTD		50°47.171	127°29.987	363		-			☐ ☐	TMO4 S: 31.9
			15:55	BO			50°47.179	127°29.975		250	-	1	MT	☒ ☐	BOT 10m NUS
			16:00	EN			50°47.182	127°29.982			-			☐ ☐	
259		08	16:31	BE	NET		50°47.125	127°29.771	363	250	-			☐ ☐	BONGO-VNH
260	✓	08	16:30	BE	SET		50°47.109	127°28.291	356		-			☐ ☐	TRAWL-15m
			:				.	.			-			☐ ☐	
261	QCST03	08	17:34	BE	CTD		50°48.000	127°22.295	175		-	1	MT	☒ ☐	TMO5 S: 31.5
			17:37	BO			50°48.980	127°22.253		166	-			☐ ☐	BOT 10m NUS
			17:41	EN			50°48.962	127°22.253			-			☐ ☐	
262		08	17:49	BE	NET		50°48.944	127°22.255	174	164	-			☐ ☐	BONGO-VNH
263	✓	08	18:02	BE	SET		50°48.737	127°20.732	159		-			☐ ☐	TRAWL-Surface
			:				.	.			-			☐ ☐	
264	QCST04	08	19:13	BE	CTD		50°47.825	127°12.332	149		-			☐ ☐	TMO6 S: 31.6
			19:16	BO			50°47.833	127°12.360		139	-			☐ ☐	BOT 10m NUS
			19:19	EN			50°47.821	127°12.350			-			☐ ☐	
265		08	19:28	BE	NET		50°47.847	127°12.286	149	139	-			☐ ☐	BONGO-VNH
266	✓	08	19:46	BE	SET		50°47.36	127°13.11	152		-			☐ ☐	TRAWL-50m
			:				.	.			-			☐ ☐	
			:				.	.			-			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)

CTD = Standalone CTD

ROS = CTD in Rosette

SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)

UN = Up / No stop

DN = Down / No stop

Time Code:

BE = Beginning Time of Cast

BO = Bottom Time of Cast

EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month OCT			Year 2015			Vessel WE RICKER			Cruise ID 2015-56							
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments	
267	QCST05	08	20:47	BE	CTD		50°44.155	127°19.170	253		-	1	MT	☒ ☐	T:10.1 S:31.8	
			20:51	BO			50°44.938	127°19.163		243	-			☐ ☐	BOT@10m NUTS, CHL	
			20:56	EN			50°44.952	127°19.174			-			☐ ☐		
268		08	21:08	BE	NET		50°44.958	127°19.158	254	244	-			☐ ☐	BONGO-VNH	
269	✓	08	21:27	BE	SET		50°45.70	127°19.36	281		-			☐ ☐	TRAWL-Surface	
= END OF DAY → Ended early for fuelling in Port Hardy															☐ ☐	
270	QCST06	09	14:35	BE	CTD		50°42.046	126°56.693	200		-	1	MT	☒ ☐	T:9.8 S:31.8	
			14:40	BO			50°42.006	126°56.551		190	-			☐ ☐	BOT@10m NUTS, CHL	
			14:45	EN			50°42.005	126°56.548			-			☐ ☐		
271	✓	09	:	BE	SET		.	.			-			☐ ☐	TRAWL-Surface	
			:				.	.			-			☐ ☐		
272	QCST07	09	16:35	BE	CTD		50°39.887	127°11.346	45		-	1	MT	☒ ☐	T:10.0 S:31.6	
			16:36	BO			50°39.834	127°11.342		35	-			☐ ☐	BOT@10m NUTS, CHL	
			16:37	EN			50°39.872	127°11.336			-			☐ ☐		
273		09	16:43	BE	NET		50°39.850	127°11.319	47	37	-			☐ ☐	BONGO-VNH	
274	✓	09	16:58	BE	SET		50°40.427	127°10.402	67		-			☐ ☐	TRAWL-15 m	
			:				.	.			-			☐ ☐		
			:				.	.			-			☐ ☐		
			:				.	.			-			☐ ☐		

Event Type:

BOT = Bottle cast (no CTD)

CTD = Standalone CTD

ROS = CTD in Rosette

SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

_____ = _____

Bottle Firing Method:

US = Up / Stop (default)

UN = Up / No stop

DN = Down / No stop

Time Code:

BE = Beginning Time of Cast

BO = Bottom Time of Cast

EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

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Notes: _____

05/20/06 Winds gust > 60 kts. Bird on ground.
Star - 45 off horizon 45-47, 44th acquisition started (wind issue)

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month OCT			Year 2015			Vessel W.E. RICKER			Cruise ID 2015-56						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
275	QCST08	09	17:59	BE	CTD		50°43.597	127°05.987	182		-	1	MT	☒ ☐	T:9.9 S:31.6
			18:02	BO			50°43.603	127°05.956		172	-			☐ ☐	BOT@10m: NUTS, CHL
			18:05	EN			50°43.612	127°05.920			-			☐ ☐	
276		09	18:14	BE	NET		50°43.600	127°05.842	179	169	-			☐ ☐	BONGO-VNH
277	↓	09	18:32	BE	SET		50°43.617	127°04.305	163		-			☐ ☐	TRAWL-Surface
			:				.	.			-			☐ ☐	
278	QCST09	09	19:39	BE	CTD		50°47.120	126°59.896	138		-	1	MT	☒ ☐	T:10.0 S:31.0
			19:41	BO			50°47.118	126°59.892		128	-			☐ ☐	BOT@10m: NUTS, CHL
			19:44	EN			50°47.116	126°59.884			-			☐ ☐	
279		09	19:53	BE	NET		50°47.10	126°59.86	138	128	-			☐ ☐	BONGO-VNH
280	↓	09	20:11	BE	SET		50°46.71	126°58.6	146		-			☐ ☐	TRAWL-30m
			:				.	.			-			☐ ☐	
281	QCST10	09	21:31	BE	CTD		50°45.892	126°50.610	173		-	1	MT	☒ ☐	T:10.1 S:30.3
			21:34	BO			50°45.894	126°50.604		163	-			☐ ☐	
			21:37	EN			50°45.898	126°50.586			-			☐ ☐	
282		09	21:46	BE	NET		50°45.89	126°50.56	172	162	-			☐ ☐	BONGO-VNH
283	↓	09	22:03	BE	SET		50°45.474	126°49.786	165		-			☐ ☐	TRAWL-Surface
			:				.	.			-			☐ ☐	
			:				.	.			-			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
SET = Fish Set

LOOP = Sea Water Loop
MOR = Mooring
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DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

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Notes:

DAILY SCIENCE LOG

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Month OCT				Year 2015			Vessel W.E. RICKER				Cruise ID 2015-56				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
284	QCST11	09	23:05	BE	CTD		50°42.226	126°46.631	150		-	1	MT	☒ ☐	T:10.0 S:30.9
			23:07	BO			50°42.242	126°46.679		140	-			☐ ☐	BOT@10m NUTS, CHL
			23:10	EN			50°42.260	126°46.666			-			☐ ☐	
285		09	23:18	BE	NET		50°42.28	126°46.67	149	139	-			☐ ☐	BONGO
286	✓	09	23:33	BE	SET		50°41.78	126°46.79	135		-			☐ ☐	TRAWL-15m
			:				.	.			-			☐ ☐	
287	QCST12	10	01:29	BE	SET		50°39.95	126°49.92	180		-			☐ ☐	TRAWL-Surface
288		10	00:57	BE	CTD		50°39.166	126°48.946	173		-	1	MT	☒ ☐	T:10.05 S:31.50
			01:00	BO			50°39.194	126°48.944		163	-			☐ ☐	BOT@10m NUTS, CHL
			01:03	EN			50°39.234	126°48.952			-			☐ ☐	
289	✓	10	01:12	BE	NET		50°39.31	126°48.86	173	163	-			☐ ☐	BONGO-VNH
= END OF DAY															
			:				.	.			-			☐ ☐	
290	QCST13	10	14:05	BE	CTD		50°51.521	127°17.998	135		-	1	MT	☒ ☐	T:10.2 S:30.6
			14:08	BO			50°51.517	127°18.012		125	-			☐ ☐	BOT@10m: NUTS, CHL
			14:11	EN			50°51.532	127°18.046			-			☐ ☐	
291			14:18	BE	NET		50°51.498	127°18.099	135	125	-			☐ ☐	BONGO-VNH
292	✓		14:40	BE	SET		50°51.300	127°17.300	138		-			☐ ☐	TRAWL-Surface
			:				.	.			-			☐ ☐	
			:				.	.			-			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

Notes:

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This page is for any notes or observations.

QCST 12 CTS/Bongo before set consecutive numbers not changed. [Due to porpoises around the boat]

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>OCT</u>			Year <u>2015</u>		Vessel <u>W.E. RICKER</u>		Cruise ID <u>2015-56</u>								
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
							Latitude	Longitude							
293	QCST14	10	15:42	BE	CTN		50°50.462	127°09.263	149		-	1	MT	☒	T:10.3 S:50.1
			15:45	BO			50°50.470	127°09.265		139	-			☐	BOT@10m: NUTS, CAL
			15:48	EN			50°50.464	127°09.248			-			☐	
294		10	15:55	BE	NET		50°50.441	127°09.225	147	137	-			☐	BONGO-VNH
295	✓	10	16:12	BE	SET		50°49.935	127°08.411	149		-			☐	TRAWL-15m
			:				.	.			-			☐	
296	BA01	10	17:41	BE	CTD		50°50.660	126°56.968	192	187	-	1	MT	☒	T:10.3 S:29.7
			17:45	BO			50°50.656	126°56.940		182/178	-			☐	BOT@10m: NUTS, CAL
			17:50	EN			50°50.650	126°56.900			-			☐	
297		10	17:59	BE	NET		50°50.624	126°56.900	181	170	-			☐	BONGO-VNH
298	✓	10	18:16	BE	SET		50°51.094	126°56.004	188		-			☐	TRAWL-Surface
			:				.	.			-			☐	
299	BA02	10	19:32	BE	SET		50°53.19	126°45.41	243		-			☐	TRAWL-30m
			:				.	.			-			☐	
300	BA03	10	20:40	BE	CTD		50°53.188	126°35.617	472		-	1	MT	☒	T:11.5 S:27.2
			20:44	BO			50°53.195	126°35.608		250	-			☐	BOT@10m: NUTS, CAL
			20:49	EN			50°53.202	126°35.593			-			☐	
301		10	21:00	BE	NET		50°53.22	126°35.56	471	250	-			☐	BONGO-VNH
302	✓	10	21:18	BE	SET		50°53.66	126°34.75	473		-			☐	TRAWL-Surface

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Notes: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 14 February 2013

This page is for any notes or observations

BAS: Broughton Archipelago, strong current. Stopped @ 104m on upcast to correct board lead.
Considerable drift over duration of tow.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 31 of

Month OCT			Year 2015			Vessel W.E. RICKER			Cruise ID 2015-56						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
303	BA04	10	22:33	BE	SET		50°48.57	126°30.01	226		-			☐ ☐	TRAWL-15m
			:				°	°			-			☐ ☐	
304	BA05	11	00:54	BE	CTD		50°46.678	126°41.207	409		-	1	MT	☒ ☐	T:10.5 S:28.9
			00:58	BO			50°46.666	126°41.215		250	-			☐ ☐	BOT@10m NUTS CHL
			01:04	EN			50°46.667	126°41.230			-			☐ ☐	
305		11	01:15	BE	NET		50°46.73	126°41.32	409	250	-			☐ ☐	BONGO-VNH
306	↓	10	23:51	BE	SET		50°46.93	126°38.02	357		-			☐ ☐	TRAWL-Surface
= END OF DAY			:				°	°			-			☐ ☐	
307	LJS01	11	14:05	BE	CTD		50°29.617	126°14.477	311		-			☐ ☐	T:10.1 S:30.8
			14:10	BO			50°29.636	126°14.526		250	-			☐ ☐	BOT@10m NUTS CHL
			14:16	EN			50°29.647	126°14.567			-			☐ ☐	
308		11	14:26	BE	NET		50°29.648	126°14.650	298	250	-			☐ ☐	BONGO-VNH
309	↓	11	14:45	BE	SET		50°29.512	126°13.978	343		-			☐ ☐	TRAWL-Surface
			:				°	°			-			☐ ☐	
310	LJS02	11	15:58		CTD		50°27.150	126°03.896	233		-	1	MT	☐ ☐	T:10.0 S:31.2
			16:03				50°27.150	126°03.864		223	-			☐ ☐	BOT@10m NUTS CHL
			16:07				50°27.150	126°03.814			-			☐ ☐	
311		11	16:18		NET		50°27.146	126°03.718	241	230	-			☐ ☐	BONGO-VNH
312	↓	11	16:38		SET		50°27.684	126°02.553	271		-			☐ ☐	TRAWL-15m

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Notes:

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BA05: [E] Fishnet set happened before CT/PT/IO. Consecutive hauls were not changed. (Note: back to front)
[C] Upcast slowed @ ~70m from surface to correct inboard lead. (see 2 CT/PT/IO)

LJS01: Close to JS04. (Lower Johnstone Strait)

LJS02: Close to JS05

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 32 of

Month <u>OCT</u>			Year <u>2015</u>			Vessel <u>WE RICKER</u>			Cruise ID <u>2015-56</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
313	LJS03	11	17:44	BE	SET		50°28.075	125°55.300	66		-			☐ ☐	TRAWL-Surface
			:				°	°			-			☐ ☐	
314	LJS04	11	18:58	BE	SET		50°27.96	125°55.41	65		-			☐ ☐	TRAWL-15m
			:				°	°			-			☐ ☐	
315	LJS05	11	19:53	BE	CTD		50°26.107	126°00.788	207		-			☐ ☐	T:10.1 S:31.0
			19:57	BO			50°26.114	126°00.834		197	-			☐ ☐	BOT@10m: NUTS CH
			20:02	EN			50°26.123	126°00.815			-			☐ ☐	
316		11	20:12	BE	NET		50°26.23	126°00.82	206	195	-			☐ ☐	BONGO-VNH
317	V	11	20:34	BE	SET		50°26.08	126°00.95	206		-			☐ ☐	TRAWL-Surface
			:				°	°			-			☐ ☐	
318	LJS06	11	21:49	BE	SET		50°24.454	125°46.800	130		-			☐ ☐	TRAWL - 15m
			:				°	°			-			☐ ☐	
319	LJS07	11	22:24	BE	CTD		50°24.967	125°45.137	149		-			☐ ☐	T:10.5 S:30.0
			22:26	BO			50°24.962	125°45.133		139	-			☐ ☐	BOT@10m: NUTS CH
			22:29	EN			50°24.947	125°45.131			-			☐ ☐	
320		11	22:37	BE	NET		50°24.91	125°45.12	150	140	-			☐ ☐	BONGO-VNH
321	V	11	22:54	BE	SET		50°24.62	125°46.24	128		-			☐ ☐	TRAWL-Surface
			:				°	°			-			☐ ☐	
322	LJS08	12	00:38		SET		50°22.263	125°40.000	267		-			☐ ☐	TRAWL-Surface

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

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Version: 14 February 2013

Notes:

END OF DAY

(BREAK FOR CREW CHANGE)

This page is for any notes or observations

LJS03/LJS04 Sunderland Channel (same location, 2 tow depths)

LJS05: Buinding current on flooding tide (Barrow Narrows 11kts max.)
@ 1400

LJS06 Chancellos Channel

12-13 OCT: Break for maintenance day & ship crew change

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 33 of

Month <u>OCT</u>			Year <u>2015</u>			Vessel <u>WE RICKER</u>			Cruise ID <u>2015-56</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
323	JF01	14	16:51	BE	CTD		48°17.412	123°40.952	170		-	1	YJ	☐ ☐	T:10.2 Sal:31.7
			16:55	BO			48°17.467	123°41.006		160	-			☐ ☐	BOT@10 NUTS OIL
			16:59	EN			48°17.518	123°41.084			-			☐ ☐	
324			17:11	BE	NET		48°17.548	123°41.211	177	150	-			☐ ☐	BONGO-VNH
325	↓	↓	17:26	BE	SET		48°17.701	123°42.878	174		-			☐ ☐	TRAWL - Surface
			:				.	.			-			☐ ☐	
326	JF02	14	18:50	BE	SET		48°20.922	123°52.401	123		-			☐ ☐	TRAWL - 15m
			:				.	.			-			☐ ☐	
327	JF03	14	19:59	BE	CTD		48°23.965	124°06.070	102		-	1	YJ	☐ ☐	T:10.8 Sal:31.4
			20:00	BO			48°23.975	124°06.013		90	-			☐ ☐	BOT@10m NUTS/OIL
			20:03	EN			48°24.016	124°06.043			-			☐ ☐	
328			20:15	BE	NET		48°23.904	124°05.933	103	93	-			☐ ☐	BONGO-VNH
329	↓	↓	20:45	BE	SET		48°24.436	124°07.983	96		-			☐ ☐	TRAWL - Surface
			:				.	.			-			☐ ☐	
330	JF04	14	23:15	BE	SET		48°25.659	124°13.076			-			☐ ☐	TRAWL - 30m
			:				.	.			-			☐ ☐	
331	JF05	15	00:36	BE	SET		48°28.555	124°21.981	105		-			☐ ☐	TRAWL - Surface
332			02:01	BE	CTD		48°30.449	124°27.558	108		-	1	YJ	☐ ☐	T:11.4 Sal:31.48
			02:03	BO			48°30.467	124°27.562		100	-			☐ ☐	BOT@10 NUTS/OIL

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month OCT				Year 2015			Vessel WE RICKER			Cruise ID 2015-56					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
332	JF05	15	02:06	EN	CTD		48°30.492	124°27.565			-			☐	
333	↓	↓	02:15	BE	NET		48°30.582	124°27.654	109	99	-			☐	BONGO - VNH
END OF DAY			:				.	.			-			☐	
334	CS01	15	17:12	BE	CTD		49°23.122	125°56.502	136		-	1	YU	☐	T: 11.0 Sal: 31.2
			17:14	BO			49°23.122	125°56.498		125	-			☐	BOT@10 NUTS/CHL
↓			17:18	EN	↓		49°23.120	125°56.491			-			☐	
335			17:26		NET		49°23.114	125°56.433	139	129	-			☐	
336	↓	↓	17:45		SET		49°23.097	125°56.492	140		-			☐	TRAWL - SURFACE
			:				.	.			-			☐	
337	CS02	15	18:18	BE	SET		49°22.117	125°56.716	146		-			☐	TRAWL - 15m
			:				.	.			-			☐	
338	CS03	15	19:05	BE	SET		49°21.900	125°56.800	147		-			☐	TRAWL - 30m
			:				.	.			-			☐	
339	CS04	15	20:10	BE	SET		49°20.570	125°57.532	143		-			☐	TRAWL - 45m
			:				.	.			-			☐	
340	CS05	15	20:48	BE	CTD		49°20.880	125°57.596	140		-		YU	☐	T 135 S: 306
			20:50	BO			.	.		130	-			☐	BOT@10 NUTS/CHL
↓			20:54	EN	↓		49°20.880	125°57.596			-			☐	
341	↓	↓	21:02		NET		49°20.874	125°57.605	145	135	-			☐	BONGO - VNH

Event Type:

BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
SET = Fish Set

LOOP = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month OCT				Year 2015		Vessel W E RICKER			Cruise ID 2015-58						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Ft Cleaned	Comments
							Latitude	Longitude							
342	CS05	15	21:20	BE	SET		49° 20.570	125° 57.970	144		-			☐	TRAWL - SURFACE
343	CS06	15	22:06	BE	SET		49° 19.797	125° 53.544	138		-			☐	TRAWL - 15m
344	CS07	15	23:16	BE	SET		49° 19.000	125° 53.950	81.4		-			☐	TRAWL - SURFACE
345	CS08	15	23:49	BE	SET		49° 20.460	126° 04.260	105		-			☐	TRAWL - 15m
346		16	00:44	BE	CTD		49° 19.342	126° 04.001	88		-			☐	T: 13.2 S: 39.8
			00:46	BO			49° 19.343	126° 04.000		78	-		YU	☐	BOT@10m NUTS/CHL
347			00:49	EN			49° 19.361	126° 04.000			-			☐	BONGO - VNH
			00:53	BE	NET		49° 19.383	126° 53.980	89	79	-			☐	TRAWL - SURFACE
348	CS09	16	14:07	BE	CTD		49° 22.061	126° 14.788	42		-		YU	☐	T: 29 S: 29.3
			14:08	BO			49° 22.060	126° 14.788		30	-			☐	BOT@10m NUTS/CHL
349			14:14	BE	NET		49° 22.060	126° 14.780	41	31	-			☐	BONGO - VNH
350			14:35	BE	SET		49° 22.850	126° 14.690	64		-			☐	TRAWL - SURFACE
351	CS10	16	15:10	BE	SET		49° 24.090	126° 14.610	67		-			☐	TRAWL - 15m

Event Type:

BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
SET = Fish Set

LOOP = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Notes:

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DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2015-56

DATE:

From: 16 OCT 2015

To: 26 OCT 2015

VESSEL:

W.E. RICKER

PROJECT(S):

Salmon Marine Interactions

High Seas Salmon (Book 3 of 3)

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

**** The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board ****

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist **MUST** verify that all relevant sections are completed prior to leaving the vessel. Any mid-cruise changes to be noted by watch leader in the notes.

Data logging computer: WP10

Data acquisition program: Seasave V.7.21d

CTD deck unit make: SBE model: 11 PLUS serial number: 0124

Primary CTD

Make: SBE model: 9 serial number: 0550

Primary temperature serial number: 2374

Primary conductivity serial number: 2128

Secondary temperature serial number: 2710

Secondary conductivity serial number: 3184

Transmissometer: Model: s/n: _____

Transmissometer: Model: s/n: _____

Fluorometer: Model Seapoint Cable gain: 3x0-50m/s/n 3641 (P) S or NO pump?

Fluorometer: Model _____ Cable gain: s/n: _____ P, S or NO pump?

Oxygen sensor: Model: SBE43 s/n: 1176 (P) S or NO pump?

PAR sensor: Model: s/n: _____ Surface PAR? Y / N

Other sensors: pH s/n: 0851 (P) S or NO pump?

Other sensors: s/n: _____ P, S or NO pump?

Other sensors: s/n: _____ P, S or NO pump?

Other sensors: s/n: _____ P, S or NO pump?

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: Model: s/n: _____

Transmissometer: Model: s/n: _____

Fluorometer: Model _____ Cable gain: s/n: _____ P, S or NO pump?

Fluorometer: Model _____ Cable gain: s/n: _____ P, S or NO pump?

Oxygen sensor: Model: s/n: _____ P, S or NO pump?

PAR sensor: Model: s/n: _____ Surface PAR? Y / N

Other sensors: s/n: _____ P, S or NO pump?

Other sensors: s/n: _____ P, S or NO pump?

Other sensors: s/n: _____ P, S or NO pump?

Other sensors: s/n: _____ P, S or NO pump?

CTD calibration bottle location (height above CTD in metres): _____

This also includes the bottle location above the CTD on non-rosette casts (e.g., W.E. Ricker)

RED CROWN

Captain: Al Young First Officer: Peter Sloan
Second Officer: Douglas Murdoch Third Officer: Ian Craig
Fishing Master: Brian West Chief Engineer: Scott Ware

Mission Participants / Agencies:

DEO / UBC (Hakai Inst.)

**** Chief Scientist to complete section below OR cut and tape from cruise plan ****

1st Leg Scientific Personnel: Chief Scientist: Strahan Tucker

Name	Watch	Cabin	Name	Watch	Cabin
------	-------	-------	------	-------	-------

<u>Yeongha Jung</u>			<u>Colin Novak</u>		
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<u>Middle Bresch</u>			<u>Claire Rycroft</u>		
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2nd Leg Scientific Personnel: Chief Scientist:

Name	Watch	Cabin	Name	Watch	Cabin
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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 36 of

Month <u>OCT</u>				Year <u>2015</u>			Vessel <u>WE RICKER</u>				Cruise ID <u>2015-56</u>				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
352	CS11	16	15:45		SET		49°22.580	126°14.650	60		-			☐ ☐	TRAWL - 30m
			:				.	.			-			☐ ☐	
353	CS12	16	16:22		SET		49°23.690	126°14.530	71		-			☐ ☐	TRAWL - 45m
			:				.	.			-			☐ ☐	
354	CS13	16	17:56	BE	CTD		49°25.604	126°03.756	140		-	1	YJ	☐ ☐	T:13.3 S:30.3
			17:58	BO			49°25.598	126°03.768		130	-			☐ ☐	BOT@10m NUS/CHL
			18:01	EN	↓		49°25.594	126°03.778			-			☐ ☐	
355			18:10	BE	NET		49°25.582	126°03.809	143	133	-			☐ ☐	BONGO - VNH
356	↓	↓	18:29	BE	SET		49°25.550	126°04.920	163		-			☐ ☐	TRAWL - Surface
			:				.	.			-			☐ ☐	
357	CS14	16	19:28	BE	SET		49°25.540	126°04.820	155		-			☐ ☐	TRAWL - 15m
			:				.	.			-			☐ ☐	
358	CS15	16	20:03	BE	SET		49°25.340	126°06.920	166		-			☐ ☐	TRAWL - SURFACE
			:				.	.			-			☐ ☐	
359	CS16	16	20:47	BE	SET		49°25.270	126°06.810	165		-			☐ ☐	TRAWL - 15m
			:				.	.			-			☐ ☐	
360	CS17	16	21:30	BE	SET		49°25.170	126°06.960	153		-			☐ ☐	TRAWL - 30m
			:				.	.			-			☐ ☐	
361	CS18	16	22:18	BE	CTD		49°23.310	126°10.642	86		-	1	YJ	☐ ☐	T:13.1 S:29.6

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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Notes:

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Month <u>OCT</u>				Year <u>2015</u>			Vessel <u>W/E RICKER</u>				Cruise ID <u>2015-56</u>				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
361	CS18	16	22:20	BO	CTD		49°23.309	126°10.655		76	-			☐ ☐	BOT@10m NUTS/CHL
			22:23	EN	↓		49°23.311	126°10.674			-			☐ ☐	
362			22:29	BE	NET		49°23.303	126°10.699	86	76	-			☐ ☐	
363	↓		22:46	BE	SET		49°23.580	126°11.880	74		-			☐ ☐	TRAWL - SURFACE
			:				.	.			-			☐ ☐	
364	CS19		23:27	BE	SET		49°23.770	126°12.480	74		-			☐ ☐	TRAWL - 30m
= END OF DAY			:				.	.			-			☐ ☐	
365	VI01		14:17	BE	CTD		49°03.530	126°07.530	64		-	1	YJ	☐ ☐	T:14.1 S:32.0
			14:19	BO			49°03.545	126°07.865		54	-			☐ ☐	BOT@10m NUTS/CHL
↓			14:21	EN	↓		49°03.568	126°07.855			-			☐ ☐	
366			14:27	BE	NET		49°03.627	126°07.813	64	54	-			☐ ☐	
367	↓		14:43	BE	SET		49°03.140	126°08.490	65		-			☐ ☐	TRAWL - SURFACE
			:				.	.			-			☐ ☐	
368	VI02		15:47	BE	CTD		48°59.413	126°12.882	100		-	1	YJ	☐ ☐	T:14.4 S:32.0
			15:49	BO			48°59.414	126°12.882		90	-			☐ ☐	BOT@10m NUTS/CHL
↓			15:52	EN	↓		48°59.406	126°12.895			-			☐ ☐	
369			15:59	BE	NET		48°59.410	126°12.905	100	90	-			☐ ☐	
370	↓		16:15	BE	SET		48°58.860	126°13.680	109		-			☐ ☐	TRAWL - 15m
			:				.	.			-			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
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Notes:

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Month			Year			Vessel			Cruise ID						
OCT			2015			W E RICKER			2015-56						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
371	VI03	17	17:08	BE	SET		48° 56.770	126° 17.110	129		-			☐ ☐	TRAWL - SURFACE
			:				°	°			-			☐ ☐	
372	VI04	17	17:59	BE	CTD		48° 54.346	126° 19.158	145		-	1	YJ	☐ ☐	T:15.3 S:32.0
↓	↓		18:01	BO	↓		48° 54.348	126° 19.127		135	-			☐ ☐	BOT@10m NWS/CHL
↓	↓		18:05	EN	↓		48° 54.318	126° 19.108			-			☐ ☐	
373	↓		18:15	BE	NET		48° 54.262	126° 19.021	145	135	-			☐ ☐	
374	↓	↓	18:33	BE	SET		48° 53.510	126° 19.740	152		-			☐ ☐	TRAWL - 30m
			:				°	°			-			☐ ☐	
375	VI05	17	19:39	BE	CTD		48° 50.822	126° 24.710	180		-	1	YJ	☐ ☐	T:15.6 S:32.0
↓	↓		19:42	BO	↓		48° 50.815	126° 24.702		170	-			☐ ☐	BOT@10m NWS/CHL
↓	↓		19:46	EN	↓		48° 50.806	126° 24.692			-			☐ ☐	
376	↓		19:57	BE	NET		48° 50.781	126° 24.676	181	171	-			☐ ☐	
377	↓	↓	20:17	BE	SET		48° 51.250	126° 24.060	178		-			☐ ☐	TRAWL - SURFACE
			:				°	°			-			☐ ☐	
378	VI06	17	21:39	BE	SET		48° 57.490	126° 16.590	128		-			☐ ☐	TRAWL - SURFACE
			:				°	°			-			☐ ☐	
379	VI07	17	22:21	BE	SET		48° 59.575	126° 29.800	34		-			☐ ☐	TRAWL - SURFACE
END OF DAY			:				°	°			-			☐ ☐	
			:				°	°			-			☐ ☐	

= END OF DAY

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
 MR = Messenger Release Time
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Month <u>OCT</u>			Year <u>2013</u>			Vessel <u>WE RICKER</u>			Cruise ID <u>2015-56</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
380	VI08	18	14:05	BE	CTD		48°47.261	125°23.327	96		-	1	YJ	☐	T:138 S:32.0
			14:07	BO			48°47.254	125°23.180		86	-			☐	BOT@10m NTS/KAL
✓			14:10	EN	↓		48°47.208	125°23.156			-			☐	
381			14:17	BE	NET		48°47.184	125°23.050	96	86	-			☐	BONGO - VNH
382	↓		14:35	BE	SET		48°46.440	125°24.200	101		-			☐	TRAWL - SURFACE
383	VI09		15:38	BE	SET		48°43.470	125°30.540	135		-			☐	TRAWL - 15m
384	VI10		16:29	BE	SET		48°41.010	125°35.560	149		-			☐	TRAWL - 30m
385	VI11		17:20	BE	CTD		48°38.887	125°38.832	62		-	1	YJ	☐	T:132 S:32.0
			17:21	BO			48°38.884	125°38.842		52	-			☐	BOT@10m NTS/KAL
✓			17:23	EN	↓		48°38.880	125°38.855			-			☐	
386			17:29	BE	NET		48°38.883	125°38.867	62	52	-			☐	BONGO - VNH
387	✓		17:44	BE	SET		48°38.200	125°39.910	60		-			☐	TRAWL - SURFACE
388	VI12		18:39	BE	SET		48°35.680	125°41.520	64		-			☐	TRAWL - 15m
389	VI13		19:45	BE	SET		48°32.590	125°35.990	85		-			☐	TRAWL - 30m
390	VI14		20:50	BE	SET		48°35.680	125°31.980	73		-			☐	TRAWL - SURFACE
391	VI15		22:07	BE	CTD		48°38.158	125°27.493	81		-	1	YJ	☐	T:13.4 S:31.7
			22:08	BO			48°38.158	125°27.538		71	-			☐	BOT@10m NTS/KAL
✓			22:11	EN	↓		48°38.158	125°27.622			-			☐	
392	↓	✓	22:17	BE	NET		48°38.175	125°27.806	80	70	-			☐	BONGO - VNH

Event Type:

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Bottle Firing Method:

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Notes:

Time Code:

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Month OCT				Year 2015			Vessel WE RICKER			Cruise ID 2015-56					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude Longitude		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
393	VI15	18	22:36	BE	SET		48° 38.800	125° 26.980	74		-			☐ ☐	TRAWL - SURFACE
394	VI101	19	14:31	BE	CTD		48° 50.278	125° 08.548	78		-	1	YJ	☐ ☐	T: 13.2 S: 30.0
			14:33	BO			48° 50.278	125° 08.550		68	-			☐ ☐	BOT@10m NUTS/CHL
↓			14:34	EN	↓		48° 50.287	125° 08.544			-			☐ ☐	
395			14:43	BE	NET		48° 50.281	125° 09.581	79	69	-			☐ ☐	BONGO - VNH
396	↓		15:01	BE	SET		48° 50.240	125° 09.740	84		-			☐ ☐	TRAWL - SURFACE
397	VI102		16:19	BE	SET		48° 51.510	125° 13.750	89		-			☐ ☐	TRAWL - SURFACE
398	VI103		17:03	BE	CTD		48° 51.206	125° 16.727	86		-	1	YJ	☐ ☐	T: 12.9 S: 30.1
			17:05	BO			48° 51.220	125° 16.734		76	-			☐ ☐	BOT@10m NUTS/CHL
↓			17:07	EN	↓		48° 51.233	125° 16.740			-			☐ ☐	
399			17:14	BE	NET		48° 51.253	125° 16.785	84	83	-			☐ ☐	BONGO - VNH
400	↓		17:34	BE	SET		48° 52.040	125° 15.840	87		-			☐ ☐	TRAWL - SURFACE
401	VI104		18:59	BE	SET		48° 56.420	125° 07.460	97		-			☐ ☐	TRAWL - SURFACE
402	VI105		20:00	BE	SET		48° 53.950	125° 09.810	91		-			☐ ☐	TRAWL - 15m
403	VI106		21:11	BE	SET		48° 54.510	125° 12.610	101		-			☐ ☐	TRAWL - 15m
404	VI107		23:00	BE	CTD		48° 54.839	125° 22.645	56		-	1	YJ	☐ ☐	T: 13.5 S: 29.0
			23:01	BO			48° 54.839	125° 22.642		46	-			☐ ☐	BOT@10m NUTS/CHL
↓			23:03	EN	↓		48° 54.838	125° 22.634			-			☐ ☐	
405	↓	↓	23:09	BE	NET		48° 54.856	125° 22.592	56	46	-			☐ ☐	BONGO - VNH

Event Type:

BOT = Bottle cast (no CTD)
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LOOP = Sea Water Loop

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DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Time Code:

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Notes:

This page is for any notes or observations

NI01 - NI06 = Barkley Sound / Imperial Eagle

NI03 CTD HIT BOTTOM

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Month OCT				Year 2015			Vessel WE RICKER			Cruise ID 2015-56					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
406	IV107	19	23:28	3E	SET		49° 54.250	125° 23.460	58		-			☐ ☐	TRAWL - SURFACE
407	EP07	20	14:00	BE	CTD		49° 08.522	126° 59.552	456		-	1	YJ	☐ ☐	T: 14.9 S: 32.0
			14:05	BO			49° 08.531	126° 59.545		250	-			☐ ☐	BOT@10m NOTS/CHL
↓			14:10	EN	↓		49° 08.566	126° 59.611			-			☐ ☐	
408			14:23	BE	NET		49° 08.635	126° 59.700	456	250	-			☐ ☐	BONGO - VNH
409	↓		14:43	BE	SET		49° 09.020	126° 58.870	386		-			☐ ☐	TRAWL - SURFACE
410	EP06		15:37	BE	CTD		49° 09.808	126° 55.498	214		-	1	YJ	☐ ☐	T: 14.8 S: 32.0
			15:40	BO			49° 09.838	126° 55.519		204	-			☐ ☐	BOT@10m NOTS/CHL
↓			15:45	EN	↓		49° 09.872	126° 55.556			-			☐ ☐	
411			15:55	BE	NET		49° 09.915	126° 55.594	213	203	-			☐ ☐	BONGO - VNH
412	↓		16:15	BE	SET		49° 10.390	126° 54.990	198		-			☐ ☐	TRAWL - 15m
413	EP05		17:06	BE	CTD		49° 12.394	126° 51.464	152		-	1	YJ	☐ ☐	T: 14.9 S: 32.0
			17:08	BO			49° 12.406	126° 51.444		142	-			☐ ☐	BOT@10m NOTS/CHL
↓			17:12	EN	↓		49° 12.422	126° 51.418			-			☐ ☐	
414			17:20	BE	NET		49° 12.467	126° 51.325	152	142	-			☐ ☐	BONGO - VNH
415	↓		17:37	BE	SET		49° 13.010	126° 50.250	145		-			☐ ☐	TRAWL - SURFACE
416	EP04		18:28	3E	CTD		49° 14.399	126° 46.451	130		-	1	YJ	☐ ☐	T: 14.7 S: 32.0
			18:30	BO			49° 14.405	126° 46.440		120	-			☐ ☐	BOT@10m NOTS/CHL
↓		↓	18:33	EN	↓		49° 14.422	126° 46.426			-			☐ ☐	

Event Type:

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 DRF = Drifter

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
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DE = Deployment Time

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Month <u>OCT</u>			Year <u>2015</u>			Vessel <u>WE RICKER</u>			Cruise ID <u>2015-56</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
417	EP04	20	18:50	BE	NET		49°14.363	126°46.297	129	119	-			☐ ☐	BONGO - VNH
418	↓		19:19	BE	SET		49°15.260	126°44.780	122		-			☐ ☐	TRAWL - 30m
419	EP03		20:23	BE	CTD		49°16.409	126°42.173	121		-	1	YJ	☐ ☐	T:14.3 S:32.0
			20:26	BO			49°16.453	126°42.182		111	-			☐ ☐	BOT@10m NTS/CHL
			20:29	EN	↓		49°16.439	126°42.185			-			☐ ☐	
420	↓		20:38	BE	NET		49°16.565	126°42.215	120	110	-			☐ ☐	BONGO - VNH
421	↓		20:57	BE	SET		49°17.090	126°40.840	116		-			☐ ☐	TRAWL - 15m
422	EP02		21:57	BE	CTD		49°18.540	126°37.643	101		-	1	YJ	☐ ☐	T:13.5 S:32.0
			21:59	BO			49°18.570	126°37.669		91	-			☐ ☐	BOT@10m NTS/CHL
			22:02	EN	↓		49°18.600	126°37.686			-			☐ ☐	
423			22:10	BE	NET		49°18.669	126°37.761			-			☐ ☐	BONGO - VNH
424	↓		22:29	BE	SET		49°19.140	126°39.080	102		-			☐ ☐	TRAWL - 30m
425	VI16	↓	23:24	BE	SET		49°21.980	126°43.660	88		-			☐ ☐	TRAWL - SURFACE
426		21	00:28	BE	CTD		49°23.262	126°45.178	86		-	1	YJ	☐ ☐	T:14.1 S:32.0
			00:30	BO			49°23.280	126°45.160		76	-			☐ ☐	BOT@10m NTS/CHL
			00:32	EN	↓		49°23.284	126°45.146			-			☐ ☐	
427	↓		00:40	BE	NET		49°23.291	126°45.132	86	76	-			☐ ☐	BONGO - VNH
428	VI17		15:02	BE	CTD		49°34.022	126°37.124	93		-	1	YJ	☐ ☐	T:13.2 S:29.4
			15:03	BO			49°34.004	126°37.140		83	-			☐ ☐	BOT@10m NTS/CHL

Event Type:

BOT = Bottle cast (no CTD)
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Bottle Firing Method:

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 DN = Down / No stop

Time Code:

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Month <u>OCT 2015</u>				Year <u>2015</u>			Vessel <u>NE RICKER</u>				Cruise ID <u>2015-56</u>				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
428	VI17	21	15:06	EN	CTD		49°33.990	126°37.154			-	1	YJ	☐ ☐	
429			15:12	BE	NET		49°33.946	126°37.191	92	82	-			☐ ☐	BONGO-VNH
430	↓		15:32	BE	SET		49°33.270	126°38.620	87		-			☐ ☐	TRAWL - SURFACE
431	VI18		16:41	BE	SET		49°31.770	126°49.530	61		-			☐ ☐	TRAWL - 15M
432	VI19		17:49	BE	SET		49°35.170	126°59.280	97		-			☐ ☐	TRAWL - SURFACE
433	VI20		18:55	BE	SET		49°41.190	127°06.730	102		-			☐ ☐	TRAWL - SURFACE
434	VI21		19:58	BE	CTD		49°44.387	127°12.691	84		-	1	YJ	☐ ☐	T:13.4 S:31.7
			20:00	BO			49°44.368	127°12.757		74	-			☐ ☐	BOT@10M NUTS/CHL
↓			20:02	EN	↓		49°44.387	127°12.833			-			☐ ☐	
435			20:10	BE	NET		49°44.378	127°13.013	82	72	-			☐ ☐	BONGO-VNH
436	↓		20:31	BE	SET		49°44.827	127°14.855	76		-			☐ ☐	TRAWL - SURFACE
437	VI22		21:40	BE	SET		49°48.988	127°23.231	82		-			☐ ☐	TRAWL - 30M
438	VI23		22:56	BE	SET		49°52.986	127°33.125	80		-			☐ ☐	TRAWL - 15M
439			23:52	BE	CTD		49°54.856	127°38.664	86		-	1	YJ	☐ ☐	T:13.1 S:31.2
			23:53	BO			49°54.872	127°38.777		76	-			☐ ☐	BOT@10M NUTS/CHL
↓		↓	23:56	EN	↓		49°54.905	127°38.778			-			☐ ☐	
440	↓	22	00:03	BE	NET		49°55.007	127°38.904	94	84	-			☐ ☐	BONGO-VNH
441	VI24		14:05	BE	CTD		50°33.064	128°32.242	189		-	1	YJ	☐ ☐	T:14.4 S:32.0
			14:08	BO			50°33.120	128°32.224		179	-			☐ ☐	BOT@10M NUTS/CHL

Event Type:

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Bottle Firing Method:

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Time Code:

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DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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Version: 14 February 2013

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>OCT</u>			Year <u>2015</u>			Vessel <u>W E RICKER</u>			Cruise ID <u>2015-56</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
441	VI24	22	14:12	EN	CTD		50°33.187	128°32.190			-	1	YJ	☐ ☐	
442			14:22	BE	NET		50°33.353	128°32.146	192	182	-			☐ ☐	BONGO - VNH
443	↓		14:43	BE	SET		50°33.840	128°30.970	186		-			☐ ☐	TRAWL - SURFACE
444	VI25		15:56	BE	SET		50°34.960	128°23.680	111		-			☐ ☐	TRAWL - 15m
445	VI26		17:07	BE	SET		50°38.160	128°30.260	132		-			☐ ☐	TRAWL - 30m
446	VI27		19:10	BE	SET		50°48.360	128°28.940	74		-			☐ ☐	TRAWL - SURFACE
447	QCSD01		20:16	BE	CTD		50°52.148	128°23.572	50		-	1	YJ	☐ ☐	T:13.6 S: 31.80
			20:17	BO			50°52.144	128°23.586		40	-			☐ ☐	BOT@10m NTS/CHL
↓			20:19	EN	↓		50°52.148	128°23.646			-			☐ ☐	
448			20:25	BE	NET		50°52.185	128°23.722	50	40	-			☐ ☐	BONGO - VNH
449	↓		20:41	BE	SET		50°52.876	128°22.760	47		-			☐ ☐	TRAWL - 15m
450	QCSD02		21:44	BE	SET		50°55.800	128°16.880	62		-			☐ ☐	TRAWL - SURFACE
451	QCSD03		22:49	BE	SET		50°59.180	128°10.330	82		-			☐ ☐	TRAWL - 30m
452			23:38	BE	CTD		51°00.510	128°07.036	138		-	1	YJ	☐ ☐	T:13.1 S: 32.0
			23:40	BO			51°00.523	128°07.012		128	-			☐ ☐	BOT@10m NTS/CHL
↓			23:44	EN	↓		51°00.542	128°06.968			-			☐ ☐	
453	↓	↓	23:52	BE	NET		51°00.593	128°06.904	140	130	-			☐ ☐	BONGO - VNH
454	IBCO1	23	14:09	BE	CTD		51°46.363	127°59.178	352		-	1	YJ	☐ ☐	T:10.1 S: 29.6
			14:13	BO			51°46.322	127°59.114		250	-			☐ ☐	BOT@10m NTS/CHL

Event Type:

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Notes:

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Month <u>OCT</u>				Year <u>2015</u>			Vessel <u>WE RICKER</u>			Cruise ID <u>2015-56</u>					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
454	IBC01	23	14:19	EN	CTD		51° 46.290	127° 59.066			-	1	YJ	☐	
455			14:	BE	NET		51° 46.217	127° 59.050	360	250	-			☐	BONGO - VNH
456	↓		14:44	BE	SET		51° 45.350	127° 58.790	431		-			☐	TRAWL - SURFACE
457	IBC02		15:54	BE	SET		51° 39.840	127° 55.860	340		-			☐	TRAWL - 15m
458	IBC03		17:10	BE	SET		51° 34.200	127° 50.990	219		-			☐	TRAWL - 30m
459	IBC04		18:09	BE	CTD		51° 30.428	127° 49.120	152		-	1	YJ	☐	T: 11.0 S: 28.4
			18:11	BO			51° 30.444	127° 49.139		142	-			☐	BOT@10m NTS/CHL
↓			18:15	EN	↓		51° 30.463	127° 49.156			-			☐	
460			18:23	BE	NET		51° 30.485	127° 49.199	147	137	-			☐	BONGO - VNH
461	↓		18:39	BE	SET		51° 29.810	127° 48.970	153		-			☐	TRAWL - SURFACE
462	RI01		19:58	BE	SET		51° 26.150	127° 40.780	270		-			☐	TRAWL - 15m
463	RI02		21:00	BE	SET		51° 29.700	127° 34.700	324		-			☐	TRAWL - 30m
464	IBC05		22:19	BE	SET		51° 25.063	127° 43.385	212		-			☐	TRAWL - 15m
465	IBC06	↓	23:03	BE	SET		51° 25.473	127° 48.120	101		-			☐	TRAWL - SURFACE
466		24	00:33	BE	CTD		51° 24.932	127° 51.319	119		-	1	YJ	☐	T: 11.3 S: 29.5
			00:35	BO			51° 24.948	127° 51.322		109	-			☐	BOT@10m NTS/CHL
↓			00:59	EN	↓		51° 24.952	127° 51.326			-			☐	
467	↓		00:46	BE	NET		51° 24.941	127° 51.320	119	109	-			☐	BONGO - VNH
468	IBC07	↓	14:02	BE	CTD		51° 17.831	127° 44.543	124		-	1	YJ	☐	T: 10.9 S: 28.9

Event Type:

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=

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Month OCT			Year 2015			Vessel W E RICKER			Cruise ID 2015-56							
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments	
							Latitude	Longitude								
468		24	14:04	BE			51° 17' 830	127° 44' 540		114					BOT@10m	
			14:07	BO			51° 17' 824	127° 44' 552								
469			14:15	BE			51° 17' 803	127° 44' 581	117	112					BONGO - VNH	
470			14:31	BE			51° 17' 140	127° 45' 290	113						TRAWL - SURFACE	
471	QCSD04		15:43	BE	SET		51° 10' 940	127° 51' 110	109						TRAWL - 15M	
472	QCSD05		17:46	BE	SET		51° 05' 510	127° 49' 550	111						TRAWL - 30M	
473	QCST15		17:42	BE	CTD		51° 01' 714	127° 49' 571	146						T:12.5 S: 31.9	
			17:44	BO			51° 01' 723	127° 49' 523		136					BOT@10m	
			17:48	EN			51° 01' 733	127° 49' 464								
474			17:56	BE	NET		51° 01' 732	127° 49' 366	145	135					BONGO - VNH	
475			18:14	BE	SET		51° 05' 510	127° 49' 550	128						TRAWL - SURFACE	
476	QCST16		19:26	BE	SET		50° 58' 750	127° 40' 170	168						TRAWL - 15m	
477	QCST17		20:23	BE	SET		50° 57' 420	127° 32' 090	166						TRAWL - 30m	
478	QCST18		22:06	BE	SET		50° 54' 590	127° 36' 390	162						TRAWL - 15m	
479	QCST19		23:21	BE	SET		50° 51' 620	127° 32' 560	113						TRAWL - SURFACE	
480		25	00:38	BE	CTD		50° 50' 659	127° 29' 320	200						T:10.1 S: 31.1	
			00:41	BO			50° 50' 674	127° 29' 347		190					BOT@10m	
			00:46	EN			50° 50' 689	127° 29' 366	2							
481			00:56	BE	NET		50° 50' 739	127° 29' 441	200	190					BONGO - VNH	

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Bottle Firing Method:

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Notes:

Time Code:

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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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DAILY SCIENCE LOG				Ocean Sciences Division, Institute of Ocean Sciences											
Month OCT				Year 2015		Vessel WE RICKER		Cruise ID 2015-56							
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
							Latitude	Longitude							
482	KIO1	25	14:01	BE	CTD		50°38.315	126°18.046	208					☐ ☐	T:9.1 S:25.0
			14:04	BO			50°38.314	126°18.043		198				☐ ☐	BOT@10m NUTS/KM
			14:09	EN			50°38.314	126°18.110						☐ ☐	
↓					↓									☐ ☐	
483			14:19	BE	NET		50°38.315	126°18.047	200	190	-			☐ ☐	BONGO-VNH
484	↓		14:37	BE	SET		50°38.500	126°16.770	244		-			☐ ☐	TRAWL-SURFACE
485	KIO2		16:44	BE	SET		50°38.450	126°38.550	62		-			☐ ☐	TRAWL-SURFACE
486	JSO1		18:50	BE	SET		50°31.100	126°37.250	428		-			☐ ☐	TRAWL-SURFACE
487	JSO2		20:06	BE	CTD		50°29.832	126°26.430	383		-			☐ ☐	T:10.0 S:31.0
			20:11	BO			50°29.644	126°26.465		250	-			☐ ☐	BOT@10m NUTS/KM
			20:16	EN			50°29.666	126°26.484						☐ ☐	
↓					↓									☐ ☐	
488			20:38	BE	NET		50°29.707	126°26.419	387	250	-			☐ ☐	BONGO-VNH
489	↓	✓	20:51	BE	SET		50°29.920	126°25.330	378		-			☐ ☐	TRAWL-15m
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 3E = Beginning Time of Cast
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