0	Front Page
1	General Survey Information
2	Nominal Configuration
3	Nominal CMP Coverage
4	Survey Area
5	Geodetic Parameters
6	Recording System Parameters
7	Streamer Parameters
8 (1)	Cable #1 Layout
8 (2)	Cable #2 Layout
8 (3)	Cable #3 Layout
8 (4)	Cable #4 Layout
8 (5)	Cable #5 Layout
8 (6)	Cable #6 Layout
8 (7)	Cable #7 Layout
8 (8)	Cable #8 Layout
9	Cable Section Nominal Offsets
10	Cable Active Section Offsets
11	Source Parameters / Sub Array Layout
12	Source Layout
13	Navigation System Parameters
14	P2/94 Naming Conventions
15	Vessel & Antennae Offsets
16	Streamer Offsets
17	Source & Towfish Offsets
18	Parameter Changes

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Iinvestigator 3D
Victoria, Australia
6 Cable / Dual Source

WESTERN PRIDE Party 140
3D PARAMETER REPORT

BAKER HUGHES
Western Geophysical

CLIENT : Woodside Energy Ltd
SURVEY : Investigator 3D
AREA : Bass Straits, Victoria, Australia
JOB # : 1999-035D-EH
DATE : 19th February - 2nd April 2000
SEQUENCES : 081-147 : Six Cable Configuration

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GENERAL SURVEY PARAMETERS

Woodside Energy Ltd.
Investigator 3D
Bass Straits, Victoria, Australia
1999-35D-EH

Recording System:	L.C. Filter	2 Hz @ 12 dB/Oct
(MSX/CRS)	H:C. Filter	206 Hz @ 264 dB/Oct.
	Record Length	4608 ms
	Sample Rate	2 ms
Seismic Cable:	Number of cables	6
(TMS Solid Streamer)	Number of channels	368 Per Cable, 2208 Total Seismic
	Cable length	4600 m
	Group Interval	12.5 m (centre to centre)
	Depth	6 m (+/- 1 m)
Sources:	Number of sources	2 Arrays
	Source type	Tuned Air Gun Array
	Volume	2250 cu.in.
	Pressure	2000 p.s.I. (+/- 150 p.s.I.)
	Depth	5 m (+/- 0.5 m)
	Shot Point Interval	12.5 m
Configuration:	Inline Source to Near Group	125 m (no greater than 150 m)
	Source Separation	50.00 m
	Cable Separation	100 m between cables, 500 m total spread
Coverage:	Inline CMP Cell Length	6.25 m (12.5 m used in coverage displays)
	Cross Line CMP Cell Width	25.0 m
	Nominal Fold	92
	Acquisition Line Azimuth	009°/189°
Vessel Positioning:	System #1	Racal Multifix Differential GPS
	System #2	Fugro MRdGPS Differential GPS
	QC System	QPS Muliref Differential GPS
Onboard Processing:	Seismic Processing	Omega (Ver 1.8.0)
	Navigation Processing	Unavchk (Ver 1.9.6)

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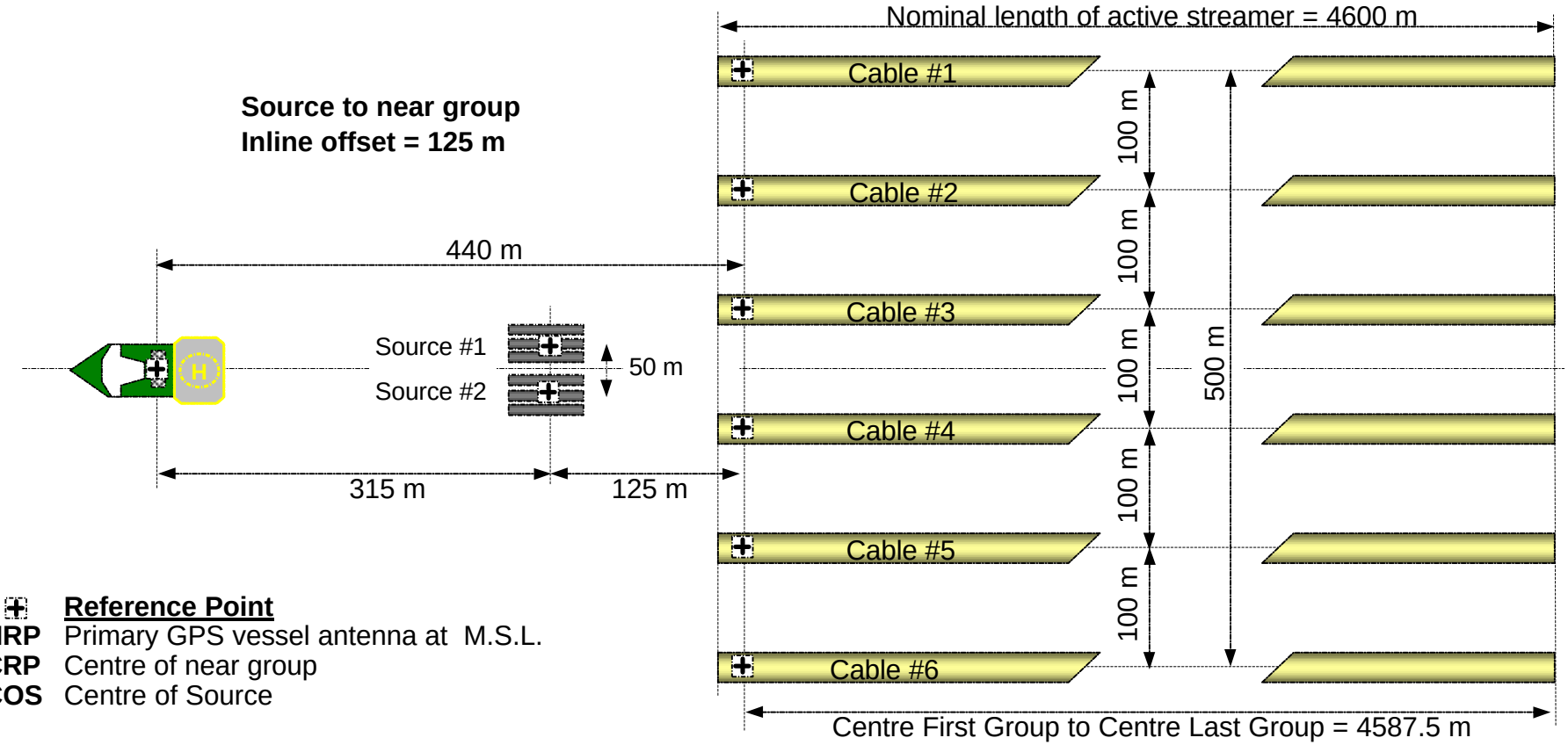
NOMINAL CONFIGURATION



Reference Point
NRP Primary GPS vessel antenna at M.S.L.
CRP Centre of near group
COS Centre of Source

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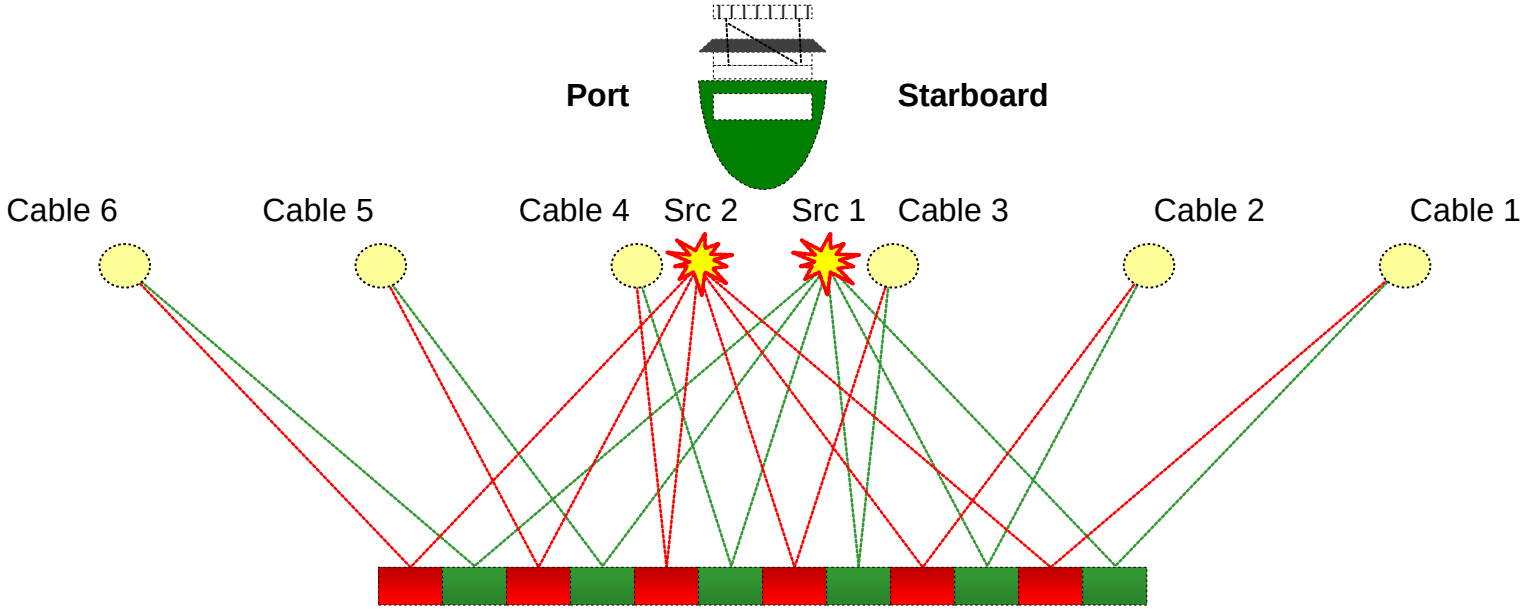
NOMINAL CMP COVERAGE



Acquired CMP line

Acquired CMP line

Source

Streamer

Raypath from stbd source (1)

Raypath from port source (2)

Diagram shows vessel from astern (pointing in to page)

Cell width = 25 m

Cell Length = 6.25 m (12.5 m for coverage displays)

Shotpoint Interval = 12.5 m Flip Flop (25 m per CMP Line)

Nominal Fold = 92

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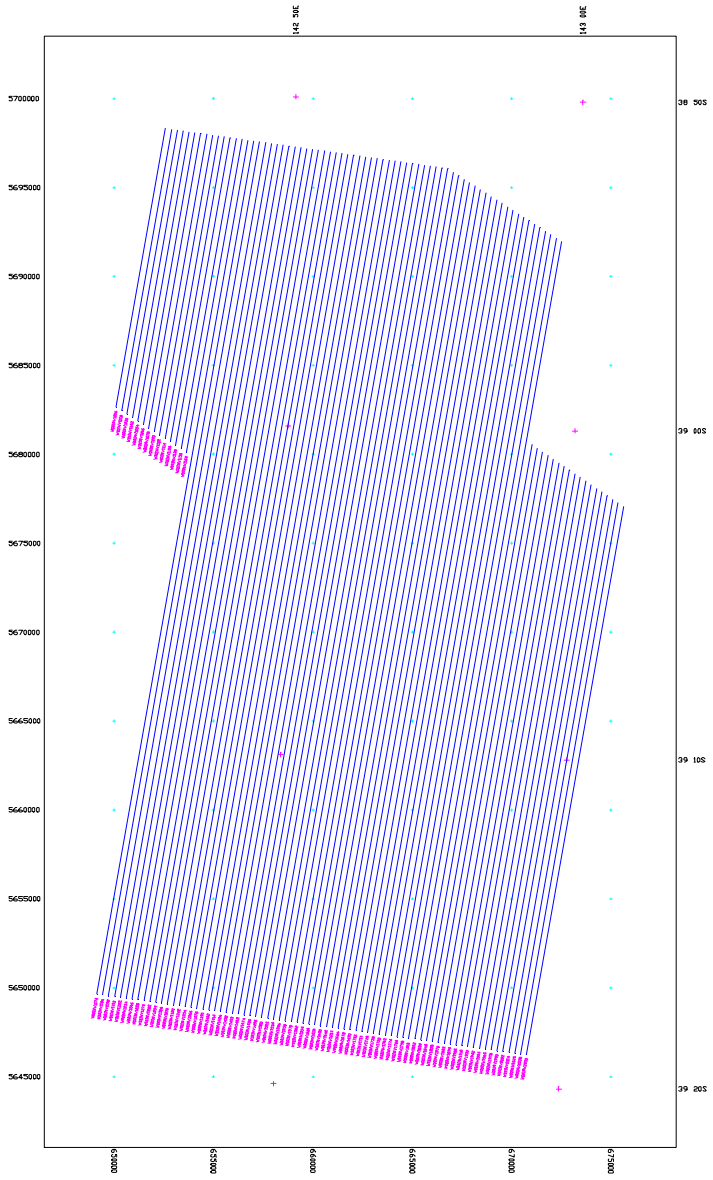
SURVEY AREA



6 Cable Waypoints Full Fold Area

	Easting	Northing
1	649973.0	5682748.5
2	652442.7	5698341.7
3	666764.2	5696073.4
4	672656.9	5691887.5
5	670871.6	5680615.5
6	675759.3	5676955.8
7	670890.3	5646214.0
8	648988.3	5649683.0
9	653800.6	5680066.7

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6 Cable / Dual Source

GEODETIC PARAMETERS

Geodetic Parameters

Local Datum	AGD84
Spheroid	Australian National Spheroid
Semi-major axis	6378160.000
1/flattening	298.25
Satellite Datum	WGS 84
Spheroid	WGS 84
Semi-major axis	6378137.000
1/flattening	298.257224

Datum Shift

Shift Parameters From WGS 84 to Local Datum

Dx =	+116.0	Rx =	-0.23	arc sec*
Dy =	+50.47	Ry =	-0.39	arc sec*
Dz =	-141.69	Rz =	-0.344	arc sec*

Scale factor= -0.0983 ppm *as entered in Spectra

Mapping Projection	AMG ZONE 54 (UTM)
Origin of Latitude	000° 00' 00.00" N
Origin of Longitude	141° 00' 00.00" E
False Northing	10,000,000.0 m
False Easting	500,000.0 m
Central Meridian	141° 00' 00.00" E
Scale factor at CM	0.9996
Grid Units	Metres
Vertical Datum	Mean Sea level

Binning Parameters

Binning Systems

Online real-time binning	Spectra	Ver 7.6.5
Post line binning	Reflex	Ver 1.7.2

Binning Grid

Map Grid Origin Easting	643880.97	(bin centre)
Map Grid Origin Northing	5647960.68	(bin centre)
Map Grid Bearing (°)	009.00°	(In-line axis)

	In-line	X-line
Bin Grid Extent (m)	53587.5	27475
Bin Number at Origin	801	978
Bin Number Increment	1	1
Bin Dimensions (m)	12.5	25

Apply scale factor: No (using mapping grid distances)

Nominal Offset Distribution

Minimum Offset (m)	150
Maximum Offset (m)	4750
Offset Increment (m)	50

Coverage Groups	Near Offset (m)	Far Offset (m)
Nears	150	1300
Near Mids	1300	2450
Far Mids	2450	3600
Fars	3600	4750

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6 Cable / Dual Source

RECORDING SYSTEM PARAMETERS

Recording System	**I/O Systems MSX**
System Version	Version 2.0
Tape Interface System	**Western Geophysicals CRS (Continuous Recording System)**
System Version	3.0.2
MSX Record length	4.5 Binary Seconds (4608 ms)
CRS Record length	4.5 Binary Seconds (4608 ms)
Sample rate	2 ms
Time break	Co-incident with digital start
Low Cut Filter	2 Hz @ 12 dB/Oct.
High Cut Filter	206 Hz @ 264 dB/Oct.
Multishot Acquisiton	Not used
Recorded data format	8058 SEG D - DMX
Trace polarity	positive pressure = negative number on tape = negative pulse on plot
Recording media type	3M 3590 cartridge tapes
Maximum Number of Files per Cartridge	400 (1 file contains 2944 channels at 4068 ms length + auxilliaries)
Number of Channels	2208 seismic + 104 auxilliaries
Channel set 1-6 (368 channels each)	Seismic data
Channel set 7-12 (4 channels each)	Waterbreaks
Channel set 13 (1 channel)	Recording System Start
Channel set 14 (1 channel)	Combined Timebreak
Channel set 15-18 (1 channel each)	Array Timebreak
Channel set 19-27 (1 channel each)	Spare
Channel set 28 (1 channel)	Sample Count
Channel set 29 (64 channels at 512 ms)	Gun signature
Real Time Data QC	SeisView
Camera Recorder	Enhanced Visualisation Processor (EVP)

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6 Cable / Dual Source

STREAMER PARAMETERS

Streamer Type	**Thompson Marconi Sonar Solid Streamer**	
Number of Streamers	6	
Group Length	17.55 m	
Nominal Group Interval	12.5 m (12.45 m in Spectra / P294 for stretch calculation)	
Streamer Length	4600 m	
Streamer Depth	6.0 m +/- 1.0 m	
Streamer Seperation	100 m inter-cable, 500 m total spread	
Number of Groups	368 total per cable, 2208 total seismic	
Nominal Section Length	100 m (46 sections per streamer)	
Number of Groups per Module	16 (group interval 12.5 m)	
Number of Groups per Section	8 (group interval 12.5 m)	
Streamer Sensitivity	14 V/Bar	
Hydrophone type	Piezo-electric Ceramic	
Number of Hydrophones per Group	14 (group interval 12.5 m)	
Trace numbering in SEG-D data	Near Group each cable =1	Far Group each cable = 368
Trace numbering in P1/90 data	Near Group Cable #1 = 1	Far Group Cable #1 = 368
	Near Group Cable #2 =369	Far Group Cable #2 = 736
	Near Group Cable #3 = 737	Far Group Cable #3 = 1104
	Near Group Cable #4 = 1105	Far Group Cable #4 = 1472
	Near Group Cable #5 = 1473	Far Group Cable #5 = 1840
	Near Group Cable #6 = 1841	Far Group Cable #6 = 2208
Compasses/Levellers	Input/Output Pro2000 Combined Compass/Birds	
Streamer Positioning	Input/Output Pro2000 Acoustics, Input/Output Pro2000 Compasses POSNET remote rGPS targets on each tailbuoy	

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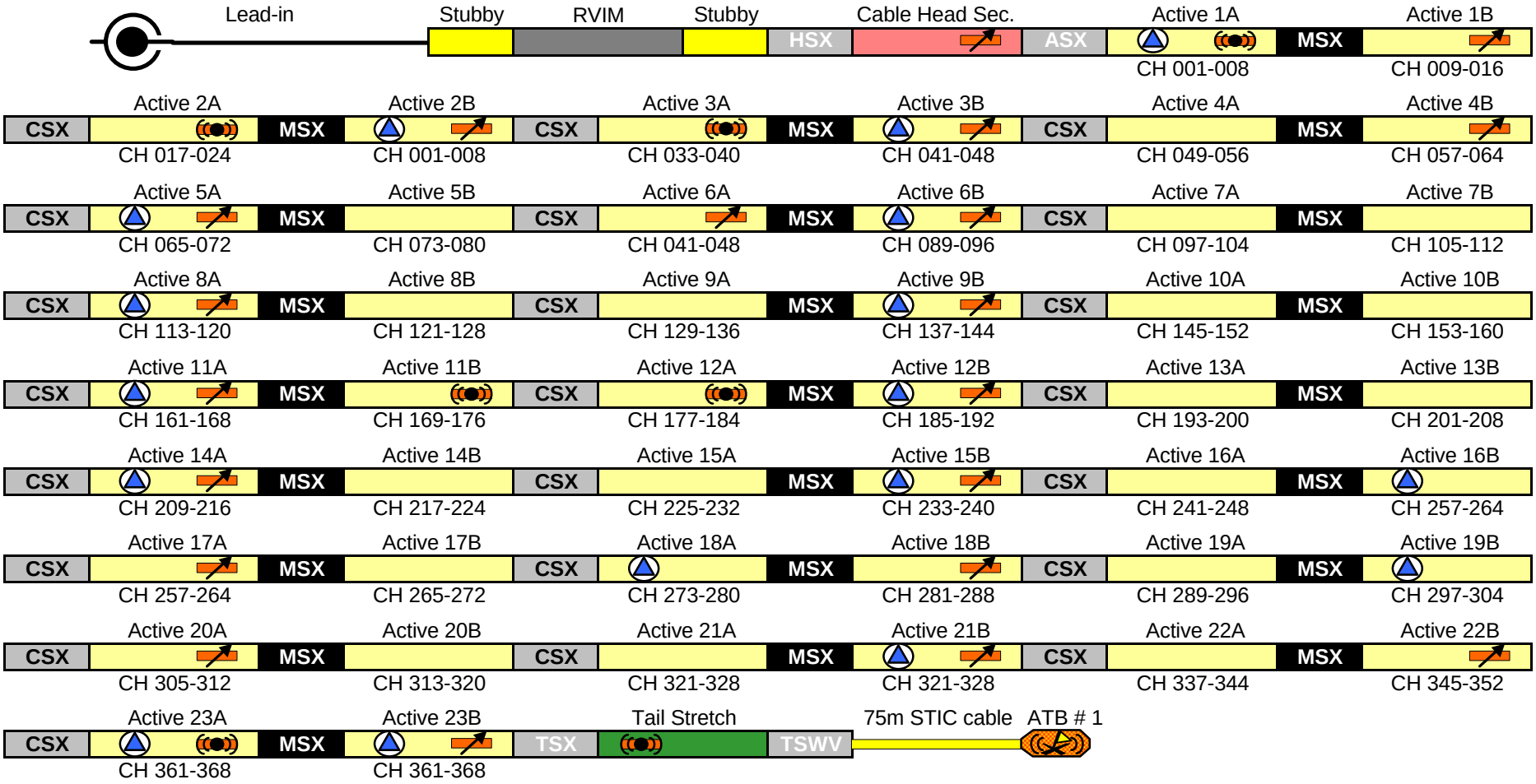
6 Cable / Dual Source

CABLE #1 (STBD OUTER) LAYOUT



Stretch Section
Cable Head Section
Active Section

MSX Streamer Module
CSX Connector Module
HSX Head Streamer Module

ASX Auxilliary Streamer Module
TSX Tail Streamer Module
TSWV Tail Swivel

Compass/ Bird
Acoustic Pod
rGPS/Acoustic Tailbuoy
Streamer Retrieval Device

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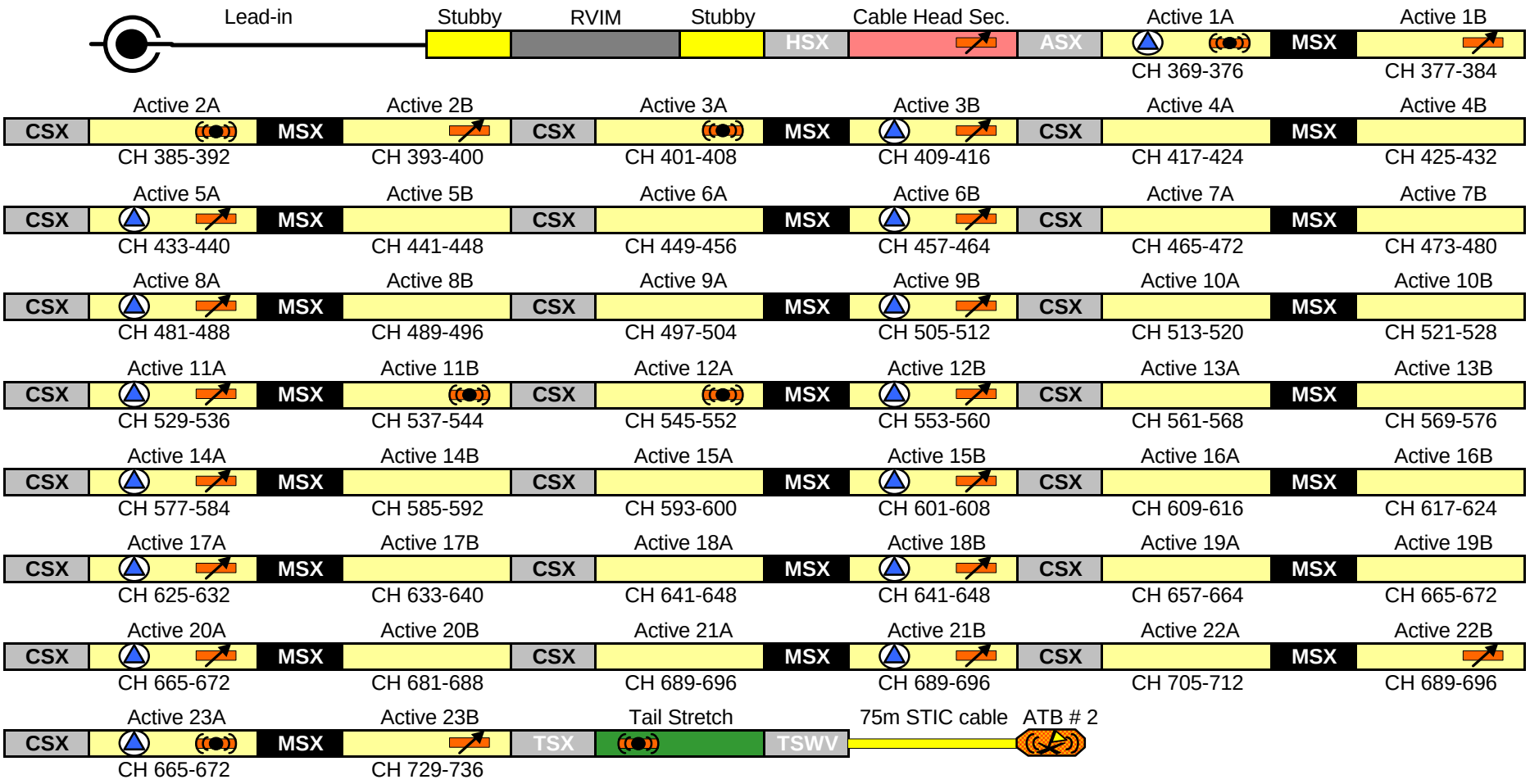
CABLE #2 LAYOUT



	Stretch Section	MSX	Streamer Module	ASX	Auxilliary Streamer Module		Compass/ Bird
	Cable Head Section	CSX	Connector Module	TSX	Tail Streamer Module		Acoustic Pod
	Active Section	HSX	Head Streamer Module	TSWV	Tail Swivel		rGPS/Acoustic Tailbuoy
							Streamer Retrieval Device

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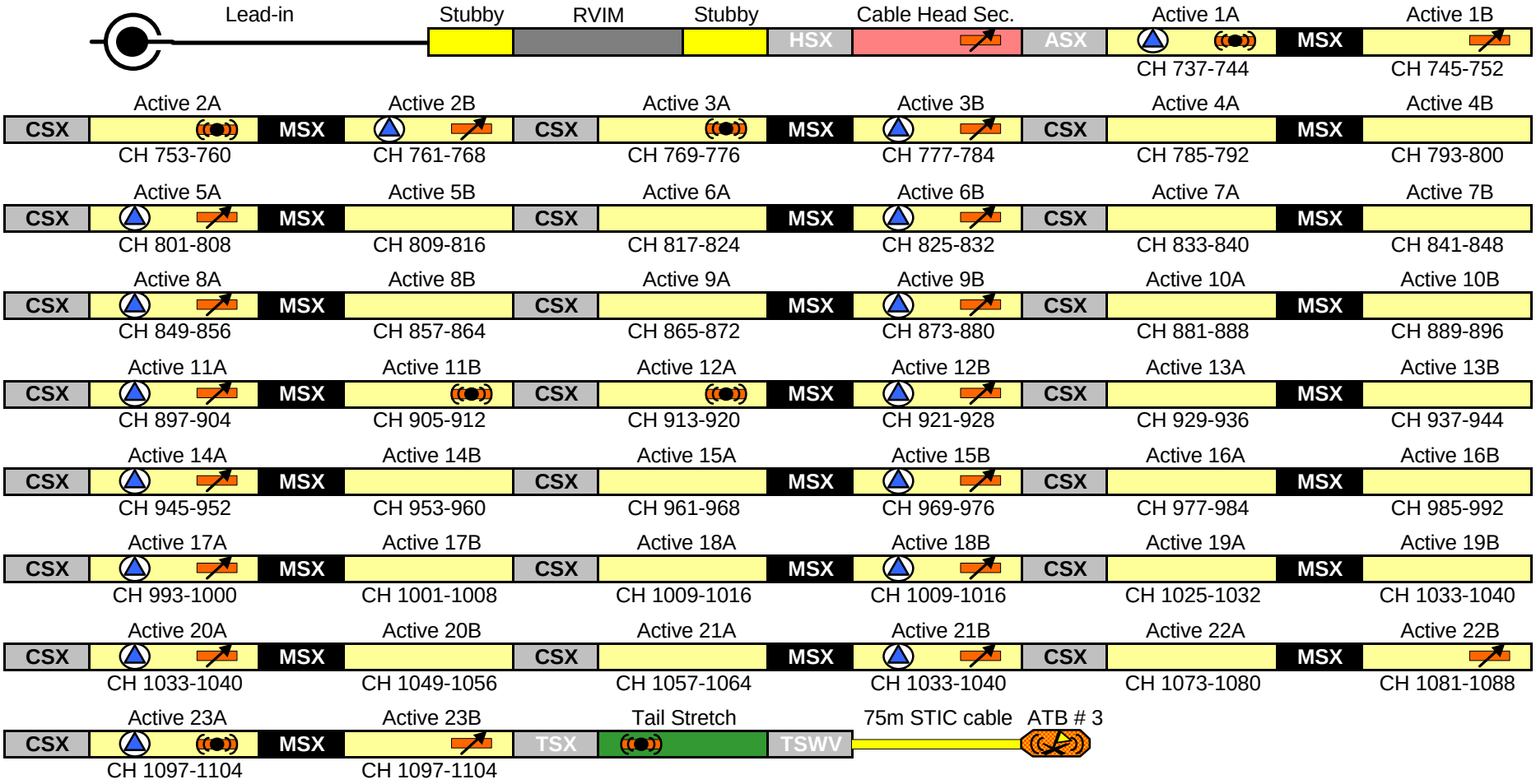
6 Cable / Dual Source

CABLE #3 LAYOUT



	Stretch Section	MSX	Streamer Module	ASX	Auxilliary Streamer Module		Compass/ Bird
	Cable Head Section	CSX	Connector Module	TSX	Tail Streamer Module		Acoustic Pod
	Active Section	HSX	Head Streamer Module	TSWV	Tail Swivel		rGPS/Acoustic Tailbuoy
							Streamer Retrieval Device

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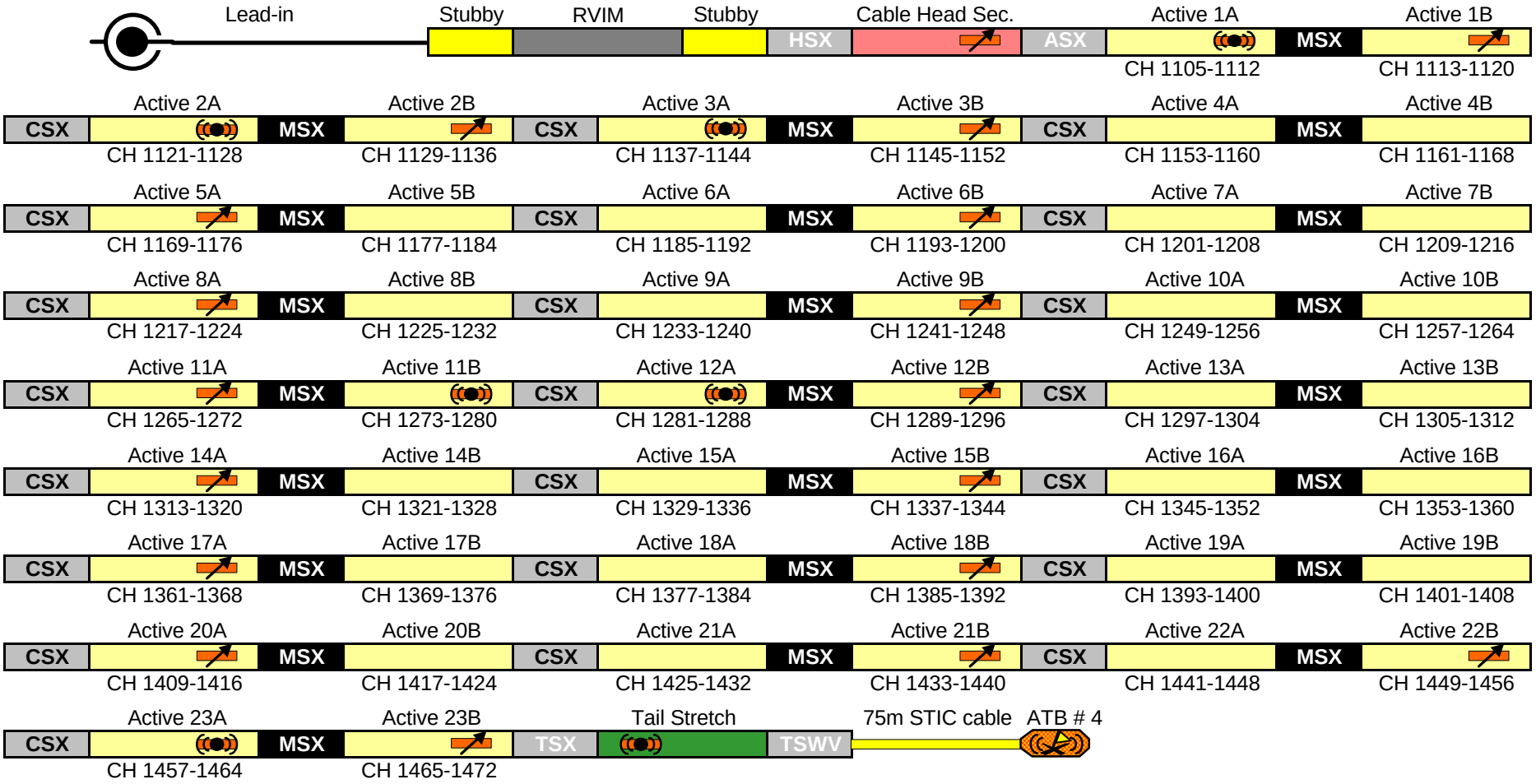
6 Cable / Dual Source

CABLE #4 LAYOUT



Stretch Section	MSX Streamer Module	ASX Auxilliary Streamer Module	Compass/ Bird
Cable Head Section	CSX Connector Module	TSX Tail Streamer Module	Acoustic Pod
Active Section	HSX Head Streamer Module	TSWV Tail Swivel	rGPS/Acoustic Tailbuoy
			Streamer Retrieval Device

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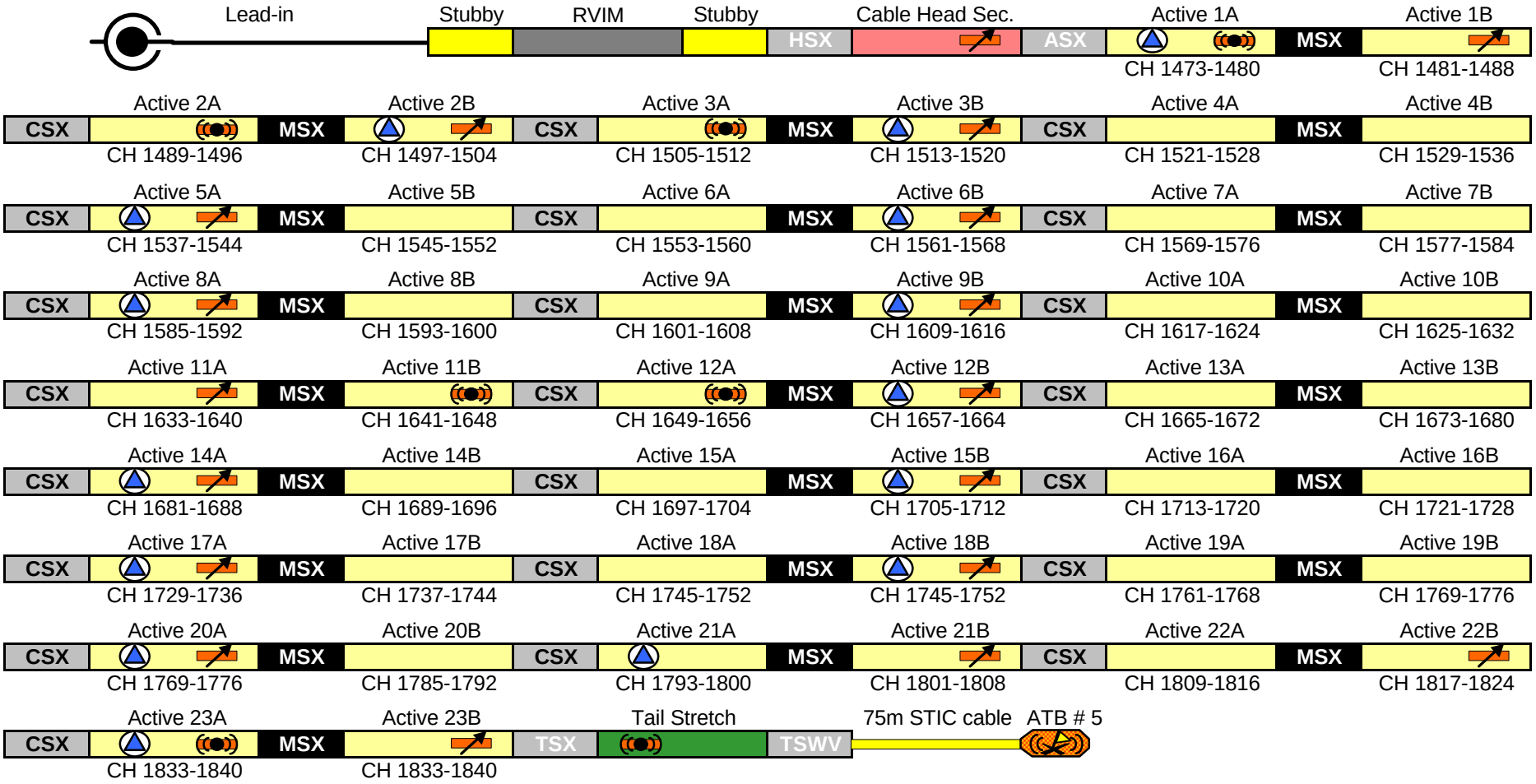
6 Cable / Dual Source

CABLE #5 LAYOUT



Stretch Section	MSX Streamer Module	ASX Auxilliary Streamer Module	Compass/ Bird
Cable Head Section	CSX Connector Module	TSX Tail Streamer Module	Acoustic Pod
Active Section	HSX Head Streamer Module	TSWV Tail Swivel	rGPS/Acoustic Tailbuoy
			Streamer Retrieval Device

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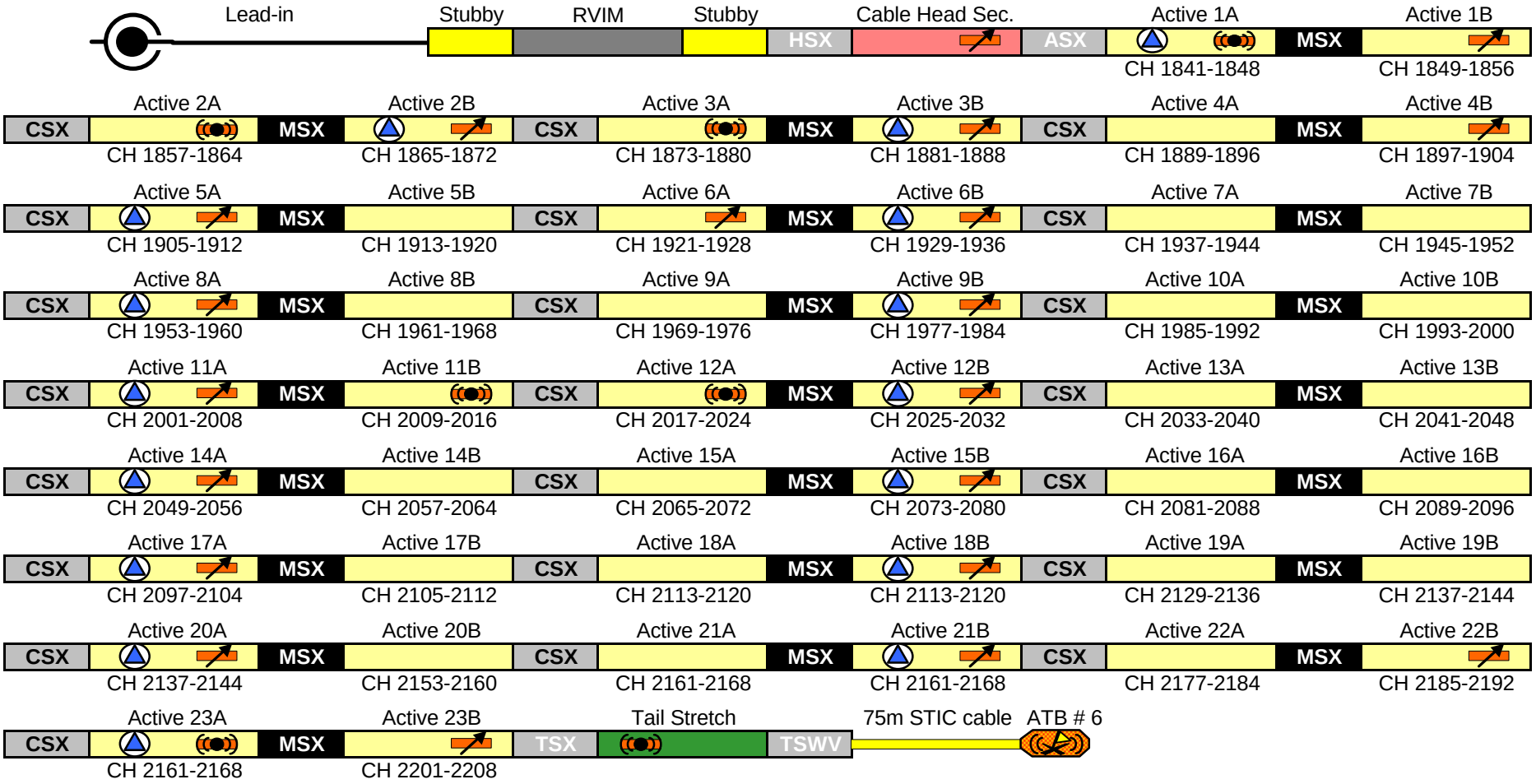
Victoria, Australia
6 Cable / Dual Source

CABLE #6 (PORT OUTER) LAYOUT



Stretch Section
Cable Head Section
Active Section

MSX Streamer Module
CSX Connector Module
HSX Head Streamer Module

ASX Auxilliary Streamer Module
TSX Tail Streamer Module
TSWV Tail Swivel

Compass/ Bird
Acoustic Pod
rGPS/Acoustic Tailbuoy
Streamer Retrieval Device

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6 Cable / Dual Source

CABLE COMPONENT NOMINAL OFFSETS

BAKER HUGHES

RVIM Stretch Section
Nominal (Unstretched) Length = 24 m

Stubby
Nominal Length = 8.6 m
2.34
5.83

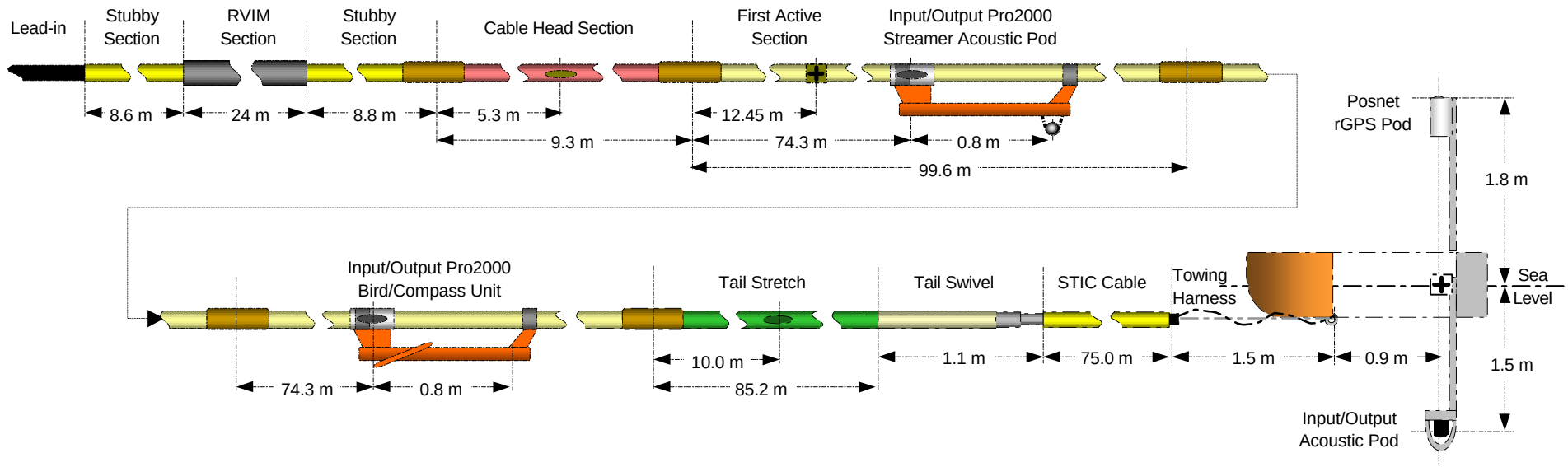
Cable Head Section
Nominal Length = 8.9 m
4.16
5.96
7.5

Active Section Series II
Nominal (Under Average Load) Length = 99.2 m
24.25
74.1
98.6

Tail Stretch Section Series III
Nominal (Unstretched) Length = 85.0 m
9.80
####

Cable Tension Transducer
Water Break Phone
Depth Indicator
Sensor Coil (not used)
Sensor Coil (used for SRD)
Sensor Coil (used for sensor)

NB Modules are approximatly 0.4 m long and are not included in the measurements given above



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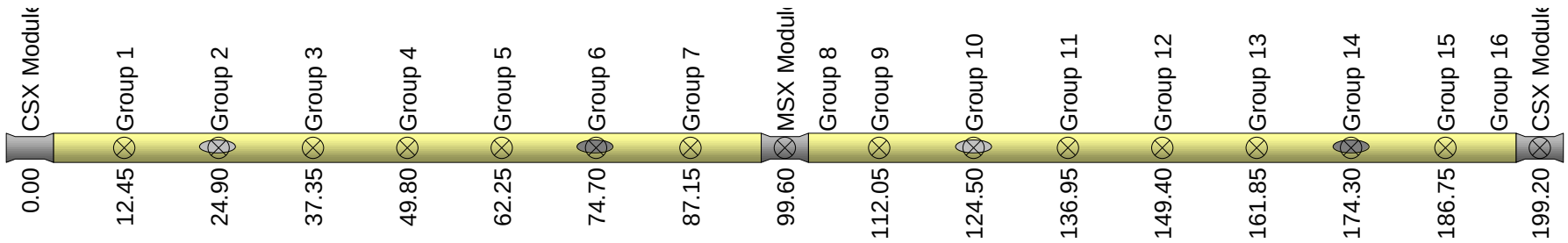
Victoria, Australia
6 Cable / Dual Source

GROUP AND HYDROPHONE LOCATIONS

Active Section Assembly And Receiver Group Locations



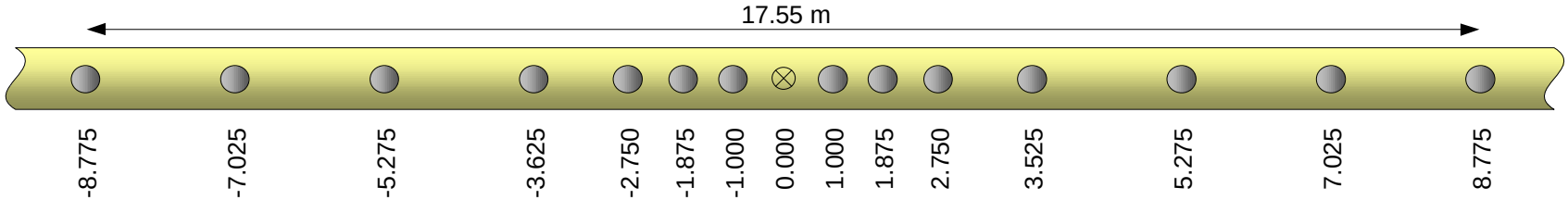
Sensor Coil (not used)

Sensor Coil (used for SRD)

Sensor Coil (used for sensor)

Location of group centre

Receiver Group Hydrophone Locations



Location of group centre

Hydrophone

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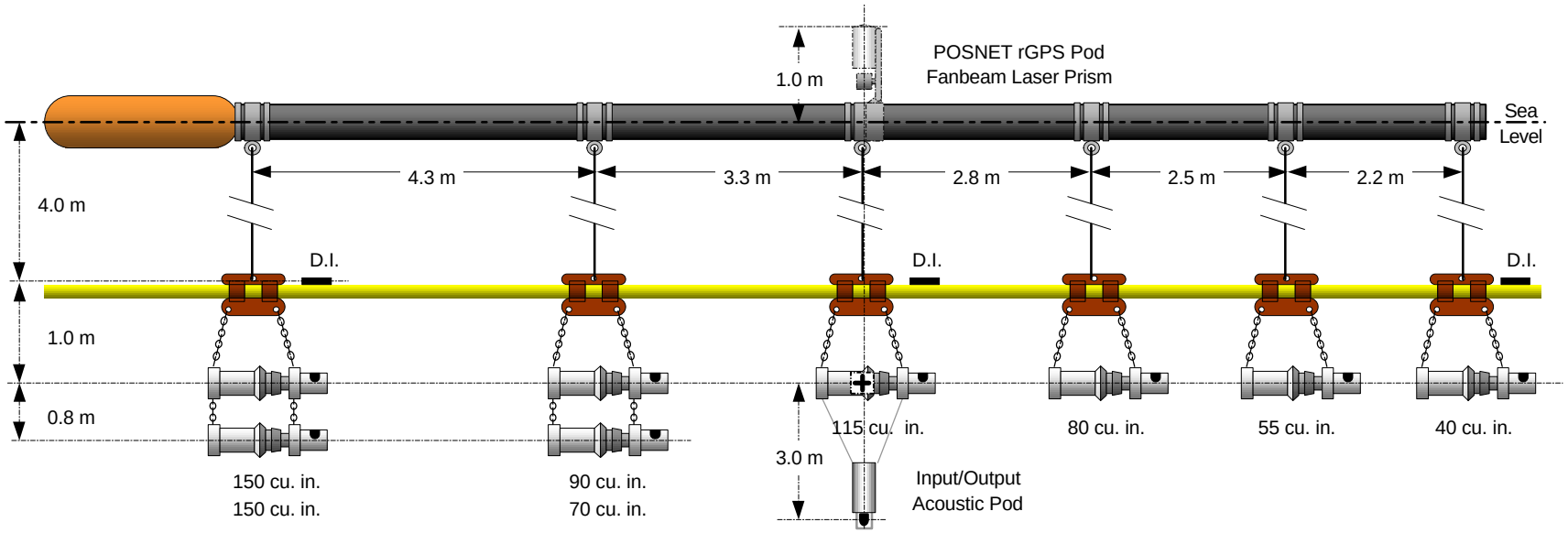
ENERGY SOURCE PARAMETERS

Energy Source Type	Tuned Air Gun Array	Gun depth	5 (±0.5) m
Air Gun Type	Sleeve Gun II	Gun Depth Monitoring	SSS OCM (Ver 1.7 with Y2K patch)
Number of Arrays	2	Gun Synchronisation	± 1 ms
Array Separation	50 m	Gun Synch. System	SSS OCM (Ver 1.7 with Y2K patch)
Pop Interval	12.5 m	Number of Sub-Arrays	3 per array, 6 total
Pressure	2000 (±150) p.s.i.	Sub Array Separation	6 m
Volume	2250 cu.in.	Sub Array Length	15.1 m
Source Output	74.1 bar-m (peak to trough 3-128 Hz)	Number Of Guns per Array	24
	40.7 bar-m (0 to peak)	Near field hydrophone	1 phone per gun element
Bubble ratio	17.3:1		(6 per sub array)

Source Positioning Input/Output Pro2000 Acoustics; POSNET rGPS and Fanbeam laser reflective headbuoys



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Victoria, Australia
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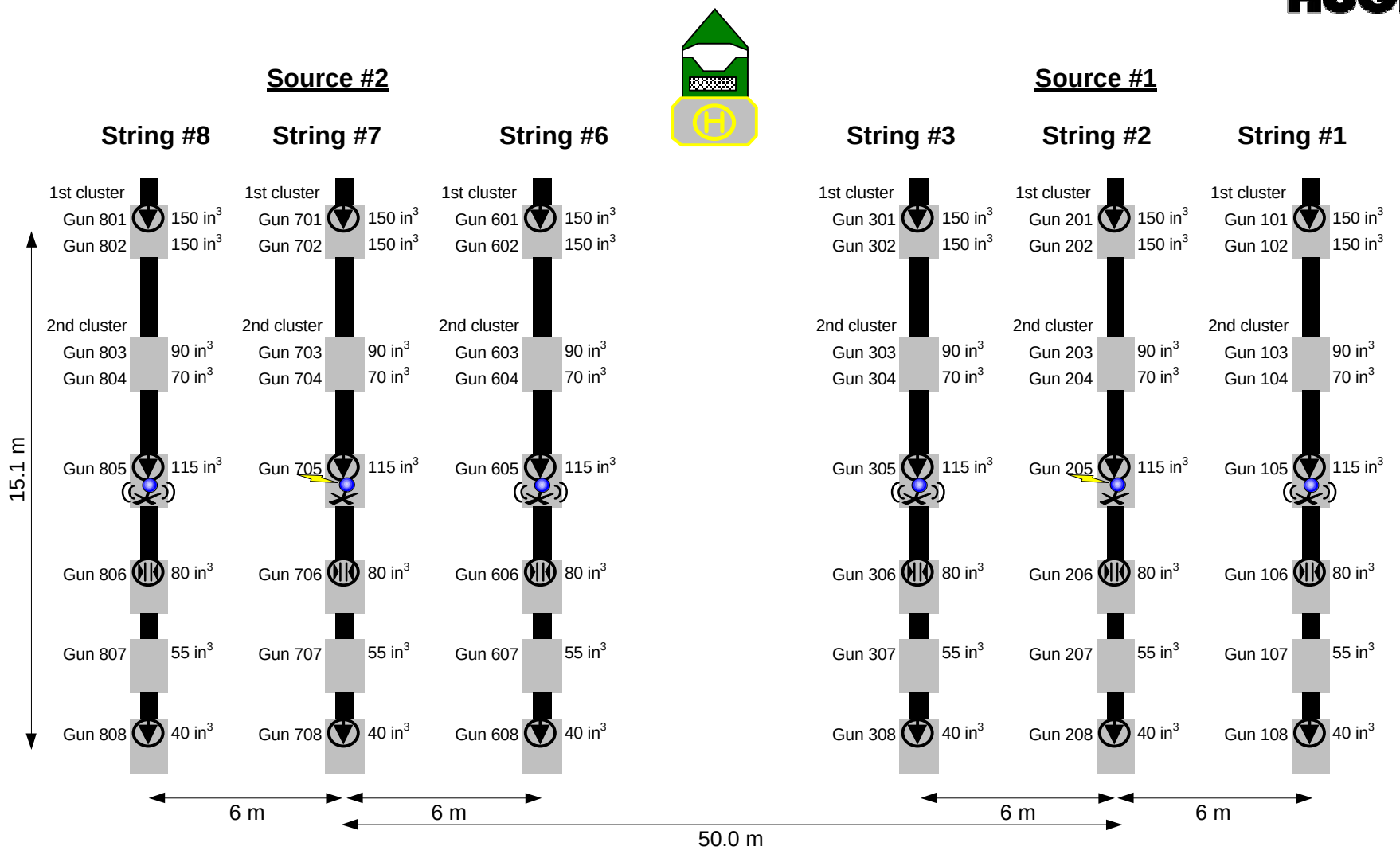
ENERGY SOURCE LAYOUT



Depth Indicator
Pressure Indicator
Co-located Posnet rGPS Pod and DigiCOURSE Acousic CTX Pod
Co-located Posnet rGPS Pod and Fanbeam Reflective Prism

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NAVIGATION SYSTEM PARAMETERS

Data Acquisition System	Spectra Integrated Navigation System		Ver 7.6.5	
	RTNU (Real Time Navigation Unit)		Ver 7.6.5 (ILC)	
Vessel Positioning	Primary System	Racal Multifix Differential GPS	Ver 2.10	
	Secondary System	Fugro MRdGPS Differential GPS	Ver 2.04.01	
	QC System	QPS Muliref Differential GPS	Ver 2.42	
	Other System	Posnet Differential GPS	Ver 1.57	
Source/Streamer Positioning	Acoustic Systems	DigiCOURSE Acoustic System	Pro2000	
	Ranging Systems	Posnet Relative GPS	Ver 1.57	
		MDL Fanbeam Laser Ranging Unit	Ver 1.59	C-O = -0.43° (bearing)
	Compass Systems	Input/Output Pro2000 Compasses	Pro2000	
Other Systems	Backup Gyrocompass	Sperry Mk227 (Gyro #1)		C-O = +0.45°
	Primary Gyrocompass	Sperry Mk227 (Gyro #2)		C-O = -0.04°
	Test Pseudo Gyro	Posnet rGPS (Gyro #3)		C-O = -0.04°
	Prime Fathometer	Simrad EA-500 18 kHz Xducer	No draught correction in sensor*	
	Backup Fathometer	Echotrac DF3200 Mk II	No draught correction in sensor†	
			Xducer depth = *5.94, †5.0	
Magnetic declination	+11.103	(From IGRF95 model; 25-Dec-99; Average of 9 corners of Survey Area)		
Geoidal Undulation	-2.624	(From OSU91A model; Average of 9 corners of Survey Area)		
Binning Systems	Real-time binning	Spectra	Ver 7.6.5	
	Post line binning	Reflex	Ver 1.7.2	
Processing Systems	Real-time processing	Spectra	Ver 7.6.5	
	Post line processing	Unavchk	Ver 1.9.6	

NB : All C-Os are entered in the Spectra Spread Configuration. All data output by the sensors is raw, with no C-O applied.

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P2/94 HEADER NODE NAMING CONVENTION

Each sensor is referenced to a platform. The following Alpha numeric codes are used to refer to the platform

Vessel	**V#**	*where # is replaced by an identifying number*
Gun Array	**G##**	*where ## is replaced by an identifying number incremeting from stbd to port*
Streamer	**S##**	*where ## is replaced by an identifying number incremeting from stbd to port*
Tailbuoy	**T##**	*where ## is replaced by an identifying number incremeting from stbd to port*

The sensors are identified by the platform, then by the system type, and finally by an identifiying number

Acoustic	**T##**	*where ## is replaced by an identifying number incrementing from front to back*
dGPS	**G#**	*where # is replaced by an identifying number incrementing from front to back*
Echosounder	**E#**	*where # is replaced by an identifying number incrementing from front to back*
Gun String	**S#**	*where # is replaced by an identifying number incrementing from front to back*
Gyro	**GY#**	*where # is replaced by an identifying number incrementing from front to back*
Laser	**L#**	*where # is replaced by an identifying number incrementing from front to back*
Pitch/Roll	**PR#**	*where # is replaced by an identifying number incrementing from front to back*
rGPS	**R##**	*where ## is replaced by an identifying number incrementing from front to back*
Water Speed	**WS#**	*where # is replaced by an identifying number incrementing from front to back*
Velocimeter	**V#**	*where # is replaced by an identifying number incrementing from front to back*
User Defined	**UD##**	*where ## is replaced by an identifying number incrementing from front to back*

For example T04R01 refers to the rGPS sensor on tailbuoy 4

Exceptions are the compass and depth sensors on the streamers. These are referenced by the following convention

VC## *where V is replaced by the vessel number, C by the streamer number, and ## by an identifying number incrementing from front to back*

For example 1608 refers to the 8th compass/depth sensor on vessel 1, cable 6

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Investigator 3D
Victoria, Australia
6 Cable / Dual Source

VESSEL AND ANTENNAE OFFSETS

	Fore (+)	Stbd (+)	Height (+)
Navigation Reference Point (NRP V1)	0.00	0.00	0.00
[Primary GPS Antenna at sea level]			
Primary GPS Antenna (V1G1-5)	0.00	0.00	20.29
rGPS Antenna (P2/94 offset, V1R01)	0.00	0.00	0.00* (20.29)
Fanbeam Laser Head (V1L1)	0.00	0.00	18.73
Primarty (Simrad) Fathometer	10.71	1.59	-5.94
Backup (Echotrac) Fathometer	-3.90	-8.90	-5.00
Input/Output Hull Acoustic Xducer (V1T01)	-1.51	0.34	-5.60
Gyrocompass 1 (V1GY1)	-3.30	-1.80	-1.80
Gyrocompass 2 (V1GY2) (Primary)	-3.30	0.60	-1.80

NB : All offsets are in metres and are referenced to the NRP
***** Posnet antenna heights are all set to MSL in Spectra as the ranges are slant corrected within the Posnet system

TAILBUOY OFFSETS

		TRP Distance from CRP		Tailbuoy Sensor Offsets from TRP			
Cable	**Tailbuoy ID**	**Fore (+)**	**Height (+)**	**Acoustic ID**	**Height (+)**	**rGPS ID**	**Height (+)**
S01	T01	-4732.85	6.00	S01T08	-1.50	T01R01	0.00* (1.80)
S02	T02	-4732.85	6.00	S02T08	-1.50	T02R01	0.00* (1.80)
S03	T03	-4732.85	6.00	S03T08	-1.50	T03R01	0.00* (1.80)
S04	T04	-4732.85	6.00	S04T08	-1.50	T04R01	0.00* (1.80)
S05	T05	-4732.85	6.00	S05T08	-1.50	T05R01	0.00* (1.80)
S06	T06	-4732.85	6.00	S06T08	-1.50	T06R01	0.00* (1.80)

NB : All offsets are in metres and are referenced to the CRP (centre near group) or TRP (tailbuoy antenna at MSL)
***** Posnet antenna heights are all set to MSL in Spectra as the ranges are slant corrected within the Posnet system

Woodside Energy Ltd
Job No : 1999-35D-EH
Investigator 3D
Victoria, Australia
6 Cable / Dual Source

STREAMER POSITIONING SENSOR OFFSETS

BAKER HUGHES

Streamer Acoustic Sensors

CABLE #1		CABLE #2		CABLE #3		CABLE #4		CABLE #5		CABLE #6	
ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)
S01T01	-62.67	S02T01	-62.67	S03T01	-62.67	S04T01	-62.67	S05T01	-62.67	S06T01	-62.67
S01T02	-261.87	S02T02	-261.87	S03T02	-261.87	S04T02	-261.87	S05T02	-261.87	S06T02	-261.87
S01T03	-461.07	S02T03	-461.07	S03T03	-461.07	S04T03	-461.07	S05T03	-461.07	S06T03	-461.07
S01T04	-2154.27	S02T04	-2154.27	S03T04	-2154.27	S04T04	-2154.27	S05T04	-2154.27	S06T04	-2154.27
S01T05	-2253.87	S02T05	-2253.87	S03T05	-2253.87	S04T05	-2253.87	S05T05	-2253.87	S06T05	-2253.87
S01T06	-4445.07	S02T06	-4445.07	S03T06	-4445.07	S04T06	-4445.07	S05T06	-4445.07	S06T06	-4445.07
S01T07	-4579.95	S02T07	-4579.95	S03T07	-4579.95	S04T07	-4579.95	S05T07	-4579.95	S06T07	-4579.95

Streamer Compass Sensors

CABLE #1		CABLE #2		CABLE #3		CABLE #4		CABLE #5		CABLE #6	
ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)	ID #	Fore (+)
1101	+15.65	1201	+15.65	1301	+15.65	1401	+15.65	1501	+15.65	1601	+15.65
1102	-162.27	1202	-162.27	1302	-162.27	1402	-162.27	1502	-162.27	1602	-162.27
1103	-361.47	1203	-361.47	1303	-361.47	1403	-361.47	1503	-361.47	1603	-361.47
1104	-560.67	1204	-560.67	1304	-560.67	1404	-560.67	1504	-560.67	1604	-560.67
1105	-759.87									1605	-759.87
1106	-859.47	1205	-859.47	1305	-859.47	1405	-859.47	1505	-859.47	1606	-859.47
1107	-1058.67									1607	-1058.67
1108	-1158.27	1206	-1158.27	1306	-1158.27	1406	-1158.27	1506	-1158.27	1608	-1158.27
1109	-1457.07	1207	-1457.07	1307	-1457.07	1407	-1457.07	1507	-1457.07	1609	-1457.07
1110	-1755.87	1208	-1755.87	1308	-1755.87	1408	-1755.87	1508	-1755.87	1610	-1755.87
1111	-2054.67	1209	-2054.67	1309	-2054.67	1409	-2054.67	1509	-2054.67	1611	-2054.67
1112	-2353.47	1210	-2353.47	1310	-2353.47	1410	-2353.47	1510	-2353.47	1612	-2353.47
1113	-2652.27	1211	-2652.27	1311	-2652.27	1411	-2652.27	1511	-2652.27	1613	-2652.27
1114	-2951.07	1212	-2951.07	1312	-2951.07	1412	-2951.07	1512	-2951.07	1614	-2951.07
1115	-3249.87	1213	-3249.87	1313	-3249.87	1413	-3249.87	1513	-3249.87	1615	-3249.87
1116	-3548.67	1214	-3548.67	1314	-3548.67	1414	-3548.67	1514	-3548.67	1616	-3548.67
1117	-3847.47	1215	-3847.47	1315	-3847.47	1415	-3847.47	1515	-3847.47	1617	-3847.47
1118	-4146.27	1216	-4146.27	1316	-4146.27	1416	-4146.27	1516	-4146.27	1618	-4146.27
1119	-4345.47	1217	-4345.47	1317	-4345.47	1417	-4345.47	1517	-4345.47	1619	-4345.47
1120	-4544.67	1218	-4544.67	1318	-4544.67	1418	-4544.67	1518	-4544.67	1620	-4544.67

NB : All offsets are in metres and are relative to the Cable Reference Point (CRP) which is the centre of the first group.
Inline (fore is +ve) offsets only are given as all other offsets are zero.

Woodside Energy Ltd
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Victoria, Australia
6 Cable / Dual Source

SOURCE POSITIONING
SENSOR OFFSETS

BAKER HUGHES

SOURCE #1 (STBD)				
Stbd (Outer) String				
	ID #	**Fore (+)**	**Stbd (+)**	**Up (+)**
Acoustic	G01T01	0.00	6.00	-3.00
rGPS	G01R01	0.00	6.00	5.00* (6.0)
Fanbeam	N/A			
Fore D.I.	101	6.60	6.00	1.00
Mid D.I.	105	-1.00	6.00	1.00
Aft D.I.	108	-8.50	6.00	1.00
Centre String				
	ID #	**Fore (+)**	**Stbd (+)**	**Up (+)**
Acoustic	N/A			
rGPS	G01R02	0.00	0.00	5.00* (6.0)
Fanbeam	G01L01	0.00	0.00	5.50
Fore D.I.	201	6.60	0.00	1.00
Mid D.I.	205	-1.00	0.00	1.00
Aft D.I.	208	-8.50	0.00	1.00
Port (Inner) String				
	ID #	**Fore (+)**	**Stbd (+)**	**Up (+)**
Acoustic	G01T02	0.00	-6.00	-3.00
rGPS	G01R03	0.00	-6.00	5.00* (6.0)
Fanbeam	N/A			
Fore D.I.	301	6.60	-6.00	1.00
Mid D.I.	305	-1.00	-6.00	1.00
Aft D.I.	308	-8.50	-6.00	1.00

SOURCE #2 (PORT)				
Stbd (Inner) String				
	ID #	**Fore (+)**	**Stbd (+)**	**Up (+)**
Acoustic	G02T01	0.00	6.00	-3.00
rGPS	G02R01	0.00	6.00	5.00* (6.0)
Fanbeam	N/A			
Fore D.I.	601	6.60	6.00	1.00
Mid D.I.	605	-1.00	6.00	1.00
Aft D.I.	608	-8.50	6.00	1.00
Centre String				
	ID #	**Fore (+)**	**Stbd (+)**	**Up (+)**
Acoustic	N/A			
rGPS	G02R02	0.00	0.00	5.00* (6.0)
Fanbeam	G02L01	0.00	0.00	5.50
Fore D.I.	701	6.60	0.00	1.00
Mid D.I.	705	-1.00	0.00	1.00
Aft D.I.	708	-8.50	0.00	1.00
Port (Outer) String				
	ID #	**Fore (+)**	**Stbd (+)**	**Up (+)**
Acoustic	G02T02	0.00	-6.00	-3.00
rGPS	G02R03	0.00	-6.00	5.00* (6.0)
Fanbeam	N/A			
Fore D.I.	801	6.60	-6.00	1.00
Mid D.I.	805	-1.00	-6.00	1.00
Aft D.I.	808	-8.50	-6.00	1.00

NB. Source offsets are in metres and are relative to the geometric centre of source (COS)

***** Posnet antenna heights are all set to MSL in Spectra as the ranges are slant corrected within the Posnet system

Woodside Energy Ltd
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Victoria, Australia
6 Cable / Dual Source

PARAMETER CHANGES

VELOCITY OF SOUND

Velocity of sound in water was determined from Temperature/Salinity (TS) Dips taken periodically throughout the survey :

Seq 076-084	1517.6 m/s	Average of top 15 m of water column on 17-Feb-2000
Seq 085-105	1518 m/s	Average of top 15 m of water column on 28-Feb-2000
Seq 106-117	1520 m/s	Average of top 15 m of water column on 10-Mar-2000
Seq 118-147	1516 m/s	Average of top 15 m of water column on 16-Mar-2000
Seq 141-147	1516 m/s	Average of top 15 m of water column on 02-Apr-2000

The fathometer used a fixed value of 1500 m/s throughout the survey within the sensor, except for sequences 024-028 where the value in the Simrad fathomer was changed to 1513 m/s

The depths output to the P1/90 were scaled within the Unavchk processing system using the following values :

Seq 067-084	1514 m/s	Average of complete water column on 10-Feb-2000 & 17-Feb-2000
Seq 085-105	1517 m/s	Average of complete water column on 28-Feb-2000
Seq 106-117	1519 m/s	Average of complete water column on 10-Mar-2000
Seq 118-140	1514 m/s	Average of complete water column on 16-Mar-2000
Seq 141-147	1514 m/s	Average of complete water column on 02-Apr-2000

POSITIONING SENSOR OFFSET CHANGES

None

TOWING CONFIGURATION CHANGES

Prior to Seq 090 Guns deployed an additional 10 m, cables and vanes deployed an additional 20 m, to adjust separations following vane wire replacement (which took place prior to Seq 084)
New NRP to source centre inline offset = 325 m
New NRP to centre first group inline offset = 455 m
New source centre to first group inline offset = 130 m

Prior to Seq 105 Minor adjustment of cables (all retrieved 10 m) to improve separations