

3.3. RECORD OF OPERATIONS

Regulatory reference number OCS-G21447 #3
 Project number UMV04080

Vessel name Maersk Developer / Joshua Candies
 Operations page number 1 of 1

Date	Time pre-shooting visual monitoring began	Time pre-shooting visual monitoring ended	Time pre-shooting acoustic monitoring began	Time pre-shooting acoustic monitoring ended	Was it day or night in period prior to firing?	Reason for firing s = survey t = test x = test followed immediately by survey	Time soft start / ramp-up began	Time soft start / ramp-up ended	Time of start of line / test	Time of end of line / test	Time gun(s) disabled after line / test	Time mitigation gun enabled / source output reduced	Time mitigation gun disabled / end of reduced output	Was any mitigation action required?
2011-07-29	23:18	23:48			day	t	23:48	23:49			23:49			no
2011-07-29	23:40													no
2011-07-30		00:10			day	t	00:10	00:35	00:35	03:21	03:21			no
2011-08-01	21:26	21:56			day	t	21:56	22:17	22:17					no
2011-08-02										00:45	00:45			no
2011-08-02	22:38	23:08			day	s	23:10	23:31						no
2011-08-03									00:14	02:33	02:33			no
2011-08-06			03:38	04:08	night	t	04:08	04:28	04:28	05:09	05:09			no
2011-08-07			10:30	11:00	dawn	s	11:00	11:26	12:13					no
2011-08-09										17:59	17:59			no

3.4. LOCATION AND EFFORT



PROTECTED SPECIES RECORDING FORM
EFFORT

Regulatory reference number OCSG-21447#3
Project number UMV04080

Vessel name Joshua Candies
Effort page number 1 of 1

Date	Visual or PAM	Observers' initials	Start of watch				End of watch				Wind speed (knots)	Wind direction	Beaufort scale	Swell (m)	Visibility (km)	Glare severity
			Time	Latitude	Longitude	Depth (m)	Time	Latitude	Longitude	Depth (m)						
2011-07-29	visual	JM, RE, JA	19:30	26.20917°N	092.12722°W	2330	01:15	26.20917°N	092.12722°W	2330	11	SE	2	<2	>5	severe
2011-08-01	visual	JM, RE, JA	11:30	26.20917°N	092.12722°W	2330	01:15	26.05417°N	091.98722°W	2330	5	SE	1	<2	>5	severe
2011-08-02	visual	JM, RE, JA	11:20	26.11111°N	092.05889°W	2330	01:15	26.09889°N	092.05528°W	2330	5	SE	1	<2	>5	severe
2011-08-03	visual	JM, RE, JA	11:20	26.10306°N	092.05917°W	2330	00:55	26.06944°N	092.05889°W	2330	2	SE	0	<2	>5	moderate
2011-08-06	acoustic	RE	03:00	26.09458°N	092.05523°W	2330	04:45	26.09458°N	092.05523°W	2330	5	SE	1	<2	n/a	n/a
2011-08-06	visual	RE, JA, DW	11:20	26.09458°N	092.05523°W	2330	13:30	26.09458°N	092.05523°W	2330	8	SE	1	<2	>5	severe
2011-08-07	acoustic	RE	10:06	26.09667°N	092.05333°W	2330	11:26	26.09667°N	092.05333°W	2330	5	W	1	<2	n/a	n/a
2011-08-07	visual	RE, JA, DW	11:20	26.09667°N	092.05333°W	2330	01:20	26.15837°N	092.04640°W	2330	5	W	2	<2	>5	severe
2011-08-08	visual	RE, JA, DW	11:20	26.10738°N	092.04487°W	2330	01:15	26.13533°N	092.01358°W	2330	10	S	2	<2	>5	severe
2011-08-09	visual	RE, JA, DW	11:20	26.06585°N	092.09191°W	2330	18:10	26.08475°N	092.05355°W	2330	15	N	3	<2	>5	severe



3.5. RECORD OF DETECTION

RPS

PROTECTED SPECIES RECORDING FORM
DETECTION

Date	Project number	Time at first detection (UTC)	Time at last detection (UTC)	Visual detection number	Acoustic detection number
2011-08-01	UMV04080	20:07	21:12	1	n/a
Regulatory reference number	Vessel name		Survey type	Observer(s)	
OCS-G21447 #3	Maersk Developer / Joshua Candies		VSP	[REDACTED]	
Detection was made	Detection was first made				
visually	visually by observer keeping a continuous watch				
Latitude of vessel	Longitude of vessel		Heading of vessel (degrees)	Water depth (metres)	
26.04500°N	092.01028°W		315	2330	
Swell height (metres)	Beaufort scale	Precipitation	Visibility (km)	Cloud cover (%)	Glare severity and direction
<2	2	none	>5	30	mild from N
Common name		Scientific name		Certainty of identification	
Rough-toothed dolphin		Steno bredanensis		definite	
Total number	Number of adults	Number of juveniles	Bearing to animal(s) when first detected (degrees)	Range to animal(s) when first detected (metres)	
25	20	5	210	350	
Description (include features such as overall size; shape of head; colour and pattern; size, shape, and position of dorsal fin; height, direction, and shape of blow; etc.)			Visual sighting and/or Acoustic detection details (note behavior, especially changes in relation to gun activity and distance from gun array)		
Dolphins were identified by their tall falcate dorsal fin, their hearty size, their lack of a melon and smooth sloping forehead, their triangular beak with no crease and their grayish coloring with blotchy sides and white/pink underbellies.			Rough-toothed dolphins were detected by a splash at 20:07UTC approximately 300 meters from the starboard stern of the vessel. At 20:14UTC the whole pod of nearly 25 dolphins was sighted 100 meters off the starboard stern approaching the vessel. The dolphins were observed milling at the surface just off the stern for quite some time also displaying somewhat playful behaviour. The vessel made a complete 180 degree turn in which the dolphins continued to mill at the stern. At 21:00UTC the vessel headed away from the dolphins. The dolphins were lost from sight at 21:12UTC.		
Direction of travel / first approach (relative to vessel)			Initial compass heading (degrees)	Final compass heading (degrees)	
towards vessel			335	335	
Closest distance of animals to airguns/source (metres)	Closest distance of animals to vessel (metres)		Source activity at initial detection	Source activity at final detection	
0	0		not firing	not firing	
Time at closest approach (UTC)	Distance during soft start (m)			Source mitigation action(s) required	Strike avoidance maneuvers required
20:30	First	Closest	Last	delayed start of firing	no
	n/a	n/a	n/a		
Duplicate detection? If yes, provide duplicate detection number			Total duration animals observed in exclusion zone (HH:MM)	Total duration of production loss due to mitigation action (HH:MM)	
no			01:05	00:00	