

INCIDENT MANAGEMENT TEAM CALAPAN
MARINE SCIENCE TECHNICIAN TEAM
Calapan City, Oriental Mindoro

ESY/MBM
MST
Ser: MST:05-2023(01)
01 May 2023

From: OIC, MST Team Oriental Mindoro
For: Incident Commander, Incident Management Team Calapan
(Attn: IMT Calapan Operations Section)

Subj: **Survey Reports Re Initial Shoreline Cleanup Assessment Technique (SCAT) Surveys on the Areas of Calapan City**

Encl: Shoreline Monitoring Report as of 01 May 2023 with attachments

1. This pertains to the recently conducted Shoreline Cleanup Assessment Techniques (SCAT) initial surveys for the affected areas of the city of Calapan as of 26 November 2023 with the representative agencies of the Department of Environmental Resources – Environmental Management Bureau (DENR-EMB) MIMAROPA, City Disaster Risk Reduction Management Office (CDRRMO), Fisheries Management Office (FMO), International Tankers Owners Pollution Federation Inc. (ITOPF) and the representatives of their respective Local Government Units (Barangays).

2. As a backgrounder, SCAT or Shoreline Cleanup Assessment Technique is a systematic approach that uses standard terminology to collect data on shoreline oiling conditions and support decision-making for shoreline cleanup; it is a multi-agency survey with representatives from concerned parties who have the authority to make decisions in connection to the incident.

3. In this connection, attached herewith is a summary of the survey reports conducted on the barangays of Navotas, Maidlang, Silonay, Parang, Suqui, Lazareto, San Antonio, and Harko Piloto as well as a summary report on the gathered overall data (**Encl**).

4. For information and reference.


EDWARD S YEO JR
CG ENS

INCIDENT MANAGEMENT TEAM CALAPAN
MARINE SCIENCE TECHNICIAN TEAM
 Calapan City, Oriental Mindoro

as of 01 May 2023

Calapan City Shoreline Survey Report (As of 01 May 2023)

BARANGAY NAVOTAS SHORELINE LENGTH: 4.55 km ACCEPTABLY CLEANED: 4.54 Km PERCENT COMPLETENESS: 99.5%

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)	Status	Remarks
C-N-1	Fine-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	1.63	0	AC	Continuous Monitoring
C-N-2	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.55	0	AC	Continuous Monitoring
C-N-3	Fine-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.76	0	AC	Continuous monitoring
C-N-4	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.20	0	AC	Continuous Monitoring
C-N-5	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.60	0	AC	Continuous Monitoring
C-N-6	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.81	0	AC	Continuous Monitoring
TOTAL		4.55	0	4.54	

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as of 01 May 2023

BARANGAY SUQUI SHORELINE LENGTH: 0.58 km ACCEPTABLY CLEANED: 0.58 km PERCENT COMPLETENESS: 100 %

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)	Status	Remarks
C-S-1	Gravel Beach (ga) with Boulders to Cobbles Sediment Type Shoreline	0.12	0	AC	Continuous Monitoring
C-S-2	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.46	0	AC	Continuous Monitoring
Total		0.58	0	0.58	

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as of 01 May 2023

BARANGAY SILONAY SHORELINE LENGTH: 2.54 km ACCEPTABLY CLEANED: 2.54 km PERCENT COMPLETENESS: 100%						
Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)		Status	Remarks
C-Si-1	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	1.35	0	1.35	AC	Continuous Monitoring
C-Si-2	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.76	0	0.76	AC	Continuous Monitoring
C-Si-3	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.43	0	0.43	AC	Continuous Monitoring
Total		2.54	0	2.54		

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as of 01 May 2023

BARANGAY MAIDLANG SHORELINE LENGTH: 5.07 km ACCEPTABLY CLEANED: 5.07 km PERCENT COMPLETENESS: 100%

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)	Status	Remarks
C-M-1	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.64	0	AC	Continuous Monitoring
C-M-2	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.77	0	AC	Continuous Monitoring
C-M-3	Mangrove Area (10d) with Sand Type Sediment Shoreline	2.01	0	AC	Continuous Monitoring
C-M4	Mangrove Area (10d) with Sand Type Sediment Shoreline	1.65	0	AC	Continuous Monitoring
Total		5.07	0	5.07	

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as of 01 May 2023

BARANGAY SAN ANTONIO SHORELINE LENGTH: 1.10 Km ACCEPTABLY CLEANED: 1.10 Km PERCENT COMPLETENESS: 100%

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)	Status	Remarks
C-SA-1	Gravel Beach (6a) with Boulders, Cobbles, and Pebbles; Sediment Type Shoreline	0.06	0	AC	Continuous Monitoring
C-SA-2	Mangrove Area (10d) with Sand Type Sediment Shoreline	1.04	0	AC	Continuous Monitoring
Total		1.10	0	1.10	

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as of 01 May 2023

BARANGAY LAZARETO SHORELINE LENGTH: 3.2 km ACCEPTABLY CLEANED: 3.14 km PERCENT COMPLETENESS: 98%

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)		Status	Remarks
C-L-1	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	1.43	0.00		AC	Continuous Monitoring
C-L-2	Gravel Beach (6a) with Boulders, Cobbles, and Pebbles Sediment Type Shoreline	1.77	0.06		AC	Natural Recovery
Total		3.20	0.06		3.14	

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as of 01 May 2023

BARANGAY PARANG SHORELINE LENGTH: 1.64 Km ACCEPTABLY CLEANED: 1.64 Km PERCENT COMPLETENESS: 100%

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)		Status	Remarks
C-P-1	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.22	0	0.22	AC	Continuous Monitoring
C-P-2	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.85	0	0.85	AC	Continuous Monitoring
C-P-3	Exposed Manmade Shoreline	0.57	0	0.57	AC	Continuous Monitoring
Total		1.64	0	1.64		

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as of 01 May 2023

HARKO PILOTO SHORELINE LENGTH: 2.36 km ACCEPTABLY CLEANED: 2.30 km PERCENT COMPLETENESS: 97.67%

Segment ID	Type of Shoreline (Shore)	Shoreline Length based on Multi-Agency Survey (km)	Length of remaining Contaminated Shoreline (km)		Status	Remarks
G-HP-1	Mix Sand and Gravel Beach (5) with Granule Type Sediment	0.18	0	0.18	AC	Continuous Monitoring
G-HP-2	Gravel Beach (6a) with Cobble and Pebble Type Sediment	0.76	0.06	0.70	AC	Natural Recovery
G-HP-3	Gravel Beach (6a) with Cobble and Pebble Type Sediment	0.25	0	0.25	AC	Continuous Monitoring
G-HP-4	Exposed Rocky Platforms (2) with Bedrock Outcrop and Boulder Type Sediment	1.17	0	1.17	AC	Continuous Monitoring
Total		2.36	0.06	2.30		

**INCIDENT MANAGEMENT TEAM CALAPAN
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LEGEND	
AC	Acceptably Clean
P1	Phase I (Removal of Bulk Oil)
P2	Phase II (Removal of Attached Oil)
P3	Phase III (Final Polishing)

Note: Resurvey will be scheduled once agreed by different agencies involved in the SCAT Activity

Prepared by:


CG P/ENS MARVIN B MANILLO
Assistant OIC, MST (IMT Calapan)

Noted by:


CG ENS EDWARD S YEO JR
OIC, MST (IMT Calapan)

INCIDENT NAME: MT PRINCESS EMPRESS

DATE: 12 APRIL 2023

SURVEY REPORT

BARANGAY:	NAVOTAS, CALAPAN, ORIENTAL MINDORO
TYPE OF SHORELINE:	-Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline -Mangrove Area (10d) with Sand Type Sediment Shoreline
PRESENT OIL CONDITION:	(<1%) Sporadic Oil Contaminated Debris
LENGTH OF SHORELINE:	4.55 km
SENSITIVITIES:	Fishing activity/ local population/ MPA/Amenity beach
EXPOSURE:	Exposed
ACCESS:	Accessible by foot and motor Bangka

SITE MAP

Current Photo Taken



Fined-Grained sandy beach (3) with Sand Type Sediment Shoreline



Mangrove Area (10d) with Sand Type Sediment Shoreline





OBSERVATION:

- Segment C-N-1, C-N-3 and C-N-5 has approximately 2.99 km of fined-grained sandy beach with sand type sediment shoreline, there was sporadic (<1%) contaminated oil debris from used indigenous booms was observed scattered as well as oil adsorbent on C-N-1 and C-N-5 on the shoreline.
- Segment C-N-2, C-N-4 and C-N-6 has approximately 1.56 km of mangrove area with sand type sediment shoreline and no oil contamination on the shoreline was observed.
- Total of 4.55 km of shoreline was observed to have no oil contamination and is 99.5% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1,3,5	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	2.99	99%
2,4,6	Mangrove Area (10d) with Sand Type Sediment Shoreline	1.56	100%
Total		4.55	99.5%

ENDPOINTS

SEGMENT 1, 3, and 5 Fined-Grained Sandy Beach (3) with Sand Type Sediment

- ☒ No pronounced smell/odor of oil.
- ☒ No Visible oil in the surface.
- ☒ No mobile oil sub-surface.
- ☒ No oil debris.
- ☒ No subsurface oil layers in pits dug into the beach.

SEGMENT 2, 4, and 6 Mangrove Area (10d) with Sand Type Sediment

- ☒ Gently Wiping off of any oil on roots until it is less than 0.1 cm.
- ☒ No accessible free-floating oil in the mangrove forest.
- ☒ No accessible oil debris.

RECOMMENDATION:

- Request for tonner bags to collect and remove oil-contaminated indigenous boom waste in the shoreline.
- Hauling/Transport of Hazardous waste to prevent stacking of waste at the shoreline.
- Continuous monitoring of the shoreline

PCG: CG ENS JOHN MICHAEL BUSNACASEJO	DENR MABELLE M. MANALO
LGU Representative: Emboy Quinto	CDRRMO: Manguerra, Marc "K" Lator
FMO Melody Dinglasan	Mari
WITNESS:	CG SW2 Kathleen A. Adinola
CG PIENS MARVIN B. MANILLO	CG SW2 Merissa Lamban

INCIDENT NAME: MT PRINCESS EMPRESS		DATE: 13 APRIL 2023	
SURVEY REPORT			
BARANGAY:		MAIDLANG, CALAPAN, ORIENTAL MINDORO	
TYPE OF SHORELINE:		-Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline -Mangrove Area (10d) with Sand Type Sediment Shoreline	
PRESENT OIL CONDITION:		No oil observed	
LENGTH OF SHORELINE:		5.07 km	
SENSITIVITIES:		Fishing activity/ local population/ MPA	
EXPOSURE:		Exposed	
ACCESS:		Accessible by foot and motor Bangka	

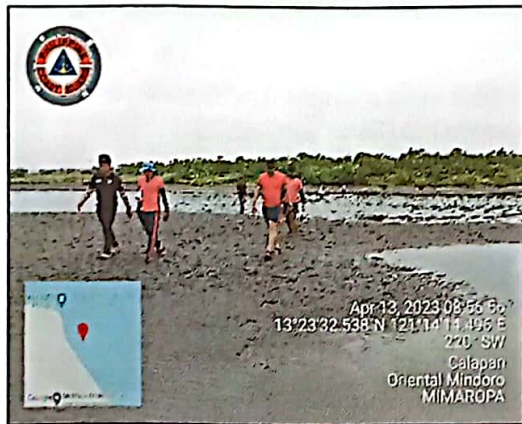
SITE MAP



Current Photo Taken:



Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline



Mangrove Area (10d) with Sand Type Sediment Shoreline





OBSERVATION:

- Segment C-M-1 approximately 0.64 km of Fined-Grained Sandy Beach with Sand Type Sediment Shoreline, no oil contamination on the shoreline observed.
- Segment C-M-2, C-M-3, and C-M-4 approximately 4.43 km of mangrove area with Sand Type Sediment Shoreline, no oil contamination on the shoreline observed. However, in segment C-M-3 the indigenous oil spill boom was deposited on the mangrove area due to heavy waves.
- Total of 5.07 km of shoreline was observed to have no oil contamination and is 100% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	0.64	100%
2,3,4	Mangrove Area (10d) with Sand Type Sediment Shoreline	4.43	100%
	Total	5.07	100%

ENDPOINTS

SEGMENT 1 Fined-Grained Sandy Beach (3) with Sand Type Sediment

- ☒ No pronounced smell/odor of oil.
- ☒ No Visible oil in the surface.
- ☒ No mobile oil sub-surface.
- ☒ No oil debris. Debris that is not oil should be removed from the beach.
- ☒ No subsurface oil layers in pits dug into the beach. Buried tar balls should be at or below background frequency

SEGMENT 2,3 and 4 Mangrove Area (10d) with Sand Type Sediment

- ☒ Gently Wiping off of any oil on roots until it is less than 0.1 cm.

<input checked="" type="checkbox"/> No clean up except for removal of oil debris at the periphery <input checked="" type="checkbox"/> No accessible free-floating oil in the mangrove forest. <input checked="" type="checkbox"/> No accessible oil debris. Debris that is not oiled should not be removed.	
RECOMMENDATION: <ul style="list-style-type: none"> • Collect and remove scattered debris from damaged Indigenous boom. • Hauling/Transport of Hazardous waste to prevent stacking of waste at the shoreline. • Continues monitoring of the shoreline 	
PCG: CG EPS JOHN MICHAEL S. QUENCONSTRIO	DENR MABELLE NI. MARIALA
LGU Representative: JAYME S. SANTIAGO	CDRMO: Marc 'R' Lopez Sr. Manguerra
FMO MELODY D. DINGLASAN	MARK D. DINGLASAN
WITNESS:	
CG PIENS MARVIN B. MARILLO	CA SW2 Kathleen A. Adwinemla CG SW2 Merissa R. Lariohan

INCIDENT NAME: MT PRINCESS EMPRESS

DATE: 14 APRIL 2023

SURVEY REPORT

BARANGAY:	SILONAY, CALAPAN, ORIENTAL MINDORO
TYPE OF SHORELINE:	-Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline -Mangrove Area (10d) with Sand Type Sediment Shoreline
PRESENT OIL CONDITION:	No oil observed
LENGTH OF SHORELINE:	2.54 km
SENSITIVITIES:	Fishing activity/ local population/ MPA
EXPOSURE:	Exposed
ACCESS:	Accessible by motor Bangka

SITE MAP



Current Photo taken:



Fined-Grained sandy beach (3) with sand type sediment



Mangrove Area (10d) with sand type sediment





OBSERVATION:

- Segment C-Si-1 and C-Si-3 has approximately 1.78 km of fined-grained sandy beach with sand type sediment shoreline, no oil contamination on the shoreline observed.
- Segment C-Si-2 has approximately 0.76 of mangrove area with sand type sediment shoreline, no oil contamination on the shoreline observed.
- Total of 2.54 km of shoreline were observed to have no oil contamination and is 100% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1,3	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	1.78	100%
2,	Mangrove (10d) with sand-type sediment Shoreline	0.76	100%
	Total	2.54	100%

ENDPOINTS

SEGMENT 1 and 3 Fined-Grained Sandy Beach with Sand Type Sediment

- ☒ No pronounced smell/odor of oil.
- ☒ No Visible oil in the surface.
- ☒ No mobile oil sub-surface.
- ☒ No oil debris.
- ☒ No subsurface oil layers in pits dug into the beach.

SEGMENT 2 Mangrove Area (10d) with Sand Type Sediment

- ☒ Gently Wiping off of any oil on roots until it is less than 0.1 cm.
- ☒ No accessible free-floating oil in the mangrove forest.
- ☒ No accessible oil debris.

RECOMMENDATION:

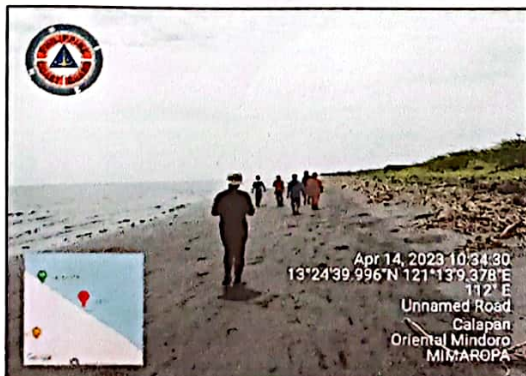
- Proper segregation of waste disposal and management
- Continuous monitoring of the shoreline

INCIDENT NAME: MT PRINCESS EMPRESS		DATE: 14 APRIL 2023	
SURVEY REPORT			
BARANGAY:		PARANG, CALAPAN, ORIENTAL MINDORO	
TYPE OF SHORELINE:		-Fined-grained Sandy Beach (3) with Sand Type Sediment Shoreline -Mangrove Area (10d) with Sand Type Sediment Shoreline - Exposed Manmade Shoreline	
PRESENT OIL CONDITION:		No oil observed	
LENGTH OF SHORELINE:		1.64 km	
SENSITIVITIES:		Fishing activity/ local population/ MPA/Amenity beach	
EXPOSURE:		Exposed	
ACCESS:		Accessible by foot and motor Bangka	

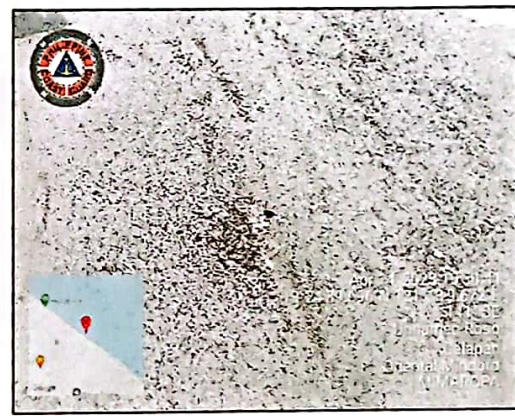
SITE MAP



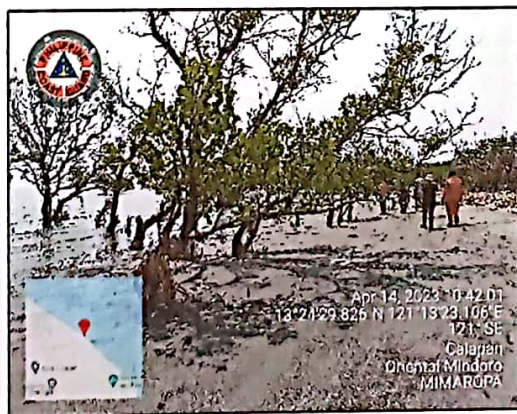
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Fined-grained Sandy Beach (3) with Sand Type Sediment Shoreline

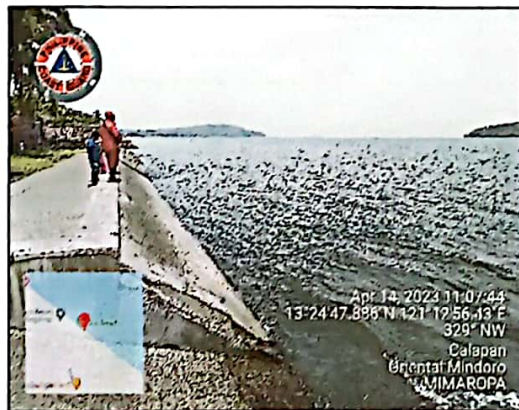


Mangrove Area (10d) with Sand Type Sediment Shoreline





Exposed Manmade Shoreline



OBSERVATION:

- Segment C-P-1 has approximately 0.22 km of Fined-grained sandy beach with Sand type sediment shoreline, there was no oil contamination observed on the shoreline.
- Segment C-P-2 has approximately 0.85 km of Mangrove Area (10d) with Sand Type Sediment Shoreline, there was no oil contamination observed on the shoreline.

- Segment C-P-3 has approximately 0.57 km of manmade, there was no oil contamination on the shoreline observed.
- Total of 1.64 km shoreline was observed to have no oil contamination on the shoreline and is 100% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1	Fined-Grained Sandy Beach (3) with Sand Type Sediment	0.22	100%
2	Mangrove Area (10d) with Sand Type Sediment Shoreline	0.85	100%
3	Exposed Manmade Shoreline	0.57	100%
	Total	1.64	100%

ENDPOINTS

Segment 1 Fined-Grained Sandy Beach (3) with Sand Type Sediment

- ☒ No pronounced smell/odor of oil.
- ☒ No Visible oil in the surface.
- ☒ No mobile oil sub-surface.
- ☒ No oil debris. Debris that is not oil should be removed from the beach.
- ☒ No subsurface oil layers in pits dug into the beach. Buried tar balls should be at or below background frequency

Segment 2 Mangrove Area (10d) with Sand Type Sediment

- ☒ Gently Wiping off of any oil on roots until it is less than 0.1 cm.
- ☒ No clean-up except for removal of oil debris at the periphery
- ☒ No accessible free-floating oil in the mangrove forest.
- ☒ No accessible oil debris. Debris that is not oiled should not be removed.

Segment 3 Exposed Manmade Shoreline

- ☒ No pronounced smell/odor of oil.
- ☒ No sticky oil; No longer rubbing off on contacts (stain only)
- ☒ No accessible oil debris.
- ☒ In industrial areas, no longer generates oil greater than sheens. In Public access areas, no longer generates sheen.

RECOMMENDATION:

- Continuous monitoring of the shoreline

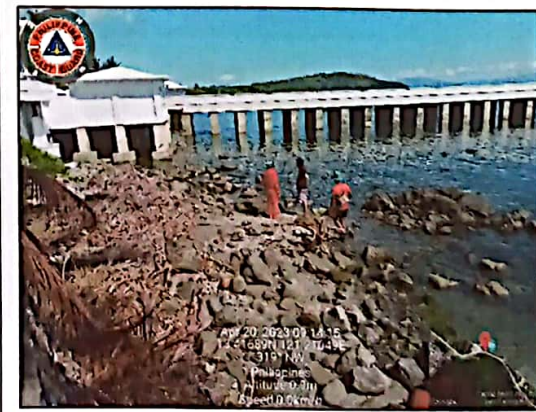
PCG: CG BUS JOHN MICHAEL BUENACANSAJO	DENR MARIELLE M. MANALO
LGU Representative: Augusto T. DAKALOS MELODY DINGLASAN	CRRMO: Mangueerra, M. Lester P. M. P. C. C. C.
WITNESS: CG PIERS MANUEL B. MANILLO	CG SW2 KATHLOON A. Adinola CG SW2 Merissa R. Landon

INCIDENT NAME: MT PRINCESS EMPRESS		DATE: 20 APRIL 2023	
SURVEY REPORT			
BARANGAY:	SUQUI, CALAPAN, ORIENTAL MINDORO		
TYPE OF SHORELINE:	-Gravel beach (6a) with boulders to cobbles Sediment Type Shoreline -Fined-grained Sandy Beach (3) with Sand Type Sediment Shoreline		
PRESENT OIL CONDITION:	No oil observed		
LENGTH OF SHORELINE:	0.58 km		
SENSITIVITIES:	Fishing activity/ local population/Amenity Beach		
EXPOSURE:	Exposed		
ACCESS:	Accessible by foot		

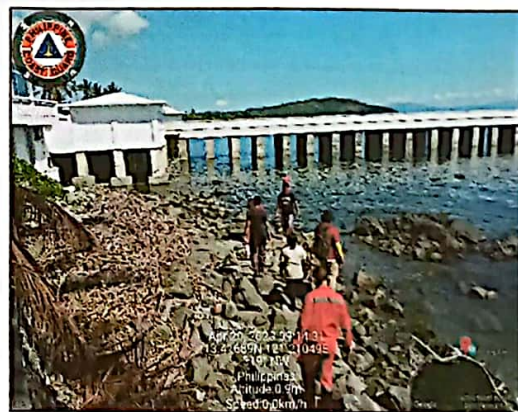
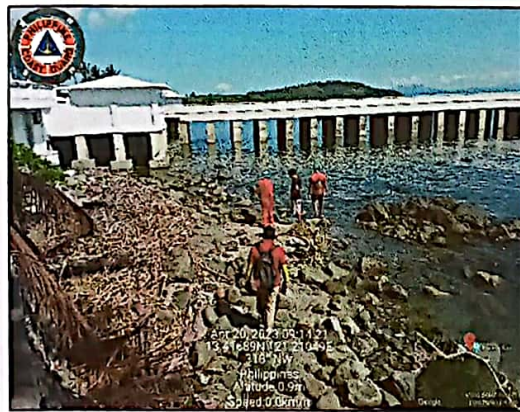
SITE MAP



Current Photo taken:



Gravel beach (6a) with boulders to cobbles Sediment Type Shoreline



Fined-grained Sandy Beach (3) with Sand Type Sediment Shoreline



OBSERVATION:

- Segment C-S-1 approximately 0.12 km of Gravel beach with boulders to cobbles sediment Type Shoreline has no traces of oil contamination.
- Segment C-S-2 approximately 0.46 km of Fined-grained Sandy Beach with Sand Type Sediment Shoreline has no traces of oil contamination.
- The total length of the shoreline approximately 0.58 km has no traces of oil contamination and can be declared 100% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1	Gravel beach (6a) with boulders to cobbles Sediment Type Shoreline	0.12	100%
2	Fined-grained Sandy Beach with Sand Type Sediment (3) Shoreline	0.46	100%
	Total	0.58	100%

ENDPOINTS**SEGMENT 1 Gravel beach (6a) with boulders to cobbles Sediment Type Shoreline**

- ☒ No pronounced smell/odor of oil
- ☒ All liquid oil in the sediment has been removed and no more than a stain may remain on the sediment.
- ☒ No Sticky oil; no longer rubbing off on contacts. (stain only)
- ☒ No layer of oil or tar patties are found in dug pits.
- ☒ No oiled debris.

SEGMENT 2 Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline

- ☒ No pronounced smell/odor of oil.
- ☒ No Visible oil in the surface.
- ☒ No mobile oil sub-surface.
- ☒ No sorbent boom (saturated or not).
- ☒ No oil debris.
- ☒ Tar balls and tar patties should be at below-normal background frequency. Increase in tar ball frequency above background will require further cleanup if related to PRINCESS IMPRESS.
- ☒ No subsurface oil layers in pits dug into the beach. Buried tar balls should be at or below background frequency.

RECOMMENDATION:

- Continuous monitoring of the shoreline

PCG: Ct ENS JOHN MICHAEL BUENCONSEJO	DENR MABELLE M. MANALO
LGU Representative: BRENDA M. BACULLAN M. BACULLAN	CDRRMO: Manguerra, Marc 'n' Lester
FMO MELODY DINGLASAN	MARA CANO
WITNESS:	Ct SW2 Kathleen A. Adinacala
CG PIENS MARVIN B. MANTICO	CG SW2 Merissa R. Stañoan

INCIDENT NAME: MT PRINCESS EMPRESS	DATE: 20 APRIL 2023
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SURVEY REPORT

BARANGAY:	LAZARETO, CALAPAN, ORIENTAL MINDORO
TYPE OF SHORELINE:	-Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline - Gravel Beach (6a) with Boulders, Cobbles and Pebbles Sediment Type Shoreline
PRESENT OIL CONDITION:	(<1%) sporadic oil-contaminated debris and (3%) sporadic oil staining
LENGTH OF SHORELINE:	3.2 km
SENSITIVITIES:	Fishing activity/ local population/Amenity Beach
EXPOSURE:	Exposed
ACCESS:	Accessible by foot and motor bangka

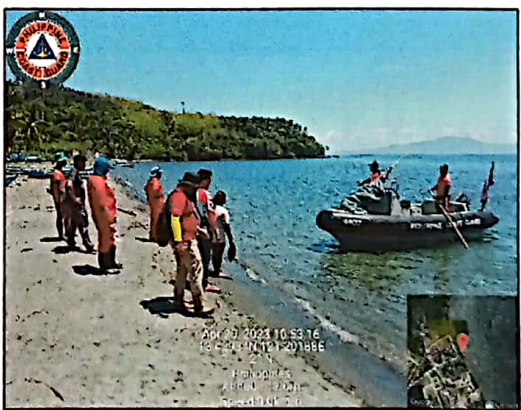
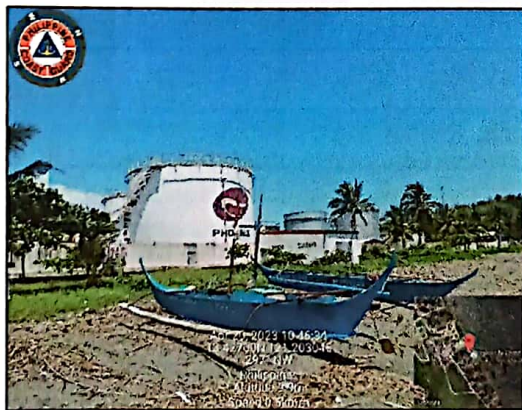
SITE MAP



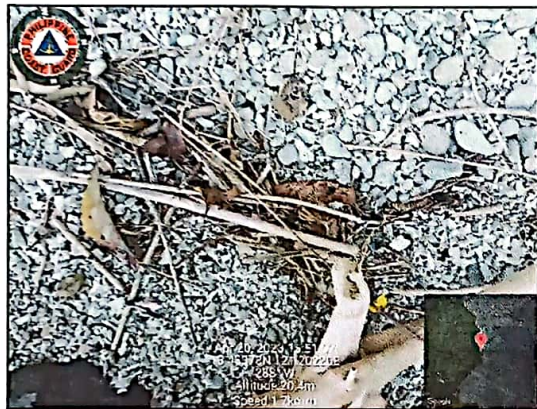
Current Photo taken:



Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline



Gravel Beach (6a) with boulders, cobbles, and pebbles Sediment Type Shoreline



OBSERVATION:

- Segment C-L-1 has approximately 1.43 km of Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline, there was no oil contamination observed in the shoreline.
- Segment C-L-2 has approximately 1.77 km of Gravel Beach (6a) with boulders, cobbles, and pebbles sediment type shoreline, there was (<1%) sporadic oil-contaminated debris and (3%) sporadic oil staining on the boulders to cobble sediment.
- Total of 3.2 km of shoreline was observed to have sporadic oil staining and minimal oil-contaminated debris. The area is considered to be 98% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1	Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline	1.43	100%
2	Gravel Beach (6a) with boulders, cobbles, and pebbles Sediment Type Shoreline	1.77	96%
	Total	3.2	98%

ENDPOINTS:

SEGMENT 1 Fined-Grained Sandy Beach (3) with Sand Type Sediment Shoreline

- ☒ No pronounced smell/odor of oil.
- ☒ No Visible oil in the surface.
- ☒ No mobile oil sub-surface.
- ☒ No oil debris.
- ☒ No subsurface oil layers in pits dug into the beach. Buried tar balls should be at or below background frequency

SEGMENT 2 Gravel Beach (6a) with Boulders, Cobbles and Pebbles Sediment Type Shoreline

- ☒ No pronounced smell/odor of oil
- ☒ All liquid oil in the sediment has been removed and no more than a stain may remain on the sediment.
- ☒ No Sticky oil; no longer rubbing off on contacts. (stain only)
- ☒ No layer of oil or tar patties are found in dug pits.
- ☒ No oiled debris.

RECOMMENDATION:

- Hauling/Transport of Hazardous waste to prevent stacking of waste at the shoreline (if they have a recovered oil contamination).
- Collection of minimal oil-contaminated debris.
- Natural Recovery on the sporadic distribution of oil staining on sediments
- Continues monitoring of the shoreline

RECOMMENDATION:

- Continuous monitoring of the shoreline

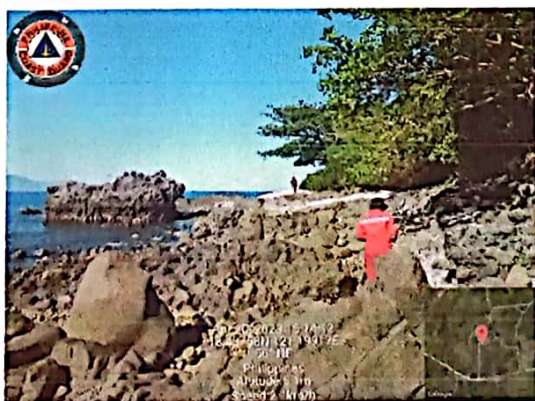
PCG: CG SWR JOHN MICHAEL BUBUCOKASO	DENR MARILIE M. MANALO
LGU Representative: YOLANDA A. ALBA SB-MEMBER LAZARETO	CDRRMO: Manguerra, Maria "K" Lester
FMO MELODY DINGLASAN	MANUEL CRUZ
YOLA	
WITNESS:	CG SWR Kathleen Badiola Advincula
CG PIENS MARIN B. MARILLO	CG SWR Melissa R. Laminhan

INCIDENT NAME: MT PRINCESS EMPRESS		DATE: 20 APRIL 2023	
SURVEY REPORT			
BARANGAY:		SAN ANTONIO, CALAPAN, ORIENTAL MINDORO	
TYPE OF SHORELINE:		-Gravel Beach (6a) with Boulders, Cobbles, and Pebbles Type Sediment Shoreline -Exposed Manmade Shoreline	
PRESENT OIL CONDITION:		No Oil observed	
LENGTH OF SHORELINE:		1.10 km	
SENSITIVITIES:		Fishing activity	
EXPOSURE:		Exposed /Sheltered	
ACCESS:		Accessible by foot and motor bangka	

SITE MAP



Current Photo Taken:



Gravel Beach (6a) with Boulders, Cobbles, and Pebbles Type Sediment Shoreline



Exposed Manmade Shoreline



OBSERVATION:

- Segment C-SA-1 has approximately 0.06 km gravel beach (6a) with boulders, cobbles, and pebbles-type sediment shoreline, there was no oil contamination observed in the shoreline
- Segment C-SA-2 has approximately 1.04 km of boulders, there was no oil contamination observed in the shoreline.
- Total of 1.10 km of shoreline was observed to have no oil contamination and is 100% acceptably clean.

Segment number	Shoreline type	Length of shoreline kilometer	% Acceptably Clean
1	Gravel Beach (6a) with boulders, cobbles, and pebbles Type Sediment Shoreline	0.06	100%
2	Exposed Manmade Shoreline	1.04	100%
	Total	1.10	100%

ENDPOINTS:

SEGMENT 1 Gravel Beach (6a) with Boulders, Cobbles, and Pebbles Type Sediment

- ☒ No pronounced smell/odor of oil
- ☒ All liquid oil in the sediment has been removed and no more than a stain may remain on the sediment.
- ☒ No Sticky oil; no longer rubbing off on contacts. (stain only)
- ☒ No layer of oil or tar patties are found in dug pits.
- ☒ No oiled debris.

SEGMENT 2 Exposed Manmade Shoreline

- ☒ No pronounced smell/odor of oil.
- ☒ No sticky oil; No longer rubbing off on contacts (stain only)
- ☒ No accessible oil debris.
- ☒ In industrial areas, no longer generates oil greater than sheens. In Public access areas, no longer generates sheen.

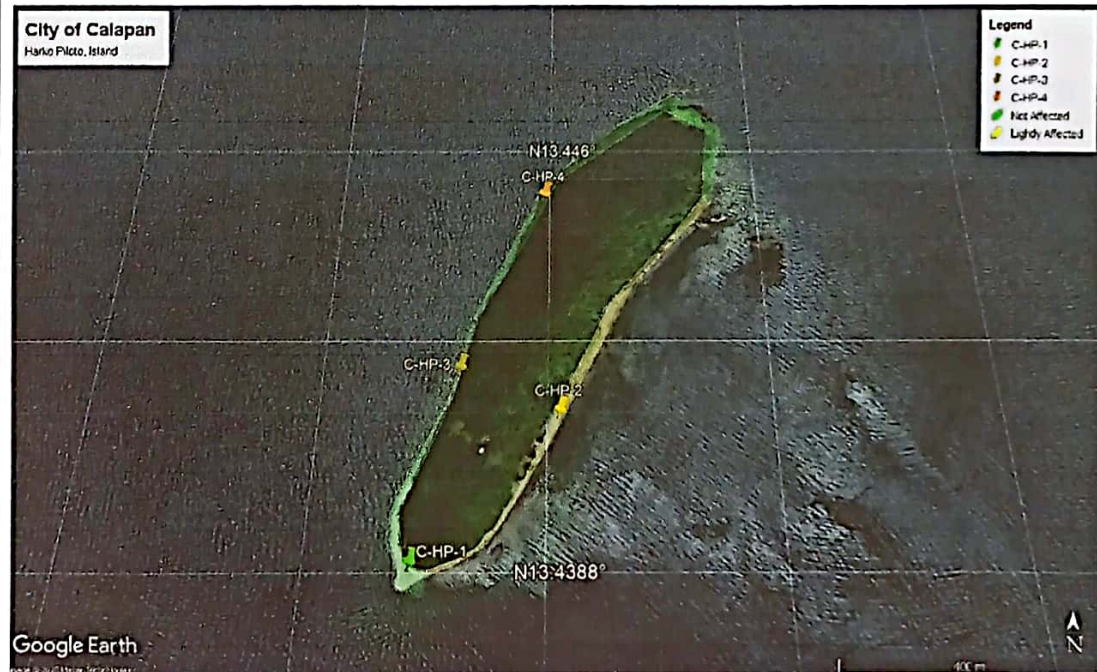
RECOMMENDATION:

- Continuous monitoring of the shoreline

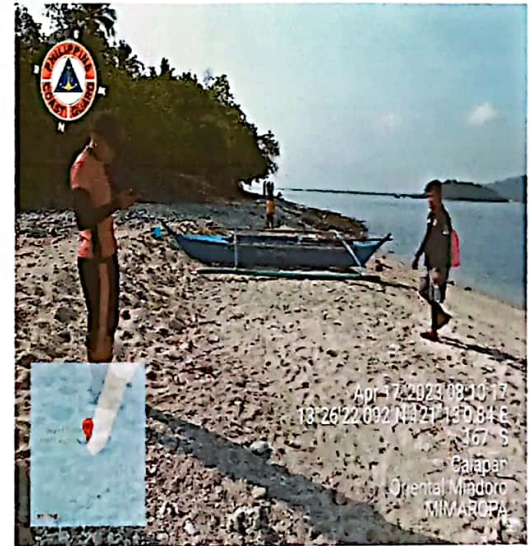
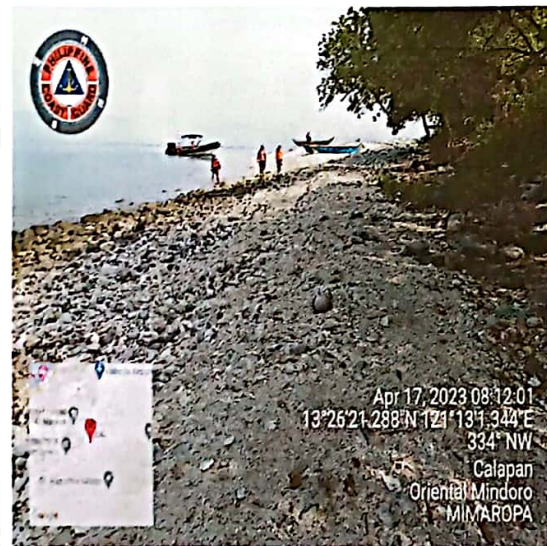
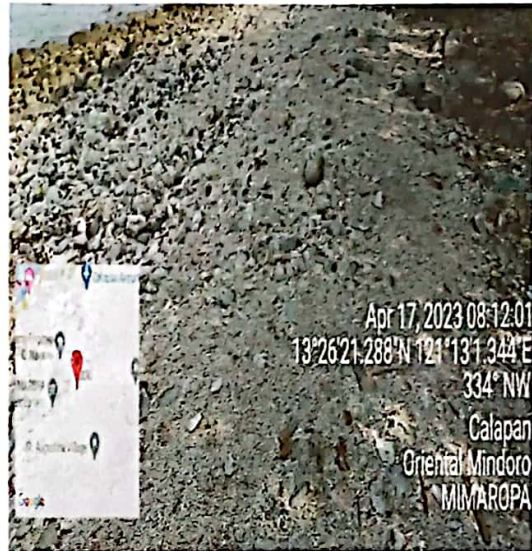
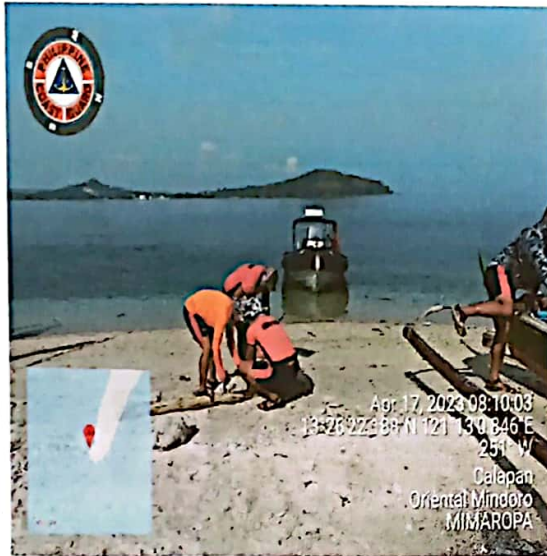
PCG: CG ENS JONIA B. MARCIAL	DENR MABELLE M. MANALO
LGU Representative: JONIA B. MARCIAL	CDRRMO:
FMO MELDY DIRGLASAN	Manguerra, Siric "K" Kester B.
	MARK FORMOSA
WITNESS:	CG SN2 Kathleen A. Adinola
CG PIENS MARYO B. MANILLO	CG SN2 Merissa K. Lariohan

INCIDENT NAME: MT PRINCESS EMPRESS**DATE: 17 APRIL 2023****SURVEY REPORT**

BARANGAY/AREA:	HARKO PILOTO, CALAPAN, ORIENTAL MINDORO
TYPE OF SHORELINE:	-Mixed Sand and Gravel Beach (5) with Granule Type Sediment Shoreline -Gravel Beach (6a) with Cobble and Pebble Type Sediment Shoreline -Exposed Rocky Platforms (2) with Bedrock Outcrop and Boulder Type Sediment Shoreline
PRESENT OIL CONDITION:	(7%) of the total area covered with oil contamination and staining in (5%) sporadic distribution
LENGTH OF SHORELINE:	2.36 Km
SENSITIVITIES:	Amenity Beach / Marine Protected Area
EXPOSURE:	Exposed
ACCESS:	Accessible by watercraft at the open sandy shoreline

SITE MAP**Current Photo Taken:**

Mixed Sand and Gravel Beach (5) with Granule Type Sediment Shoreline

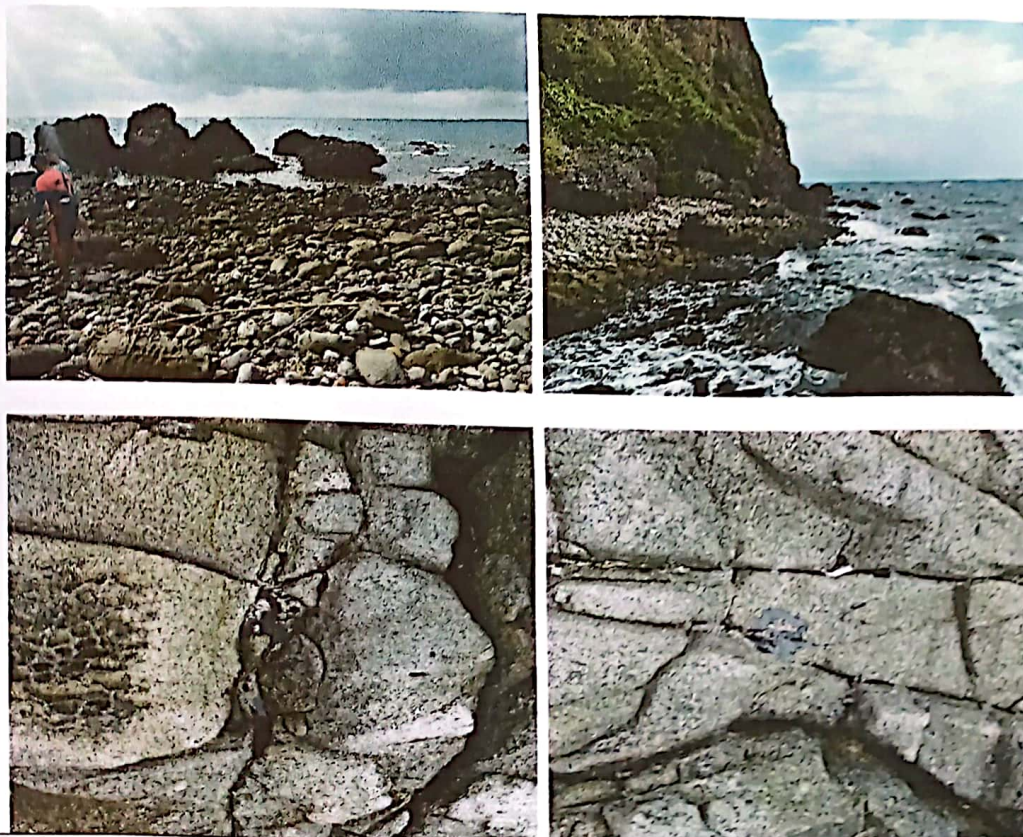


Gravel Beach (6a) with Cobble and Pebble Type Sediment Shoreline





Exposed Rocky Platforms (2) with Bedrock Outcrop and Boulder Type Sediment Shoreline



OBSERVATION:

- Segment C-HP-1 has approximately 0.18 km of mixed sand and gravel beach (5) with granule type sediment shoreline, no oil contamination on the shoreline observed.
- Segment C-HP-2 and C-HP-3 has approximately 1.01 km of Gravel Beach(6a) with Cobble and Pebble Type Sediment Shoreline, there was 7% oil contamination and staining in (5%) sporadic distribution coverage consisting of coated rocks on C-HP-2.
- Segment C-HP-4 has approximately 1.17 km of Exposed Rocky Platforms (2) with Bedrock Outcrop and Boulder Type Sediment Shoreline, no oil contamination on the shoreline observed.

- Accessible by water craft at the open sandy Shoreline, However, Segment C-HP-4 is not accessible by foot and must be traversed by watercraft; no observed oil contamination was reported.
- Total of 2.36 km of shoreline is covered by 7% oil contamination and staining in (5%) sporadic distribution and is 97.67% acceptably clean.

Segment number	Shoreline type	Length of shoreline (Km)	% Acceptably Clean
1	Mixed Sand and Gravel Beach(5) with Granule Type Sediment	0.18	100%
2,3	Gravel Beach(6a) with Cobble and Pebble Type Sediment	1.01	93%
4	Exposed Rocky Platforms(2) with Bedrock Outcrop and Boulder Type Sediment	1.17	100%
Total		2.36 km	97.67%

ENDPOINTS:

SEGMENT C-HP-1 Mixed Sand and Gravel Beach(5) with Granule Type Sediment Shoreline

- ☒ No Pronounced smell/odor of oil.
- ☒ No Sticky Oil; No Longer rubbing off on contact (Stain only).
- ☒ No mobile oil sub-surface.
- ☒ No oiled debris .

Segment C-HP-2 and 3 Gravel Beach(6a) with Cobble and Pebble Type Sediment

- ☒ No Pronounced smell/odor of oil.
- ☒ No mobile oil sub-surface.
- ☒ No Longer rubbing off on contact (Stain only).
- ☒ No oiled debris .
- ☒ All liquid oil in the sediments has been removed and no more than a stain may remain on the substrate sediments

Segment C-HP-4 Exposed Rocky Platforms (2) with Bedrock Outcrop and Boulder Type Sediment

- ☒ All liquid oil has been removed.
- ☒ No sticky oil; No longer rubbing off on contact (stain only)
- ☒ No Longer rubbing off on contact (Stain only).

RECOMMENDATION:

- Natural Recovery
- Manual Scooping of oil on the surface of the rocks as well as trapped oil in the crevices of the rocks.

PCG:	DENR
CG EN'S JOHN MICHAEL BUREGAYO	MABELLE M. MANATO
LGU Representative:	CDRRMO:
YOLANDA A. SLEA SB-MEMBER-LAZARETO	Mangueza, Marc "K" Lester B.
FMO	MARC BUREGAYO
MELDY DIRGLASAN	
WITNESS:	
	CG SW2 Kathleen Padinula
CG PIENS MARYAN B. MADILLO	CG SW2 Melissa Sanahan