

STATE OF WASHINGTON BOARD OF PILOTAGE COMMISSIONERS

Preliminary Investigation Report M/V LEVANT

19 March 2020

FINAL



Submitted by:

Edmund I. Kiley, Public Commissioner Michael Anthony, Pilot Commissioner

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1. Vessel and Voyage Particulars

Vessel Name	Levant
Flag	Marshall Islands
IMO Number	9686388
Vessel Type	LPG Tanker
Register Owner	Avance Levant LTD
Managers	Exmar Shipmanagement
Year Build	2015
Length Overall	741'
Beam	118'
Draft	Forward 32.9' Aft. 34.1'
Gross Tonnage	46,789
Manning	20
Cargo onboard	Liquid Propane
Port of Departure	Anchored .7nm SW of Petrogas Dock
Port of Arrival	Petrogas Dock, Ferndale Washington
Voyage Type	Shifting anchor to Dock
Winds	NW/ 8-15kts
Seas	Less then 3'
Tide Height	2.92'
Current Conditions	.88kts bearing 346°

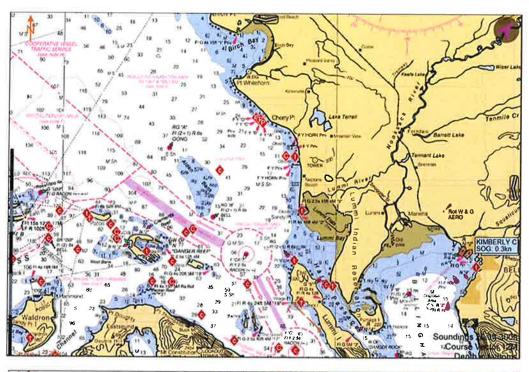
2. Incident Particulars

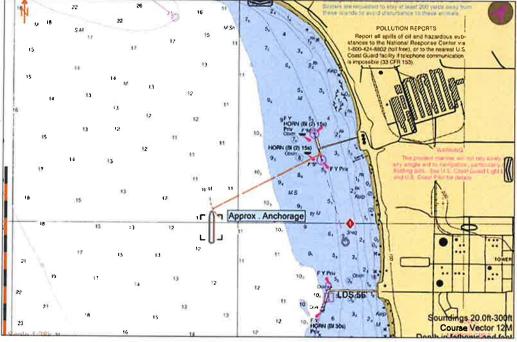
Date and Time	December 15, 2019
Type of Incident	Allision with Petrogas south Dolphin
Location of Incident	Ferndale Washington
Vessel Damage	40'-50' Scratch Port Bow 4 holes measuring less then 40cm underwater line in #1 Ballast tank port bow
Injuries/Fatalities	None
Environment Impact	None
Ship Operations	Maneuvering to dock
Persons onboard	20 crew plus pilot

3. Narrative

On December 14, 2019 at approximately 1922 hours, the pilot boarded the vessel *LEVANT* to maneuver the vessel off the Petrogas dock due to low tide and draft restrictions.

At 2018, the vessels log shows last line off the dock (below). The vessel maneuvered to an anchorage approx. 0.7nm to the southwest of the Petrogas dock and ships log shows anchor down at 2054.





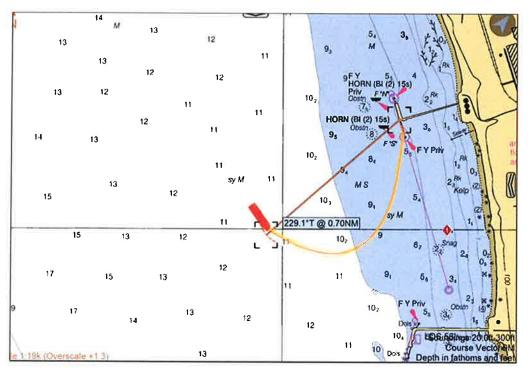
The pilot intended to remain onboard the vessel and rest while waiting for favorable tidal conditions to shift back in to the dock. Estimated time back alongside the dock was 0415.

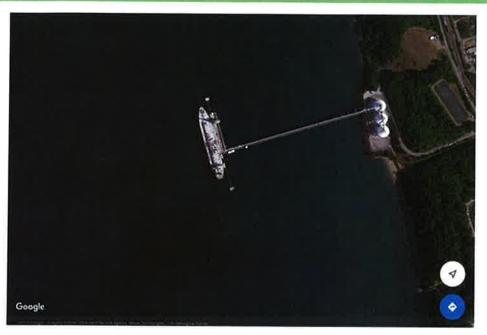
The pilot reported waking up at 0322 with his personal alarm. At 0338, the ship's log shows the pilot on the bridge.

At 0354, ship's log shows anchor was heaved. At 0355 tug *LINDSEY FOSS* was secured centerline stern. At 0358 tug *GARTH FOSS* was secured port shoulder.



The intended route was for the vessel was to proceed from the anchor positions to the Petrogas dock, mooring starboard side alongside.





Ship's log records little information between anchor up at 0354 and vessel "touching dock" at 0415.

Dock reports 0406 allison with south dolphin. *GARTH FOSS* reports at 0406 ship hits south dolphin. The vessel's ECDIS shows 0406 allision with south dolphin.

After clearing the dock, approx. 0412, the pilot maneuvered the vessel away for the Petrogas dock and contacted Vessel Traffic (VTS) about allision. After some time and discussion with VTS it was determined to anchor the vessel approx. 1.5 nautical miles from the Petrogas dock. Ships log shows anchor down at 0706.

These are the recorded, written and logged events.

4. Investigative Process

On December 15th at approx. 0715, Captains John Scragg and Mike Anthony (both Board of Pilotage Commissioners Pilot representatives and Puget Sound pilots) were contacted by Captain Ivan Carlson (acting Puget Sound Pilots President at the time) that there had been an incident at the Petrogas dock in Ferndale. Captain Carlson was on the scene to relieve Captain Brian Henshaw for drug and alcohol testing. Captain Henshaw was the pilot of record at the time of the incident.

After a conversation between Captain Carlson, Captain Scragg, and Captain Anthony, it was determined that Captain Anthony should proceed to the scene to conduct an on-site investigation.

At approx. 0830 while driving to Ferndale, Captain Anthony called Board of Pilotage Commissioners (BPC/Board) Chair Sheri Tonn to inform her of the situation. At this time all that was known by Captain Anthony was that there had been an incident and that acting PSP president Captain Carlson felt it was warranted that the BPC become involved in an investigation. Chair Tonn agreed that Captain Anthony should continue to the scene and report to her at the appropriate time.

Captain Anthony arrived at the Petrogas dock at approx. 1115. (3-hour drive from Gig Harbor).

When Captain Anthony arrived at the Petrogas dock, he spoke briefly with two of the dock crew, Jeremy Gunderson and Kent Rogers. Both briefly described the events of the morning. Both stated that they had sent in a report of events and would confirm that it was forwarded to me via email, via plant manager Andrew Gamble. As of this report, Captain Anthony has asked for this information twice from Mr. Gamble and at this time not received any information from Mr. Gamble.

At approx. 1145, Captain Anthony boarded the tug *GARTH FOSS* to transfer from the Petrogas dock to the vessel *LEVANT* to conduct the investigation of events and to interview the captain on watch at the time of the incident.

On the trip out to *LEVANT*, Captain Anthony interviewed 2nd captain (Foss runs 6hrs on 6hrs off crew schedule. The operator on watch between 1200-1800 and 0000-0600 is consider a 2nd captain.) At 0350, 2nd Captain Sam Anderson was on watch. Captain Anderson described the maneuver of the *LEVANT* from anchor to attempt to moor at Petrogas. Captain Anderson also described the orders given to him by the pilot and his description of what he saw throughout the maneuver. Captain Anderson stated that he was working on an incident report and would forward that to the Foss office, which would be forward to Captain Anthony. See Appendix D.

At 1215, Captain Anthony boarded the vessel *LEVANT*. The vessel was anchored approx. 1 nautical mile SW of the Petrogas dock with Captain Carlson onboard. Captain Carlson had relieved Captain Henshaw after the incident, due to Capt. Henshaw's need to be drug and alcohol tested.

After introductions with the Captain of the vessel, Captain Anthony proceeded to make copies of the vessel's pilot card, log books and vessel equipment.

While asking the captain for more information, it became evident that the captain was concerned and became reluctant to provide any information pertaining to the incident without permission of the vessel's owners, stating that he would prefer to have the shipping company provide that information.

At 1230, surveyor/ship's representative Jonathan Wanliss boarded the vessel. Mr. Wanliss acknowledged that he would forward Captain Anthony's requests for information needed to perform the BPC's investigation to the ship's owners and would keep him abreast of progress to provide the needed information.

At 1330, USCG and USCG and USCG boarded the vessel to conduct the USCG investigation of crew interviews and vessel recorded information.

Between 1330 and approx. 1450, the USCG gathered paperwork information and Captain Anthony was allowed to review the vessels ECDIS (Electronic Chart Display and Information System) play back recordings.

The Mate and Captain set up the ECDIS replay. Both were allowed to record the 15 min playback of the incident with their cell phones.

At approx. 1450, the members of the USCG team, Mr. Wanliss and Captain Anthony started conducting interviews with crew members pertinent to the incident.

Crew members included the Bosun and 4th mate on the bow. The AB (Able Body Seaman), 2nd mate and captain were on the bridge during the maneuver.

A brief of the crew's accounts of events is available in Appendix E.

At 1605, Captain Anthony departed the vessel on the *LINDSEY FOSS* to catch a ride back to the Petrogas dock and interview the captain of the *LINDSEY FOSS* about the incident. Captain Ahrenius described the events and relayed that he was filling out a report to the Foss office and would have them forward it to Captain Anthony, Appendix D.

On December 16th, Commissioner Kiley emailed the USCG for permission to be added as a Party In Interest to the investigation of the *LEVANT* incident.

On December 19th, Commissioner Kiley was allowed to be included in the USCG/NTSB interview proceedings between Captain Henshaw, the USCG and the NTSB.

Commissioner accounts of the 12/19/2019 meeting are in Appendix F.

On 12/23/2019, Captain Henshaw's counsel, Mr. McLean, and BPC Chair Tonn came to an arrangement to extend the State's 10-day requirement to report a marine incident, until January 3, 2020.

Between December 16th and January 7rd, Commissioners Kiley and Anthony continued to collect (or attempt to try to collect) pertinent information to the investigation.

On January 7th, Commissioners Kiley and Anthony were invited to a teleconference between USCG), NTSB investigator (Adam Tucker), Petrogas Head (Gavin Cargscallan), Petrogas counsel (John Devlin), Captain Henshaw's counsel (Mr. McLean), Commissioner's Kiley and Anthony. The intent was to interview the Petrogas dock crew and document their views of the incident the morning of December 15th. After this teleconference, allowed Commissioners Kiley and Anthony, and counsel Mr. McLean to review all the information the USCG had acquired so far during investigation.

This privilege of reviewing acquired information came with certain restrictions. The USCG rules stated, the BPC is allowed to read, review and take notes of all the acquired information, but there was no recording, no photos, and no copying. While was regretful of the rules, there were no exceptions. Commissioners Kiley and Anthony did their due diligences to copy down as much information as they could that was pertinent to this report.

The USCG was given information which included, photos of vessel damage, vessel recording of VDR (voice data recording), vessel engine log recordings, Electronic Chart Display and Information System (ECDIS), and vessel alarm logs.

While all of this information was requested by Commissioners Kiley and Anthony, none of it was given by USCG, ship owners or ship representatives.

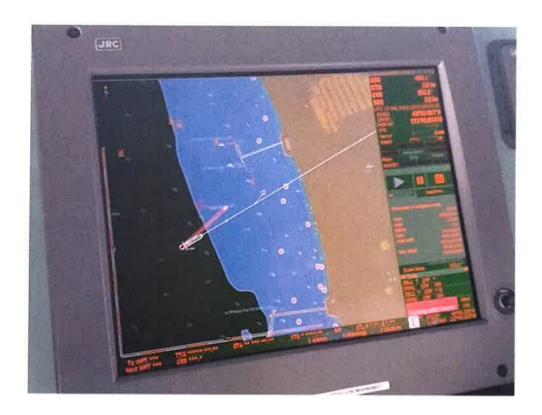
Commissioners Kiley and Anthony were allowed to review all this information, but were not allowed to photo copy, record or copy any of this information.

Historically the NTSB/USCG reports take between 9-18 months to be finalized and released publicly.

This leaves the Board of Pilotage Commissioners to investigate, review information and suggest/require action regarding the parties (pilots) involved long before the NTSB/USCG conclusions, opinions, and recommendations.

ECDIS Recording

Time 0400 Approach to dock Heading 065° Speed 3.5Kts



Time 0405 Approach to Dock Heading 044° Speed 4.5Kts



Time 0406 Contact with dock Heading 025° Speed 4.3Kts



Time 0408 Sternway from dock Heading 014° Speed -.7Kts





Time 0412 Clear of Dock Heading 347° Speed -1.4Kts



5. Outcomes

Damage to the vessel:

- a crease approx. 40'-60' long on the port bow without any breach of the hull.
- 4 breached holes under the water line in the ships #1 ballast tank reported by surveyor diver measuring:

#1	10MM long	1MM wide
#2	333MM long	50MM wide
#3	90MM long	5MM wide
#4	Numerous Fractures	70MM X 20MM

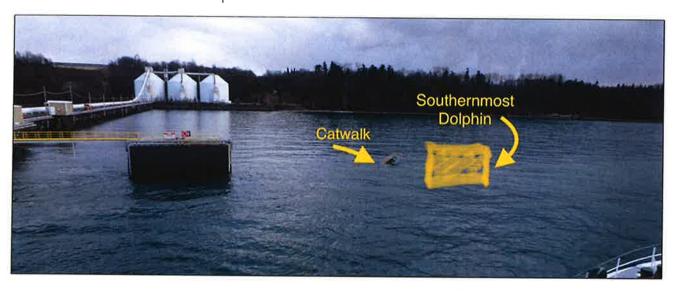
- Estimated temporary repairs to the vessel are TBD
- Estimated permanent repairs to the vessel are TBD

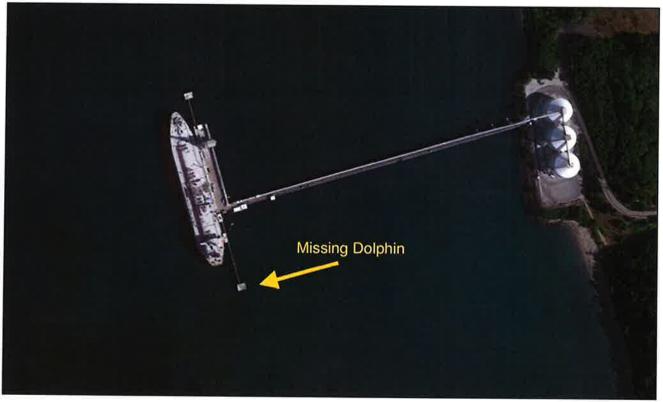


Temporary repairs have been accomplished (doubler plates welded on) but actual costs are unknown.

Damage to the dock was total destruction of the dock's southernmost mooring dolphin and total loss of the catwalk to the dolphin.

Estimated cost of repairs at TBD





6. Analysis and Findings

The purpose of this analysis is to determine contributory causes and circumstances of the allision, and to make recommendations to prevent similar accidents from occurring.

A. Pilot's Actions:

While the pilot has testified that he felt rested from sleeping onboard the vessel, there appears to be evidence of some level of lack of situational awareness from the behavior of the pilot. The pilot's failure to recognize the vessel's speed and distance off the dock, reporting that he believed he was 2 ship lengths from the dock at the same time the mate on the bow reported 40 meters from the dolphin seems to be large discrepancy in perception. In the pilot's interview with the USCG and the NTSB, the pilot felt that fact that the radar input speed had been changed by the ship's crew from the GPS, speed over ground, the pilot had used in the transit from berth to anchor, to log speed, speed through the water, some time before the transit from anchor back to berth. The pilot was unaware of the change and felt it gave him a misleading speed vector in the approach to the dock. Comment: a review of the log speed from VDR recording still shows a log input speed of 4.5 knots at 0405, just before contact with the dock.

B. Bridge Team Actions:

After interviewing the bridge team on the bridge at the time, there was a clear concern by the helmsman and 2nd officer about speed and vessel's heading prior to the allision.

While interviewing the captain, Captain Anthony asked if at any time during the maneuver did he have any concerns about the pilot's actions. The captain relayed that he did not have any concerns.

Good Bridge Resource Management practice would have encouraged both the tug boat operators and bridge team to voice their concerns to the pilot in a timely manner.

C. Tug Actions:

The tug *LINDSEY FOSS* was positioned centerline on the stern and never had a good view of the dock or the approach.

The tug *GARTH FOSS* was positioned on the port bow with a very good view of the dock and approach angle. While interviewing the 2nd captain (mates on watch are considered 2nd captains) on the *GARTH FOSS*, it was more than evident he had concerns about the vessel's speed and approach angle. The 2nd captain went so far as to let additional line out to take a heavy strain and to be prepared to work hard. Unfortunately, he never voiced those concerns.

Master/Pilot Relationship

Regulations require a navigation plan for the safe conduct of the ship from berth to berth. While masters have a duty to ensure a safe berth-to-berth passage plan is completed, frequently they are heavily reliant on the knowledge provided by local marine pilots for the elements of the passage carried out in pilotage waters. Reliance on the pilot has increased the need for the ship's team to intervene should it become necessary. There needs to be an increased recognition that safety requires close cooperation between ships master, bridge teams tugboat operators and pilots and good Bridge

Resource Management principles apply to all involved. Commissioners Kiley and Anthony believe, in this case, that there was a breakdown in the philosophy of a Bridge Resource Management team, from the tugs to bridge team.

7. Recommendations

- A. Due to lack of Bridge Resource Management information practice during the maneuver, the Board should consider sending the pilot to Bridge Resource Management class to refresh his skills.
- B. While the pilot states in the NTSB/USCG interview that he felt rested, there seems to be clear lack of situational awareness. The Board, while taking in account the pilot's years as a pilot and his unblemished record, should consider requiring the pilot to review information about sleep inertia and write a white paper about sleep inertia and its effects on situational awareness.
- C. The pilot admitted to not utilizing his Puget Sound Pilots provided Portable Piloting Unit (PPU) during the maneuver. The Board should consider the pilot be required to re-familiarize himself with the provided PPU capabilities through a Board approved familiarization course.
- D. The pilot should take a number of supervised assignments with the Training Evaluation (TEC) pilots to determine there are no other underlying problems. The number and types of assignments to be determined by the TEC, with Board approval.
- E. Change Puget Sound Pilots Intalco dispatch practices to provide one pilot to move the vessel from the berth to anchor and another pilot to move the vessel from anchor back to the pier. This has already been put into place by PSP president, Captain Eric vonBrandenfels email on 25 December 2019, Appendix J.

All requirements should be completed within 90 days of approved by the Board.

8. APPENDICES:

- A. Letter of Preliminary Investigation Appointment
- B. Timeline
- C. Pilot's Report of Incident
- D. LEVANT Wheelhouse Logs
- E. Tugboat GARTH FOSS Report
- F. Tugboat LINDSEY FOSS Report
- G. LEVANT Crew Interview Reports
- H. Notes from 19 December 2019 USCG and NTSB Interview
- I. USCG Party in Interest Letter
- J. Puget Sound Pilots Revised Dispatch for Intalco/Petrogas Dock
- K. Environmentals
- L. Vessel Equipment Photos
- M. Petrogas Dock Report

APPENDIX A

Letter of Preliminary Investigation Appointment



STATE OF WASHINGTON BOARD OF PILOTAGE COMMISSIONERS

2901 Third Avenue, Suite 500 | Seattle, Washington 98121 | (206) 515-3504 | www.pilotage.wa.gov

Sheri J'Term Char

December 16, 2019

Neel Kaley Via Chair

Captain Ned Kiley, BPC Commissioner

Michael Anthony

521 Cherry Avenue

Tomothy J. Farrell

Bainbridge Island, WA 98110
Via email: <u>KilevN@wsdot.wa.gov</u>

Elemer Kartley

Captain Mike Anthony, BPC Commissioner

4810 Pt. Fosdick Dr NW, Suite E

Rik Kromhoen

Gig Harbor, WA 98335

Phil Mornell

Via email: AnthonM@wsdot.wa.gov

Commissioner

Re: Preliminary Investigation Appointment - LEVANT 12/15/2019

John Sersey Commission

Dear Commissioners Kiley and Anthony,

Some Thompsone Commissioner On the morning of December 15, 2019, I was informed that on its approach to the Petrogas Ferndale Terminal dock, the bow of the LPG vessel LEVANT struck a mooring dolphin puncturing a ballast compartment. As members of the Board's Commission Investigative Committee, and a public representative with a U.S. Coast Guard background and a pilot representative on the Board of Pilotage Commissioners, you two are ideally suited to conduct a preliminary investigation.

You are hereby appointed to conduct a preliminary investigation on behalf of the Board of Pilotage Commissioners. Board staff will provide resources and additional support, if needed.

We appreciate your willingness to lead the preliminary steps in this investigation.

Best regards,

Sheri J. Tonn, Chair

Steen Jame Jone

APPENDIX B

Timeline

Friday, 13 December

1815 Captain Henshaw departs M/V MIDNIGHT SUN (per Henshaw)

2345 Captain Henshaw in bed (per Henshaw)

Saturday, 14 December

Saturday, 14	December
1200-1245	Captain Henshaw resting (per Henshaw)
1400	Captain Henshaw dispatched to M/V LEVANT (per dispatch)
1445	Captain Henshaw departs for M/V LEVANT (per Henshaw)
1922	Captain Henshaw aboard M/V LEVANT (per ships log)
2018	M/V LEVANT Underway from pier to anchorage (per ships log)
2050	M/V LEVANT Anchored .7 nm from pier (per ships log)
2225	Captain Henshaw asleep (per Henshaw)
0322	Captain Henshaw alarm goes off (per Henshaw)
0338	Captain Henshaw on bridge (per ships log)
0353-0354	Anchor aweigh (per ships log)
0355	Tug Lindsey Foss secured center line astern (per ships log)
0358	Tug Garth Foss secured port shoulder (per ships log)
0406	Dock Reports Allision
0406	Garth Foss Reports ship hits south dolphin (Per Garth Foss report)
0406	Vessel EDIS appears to show allision with south dolphin
0407	VTS radar appears to show allusion with south dolphin
0408	Sternway from dock 9 (per ECDIS recording)
0412	Clear of the dock (per ECDIS recording)
0415	Ship's log shows touch the dock
0433	Pilot reports to VTS on pilot's cell phone allusion with dock causing extensive damage

0435	(Estimated) alarms indicate flooding in forward ballast tank
0438	(Estimated) pilot reports to VTS on pilot's cell phone hull damage
0706	M/V LEVANT anchored
0740	Captain Carlson relieves Captain Henshaw
1000	Captain Henshaw disembarks M/V LEVANT
1020	Captain Henshaw ashore
1115	Captain Henshaw complete drug and alcohol tests in Bellingham

APPENDIX C

Pilot's Report of Incident



PILOT'S REPORT OF INCIDENT

BOARD OF PILOTAGE COMMISSIONERS 2901 Third Avenue, Seattle, Washington 98121 (206) 515-3904 FAX (206) 515-3906 DATE: DEC 30, 2019

FILE WITH COMMISSION WITHIN 19 DAYS
ALONG WITH THE VESSEL CERTIFICATION FORM

A state licensed pilot involved in an incident is required by law to notify the Board of Pilotage Commissioners by telephoning (1-800-627-3924) or radioing (Channel 20) the Marine Exchange of Puget Sound as soon as the situation is stabilized or within one hour of reaching shore. A pilot is also required to complete this form and submit it to the Board of Pilotage Commissioners as soon as possible after the incident, but in no event more than ten days afterwards.

An incident includes an actual or apparent collision, allision, or grounding. An incident is also a navigational occurrence resulting in actual or apparent personal injury, property or environmental damage.

PILOT: CAPT BRIAN F HENSHAW	STATE LICENSE NO 155	FEDR		ICENSE NO. USA000289228
LEVANT	FLAG MARSHALL ISLANDS		MASTER	
OWNER/AGENT TRANSMARINE			OFFICIAL N	UMBER MMSI 538006048
DECEMBER 15, 201	19	TIME OF INCIDENT (a.m./p.m.) APPROX 0410		
LOCATION (Established by bearings and distance, g FERNDALE INTALCO	eographical point, or latitude & long	(Lede)		
LENGTH OF VESSEL (LOA) 226m	BEAM 36m	AFT 10.4m		GROSS TONNAGE (NTL) 46,789
WEATHER CONDITIONS (dear, rain, snow, sleet, h CLEAR	all, log, etc.)			
VISIBILITY UNLIMITED	WIND (Direction, velocity, steady, gursty, etc.) NW 10 TO 15 KTS			
FLOODING				
NAME OF TUG(S) USED GARTH FOSS, PORT BOW	INDSEY FOSS, STERN	TUO MASTER(S)		

NARRATIVE DESCRIPTION AND CAUSE OF INCIDENT: Describe the incident, including the chain of events leading to it. Attach additional sheets, as necessary, and complete diagram on reverse.

NOTE — IN CASE OF GROUNDING, COLLISION or ALLISION: State all facts, including all necessary time, courses steered (true or magnetic), speed of vessel, compass error if known, ship's heading at time of incident, and navigational instruments used. Include radar, compass, fathorneter, GPS, LORAN, etc. If vessel is equipped with radar, state particulars - manufacturer, range used, if operating satisfactorily, who was operating it, and information furnished. Describe all precautions or actions taken to avoid the incident, including soundings, use of electronic navigation equipment, position plotting, and navigation procedures including soundings, whistle echoes and signals where applicable. Describe methods used to refloat the vessel, if applicable. In case of collision or allision, include whistles exchanged, engine orders, and wheel orders.

NARRATIVE TOPICS TO CONSIDER

[,]	Perceptions	CI	Judgments	10.1	Contributing Factor:
Ü	Communications		Ship Configuration or Loading		Decisions
L)	Language Difficulty	(3)	Personal Alertness	Č1	Actions or Inactions

SEE ATTACHED

NARRATIVE AND SUMMARY OF LEVANT INCIDENT DEC 15, 2019

Boarded vessel at Intalco pier previous night, Dec 14, at 1922 hrs. The dispatched assignment was to shift the vessel to anchor, stay aboard until morning to shift back to berth. Due to falling tide and draft of vessel this was a common dispatch assignment. Conferred with dispatcher on rest requirements under the new established rest rules guidelines and discussed options in case the pilot room was not adequate for sleeping. I agreed staying on board was the best option.

Went through Master/Pilot exchange with ship captain, discussing the importance of getting underway before falling tide would make it a concern for under keel clearance alongside pier. Vessel deepest draft 10.4 meters, used tide printout to calculate times necessary to getting underway and time for first line on return. Noted gyro heading close to azimuth of pier 345 degrees. Was directed by mate to port side radar and ECDIS for pilot use. I changed input from 2W log speed input to GPS/over ground on both units. I set up anchor position on ECDIS about midway between the pier and Ferndale Phillips pier, .7 miles w of shore in 20-meter depth.

This was the same position I had used on May 22, 2019 shifting the bulk ship Clipper Brunello to anchor. Observed crew and wharf operations and noted weather conditions of calm winds, clear visibility. Captain commented numerous times about the inexperienced mates and seemed disgruntled over the slow movement of the crew while getting the vessel ready to depart.

Underway from pier, last line 2018. Uneventful shift to anchor approximately halfway between Intalco pier and Phillips pier to south. Wind forecast was 5-10 knots, easterly to se. Anchor set at 2050 with 5 shackles in water. Conferred with captain about tidal limitations for returning alongside pier. I calculated enough water under keel for first line at 0430. Captain related how important it was to start cargo as soon as possible, to load as much cargo possible since vessel would need to sail by 1800 hrs due to same tidal restrictions. After discussing variables, I asked the captain to have crew standby at 0345 and felt we would have enough water to send first line after 0415. Requested to the tugs to be alongside at 0400 and left bridge for pilot room for rest. Clean and adequate quarters, rested until awakened at 0322 with my alarm. On bridge approx. 0338.

The captain, a different mate and a helmsman were on the bridge. Captain informed me crew was ready to start heaving. Requested coffee and took a few moments to locate the ship pilot card and signing documents. Heaving commenced about 0340. Observed weather, clear with smoke laying down at refinery stack. Estimated over 15 knots NW direction. Tugs available alongside, Garth Foss on port bow, Lindsey Foss on transom.

With an expected flood current of more than 1.5 knots setting north, I set ebl on radar at 005 degrees for pier bearing. Slow ahead with starboard rudder, came about to heading of about 50

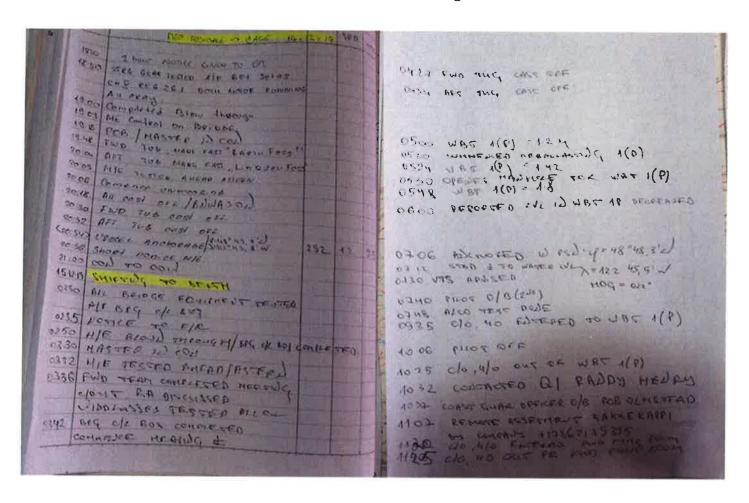
degrees, which was south of pier to allow for the current. Within approx. 2 minutes, stopped engine, speed of ship about 3 knots. Captain was seated at starboard radar the whole time, with the mate walking around and helmsman at the wheel. Observed the lights on main pier and well-lit on north end. Mentioned to Garth Foss to be ready to push toward pier, my intention was to use ship to kick stern to starboard and use bow tug to hold bow from coming too far off the pier. Glancing at radar and visually observing pier, ship seemed about 2 ship lengths from south end of the lighted main pier. Hard port rudder, dead slow ahead on engine. Stopped engine immediately, something didn't feel right. Not aware of any specific fact of why, just observation of numerous inputs. During this time, I did not hear any verbal comments or concerns given by the captain, from the crew or from the tugs.

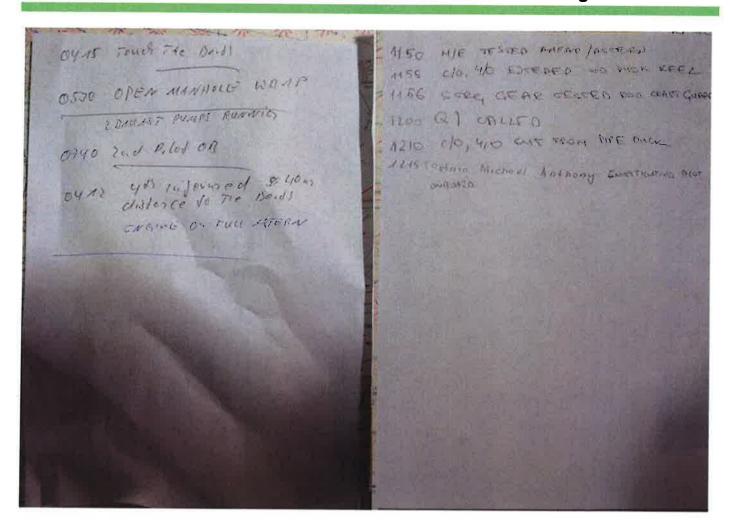
Walked briskly to starboard bridge wing, asked captain for distance from pier. On captain's handheld radio heard mate on bow say 40 meters. Ordered tugs to pull full away. Ordered ship to full astern. The captain did not leave the pilothouse, so I stayed close to door for communication. From bridge wing could see line handlers running off pier past office. Told tugs give it everything away. Ordered full astern again, maybe twice more. Asked for distance off, told 10 meters. Kept all maneuvers the same, was overhearing captain radio with mate on bow. Could not observe mooring dolphin. Started stern way, by observing lights ashore. Reduced engine to stop, kept bow tug pulling to port, stopped stern tug. Gave engine ahead order for ship, same time asked if damage to dolphin. Yes was reply. Line boss was on radio, I asked if dock was safe to land. He said no, there is no tie up dolphin. Maneuvered ship away from pier, noting the dolphin was damaged. When clear of pier and heading westerly course, stopped Garth Foss and let the tug go, requesting an inspection of bow. Ship on dead slow ahead, stern tug still tethered.

Started to make cell calls to VTS informing of situation. Garth Foss did inspection and took pictures, stated scrape of paint and slight crease 40 to 60' long on port bow. Also inspected around ship for any cargo leaking. Let go Lindsey Foss, standing by. Waiting for VTS to direct vessel to anchor or next port, numerous phone calls made and received. Not sure time, but captain was alerted that bow ballast tank was taking water. Took about 15 minutes to get pumps to make gains, level rose from 0 to 2 meters before reducing. VTS ordered vessel to anchor in general anchorage west of Neptune Beach. Kept anchor in gear while lowering, depth of water 45 meters. While anchoring, found it difficult to understand why the direction of the anchor chain was different from my estimates. The mate on bow was giving direction of chain at 7oclock, I expected forward of the beam. I then discovered the speed input of radar and ECDIS was now log speed, not gps. Changed settings to gps input, completed anchoring at 0636. Monitored position of vessel and tugs standing by. Was relieved by PSP Capt Carlson, who took over con of ship. Made notes and waited for launch to take me ashore for required drug/alcohol testing. Off ship and ashore 1020.

Capt. Brian Henshaw

APPENDIX DLEVANT Wheelhouse Logs





APPENDIX ETugboat GARTH FOSS Report

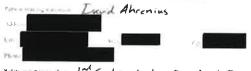
	WITNESS STATEMENT
	maning Sayvel W. Anderson
	tables
	Part San Part Part
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APPENDIX FTugboat LINDSEY FOSS Report

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- c. AUTHORITY: This investigates as a Federal Law Enforcement Officer, as rolled by 14. U.S.C.43c and Executive Order 11735 Engine 3, 1973, to requesting this information parameter the Authority command in the Federal Winter Delinear Control Aut. as animaled 13-32. S.C. 1321 et sog 1 and other regulations institute to enforce their law.
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- 3. SECONDARY PURPOSES FOR THIS INFORMATION. There are no secondary purposes for this personal information.
- 4. DINCLOSURE: The disclosure of this personal information is sensity is observery

APPENDIX GLEVANT Crew Interview Reports

Summary Provided by Captain Anthony

Present at interview

USCG

USCG

Surveyor Jonathan Wanliss

Puget Sound Pilot Michael Anthony

Bow Crew interview

Bosun Filipino, good English 1 month onboard

4th mate Ukrainian, very poor English 4 months onboard

Both the bosun and the 4th mate were working on the main deck (behind the foc'sle head) and not in sight of the vessels direction.

At some point prior to the vessel being 40 meters from the dock, some deckhand alerted the bosun of the close proximity of the Petrogas dock.

At this point in time the bosun alerted the 4th mate on deck of the dock's location. Immediately both the mate and the bosun moved to the foc'sle deck for a better view and the mate alerted the captain that the vessel was 40 meters from the dock.

The next call to the captain was 10 meters to the dock.

Neither crew member actual saw the allision directly because of not wanting to be to close to the allision.

Bridge Crew Interview

AB at helm Filipino, good English 3 months onboard

2nd Mate Ukraninian, good English 1 month onboard

Captain German, good English ? time onboard

Interviewing started with the AB at the helm. The AB spoken good English and seem to have a very clean understanding of the maneuver. He stated that all orders given to him were repeated and complied with. When asked by USCG he stated that he had concerns with the vessel's speed (he relayed speeds that seemed very close to recorded speeds)

The 2nd mate spoke very good English. He had a very clear recall of the maneuver including speeds and distances. 2nd mate confirmed that all engine orders requested were repeated and complied with. He acknowledged that when the pilot called for "Full Astern" he over rode the vessels engine program and gave full astern as quickly as possible.

When asked by the USCG about concerns he replied that he had big concerns about vessel speed and angle toward the dock.

Bow Crew interview

Captain spoke good English. The captain and pilot had a pilot/master exchange while heaving the anchor. The captain voiced concerns about the arrival time to the dock due to the fact his agent had planned for 0500 alongside due to tidal restrictions and the fact pilot wanted to come alongside at 0415. After some conversation and the pilot showing his tide tables, dock depth and vessels draft, the captain was comfortable moving to the dock earlier and alongside at 0415.

The Captain didn't seem to have any concerns or opinions about the maneuver from the anchorage towards the dock

When Captain Anthony asked the captain if he voiced any concerns to the pilot about the maneuver toward the dock, he said he had none.

When asked about engine orders and helm orders, the captain did not seem to have a clear understanding of what was going on. When asked about if there was discussion as to a voyage plan, the captain did not have an answer to that question.

APPENDIX H

Notes from 19 December 2019 USCG and NTSB Interview

Notes From the December 19, 2019 US Coast Guard and NTSB Interview with Captain Brian Henshaw Regarding the Allision of the M/V LEVANT with the dock at the Petrogas Pacific LLC pier Cherry Point, WA. on Sunday, December 15, 2019.

These notes do not represent a transcription of the interview. The recording of the interview is the property of the NTSB and the recording was not available to verify the notes.

The interview took place at 1000 at US Coast Guard Sector Puget Sound office. In attendance were US Coast Guard Investigator; US Coast Guard Investigator; US Coast Guard Investigator; Mr. Adam Tucker, NTSB Investigator; Captain Edmund Kiley, USCG Retired, Washington State Board of Pilotage Commissioners Investigator; Captain Brian Henshaw, Puget Sound Pilots; Mr. Donald McLean of Bauer, Moynihan and Johnson, Attorney for Captain Henshaw.
began by explaining this was a US Coast Guard led 46 CFR part 4 investigation into the cause of the allision of the M/V LEVANT with the dock at the Petrogas Pacific LLC pier Cherry Point, WA. on Sunday, December 15, 2019.
established with Captain Henshaw that all his credentials were current, that Captain Henshaw had no medical restrictions on his license and that his five-year manned model or simulator training were up to date.
asked Captain Henshaw to describe the events leading to and after the allision.

(Note: All times in these notes are the times as remembered by Captain Henshaw and are not necessarily the times recorded in logs or on recording devices)

Captain Henshaw said he boarded M/V LEVANT at 1922 on Saturday, December 14 to get the ship away from the pier by 2100 due to a falling tide and to take the ship to anchor. He expected to take the ship back to the dock to finish loading around 0430 the next morning. Upon boarding Captain Henshaw met with the Master of the Levant and conducted a master/pilot exchange of information (MPX) and they signed the certification that M/V LEVANT had the proper certifications for SOLAs and Financial Responsibility and that the vessel equipment was working properly. Captain Henshaw established the draft as 10.4 meters (32.6 ft). Captain Henshaw wanted to be away from the pier by 2045. Lines were let go at 2018 and the tugs Garth and Lindsey Foss were assisting. Captain Henshaw knew both of the tug operators. The winds were light. Captain Henshaw checked the ECDIS and the radar. The radar was tuned to log speed or speed through the water and he changed the radar speed setting to GPS speed or speed over the ground which Captain Henshaw uses for piloting. Captain Henshaw mentioned that he had done the same job in October.

Captain Henshaw proceeded to anchor with the anchor backed out to the water's edge. He anchored with a tug on the stern to set the anchor. The LEVANT was anchored at 2050. The plan was to return to the dock at 0430 on 15 December. The LEVANT master wanted to be back at the dock as soon as possible to maximize the loading of cargo since he would have to be away from the dock by 1800, 15 December due to

the falling tide. Captain Henshaw discussed with the master having the crew on deck by 0345 and being underway by 0415. The LEVANT master volunteered to Captain Henshaw that he had an inexperienced crew.

Captain Henshaw then went below to rest and noted that he turned the light off to sleep at 1025. He set his alarm for 0322.

Captain Henshaw said he was on the bridge at 0338 and asked for a cup of coffee. He checked the radar and the ECDIS and they looked OK. He noted the tugs were standing by. He had the master sign the pilot card assuring the vessel had the proper certifications and that the machinery was operating properly. The anchor was up by 0353. Captain Henshaw noted that he didn't hear the status of the chain as the anchor was coming up. The winds were from the Northwest at 10-15 knots. He had the tugs Garth Foss, whose operator Captain Henshaw knew, made up on the port bow and the Lindsey Foss on the transom. Captain Henshaw set the electronic bearing line (EBL) on the radar for 005. He wanted a more easterly course. He came up to the typical speed of 3-4 plus knots to turn. He had the stern tug for breaking. The course he was making according to Captain Henshaw was 050 T. He stopped the engine and told the tug on the bow, Garth Foss, to prepare to push in and hold while I kick in the stern. Captain Henshaw said he didn't want to be too close to the pier. The pier was well lighted and Captain Henshaw was using it as a visual reference for speed. Captain Henshaw put the rudder hard to port and looked at the speed which was 3.9 knots. At that point Captain Henshaw felt something didn't look right and he went quickly out to the starboard bridge wing and couldn't see the dolphin (comment: probably because at this point the dolphin was on the port bow). Captain Henshaw asked the vessel master for the distance to the pier and he heard the report it was 40 meters to the pier. Captain Henshaw saw persons running on the pier. Captain Henshaw ordered both tugs away full and went slow astern and then full astern. He didn't go immediately to full astern concerned the engine might not immediately start in reverse at full astern. Captain Henshaw then heard the distance to the pier was 10 meters. He felt he should be able to stop this, but he didn't verify the engine gauge. Then he realized "we are hitting the pier". The next thing he noticed was that the shore lights were indicating the ship was making sternway.

Captain Henshaw checked the condition of the dolphin and learned it was knocked over. He was using the bow tug to pull away and asked if the pier was safe to land and learned there was catastrophic damage to the stern mooring dolphin and the dock wasn't safe to land. Captain Henshaw said he moved away from the berth and let go the Garth Foss to check for damage to the ship's hull. He was maneuvering at 3-4 knots to assess the damage and had called the VTS on his cell phone within 5 minutes and told VTS he had struck the pier. Garth Foss reported there appeared to be about a sixty-foot crease on the port side of the vessel. Captain Henshaw remembers thinking to himself, "this is unbelievable" as he is navigating the ship. Also, he has no more communication with the dock. The captain of the LEVANT is now reporting there are alarms from the forward ballast tank just aft to the peak tank. The captain gets the pumps working while Captain Henshaw calls VTS to let them know there is a hull puncture. The engineer reports that the pumps are holding their own with the water level in the tank going down from 2 meters to 1.8-1.7 meters.

Captain Henshaw asked VTS what to do with the ship. He hovered around and was told to go to anchor off Neptune Beach. He maneuvered to the anchorage and walked out the anchor, it was a deep anchorage 50 meters deep with 10 knots of wind from the northwest. Captain Henshaw walked out 9 shackles in the water and thought he was backing down stretching out the chain, but the report on the chain was that it was tending 7 o'clock indicating the chain was tending aft and not being stretched out. Captain Henshaw then noticed the radar was set at log speed not GPS speed and had been changed from where he had set the radar the night before.

Once anchored and there were no other alarms, Captain Henshaw asked to check out of VTS, but VTS said no and to keep the tugs standing by. Captain Henshaw then began thinking about the required drug and alcohol tests and told the Captain he needed to get tested. The Captain then said, "What happened". Captain Henshaw just said "wind and current, wind and current".

Captain Ivan Carlson reported aboard, and relieved Captain Henshaw and Captain Henshaw went down to the stateroom to make some notes. He remembered that the attorneys had said not to take the drug tests on the ship so he knew he had to get ashore to get the tests for the US Coast Guard. He needed to get a tug alongside to launch off. He launched off at about 1000 and was ashore by 1020 and was tested in Bellingham at 1115.

At this point in the interview began his questions.
asked if the ships equipment was OK and Captain Henshaw said it was.
asked about the MPX and Captain Henshaw said he liked to conduct a continuous MPX that went on continuously throughout the transit.
asked if Captain Henshaw let the master know about his use of GPS speed as opposed to log speed and the change from GPS speed to log speed. Captain Henshaw indicated no.
asked if any of the medications Captain Henshaw was taking had any side effects and Captain Henshaw said no.
asked about rest from previous jobs. Captain Henshaw said his last job was aboard the MIDNIGHT SUN going from the Port Angeles Pilot Station to Tacoma on Friday night 13 December and he was off at 1815 and home in bed by 2345.
asked about the use of Captain Henshaw's Portable Pilot Unit (PPU). Captain Henshaw said he didn't have his PPU with him. It depended on the job if he uses it or not. On the majority of the jobs he depends on the equipment of the ship. Captain Henshaw said the ships equipment is usually better than his and he can rely on it especially on tankers equipped with ECDIS. He had used a PPU for an assignment in October getting different distances in Vendovi anchorage.
asked what phone service Captain Henshaw used. He indicated Verizon.
asked about the drug and alcohol tests both of which were negative.
asked Captain Henshaw if there was anything additional, he would like to say. Captain Henshaw said that the ship doesn't usually change the pilot settings and the ARPA vector is his best tool and the switch from GPS to log speed by the ship changed the vector. There was also a comment that he heard no sound on impact.

Next Mr. Adam Tucker of the NTSB asked questions.

Mr. Tucker asked about the use of the PPU. Captain Henshaw answered the PPU could be plugged in to the pilot plug on the bridge, but that he didn't use the rate of turn function of the PPU.

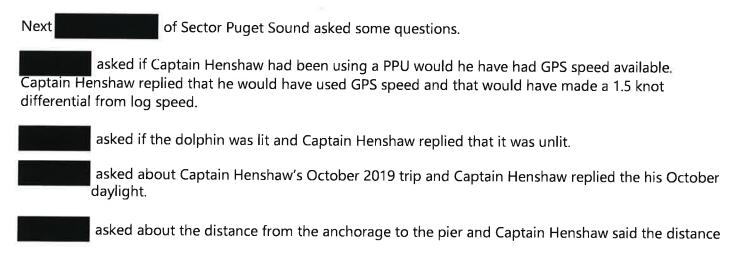
Mr. Tucker asked about the situation on the bridge leading up to the incident and the use of bridge resource management (BRM). Captain Henshaw replied the LEVANT captain remained mostly on the bridge and didn't go out to the bridge wing on the approach to the pier when Captain Henshaw did. Captain Henshaw stated the bridge team didn't communicate, didn't offer information. He said the LEVANT captain was German and the mate was Ukrainian. The crew spoke good English, but that Captain Henshaw didn't rely on the bridge team.

Mr. Tucker asked about personal cell phone usage on the bridge and if Puget Sound Pilots had any rules regarding cell phone usage. Captain Henshaw replied that he sometimes used his cell phone for personal use like checking messages and there were some unspecified issues at home that sometimes needed his attention, but Captain Henshaw didn't use his cell phone to contact anyone from the time his alarm went off until he called VTS to report hitting the pier.

Mr. Tucker asked about checking the drafts and Captain Henshaw said he used the vessel's deepest draft and the drafts were 10.4 meters or 32'6".

Mr. Tucker asked how Captain Henshaw felt when he went to the bridge after waking up. Captain Henshaw said he felt the same as usual, felt rested, but liked to have his coffee, a cup or two.

Mr. Tucker asked if there were any distractions on the bridge during the approach to the pier. Captain Henshaw said he talked with the Captain. He liked to get the Captain to relax. He wants the master to know that Captain Henshaw is in charge and the master can relax. Captain Henshaw didn't go through the five-page pilot card with the Captain. Captain Henshaw reiterated that he put the EBL at 005. The first indication something was something dangerous was when the report came of the distance to the pier was 40 meters off the bow. There was no other indication of danger from the crew or the tugs. The current was parallel to shore and was on the stern at 1.5 knots minimum running south to north, flooding. Captain Henshaw repeated his preferred maneuver approaching the pier in this situation was to turn hard to port, kick the engine ahead and in this situation have the tug, Garth Foss hold the bow in. Captain started his maneuver when he thought he was two ship lengths off the pier. He turned hard to port, stopped the engine and went out to the bridge wing. Captain Henshaw indicated he had no visual handicaps during the approach.



asked about Captain Henshaw's time from dispatch after previous assignment. Captain Henshaw replied he was dispatched at 1400 on Saturday, 14 December (he had disembarked from his previous assignment at 1815 on Friday, 13 December and had been home and in bed by 2345). Captain Henshaw had taken a nap from 1200-1245 and after being dispatched he left at 1445 to catch the Kingston/Edmonds ferry. He missed his target ferry by just a car or two, but the next ferry would still leave him time to be onboard LE-VANT in plenty of time.

Next Captain Kiley asked some questions of Captain Henshaw. Although the questions were redundant, Captain Kiley wanted to clarify a few points.

Captain Kiley asked if Captain Henshaw had discussed his voyage plan with the Captain prior to heaving anchor. Captain Henshaw said he had not discussed his voyage plan with the master because he hadn't had enough time. He was surprised how quickly the anchor was aweigh. He anticipated he would have about 30 minutes to discuss the voyage plan, but the anchor was aweigh faster than he had anticipated. (comment: the pilots was on bridge at 0338 and anchor aweigh at 0354, 16 minutes).

Captain Kiley asked about Captain Henshaw's primary means of navigating from the anchorage, Captain Henshaw replied ARPA, EBL and standard ECDIS display.

Although it was a redundant question, Captain Kiley asked what Captain Henshaw used to assess his speed. He replied that he used visual reference, GPS speed, but he was getting log speed in put on the radar.

Captain Kiley asked about Captain Henshaw's primary conning position and Captain Henshaw replied, the radar station on the portside of the helm.

Captain Kiley asked at what time he moved out to the bridge wing and Captain Henshaw replied he went out to the bridge wing when things didn't look right, when he went hard to port, stopped engine and then kicked ahead. He wanted to get a visual reference.

Captain Kiley asked if he felt like his orders to the ship's crew were being followed and Captain Henshaw replied there was not a bridge team and he felt they were being obeyed only to the degree he could verify them.

Captain Kiley asked if Captain Henshaw felt his orders to the tugs were followed and he replied, yes, the tugs followed his orders.

Captain Kiley asked if he confirmed that the engine and helm orders were correct on ships indicators. Captain Henshaw replied that he didn't confirm full astern when ordered because he couldn't see the engine indicators since they were in an awkward position, but he could hear the engine order telegraph.

Captain Kiley's last two questions were how soon after the allision did he contact VTS (answer: 5 minutes) and why did it take 3 hours after the allision to anchor. Captain Henshaw said the delay was due to the Coast Guard telling him where he should anchor.

APPENDIX IUSCG *Party in Interest* Letter

U.S. Department of Homeland Security United States Coast Guard

Officer in Charge, Marine Inspection United States Coast Guard Sector Puget Sound 1519 Alaskan Way South, Bldg 4 Seattle, WA 96134-1192 Phone: 206-217-6255 Fax: 208-217-4213

16732 December 17, 2019

State of Washington Board of Pilotage Commissioners 2901 Third Avenue, Ste 500 Seattle WA. 98121

To whom it may concern,

The U. S. Coast Guard is conducting a marine casualty investigation into the allision of LEVANT (IMO 9686388), and the Petrogass Pacific LLC pier Cherry Point Washington that occurred on December 15, 2019. The purpose of the investigation is to gather facts in order to determine what happened, why it happened and identify any corrective measures that can be taken to prevent the casualty from reoccurring.

As a state governing body, you are hereby designated a party in interest in this marine casualty investigation as defined by 46 United States Code 6303 and 46 Code of Federal Regulations 4.03-10. The role of a party in interest is to serve the purpose of the investigation. By designating you as a party in interest, I am offering you the opportunity to be represented by counsel, to examine and cross-examine witnesses, and to call witnesses that are relevant to the investigation.

Rights prescribed for parties in interest do not invalidate my right to exercise control during the investigation. I will terminate any line of questioning or cross-examination deemed irrelevant to the purposes of the investigation. Similarly, I will not accept evidence that is deemed irrelevant.

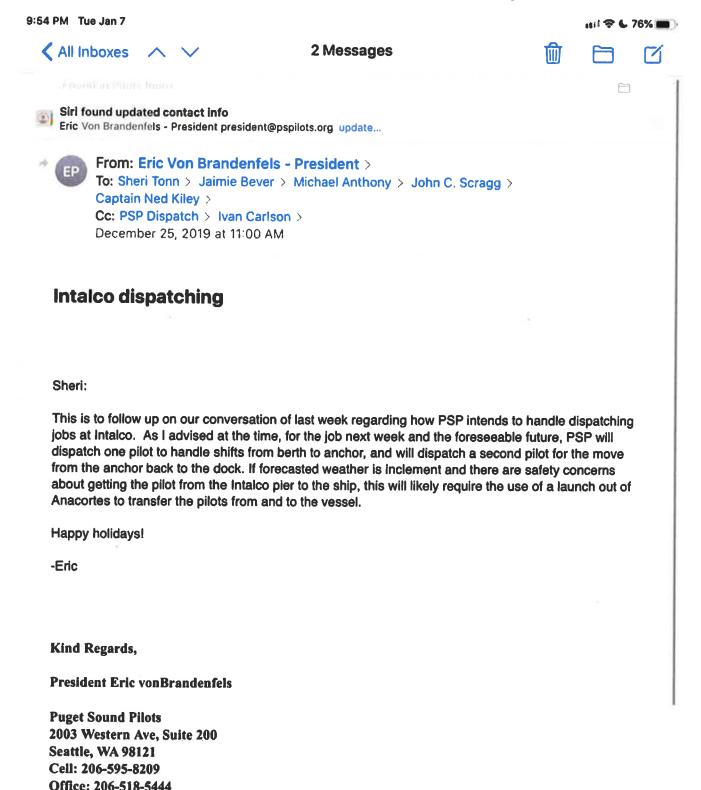
As a party in interest, if you have additional witnesses that you believe are relevant to the investigation, please provide their names to me so that I can evaluate their relevance to the investigation and, if appropriate, we will interview them. Finally, as a participant in a federal investigation, I ask that you do not share any details of the investigation with anyone who is not involved in the investigation until its completion. If you have any questions, you may contact me at the number above.

Sincerely.

Chief Warrant Officer
U. S. Coast Guard
Investigating Officer

APPENDIX J

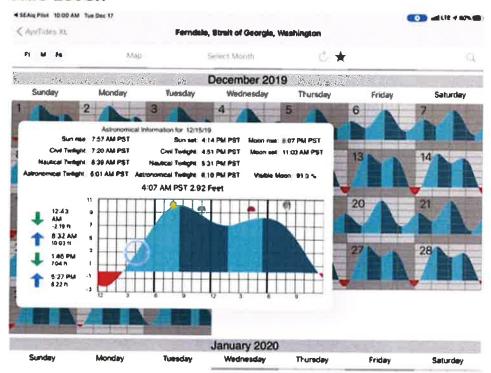
Puget Sound Pilots Revised Dispatch for Intalco/Petrogas Dock



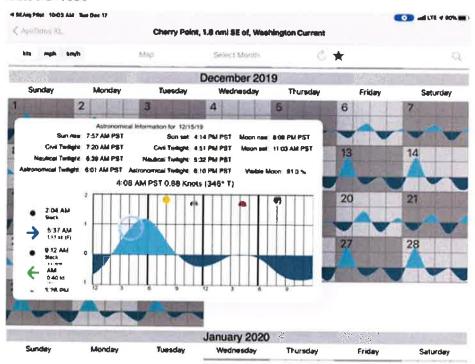
APPENDIX K

Environmentals

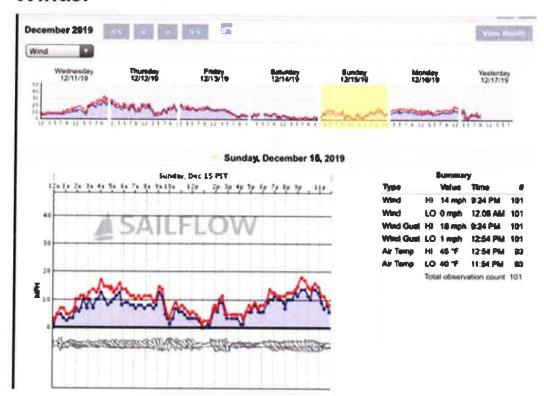
Tide Level:



Currents:



Winds:



APPENDIX L

Vessel Equipment Photos

Bridge Wing controls:



Bridge Console:



Bridge View:



Bridge ECDIS:



Engine Log Recorder:



APPENDIX M

Petrogas Dock Report



Project Report Prepared For:

Ferndale Structure Scan

Petrogas

Andrew Gamble/Travis Linds

Report Date: December 19, 2019

Prepared By:

Ballard Marine Construction, Inc.

Steven Crouchley, Diving Supervisor

BMC Project Number 1019046

866.782.6750 | www.BallardMC.com







December 19, 2019

Andrew gamble/Travis Linds Petrogas 4050 Mountain View Rd. Ferndale, WA. 98248

Petrogas

Mr. Andrew Gamble/Travis Linds

Attached is our report summarizing the findings of the Structure scan Ballard Marine Construction crew members performed at the Petrogas Ferndale pier on December 17, 2019. The image of any structures on ocean bottom was taken an overlaid on google maps.

Should you have any questions and/or comments please feel free to contact myself or Robert Stanton at the phone numbers and/or emails listed below. Thank you for allowing us to provide these services for you and we look forward to working with you again in the near future.

Sincerely,

Steven Crouchley **Dive Supervisor Ballard Marine Construction** (360) 216-3445 Mobile Steven.crouchley@ballardmc.com

Robert Stanton Ballard Marine Construction (360) 953-4379 Mobile Robert.stanton@BallardMC.com

866.782.6750 | www.BallardMC.com

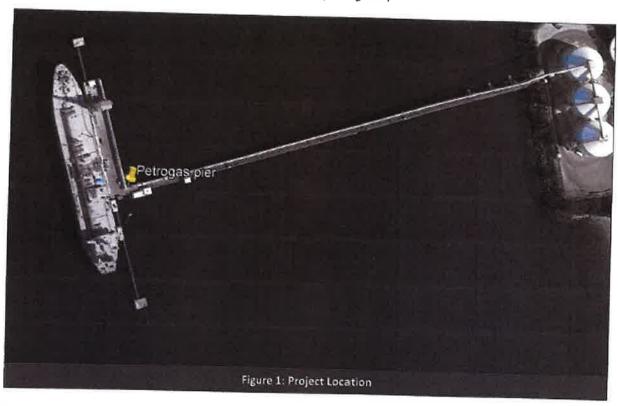
Page 2 of 3

Introduction

Ballard Marine Construction performed underwater structure scan on December 17, 2019 at the Ferndale pier.

Project Location

The pier is located near Rosario strait and run north to south. (see Figure 1).



Scope of Work

The side scan sonar was ran around the pier and scanned onto an image of google maps for subsequent viewing by the project Dive Supervisor, Steven Crouchley, and the client, Andrew Gamble/Travis Linds.

Inspection Findings

The Side scan image shows that the debris from the south mooring dolphin and south finger dolphin laid north and east of its previous location. Not debris was found in the navigable channel.



Page 3 of 3

