Alaska Veterinary Pathology Services (AVPS)
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SPECIES: Finback Whale (*Balaenoptera physalus)*
SEX: Female **AGE:** Adult
ANIMAL ID/NAME: 2026099
CONTACT: Natalie Hunter
VETERINARIAN: Emmanuelle Furst and Pam Tuomi
CLINIC: ASLC (Alaska SeaLife CenterASLC)
ADDRESS: P.O. Box 1329
Seward, AK 99664
Ph: 9072246340
Email: labresults@alaskasealife.org

CASE NUMBER: V26-020
FIRST OBSERVED: 6/19/2026
SAMPLE DATE: 6/20/2026
TRIM DATE: 7/30/2026
DATE FINAL: 09/21/26
PATHOLOGIST: Kathy Burek
NUMBER OF BLOCKS: 57
PENDING: PCRs (HPAI, Morbillivirus).

PERMIT INFO. 24359 **PERMIT HOLDER:** MMHSRP new 2023

SPECIMEN: multiple tissues **PRESERVATION:** 10% NBF

GROSS DIAGNOSES:

1. COD: Blunt force trauma with fractured mandible, fractured and displaced right pectoral fin, fractured rib, and fractures of multiple anterior dorsal spinous processes of lumbar vertebra with extensive hemorrhage
2. Blunt trauma to the fetus (see NMFS#2026009f corresponding report).

HISTOPATHOLOGIC DIAGNOSES:

1. ACUTE TRAUMA

a. Acute, severe trauma, blubber, muscle, SQ tissues with hemorrhage, edema, necrotic debris and muscle fibers, lesion B5, G, H,
b. Acute hemorrhage, mandible.
c. Acute, mild to moderate hemorrhage perirenal fat and unspecified adipose tissue.
d. Acute hemorrhage, superficial dermis and blubber, ventral and dorsal skin lesion, E2, E3.
e. Possible hemorrhage, diaphragm capsule
f. Moderate acute hemorrhage, genital slit.
g. Acute serosal hemorrhage, colon
h. Postmortem or terminal superficial abrasion, Lesions B2, B3, B4
i. Peracute degenerative myopathy / necrosis, lesion E3, E4, epaxial muscle, Lft dorsal fin, dorsal
j. Fragmented and necrotic bone admixed with fragmented and necrotic bone and degenerated fibrin and RBCs, bone lumbar

2. CHRONIC TRAUMA

   a. Chronic wound with dermal scarring, lesion E1, B6, ventral lesion
   b. Chronic erosive dermatitis / trauma (lines on blubber?)
3. **INTEGUMENT:** Chronic lymphoplasmacytic dermatitis with pigmentary incontinence and dermal fibrosis, unknown site.
4. **GASTROINTESTINAL:** Focally moderate, chronic active granulomatous and eosinophilic colitis with intralesional parasites and parasite granuloma.

SUMMARY DIAGNOSIS: Trauma consistent with blunt trauma (boat strike) as COD. Various minor chronic changes to skin (old injuries).

RECOMMENDATIONS: Monitoring PCRs (HPAI, Morbillivirus). No other follow up needed.

BRIEF HISTORY: This Female, Adult old Finback Whale from Seward, Resurrection Bay (60.199;-149.427) was found dead draped around bow of cruise ship docking in Seward on 6/19/26.and necropsied on 6/20/2026 and 6/21/26. Necropsy was performed on Storm Chaser Beach, Seward, AK. Dr. Pam Tuomi and Dr. Emmanuelle Furst were lead prosectors, with multiple Alaska SeaLife Center staff members assisting and recording (Adrianna Davis lead recorder), in conjunction with native Alaska harvesting during this interval. It was not frozen before. Postmortem state was Fresh autolysis.

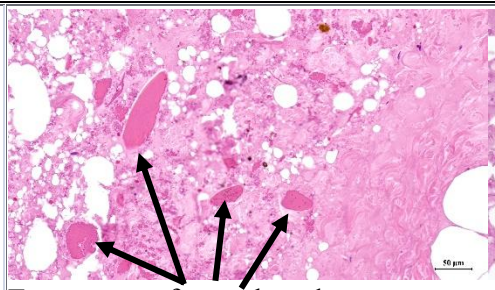
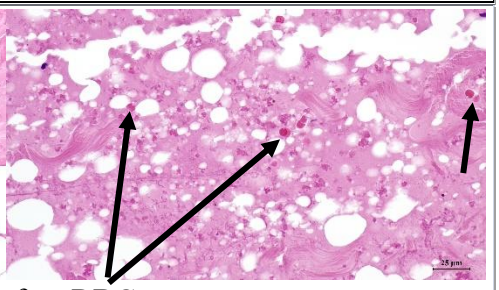
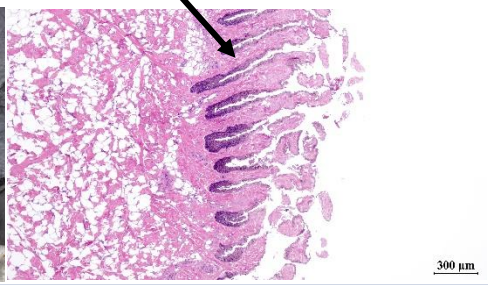
GROSS FINDINGS: See Necropsy report.

HISTOPATHOLOGIC FINDINGS: 60 tissues were trimmed into 57 blocks on 7/30/2026 at HCS. The following tissues were examined:

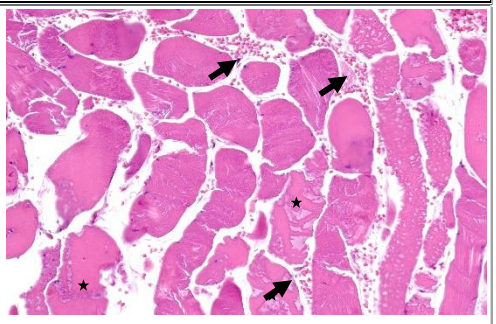
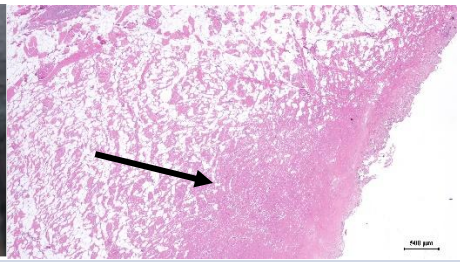
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Slide no	tissue	comments / Descrip
Moderate autolytic artifact in many tissues.		
01	Heart	There is abundant epicardial fat. Moderate autolytic artifact.
02	Stomach (real real)	NSF
03	Umbilical Cord	NSF – normal adipose tissue and membranes. No arteries, veins or other internal structures are present.
04	Lesion G - SQ - cranial lumbar spine	This is a section of normal epithelium, dermis and blubber. In the deeper blubber and edge of blubber, the tissues are disrupted by fluid, granular brightly eosinophilic debris (damaged muscle, fascia, RBCs), fragmented necrotic muscle fragments and some RBCs. There is no hematoidin, hemosiderin or erythrocyte phagocytosis (acute). **Acute, severe trauma, blubber, muscle, SQ tissues with hemorrhage, edema, necrotic debris and muscle fibers, lesion G**

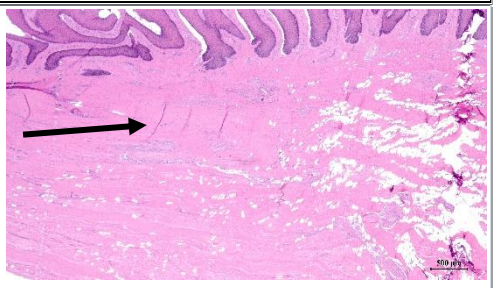
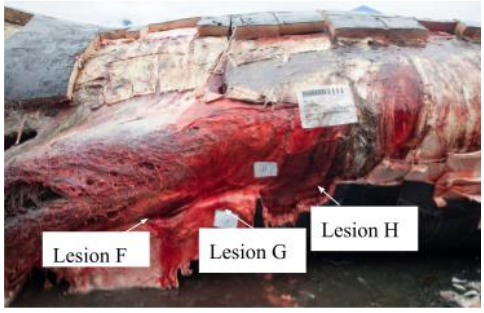
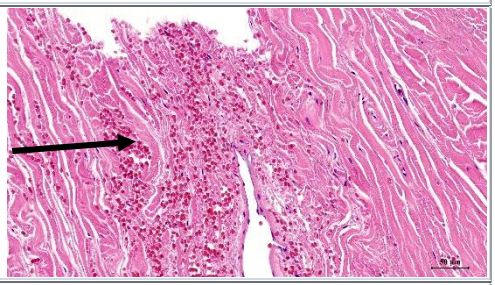
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Moderate autolytic artifact in many tissues.		
		 Fragments of muscle, edema  free RBCs
05	Lung RT Peripheral	Normal adipose tissue with a covering of light fibrous tissue, with bands of collagen traversing the tissue.
06	Skin lesion J dorsal	This slide contains bands of very dense collagen (tendon / ligament / pleura separated by wispy adipocytes. Between adipocytes there are large numbers of mixed bacteria (PM overgrowth). "dorsal to pectoral fin margin of mm damage collected gelatinous mm. layer on 6/21/26"
07	Lesion B2-curvilinear skin laceration - erosion	This is a section of blubber with epithelium. Most of the epithelium is missing with only deeper rete pegs and exposed dermal papillae. There is no inflammatory reaction or hemorrhage (**postmortem or terminal superficial abrasion**).  
08	Lesion B4	The entire epithelial layer has been removed with no evidence of hemorrhage (**postmortem or terminal superficial abrasion**). 

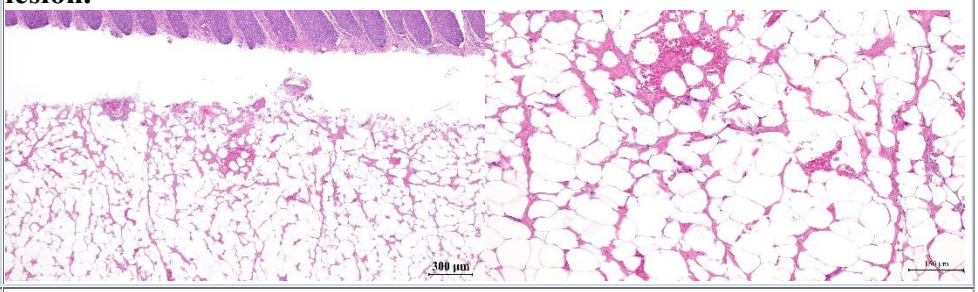
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Moderate autolytic artifact in many tissues.		
09	Lesion B5 - “damaged muscle at fracture site?	This is skeletal muscle separated by adipose tissue. There is acute hemorrhage (arrows) and muscle necrosis indicated by contraction bands (stars) and abundant cellular debris. There is no evidence of phagocytosis or regeneration or mineralization of muscle fibers. Debris colonized by mixed bacteria are present separating myofibers (RBCs, muscle debris).  **Hemorrhage and peracute degenerative myopathy / necrosis, lesion B5**
10	Lesion E1	This is a section of blubber where the epithelium is detached from the underlying dermis. In half the section, the dermis is greatly thickened and adipocytes are condensed (arrow). **Chronic wound with dermal scarring, lesion E1**  
11	Lesion E2 dorsal	This is a section of adipocytes separated by dense collagen bundles, and a thin layer of skeletal muscle. In several areas, the adipose is separated with cellular debris and scattered free RBCs (**mild hemorrhage and tissue debris**).
12	Lesion E3 (epaxial)	This is skeletal muscle separated by adipose tissue. There is muscle necrosis indicated by contraction bands and abundant cellular debris as well as PM overgrowth. **Peracute degenerative myopathy / necrosis, lesion E3**
13	Lesion E4	This is skeletal muscle separated by adipose tissue. There is muscle necrosis indicated by contraction bands and abundant cellular debris as well as PM overgrowth. **Peracute degenerative myopathy / necrosis, lesion E3**
14	Kidney R	This is adipose tissue. No renal tissue is present. In some areas, there is separation of adipocytes by clear areas with flocculant debris and rare free RBCs.
15	Kidney R	“

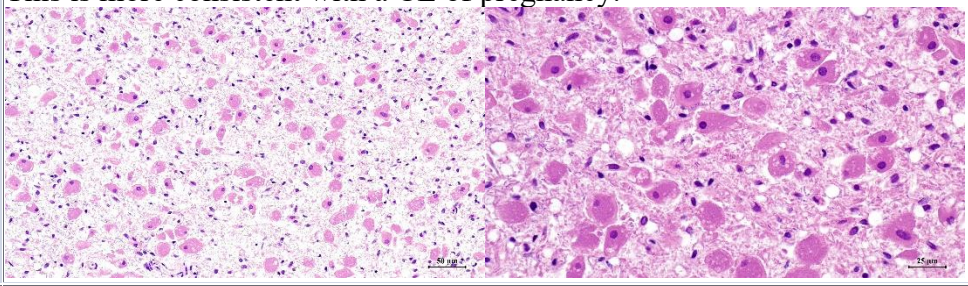
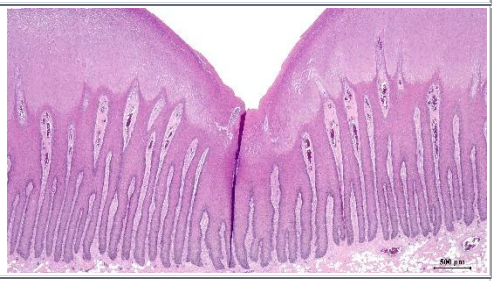
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Moderate autolytic artifact in many tissues.		
16	Lesion B6	This is a section of epithelium and underlying dermis. The epithelium is missing the top 1/3. The rete pegs are irregular and at times fused. The underlying dermis is composed of very dense bands of collagen (arrow) consistent with mature granulation tissue without much adipose tissue.  **Chronic dermal scarring, B6**
17	Ovary	Adipose tissue
18	Uterus	In this section of uterus, there are villous projections of epithelium lined by foamy cuboidal cells extending into the lumen which contains layers of myxoid material. There are sloughed cells and some cellular debris suspended in the myxoid material. There is no evidence of hemorrhage.
19	Uterus	"
20	Liver	Autolyzed with heavy PM overgrowth. NSF
21	Lesion H-SQ space cranial lumbar spine	This is adipose tissue interspersed with bands of dense collagen (probable fascia) with one surface composed of skeletal muscle. There are accumulations of clear fluid, flocculent debris, mixed bacterial colonies and very rare intact RBCs separating lobules of fat. The skeletal muscle has scattered swollen and hypereosinophilic myofibers (peracute, mild degenerative myopathy).  **Acute hemorrhage, edema, degenerative myopathy / necrosis lesion H**
22	Lesion I – tip of mandible	This is a section of dense fibrocartilage and periosteum. There is acute perivascular hemorrhage along one margin  **Acute hemorrhage, mandible.**
23	Kidney Lft	Adipose tissue. There are cellular debris and scattered RBCs between lobules of adipose tissue. **Acute, mild hemorrhage perirenal fat.**

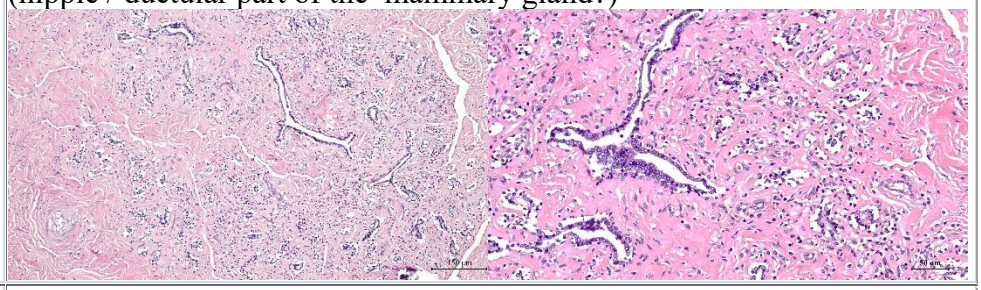
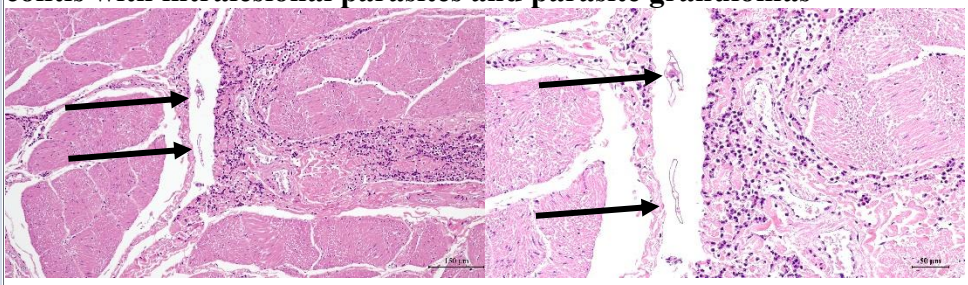
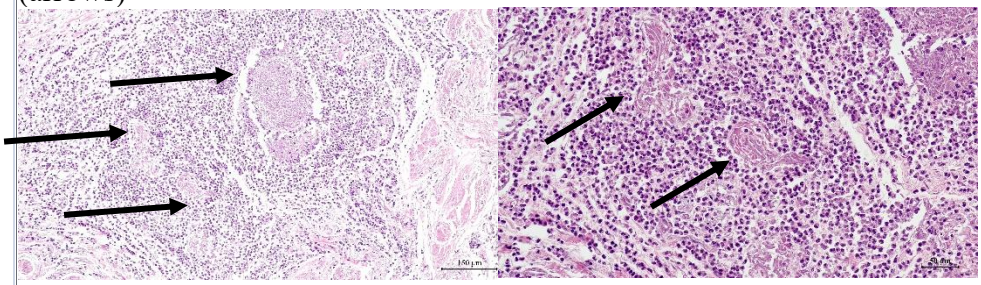
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Moderate autolytic artifact in many tissues.		
24	Diaphragm	There is no muscle in this section, but thick bands of dense collagen, wispy tissue composed of fine collagen fibers separated by possible edema and large blood vessels (probably the capsule of the diaphragm). There are several coagula of deeply eosinophilic to refractile material (possibly autolyzed RBCs). **Possible hemorrhage, diaphragm capsule**.
25	Lesion I1	This is bundles of dense collagen separated by adipose and aggregates of blood vessels. Some of tissue seems distended by clear space (possible edema). No free RBCs were appreciated.
26	Lesion B3	Normal blubber. The epithelium is missing. There is no inflammation or hemorrhage (probable PM or terminal abrasion).
27	Lesion ventral skin	There is acute hemorrhage in the superficial dermis and blubber. For most of the section, the epithelium has been lifted off the superficial dermis. **Acute hemorrhage, superficial dermis and blubber, ventral skin lesion.** 
28	Lesion Dorsal skin	This is dense collagen and adipose tissue and large arteries. There are fluid and debris separated fat lobules; with postmortem change it is not possible to determine if it is hypostatic congestion or edema or hemorrhage.
29	Epaxial Muscle	Approximately ½ of the myofibers are hypereosinophilic and have contraction band necrosis and / or fragmentation. Clear space separates muscle fibers (edema or hypostatic congestion). **Peracute degenerative myopathy, epaxial muscle.**
30	Lft dorsal fin; muscle stern; hypax	This is muscle with scattered hypereosinophilic swollen muscle fibers and rare contraction band necrosis.
31	Genital Slit	This is a highly vascularized tissue with very dense collagen, . There is moderate acute hemorrhage.
32	Vagina	Marked congestion. NSF
33	Mesenteric LN	This is filled with primarily large around cells with abundant eosinophilic cytoplasm sometimes containing clear vacuoles, a round nucleus with a nucleolus. These are separated by wispy cells with unclear cytoplasmic

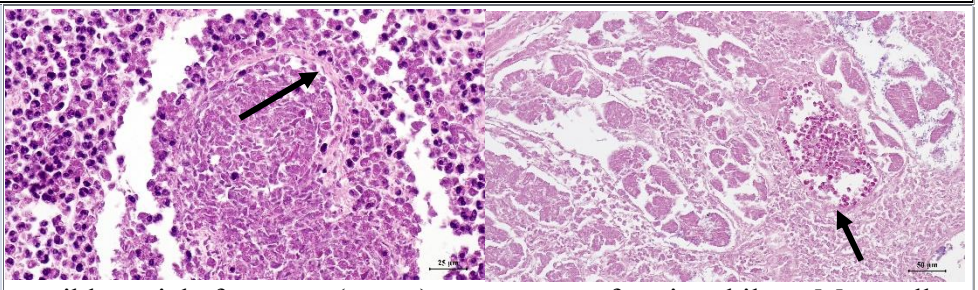
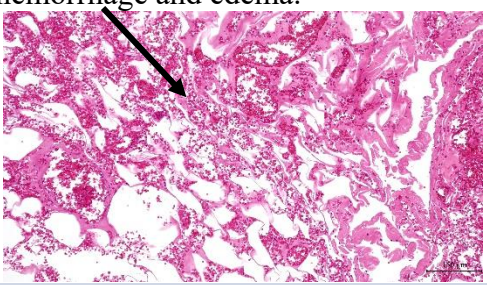
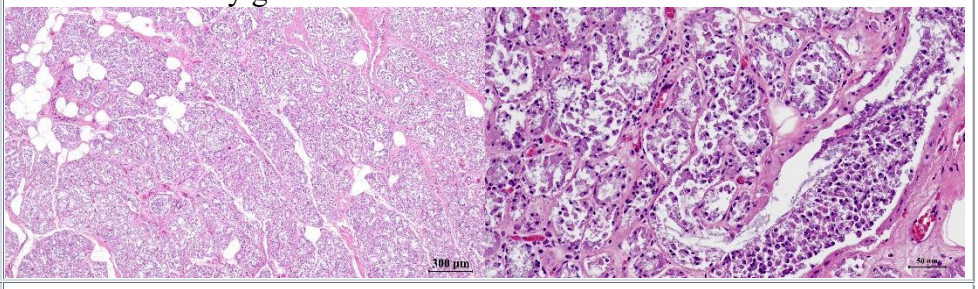
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Slide no	tissue	comments / Descrip
Moderate autolytic artifact in many tissues.		
		borders and more oval nuclei. Bands of collagen run through the structure. This is more consistent with a CL of pregnancy. 
34	Jejunum	This is in good postmortem condition. NSF
35	Jejunum	"
36	Jejunum	" there is one submucosal lymphoid patch consistent with a Peyer's patch.
37	Jejunum	"
38	Colon	Autolyzed. There is a large **acute serosal hemorrhage** adjacent to a venule.
39	Ventral abdomen Bruising	In this section of skin, there is marked congestion of the tips of the villi. The superficial dermis is markedly thickened in the central aspect suggestive of a chronic lesion (scar).
40	Lesion Dorsal skin	Normal epithelium and dermis. In the deep blubber, there is an amphophilic coagulum and fragmented, necrotic muscle fibers (acute trauma).
41	Lesion Ventral vaginal opening	This is epithelium and normal adipose tissue. The rete pegs are very fused and irregular suggestion an old skin lesion, or variation on normal.
42	"Lines on blubber"	There are two divots in the epithelium associated with thickened stratum spinosum. Rete pegs are fused close to these divots. There is no active inflammation. **Chronic erosive dermatitis / trauma**. 
43	Oral Mucosa	NSF
44	Lumbar LN	Adipose tissue with edema and mild hemorrhage.
45	Stomach Real	This is a section of fundic stomach. There are NFS

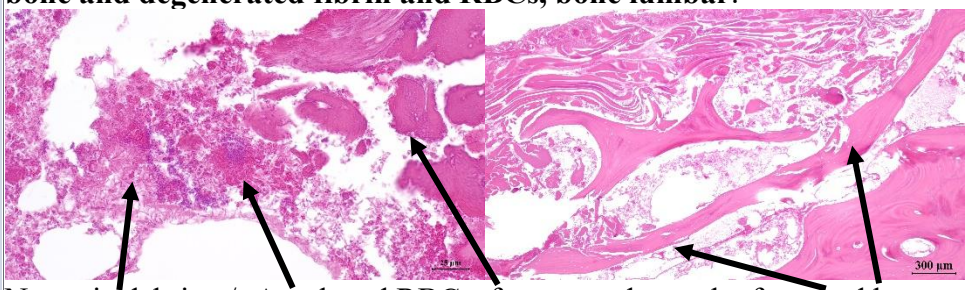
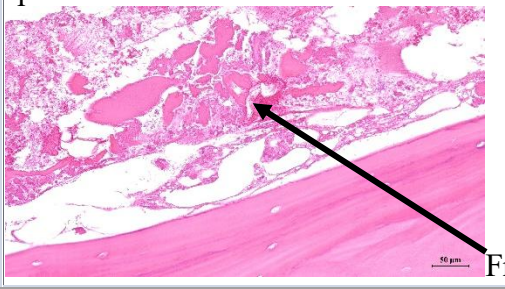
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Slide no	tissue	comments / Descrip
Moderate autolytic artifact in many tissues.		
46	UNKNOWN	This is a gland characterized by multiple central ducts surrounded by acini of inactive cells. These are surrounded by very dense collagenous stroma (nipple / ductular part of the mammary gland?) 
47	GI tract unknown	This is a section of GI tract lined by straight glands and little evidence of villi (consistent with colon). The glands are separated by mixed inflammatory cells and some aggregates of eosinophils. Inflammation extends into the underlying submucosa and between muscle fibers of the inner muscular layer. The inflammation cuffs some of the blood vessels and appears to be a mix of macrophages, lymphocytes, plasma cells and eosinophils. There are a few granulomas centered on necrotic debris, some of which are consistent with a parasite cuticle. Some brisk eosinophilic and lymphocytic inflammation extends between muscle bellies to the serosal surface, in one case associated with parasite cross sections. **Focally moderate, chronic active granulomatous and eosinophilic colitis with intralesional parasites and parasite granulomas**  Intense eosinophilic inflammation associated with nematode sections (arrows)  Granuloma in submucosa possible cuticle fragments (arrows)

Histo_Results subform

Slide no	tissue	comments / Descrip
Moderate autolytic artifact in many tissues.		
		 possible cuticle fragment (arrow) aggregates of eosinophils or Mott cells
48	Unknown	This tissue is composed of very dense collagen and some smooth muscle in the wall around a lumen lined by what appears to be mucosal or transitional epithelium. There are some globules of deeply eosinophilic amorphous material on the surface. It is a normal structure – most likely vagina (collected on notes) or urinary bladder.
49	Adipose	This is a section of adipose tissue of unknown organ with extensive hemorrhage and edema. 
50	Adipose tissue	NSF
51	Gland	This is a glandular structure with ducts surrounded by lobules of plump mucoid cells. There is no milk evident in the ducts or acini (probable inactive mammary gland. 
52	Skin with blubber	NSF. The blubber is not full thickness
53	Skin with blubber	This is a section of epidermis in which the rete pegs are quite flattened and fused and the tips of the dermal papillae contain macrophages containing

Histo_Results subform

Slide no	tissue	comments / Descrip
Moderate autolytic artifact in many tissues.		
		black pigment, lymphocytes and plasma cells. The superficial dermis is very dense with few adipocytes. **Chronic lymphoplasmacytic dermatitis with pigmentary incontinence and dermal fibrosis, unknown site.**
54	Unknown tissue	This is composed of very dense collagen with some embedded bony spicules (periosteum?). There is acute hemorrhage within the tissue and along one margin. There is one edge which appears to be dermal papillae with sloughed rete pegs.
55	EYE	This is cornea progressing into sclera. There are no internal structures of the eye in the section.
56	Bone Pectoral	These are sections of cartilage progressing to fibrocartilage and then bone. There is fibrillation of some of the edges of cartilage and some surfaces are covered by deeply eosinophilic amorphous or granular material and free RBCS (hemorrhage and necrotic debris).
57	Bone lumbar	This is multiple sections of bone fragments, necrotic and fragmented muscle fibers, flocculent lightly eosinophilic debris (fibrin, fragments of muscle and bone) and deeply and refractile eosinophilic debris (consistent with degenerated RBCs). Bone in general appears necrotic with loss of osteocytes within lacunae and many spicules are fragments. Admixed with this are mixed bacterial colonies. **Fragmented and necrotic bone admixed with fragmented and necrotic bone and degenerated fibrin and RBCs, bone lumbar**.  Necrotic debris +/- Autolyzed RBCs, fragmented muscle; fractured bone spicules  Fragmented muscle fibers and debris

ANCILLARY FINDINGS:

Lab short name	Type of test	Sub type of test	Sample tested	Lab RPT No	Agents	Pos/Neg	measured result
WARRN-west	HABs	ELISA	Feces	26096_10	PSPT - STX	POS	8.1 ng/g
WARRN-west	HABs	ELISA	Intestinal contents	26096_10	PSPT - STX	POS	13
WARRN-west	HABs	ELISA	Intestinal contents	26096_10	domoic acid	BDL	
WARRN-west	HABs	ELISA	Feces	26096_10	domoic acid	BDL	

COMMENT: The most significant findings on both gross and histopathology were blunt and sharp trauma characterized by fractured and dislocated mandible, fractures of ribs and vertebra, transection of a pectoral fin, acute hemorrhage in various sites including in skin, blubber, serosal surfaces, internal fat, periosteum and bones. There were also extensive hemorrhage, fragmentation and necrosis of skeletal muscle in multiple sites and evidence of fractured bone spicules on histopathology. With this animal coming in on the bow of a large ship, cause of death is ship strike.

The only possible contributing factor was levels of saxitoxin in the feces and intestine. However, these were very low levels and is it unclear at what level effects on function occur, as free swimming subsistence whales can have similarly low levels of saxitoxin in the feces with no apparent effects.

An interesting finding was a relatively brisk colitis associated with parasites. However, in a wild animal, we would expect to see some levels of parasitism, in most cases not affecting the overall health of the animal.

Thank you for submitting this case to AVPS. Please review sample dispositions and assignments (date shipped' will be blank) and let us know if you **do not want** assigned samples to be forwarded to authorized researchers and/or have any questions about the assignments.

Kathy Burek

CATEGORY OF COD	DX	APPROX TIMING
IMMEDIATE–	Blunt trauma (boat strike)	Acute
CONTRIBUTING FACTORS:	1. Low levels of saxitoxin (possible effect)	acute
PROXIMATE / (UNDERLYING) COD–	Blunt trauma (boat strike)	Acute
OTHER FINDINGS	Mild to moderate granulomatous and eosinophilic colitis with intralesional parasites and parasite granulomas.	chronic
INCIDENTAL FINDINGS	Chronic focal areas of trauma on the skin and blubber	chronic

Proximate COD –The disease, injury, or process that initiated a sequence of events, which led to death.
IMMEDIATE COD – The terminal event that produces death**.**
CONTRIBUTING FACTORS – listed in steps for progression between proximate and immediate COD.

SAMPLE DISPOSITION:

Sample ID	Container Type	Sample Preserv	Purpose	Type of analysis	Date shipped	Shipped to
Aqueous humor	Cryovial 5 ml	-80° C	DZ ARCHIVE			

Sample ID	Container Type	Sample Preserv	Purpose	Type of analysis	Date shipped	Shipped to
Aqueous humor	Cryovial 2 ml	-80° C	DZ ARCHIVE	HABS		
Aqueous humor	Cryovial 2 ml	-80° C	DZ ARCHIVE	Meat juice		Natalie -PhD
Aqueous humor	Cryovial 2 ml	-80° C	DZ ARCHIVE	Clin chem		
Aqueous humor	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Aqueous humor	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Aqueous humor	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Baleen	garbage bag	-40°C	LIFE HX	SI s, FAs		Kristi West
Baleen	garbage bag	-40°C	LIFE HX			Kristi West
Baleen	garbage bag	-40°C	LIFE HX		7/16/2026	UAM
Baleen	garbage bag	-40°C	LIFE HX		7/16/2026	UAM
BH Swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE	Micro		
BH Swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
BH dry Swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
BH dry Swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
BH Swab	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
BH Swab	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
BH Swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Viral culture		
BH Swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Viral PCR		
BH Swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Viral PCR		Tufts
Blubber AX	50 ml Conical	-80° C	ARCHIVE			
Blubber AX	Whirl-pak 18 oz	-40°C	ARCHIVE			
Blubber AX	Foil/24 oz Whirl	-40°C	TOX ARCHIVE			
Blubber BDF	Foil/24 oz Whirl	-40°C	TOX ARCHIVE			
Blubber BDF	Foil/24 oz Whirl	-40°C	TOX ARCHIVE			
Colon wall	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Conjunctiva	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Conjunctiva	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Diaphragm	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Diaphragm	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Epaxial Muscle	Whirl-pak	-80° C	ARCHIVE			
Epaxial Muscle	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Epaxial Muscle	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Eye R	Whirl-pak 18 oz	-80° C	ARCHIVE			
Eye R	Whirl-pak 18 oz	-80° C	ARCHIVE			
Feces	50 ml Conical	-40°C	DZ ARCHIVE			
Feces	50 ml Conical	-40°C	DZ ARCHIVE			
genital Bacte Swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
genital Bacte Swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
genital Bacte Swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
genital Bacte Swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
genital dry Swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
genital dry Swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
genital dry Swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
genital dry Swab	Cryovial 2 ml	-80° C	DZ ARCHIVE			
genital dry Swab	Cryovial 2 ml	-80° C	DZ ARCHIVE			
genital dry Swab	Cryovial 2 ml	-80° C	DZ ARCHIVE			

Sample ID	Container Type	Sample Preserv	Purpose	Type of analysis	Date shipped	Shipped to
genital swab	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
Genital swab	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
genital viral swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Viral PCR		
genital viral swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Molecular		
genital viral swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Viral culture		
genital viral swab	Cryovial 2 ml	VTM	DZ ARCHIVE	Viral PCR		
Heart	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Heart	Cryovial 2 ml	-80° C	ARCHIVE		7/16/2026	UAM
Heart	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Heart	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Intestinal contents	50 ml Conical	-80° C	HABs		7/7/2026	WARRN-west
Intestinal contents	50 ml Conical	-80° C	ARCHIVE			
Intestinal contents	50 ml Conical	-80° C	ARCHIVE			
Intestinal contents	50 ml Conical	-80° C	ARCHIVE			
Intestinal contents	50 ml Conical	-80° C	ARCHIVE			
Intestinal contents	50 ml Conical	-80° C	ARCHIVE			
Jejunum wall	Whirl-pak 18 oz	-80° C	ARCHIVE			
Jejunum wall	Whirl-pak 18 oz	-80° C	ARCHIVE			
Kidney R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Kidney R	Foil/24 oz Whirl	-80° C	TOX ARCHIVE			
Kidney R	Zip-loc	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Kidney	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Kidney R	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Kidney R	Foil/18oz whirl	-80° C	TOX ARCHIVE			
Kidney	Cryovial 2 ml	-80° C	ARCHIVE		7/16/2026	UAM
Kidney R	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Kidney R	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Kidney R	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Kidney R	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Kidney R	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Kidney R	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Kidney R	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Lesion corrugated lines on blubber AX	Whirl-pak 18 oz	-80° C	ARCHIVE			
Lesion dorsal skin	Whirl-pak 4 oz	-80° C	ARCHIVE			
Lesion dorsal skin	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lesion dorsal skin	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Lesion Lumbar Bone fragment	zip-loc gallon	-40°C	DZ ARCHIVE			
Lesion broken pec fin B1	Zip-loc quart	-40°C	DZ ARCHIVE			

Sample ID	Container Type	Sample Preserv	Purpose	Type of analysis	Date shipped	Shipped to
Lesion ventral swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Lesion dorsal swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Lesion skin E1	Cryovial 2 ml	VTM	DZ ARCHIVE			
Lesion skin E1	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Lesion skin E1	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Lesion Dry Swab Dorsal	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Lesion Dry Swab Dorsal	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lesion Dry Swab Dorsal	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Lesion Dry Swab Dorsal	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lesion Dry Swab ventral	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Lesion Dry Swab ventral	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Lesion Dry Swab ventral	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lesion Dry Swab ventral	Cryovial 1 ml	VTM	DZ ARCHIVE			
LN Lumbar	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lung R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lung R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lung R peripheral	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lung R peripheral	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lung w/ Bronchus R	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Lung w/ Bronchus	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lung w/ Bronchus	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lung w/ Bronchus	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lung w/ Bronchus	Cryovial 1 ml	VTM	DZ ARCHIVE			
Lung w/ Bronchus	Cryovial 1 ml	VTM	DZ ARCHIVE			
Mammary Gland	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mammary Gland	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mesenteric LN	Whirl-pak 18 oz	-80° C	ARCHIVE			
Mesenteric LN	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mesenteric LN	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mesenteric LN	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mesenteric LN	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mesenteric LN	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Mixed Tissues	Jar	NBF (10%)	HISTOPATH		7/7/2026	HCS
Muscle	Cryovial 2 ml	-80° C	DZ ARCHIVE			SWFSC-Genetics
Muscle	Cryovial 2 ml	-80° C	ARCHIVE		7/16/2026	UAM
Ovary	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Pericardial Fluid	Cryovial 5 ml	-80° C	DZ ARCHIVE			
Pericardial Fluid	Cryovial 5 ml	-80° C	DZ ARCHIVE			

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Pericardial Fluid	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Pleural fluid	50 ml Conical	-40°C	DZ ARCHIVE			
Pleural fluid	50 ml Conical	-40°C	DZ ARCHIVE			
Pleural fluid	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Rectal bacte swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Rectal bacte swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Rectal bacte swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Rectal bacte swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Rectal bacte swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Rectal bacte swab	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Rectal dry swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Rectal dry swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Rectal dry swab	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Rectal dry swab	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Rectal dry swab	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Rectal dry swab	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Rectal RNA later	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
Rectal RNA later	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
Rectal RNA later	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
Rectal RNA later	Cryovial 2 ml	RNAlater	DZ ARCHIVE	Molecular		
Rectal viral Swab	Cryovial 2 ml	VTM	DZ ARCHIVE			
Rectal viral Swab	Cryovial 2 ml	VTM	DZ ARCHIVE			
Rectal viral Swab	Cryovial 2 ml	VTM	DZ			Tufts
Rectal viral Swab	Cryovial 2 ml	VTM	DZ ARCHIVE			
Rectal viral Swab	Cryovial 2 ml	VTM	DZ ARCHIVE			
Rectal viral Swab	Cryovial 2 ml	VTM	DZ ARCHIVE			Tufts
Skin dorsal	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Skin	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Skin ventral	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			SWFSC-Genetics
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Skin	Cryovial 1 ml	-80° C	DZ ARCHIVE			
Sternohyoideus L dorsal fin	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Sternohyoideus L dorsal fin	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Stomach wall	Whirl-pak 4 oz	-80° C	ARCHIVE			
Stomach Contents	50 ml Conical	-80° C	HABs		7/7/2026	WARRN-west
Stomach Contents	50 ml Conical	-40°C	DZ ARCHIVE			
Stomach Contents	50 ml Conical	-40°C	DZ ARCHIVE			

Sample ID	Container Type	Sample Preserv	Purpose	Type of analysis	Date shipped	Shipped to
Stomach Contents	50 ml Conical	-40°C	DZ ARCHIVE			
Tongue	Whirl-pak 18 oz	-80° C	DZ ARCHIVE			
Tongue	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Umbilical Cord	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Umbilical Cord	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
fluid obtained outside of body cavity lymph?	15 ml conical tube	-80° C	DZ ARCHIVE			
Uterus	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Uterus	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Uterus	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Uterus	Cryovial 2 ml	TSB w/ 10% Glyc	DZ ARCHIVE			
Uterus	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Uterus	Cryovial 2 ml	-80° C	DZ ARCHIVE			
Vagina	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			
Vagina	Whirl-pak 4 oz	-80° C	DZ ARCHIVE			