

Case No: 25-0701

Table 1: Summary of Results for PCR Testing of Systemic Pathogens

Pool ID	Species	Identification no.	Lot/ Batch No.	Age	Specimen Type	Sex	WSSV	IHHNV	IHHNV-int	TSV	YHV	IMNV	GAV	PvNV	LSNV	MoV	MrNV	CMNV
25-0701 A	<i>Artemia monica</i>	Mono Lake, CA	5202/6	Adult	Frozen	N/A*	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡
25-0701 B	<i>Artemia monica</i>	Mono Lake, CA	5202/7	Adult	Frozen	N/A*	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡
25-0701 C	<i>Artemia monica</i>	Mono Lake, CA	5202/8	Adult	Frozen	N/A*	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡

NOTE: *N/A – Not Available ‡ND – Not Detected Pooling info: N/A

Table 1: Summary of Results for PCR Testing of Systemic Pathogens (CONT'D)

Pool ID	Species	Identification no.	Lot/ Batch No.	Age	Specimen Type	Sex	<i>Sprrioplasma penaei</i>	<i>Rickettsia</i>	DIV1
25-0701 A	<i>Artemia monica</i>	Mono Lake, CA	5202/6	Adult	Frozen	N/A*	ND‡	ND‡	ND‡
25-0701 B	<i>Artemia monica</i>	Mono Lake, CA	5202/7	Adult	Frozen	N/A*	ND‡	ND‡	ND‡
25-0701 C	<i>Artemia monica</i>	Mono Lake, CA	5202/8	Adult	Frozen	N/A*	ND‡	ND‡	ND‡

NOTE: *N/A – Not Available ‡ND – Not Detected Pooling info: N/A

Table 2: Summary of Results for PCR Testing of Enteric Pathogens

Pool ID	Species	Identification no.	Lot/ Batch No.	Age	Specimen Type	Sex	BP	MBV	HPV	SMV	<i>V. parahaemolyticus</i>	<i>V. harveyi</i>	AHPND/ EMS	EHP	NHP-B	CP/A. astaci
25-0701 A	Artemia Monica	Mono Lake, CA	5202/6	Adult	Frozen	N/A*	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡
25-0701 B	Artemia Monica	Mono Lake, CA	5202/7	Adult	Frozen	N/A*	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡
25-0701 C	Artemia Monica	Mono Lake, CA	5202/8	Adult	Frozen	N/A*	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡	ND‡

NOTE: *N/A – Not Available ‡ND – Not Detected Pooling info: N/A



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Protocols used:

WSSV: Real-time PCR method described by Durand and Lightner (J. Fish Dis., 2002, 25: 381-389).

IHHNV: Real-time PCR described by Tang & Lightner (Dis. Aquat. Org., 2001 44: 79-85).

IHHNV-int.: Conventional PCR described by Tang et al. (Dis. Aquat. Org., 2007, 74: 165-170).

TSV: Real-time RT-PCR method described by Tang et al. (J. Virol. Methods, 2004, 115: 109-114).

YHV: Real-time PCR method described by Aranguren, et al. (Dis. Aquat. Org. 2012, 98:185-192).

IMNV: Real-time RT-PCR modified from Andrade et al. (Aquaculture, 2007, 264: 9-15).

GAV: RT-PCR method was developed in the University of Arizona-Aquaculture Pathology Laboratory, based on the nucleotide sequence deposited with a GenBank accession AF227196 (Cowley et al., 1999. Dis. Aquat. Org. 36: 153-157).

PvNV: Real-time PCR method developed in the University of Arizona-Aquaculture Pathology Laboratory, Unpublished.

LSNV: Real-time PCR method developed at the University of Arizona by Huynh et al. 2021.

MoV: Conventional RT-PCR method developed in this laboratory based on the nucleotide sequence deposited with a GenBank accession AY927991 (Cowley et al., 2005. Dis. Aquat. Org., 66: 91-104).

MrNV: Conventional RT-PCR method described in the OIE Manual of Diagnostic Tests for Aquatic Animals, 2014 Ch. 2.2.6.

CMNV: Real-time PCR described by Li et al. (J. Virol. Methods, 2018, 262: 65-71).

Spiroplasma penaei: Conventional PCR described by Nunan, et al. (DAO. 2004, 62:255-264).

Rickettsia: Conventional PCR method developed in this laboratory based on the nucleotide sequence deposited with a GenBank accession GU947656.1.

SHIV/DIV1: Real-time PCR protocol described by Qiu et al. (J. Invertebr. Pathol. 2018, 154, 95-101).

BP: Conventional PCR method described by Bonami et al. 1995. Dis. Aquat. Org. 23: 59-66).

MBV: Conventional PCR method described by Surachetpong et al. (Aquaculture, 2005, 249: 69-75).

HPV: Conventional PCR method described by Tang et al. (Dis. Aquat. Org. 2008, 80:105-112).

SMV: PCR protocol developed in the University of Arizona-Aquaculture Pathology Laboratory, Unpublished.

V. parahaemolyticus: Conventional PCR method described by Kim et al. (J Clin. Microbiol. 1999, 37: 1173-1177).

V. harveyi: Conventional PCR method described by Fukui and Sawabe (Microbes Environ. 2007, 22:1-0).

AHPND/EMS: Real-time PCR method described by Han et al. (Aquaculture 2015, 442: 12-15).

EHP: Real-time PCR method described by Liu et al. (J. Invertebr. Pathol. 2018, 151: 191-196).

NHP-B: Real-time PCR method described by Aranguren et al. (Aquaculture, 2010, 307: 187-192).

CP/A. *astaci*: Conventional PCR method described in the OIE Manual of Diagnostic Tests for Aquatic Animals 2019 Ch 2.2.2.

UAZ Policy on certification: This report provides our findings on the samples submitted to our laboratory for examination, health status evaluation, disease diagnosis, or pathogen detection. It is our policy and intent to perform the most appropriate assay(s) for the determination of the health/pathogen status of all specimens submitted to our laboratory.

PCR: disclaimer: This report provides our findings on the samples submitted to our laboratory for pathogen detection.

The **UAZ Aquaculture Pathology Lab** is an **OIE** (Office International des Épidémiologies or the Organization of World Animal Health Organization) Reference Laboratory for Acute Hepatopancreatic Necrosis Disease, *Hepatobacter penaei* (NHP), Infectious Hypodermal and Hematopoietic Necrosis, Taura Syndrome, and White Spot Disease. The **UAZ Aquaculture Pathology Lab** is also a **U.S.D.A. A.P.H.I.S.** Approved Aquaculture Laboratory for export testing for White Spot Disease, Taura Syndrome, Infectious Hypodermal and Hematopoietic Necrosis, Infectious Myonecrosis, Yellowhead Disease, Acute Hepatopancreatic Necrosis Disease, Crayfish plague (*Aphanomyces astaci*), White tail disease (*Macrobrachium rosenbergii* nodavirus), and Necrotizing hepatopancreatitis (*Hepatobacter penaei*).

Tests conducted by:



Thi Truc Huynh
Research Technician

Results authorized by:



Dr. Arun K. Dhar
Director
Aquaculture Pathology Laboratory
Office: 520-621-8727

