



16-inch PIPELINE DAMAGE ASSESMENT

AQUEOS PROJECT NO. BET01-21-257

OCTOBER 2021



Prepared for:



Beta Offshore

111 West Ocean Blvd., Suite 1240
Long Beach, CA 90802

Prepared by:

Aqueos Corporation
2550 Eastman Ave. Suite 8
Ventura, CA 93013

Tel: REDACTED PII Fax: REDACTED PII
www.aqueossubsea.com

16-inch PIPELINE DAMAGE ASSESMENT 2021

TABLE OF CONTENTS

PROJECT SUMMARY	SECTION 1
CRACK LOCATION INSPECTION	SECTION 2

SECTION 1

PROJECT SUMMARY

1.1 GENERAL

Aqueos Corporation (Aqueos) was contracted by Beta Offshore to serve as the subsea survey and repair contractor for the 2021 16-inch pipeline rupture. The oil pipeline serves as the primary means of oil transfer from Platform Elly to shore.

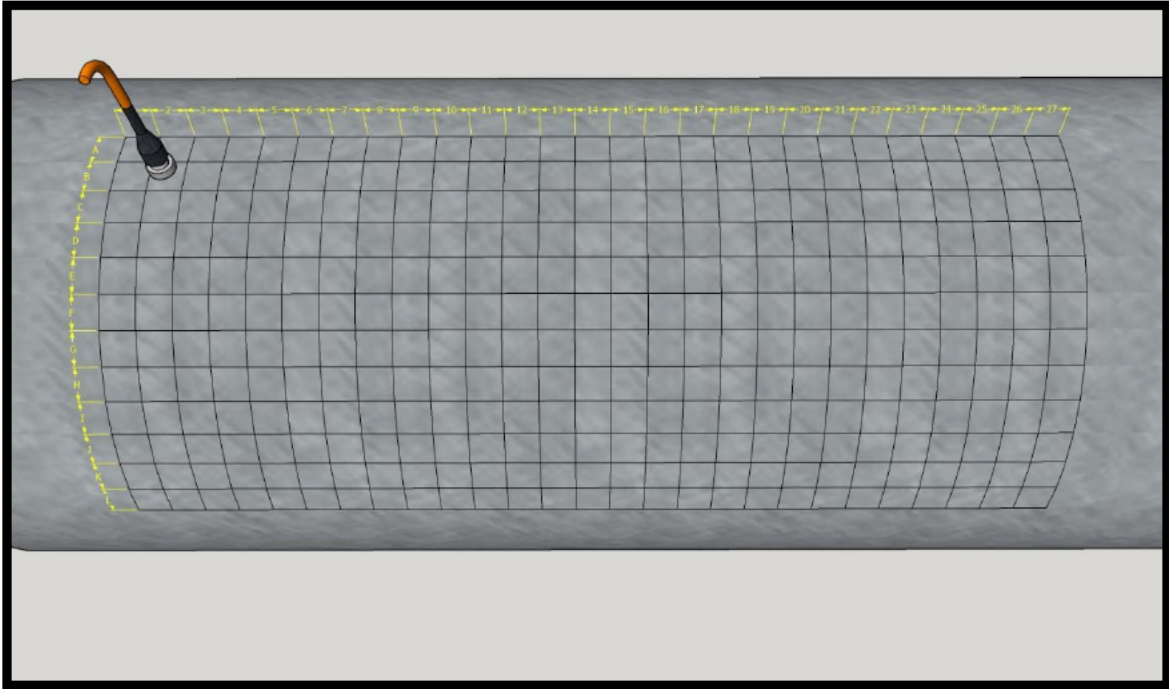
This report provides the integrity status for the crack location utilizing ultrasonic and mag particle inspection.

SECTION 2

CRACK LOCATION INSPECTION







GRID DETAIL

COLUMN 1			COLUMN 2			COLUMN 3			COLUMN 4			COLUMN 5			COLUMN 6			COLUMN 7		
ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	
A	.500	A	.500	A	.500	A	.500	A	.500	A	.500	A	.500	A	.500	A	.500	A	.500	
B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	
C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	
D	CENTER	D	CENTER	D	CENTER	D	CENTER	D	CENTER	D	CENTER	D	CENTER	D	CENTER	D	CENTER	D	CENTER	
E	.500	E	.495	E	.485	E	.495	E	.490	E	.490	E	.480	E	.495	E	.480	E	.480	
F	.505	F	.505	F	.495	F	.495	F	.495	F	.500	F	.495	F	.500	F	.490	F	.490	
G	.505	G	.500	G	.495	G	.505	G	.495	G	.490	G	.495	G	.490	G	.495	G	.495	
H	.505	H	.505	H	.510	H	.500	H	.500	H	.500	H	.500	H	.500	H	.500	H	.500	
I	.510	I	.510	I	.510	I	.495	I	.510	I	.510	I	.515	I	.505	I	.525	I	.525	
J	.500	J	.500	J	.505	J	.540	J	.510	J	.510	J	.510	J	.510	J	.510	J	.510	
K	.500	K	.505	K	.505	K	.505	K	.505	K	.505	K	.505	K	.505	K	.505	K	.505	
L	.505	L	.505	L	.505	L	.505	L	.505	L	.505	L	.505	L	.505	L	.505	L	.505	

COLUMN AVERAGE .504 COLUMN AVERAGE .504 COLUMN AVERAGE .501 COLUMN AVERAGE .501 COLUMN AVERAGE .502 COLUMN AVERAGE .501 COLUMN AVERAGE .500
DENT GOUGE CRACK
WELD

COLUMN 8			COLUMN 9			COLUMN 10			COLUMN 11			COLUMN 12			COLUMN 13			COLUMN 14						
ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE					
A	a	.495	A	a	.500	A	a	.500	A	a	.500	A	a	.505	A	a	.505	A	a	.505				
	b	.495		b	.500		b	.495		b	.505		b	.505		b	.505		b	.505	b	.505		
	c	.490		c	.485		c	.495		c	.500		c	.500		c	.505		c	.505	c	.505	c	.505
	d	.485		d	.505		d	.500		d	.500		d	.500		d	.505		d	.505	d	.505	d	.505
	e	.490		e	.495		e	.500		e	.500		e	.500		e	.505		e	.505	e	.505	e	.505
B	a	.490	B	a	.505	B	a	.500	B	a	.500	B	a	.500	B	a	.505	B	a	.505				
	b	.475		b	.495		b	.500		b	.505		b	.505		b	.505		b	.505	b	.505	b	.505
	c	.490		c	.495		c	.500		c	.495		c	.500		c	.500		c	.505	c	.505	c	.500
	d	.490		d	.500		d	.500		d	.500		d	.500		d	.505		d	.505	d	.500	d	.500
	e	.465		e	.500		e	.500		e	.495		e	.505		e	.505		e	.505	e	.505	e	.505
C	a	.470	C	a	.500	C	a	.425	C	a	.470	C	a	.490	C	a	.495	C	a	.505				
	b	.490		b	.495		b	.470		b	.450		b	.495		b	.500		b	.500	b	.505		
	c	.475		c	.490		c	.510		c	.485		c	.500		c	.500		c	.505	c	.505	c	.505
	d	.490		d	.485		d	.505		d	.505		d	.505		d	.505		d	.505	d	.505	d	.505
	e	.485		e	.485		e	.470		e	.505		e	.505		e	.505		e	.505	e	.500	e	.505
D	CENTER	.540	D	CENTER	.655	D	CENTER	.670	D	CENTER	.665	D	CENTER	.680	D	CENTER	.675	D	CENTER	.660				
E	a	.475	E	a	.495	E	a	.500	E	a	.495	E	a	.500	E	a	.500	E	a	.500				
	b	.490		b	.500		b	.500		b	.495		b	.500		b	.500		b	.500	b	.500		
	c	.480		c	.500		c	.505		c	.500		c	.500		c	.500		c	.505	c	.500		
	d	.495		d	.500		d	.505		d	.505		d	.505		d	.500		d	.505	d	.500		
	e	.485		e	.500		e	.500		e	.490		e	.500		e	.500		e	.500	e	.500		
F	a	.490	F	a	.500	F	a	.505	F	a	.505	F	a	.505	F	a	.505	F	a	.505				
	b	.495		b	.505		b	.505		b	.510		b	.505		b	.505		b	.505	b	.505		
	c	.500		c	.505		c	.510		c	.510		c	.510		c	.505		c	.505	c	.505		
	d	.505		d	.510		d	.510		d	.510		d	.505		d	.505		d	.505	d	.505		
	e	.500		e	.505		e	.510		e	.510		e	.505		e	.505		e	.505	e	.505		
G	a	.500	G	a	.505	G	a	.510	G	a	.505	G	a	.500	G	a	.500	G	a	.500				
	b	.505		b	.510		b	.510		b	.505		b	.505		b	.500		b	.500	b	.500		
	c	.490		c	.505		c	.505		c	.505		c	.500		c	.495		c	.490	c	.490		
	d	.500		d	.505		d	.505		d	.500		d	.495		d	.495		d	.490	d	.490		
	e	.500		e	.505		e	.505		e	.505		e	.500		e	.500		e	.495	e	.495		
H	a	.505	H	a	.500	H	a	.490	H	a	.495	H	a	.490	H	a	.490	H	a	.490				
	b	.495		b	.495		b	.500		b	.495		b	.490		b	.490		b	.490	b	.490		
	c	.490		c	.505		c	.500		c	.500		c	.495		c	.490		c	.490	c	.510		
	d	.490		d	.505		d	.490		d	.500		d	.495		d	.495		d	.495	d	.510		
	e	.495		e	.485		e	.500		e	.495		e	.490		e	.490		e	.495	e	.500		
I	a	.515	I	a	.485	I	a	.535	I	a	.510	I	a	.510	I	a	.505	I	a	.525				
	b	.490		b	.505		b	.525		b	.510		b	.510		b	.510		b	.510	b	.525		
	c	.510		c	.530		c	.525		c	.515		c	.515		c	.515		c	.515	c	.505		
	d	.530		d	.530		d	.530		d	.515		d	.515		d	.515		d	.510	d	.510		
	e	.485		e	.515		e	.530		e	.515		e	.510		e	.510		e	.505	e	.510		
J	a	.525	J	a	.525	J	a	.535	J	a	.520	J	a	.515	J	a	.510	J	a	.500				
	b	.520		b	.535		b	.525		b	.515		b	.510		b	.510		b	.510	b	.505		
	c	.510		c	.515		c	.525		c	.525		c	.520		c	.520		c	.520	c	.510		
	d	.505		d	.525		d	.525		d	.525		d	.515		d	.515		d	.515	d	.510		
	e	.505		e	.525		e	.530		e	.520		e	.510		e	.510		e	.505	e	.505		
K	a	.510	K	a	.510	K	a	.500	K	a	.505	K	a	.520	K	a	.520	K	a	.515				
	b	.505		b	.505		b	.505		b	.505		b	.520		b	.520		b	.515	b	.510		
	c	.510		c	.515		c	.505		c	.505		c	.505		c	.500		c	.500	c	.505		
	d	.510		d	.510		d	.495		d	.500		d	.500		d	.500		d	.505	d	.505		
	e	.500		e	.500		e	.500		e	.500		e	.500		e	.505		e	.505	e	.505		
L	a	.515	L	a	.510	L	a	.510	L	a	.505	L	a	.505	L	a	.500	L	a	.500				
	b	.520		b	.515		b	.505		b	.505		b	.505		b	.500		b	.500	b	.500		
	c	.505		c	.505		c	.505		c	.505		c	.505		c	.505		c	.505	c	.500		
	d	.505		d	.505		d	.505		d	.505		d	.505		d	.505		d	.500	d	.500		
	e	.510		e	.510		e	.510		e	.505		e	.505		e	.500		e	.500	e	.500		
COLUMN AVERAGE	.497	COLUMN AVERAGE	.505	COLUMN AVERAGE	.505	COLUMN AVERAGE	.503	COLUMN AVERAGE	.504	COLUMN AVERAGE	.504	COLUMN AVERAGE	.504											

COLUMN 15			COLUMN 16			COLUMN 17			COLUMN 18			COLUMN 19			COLUMN 20			COLUMN 21		
ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	
A	.505	A	.504	A	.505	A	.505	A	.505	A	.505	A	.504	A	.505	A	.502			
B	.503	B	.504	B	.505	B	.505	B	.505	B	.505	B	.504	B	.505	B	.505			
C	.503	C	.505	C	.503	C	.503	C	.504	C	.504	C	.506	C	.507					
D	CENTER .665	D	CENTER .660	D	CENTER .665	D	CENTER .645	D	CENTER .655	D	CENTER .670	D	CENTER .675							
E	.502	E	.500	E	.500	E	.500	E	.500	E	.500	E	.502	E	.500					
F	.505	F	.505	F	.505	F	.505	F	.505	F	.506	F	.506	F	.506					
G	.495	G	.496	G	.502	G	.502	G	.503	G	.505	G	.503							
H	.500	H	.500	H	.507	H	.505	H	.506	H	.506	H	.505							
I	.509	I	.514	I	.510	I	.510	I	.510	I	.512	I	.513							
J	.507	J	.507	J	.507	J	.505	J	.506	J	.505	J	.505							
K	.507	K	.505	K	.505	K	.505	K	.506	K	.506	K	.505							
L	.496	L	.495	L	.495	L	.494	L	.495	L	.497	L	.496							
COLUMN AVERAGE	.503	COLUMN AVERAGE	.503	COLUMN AVERAGE	.504	COLUMN AVERAGE	.504	COLUMN AVERAGE	.504	COLUMN AVERAGE	.505	COLUMN AVERAGE	.504							

COLUMN 22			COLUMN 23			COLUMN 24			COLUMN 25			COLUMN 26			COLUMN 27		
ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE	ROW	AVERAGE		
A	.505	A	.505	A	.505	A	.505	A	.505	A	.505	A	.505	A	.505		
B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	B	.505	B	.505		
C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	C	.505	C	.505		
D	.680	D	.675	D	.675	D	.670	D	.655	D	.655	D	.655	D	.655		
E	.505	E	.505	E	.505	E	.505	E	.505	E	.505	E	.505	E	.505		
F	.505	F	.505	F	.505	F	.505	F	.505	F	.505	F	.505	F	.505		
G	.505	G	.505	G	.505	G	.505	G	.505	G	.505	G	.505	G	.505		
H	.495	H	.500	H	.505	H	.505	H	.505	H	.505	H	.505	H	.505		
I	.505	I	.505	I	.505	I	.505	I	.505	I	.505	I	.505	I	.505		
J	.505	J	.505	J	.505	J	.505	J	.505	J	.505	J	.505	J	.505		
K	.505	K	.505	K	.505	K	.505	K	.505	K	.505	K	.505	K	.505		
L	.495	L	.495	L	.495	L	.495	L	.495	L	.495	L	.495	L	.495		
COLUMN AVERAGE	.504	COLUMN AVERAGE	.504	COLUMN AVERAGE	.505	COLUMN AVERAGE	.506	COLUMN AVERAGE	.506	COLUMN AVERAGE	.506	COLUMN AVERAGE	.505				