

Detail of long exposed section of [redacted]

Flow Direction
~ 1 ft/s

Detail of exposed and spanning [redacted]

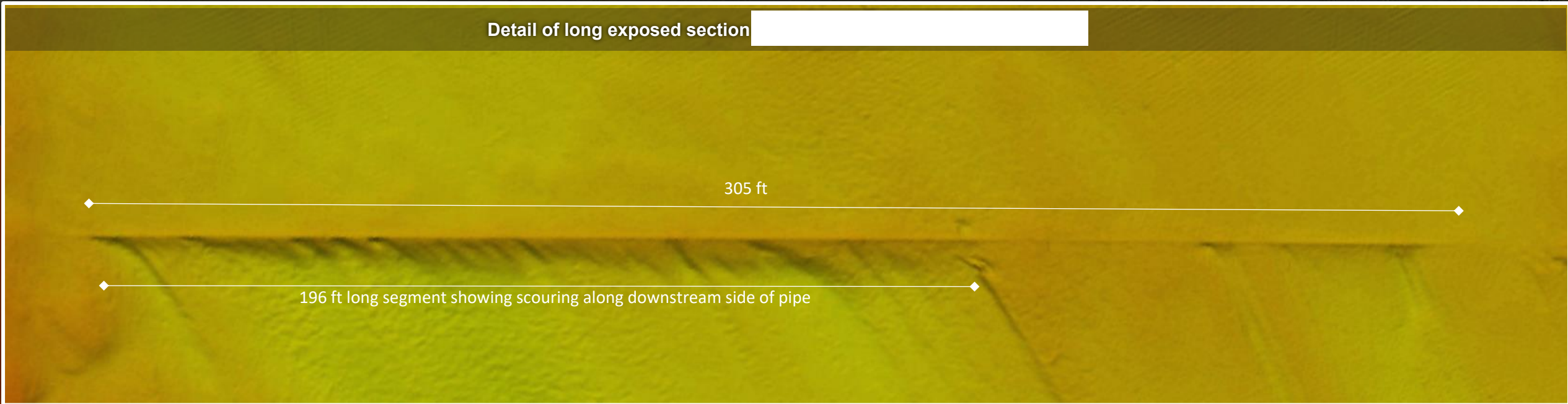
Detail of scouring along [redacted]

Detail of crowning [redacted]



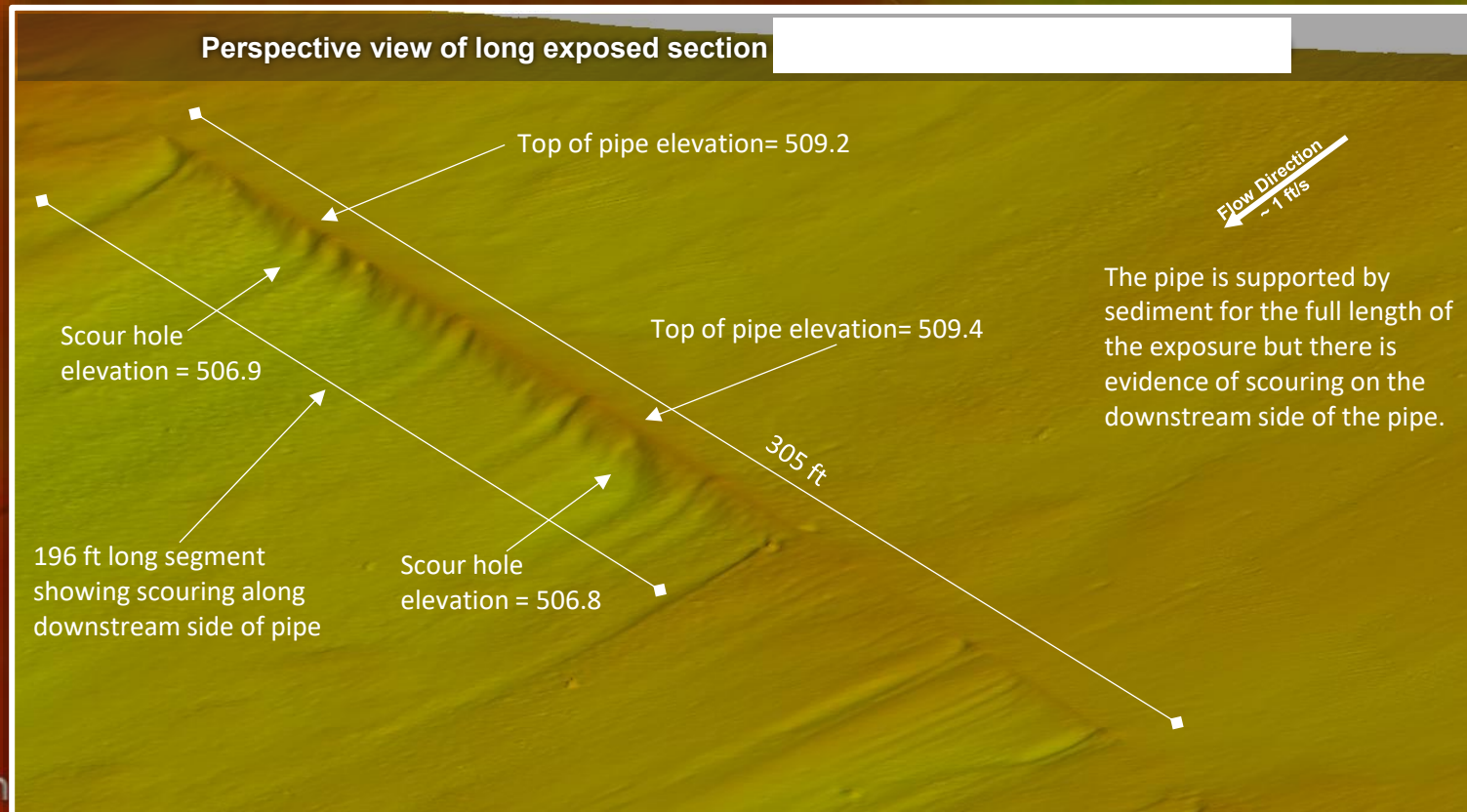
DOC MAPPING	DEPTH OF COVER STUDY
	DATE(S): 07/29/20-07/30/20
Multi-Beam Sonar Imagery	
PREPARED FOR:	

Detail of long exposed section



Flow Direction
~ 1 ft/s

Perspective view of long exposed section



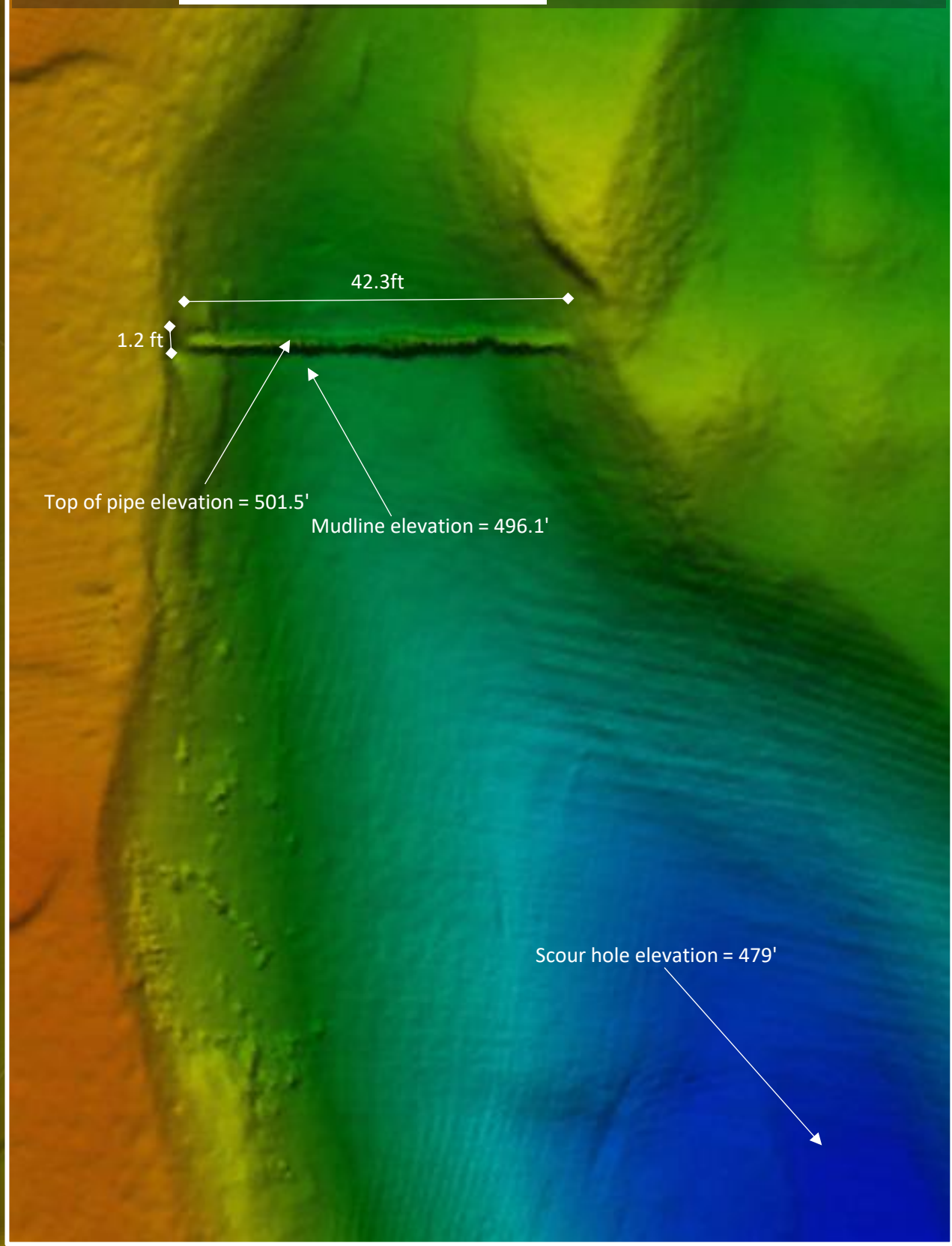
DOC MAPPING

DEPTH OF COVER STUDY
DATE(S): 07/29/20-07/30/20

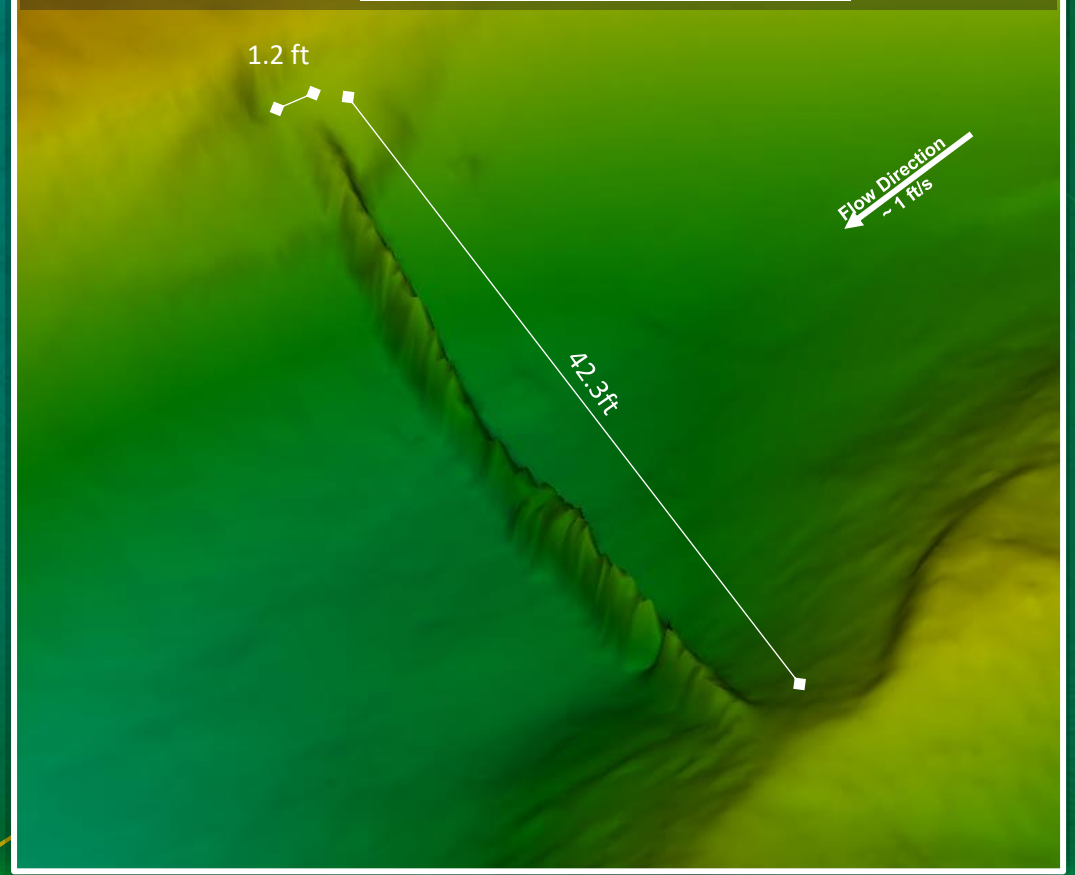
Multi-Beam Sonar Imagery

PREPARED FOR:

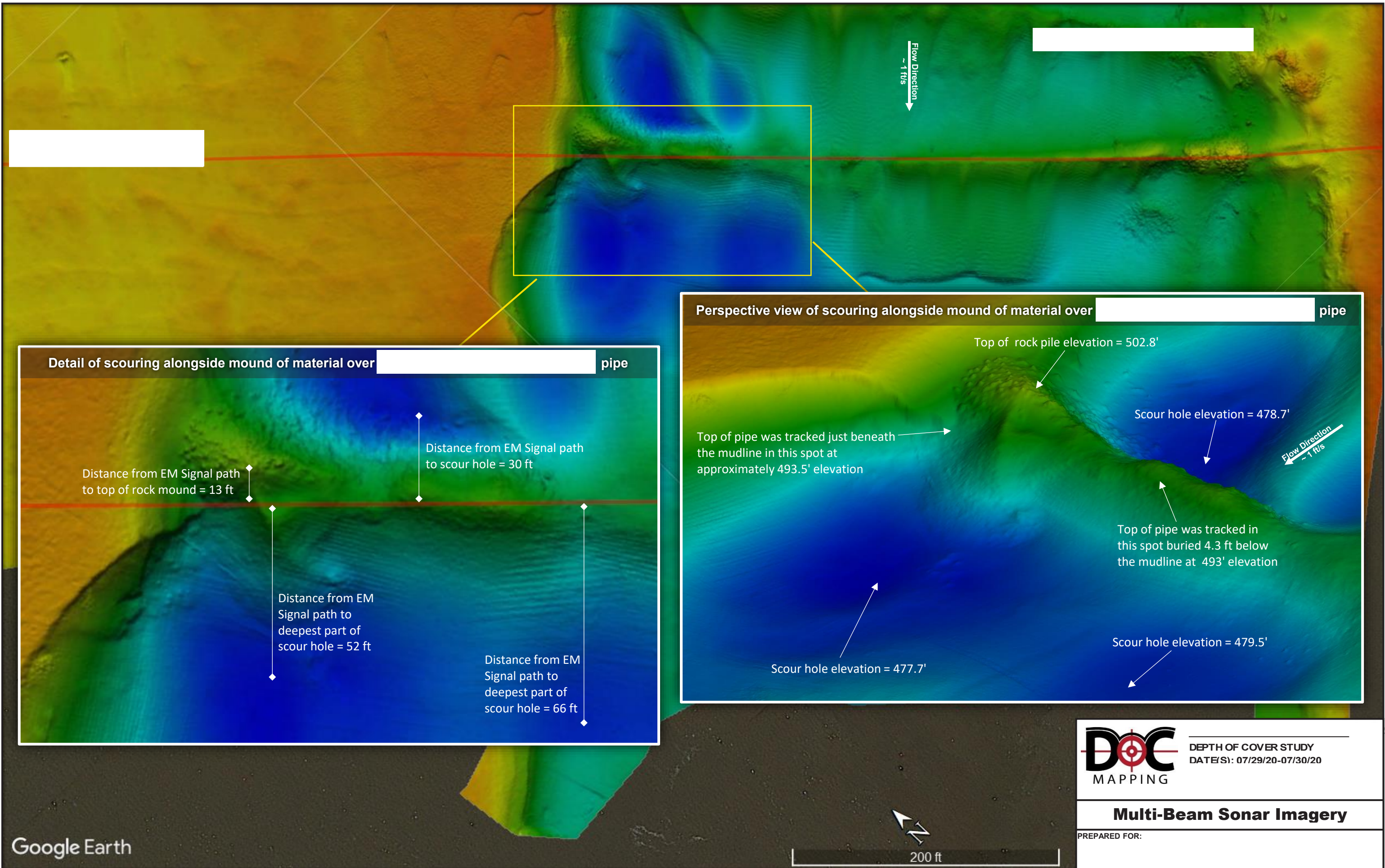
Detail of [redacted] exposed and spanning section



Perspective of [redacted] span



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[Redacted]

[Redacted]

Flow Direction
~ 1 ft/s

Detail of scouring alongside mound of material over [Redacted] pipe

Distance from EM Signal path to top of rock mound = 13 ft

Distance from EM Signal path to scour hole = 30 ft

Distance from EM Signal path to deepest part of scour hole = 52 ft

Distance from EM Signal path to deepest part of scour hole = 66 ft

Perspective view of scouring alongside mound of material over [Redacted] pipe

Top of rock pile elevation = 502.8'

Scour hole elevation = 478.7'

Top of pipe was tracked just beneath the mudline in this spot at approximately 493.5' elevation

Flow Direction
~ 1 ft/s

Top of pipe was tracked in this spot buried 4.3 ft below the mudline at 493' elevation

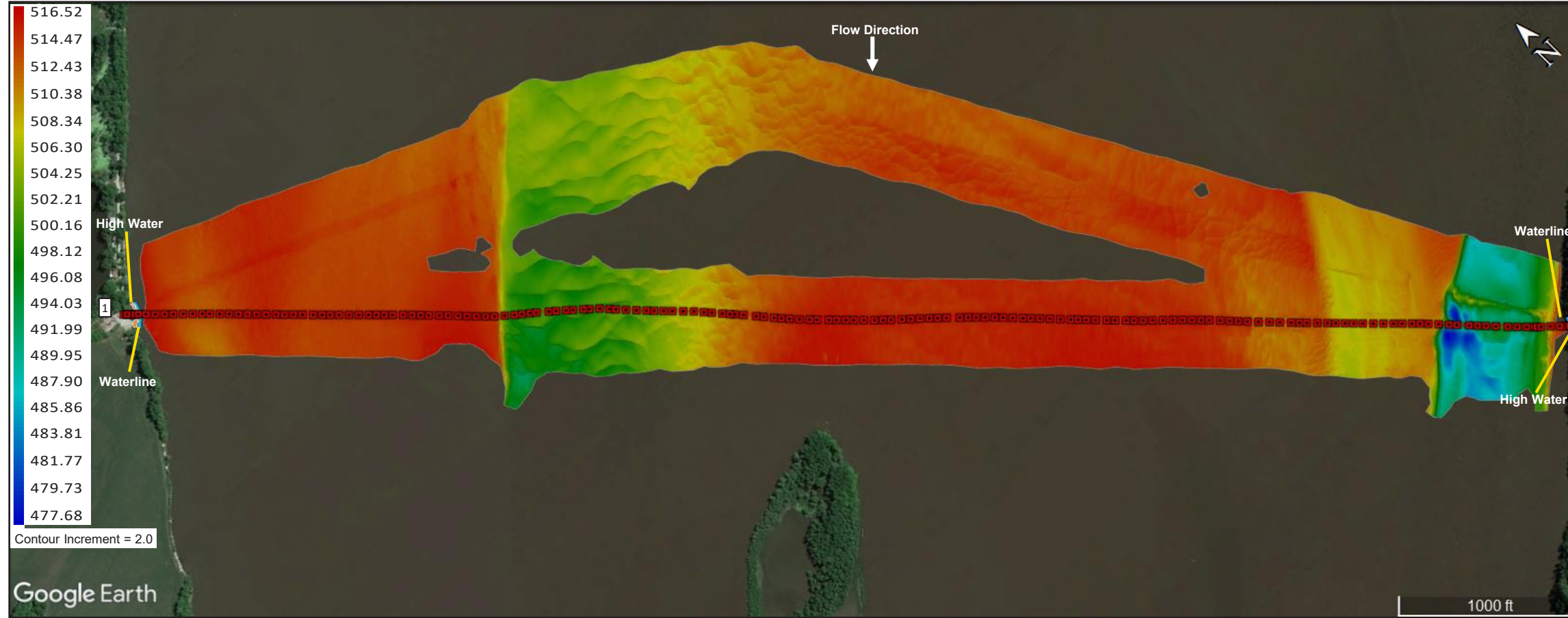
Scour hole elevation = 477.7'

Scour hole elevation = 479.5'



200 ft

PLAN VIEW

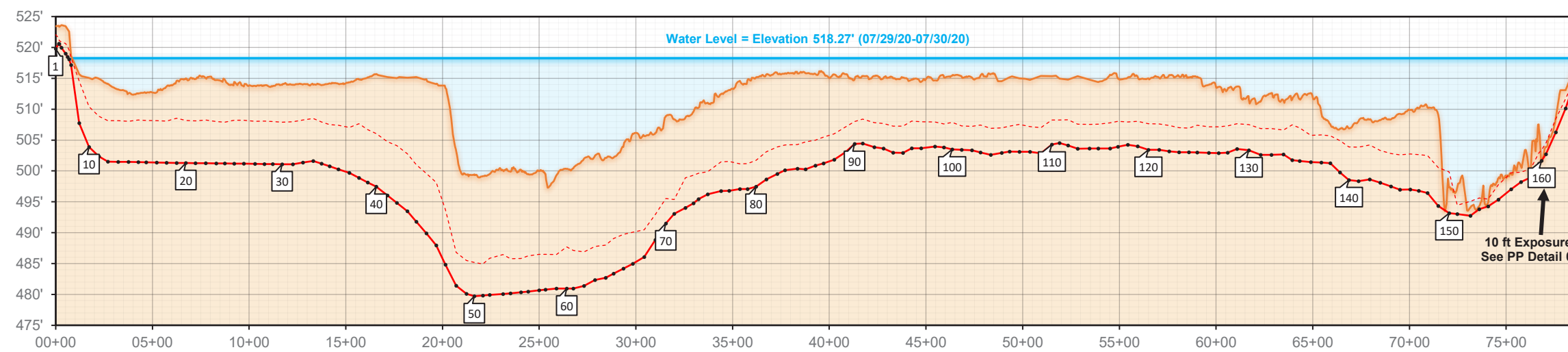


DoC DATA

Pt. ID	STA#	Easting (ft)	Northing (ft)	Topo Elev. (ft)	T.O.P. Elev. (ft)	DoC (ft)	MS DoC* (ft)
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Due to a high number of pipeline depth of cover points in this crossing, all point data can be referenced in the provided spreadsheet.							
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PROFILE VIEW



Land Data
Underwater Data
Italics = Projected topo or bathymetric points and DoC / MSDoC

LEGEND	DEFINITIONS	GEODETIC SETTINGS	PLOT NOTES	CONTROL POINT VERIFICATION
<ul style="list-style-type: none"> Water Level Topo / Bathymetry Projected Topo / Bathymetry +VSDV T.O.P. Point No Data (obstruction, loss of signal) Overlaid Data (if applicable) 	<p>DoC - Depth of Cover</p> <p>T.O.P. - Top of Pipe (or Cable, Conduit, etc.)</p> <p>+VSDV - Positive aspect of vertical confidence level. Represents a 95% likelihood that the true position of the target lies deeper than this point.</p> <p>MSDoC* - Minimum Statistical Depth of Cover. This reflects the measured distance from the +VSDV component to the Topo / Bathymetry line.</p>		<p>A single-beam sonar and a multibeam sonar were used to determine bathymetric elevations in the area surrounding this crossing site. See Detail Sheets 01 & 02 for detailed profile and plan views where the pipe crosses beneath the deeper sections of the waterway.</p>	



DEPTH OF COVER STUDY
DATE(S): 07/29/20-07/30/20

PLAN / PROFILE

PREPARED FOR: