Shellfish Lease Investigation Report						
Investigation Date	4/25/2023					
Applicants name	Zack Credle					
Lease Number	23-004BL/23-005WC					
County	Hyde					
Waterbody/location	Germantown Bay					
Proposed Lease Size (acres)	1.26					
Lease Type	Bottom/Water Column					
Investigation Team	D. Walters/G. Stilson/S. Tripp/R. Farnell					
Gear Used	766 - Patent Tong					
Sediment Type	8 - sand (sand in hard and firm strata)					
Bottom Composition	A - shell					
Depth (m)	1.5					
Tidal Stage	Wind					
Water Temperature (°C)	18.7					
Salinity (ppt)	20.31					
Dissolved Oxygen (mg/L)	17.8					
Comments on SAV in or around Proposed Lease location Other Species Collected In PNA? In Polluted Area? In Mechanical Clam Harvest	Permanent Secondary Nursery Area No - Approved					
Area?	No					
In Mechanical Methods						
Prohibited Area	Yes					
Other Comments	Verified modified pole locations on 6/29/2023					

Application Coordinates		Investigation	n Coordinates	Modified Actual		
Application Coordinates		investigation	Coordinates	Coordinates		
35.40400000	-76.46255000	35.40363033	-76.46248517	35.40368776	-76.46247591	
35.40363300	-76.46248300	35.40399467	-76.46252950	35.40344610	-76.46404057	
35.40345000	-76.46405000	35.40344283	-76.46402500	35.40377676	-76.46409574	
35.40380000	-76.46410000	35.40378483	-76.46408267	35.40399110	-76.46254724	

Coordinate Changes 2 of 13

#### Proposed Shellfish Lease Biological Investigation Sampling Data

Applicant: Zack Credle Proposed Lease #: 23-004BL/23-005WC Date: 4/25/2023

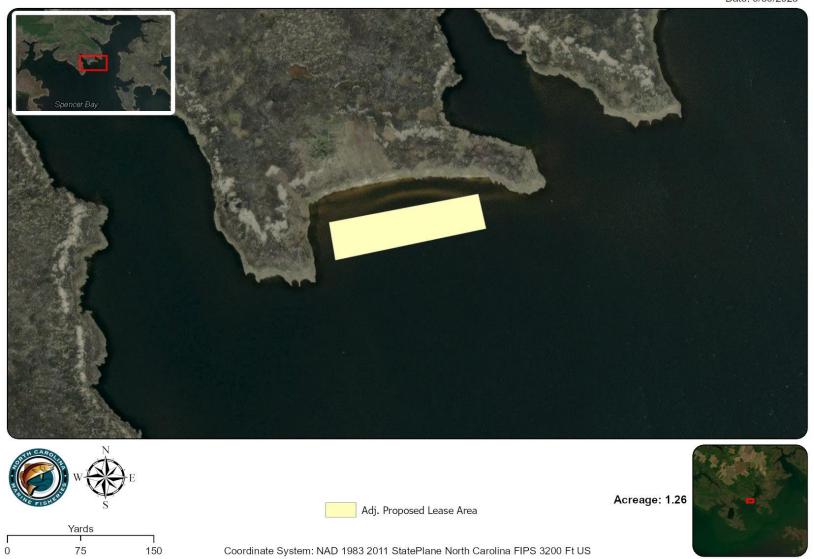
Lease size:	1.26	acres		# of Samples:	31			
Sample #	Presence of SAV Density class	# of Oysters (Eastern Oyster)	# of Clams (Quahogs)	# of Scallops	Date collected	Comments	Bottom Comp.	Sediment Type
1	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
2	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
3	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
4	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
5	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
6	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
7	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
8	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
9	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
10	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
11	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
12	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
13	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
14	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
15	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
16	0	2	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
17	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
18	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
19	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
20	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
21	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
22	0	1	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
23	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
24	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
25	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
26	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
27	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
28	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
29	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
30	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
31	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata)
	SAV	Oysters (Eastern Oyster)	Clams (Quahogs)	Scallops				
	0				0%	OF SAMPLES CONTAINED S	AV	
TOTAL	OF EACH SPECIES	3	0	0				
TOTAL BUS	HELS PER SPECIES	0.01	0	0	1.31	TOTAL BUSHELS OF SHELLE	ISH PER ACRE	

Sample Data - Mod 3 of 13

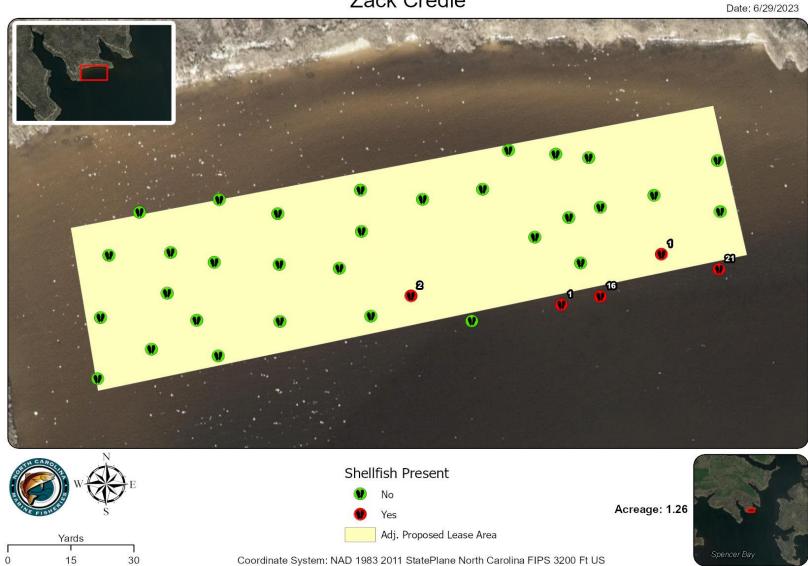
Date: 6/30/2023 35 24 239 46571N 76 27 75 283 439 W 35 24 22660574N 76 27 84574433W 35 24.22126574N 76 27.74855443W 35 24:20676574N 76 27:84243436W -76.46247591 35.40368776 -76.46404057 35.40344610 -76.46409574 35.40377676 -76.46254724 35.40399110 Adj. Proposed Corner Points Acreage: 1.26 Adj. Proposed Lease Area Yards 15 Coordinate System: NAD 1983 2011 StatePlane North Carolina FIPS 3200 Ft US

Investigation Map - Mod 4 of 13

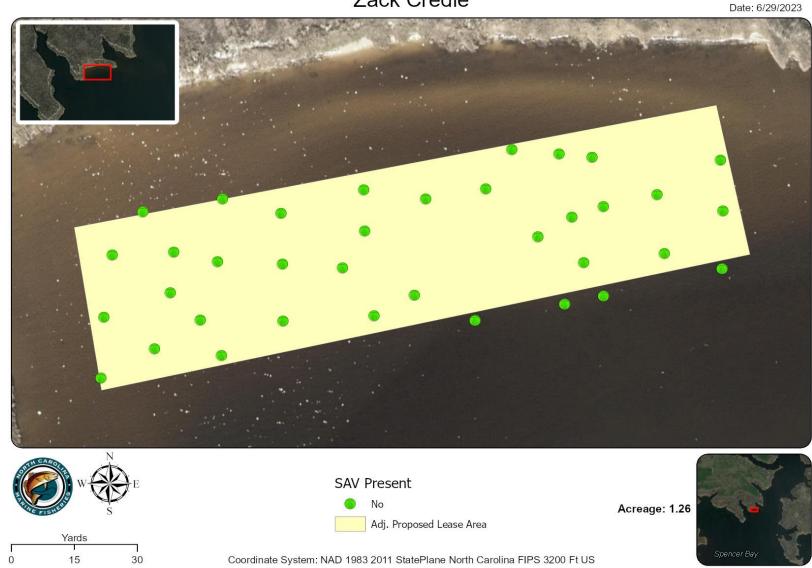
Date: 6/30/2023



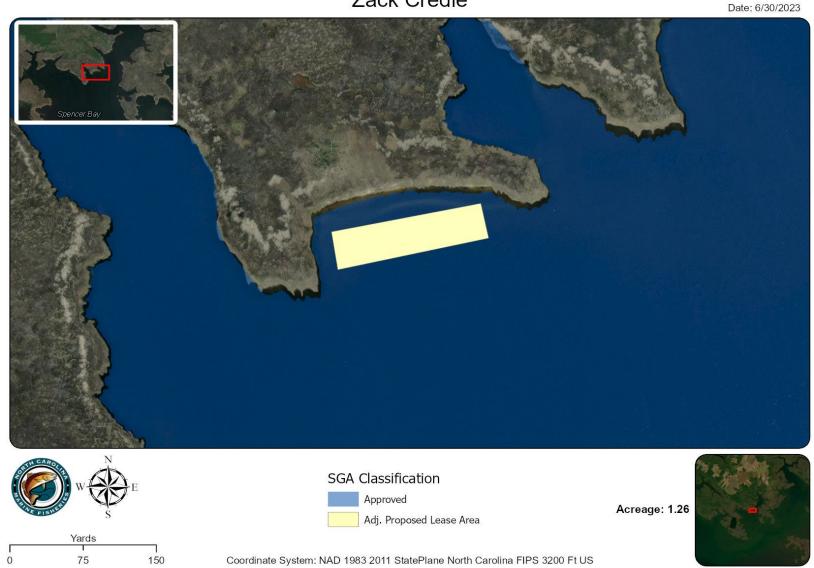
Investigation Map - Mod 5 of 13



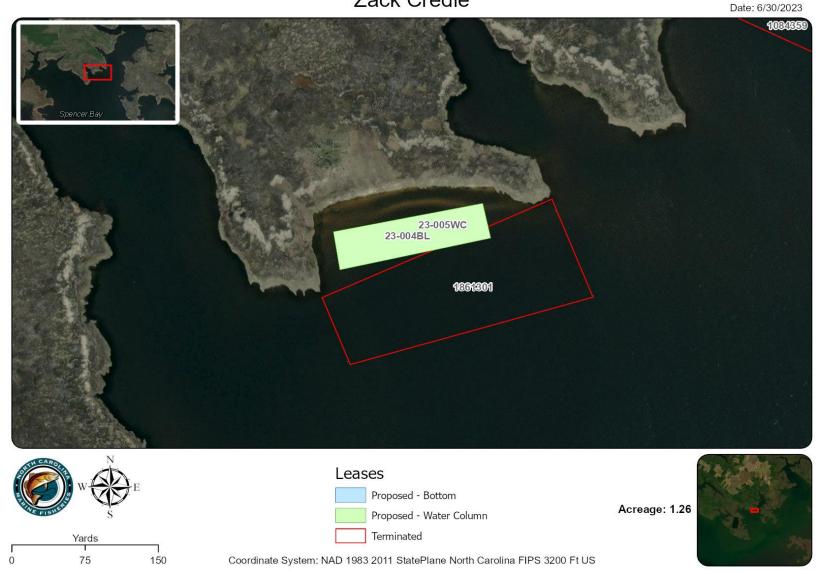
Investigation Map - Mod 6 of 13



Investigation Map - Mod 7 of 13



Investigation Map - Mod 8 of 13



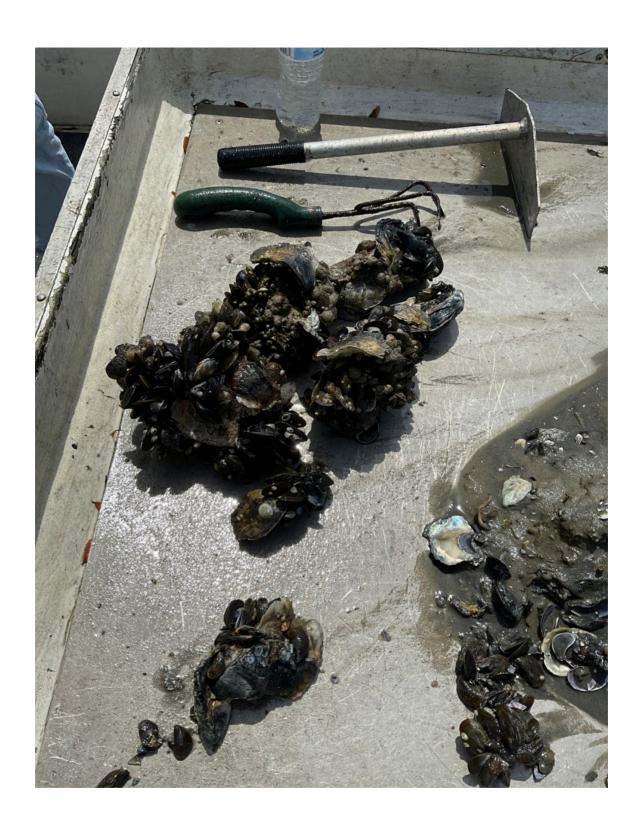
Investigation Map - Mod 9 of 13









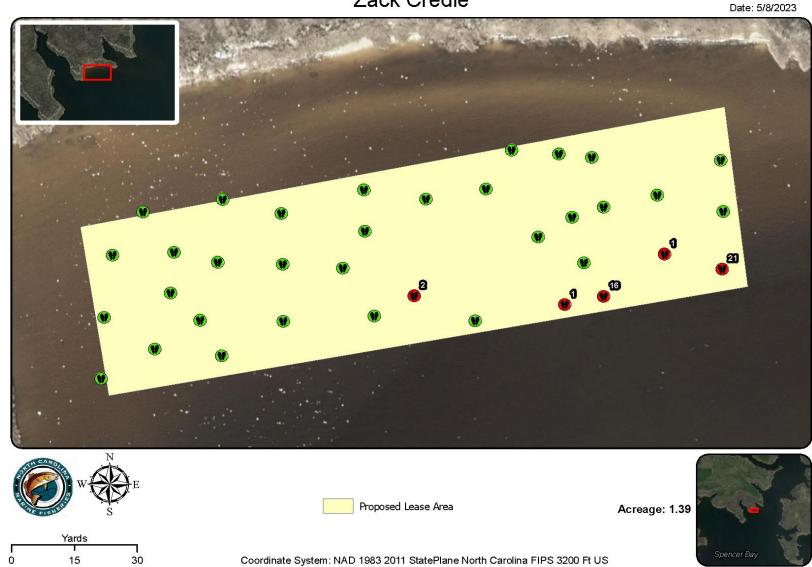


#### Proposed Shellfish Lease Biological Investigation Sampling Data

Applicant: Zack Credle Proposed Lease #: 23-004BL/23-005WC Date: 4/25/2023

Lease size:	1.39	acres		# of Samples:	36			
Sample #	Presence of SAV  Density class	# of Oysters (Eastern Oyster)	# of Clams (Quahogs)	# of Scallops	Date collected	Comments	Bottom Comp.	Sediment Type
1	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata
2	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata
3	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata
4	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata
5	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strata
6	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
7	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
8	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
9	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
10	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
11	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
12	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
13	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strat
14	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
15	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
16	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strat
17	0	2	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strat
18	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
19	0	0	0	0	4/25/2023	NA	A - shell	8 - sand (sand in hard and firm strate
20	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strata
21	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strate
22	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strate
23	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strata
24	0	1	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
25	0	1	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strate
26	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
27	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
28	0	16	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
29	0	21	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
30	0	0	0	0	4/25/2023	NA.	A - shell	8 - sand (sand in hard and firm strat
31	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
32	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
33	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
34	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
35	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strat
36	0	0	0	0	4/25/2023	NA NA	A - shell	8 - sand (sand in hard and firm strate
					, :/			
	SAV	Oysters (Eastern Oyster)	Clams (Quahogs)	Scallops				
	0	5,3(61)	(waaanoga)		0%	OF SAMPLES CONTAINED S	AV	
ΤΟΤΔΙ	OF EACH SPECIES	41	0	0				
	HELS PER SPECIES		0	0	15.36361111	TOTAL BUSHELS OF SHELLE		

Sample Data 12 of 13



Lease Investigation Map 13 of 13