

No. 9.

From. D. 5431

to D. 5475

From H-4930

to H-

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
M. Down.	Up.	M.			M. Down.	Up.	M.	
				0				
				100				
				200				
				300				
				400				
				500				
				600				
				700				
				800				
				900				
				1000				
				1100				
				1200				
				1300				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
				2200				
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				2400				
				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
				3300				
				3400				
				3500				
				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

Dredge } No. 5431 Date, Sept. 8, 1909
Hydrog. }

Sdg. Mch. Tanner Reel 177 Shot Lead 35 lbs.

Turns 60 Cor'n Depth 51 fms.

Sdg. Cup Arming Amt. Bot'm Sample mud trace

Character of Bottom sn

Thermom. { Make ~~None used~~ Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 83 Time 2:50 P } Air { 84
83 Time 3:30 P } 84

Density: Surf. fms.

Wind: Direction North Force 1-2

Baromet. 29.82 Amt. of Clouds 1 State of Sea 8

Weather bcy.

Direction and Force of Current { Surface Bottom

Tide

General Locality East Coast Palawan

Dalaganem I (NW) S 76 E, Borandagan (NW) 28

Position 10-38-45 N - 120-12 45 E

Chart used: No. 4717 Ed'n

Drift: Direction S 46 W Distance 0.8

Depth of Haul bottom

Apparatus and Rig used 6' McCormick trawl

Time towing h. 20 m.

Remarks:

Deck Officer Mr. Hazard Recorder Robert

SOUNDING WIRE.

DREDGING CABLE.

FMS.

P. M. Down. | Up. | P. M.

P. M. Down. | Up. | P. M.

2 47 10 | 2 50 00

2 48 40 | 2 48 50

0

51 100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

2 50 30 | 3 17 30

2 54 00 | 3 14 00

59

N 28 E

6 orandagos (N or) N 28 E

4.8 m

Dredge } No. 5432 ✓ Date, APR. 8, 1909
Hydrog. }

Sdg. Mch. Junner Reel JN Shot } 25 lbs.
Lead }

Turns 60 Cor'n _____ Depth 51 fms.

Sdg. Cup Arming Amt. Bot'm Sample sm trace

Character of Bottom sn

Thermom. { Make Thomson Cor'n { Instr. _____
No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 83 Time 3:30 P } Air { 84
Time _____ } _____

Density: Surf. _____ fms. _____

Wind: Direction various Force 0-1

Baromet. 29.84 Amt. of Clouds 1 State of Sea 8

Weather bcy

Direction and Force of Current { Surface _____
Bottom _____

Tide _____

General Locality East Coast Palawan

Position 10-37-50N-170-12'00E

Chart used: No. 4717 Ed'n _____

Drift: Direction SE Distance 1.3

Depth of Haul bottom

Apparatus and Rig used as before

Time towing _____ h. 20 m.

Remarks: _____

Deck Officer Mr. Hazard Recorder Roberts

SOUNDING WIRE.				FMS.	DREDGING CABLE.							
<i>P</i> M. Down.	Up.		M.		<i>P</i> M. Down.	Up.		<i>P</i> M.				
3	24	10	3	27	00	3	29	00	3	51	45	
3	25	45	3	25	45	100	3	32	30	3	54	00
					200	3	33	30	3	53	00	
					300							
					400							
					500							
					600							
					700							
					800							
					900							
					1000							
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					3800							
					3900							
					4000							
					4100							
					4200							
					4300							
					4400							
					4500							
					4600							
					4700							
					4800							
					4900							

60

6 orandagosch (nm) n 30 E

5.7 m

Dredge } No. 5533 Date, Sept. 8, 1909
Hydrog. }

Sdg. Mch. T.N. Reel Shot Lead 2 lbs.

Turns 64 Cor'n Depth 54 fms.

Sdg. Cup Arming Amt. Bot'm Sample Arming fms.

Character of Bottom gn m co S

Thermom. { Make - Cor'n { Instr. -
 { No. - { Stem. -

Bottom Reading - Cor'd Temp. -

Temp. Surf. { 83° Time 4:16p } Air { 83°
 { 82° Time 4:34p } { 83°

Density: Surf. - fms. -

Wind: Direction Calm Force 0

Baromet. 29.83 Amt. of Clouds 2 State of Sea S

Weather fog.

Direction and Force of Current { Surface -
 { Bottom -

Tide -

General Locality East coast of Palawan

Danlaugonem I (S) 110° E. Kawandagan I. 135 E

Position 10-37-30 N - 120-11-05 E

Chart used: No. 4717 Ed'n -

Drift: Direction S 44 W Distance 1.2

Depth of Haul Bottom

Apparatus and Rig used AS before

Time towing - h. 20 m.

Remarks:

Deck Officer Mr. Polange Recorder J. J. Smith

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
P. M. Down.	Up.	P. M.		P. M. Down.	Up.	P. M.
✓ 03 40	4 06 30		0	✓ 11 25	4 39 35	
✓ 04 15	4 04 20		64 100	15 00	36 50	
			120 200	✓ 15 45	4 36 00	
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
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			2800			
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			3000			
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			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

61

Corandagos (Or Or) Or 356

6.5 m

Dredge } No. 5534 Date, Apr 8, 09, 19

Sdg. Mch. — Reel — Shot } — lbs.
Lead }

Turns — Cor'n — Depth — fms.

Sdg. Cup — Amt. Bot'm Sample —

Character of Bottom —

Thermom. { Make — Cor'n { Instr. —
 { No. — { Stem. —

Bottom Reading — Cor'd Temp. —

Temp. Surf. { 83° Time 7:10 P. } Air { 83°
 { 83° Time 7:31 P. } { 83°

Density: Surf. — fms —

Wind: Direction NNE Force 1

Baromet. 29.87 Amt. of Clouds 2 State of Sea S

Weather Clear

Direction and Force of Current { Surface —
 { Bottom —

Tide —

General Locality

Position

Chart used: No. — Ed'n —

Drift: Direction — Distance —

Depth of Haul Surface

Apparatus and Rig used 5-ft Surface Net

Time towing — h. 20 m.

Remarks: No sounding taken.

Deck Officer W. Johnson Recorder A. M. H. T.

SOUNDING WIRE.			FMS.	DREDGING CABLE.					
M. Down.	Up.	M.		M. Down.	Up.	M.			
			0	7	09	00	7	31	00
			100						
			200						
			300						
			400						
			500						
			600						
			700						
			800						
			900						
			1000						
			1100						
			1200						
			1300						
			1400						
			1500						
			1600						
			1700						
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			2700						
			2800						
			2900						
			3000						
			3100						
			3200						
			3300						
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			3600						
			3700						
			3800						
			3900						
			4000						
			4100						
			4200						
			4300						
			4400						
			4500						
			4600						
			4700						
			4800						
			4900						

Dredge } No. 5434 Date, Sept. 8, 1909

Sdg. Mch. - Reel - Shot/Lead - lbs.

Turns - Cor'n - Depth - fms.

Sdg. Cup - Amt. Bot'm Sample -

Character of Bottom -

Thermom. { Make - Cor'n { Instr. - No. - Stem. -

Bottom Reading - Cor'd Temp. -

Temp. Surf. { 83° Time 7.57 P. } Air { 83° 83°

Density: Surf. - fms. -

Wind: Direction N W E Force 1

Baromet. 29.87 Amt. of Clouds 3 State of Sea S

Weather Clear

Direction and Force of Current { Surface - Bottom -

Tide -

General Locality (Dark)

Position 10-46-45N-120-22-45E

Chart used: No. 4717 Ed'n -

Drift: Direction N 70 E Distance 0.2

Depth of Haul Surface

Apparatus and Rig used 5-ft Surface Net

Time towing - h. 20 m.

Remarks: No sounding.

Deck Officer Mr. Johnson Recorder A. M. Kit -

Mr. Rohauge C. B. Long

SOUNDING WIRE.

M. Down. Up. M.

FMS.

DREDGING CABLE.

M. Down. Up. M.

0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900

7 10 10 5 12 10

62

Corandagos & (M) 8 63M

7.6 m

Dredge } No. 5-435 Date, Apr 7, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 83° Time 7:51 } Air { 83°
 { _____ Time _____ } { _____

Density: Surf. _____ fms. _____

Wind: Direction *Various* Force *0-1*

Baromet. *29.87* Amt. of Clouds *2* State of Sea *2*

Weather *bc*

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality _____

Cape H. x. b. s., Quincy J. (sw) D. 30 W

Position *40-50-00 N 120-58-10 E*

Chart used: No. *4717* Ed'n *Feb 03*

Drift: Direction *N x N* Distance *.7 m*

Depth of Haul *Surface*

Apparatus and Rig used *5' surface net*

Time towing _____ h. _____ m.

Remarks: _____

Deck Officer *Mr. Hazard* Recorder *C. H. Long*

SOUNDING WIRE.

FMS.

DREDGING CABLE.

M. DOWN. UP. M.

P.M. DOWN. UP. P.M.

0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900

7 30 00 8 10 40

Begin
tabula
1163

(66)

6

6 myo Lt

2.3 68 G
2.3 M

Dredge } No. 5436 Date, May 7, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 32 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 8.6 Time 7:05 } Air { 85 }
Time _____

Density: Surf. _____ fms. _____

Wind: Direction SSW Force 3

Baromet. 29.81 Amt. of Clouds 9 State of Sea 8

Weather haul

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality North Entrance ^{Bay} Manila Pt

Course or St N 83 E Pt NW of Horn Pt 12.2 W

Position 14-27-37 N - 120-29-48 E

Chart used: No. 4240 Ed'n Feb 07

Drift: Direction West Distance .5

Depth of Haul Intermediate surface

Apparatus and Rig used 10' Inter 200 lb wt.

Time towing _____ h. 15 m.

Remarks: _____

Deck Officer Mr Hazard Recorder Roberts

SOUNDING WIRE.

DREDGING CABLE.

M. DOWN. UP. M.

FMS.

P M. DOWN. UP. P M.

28 fms

7 0300 7 18 00

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Bonregidor Lt.

N 83 E

5.7 m

67

Dredge } No. 5437 Date, May 8, 1908
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns $\frac{1}{2}$ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86 Time 10:30 } Air { 88
 { 86 Time 11:45 } { 89

Density: Surf. _____ fms. _____

Wind: Direction Calm Force 0

Baromet. 29.85 Amt. of Clouds 4 State of Sea 8

Weather haze

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality West coast Luzon

Hermana Mayer I (K) K 5-4 Hermana

Position 15-45-5.4 N - 119-42-45 E

Chart used: No. 4210 Ed'n _____

Drift: Direction N 61 W Distance 0.9

Depth of Haul 600 fms

Apparatus and Rig used 5000 mt. 6 plankton nets 100 gms apart top on 100 gms under surface. (Serial)

Time towing h. 36 m.

Remarks: K 2 over net

apparatus = 6 K 6
Depth = 100-600 fms

Deck Officer Mr. Bohan Recorder Robert

SOUNDING WIRE.			FMS.	DREDGING CABLE.					
M. Down.	Up.	M.		M. Down.	Up.	M.			
			0	9	58	10	11	34	50
			100	10	01	10		28	00
			200		05	45		24	40
			300		10	00		19	55
			400		10	05		15	30
			500		18	00	11	08	40
			600	10	27	00	11	03	35
			700						
			800						
			900						
			1000						
			1100						
			1200						
			1300						
			1400						
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			2500						
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			2700						
			2800						
			2900						
			3000						
			3100						
			3200						
			3300						
			3400						
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			3600						
			3700						
			3800						
			3900						
			4000						
			4100						
			4200						
			4300						
			4400						
			4500						
			4600						
			4700						
			4800						
			4900						

69

Hermosa Mayor Lt 069 E

4.9 m

See next page

contin.

Dredge } No. 5437 Date, May 8, 1909

Hydrog. } Sdg. Mch. 20 Reel Shot/Lead lbs.

Turns Cor'n Depth fms.

Sdg. Cup Amt. Bot'm Sample

Character of Bottom

Thermom. { Make Cor'n { Instr. No. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 86 Time 11:45 } Air { 89 86° Time 12:35 } 86°

Density: Surf. fms.

Wind: Direction variable Force 0-1

Baromet. 29.85 Amt. of Clouds 3 State of Sea 8

Weather haze

Direction and Force of Current { Surface Bottom

Tide

General Locality } See preceding page. Position

Chart used: No. Ed'n

Drift: Direction Distance

Depth of Haul 450 fms.

Apparatus and Rig used 10' Intermediate Sack net.

Time towing h. 27 m.

Remarks:

Deck Officer Mr. Bohanck Recorder Roberts Mr. Johnson Stahil - 11-1023

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0	11 44 25	12 55 30	
			100	48 15	52 30	
			200	51 30	49 30	
			300	54 50	46 30	
			400	57 35	43 20	
			500	12 00 30	40 15	
			600	03 30	37 10	
			700	12 06 30	2 33 50	
			800			
			900		27 m 20 sec	
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
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			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 5438 Date, May 8, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Shot/Lead 35 lbs.

Turns 29 Cor'n Depth 297 fms.

Sdg. Cup Siegsbee Amt. Bot'm Sample about 2 g.

Character of Bottom gm M

Thermom. { Make N. 3. Cor'n { Instr. .8
 { No. 108015- { Stem.

Bottom Reading 47° Cor'd Temp. 46.2

Temp. Surf. { 87° Time 4:05 } Air { 87°
 { 87 Time 4:44 } { 87

Density: Surf. _____ fms. _____

Wind: Direction Various Force 1-2

Baromet. 29.75 Amt. of Clouds 6 State of Sea X

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality West Coast Luzon
Tambobo Pt. N 1W - Caiman Pt.

Position 15-54-42 N - 119-44-42 E

Chart used: No. 4210 Ed'n -

Drift: Direction SSE Distance 1.2 mi

Depth of Haul bottom

Apparatus and Rig used 12 ft Agassiz mud-
bag, tailwt., 2 wing nets, 4 pl. flts.

Time towing h. 20 1/2 m.

Remarks:

Deck Officer Mr. Johnson Recorder J. M. T. T. T.

Mr. Hazard C. B. Long

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
P	M. DOWN.	UP.	P. M.		P	M. DOWN.	UP.	P. M.
3	47 25	3	54 00	0	4	02 00	4	56 15
	48 25		53 20	100	4	05 30	4	53 20
	49 20		52 30	200	4	10 05	4	50 10
3	50 20	3	51 40	300	4	13 00	4	46 55
				400	4	15 40	4	43 50
				500	4	19 30	4	40 00
				600				
				700				
				800				
				900				
				1000				
				1100				
				1200				
				1300				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
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				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
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				3500				
				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

70

N. 84 E.

Hermans Ind Lt

S 21 E

7.5 m

Dredge } No. 5439 Date, May 9, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Shot/Lead 35 lbs.

Turns 940 Cor'n - Depth 940 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample 2 oz.

Character of Bottom fm TT

Thermom. { Make N.3. Cor'n { Instr. 1.8
No. 108075 Stem.

Bottom Reading 37.5° Cor'd Temp. 36.7

Temp. Surf. { 87° Time 10:45 Air { 89°
87° Time 11:07 87°

Density: Surf. fms.

Wind: Direction Various Force 0-1

Baromet. 29.85 Amt. of Clouds 3 State of Sea S

Weather bcy

Direction and Force of Current { Surface -
Bottom -

Tide -

General Locality West coast Luzon.

Pickup Pt N 16 E - Cairon Pt S 60 E

Position 15-52-15 N - 119-40-20 E

Chart used: No. 4210 Ed'n -

Drift: Direction N 16 W Distance 2.5 m

Depth of Haul Bottom

Apparatus and Rig used As before.

Time towing h. 14 m.

Remarks: Accumulator registered close to 5 ton when began hauling in; over 5 around 150 fms.; 3 when net at the surface. Net slightly torn.

Deck Officer Mr. Beetham Recorder Mr. Robinson

SOUNDING WIRE.			FMS.	DREDGING CABLE.					
M. Down.	Up.	M.		M. Down.	Up.	M.			
9	34 00	9	51 55	0	9	56 25	12	06	40
	34 50		51 10	100		59 45	12	08	15
	35 40		50 35	200	10	03 30		59	45
	36 35		49 55	300		07 20		56	10
	37 25		49 15	400		10 10		52	25
	38 35		48 35	500		13 00		48	45
	39 45		47 50	600		15 30		45	00
	40 53		47 05	700		18 00		41	00
	42 05		46 20	800		20 50		38	15
	43 25		45 35	900		23 40		34	45
9.	44 00	9	45 10	940		26 15		31	00
				1100		28 50		27	20
				1200		32 15		23	40
				1300		34 40		20	20
				1400		37 50		17	00
				1500		40 10		13	15
				1600		42 55		09	00
				1650		44 20			
				1700	10	47 15		05	20
				1750	10	48 10	11	02	25
				1800					
				1900					
				2000					
				2100					
				2200					
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				4800					
				4900					

Herminia Inyo Lt S33 E
12.6 m

Dredge } No. 5440 Date, May 10, 1909

Hydrog. } Lucas Reel Lucas Shot/Lead 35 lbs.

Turns 172 Cor'n _____ Depth 172 fms.

Sdg. Cup Higbee Amt. Bot'm Sample 2 oz.

Character of Bottom gy. s.; co. fr. gy. s.; glob.

Thermom. { Make N.G. Cor'n { Instr. -.8
 { No. 105015 { Stem.

Bottom Reading 540 Cor'd Temp. 53.2

Temp. Surf. { 87° Time 1:45 } Air { 86 1/2
 { 87° Time 2:20 } { 86 1/2

Density: Surf. _____ fms.

Wind: Direction Various Force 0-1

Baromet. 29.83 Amt. of Clouds 9 State of Sea 8

Weather bc.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality W. coast Luzon

Tagaporo I (no.) S 26 E Pudia Pt S 22 W

Position 16-33-52 N 119-52-54 E

Chart used: No. 4209 Ed'n _____

Drift: Direction N 22 E Distance 1.8

Depth of Haul bottom.

Apparatus and Rig used 12' Agassiz N.R.; 4 glass floats, 2 trimming weights, 1 tail weight, 1 mud bag.

Time towing h. 20 m.

Remarks:

Deck Officer Mr. Johnson Recorder C. H. Long

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
P. M. Down.	Up.	P. M.		P. M. Down.	Up.	P. M.
1 33 20	1	37 55	0	1 46 50	2	29 40
1 34 45	1	37 05	100	1 50 05	2	26 25
1 35 20	1	36 25	200	1 55 00	2	23 25
			300	2 00 35	2	20 10
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
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			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			
			4000			

76

San Fernando Pt. Sta

02 82 E

23.1 m

Dredge } No. 5441 Date, May 10, 1909

Sdg. Mch. Lucas Reel Lucas Shot/Lead 55 lbs.

Turns 156 Cor'n --- Depth 156 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample

Character of Bottom

Thermom. { Make N.Z. Cor'n { Instr. - 8
 { No. 105015 { Stem.

Bottom Reading 630 Cor'd Temp. 52.2

Temp. Surf. { 87° Time 3:45 } Air { 86°
 { 87° Time 4:10p } { 86°

Density: Surf. fms.

Wind: Direction N.W. Force 2-3

Baromet. 29.8' Amt. of Clouds 8 State of Sea 2

Weather bc.

Direction and Force of Current { Surface -
 { Bottom -

Tide -

General Locality Entrance to Lingayen

Taguapora I (NE) S 1 E - San Fernando

Position 16-38-00 N - 119-57-18 E

Chart used: No. 4209 Ed'n -

Drift: Direction N 64 E Distance 1.8 ms

Depth of Haul Bottom

Apparatus and Rig used 25' Agassiz N.R.; 2
wing weights, 13 glass floats, 1
tail weight

Time towing h. 2.0 m.

Remarks:

Deck Officer Mr. Johnson Recorder C. B. Long

Mr. Bartholomew Frank 11-1023

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
P. M. Down.	Up.	P. M.			P. M. Down.	Up.	P. M.	
3 18	35 3	23 05		0	3 29	45	17	30
3 19	40 3	22 10		100	3 34	30	14	20
3 20	20 3	21 20	186	200	3 38	50	11	10
				300	3 45	20	08	00
				325	3 46	50	4	07 00
				400				
				500				
				600				
				700				
				800				
				900				
				1000				
				1100				
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				4900				

77

Gulf.
St. S 89 E

San Fernando Lt S 87 E

18.7 m

Dredge } No. 5442 Date, JUN 10, 1909
Hydrog. }
Sdg. Mch. TNT Reel TNT Shot/Lead lbs.
Turns 50 Cor'n 50 = 42 Depth 45 fms.
Sdg. Cup arming Amt. Bot'm Sample true
Character of Bottom co. S.

Thermom. { Make } none Cor'n { Instr. }
 { No. } used { Stem. }

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 7:00 p } Air { 82° }
 { Time _____ } { _____ }

Density: Surf. _____ fms. _____

Wind: Direction East Force 3-1

Baromet. 29.86 Amt. of Clouds 10 State of Sea S

Weather optly

Direction and Force of Current { Surface _____ }
 { Bottom _____ }

Tide _____

General Locality Lingayen Gulf

Position 16-30-36 N 120-11-06 E

Chart used: No. 4209 Ed'n _____

Drift: Direction S 12 E Distance 15.5

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing 10 h. 34 m.

Remarks: _____

Deck Officer Mr. DeLong Recorder Antil

C. B. DeLong

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
6 47 00	6 48 50		0	6 54 00	6 56 30	
6 47 30	6 47 35		100	6 58 00		
			200		6 52 30	
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
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			4500			
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			4900			

ST PL Lt

0239 E

8.4 m

Dredge } No. 5443 Date, June 3, 1909
Hydrog. }

Sdg. Mch. Lucas Reel L Shot/Lead 35 lbs.

Turns 241 Cor'n - Depth 241 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample 1/4 oz.

Character of Bottom ss S.S.

Thermom. { Make N.B. Instr. 16-7
No. 108015 Cor'n Stem.

Bottom Reading 52° Cor'd Temp. 51.3

Temp. Surf. { 83° Time 9:15 a.m. Air { 82°
83° Time 9:34 a.m. 82°

Density: Surf. - fms. -

Wind: Direction E.N.E. Force 3

Baromet. 29.88 Amt. of Clouds 9 State of Sea G.

Weather bc.

Direction and Force of Current { Surface -
Bottom -

Tide -

General Locality North of Samar

Batey I. Lt S 44 E - Itacan I (W) S 30 W

Position 12° 43' 05" N - 175° 01' 00" E

Chart used: No. 4449 Ed'n Jan'y/87

Drift: Direction N 70° W Distance 1.9 mi.

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz T.R., 4 glass floats; 2 wing wts.; 1 tail-wt.

Time towing - h. 20 1/2 m.

Remarks: Towing from 9:12:50 to 9:33:20

Deck Officer Mr. Johnson Recorder F. T. T. T. T. -

SOUNDING WIRE.			FMS.	DREDGING CABLE.									
a. M. Down.	Up.	a. M.		a. M. Down.	Up.	a. M.							
8	47	00	8	52	00	0	8	59	10	9	49	50	
	48	15		52	45	100		9	02	30		46	45
	49	25		51	45	200			05	30		43	35
8	50	00	8	51	20	240	300		08	45		40	25
						400			11	30		37	20
						440	500	9	12	50			
						500	600		17	50		34	00
						515	700	9	18	30	9	33	20
						800							
						900							
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						4800							
						4900							

Batag L

S44E

4.4 mi

89

Dredge } No. 5444. Date, June 3, 1909

Sdg. Mch. Lucas Reel L Shot 35 lbs.

Turns 308 Cor'n - Depth 308 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample 1 1/2 oz.

Character of Bottom gn M

Thermom. { Make T-3. Cor'n { Instr. - 7
No. 108015 Stem.

Bottom Reading 46° Cor'd Temp. 45.8

Temp. Surf. { 83° Time 10:30 AM Air { 84.5°
83° Time 10:50 AM 85.0

Density: Surf. 308 fms.

Wind: Direction East Force 3

Baromet. 29.86 Amt. of Clouds 6 State of Sea G.

Weather bcz.

Direction and Force of Current { Surface -
Bottom -

Tide -

General Locality As before

Bathy I 4 S 1/2 E - Macan I (NW) S 7 E

Position 12 43 51 N - 124 58 50 E

Chart used: No. 4449 Ed'n -

Drift: Direction N 65° E Distance 1.1 mi.

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing - h. 20 m.

Remarks: Water bottle used in Sdg.

Deck Officer Mr. Johnson Recorder Smith

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
a. M. Down.	Up. a. M.			a. M. Down.	Up. a. M.	
9 57	25	10 01	0	10 6	30	11 07 00
55	25	10 00	100	10 40		04 00
53	20	59 15	200	15 15	11	01 00
57	10	58 30	300	19 00		58 00
9 57	15	9 58 15	308 400	22 50		55 00
			500	27 10		53 00
			550 600	10 24 00		
			600 700	10 31 30	10	48 30
			800			
			900			
			1000			
			1100			
			1200			
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			4000			
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			4300			
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			4800			
			4900			

Barag & Lt

8526
6. #

90

Dredge } No. 5445 Date, June 3, 1909

Hydrog. }
Sdg. Mch. Lucas Reel L Shot/Lead 35 lbs.

Turns 383 Cor'n - Depth 383 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample 107

Character of Bottom gn. M.S.

Thermom. { Make T.B. Cor'n { Instr. 1.6 - .7
No. 108015. Stem.

Bottom Reading 45 Cor'd Temp. 44.3

Temp. Surf. { 83° Time 12:00 } Air { 85°
80 Time 12:40 P } 80°

Density: Surf. 283 fms.

Wind: Direction East Force 3-4

Baromet. 29.85 Amt. of Clouds 8 State of Sea 9.

Weather fog.

Direction and Force of Current { Surface -
Bottom -

Tide -

General Locality North of Samar

Batag I. lt S 41 E - Macan I (W) S 7 W

Position 12° 44' 42" N - 124° 59' 50" E

Chart used: No. 4449 Ed'n -

Drift: Direction S 73 E Distance 1.5

Depth of Haul Bottom.

Apparatus and Rig used As before.

Time towing h. 27 m.

Remarks: Wtr. bottle used in sampling.

Towing from 12:00:15 to 12:27:00

Deck Officer Mr. Johnson Recorder J. T. T. T.

Mr. L. J. and J. T. T. T.

11-1023

SOUNDING WIRE.				FMS.	DREDGING CABLE.							
a. M. DOWN.		Up. a. M.			a. M. DOWN.		Up. a. M.					
11	21	00	11	26	35	0	11	34	30	12	58	35
	21	50		27	50	100		39	00		55	35
	22	35		27	05	200		41	30		52	30
	23	35		26	20	300		45	30		49	00
11	24	30	11	25	30	400		49	00		47	00
					313	500		54	40		44	55
						600		58	05		39	50
						650		12	00	12	37	00
						800						
						900						
						1000						
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						4900						

Batag I Lt

S 41 E

6.3 m

91

Dredge } No. 5446 Date, June 3, 1909

Sdg. Mch. Lucas Reel L Shot/Lead 35 lbs.

Turns 300 Cor'n — Depth 300 fms.

Sdg. Cup Sieber Amt. Bot'm Sample 1/2 oz.

Character of Bottom Gm. M. N. L.

Thermom. { Make N. L. Cor'n { Instr. No. 108015 Stem.

Bottom Reading started to register Cor'd Temp.

Temp. Surf. { 83° Time 1:54 P.M. 84° 83° Time 2:26 P.M. Air { 83°

Density: Surf. 3 fms.

Wind: Direction ENE Force 3

Baromet. 29.63 Amt. of Clouds 9 State of Sea 9

Weather b e m.

Direction and Force of Current { Surface Bottom

Tide

General Locality North of Samar Batangas S. 55° E Macan Is (W) South.

Position 12° 43' 51" N. 124° 59' 18" E

Chart used: No. 4449 Ed'n

Drift: Direction S 83° E Distance 1.6

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 29 m.

Remarks: Sounding thermometer failed to register

Deck Officer W. Hazard Recorder J. J. J.

SOUNDING WIRE.				FMS.	DREDGING CABLE.								
P. M. Down.		Up. P. M.			P. M. Down.		Up. P. M.						
1	21	40	1	29	05	0	1	34	20	2	45	00	
	22	30		28	00	100		38	25		42	15	
	23	45		27	05	200		42	00		38	55	
1	24	40	1	25	40	300		45	05		35	55	
						400		49	00		33	00	
						500		52	30		29	50	
						550	600	1	54	20			
						600	700	1	56	15	2	26	15
						800							
						900							
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						4700							
						4800							
						4900							

Batag 2 L

8506

6.1 m

92

Dredge } No. 5447 Date, June 4, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Lucas Shot 35 lbs.
Leads

Turns 310 Cor'n — Depth 310 fms.

Sdg. Cup Sieber Amt. Bot'm Sample plentiful

Character of Bottom gy. M.

Thermom. { Make N.Y. Cor'n { Instr. -7
 { No. 102015- { Stem.

Bottom Reading 46° Cor'd Temp. 45.3

Temp. Surf. { 85° Time 6.52 } Air { 85°
 { 85° Time 6.50 } { 80°

Density: Surf. _____ fms.

Wind: Direction E Force 2-3

Baromet. 29.86 Amt. of Clouds 9 State of Sea S

Weather bc.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Tour. Pit. N 81 24. ; San Miguel
Pt S 7 24. (Lagaronoy Gulf, E Luzon)

Position 13° 28' 00" N. 123° 46' 18" E

Chart used: No. 4221 C.S. Ed'n June 05

Drift: Direction N 64° E Distance 1.5

Depth of Haul bottom

Apparatus and Rig used 12' Agassiz M.R., 4 glass
floats, 2 wing weights, 1 tail
weight

Time towing h. 21 m.

Remarks:

Deck Officer Mr. Johnson Recorder C.B. DeLong

SOUNDING WIRE.		FMS.	DREDGING CABLE.	
A. M. Down.	Up. A. M.		A. M. Down.	Up. A. M.
5 34 10	5 39 40	0	6 52 20	6 52 10
5 35 00	5 39 05	100	6 55 60	6 49 00
5 35 45	5 38 30	200	6 00 00	6 46 00
5 36 40	5 37 30	300	6 04 35	6 42 10
5 36 45	5 37 45	310 400	6 08 00	6 39 25
		500	6 11 25	6 36 30
		567 600	6 13 40	6 35 00
		700		
		800		
		900		
		1000		
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		4700		
		4800		
		4900		

San Miguel

S 7 M

3.5 m

93

Dredge } No. 5748 Date, June 4, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 47 fms.

Sdg. Cup _____ Amt. Bot'm Sample by cant.

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 9:00 a } Air { 86°
 { 86° Time 9:15 a } { 86°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 1

Baromet. 29.91 Amt. of Clouds 5 State of Sea 8

Weather Bcs.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Tabaco Bay, East Luzon.

Malinas Church, N 73 W - San Ifiguel Pt

Position 13° 23' 10" N - 123° 45' 19" E

Chart used: No. 4237 Ed'n Mech/05

Drift: Direction S 64 E Distance 8 m.

Depth of Haul Botm

Apparatus and Rig used As before, plus mudbag.

Time towing - h. 20 m.

Remarks: No sounding taken.

Deck Officer Mr. Hazard Recorder Attribil

SOUNDING WIRE.

FMS.

DREDGING CABLE.

M. Down. Up. M.

A.M. Down. Up. A.M.

0

8 49 35 9 18 20

100

8 54 30 9 15 00

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

N 23 E

95

San Miguel Pt N 23 E

1.4 m

Dredge } No. 5419 Date, Jan 4, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns No Cor'n _____ Depth 300 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 2:00 P } Air { 87° 86° Time 2:50 P } 85°

Density: Surf. _____ fms. _____

Wind: Direction S.W. Force 3

Baromet. 29.84 Amt. of Clouds 4 State of Sea 2

Weather B.c.g.

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality Lagonoy Gulf, East Luzon

Position 13° 21' 36" N - 124° 00' 30" E

Chart used: No. 4221 Ed'n _____

Drift: Direction North Distance 1.4

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 1 m.

Remarks: No sounding taken

Deck Officer Mr. Robinson Recorder _____

SOUNDING WIRE.			FMS.	DREDGING CABLE.				
M. Down.	Up.	M.		M. Down.	Up.	M.		
			0	2	7	303	10	50
			100	2	10	15	3	08 00
			200	2	13	20	3	04 35
			300	2	17	45	3	01 15
			400	2	21	50	2	57 55
			500	2	25	00	2	54 50
			600	2	28	00	2	51 40
			650	2	36	15		
			700	2	38	15	2	49 50
			800					
			900					
			1000					
			1100					
			1200					
			1300					
			1400					
			1500					
			1600					
			1700					
			1800					
			1900					
			2000					
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			2700					
			2800					
			2900					
			3000					
			3100					
			3200					
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			3600					
			3700					
			3800					
			3900					
			4000					
			4100					
			4200					
			4300					
			4400					
			4500					
			4600					
			4700					
			4800					
			4900					

97

East Pt Baited 543 E

7.9 m

Dredge } No. 5450 Date, *July 4*, 19*09*
Hypocog. }
Sdg. Mch. *Lucas* Reel *L* Shot/Lead } *35* lbs.
Turns *498* Cor'n _____ Depth *408* fms.
Sdg. Cup *Lucas* Amt. Bot'm Sample _____
Character of Bottom *G.M. Co.*

Thermom. { Make *N. J.* Cor'n { Instr. *7*
 { No. *108015* { Stem. _____
Bottom Reading *43°* Cor'd Temp. *42.3*
Temp. Surf. { *86°* Time *3.26 P* } Air { *85°*
 { _____ Time *4.22* } { *67°*

Density: Surf. _____ fms. _____
Wind: Direction *East.* Force *3*
Baromet. *29.79* Amt. of Clouds *4* State of Sea *S.*
Weather *b c g.*

Direction and Force of Current { Surface _____
 { Bottom _____
Tide _____

General Locality *Lagoon Gulf East Luzon East*
St. Ratan Is. S 36° E Cagubalan Is (S 6) S 36° W
Position *13° 23' 15" N. 124° 00' 30" E*

Chart used: No. *1721* Ed'n _____
Drift: Direction *North* Distance *1.9*
Depth of Haul *Bottom*
Apparatus and Rig used *As before*

Time towing _____ h. *25* m.

Remarks: _____

Deck Officer *Mr. Robinson* Recorder *Looney*
Mr. Johnson *De Long*

SOUNDING WIRE.					FMS.	DREDGING CABLE.					
M. Down.		Up. P. M.				L. M. Down.		Up. P. M.			
3	15 05	3	23	50	0	3	26	15	4	47	10
3	16 25	3	23	10	100		29	55		44	00
3	17 10	3	22	30	200		33	10		41	00
3	17 55	3	21	50	300		35	50		37	50
3	18 40	3	20	10	400		39	00		34	40
3	18 50	3	19	50 (408)	500		42	15		31	20
					600		45	20		28	05
					700		48	05		25	00
					800		51	55		21	50
					850	3	52	15	4	20	00
					1000						
					1100						
					1200						
					1300						
					1400						
					1500						
					1600						
					1700						
					1800						
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					3900						
					4000						
					4100						
					4200						
					4300						
					4400						
					4500						
					4600						
					4700						
					4800						
					4900						

98

East Pt Bottom S 36 E

9.2 m

Dredge } No. 5451 Date, June 5, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead } 7540

Turns _____ Cor'n _____ Depth 380 fms.
by chart.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 84° Time 7:35 AM } Air { 79°
64° Time 8:00 AM } 85°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 2

Baromet. 29.88 Amt. of Clouds 8 State of Sea 8

Weather Fog

Direction and Force of Current { Surface _____
Bottom _____

Tide _____

General Locality Lagoon, Gulf, SE Luzon
Cagayan I (SE) S 44 W - Nanatang Pt.,
Position 13° 22' 22" N - 124° 00' 48" E

Chart used: No. 4221 Ed'n _____

Drift: Direction S 61 E Distance 1/2

Depth of Haul 280.

Apparatus and Rig used 10' Inter.; double cone

Time towing _____ h. 2 m.

Remarks: No sounding

Deck Officer Mr. Hazard Recorder J. H. Witt

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0	7	21 15	8 07 05
			100		25 50	03 40
			200		29 25	8 00 20
			300		32 45	57 00
			345	7	34 00	7 55 10
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
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			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
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			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

99.

Batam, S 37 E.

East Pt. Batam

S 38 E

P. 2 m



Dredge } No. 5452 Date, June 7, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 13' 9 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n _____ Instr. _____
 { No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 8:52 a } Air { 85°
 { 86° Time 9:11 a } { 85°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 2

Baromet. 29.88 Amt. of Clouds 6 State of Sea S

Weather bcs

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Albay Gulf St. Luzon Legaspi
N. 38° W. Parak B. Luzon S 65° E

Position 13° 11' 54" N. 123° 44' 10" E

Chart used: No. 4721 Ed'n _____

Drift: Direction N 48° E Distance 1

Depth of Haul Bottom

Apparatus and Rig used 12' Agassiz N.R. with usual accessories.

Time towing _____ h. 14 m.

Remarks: No Sounding.

Deck Officer Mr. Hazard Recorder Tosney

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	M.
			0	8 47 10	9 11 36	
			100	8 56 05	9 07 40	
			200	8 57 00	9 05 20	
			300			
			400			
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
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			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

84

Legaspi Lt

S 38 W

3 m

Dredge } No. 5453 Date, June 7, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 46 fms. By chart.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 9:40 A. } Air { 85°
 { 86° Time 10:00 A. } { 86°

Density: Surf. _____ fms. _____

Wind: Direction East Force 2.

Baromet. 29.90 Amt. of Clouds 5 State of Sea S.

Weather bcg.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Albay Gulf, S. Luzon, Cagla.

Way Pt S 22° W. Paron Pt Luzon S 56° E

Position 13° 12' 00" N. 123° 49' 18" E

Chart used: No. 4221 Ed'n _____

Drift: Direction E. Distance 1.1

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 20 m.

Remarks: No Sounding

Deck Officer McHarad Recorder Toney

SOUNDING WIRE.				FMS.	DREDGING CABLE.								
M. Down.	Up.	M.			M. Down.	Up.	M.						
				0	9	29	00	10	13	45			
				100		32	50	10	10	45			
				200		38	10	10	07	50			
				250 300		40	50						
				300 400	9.	42	05						
				500		44	20	10	02	50			
				600									
				700									
				800									
				900									
				1000									
				1100									
				1200									
				1300									
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				4100									
				4200									
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				4400									
				4500									
				4600									
				4700									
				4800									
				4900									

05

Legaspi Lt

858 W

4.5 m

Dredge } No. 5454 Date, June 7, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 152 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 10:45 A } Air { 86° 86° Time 11:19 A }

Density: Surf. _____ fms. _____

Wind: Direction East Force 2

Baromet. 29.89 Amt. of Clouds ↓ State of Sea S.

Weather h.c.z.

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality Albatross Bay, S. Luzon

Legaspi Lt. S 60° W. Rajo B. S 55° E

Position 13° 12' 00" N. 123° 50' 30" E

Chart used: No. 4221 Ed'n _____

Drift: Direction 279° E Distance 1.2

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 21 m.

Remarks: No sounding

Deck Officer M. Hazard Recorder James

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		A. M. Down.	Up.	A. M.
			0	10 26 50	11 17 50	
			100	10 33 20	11 14 30	
			200	10 38 20	11 11 25	
			300	10 43 40	11 08 00	
			350 400	10 45 35	11 06 30	
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
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			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

06

Legaspi Lt

S 64 W

5.7 m

Dredge } No. 5455 Date, June 7, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 165 fms. (Chart)

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 11:40 AM } Air { 86° }
{ 86° Time 12:12 } { 86° }

Density: Surf. _____ fms. _____

Wind: Direction East Force 3.

Baromet. 29.87 Amt. of Clouds 4 State of Sea S.

Weather bc

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality Albay Gulf, St. Luzon

Legaspi St. 5° 20' N. 123° 52' E

Position 13° 11' 51" N. 123° 51' 22" E

Chart used: No. 4221 Ed'n _____

Drift: Direction S. 63° E Distance 1.1

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 14 m.

Remarks: No soundings
Net came up badly torn.

Deck Officer Mr. Hazard Recorder Torrey C. Robinson

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		A. M. Down.	Up.	P. M.
			0	11 40	30	12 22 20
			100	45	05	12 19 15
			200	49	15	12 16 05
			300	54	40	12 13 45
			380 400	11 05	35	12 10 15
			500			
			600			
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
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			1900			
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			2800			
			2900			
			3000			
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			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

07

Legaspi Lt

870 M.

6.7 m

Dredge } No. 456 Date, Jan 7, 1909
Hydrog }

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 142 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____ (chart)

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 12:48 } Air { 87°
 { 86° Time 1:15 } { 89°

Density: Surf. _____ fms. _____

Wind: Direction East Force 1-2

Baromet. 29.87 Amt. of Clouds 6 to 8 State of Sea 2

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Legaspi St. 276° 04'; Coja's Pt. Luzon
255° E.; Albay Gulf, L.E. Luzon.

Position 13° 11' 10" N, 123° 51' 52" E.

Chart used: No. 4221 C.S. Ed'n _____

Drift: Direction 71.88° St. Distance 1.5 mi

Depth of Haul 120 fath with 190 fath wire

Apparatus and Rig used 10' Intermediate, double

con.

Time towing _____ h. 19 m.

Remarks: _____

Deck Officer Mr. Robinson Recorder P. E. ...

SOUNDING WIRE.

FMS.

DREDGING CABLE.

M. Down. Up. M.

P. M. Down. Up. P. M.

0	12	46	30	1	21	50
100	12	50	30	1	17	30
190 200	12	55	10	1	14	10
300						
400						
500						
600						
700						
800						
900						
1000						
1100						
1200						
1300						
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4900						

88

Legrosi Lt S 76 M
6.7 m

Dredge } No. 5457 Date, June 8th, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth 146 fms.

Sdg. Cup _____ Amt. Bot'm Sample by Chart.

Character of Bottom bk S (by chart)

Thermom. { Make _____ Cor'n { Instr. _____
No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 9:41 a. } Air { 85°
86° Time 10:03 a. } 85°

Density: Surf. _____ fms. _____

Wind: Direction ENE Force 1

Baromet. 29.91 Amt. of Clouds 9 State of Sea S

Weather bz.

Direction and Force of Current { Surface _____
Bottom _____

Tide _____

General Locality Albany Gulf SE Luzon, P.I.

Legassi Is. 560' N - Paron Pt., Luzon,

Position 13° 12' 00" N - 123° 49' 40" E.

Chart used: No. 4221. Ed'n -

Drift: Direction S 72° E Distance 1.4 m.

Depth of Haul Bottom.

Apparatus and Rig used 15' Agassiz Trawl;
6 glass floats; 2 wing-weights.

Time towing - h. 20 m.

Remarks: No sounding.

Deck Officer Mr. Tohanze Recorder Arutvil -

SOUNDING WIRE.

FMS.

DREDGING CABLE.

SOUNDING WIRE.		FMS.	DREDGING CABLE.		
M. Down.	Up.		M.	Up.	M.
		0	9 26	15 10	11 30
		100	29	50	08 30
		200	33	10	05 30
		300	37	40	02 25
		350 400	9 39	30 10	00 15
		500			
		600			
		700			
		800			
		900			
		1000			
		1100			
		1200			
		1300			
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		4100			
		4200			
		4300			
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		4700			
		4800			
		4900			

350 ~~400~~

9 26 15 10 11 30
 29 50 08 30
 33 10 05 30
 37 40 02 25
 9 39 30 10 00 15

S 54° E.

09

Legaspi Id.

3000

S 60 W.

3300

5. m

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

Dredge } No. 5458 Date, June 8, 1909

Sdg. Mch. _____ Reel _____ Shot } lbs. Lead }

Turns _____ Cor'n _____ Depth 200 fms. (Chart)

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom No Sounding

Thermom. { Make _____ Cor'n { Instr. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 2:00 P.M. } Air { 87°

Density: Surf. _____ fms. _____

Wind: Direction East Force 2

Baromet. 29.65 Amt. of Clouds 9 State of Sea S

Weather b e g .

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality Albay Gulf, SE Luzon, Batan Id.

(N.W.) 71 42° W Babayan Pt. Peñaranda Id.

Position 13° 10' 54" N. 123° 59' 38" E

Chart used: No. 4221 Ed'n _____

Drift: Direction S 56° E Distance 0.6

Depth of Haul Bottom

Apparatus and Rig used As before 750 weight added.

Time towing _____ h. 23 m.

Remarks: No Sounding

Deck Officer _____ Recorder _____

Deck Officer _____ Recorder _____

11-1023

SOUNDING WIRE.

DREDGING CABLE.

M. Down. Up. M.

FMS.

P. M. Down. Up. P. M.

FMS.	P.	M. Down.	Up.	P.	M.
0	1	49 30	2	40	40
100	1	52 50	2	37	20
200	1	56 00	2	34	10
300	2	00 25	2	31	10
400	2	04 05	2	27	55
500					
600					
700					
800					
900					
1000					
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1200					
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4000					
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4200					
4300					
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4600					
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4800					
4900					

N 66° E

~~15~~

11

Legaspa Lf

S 84 W

14 m

Dredge } No. 5459 Date, June 8, 1909
 Hydros }
 Sdg. Mch. _____ Reel _____ Shot } lbs.
 Lead }
 Turns _____ Cor'n _____ Depth 200 fms.
 (Chart)
 Sdg. Cup _____ Amt. Bot'm Sample _____
 Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____
 Temp. Surf. { 85° Time 3:43 PM } Air { 85°
 85° Time 4:06 } Air { 86°

Density: Surf. _____ fms. _____
 Wind: Direction East Force 9
 Baromet. 29.83 Amt. of Clouds 9 State of Sea S.
 Weather fog.

Direction and Force of Current { Surface _____
 Bottom _____
 Tide _____

General Locality Albany Gulf, S.E. Luzon
 Catan Is (N.W) N 41° W Paluyan B. & Suraba Is
 Position 13° 10' 21" N. 123° 59' 54" E

Chart used: No. 4221 Ed'n _____
 Drift: Direction N. 86° W Distance 0.8
 Depth of Haul Bottom

Apparatus and Rig used 18' Grassie Trawl
 & 3 lb weights & glass floats. Bottom weight. Mud bag.
 Time towing h. 20 1/2 m.

Remarks: No Sounding
 Net came up hanging by one side,
 thinkle having carried away

Deck Officer _____ Recorder _____
 Mr. Johnson _____ C. B. DeLong _____
 11-1023

SOUNDING WIRE.			FMS.	DREDGING CABLE.					
M. Down.	Up.	M.		P. M. Down.	Up.	P. M.			
			0	3	23	30	4	14	00
			100		27	55	4	11	25
			200		32	10	4	08	10
			300		37	15	4	04	55
			400	3	41	00	4	01	30
			500						
			600						
			700						
			800						
			900						
			1000						
			1100						
			1200						
			1300						
			1400						
			1500						
			1600						
			1700						
			1800						
			1900						
			2000						
			2100						
			2200						
			2300						
			2400						
			2500						
			2600						
			2700						
			2800						
			2900						
			3000						
			3100						
			3200						
			3300						
			3400						
			3500						
			3600						
			3700						
			3800						
			3900						
			4000						
			4100						
			4200						
			4300						
			4400						
			4500						
			4600						
			4700						
			4800						
			4900						

N. 58° E

12

Legaspi Lt

S 88 W

14.3

Dredge } No. 460 Date, June 10, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Lucas Shot } 33 lbs.
Lead }

Turns 565 Cor'n — Depth 565 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample about 1/2 oz.

Character of Bottom gy. M.

Thermom. { Make N.B. Cor'n { Instr. _____
 { No. 108015 { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 8:30 } Air { 85°
 { 85° Time 9:40 } { 86°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 1

Baromet. 29.90 Amt. of Clouds 1 State of Sea S

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Sialat Pt Lt. N. 24° E.; Taguitum Pt. Cantanduanes Id. S. 84° E. (Laganoy Gulf) (Suzon)

Position 13° 52' 30" N. 123° 58' 06" E

Chart used: No. 4222 - Ed'n _____

Drift: Direction N. 43° Ob. Distance 2.0 mi.

Depth of Haul bottom

Apparatus and Rig used 12' Agassiz T.R., 4 glass floats, 2 wing weights, 1 tank weight, 1 mud bag.

Time towing h. 14 m.

Remarks: Thermometer failed to work.

Deck Officer Mr. T. Hazard Recorder C. B. Long

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
Q. M. Down.	Up.	Q. M.		Q. M. Down.	Up.	Q. M.
8 31 50	8 42 05		0	8 47 15	10 16 10	
8 32 45	8 41 15		100	8 51 10	10 12 50	
8 33 35	8 40 30		200	8 55 00	10 09 25	
8 34 25	8 39 45		300	8 57 20	10 05 00	
8 35 15	8 39 05		400	9 00 15	10 01 30	
8 36 05	8 38 20		500	9 03 10	9 58 15	
8 36 40	8 37 40	565-600	600	9 06 10	9 54 50	
			700	9 08 55	9 51 10	
			800	9 11 40	9 48 00	
			900	9 14 20	9 44 50	
			1000	9 17 35	9 41 20	
			1100	9 20 35	9 38 00	
		1150	1200	9 22 10	9 36 10	
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

17

Sialat Pt L

R 24 E

8.2 m

Dredge } No. 5461 Date, June 14, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth _____ fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 7:15 p. } Air { 84°
 { 86° Time 9:30 p. } { 85°

Density: Surf. _____ fms. _____

Wind: Direction East Force 1

Baromet. 29.91 Amt. of Clouds 5 State of Sea S.

Weather bcw. l

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality San Miguel Bay, S. Luzon

No bearings taken, night

Position 13° 57' 42" N. 123° 6' 42" E.

Chart used: No. 4223 Ed'n -

Drift: Direction E. Distance 2.5

Depth of Haul Bottom.

Apparatus and Rig used 25' Agassiz Trawl;
2 wing nets, tail net, mud bag; 13 glass floats.

Time towing _____ h. _____ m.

Remarks: (Contained and let overboard
300 fms. bridge wire with kinks &
other defects. June 11, 09. (Art. 11) -)

June 14, 09. No Sounding.

Deck Officers { Mr. Bohange Recorder { Art. 11
 { Mr. Johnson { T. J. J. {

SOUNDING WIRE.

FMS.

DREDGING CABLE.

M. Down. Up. M.

M. Down. Up. M.

					0						
					60-100	7	07	05	9	29	30
					200	7	16	05	9	26	50
					300						
					400						
					500						
					600						
					700						
					800						
					900						
					1000						
					1100						
					1200						
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					3900						
					4000						
					4100						
					4200						
					4300						
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					4500						
					4600						
					4700						
					4800						
					4900						

~~29~~
31

Carrigo I (M)

212 M
4.9 m

Dredge } No. 5462 Date, June 16, 1909
Hydrog. }

Sdg. Mch. Lucas Reel Lucas Shot Lead 35 lbs.

Turns 469 Cor'n _____ Depth 469 fms.

Sdg. Cup Sieber Amt. Bot'm Sample trace

Character of Bottom gy. m.

Thermom. { Make W.B. Cor'n { Instr. - .7
 { No. 108015 { Stem. _____

Bottom Reading 42' Cor'd Temp. 41.3

Temp. Surf. { 85° Time 6:12 } Air { 83°
 { 80° Time 7:02 } { 80°

Density: Surf. _____ fms. _____

Wind: Direction Various Force 0-1

Baromet. 29.90 Amt. of Clouds 10 State of Sea 8

Weather 0

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality ^{N 42 E} Pungus Pt. ~~N 85 W~~ ^{N 42 E} S. Transit
Cassman Penn. ~~N 85 W~~ (Lagunoy Gulf)

Position 13° 40' 42" N. 123° 56' 30" E.

Chart used: No. 4222 CS. Ed'n _____

Drift: Direction S 35° E. Distance 1.5 miles

Depth of Haul bottom

Apparatus and Rig used 25' Agassiz trawl, 2
swing weights, 1 haul weight, 15 glass
floats

Time towing h. 15 1/2 m.

Remarks: Both bundles stops & 1
preventer carried away. No report
but no material in bag.

Deck Officer Mr. Johnson Recorder C. E. ...

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
A. M. Down.	Up.	A. M.		A. M. Down.	Up.	M.
5-45-00	5-56-10		0	6-06-20	7-38-15	
46-00	55-20		100	11-35	35-05	
46-50	5-4-00		200	15-05	32-00	
47-45	5-3-05		300	19-15	28-55	
48-45	5-1-40		400	22-45	25-50	
5-49-40	5-50-40	469	500	26-00	22-50	
			600	28-50	19-35	
			700	32-45	16-00	
			800	34-40	12-25	
			900	38-00	08-35	
			1000	41-55	05-00	
			1100	6-44-10	7-00-50	
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
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			3900			
			4000			
			4100			
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			4300			
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			4600			
			4700			
			4800			
			4900			

34

Sialat Pt Lt S 80 E

5 m

Dredge } No. 5463 Date, June 16, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 300 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____
by Chart

Character of Bottom S (by Chart)

Thermom. { Make _____ Cor'n { Instr. _____
No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 84° Time 10:30 a.m. } Air { 83°
85° Time 10:45 a.m. } 84°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 2

Baromet. 29.95 Amt. of Clouds 8 State of Sea S

Weather fog.

Direction and Force of Current { Surface _____
Bottom _____

Tide _____

General Locality Lagonoy Gulf SE Luzon.

Rungus Pt, East side N 18° E - Sialat

Position 13° 40' 57" N - 123° 57' 45" E

Chart used: No. 4222 Ed'n _____

Drift: Direction S 82° W Distance 0.8 m.

Depth of Haul Bottom.

Apparatus and Rig used 17' Agassiz trawl; mud bag,
2 wing weights, 1 tailweight, 4 glass floats.

Time towing _____ h. 17 m.

Remarks: No Sounding.

Deck Officer Mr. Hazard Recorder J. F. Fitch

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		a. M. Down.	Up.	a. M.
			0	10 05	11 03	30
			100	09 00	11 00	30
			200	13 20	10 57	30
			300	16 35	10 54	30
			400	19 50	10 51	15
			500	24 10	10 48	00
			600	10 28	15 10	44 40
			700			
			800			
			900			
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
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			1900			
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			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

36

E. S 74° W.

Sialat Pt Lt S 74 E
3.9 m

Dredge } No. 5464 Date, June 16, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 400 fms.

Sdg. Cup _____ Amt. Bot'm Sample Chart

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 1:40 PM. Air { 84°
 { 82° Time 3:00 PM } 85°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 1-2

Baromet. 29.90 Amt. of Clouds 8 State of Sea S

Weather B.C.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Lagonoy Gulf SE Luzon.

Position 13° 39' 15" N, 123° 57' 15" E

Chart used: No. 4222 Ed'n _____

Drift: Direction S 40° W Distance 0.2

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 9 m.

Remarks: No soundings. Net badly torn. Stops of trawl carried away.

Deck Officer W. R. ... Recorder ...

SOUNDING WIRE.				FMS.	DREDGING CABLE.			
M. Down.	Up.	M.			P. M. Down.	Up.	P. M.	
				0	1	38 45	2	58 45
				100		42 45		55 40
				200		46 40		52 45
				300		51 50		49 35
				400		55 40		46 20
				500		58 50		42 50
				600	2	01 40		38 35
				700		04 30		32 50
				800		07 25		30 30
				850 900	2	09 00		- -
				900 1000	2	11 00		25 15
				950 1100	2	14 10	2	23 45
				1200				
				1800				
				1400				
				1500				
				1600				
				1700				
				1800				
				1900				
				2000				
				2100				
				2200				
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				2500				
				2600				
				2700				
				2800				
				2900				
				3000				
				3100				
				3200				
				3300				
				3400				
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				3600				
				3700				
				3800				
				3900				
				4000				
				4100				
				4200				
				4300				
				4400				
				4500				
				4600				
				4700				
				4800				
				4900				

37

Sialat Pt Lt No 2 E

4.4 m

Dredge } No. 465 Date, June 17, 1909
Hydrog }

Sdg. Mch. _____ Reel _____ Shot } lbs.
Lead }

Turns _____ Cor'n _____ Depth 500 fms.

Sdg. Cup _____ Amt. Bot'm Sample (Chart)

Character of Bottom _____
Sandy gym. (mud bag)

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 84° Time 8:10 } Air { 82 1/2
 { 84° Time 9:10 } { 83

Density: Surf. _____ fms. _____

Wind: Direction Various Force 1

Baromet. 29.94 Amt. of Clouds .8 State of Sea 2

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Rosa Id. (Middle) N. 7° W., Atulay Id. (S.E.) S. 50° W. (Laguncy Gulf) Luzon

Position 13° 29' 42" N. 123° 40' 39" E.

Chart used: No. 4224 C.S. Ed'n _____

Drift: Direction S 59° E Distance 1.6 mi.

Depth of Haul bottom

Apparatus and Rig used 12' Agassiz, 4 glass floats, 2 wing weights, 1 tail weight, 1 mud bag.

Time towing h. 20 m.

Remarks: _____

Deck Officer Mr. Robinson Recorder C.E. Pedong

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		A M. Down.	Up.	A M.
			0	8 09 00	9 32 00	
			100	8 13 00	9 25 30	
			200	8 17 20	9 25 15	
			300	8 21 40	9 21 30	
			400	8 25 10	9 18 15	
			500	8 28 10	9 14 30	
			600	8 30 45	9 11 00	
			700	8 33 30	9 07 10	
			800	8 36 40	9 03 15	
			850 900	8 39 20	8 59 40	
			1000			
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
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			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

41

Atulayan I (E) 250 M
7.3 m

Dredge } No. 5466 Date, June 17, 1909
~~Humboldt~~

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth, 540 (Chart) fms.

Sdg. Cup _____ Amt. Bot'm Sample Mud lag half full

Character of Bottom _____
No Sdg. J gy M.

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 10:15 } Air { 84°
 { 86° Time 11:10 } { 84 1/2°

Density: Surf. _____ fms. _____

Wind: Direction Various Force 0-1

Baromet. 29.94 Amt. of Clouds 7 to 9 State of Sea S

Weather bc

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Rosa Id. (Middle) N. 21 00. Atulaya

Id. (SE.) 262 00. (Laguna Gull)

Position 13° 38' 36" N. 123° 41' 45" E.

Chart used: No. 4222 C.S. Ed'n

Drift: Direction S 63° E Distance 1.6 mi

Depth of Haul Bottom

Apparatus and Rig used as before

Time towing h. 22 m.

Remarks: _____

Deck Officer _____ Recorder _____
11-1023

SOUNDING WIRE.

FMS.

DREDGING CABLE.

SOUNDING WIRE.		FMS.	DREDGING CABLE.			
M. Down.	Up.		M.	A. M. Down.	Up.	A. M.
		0				
		100	10 09	15	11 29	30
		200	10 13	25	11 26	20
		300	10 18	25	11 23	15
		400	10 22	30	11 20	15
		500	10 25	55	11 17	00
		600	10 29	30	11 13	30
		700	10 32	20	11 10	25
		800	10 35	20	11 07	10
		850 1000	10 38	35	11 04	10
		1000	10 40	20	11 02	20
		1100				
		1200				
		1300				
		1400				
		1500				
		1600				
		1700				
		1800				
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		3000				
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		3200				
		3300				
		3400				
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		3600				
		3700				
		3800				
		3900				
		4000				
		4100				
		4200				
		4300				
		4400				
		4500				
		4600				
		4700				
		4800				
		4900				

42

Atulayan (E) 862 M
7.7 m

Dredge } No. 5467 Date, June 18, 1907

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 480 fms. (by chart)

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom gy. M. (Mud bag)

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 7:52 AM } Air { 83° }
{ 85° Time 8:34 } Air { 83° }

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 2

Baromet. 29.89 Amt. of Clouds 3 State of Sea S

Weather hazy

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality Laguna Gulf, East Luzon

13° 35' 27" N 123° 37' 18" E

Position 13° 35' 27" N 123° 37' 18" E

Chart used: No. 1222 Ed'n _____

Drift: Direction N 89° E Distance 2.7

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing _____ h. 4 ✓ m.

Remarks: No sounding taken

Deck Officer Mr. Bohan Recorder Joan

SOUNDING WIRE.				FMS.	DREDGING CABLE.					
M. Down.	Up.	M.			M. Down.	Up.	M.			
				0	7	19	40	9	07	55
				100		23	15		04	35
				200		27	40	9	01	20
				300		31	20		58	00
				400		34	25		54	30
				500		37	15		51	10
				600		40	00		48	00
				700		43	15		44	35
				800		45	50		41	25
				900		49	00		38	00
				990	7	52	50	8	34	30
				1000						
				1100						
				1200						
				1300						
				1400						
				1500						
				1600						
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				4000						
				4100						
				4200						
				4300						
				4400						
				4500						
				4600						
				4700						
				4800						
				4900						

48

Atlayand (S) S 79 or
2.5 m

Dredge } No. 5468 Date, June 18, 1909

Sdg. Mch. _____ Reel _____ Shot/Lead 7 lbs.

Turns _____ Cor'n _____ Depth 569 fms. (Chart)

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom gn M (Mud tag)

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 9:57 AM } Air { 85°
86° Time 10:30 AM } 84°

Density: Surf. _____ fms. _____

Wind: Direction S W x W Force 3

Baromet. 29.99 Amt. of Clouds 9 State of Sea 5

Weather b. c. z.

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality Lagoon Gulf St. Leger

Triang. Sta. 82° E Atulayand (W) 883° N

Position 13° 35' 39" N. 173° 40' 28" E

Chart used: No. 4222 Ed'n _____

Drift: Direction East Distance 2.1

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing _____ h. 33 m.

Remarks: No counting

Deck Officer M. Johnson Recorder Toney

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		M. Down.	Up.	A.M.
			0	9 27 00	11 04 10	
			100	30 55	11 00 45	
			200	34 15	57 50	
			300	37 35	54 40	
			400	40 50	51 30	
			500	43 40	48 15	
			600	46 25	45 25	
			700	48 50	41 25	
			800	51 25	37 50	
			900	54 15	34 20	
			1000	9 57 55	10 30 45	
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100	atuloy and (S) 883 m		
			3200	5.7 m		
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Dredge } No. 5-469 Date, Jan 18, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot }
Lead } lbs.

Turns _____ Cor'n _____ Depth 5.00 fms.
(Chart)

Sdg. Cup No _____ Amt. Bot'm Sample _____

Character of Bottom Sdy. gy. M. (from net)

Thermom. { Make _____ Cor'n { Instr. _____
No. _____ Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 1:00 } Air { 84°
86° Time 2:15 } 84°

Density: Surf. _____ fms. _____

Wind: Direction S.W. Force 1

Baromet. 29.87 Amt. of Clouds 9 State of Sea Smooth

Weather hazy

Direction and Force of Current { Surface _____
Bottom _____

Tide _____

General Locality Timi Pt, S 16° E.; Atulayan Id
(S) S 63° W. (Laganoy Gulf.)

Position 13° 38' 48" N. 123° 38' 24" E.

Chart used: No. 4222 Ed'n _____

Drift: Direction N. 86° E Distance 2.8 mi.

Depth of Haul bottom

Apparatus and Rig used 12' Agassiz, 2 wing
weights, 1 tail weight, 4 glass
floats.

Time towing h. 40 1/2 m.

Remarks: _____

Deck Officer Wm. Hazard Recorder C. C. Bradley

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		P. M. Down.	Up.	P. M.
			0	12 55 15	2	42 20
			100	1 02 10		39 00
			200	05 30		35 00
			300	08 50		32 45
			400	11 35		29 40
			500	14 15		26 25
			600	16 50		23 20
			700	19 35		20 05
			800	22 25		16 45
			900	26 25		13 40
			1000	1 29 25	2	10 00
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

50

Atulayand (Co) S 63 W
4 m

Dredge } No. 4470 Date, June 29, 1909
Hydrog. }

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 560 fms.

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____
Mid m (chart)

Thermom. { Make _____ Cor'n { Instr. _____
 { No. _____ { Stem. _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 86° Time 3:00 } Air { 84°
 { 85° Time 4:00 } { 85°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 0-1

Baromet. 29.83 Amt. of Clouds 10 State of Sea S

Weather fog

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Lagoon Gulf, Sulu

Terr. Pt. S 30° W - Atulayan Id. (S)

Position 13° 37' 30" N - 123° 41' 09" E

Chart used: No. 4222 Ed'n _____

Drift: Direction S 50° E Distance 1.6 m

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing _____ h. 34 m.

Remarks: _____

Deck Officer Mr. Hazard Recorder C. H. Hedberg

Mr. Bohange

Stout

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		P. M. Down.	Up.	P. M.
			0	2 53 45	✓	35 05
			100	2 57 25		31 25
			200	3 01 00		28 15
			300	04 20		25 00
			400	07 00		21 50
			500	09 40		18 50
			600	12 25		15 15
			700	15 20		11 50
			800	18 10		08 10
			900	22 40		04 55
			1000	3 26 00	4	00 20
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
S 68 W.	51		2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

Atulayan (E) 268 W
6.7 m

Dredge } No. 5471 Date, June 19, 1909
~~Machine~~
Sdg. Mch. Reel Shot/Lead lbs.
Turns Cor'n Depth 568 fms.
Sdg. Cup Amt. Bot'm Sample Char.
Character of Bottom

Thermom. { Make Cor'n { Instr.
 { No. { Stem.

Bottom Reading Cor'd Temp.
Temp. Surf. { 84° Time 9:17 AM } Air { 80°
 { 84° Time 9:45 AM } { 81°

Density: Surf. fms.
Wind: Direction N. S. N. Force 3
Baromet. 29.89 Amt. of Clouds 10. State of Sea S.
Weather 0/0

Direction and Force of Current { Surface
 { Bottom
Tide

General Locality Lagonoy Gulf, East Luzon
Rosa Is. N. 42° W. Rufino Pt. N 55° E
Position 13° 34' 57" N. 123° 47' 06" E

Chart used: No. 4222 Ed'n
Drift: Direction S. 60° E Distance 2.1.
Depth of Haul Bottom.
Apparatus and Rig used As before.
No mud bag.

Remarks: No Sounding Time towing h. 26 m.

Deck Officer W. Hazard Recorder T. Jones
11-1023

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		A. M. Down.	Up.	M.
			0	8 49	10 10	18 00
			100	51	20	14 45
			200	54	40	11 45
			300	57	20	08 30
			400	9 50	05	05 25
			500	03	05 10	02 15
			600	05	40	59 00
			700	08	20	56 00
			800	11	10	52 45
			900	14	15	49 35
			1000	9 17	00	9 45 35
			1100			
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

53

~~Atulayom~~

Sialat Pt Lt

N 71 E

15 m

Dredge } No. 549 ✓ Date June 19 19 09

Sdg. Mch. _____ Reel _____ Shot/Lead _____ lbs.

Turns _____ Cor'n _____ Depth 550 fms. *Psychart.*

Sdg. Cup _____ Amt. Bot'm Sample _____

Character of Bottom _____

Thermom. { Make _____ Cor'n { Instr. _____ No. _____ Steam _____

Bottom Reading _____ Cor'd Temp. _____

Temp. Surf. { 85° Time 11:00 P.M. Air { 83°
85° Time 11:36 P.M. 84°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force 2-3

Baromet. 29.86 Amt. of Clouds 10 State of Sea 5

Weather *ops.*

Direction and Force of Current { Surface _____ Bottom _____

Tide _____

General Locality *Atto Pt. N. 46° W. August Pt. N. 46° E. (Lagonoy Gulf)*

Position 13° 33' 36" N.; 123° 49' 00" E

Chart used: No. 4222 Ed'n _____

Drift: Direction S 62° E. Distance 1.7 mi

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing _____ h. 25 m.

Remarks: *No soundings. Cumulator registered from 4 to 5 tons while heaving in; 3 1/2 tons when stopped at surface with net submerged. Bridle stops carried away with net at surface; and flashing also being lost.*

Deck Officer *Mr. Howard* Recorder *Fosney*
Mr. Robarge *C. B. DeLong*

SOUNDING WIRE.			FMS.	DREDGING CABLE.		
M. Down.	Up.	M.		A. M. Down.	Up.	A. M.
			0	10 35 00	12 17 40	
			100	38 50	13 40	
			200	42 35	10 10	
			300	47 30	06 30	
			400	50 30	12 02 40	
			500	54 20	05 00	
			600	57 25	55 05	
			700	11 00 10	51 00	
			800	02 35	47 15	
			900	05 40	43 45	
			1000	08 40	39 50	
			1100	11 11 35	11 36 05	
			1200			
			1300			
			1400			
			1500			
			1600			
			1700			
			1800			
			1900			
			2000			
			2100			
			2200			
			2300			
			2400			
			2500			
			2600			
			2700			
			2800			
			2900			
			3000			
			3100			
			3200			
			3300			
			3400			
			3500			
			3600			
			3700			
			3800			
			3900			
			4000			
			4100			
			4200			
			4300			
			4400			
			4500			
			4600			
			4700			
			4800			
			4900			

54

f

Sialat Pt Lt R 63 E

13.6 m

✓

Dredge } No. 5473 Date, June 19, 1909
~~Hydrog.~~

Sdg. Mch. Lucas Reel Lucas Shot Lead 35 lbs.

Turns 545 Cor'n _____ Depth 545 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample 1.03

Character of Bottom gy. M.; S.

Thermom. { Make A.G. Cor'n { Instr. -7
 { No. 128015 { Stem. _____

Bottom Reading 41° Cor'd Temp. 40.3

Temp. Surf. { 86° Time 2:15 } Air { 85°
 { 85° Time 3:15 } { 85°

Density: Surf. _____ fms. _____

Wind: Direction Variable Force _____

Baromet. 29.80 Amt. of Clouds 9 State of Sea 2

Weather bcg.

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Naualang Pt., S. 15° E.; San Miguel Pt. West. (Lagonoy Gulf.)

Position 13° 24' 15" N. 124° 02' 48" E

Chart used: No. 4221 C.S. Ed'n _____

Drift: Direction S. 41° E. Distance 1.2 miles

Depth of Haul bottom

Apparatus and Rig used 12' Agassiz, ^{N.R.} 1. tank weight & wing weights, 4 glass floats

Time towing h. 18 m.

Remarks: Bridle stops carried away.

Deck Officer M. Robinson Recorder C. B. ...

SOUNDING WIRE.			DREDGING CABLE.			FMS.
P. M. Down.	Up.	P. M.	P. M. Down.	Up.	P. M.	
1 59 10	2 10 00		2 14 20	3 55 00		0
2 00 15	09 15		18 00	51 30		100
01 10	08 35		21 00	48 40		200
02 10	07 50		24 10	45 35		300
03 10	07 05		27 10	31 45		400
04 10	06 15		29 55	28 40		500
2 04 40	2 05 40	5 45	32 30	25 40		600
			35 05	21 35		700
			37 45	16 15		800
			40 40	12 30		900
			2 48 40	3 08 30		1000
						1100
						1200
						1300
						1400
						1500
						1600
						1700
						1800
						1900
						2000
						2100
						2200
						2300
						2400
						2500
						2600
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						2800
						2900
						3000
						3100
						3200
						3300
						3400
						3500
						3600
						3700
						3800
						3900
						4000
						4100
						4200
						4300
						4400
						4500
						4600
						4700
						4800
						4900

* When 900 fathoms out stopped

55

Cast Pt (Bottom)

S 20 E

8.9 m

Dredge } No. 2474 Date, June 24, 1909
Hydrog. }
Sdg. Mch. T. N. Reel TN Shot Lead 25 lbs.
Turns 154 Cor'n (155=125) Depth 124 fms.
Sdg. Cup Mining Amt. Bot'm Sample trace
Character of Bottom Co.

Thermom. { Make none used Cor'n { Instr. Stem.

Bottom Reading Cor'd Temp.

Temp. Surf. { 82° Time 7:38 a. } Air { 82°
82° Time 7:52 a. }

Density: Surf. fms.

Wind: Direction NE Force 2

Baromet. 29.89 Amt. of Clouds 9 State of Sea 3

Weather Bcs.

Direction and Force of Current { Surface Bottom

Tide

General Locality Pacific Ocean
Subst Church N. 82° W. San Bernardino St.
Position 12° 53' 48" N. 124° 18' 50" E

Chart used: No. 4220 Ed'n -

Drift: Direction S. 58° W. Distance 0.8

Depth of Haul Bottom

Apparatus and Rig used as before

Time towing h. 1 m. 6

Remarks:

Deck Officer Mr. Bohannon Recorder J. T. Kil-

SOUNDING WIRE.		FMS.	DREDGING CABLE.	
M. DOWN.	UP. A.M.		A M. DOWN.	UP. A. M.
7 16 25	7 22 00	0	7 25 50	8 50 55
7 17 20	7 19 40	100	7 29 55	8 57 40
7 17 55	7 17 55	150 200	7 34 30	8 54 25
		300	7 36 40	7 52 35
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		
		2500		
		2600		
		2700		
		2800		
		2900		
		3000		
		3100		
		3200		
		3300		
		3400		
		3500		
		3600		
		3700		
		3800		
		3900		
		4000		
		4100		
		4200		
		4300		
		4400		
		4500		
		4600		
		4700		
		4800		
		4900		

61

860 W.

S. Bernardine Lt 86 W

8.4 m

Dredge } No. 5475 Date, June 24, 1909

Sdg. Mch. Lucas Reel L Shot 35 lbs

Turns _____ Cor'n _____ Depth 195 fms.

Sdg. Cup Sigbee Amt. Bot'm Sample Trace

Character of Bottom Sh.

Thermom. { Make N. J. Cor'n { Instr. -7
 { No. 108015 { Stem. _____

Bottom Reading 60° Cor'd Temp. 59.3

Temp. Surf. { 82° Time 9:15 A. } Air { 85°
 { 82° Time 9:31 A. } { 85°

Density: Surf. _____ fms. _____

Wind: Direction N. N. E. Force 2-3

Baromet. 29.87 Amt. of Clouds 5 State of Sea 5

Weather bcg

Direction and Force of Current { Surface _____
 { Bottom _____

Tide _____

General Locality Bingham Pacific Ocean

Latitude 120° 55' 26" N. Longitude 124° 22' 22" E

Chart used: No. 4220 Ed'n _____

Drift: Direction N. 82° W Distance 1.2

Depth of Haul Bottom

Apparatus and Rig used As before

Time towing h. 16 m.

Remarks: _____

Deck Officer W. Johnson Recorder Jones

SOUNDING WIRE.

17 M. Down. Up. 17 M.

8 48 . 53 30
 49 45 52 40
 8 50 35 8 51 35

FMS.

0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1800
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900

DREDGING CABLE.

17 M. Down. Up. 17 M.

8 57 35 9 45 10
 9 01 05 42 00
 06 05 38 50
 10 40 35 40
 9 15 10 9 31 55

62

S 270 M.

S Bernhardt S 270 M

11 m

B- 11- 10 / 123- 51- 57(2)

Ltj Pt S 76 W

Sajo Pt S 55 E.

205162

31

12

$$\begin{array}{r} 32-92 \\ 12-50 \\ \hline 20-30 \end{array}$$

$$\begin{array}{r} 63-65 \\ 48-50 \\ \hline 15-15 \end{array}$$

$$\begin{array}{r} 31-50 \\ 6-10 \\ \hline 27-20 \end{array}$$

$$\begin{array}{r} 34-100 \\ 28-50 \\ \hline 6-50 \end{array}$$

$$\begin{array}{r} 3-25 \\ 20-50 \\ \hline 32-15 \end{array}$$

$$\begin{array}{r} 10-105-50 \\ 9-50-25 \\ \hline 12-25 \\ \hline 25 \end{array} \quad \left| \begin{array}{l} 17 \\ 3 \end{array} \right.$$