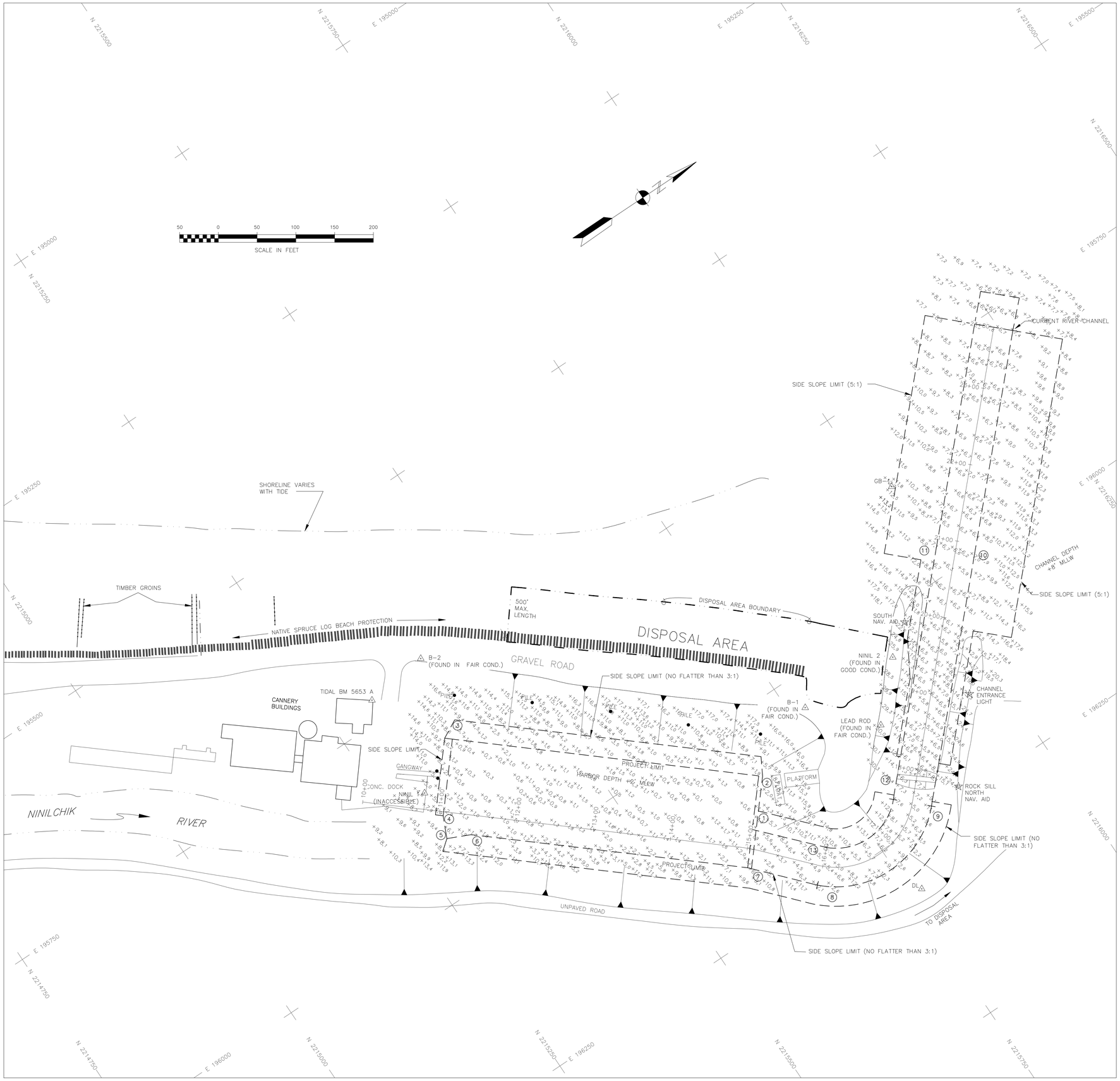

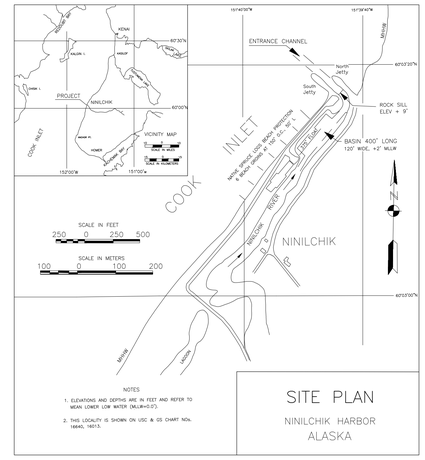

NOTES

1. ELEVATIONS AND DEPTHS ARE IN FEET AND REFER TO MEAN LOWER LOW WATER (MLLW=0.0').
2. THIS LOCALITY IS SHOWN ON USC & GS CHART NOs. 16640, 16013.

NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, IN FEET, NAD 27, HOLDING SBC "NINIL 2" AS N 2,215,900.33, E 196,050.77 AND USACE SBC "B-2" AS N 2,215,393.19, E 195,713.32.
2. VERTICAL CONTROL IS IN FEET, REFERRING TO MEAN LOWER LOW WATER (MLLW=0.0'), HOLDING NOAA BENCHMARK "945 5653 E" (LEAD ROD) AT 29.45'.
3. SOUNDINGS ARE IN FEET AND ARE NEGATIVE UNLESS OTHERWISE INDICATED.
4. THIS DRAWING IS INDICATIVE OF CONDITIONS AT THE TIME OF SURVEY.
5. THIS POST DREDGE SURVEY WAS CONDUCTED ON APRIL 26 & 27 & MAY 12, 2013 BY HUGHES AND ASSOCIATES, WASILLA, AK. SOUNDINGS WERE COLLECTED USING AN RESON NAVISOUND 210 PRECISION DEPTH SOUNDER WITH A 200KHZ, 3-DEGREE BEAM-WIDTH TRANSDUCER. SOUNDER CALIBRATION WAS PERFORMED USING A DIGIBAR PRO SOUND VELOCITY PROBE. POSITIONING AND TIDES WERE PROVIDED IN REAL TIME USING A TRIMBLE R8 RTK GPS RECIEVER OPERATING ON KINEMATIC CORRECTIONS BROADCAST FROM A TRIMBLE R8 RTK BASE RECEIVER SET AT CONTROL STATION, "NINIL 2". VESSEL NAVIGATION, DATA COLLECTION AND PROCESSING WERE PERFORMED USING HYPACK 2013 INTEGRATED SOFTWARE.
6. TOPOGRAPHIC DATA WAS COLLECTED ON APRIL 26 & 27 & MAY 12, 2012 USING A TRIMBLE R8 RTK GPS RECEIVER OPERATING ON KINEMATIC CORRECTIONS BROADCAST FROM A TRIMBLE R8 RTK BASE RECEIVER SET AT "NINIL 2".

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	2,215,626.07	196,134.54	9	2,215,835	196,238
2	2,215,671.45	196,081.67	10	2,216,061	196,000
3	2,215,369.31	195,822.37	11	2,216,025	195,966
4	2,215,304.48	195,897.91	12	2,215,799	196,204
5	2,215,292.03	195,925.05	13	2,215,693	196,207
6	2,215,321.04	195,938.36			
7	2,215,593.66	196,172.31			
8	2,215,656	196,241			

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
B-1	2,215,770.21	196,041.98	32.23	USACE SBC 1979
B-2	2,215,393.19	195,713.32	32.33	USACE SBC 1979
DEEP	2,203,353.41	188,093.31	–	USC & GS SBC 1964
GB-1	2,216,021.69	195,866.98	8.17	–
HAYNES	2,209,664.61	191,151.17	199.29	USC & GS SBC 1979
N. END	2,216,807.77	196,909.70	26.11	1980
S. END	2,211,878.85	193,593.93	25.83	1980
NINIL 1	2,215,300.78	195,860.20	26.29	3" SBC IN CONC. DECK OF DOCK
EL-1	2,214,856.65	195,349.30	29.57	USACE SBC IN HOR. CONC. SHELF
DL	2,215,765.15	196,319.88	–	REBAR W/ ALCAP "DL 1998"
LEAD ROD	2,215,838.87	196,114.88	29.45	LEAD/STEEL ROD IN ROCK
NINIL 2	2,215,900.33	196,050.77	28.28	2" SBC IN ROCK

HARBOR VOLUME COMPUTATIONS

VOLUME REMOVED TO PROJECT DEPTH (+2')	5,090 cy
VOLUME REMOVED BETWEEN P.D. (+2') AND MAX-PAY DEPTH (+1')	1,073 cy
VOLUME REMOVED TO SIDE-SLOPES	917 cy
TOTAL VOLUME REMOVED IN HARBOR	7,080 cy

ENTRANCE CHANNEL VOLUME COMPUTATIONS

VOLUME REMOVED TO PROJECT DEPTH (+8')	3,603 cy
VOLUME REMOVED BETWEEN P.D. (+8') AND MAX-PAY DEPTH (+7')	1,026 cy
VOLUME REMOVED TO SIDE-SLOPES	1,454 cy
TOTAL REMOVED IN ENTRANCE CHANNEL	6,083 cy

OVERDREDGE VOLUME COMPUTATIONS

OVERDREDGE IN HARBOR PRE TO POST	1,198 cy
OVERDREDGE IN ENTRANCE PRE TO POST	1,423 cy
TOTAL OVERDREDGE VOLUME REMOVED	2,621 cy

STATE OF ALASKA 49TH
CORY S. HUGHES
LS-13869
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

Sym.	Action	Description	Date	Appvd

Date: 6-24-2013
Dwg Scale: 1" = 50'
Plot Scale:
File:
Drawing #: 3097-13
Designed:
Drawn: CSH
Reviewed: JSH
Section:
Chief:
Submitted:
Branch:
Chief:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & 27 & MAY 12, 2013

Reference number:

Sheet 1 of 4

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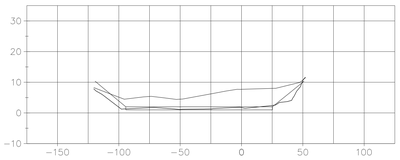

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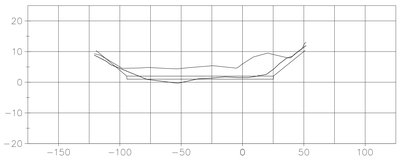

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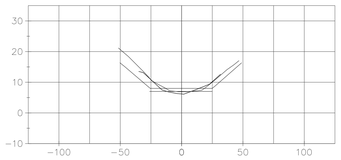

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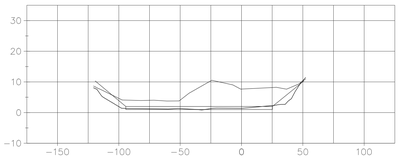

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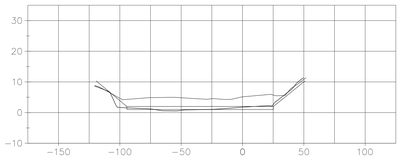

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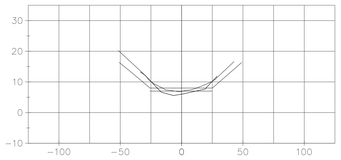

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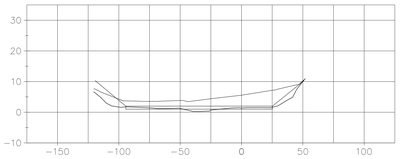

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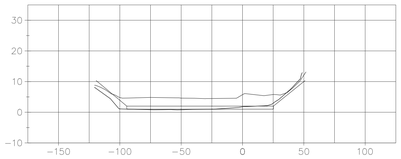

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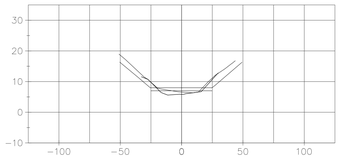

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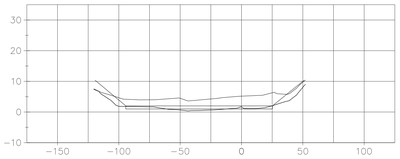

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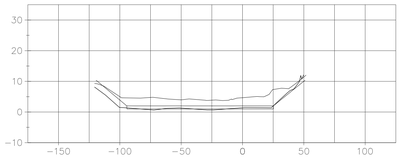

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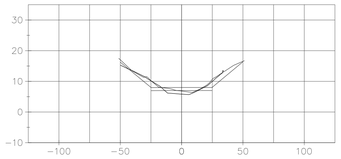

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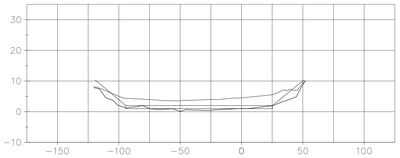

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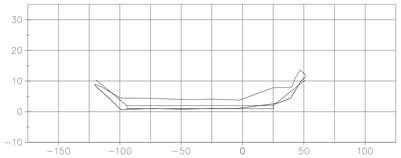

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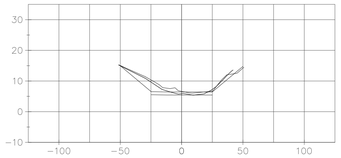

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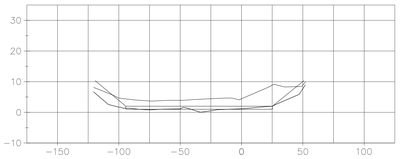

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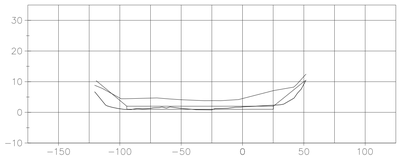

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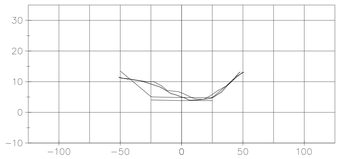

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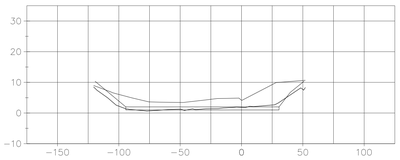

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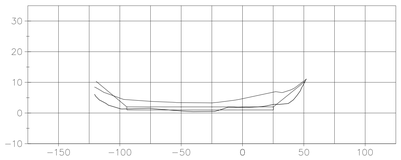

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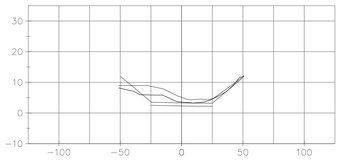

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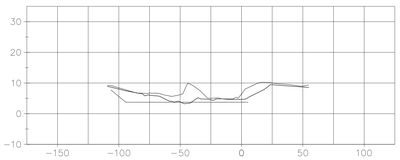

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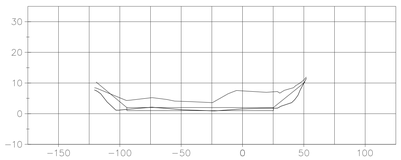

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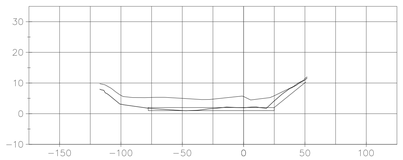

PRE-DREDGE SURVEY
APRIL 26 & MAY 7, 2013

POST-DREDGE SURVEY
MAY 3,4 & 12, 2013

SCALE
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 20'

STATE OF ALASKA
49TH
CORY S. HUGHES
LS-13869
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: Approved: Date:
PRIME CONTRACTOR RESIDENT ENGINEER

Sym.	Action	Description	Date	Appvd

Date: 6-24-2013
Dwg Scale:
Plot Scale:
File:
Drawing #:
Section
Branch
3097-13

Designed:
Drawn: CSH
Reviewed: JSH
Chief:
Checked:
Chief:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & 27 & MAY 12, 2013

Reference number:

Sheet 2 of 4

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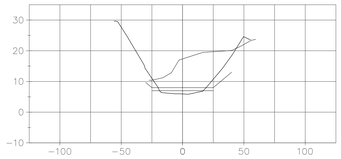

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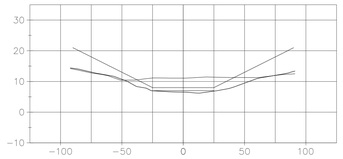

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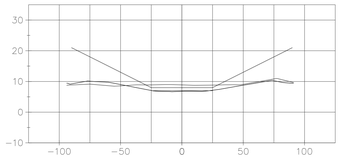

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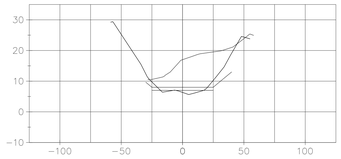

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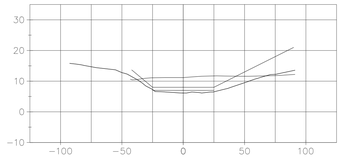

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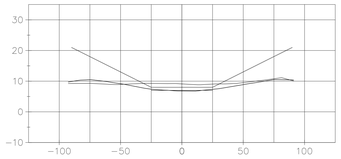

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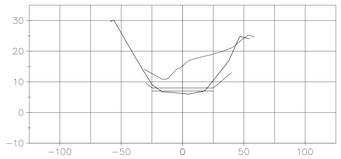

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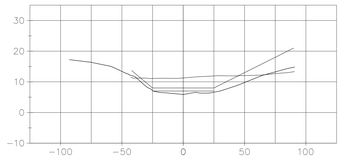

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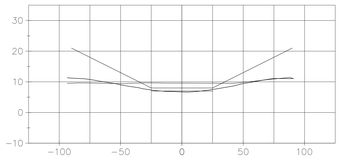

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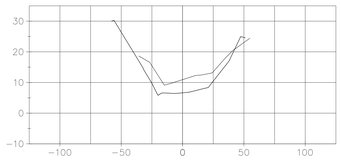

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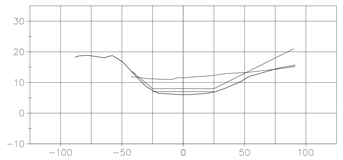

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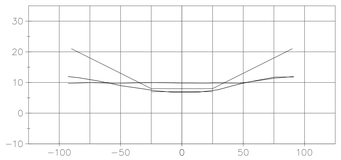

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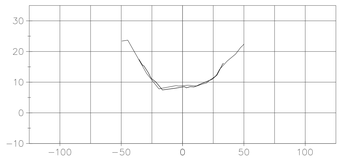

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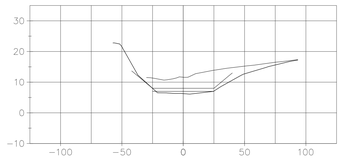

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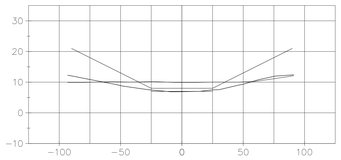

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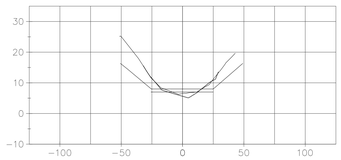

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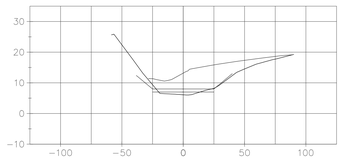

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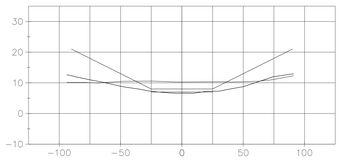

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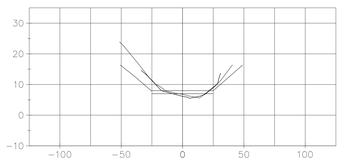

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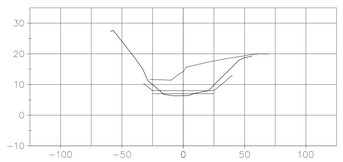

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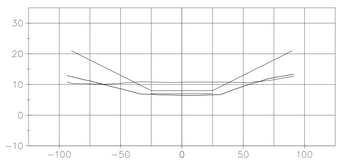

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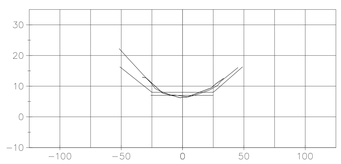
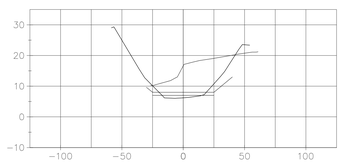


19+00



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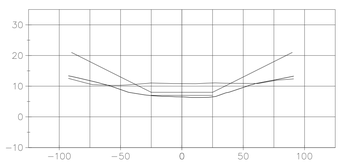


PRE-DREDGE SURVEY
APRIL 26 & MAY 7, 2013

POST-DREDGE SURVEY
MAY 3,4 & 12, 2013

SCALE
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 20'

STATE OF ALASKA
49TH
CORY S. HUGHES
LS-13089
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

Sym.	Action	Description	Date	Appvd

Date 6-24-2013
Dwg Scale:
Plot Scale:
File:
Drawing #:
3097-13

Designed:
Drawn: CSH
Reviewed: JSH
Chief:
Section
Checked:
Chief:
Branch

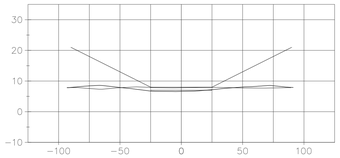
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & 27 & MAY 12, 2013

Reference number:

Sheet 3 of 4

23+80



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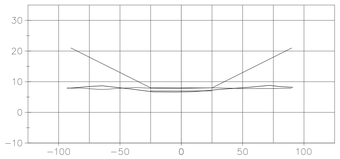

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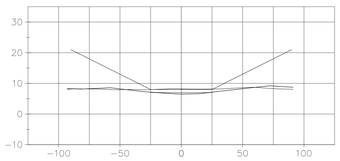

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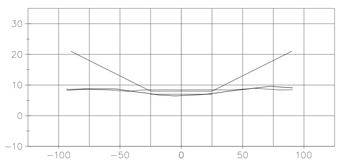

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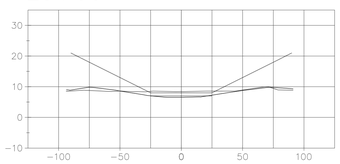

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ANCHORAGE, ALASKA

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NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & 27 & MAY 12, 2013

Reference number:

Sheet 4 of 4