



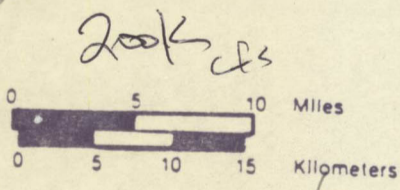
ESTS

*hpf
Haven's
Fond
upper
system*

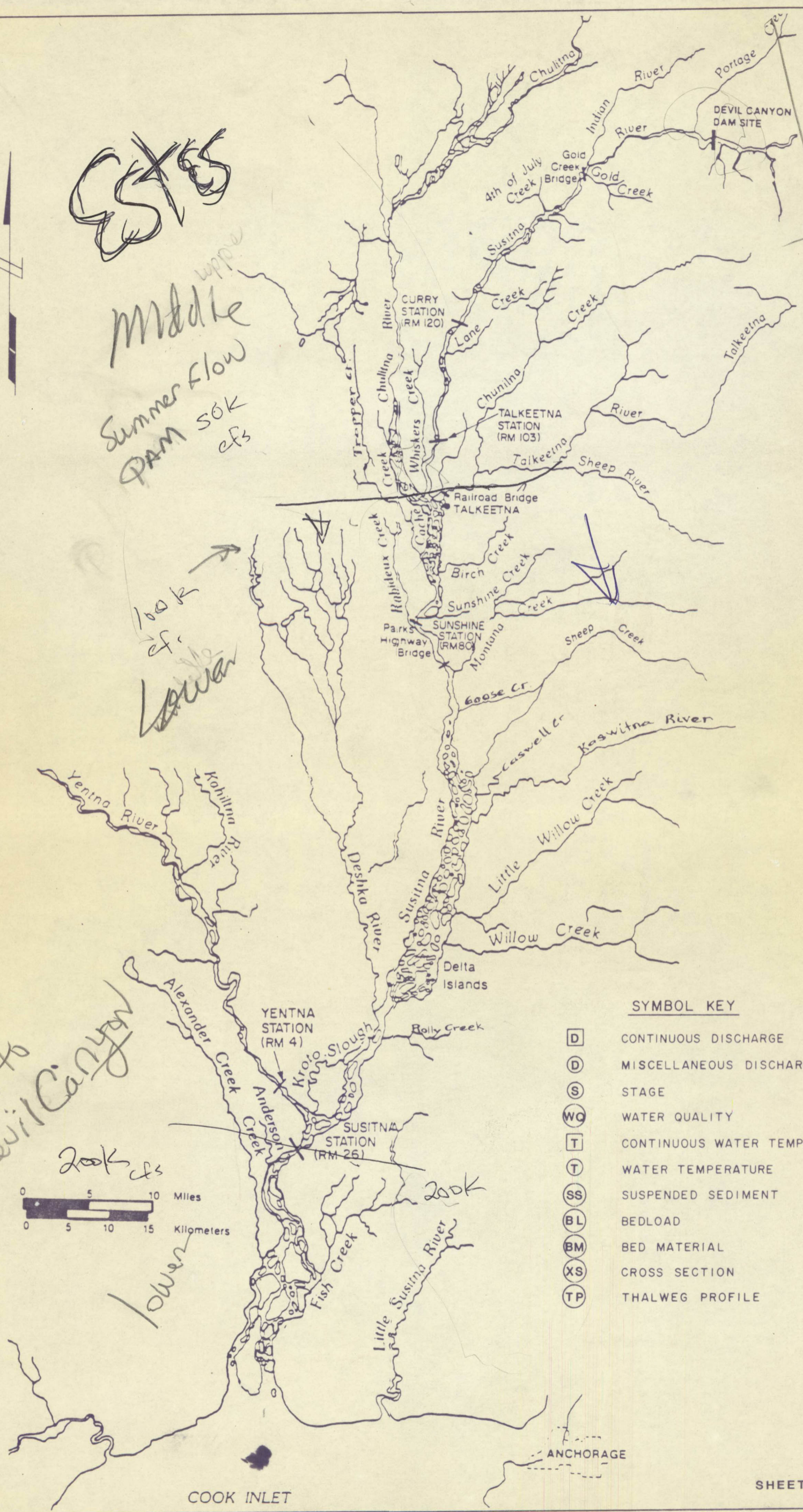
*Middle
Summer Flow
PAM SOK
efs*

*look
ef.
Lower*

*mouth to
Devil Canyon*



Lower

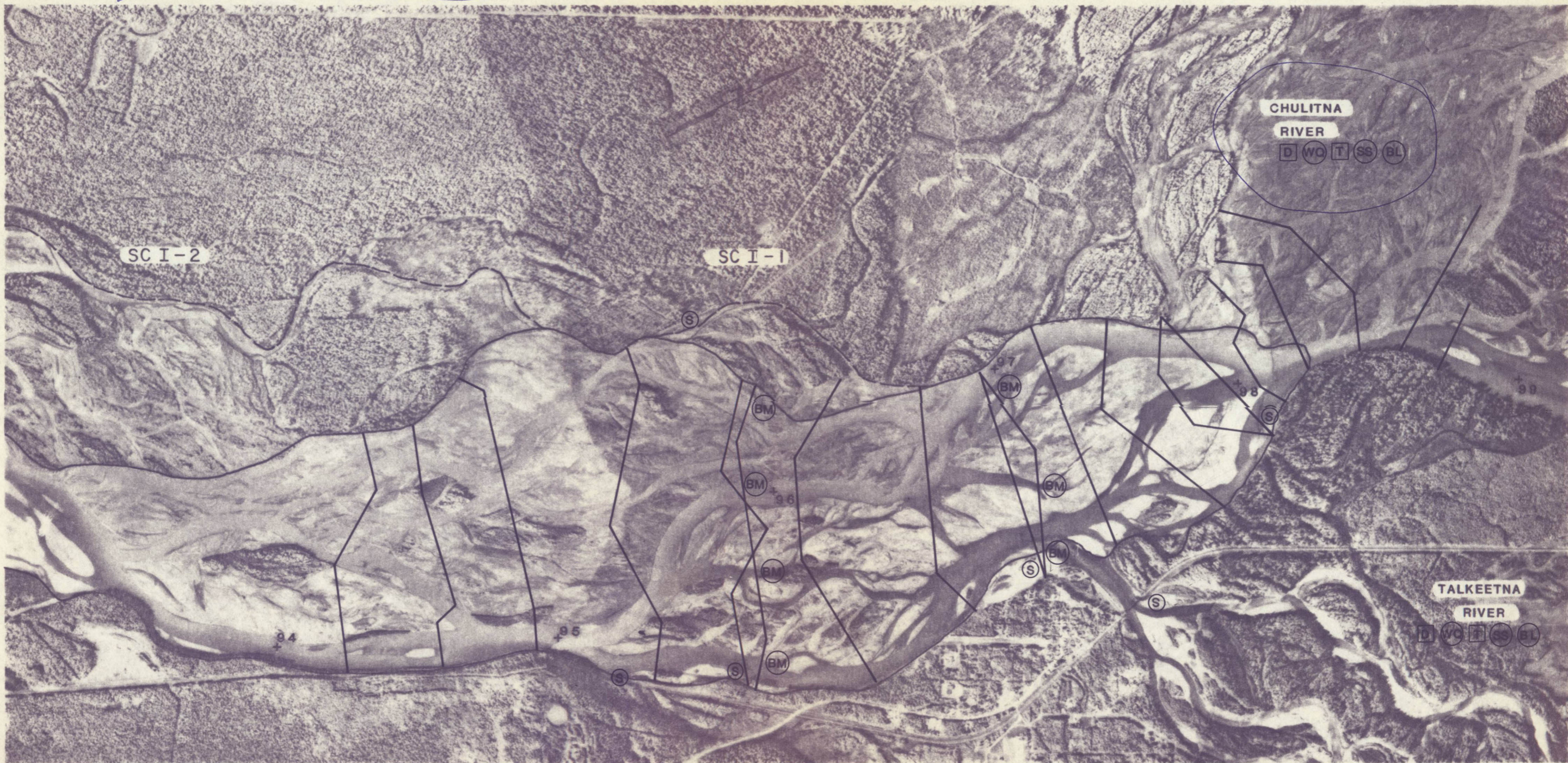


SYMBOL KEY

- D** CONTINUOUS DISCHARGE
- D** MISCELLANEOUS DISCHARGE
- S** STAGE
- WG** WATER QUALITY
- T** CONTINUOUS WATER TEMPERATURE
- T** WATER TEMPERATURE
- SS** SUSPENDED SEDIMENT
- BL** BEDLOAD
- BM** BED MATERIAL
- XS** CROSS SECTION
- TP** THALWEG PROFILE

SCI-2
↓

SCI-1P



SYMBOL KEY

- | | | | |
|------|------------------------------|------|--------------------|
| [D] | CONTINUOUS DISCHARGE | (T) | WATER TEMPERATURE |
| (D) | MISCELLANEOUS DISCHARGE | (SS) | SUSPENDED SEDIMENT |
| (S) | STAGE | (BL) | BEDLOAD |
| (WC) | WATER QUALITY | (BM) | BED MATERIAL |
| [T] | CONTINUOUS WATER TEMPERATURE | (XS) | CROSS SECTION |
| | | (TP) | THALWEG PROFILE |

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY: SEPT 16, 1983
SCALE: 1" = 2000'
SHEET: 2 OF 28
DATE: 2-7-84





SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000' SHEET: 3 OF 28
DATE: 2-7-84





SYMBOL KEY

- | | | | |
|-----------|------------------------------|-----------|--------------------|
| D | CONTINUOUS DISCHARGE | T | WATER TEMPERATURE |
| D | MISCELLANEOUS DISCHARGE | SS | SUSPENDED SEDIMENT |
| S | STAGE | BL | BEDLOAD |
| WC | WATER QUALITY | BM | BED MATERIAL |
| T | CONTINUOUS WATER TEMPERATURE | XS | CROSS SECTION |
| | | TP | THALWEG PROFILE |

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1"=2000'
SHEET: 4 OF 28
DATE: 2-7-84

RSM
R & M CONSULTANTS, INC.

MARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER
DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000'
SHEET: 5 OF 28
DATE: 2-7-84



HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D** CONTINUOUS DISCHARGE
- D** MISCELLANEOUS DISCHARGE
- S** STAGE
- WC** WATER QUALITY
- T** CONTINUOUS WATER TEMPERATURE

- T** WATER TEMPERATURE
- SS** SUSPENDED SEDIMENT
- BL** BEDLOAD
- BM** BED MATERIAL
- XS** CROSS SECTION
- TP** THALWEG PROFILE

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE: 1" = 2000' SHEET: 6 OF 28
DATE: 2-7-84



HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | |
|--|--|
| <p>□ CONTINUOUS DISCHARGE</p> <p>○ MISCELLANEOUS DISCHARGE</p> <p>○ STAGE</p> <p>○⁺ WATER QUALITY</p> <p>□ CONTINUOUS WATER TEMPERATURE</p> | <p>○ WATER TEMPERATURE</p> <p>○^{SS} SUSPENDED SEDIMENT</p> <p>○^{BL} BEDLOAD</p> <p>○^{BM} BED MATERIAL</p> <p>○^{XS} CROSS SECTION</p> <p>○^{TP} THALWEG PROFILE</p> |
|--|--|

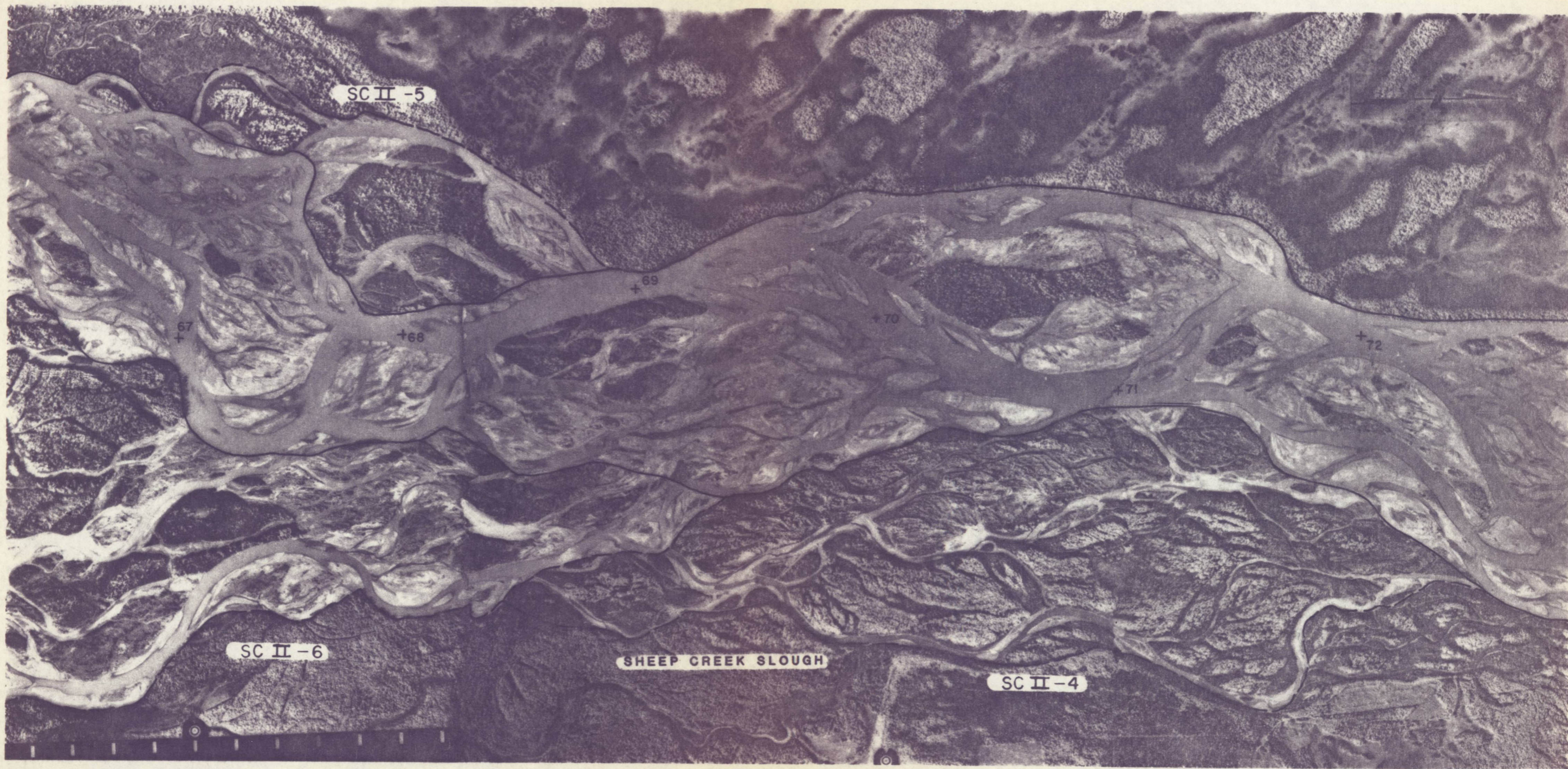
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE 1" = 100' SHEET 7 OF 28
DATE 2-7-84

RSM
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MARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

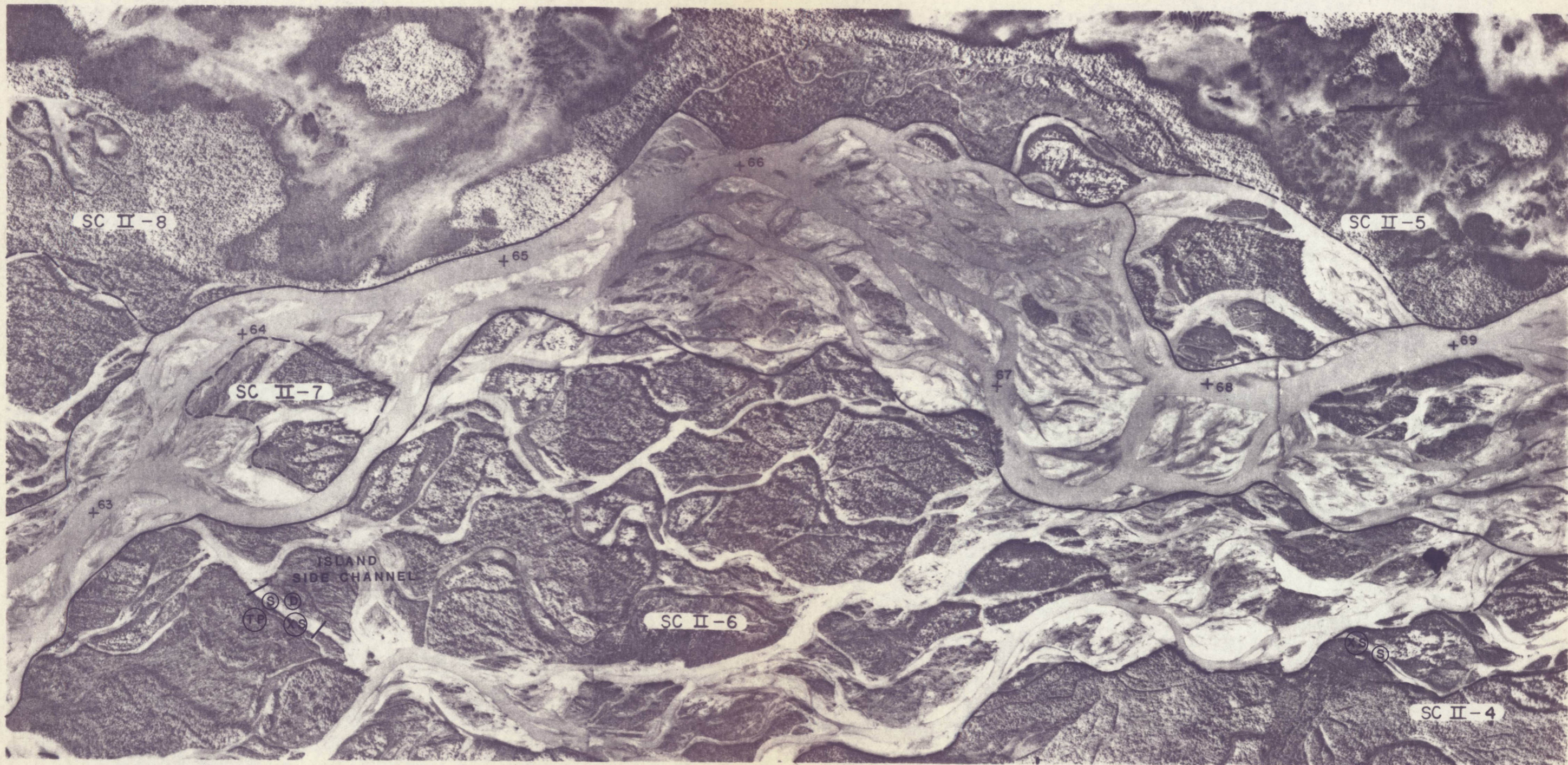
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE: 1" = 2000' SHEET: 8 OF 28
DATE: 2-7-84

PSM
R&M CONSULTANTS, INC.

MARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WQ WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

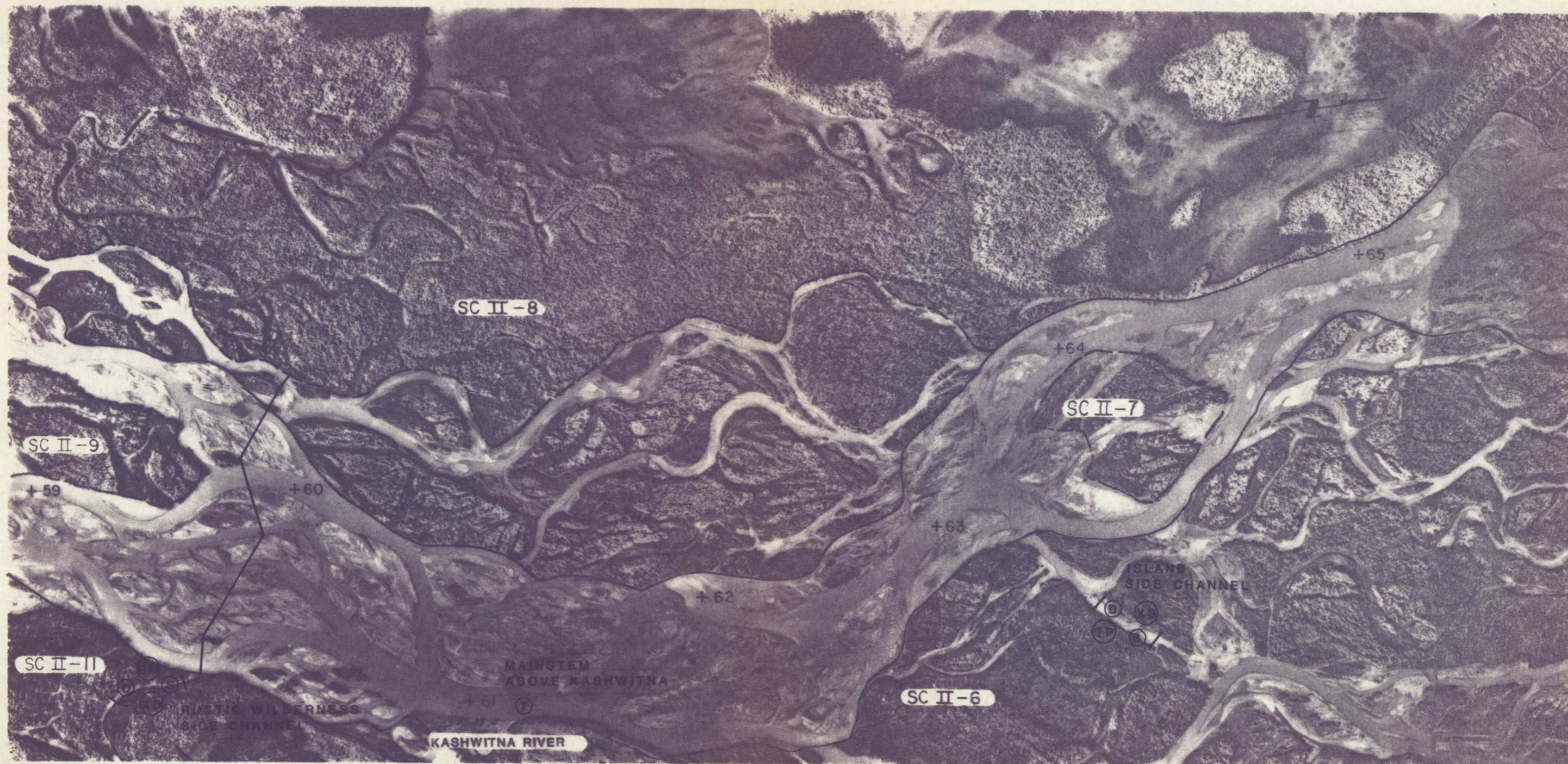
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE: 1" = 2000' SHEET 9 OF 28
DATE: 2-7-84

RSM
CONSULTANTS, INC.

HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | |
|---|--------------------------------|
| (D) CONTINUOUS DISCHARGE | (T) WATER TEMPERATURE |
| (D) MISCELLANEOUS DISCHARGE | (SS) SUSPENDED SEDIMENT |
| (S) STAGE | (BL) BEDLOAD |
| (WC) WATER QUALITY | (BM) BED MATERIAL |
| (T) CONTINUOUS WATER TEMPERATURE | (XS) CROSS SECTION |
| | (TP) THALWEG PROFILE |

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

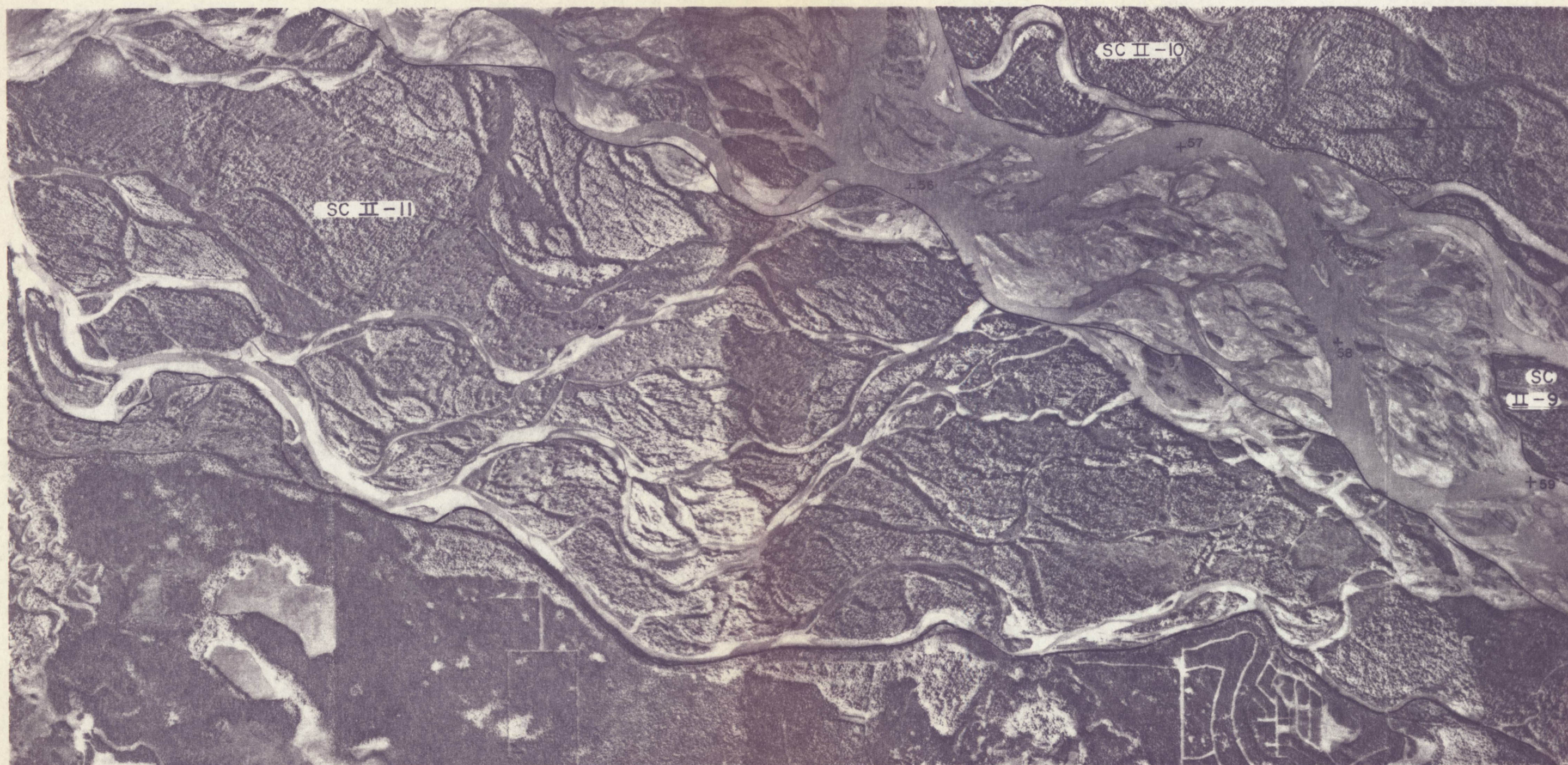
DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000'
SHEET: 10 OF 28
DATE: 2-7-84

RSM
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HARZA-EBASCO
SUSITNA JOINT VENTURE

CASWELL CREEK

- (XS)**
- (S)**
- (TP)**
- (D)**



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

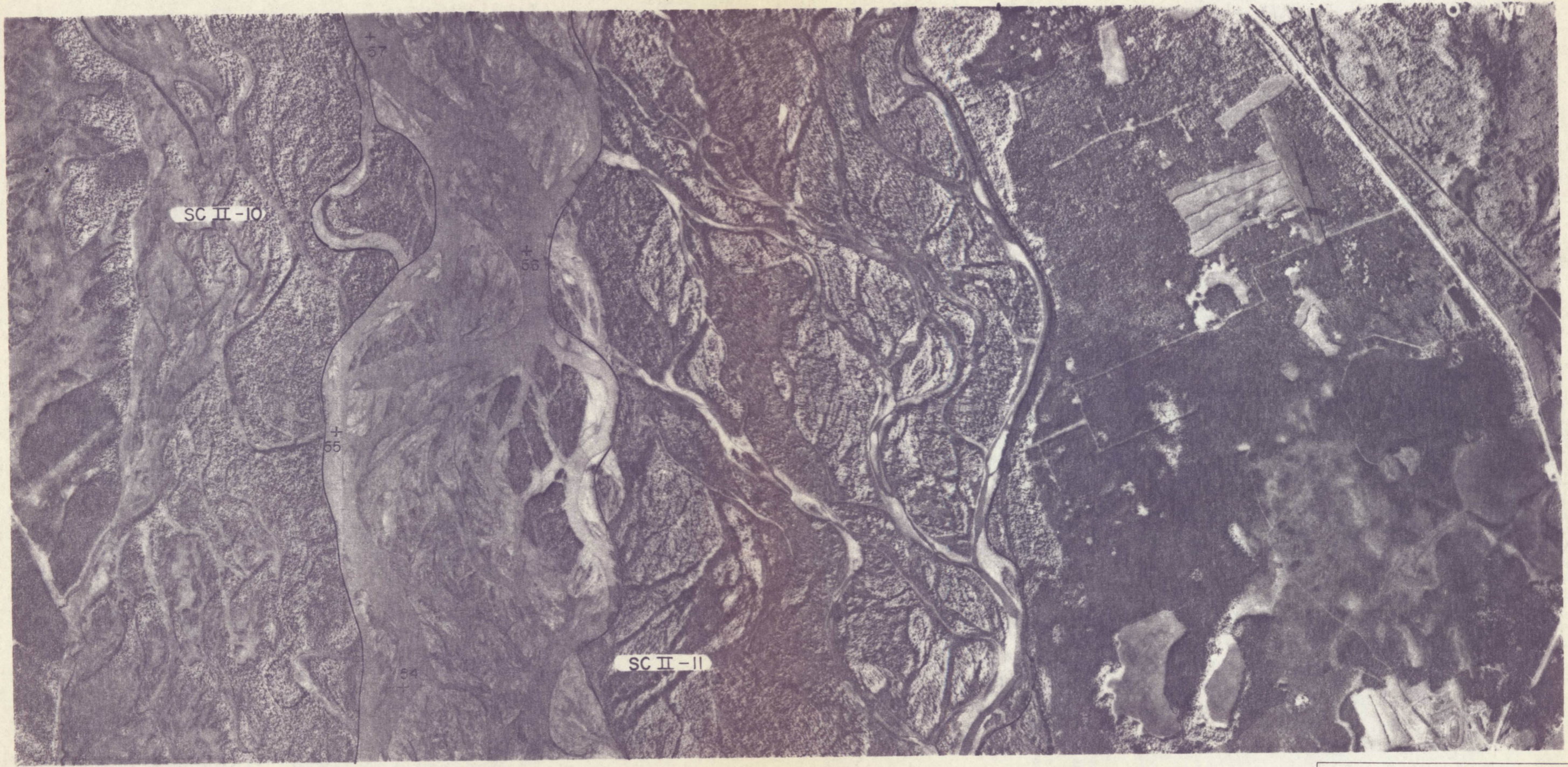
- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

**ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT**

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1"=2000' SHEET: 11 OF 28
DATE: 2-7-84





SYMBOL KEY

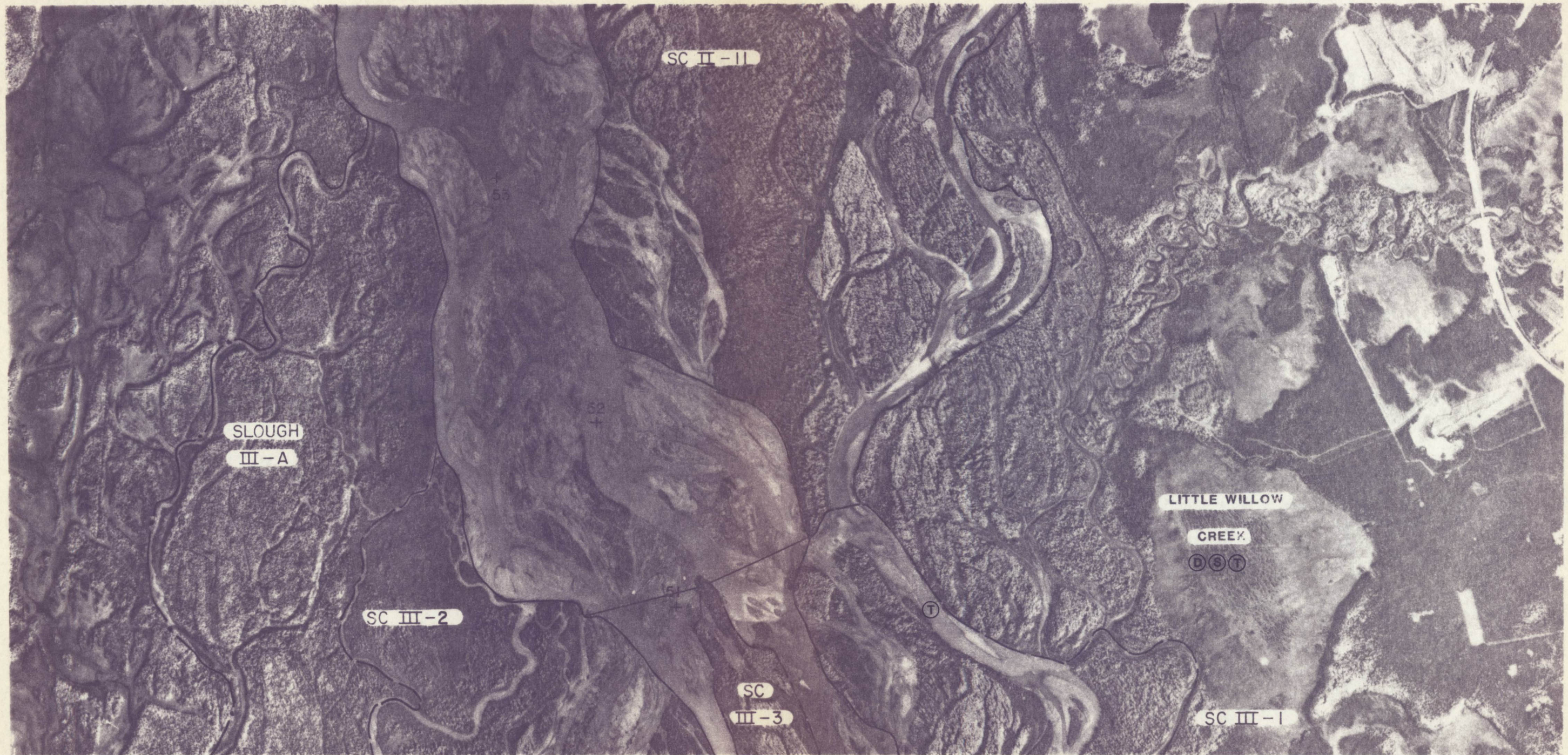
- | | |
|---|--------------------------------|
| (D) CONTINUOUS DISCHARGE | (T) WATER TEMPERATURE |
| (D) MISCELLANEOUS DISCHARGE | (SS) SUSPENDED SEDIMENT |
| (S) STAGE | (BL) BEDLOAD |
| (WC) WATER QUALITY | (BM) BED MATERIAL |
| (T) CONTINUOUS WATER TEMPERATURE | (XS) CROSS SECTION |
| | (TP) THALWEG PROFILE |

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE 1" = 2000'
SHEET 12 OF 28
DATE 2-7-84





SYMBOL KEY

- D** CONTINUOUS DISCHARGE
- D** MISCELLANEOUS DISCHARGE
- S** STAGE
- WQ** WATER QUALITY
- T** CONTINUOUS WATER TEMPERATURE

- T** WATER TEMPERATURE
- SS** SUSPENDED SEDIMENT
- BL** BEDLOAD
- BM** BED MATERIAL
- XS** CROSS SECTION
- TP** THALWEG PROFILE

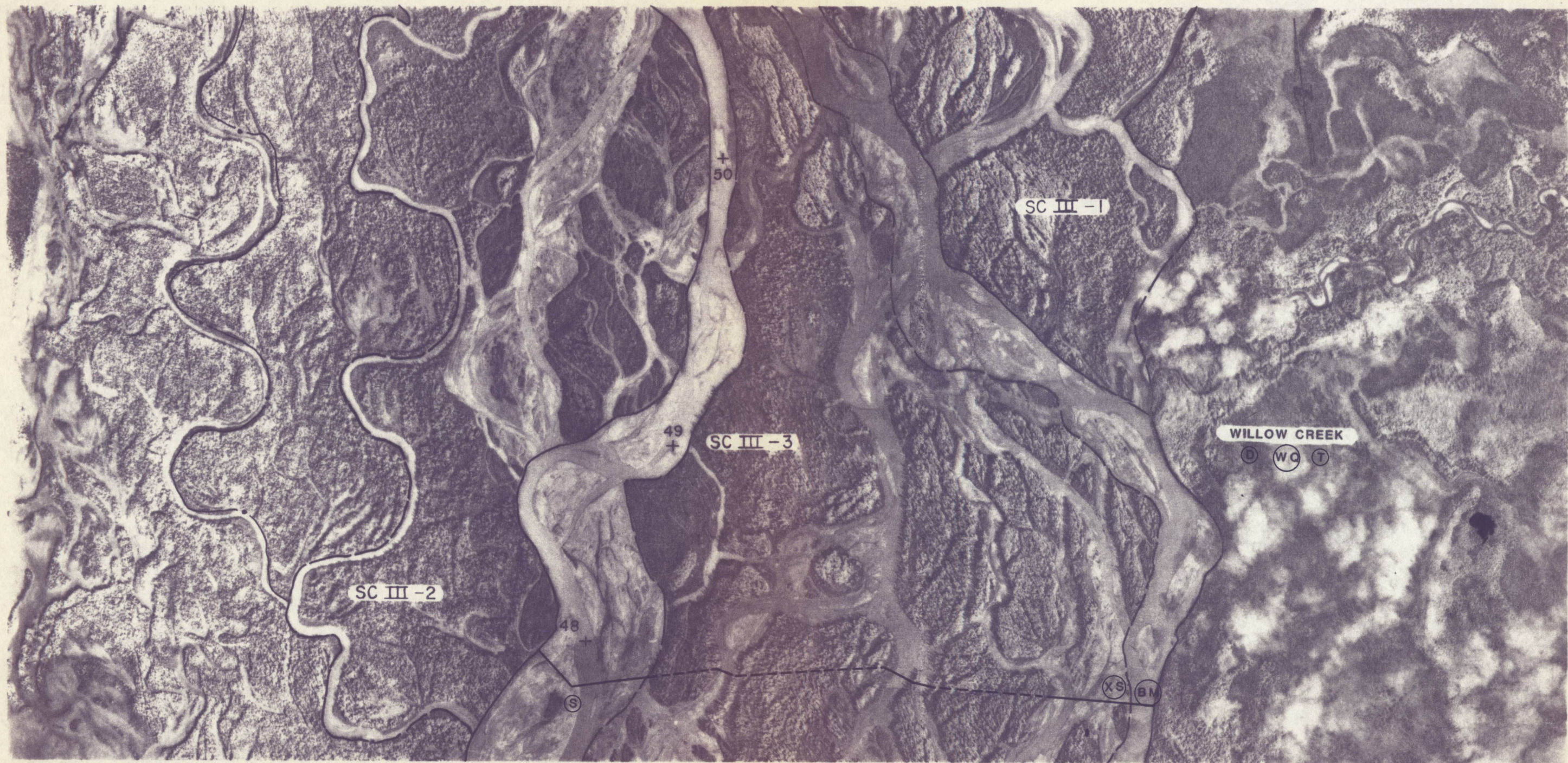
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000' SHEET: 13 OF 28
DATE: 2-7-84



HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

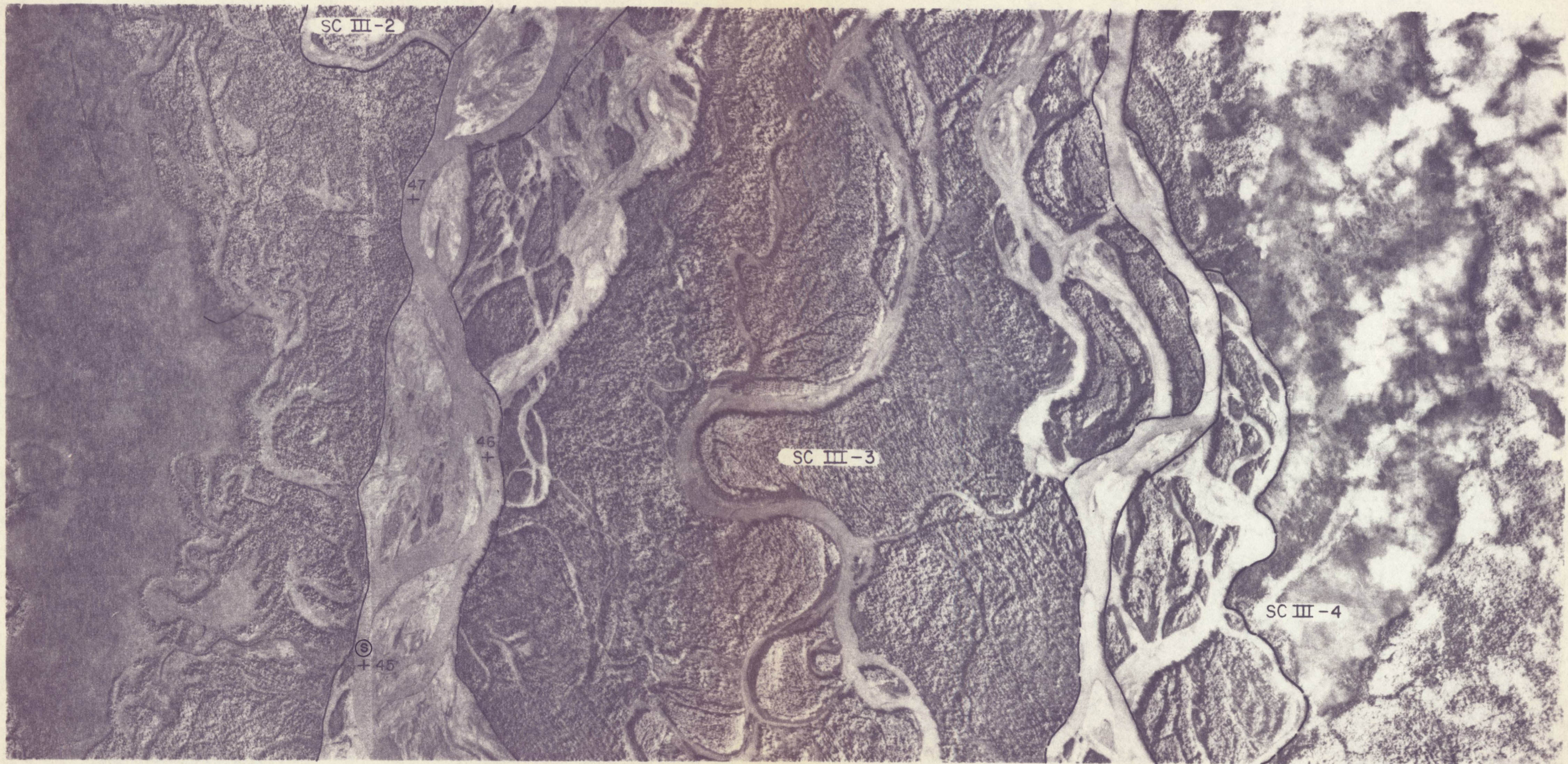
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE: 1" = 2000' SHEET: 14 OF 28
DATE: 2-7-84



HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

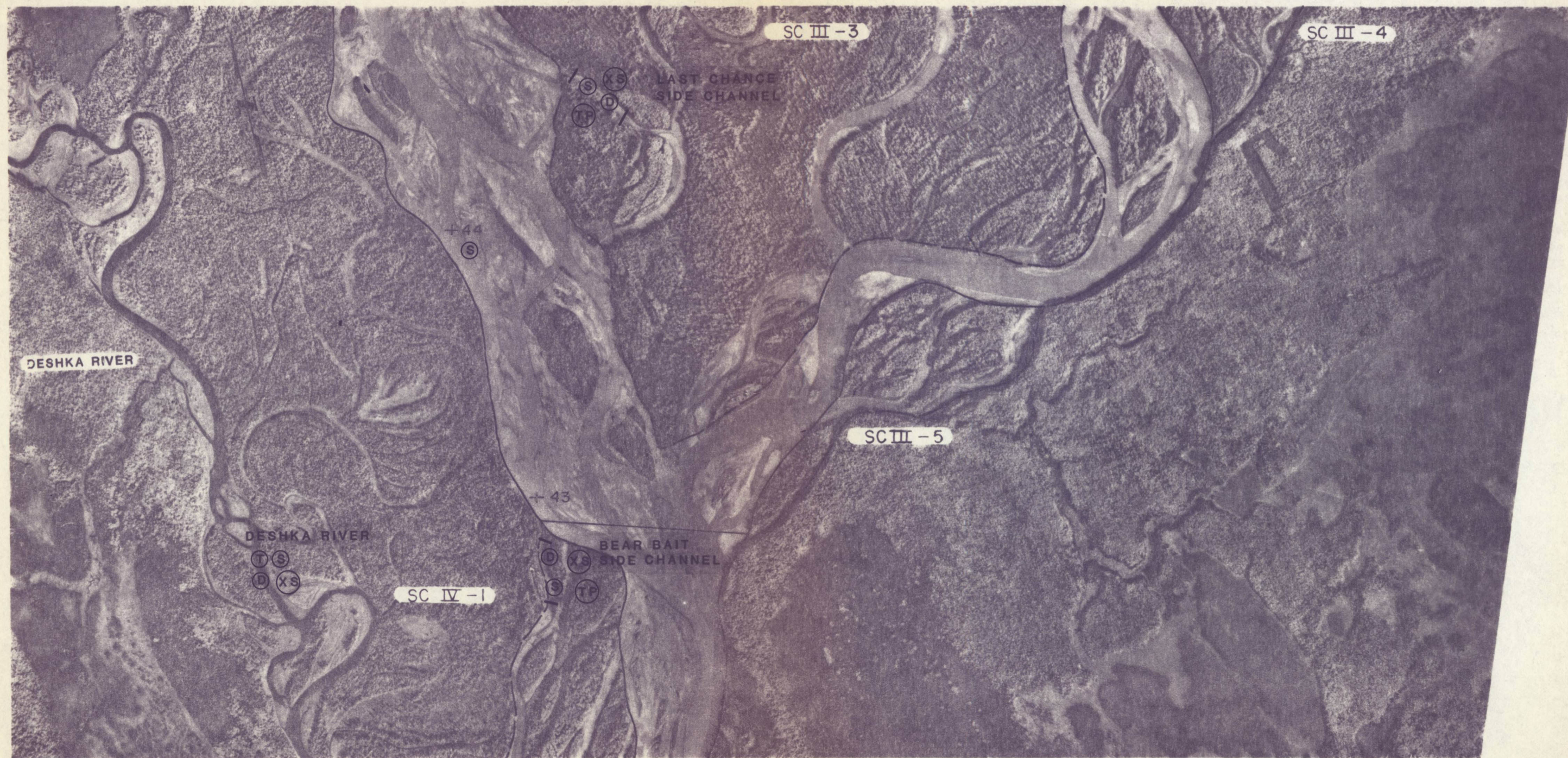
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000' SHEET: 15 OF 28
DATE: 2-7-84



HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- (D) CONTINUOUS DISCHARGE
- (D) MISCELLANEOUS DISCHARGE
- (S) STAGE
- (WC) WATER QUALITY
- (T) CONTINUOUS WATER TEMPERATURE

- (T) WATER TEMPERATURE
- (SS) SUSPENDED SEDIMENT
- (BL) BEDLOAD
- (BM) BED MATERIAL
- (XS) CROSS SECTION
- (TP) THALWEG PROFILE

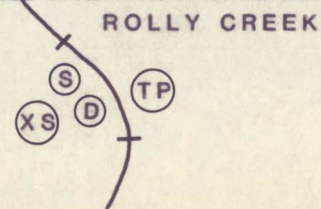
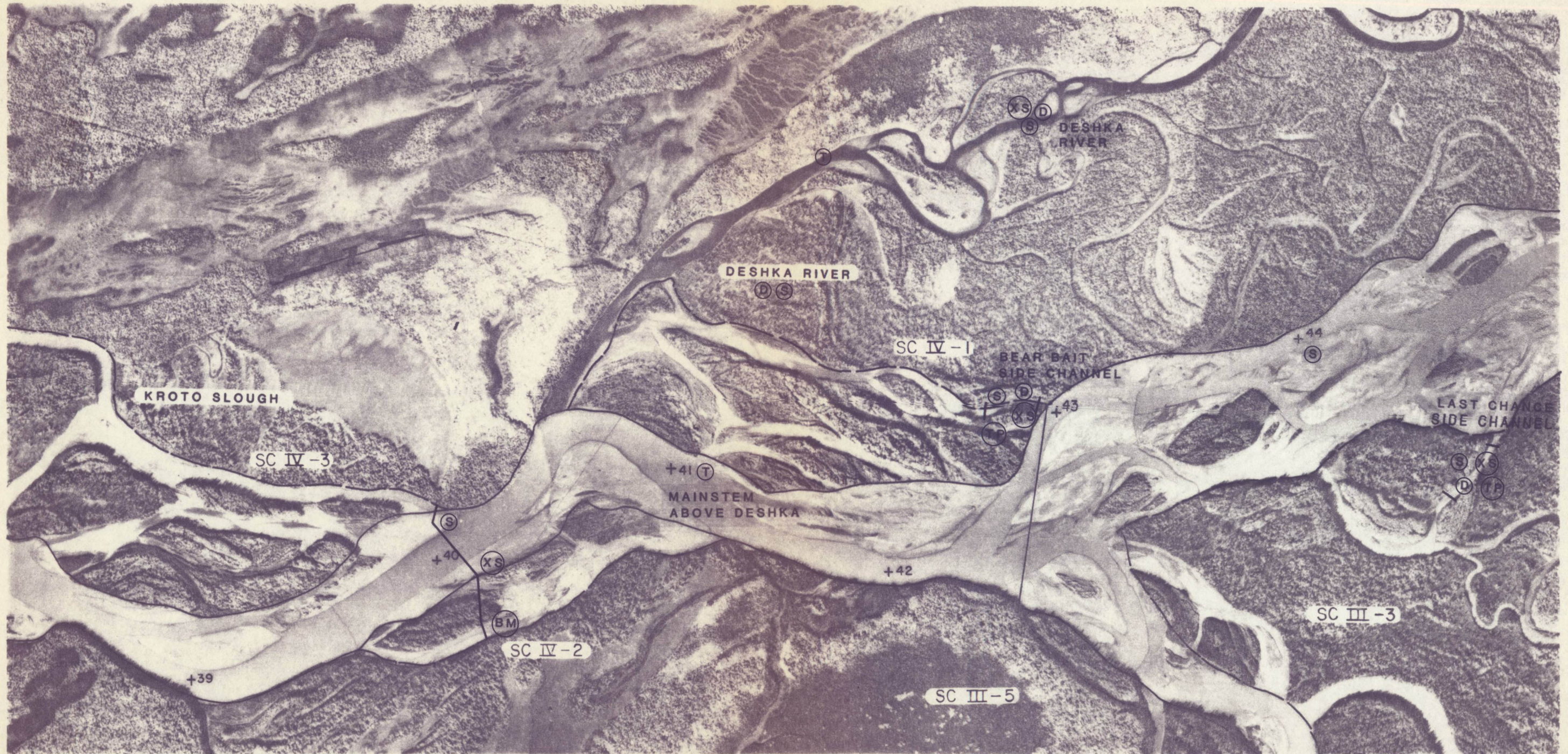
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE 1" = 2000' SHEET 16 OF 28
DATE 2-7-84



HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | |
|---|--------------------------------|
| [D] CONTINUOUS DISCHARGE | (T) WATER TEMPERATURE |
| (D) MISCELLANEOUS DISCHARGE | (SS) SUSPENDED SEDIMENT |
| (S) STAGE | (BL) BEDLOAD |
| (WC) WATER QUALITY | (BM) BED MATERIAL |
| [T] CONTINUOUS WATER TEMPERATURE | (XS) CROSS SECTION |
| | (TP) THALWEG PROFILE |

**ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT**

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE 1" = 2000'

SHEET: 17 OF 28
DATE: 2-7-84

RSM
RIVER CONSULTANTS, INC.

HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

ROLLY CREEK

- D
- S
- XS
- TP

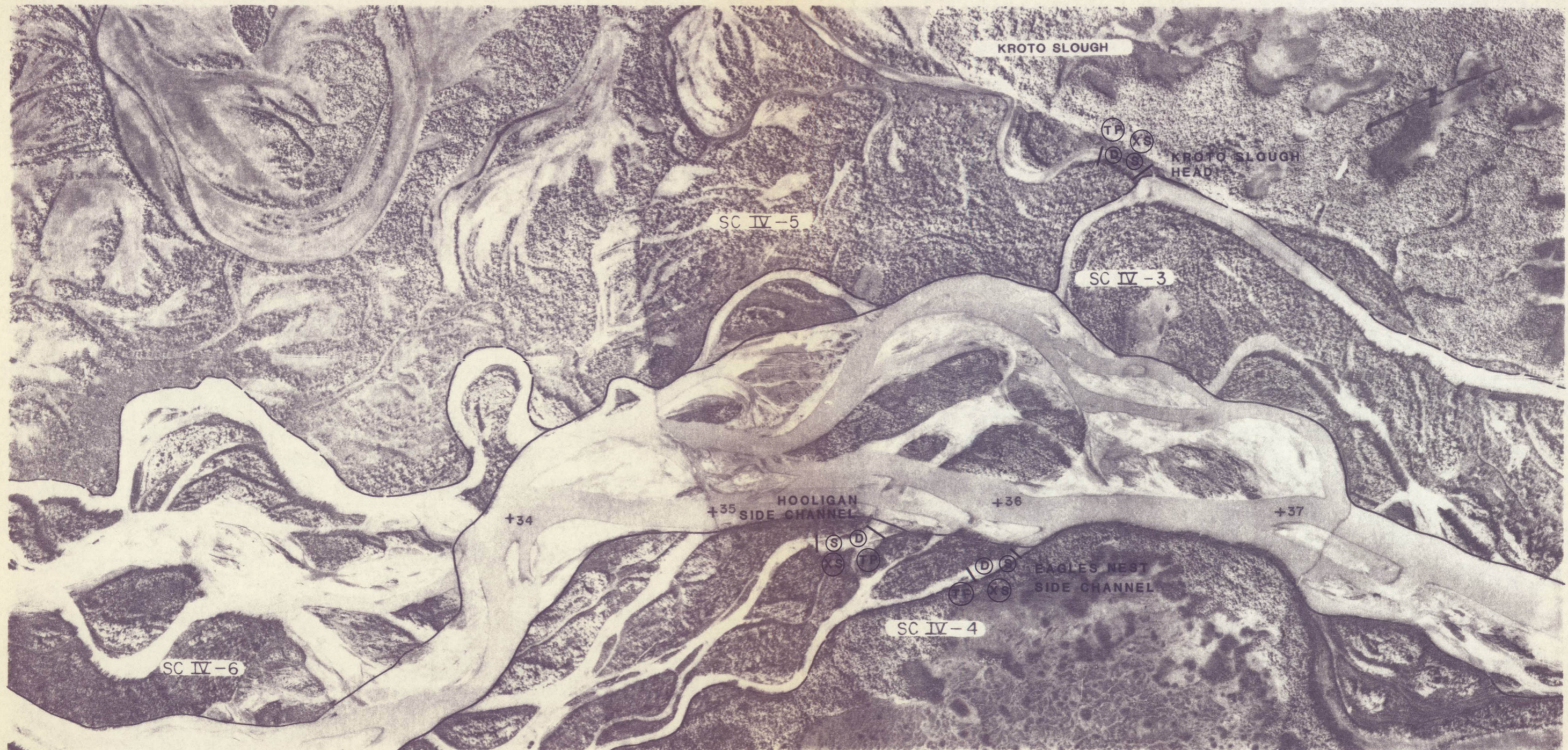
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000'
SHEET: 18 OF 28
DATE: 2-7-84

RSM
R&M CONSULTANTS, INC.

HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | |
|---|---|
| <ul style="list-style-type: none"> D CONTINUOUS DISCHARGE D MISCELLANEOUS DISCHARGE S STAGE WC WATER QUALITY T CONTINUOUS WATER TEMPERATURE | <ul style="list-style-type: none"> T WATER TEMPERATURE SS SUSPENDED SEDIMENT BL BEDLOAD BM BED MATERIAL XS CROSS SECTION TP THALWEG PROFILE |
|---|---|

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER
DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE: 1" = 2000' SHEET 19 OF 28
DATE: 2-7-84

RSM
R & M CONSULTANTS, INC.

HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | | | |
|-----------|------------------------------|-----------|--------------------|
| D | CONTINUOUS DISCHARGE | T | WATER TEMPERATURE |
| D | MISCELLANEOUS DISCHARGE | SS | SUSPENDED SEDIMENT |
| S | STAGE | BL | BEDLOAD |
| WC | WATER QUALITY | BM | BED MATERIAL |
| T | CONTINUOUS WATER TEMPERATURE | XS | CROSS SECTION |
| | | TP | THALWEG PROFILE |

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY: SEPT. 16, 1983
SCALE: 1" = 2000'
SHEET: 20 OF 28
DATE: 2-7-84



HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- (D) CONTINUOUS DISCHARGE
- (D) MISCELLANEOUS DISCHARGE
- (S) STAGE
- (WC) WATER QUALITY
- (T) CONTINUOUS WATER TEMPERATURE

- (T) WATER TEMPERATURE
- (SS) SUSPENDED SEDIMENT
- (BL) BEDLOAD
- (BM) BED MATERIAL
- (XS) CROSS SECTION
- (TP) THALWEG PROFILE

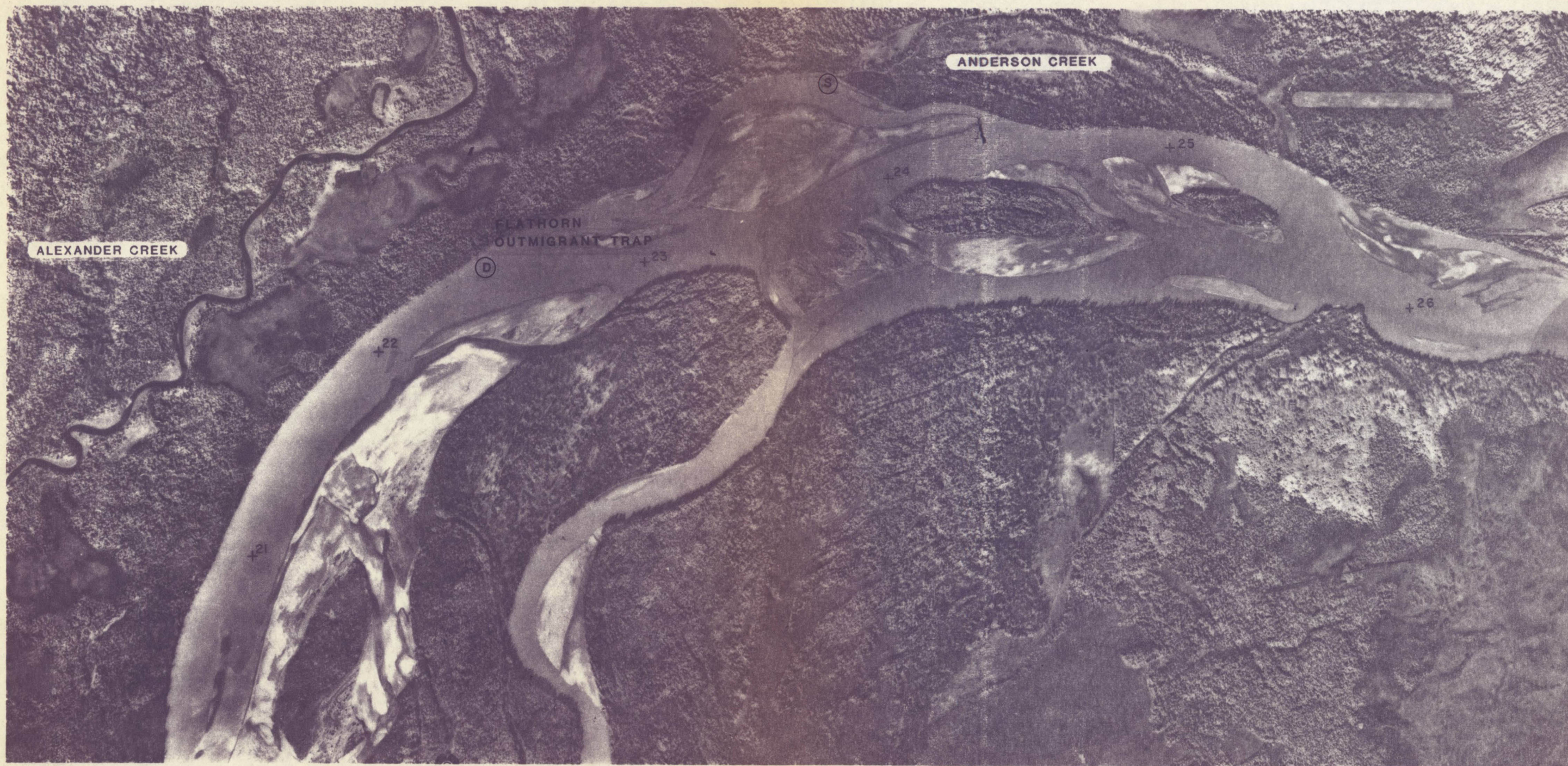
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1"=2000' SHEET: 21 OF 28
DATE 2-7-84

FSM
R.E.M. CONSULTANTS, INC.

HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | | | |
|----|------------------------------|----|--------------------|
| Ⓛ | CONTINUOUS DISCHARGE | Ⓣ | WATER TEMPERATURE |
| Ⓛ | MISCELLANEOUS DISCHARGE | ⓈⓈ | SUSPENDED SEDIMENT |
| Ⓢ | STAGE | Ⓛ | BEDLOAD |
| Ⓦⓐ | WATER QUALITY | ⓁⓂ | BED MATERIAL |
| Ⓣ | CONTINUOUS WATER TEMPERATURE | ⓍⓈ | CROSS SECTION |
| | | ⓉⓅ | THALWEG PROFILE |

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER
DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000'
SHEET: 22 OF 28
DATE: 2-7-84





SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

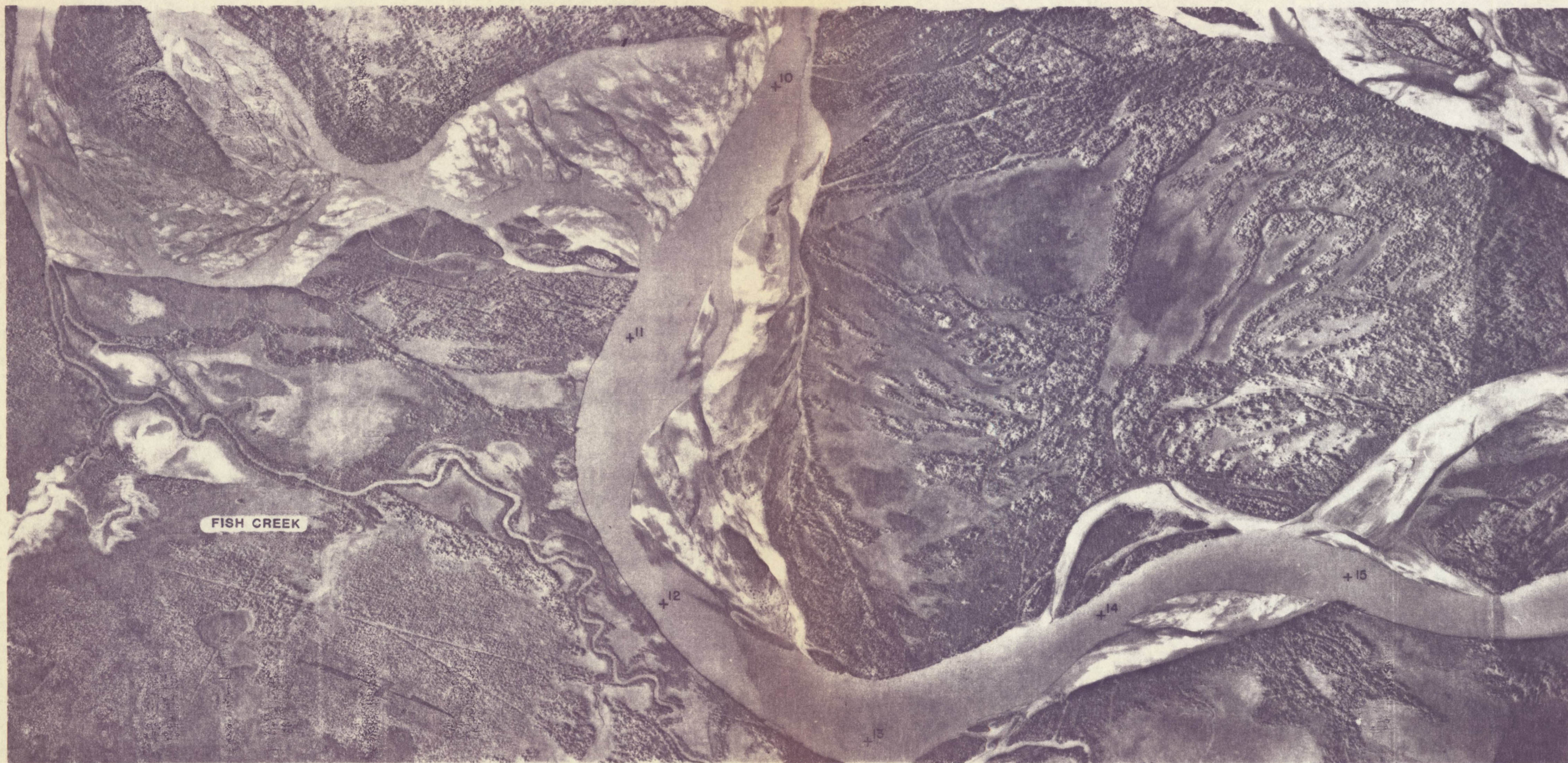
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000' SHEET: 23 OF 28
DATE: 2-7-84



HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY: SEPT. 16, 1983
SCALE: 1" = 2000' SHEET: 24 OF 28
DATE: 2-7-84





SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WC WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
SCALE: 1" = 2000' SHEET: 25 OF 28
DATE: 2-7-84



HARZA-EDASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- | | |
|---|---|
| <p>□ CONTINUOUS DISCHARGE</p> <p>○ MISCELLANEOUS DISCHARGE</p> <p>⊙ STAGE</p> <p>⊙ WATER QUALITY</p> <p>⊙ CONTINUOUS WATERTEMPERATURE</p> | <p>⊙ WATER TEMPERATURE</p> <p>⊙ SUSPENDED SEDIMENT</p> <p>⊙ BEDLOAD</p> <p>⊙ BED MATERIAL</p> <p>⊙ CROSS SECTION</p> <p>⊙ THALWEG PROFILE</p> |
|---|---|

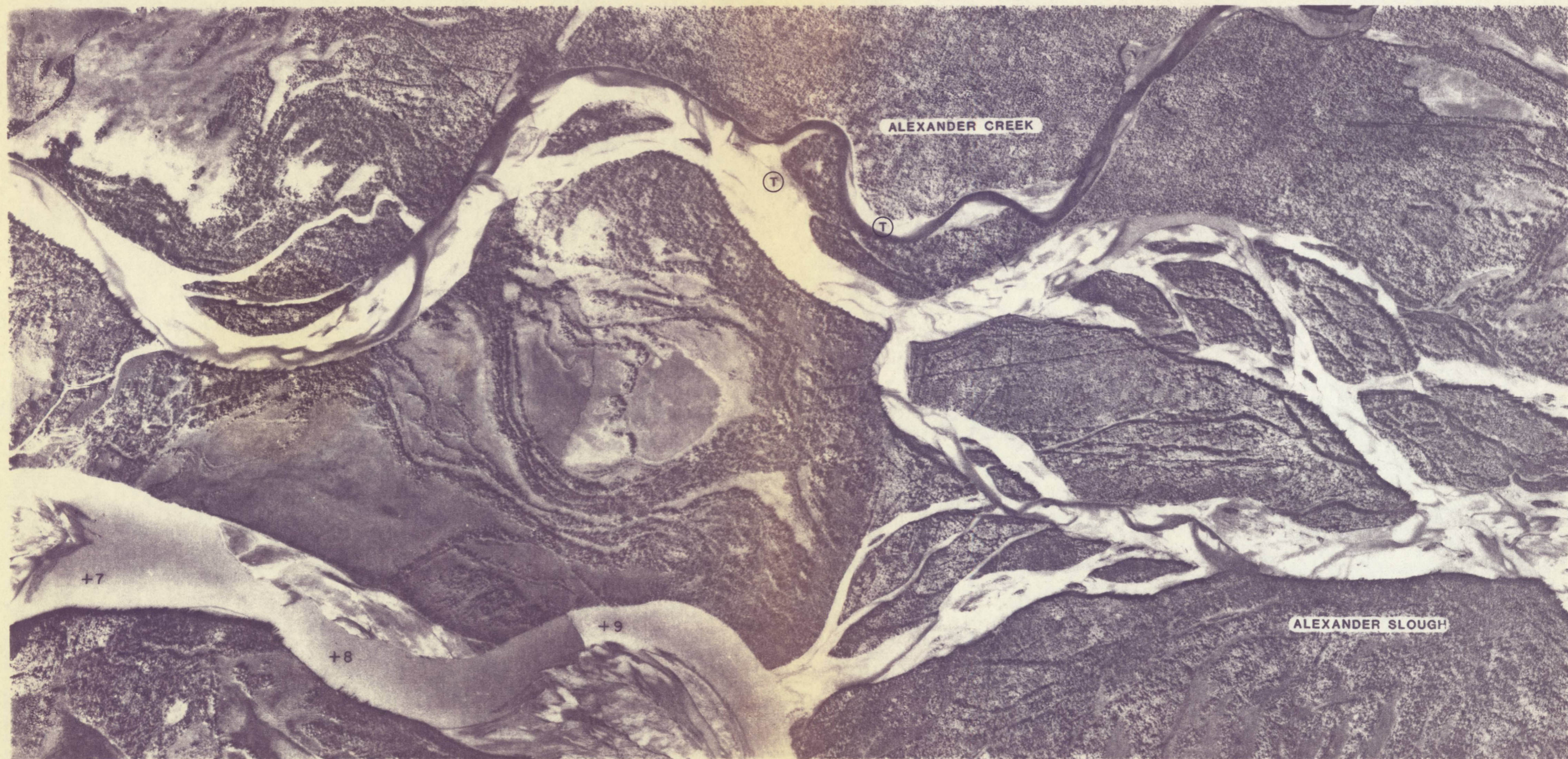
ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY: SEPT 16, 1983
SCALE: 1" = 2000'
SHEET: 26 OF 28
DATE: 2-7-84

RSM
RIVER CONSULTANTS, INC.

HARZA-EBASCO
SUSITNA JOINT VENTURE



SYMBOL KEY

- D CONTINUOUS DISCHARGE
- D MISCELLANEOUS DISCHARGE
- S STAGE
- WQ WATER QUALITY
- T CONTINUOUS WATER TEMPERATURE

- T WATER TEMPERATURE
- SS SUSPENDED SEDIMENT
- BL BEDLOAD
- BM BED MATERIAL
- XS CROSS SECTION
- TP THALWEG PROFILE

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

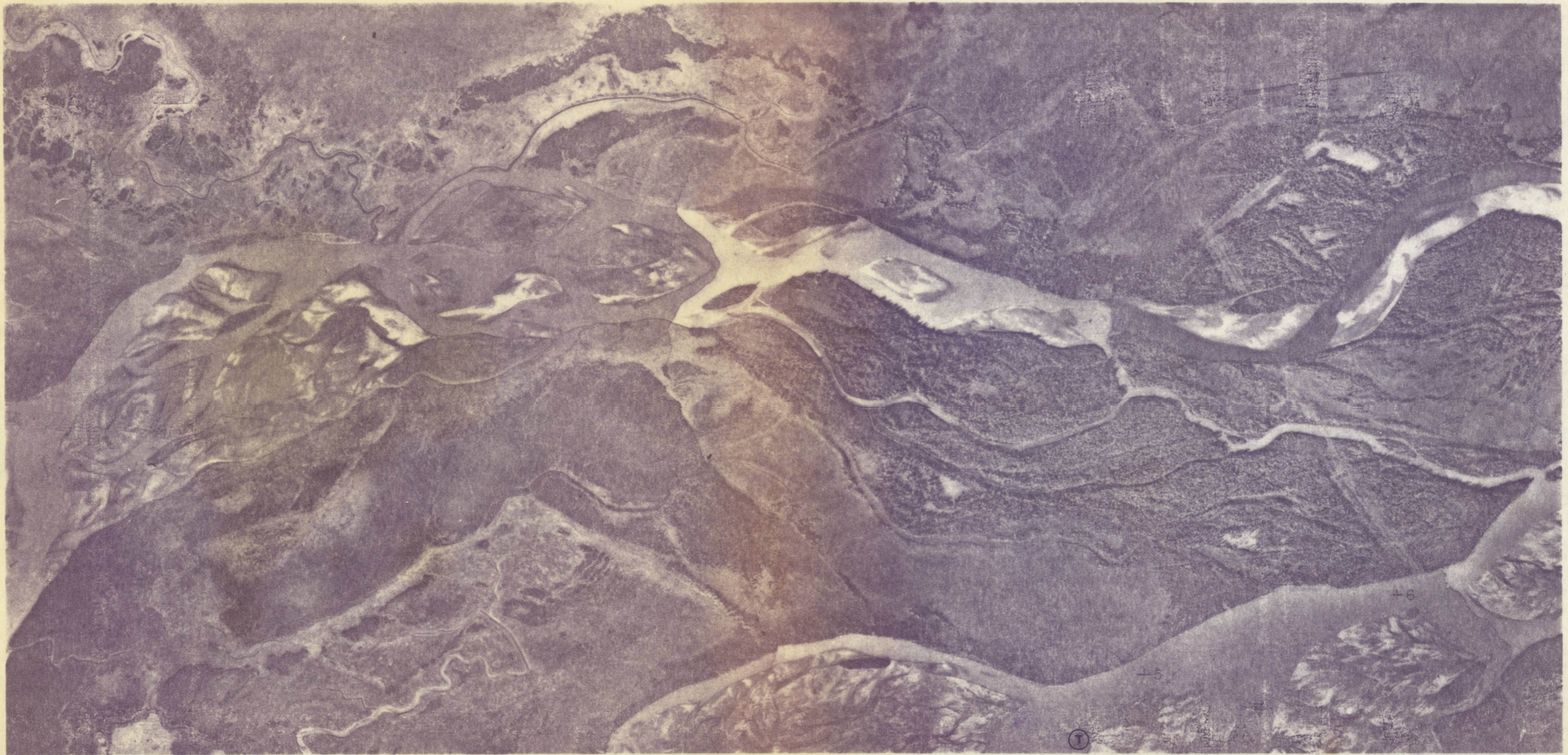
LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT. 16, 1983
SCALE: 1" = 2000' SHEET: 27 OF 28
DATE: 2-7-84



HARZA-EBASCO
SUSITNA JOINT VENTURE

Handwritten notes:
 8.12.83
 T-5
 T-6



SYMBOL KEY

- | | | | |
|----|-------------------------------|----|--------------------|
| ⓓ | CONTINUOUS DISCHARGE | Ⓣ | WATER TEMPERATURE |
| ⓓ | MISCELLANEOUS DISCHARGE | ⓈⓈ | SUSPENDED SEDIMENT |
| Ⓢ | STAGE | Ⓟ | BEDLOAD |
| ⓌⓆ | WATER QUALITY | ⓅⓂ | BED MATERIAL |
| Ⓣ | CONTINUOUS, WATER TEMPERATURE | ⓍⓈ | CROSS SECTION |
| | | ⓉⓅ | THALWEG PROFILE |

ALASKA POWER AUTHORITY
 SUSITNA HYDROELECTRIC PROJECT

LOWER SUSITNA RIVER

DATE OF PHOTOGRAPHY SEPT 16, 1983
 SCALE: 1" = 2000' SHEET: 28 OF 28
 DATE: 2-7-84

