

Table No. 1
Drill Hole Density

| <u>Area/Bed</u> | <u>No. of Drill Hole Intercepts</u> | <u>Coal Acres</u> | <u>Coal Tons in Place (Thousands)</u> | <u>Coal Acres Per Drill Hole Intercept</u> | <u>Coal Tons in Place Per Drill Hole Intercept (Thousands)</u> |
|--------------------------|---|-----------------------|---|--|--|
| <u>Chuitna West Area</u> | | | | | |
| G-bed | 17 | 776 | 30,649 | 46 | 1,803 |
| K-bed | 32 | 1,402 | 54,511 | 44 | 1,703 |
| M-bed | 34 | 2,081 | 144,663 | 61 | 4,255 |
| O-bed | 25 | 1,414 | 22,316 | 57 | 893 |
| Q-bed | 15 | 1,185 | 20,923 | 79 | 1,395 |
| <u>Capps Area</u> | | | | | |
| <u>Capps Seam</u> | | | | | |
| Category A Area | 22 | 1,331 | 32,872 | 61 | 1,494 |
| Category B Area | 2 | 536 | 9,411 | 268 | 4,706 |
| <u>Waterfall Seam</u> | | | | | |
| Category A Area | 32 | 3,000 | 133,282 | 94 | 6,058 |
| Category B Area | 1 | 1,326 | 63,017 | 1,326 | 63,017 |

Table No. 2

COAL RESOURCE ESTIMATE
CHUITNA WEST AREA

| <u>Seam Name</u> | <u>Acres</u> | <u>Coal Tons-in-Place (Thousands)</u> | <u>Coal Recoverable Tons (Thousands)</u> | <u>Waste Bank Cubic Yds. (Thousands)</u> | <u>Ratio</u> |
|------------------|--------------|---|--|--|--------------|
| G | 776 | 30,649 | 29,951 | 349,353 | - |
| K | 1,402 | 54,511 | 53,250 | 403,823 | - |
| N | 2,081 | 144,663 | 142,792 | 742,703 | - |
| O | 1,414 | 22,316 | 21,044 | 222,029 | - |
| Q | <u>1,185</u> | <u>20,923</u> | <u>19,858</u> | <u>213,076</u> | - |
| Total | | 273,062 | 266,895 | 1,930,985 | 7.2 |

Table No. 3

COAL RESOURCE ESTIMATECAPPS AREA

| <u>Overburden/Interburden</u> | <u>Category A (a)</u> | | | | | <u>Ca</u> | |
|-------------------------------|-----------------------|--|--|---|--------------|--------------|---|
| | <u>Acres</u> | <u>Coal* Tons In Place (Thousands)</u> | <u>Coal Recoverable Tons (Thousands)</u> | <u>Waste Bank Cubic Yards (Thousands)</u> | <u>Ratio</u> | <u>Acres</u> | <u>Coal Tons In Place (Thousands)</u> |
| <u>CAPPS SEAM</u> | | | | | | | |
| 20- 40 | 248 | 7,056 | 6,612 | 12,005 | | 65 | 1,153 |
| 40- 80 | 410 | 11,139 | 10,402 | 39,688 | | 184 | 3,429 |
| 80-120 | 331 | 8,386 | 7,788 | 53,402 | | 151 | 2,638 |
| 120-160 | 185 | 3,899 | 3,568 | 41,785 | | 96 | 1,620 |
| 160-200 | 102 | 1,612 | 1,427 | 29,621 | | 34 | 490 |
| 200-240 | 50 | 712 | 622 | 17,747 | | 6 | 81 |
| 240-280 | 5 | 68 | 59 | 2,017 | | - | - |
| (Parting) | - | - | - | 5,621 | - | - | - |
| Total, Capps Seam | 1,331 | 32,872 | 30,478 | 201,886 | 6.6 | 536 | 9,411 |
| <u>WATERFALL SEAM</u> | | | | | | | |
| < 20 | 164 | 4,408 | 3,967 | 3,559 | | - | - |
| 20- 40 | 161 | 8,121 | 7,684 | 7,792 | | 47 | 2,097 |
| 40- 80 | 272 | 13,245 | 12,511 | 26,331 | | 92 | 4,147 |
| 80-120 | 254 | 11,651 | 10,962 | 40,978 | | 110 | 5,046 |
| 120-160 | 253 | 11,426 | 10,742 | 57,144 | | 116 | 5,394 |
| 160-200 | 338 | 13,661 | 12,748 | 99,962 | | 118 | 5,531 |
| 200-240 | 1,260 | 57,597 | 54,191 | 437,430 | | 515 | 24,783 |
| 240-280 | 168 | 7,403 | 6,946 | 69,720 | | 305 | 14,934 |
| 280-320 | 42 | 1,828 | 1,715 | 20,328 | | 23 | 1,085 |
| 320-360 | 75 | 3,349 | 3,146 | 41,140 | | - | - |
| 360-400 | 9 | 411 | 387 | 5,518 | | - | - |
| 400-440 | 4 | 182 | 171 | 2,711 | | - | - |
| (Parting) | - | - | - | 39,547 | - | - | - |
| Total, Waterfall Seam | 3,000 | 133,282 | 125,170 | 852,160 | 6.8 | 1,326 | 63,017 |
| GRAND TOTAL | | 166,154 | 155,648 | 1,054,046 | 6.8 | | 72,428 |

Notes:

* Average coal density = 1,800 tons per acre-foot.

(a) Category A represents coal from the area with the higher density and more uniform distribution of Category B contains coal from the area where tonnage is less well represented by drilling.

Table No. 3

| Category B (a) | | | | Total | | | | |
|---|--|---|-------|-------|---|--|---|-------|
| Coal Tons In Place (Thousands) | Coal Recoverable Tons (Thousands) | Waste Bank Cubic Yards (Thousands) | Ratio | Acres | Coal Tons In Place (Thousands) | Coal Recoverable Tons (Thousands) | Waste Bank Cubic Yards (Thousands) | Ratio |
| 1,153 | 1,035 | 3,146 | | 313 | 8,209 | 7,647 | 15,151 | |
| 3,429 | 3,099 | 17,812 | | 594 | 14,568 | 13,501 | 57,500 | |
| 2,638 | 2,368 | 24,361 | | 482 | 11,024 | 10,156 | 77,763 | |
| 1,620 | 1,449 | 21,683 | | 281 | 5,519 | 5,017 | 63,468 | |
| 490 | 429 | 9,874 | | 136 | 2,102 | 1,856 | 39,495 | |
| 81 | 70 | 2,130 | | 56 | 793 | 692 | 19,877 | |
| - | - | - | | 5 | 68 | 59 | 2,017 | |
| - | - | 604 | - | - | - | - | 6,225 | - |
| 9,411 | 8,430 | 79,610 | 9.4 | 1,867 | 42,283 | 38,928 | 281,496 | 7.2 |
| - | - | - | | 164 | 4,408 | 3,957 | 3,559 | |
| 2,097 | 1,970 | 2,274 | | 208 | 10,218 | 9,654 | 10,066 | |
| 4,147 | 3,897 | 8,906 | | 362 | 17,392 | 16,408 | 35,237 | |
| 5,046 | 4,747 | 17,747 | | 364 | 16,697 | 15,709 | 58,725 | |
| 5,394 | 5,080 | 26,199 | | 369 | 16,820 | 15,822 | 83,343 | |
| 5,531 | 5,213 | 34,267 | | 456 | 19,192 | 17,961 | 134,229 | |
| 24,783 | 23,391 | 178,103 | | 1,775 | 82,380 | 77,582 | 615,533 | |
| 14,934 | 14,109 | 126,501 | | 473 | 22,337 | 21,055 | 196,221 | |
| 1,085 | 1,022 | 11,132 | | 65 | 2,913 | 2,737 | 31,460 | |
| - | - | - | | 75 | 3,349 | 3,146 | 41,140 | |
| - | - | - | | 9 | 411 | 387 | 5,518 | |
| - | - | - | | 4 | 182 | 171 | 2,711 | |
| - | - | 14,213 | - | - | - | - | 53,760 | - |
| 63,017 | 59,429 | 419,342 | 7.1 | 4,326 | 196,299 | 184,599 | 1,271,502 | 6.9 |
| 72,428 | 67,879 | 498,952 | 7.4 | | 238,582 | 223,527 | 1,552,998 | 6.9 |

tribution of drilling information.
ng.

Table No. 4

AVERAGE COAL CHARACTERISTIC VALUESCAPPS AREA

| | <u>Capps Bed</u> | <u>Waterfall Bed</u> |
|--|------------------|----------------------|
| <u>Proximate Analysis, As Received Values, %</u> | | |
| Moisture | 23.0 | 23.0-25.0 |
| Ash | 24.5(+1.5) | 22.0(+4.5) |
| Volatile Matter | 28.7 | 28.1 |
| Fixed Carbon | 23.8 | 25.9 |
| <u>Ultimate Analysis, %, Dry Coal Basis</u> | | |
| Carbon | 35.1 | 36.6 |
| Hydrogen | 2.7 | 2.7 |
| Nitrogen | 0.4 | 0.4 |
| Chlorine | 0.03 | 0.03 |
| Sulfur | 0.14 | 0.19 |
| Oxygen (By Difference) | 14.1 | 14.1 |
| <u>Calorific Value, Btu/Lb.</u> | | |
| As Received Basis | 6,070(+180) | 6,575(+540) |
| Dry Coal Basis | 7,880(+230) | 8,430(+210) |
| Moisture Ash Free Basis | 11,560(+340) | 12,020(+140) |
| <u>Hardgrove Grindability Index, As Received</u> | | |
| Moisture | 23 | 29 |
| <u>Mineral Analysis Of Ash, %</u> | | |
| SiO ₂ | 60.8 | 56.5 |
| Al ₂ O ₃ | 22.9 | 24.4 |
| TiO ₂ | 1.0 | 0.8 |
| Fe ₂ O ₃ | 2.9 | 5.0 |
| CaO | 5.5 | 5.6 |
| MgO | 1.3 | 1.5 |
| K ₂ O | 2.2 | 2.5 |
| Na ₂ O | 0.4 | 0.4 |
| SO ₃ | 1.3 | 1.7 |
| P ₂ O ₅ | 0.3 | 0.3 |
| Undetermined | 1.4 | 1.3 |

Table No. 5

BELUGA METHANOL PROJECT
PRODUCTION PROJECTIONS
PERSONNEL REQUIREMENTS
CAPITAL AND OPERATING COST ESTIMATES
CAPPS & CHUITNA WEST MINES COMBINED

| | <u>-4</u> | <u>-3</u> | <u>-2</u> | <u>-1</u> | <u>1</u> |
|--|-----------|-----------|-----------|-----------|----------|
| <u>Production & Personnel</u> | | | | | |
| Overburden & Parting (Thousands Of Yd. ³) | - | - | - | 18,882 | 36,489 |
| Coal Produced (Thousands Of Tons) | - | - | - | - | 8,500 |
| Wage Personnel | - | 39 | 100 | 269 | 569 |
| Salaried Personnel | 14 | 46 | 79 | 112 | 131 |
| Total Employees | 14 | 85 | 179 | 381 | 700 |
| <u>Capital Costs (Amounts In Thousands Of 1981 Dollars)(a)</u> | | | | | |
| Major Excavators (Shovels & Draglines) | \$ - | \$ - | \$ 13,073 | \$ 13,591 | \$ 7,640 |
| Mobile Equipment & Small Items | 55 | 13,000 | 21,632 | 24,522 | 15,533 |
| Mining Facilities (Fixed) | 1,303 | 36,995 | 92,481 | 84,526 | - |
| Premining Costs | 581 | 7,205 | 14,728 | - | - |
| Total Capital | \$1,939 | \$57,200 | \$141,914 | \$122,639 | \$23,173 |
| <u>Operating Costs (b)</u> | | | | | |
| Amount (Thousands Of 1981 Dollars) | \$ - | \$ - | \$ - | \$ 30,654 | \$64,825 |
| Per Ton | - | - | - | - | 7.63 |

Table No. 5

Page 1 Of 2

| Project Year | | | | | | | |
|--------------|----------|-----------|-----------|-----------|----------|-----------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 36,489 | 42,219 | 59,277 | 54,044 | 58,303 | 58,960 | 58,001 | 54,407 |
| 8,500 | 8,500 | 8,500 | 8,500 | 8,500 | 8,500 | 8,500 | 8,500 |
| 569 | 747 | 922 | 947 | 1,013 | 917 | 960 | 896 |
| 131 | 138 | 155 | 161 | 161 | 161 | 161 | 161 |
| 700 | 885 | 1,077 | 1,108 | 1,174 | 1,078 | 1,121 | 1,057 |
| \$ 7,640 | \$16,115 | \$ 4,345 | \$ 7,771 | \$ - | \$ - | \$ - | \$ - |
| 15,533 | 21,182 | 23,008 | 7,567 | 10,404 | 15,457 | 9,582 | 19,372 |
| - | 220 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - |
| \$23,173 | \$37,517 | \$ 27,353 | \$ 15,338 | \$ 10,404 | \$15,457 | \$ 9,582 | \$19,372 |
| \$64,825 | \$82,307 | \$100,110 | \$103,160 | \$108,840 | \$98,894 | \$102,200 | \$95,945 |
| 7.63 | 9.68 | 11.78 | 12.14 | 12.81 | 11.61 | 12.02 | 11.29 |

Table No. 5 (Continued)

| | 9 | 10 | 11 | 12 | Proj 13 |
|--|----------|----------|----------|----------|------------|
| <u>Production & Personnel</u> | | | | | |
| Overburden & Parting (Thousands Of Yd. ³) | 54,393 | 54,527 | 54,731 | 61,125 | 65,2 |
| Coal Produced (Thousands Of Tons) | 8,500 | 8,500 | 8,500 | 8,500 | 8,5 |
| Wage Personnel | 879 | 832 | 851 | 854 | 9 |
| Salaried Personnel | 161 | 161 | 161 | 165 | 1 |
| Total Employees | 1,040 | 993 | 1,012 | 1,019 | 1,0 |
| <u>Capital Costs (Amounts In Thousands Of 1981 Dollars)(a)</u> | | | | | |
| Major Excavators (Shovels & Draglines) | \$ - | \$ 4,345 | \$ 7,772 | \$ 385 | \$ 2,5 |
| Mobile Equipment & Small Items | 16,656 | 6,062 | 7,658 | 5,105 | 14,1 |
| Mining Facilities (Fixed) | - | - | - | - | - |
| Premining Costs | - | - | - | - | - |
| Total Capital | \$16,656 | \$10,407 | \$15,430 | \$ 5,490 | \$16,6 |
| <u>Operating Costs(b)</u> | | | | | |
| Amount (Thousands Of 1981 Dollars) | \$94,613 | \$88,574 | \$90,395 | \$91,346 | \$95,7 |
| Per Ton | 11.13 | 10.42 | 10.64 | 10.75 | 11.2 |

Notes:

Details of production forecast and cost estimates are excluded for proprietary reasons. Numbers may not a

- (a) Capital costs include mining equipment, fixed facilities for support of mining, coal handling facilities, road construction and maintenance and premining work (such as drainage revision and initial mine roads), of approximately 10% is included. Replacements and extension of facilities are included. Excluded are the effect of future inflation.
- (b) Operating costs include labor, payroll costs, labor fringes, parts, supplies and governmental assessments coal handling through rail car loading and ash disposal. Excluded are electric power, royalties to land costs related to town site, railroad, main access road and port facilities.

Table No. 5

Page 2 Of 2

| | Project Year | | | | | | Total Or Average |
|-----|--------------|-----------|-----------|-----------|-----------|-----------|---------------------|
| | 13 | 14 | 15 | 16 To 20 | 21 To 25 | 26 To 30 | |
| 125 | 65,281 | 68,299 | 67,760 | 290,296 | 331,643 | 331,315 | 1,819,952 |
| 500 | 8,500 | 8,500 | 8,500 | 42,500 | 42,500 | 42,500 | 255,000 |
| 954 | 903 | 953 | 949 | 771 | 852 | 897 | - |
| 165 | 165 | 165 | 165 | 165 | 165 | 165 | - |
| 519 | 1,068 | 1,118 | 1,114 | 936 | 1,017 | 1,062 | - |
| 385 | \$ 2,525 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 77,562 |
| 105 | 14,111 | 23,017 | 10,153 | 63,337 | 56,605 | 67,442 | 451,460 |
| | - | - | - | - | - | - | 215,525 |
| | - | - | - | - | - | - | 22,514 |
| 490 | \$16,636 | \$ 23,017 | \$ 10,153 | \$ 63,337 | \$ 56,605 | \$ 67,442 | \$ 767,061 |
| 346 | \$95,728 | \$160,590 | \$100,340 | \$436,000 | \$474,130 | \$497,740 | \$2,856,200 |
| 75 | 11.26 | 11.83 | 11.81 | 10.26 | 11.16 | 11.71 | 11.20 |

ers may not add exactly due to rounding.

facilities from mine to railway loading, ash disposal equipment, a gravel plant for mine mine roads), a central administration building and a central shop. A contingency factor Excluded are interest, exploration and development drilling (both past and future) and

assessments for black lung and surface mine reclamation. Costs shown cover all mining, lities to landowners, interest, taxes, depreciation, cost depletion and infrastructure

Respectfully submitted,

PAUL WEIR COMPANY

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Richard W. Storey

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By: Kenneth J. Ginnard
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By: Robert G. Wilken
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By: John E. Good
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6. ANCILLARY FACILITIES FOR MINING

INTRODUCTION

This section contains conceptual design flow sheets, major equipment lists and facility layouts for both mines. Included are truck dump hoppers, coal sizing and sampling facilities, conveyors, stockpile, and rail loading facilities. Also covered are the mine buildings and the electrical power distribution conceptual designs. The development of these facilities has been prepared on the basis of data provided by the Paul Weir Company.

Descriptions of the facilities are covered in the Capps Mine and Chuitna West Mine Sections of this volume.

ENGINEERING DESIGN DATA

Design data pertinent to mine support facilities is detailed in the flow diagrams, equipment list, and conceptual design drawings immediately following this page.

MINE FACILITY DRAWINGS

5530-601-Y-001 Coal Loading at Capps Mine
5530-602-Y-001 Coal Loading at Chuitna Mine

EQUIPMENT LIST

5530-601-P-001 Capps Mine Facilities, Plan of Plant
5530-601-P-002 Capps Mine Facilities, Truck Hopper & Crushing Station - Plans & Sections
5530-601-P-003 Capps Mine Facilities, Coal Storage Barn Plan & Section
5530-601-P-004 Capps Mine Plant Facilities Arrangement
5530-601-P-005 Capps Mine Maintenance Facility
5530-601-P-006 Capps Mine, Coal Plant Office and Change House
5530-601-P-007 Capps Mine, Vehicle Washing Building
5530-601-P-008 Capps Mine, Battery & Filter Shop, Fuel Storage & Bus Terminal
5530-602-P-001 Chuitna Mine Facilities, Plan of Plant
5530-602-P-002 Chuitna Mine Facilities, Coal Storage Barn
5530-602-P-003 Chuitna Mine Facilities, Truck Hopper & Crushing Station - Plans & Sections
5530-602-P-004 Chuitna Mine, Plant Facilities Arrangement
5530-602-P-005 Chuitna Mine Maintenance & Central Repair Facility
5530-602-P-006 Chuitna Mine, Coal Plant Office and Change House
5530-602-P-007 Chuitna Mine, Vehicle Washing Building
5530-602-P-008 Chuitna Mine, Battery & Filter Shop, Fuel Storage & Bus Terminal
5530-602-P-009 Chuitna Mine, Administration Building
5530-309-N-001 Electrical Single Line Legend and Symbols
5530-309-N-002 Electrical Single Line Legend and Symbols
5530-601-N-001 Electrical Single Line Diagram, Capps Mine Site
5530-602-N-001 Electrical Single Line Diagram, Chuitna Mine Site

CAPPS MINE - AREA 601

EQUIPMENT LIST

NOMENCLATURE:
 T - TYPE
 C - CAPACITY
 S - SIZE
 P/T - OPERATING PRESSURE/
 TEMPERATURE
 M - MATERIAL
 CS - CARBON STEEL
 SS - STAINLESS STEEL
 CI - CAST IRON
 D - DRIVE
 W - WEIGHT
 ACC - ACCESSORIES

| ITEM | NO. REQUIRED | DESCRIPTION |
|----------|--------------|---|
| 601-1001 | 2 | T- Four Roll Crusher C- 1054 TPH Norm. 1700 TPH Des. S- 24" Dia. X 48"L Rolls D- Two 60 HP |
| 601-1401 | 2 | T- Stationary Grizzly Screen C- 1054 TPH Norm. 1700 TPH Des. S- 84"W X 14'L |
| 601-1801 | 1 | T- Belt Scale C- 4000 TPH |
| 601-2101 | 2 | T- Apron Feeder C- 1054 TPH Norm. 1700 TPH Des. S- 72"W X 30'L D- 75 HP |
| 601-2102 | 2 | T- Belt Conveyor C- 1054 TPH Norm. 1700 TPH Des. S- 60"W X 110'L D- 30 HP |
| 601-2103 | 1 | T- Belt Conveyor C- 2107 TPH Norm. 2500 TPH Des. S- 60"W X 2000'L D- 700 HP |
| 601-2104 | 1 | T- Tripper Conveyor C- 2107 TPH Norm. 2500 TPH Des. S- 60"W X 700'L D- 250 HP |
| 601-2105 | 1 | T- Belt Conveyor C- 4000 TPH S- 72"W X 950'L D- 250 HP Includes: Sample Collector, Primary Crusher, Hydr. Power Unit, Reject Bucket Elevator, Belt Feeders and Second. Sample Crusher. |
| 601-2106 | 1 | T- Belt Conveyor C- 4000 TPH S- 72"W X 950'L D- 800 HP |
| 601-2130 | 1 | T- Rotary Plow Feeder C- 4000 TPH D- 300 HP |

| ITEM | NO. REQUIRED | DESCRIPTION |
|-------------------|--------------|--|
| 601-2301 | 1 | T- Dump Hopper C- 500 Tons S- ~25,000 Ft ³ |
| 601-2501 | 1 | T- Sampling System C- 4000 TPH D- 123 HP |
| 601-2502 | 1 | T- Flood Loader C- 4000 TPH S- 200 Ton Bin D- 50 HP |
| <u>ELECTRICAL</u> | | |
| 1 | 1 | Single line outdoor 161 KV substation consisting of: <ul style="list-style-type: none"> A. 1 - 161 KV, 3 pole, 1200 amp, oil circuit breaker B. 2 - 161 KV, 3 pole open disconnect switches C. 1 - load break, 161 KV, 3 pole, open disconnect switch |
| 2 | 1 | Transformer, 30 MVA, 161 KV - 69 KV - 4.16 KV three winding, 3 phase, 60 hertz oil filled and arranged for future fan cooling |
| 3 | 1 | Medium voltage substation consisting of a heated, lighted and insulated pre-fabricated building containing the following equipment: <ul style="list-style-type: none"> A. One 1200 amp 4160 volt incoming bus duct |

| ITEM | NO. REQUIRED | DESCRIPTION |
|-------------------------------|--------------|---|
| <u>ELECTRICAL (CONTINUED)</u> | | |
| | | B. One line of 4160 volt switchgear containing one incoming line breaker, high resistance grounding system, meters, relays and a bus transition section |
| | | C. One line of 5 motor controllers and one latched type controller with main bus |
| | | D. Instrument and relay panel |
| 4 | 1 | Transformer, 1000 KVA, 4160 - 480 volts, 3 phase, 60 hertz oil filled and provisions for future fan cooling |
| 5 | 8 | Skid mounted 69 KV substations consisting of one 3 pole 1200 amp, oil circuit breaker and one 3 pole no-load disconnect switch |
| 6 | 4 | Transformer, 5000 KVA, 69 KV - 6.9 KV, 3 phase, 60 hertz, oil filled and skid mounted |
| 7 | 8 | Medium voltage starter line-up, 6.9 KV, skid mounted with two 300 amp latched contactors |
| 8 | 8 | Transformer, 500 KVA, 6.9 KV - 480 volts, 3 phase, 60 hertz, oil filled, skid mounted |

| <u>ITEM</u> | <u>NO. REQUIRED</u> | <u>DESCRIPTION</u> |
|-------------------------------|---------------------|---|
| <u>ELECTRICAL (CONTINUED)</u> | | |
| 9 | 4 | Transformer, 2500 KVA, 69 KV - 6.9 KV, 3 phase, 60 hertz, oil filled and skid mounted |

CHUITNA MINE - AREA 602

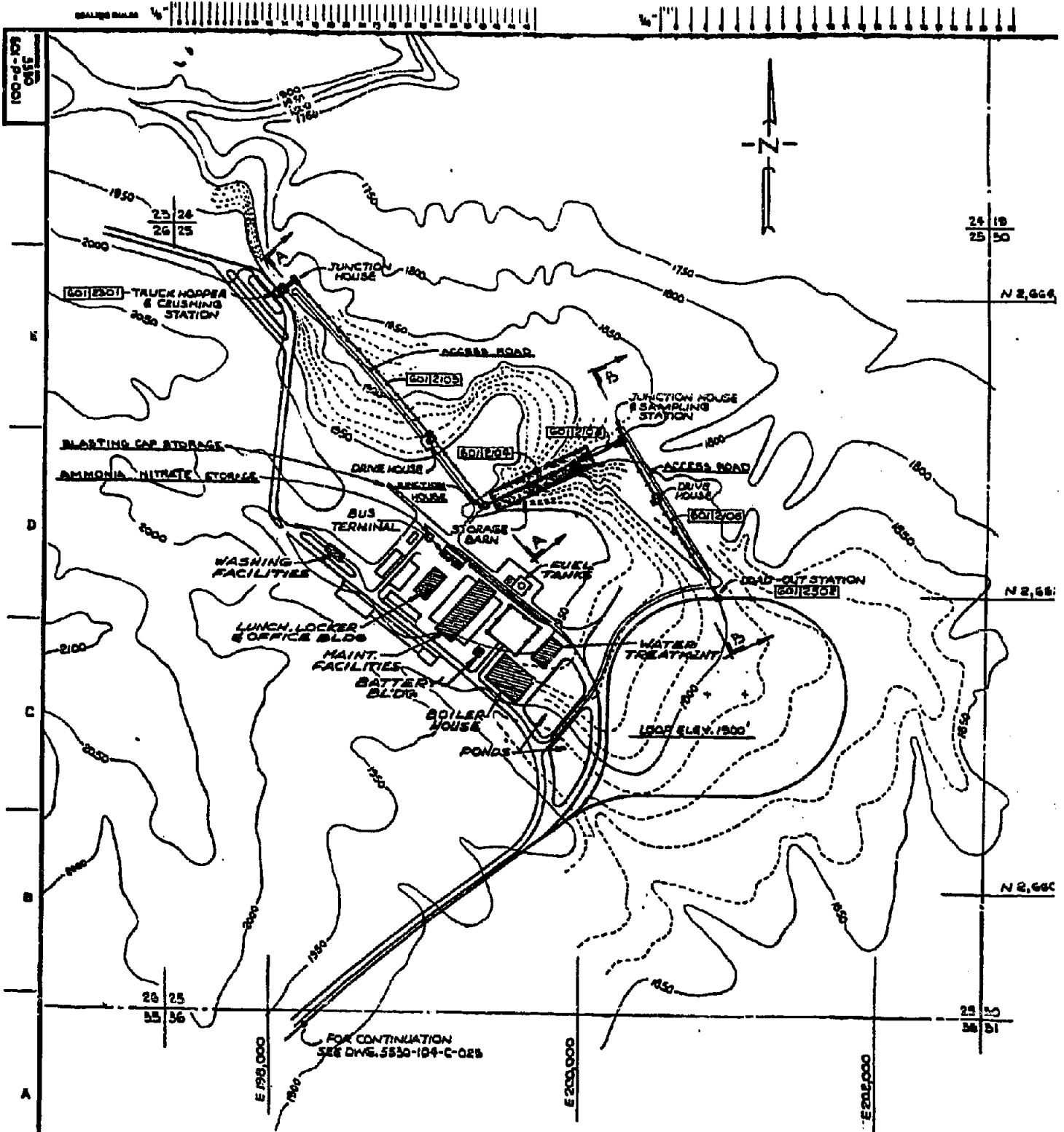
EQUIPMENT LIST

NOMENCLATURE:
 T - TYPE
 C - CAPACITY
 S - SIZE
 P/T - OPERATING PRESSURE/
 TEMPERATURE
 M - MATERIAL
 CS - CARBON STEEL
 SS - STAINLESS STEEL
 CI - CAST IRON
 D - DRIVE
 W - WEIGHT
 ACC - ACCESSORIES

| ITEM | NO. REQUIRED | DESCRIPTION |
|----------|--------------|---|
| 602-1001 | 1 | T- Four Roll Crusher C- 903 TPH Norm. 1700 TPH Des. S- 24"Dia. X 48"L Rolls D- Two 60 HP |
| 602-1401 | 1 | T- Stationary Grizzly Screen C- 903 TPH Norm. 1700 TPH Des. S- 84"W X 14'L |
| 602-1801 | 1 | T- Belt Scale C- 4000 TPH |
| 602-2101 | 1 | T- Apron Feeder C- 903 TPH Norm. 1700 TPH Des. S- 72"W X 30'L D- 75 HP |
| 602-2102 | 1 | T- Belt Conveyor C- 903 TPH Norm. 1700 TPH Des. S- 54"W X 115'L D- 100 HP |
| 602-2103 | 1 | T- Belt Conveyor C- 903 TPH Norm. 1700 TPH Des. S- 54"W X 1365'L D- 400 HP |
| 602-2104 | 1 | T- Tripper Conveyor C- 903 TPH Norm. 1700 TPH Des. S- 60"W X 625'L D- 150 HP |
| 602-2105 | 1 | T- Belt Conveyor C- 4000 TPH S- 72"W X 600'L D- 200 HP |
| 602-2106 | 1 | T- Belt Conveyor C- 4000 TPH S- 72"W X 450'L D- 400 HP |
| 602-2107 | 1 | T- Belt Conveyor C- 4000 TPH S- 72"W X 2435'L D- 700 HP |

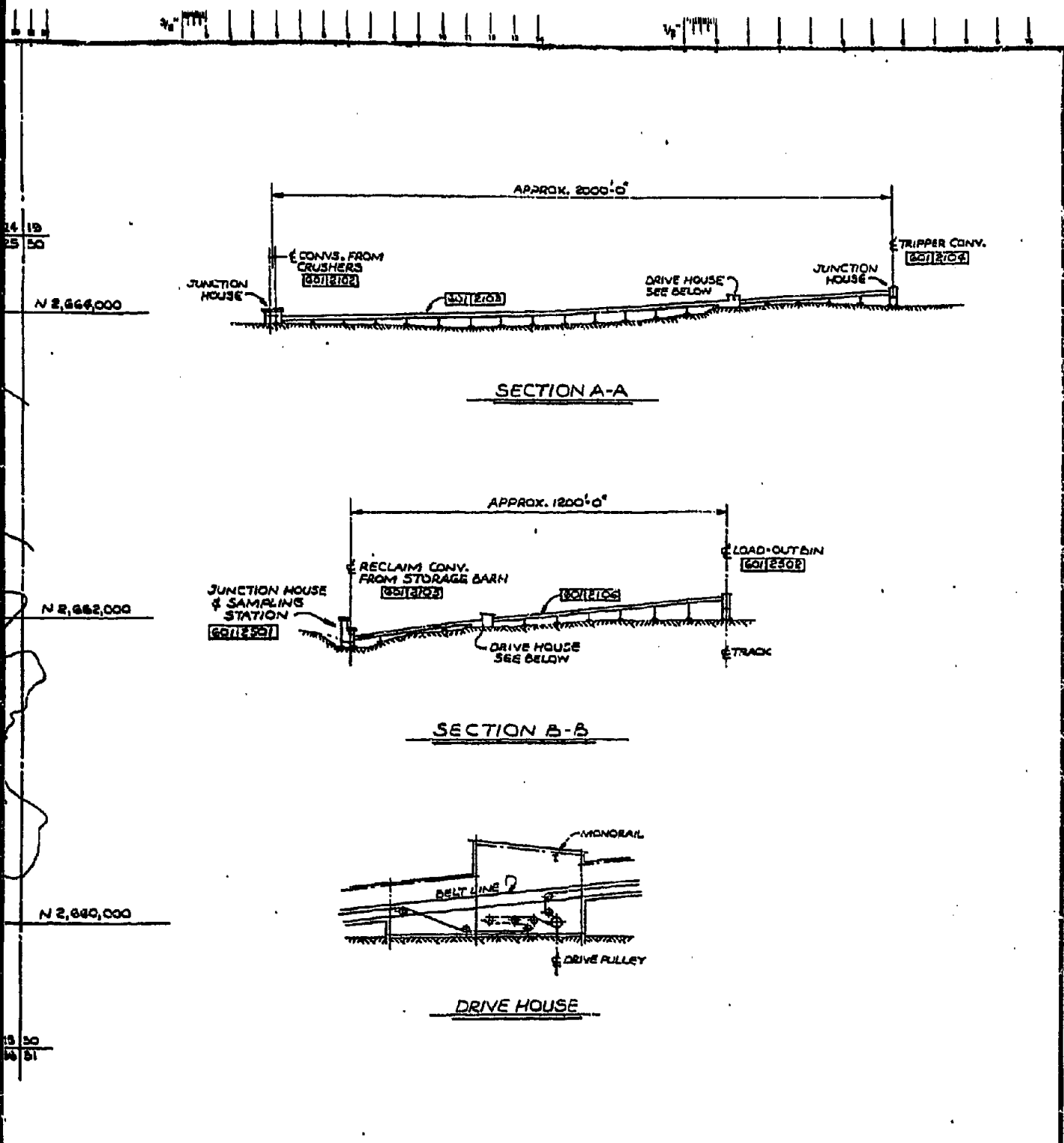
| ITEM | NO. REQUIRED | DESCRIPTION |
|--|--------------|--|
| 602-2130 | 1 | T- Rotary Plow Feeder C- 4000 TPH D- 300 HP |
| 602-2301 | 1 | T- Dump Hopper C- 400 Tons S- ~20,000 Ft ³ |
| 602-2501 Includes: Sample Collector, Primary Crusher, Hydr. Power Unit, Reject Bucket Elevator, Belt Feeders and Second. Sample Crusher. | 1 | T- Sampling System C- 4000 TPH D- 123 HP |
| 602-2502 | 1 | T- Flood Loader C- 4000 TPH S- 200 Ton Bin D- 50 HP |
| <u>ELECTRICAL</u> | | |
| 1 | 1 | Single line outdoor 161 KV substation consisting of: <ul style="list-style-type: none"> A. 1 - 161 KV, 3 pole, 1200A oil circuit breaker B. 2 - 161 KV, 3 pole open disconnect switches C. 1 - load break, 161 KV, 3 pole open disconnect switch |
| 2 | 1 | Transformer 20 MVA, 161 KV - 69 KV - 6.9 KV, three winding, 3 phase, 60 hertz, oil filled and arranged for future fan cooling |
| 3 | 1 | Medium voltage substation consisting of a heated, lighted and insulated pre- fabricated building containing the following equipment: |

| ITEM | NO. REQUIRED | DESCRIPTION |
|-------------------------------|--------------|---|
| <u>ELECTRICAL (CONTINUED)</u> | | |
| | | A. One 1200 amp, 4160 volt incoming bus duct |
| | | B. One line of 4160 volt switchgear containing one incoming line breaker, high resistance grounding system, meters, relays and a bus transition section |
| | | C. One line of 5 motor controllers and one latched type controller with main bus |
| | | D. Instrument & relay panel |
| 4 | 1 | Transformer, 1000 KVA, 4160 - 480 volts, 3 phase, 60 hertz, oil filled and provisions for fan cooling |
| 5 | 2 | Skid mounted 69 KV substation consisting of one 3 pole 1200 amp, oil circuit breaker and one 3 pole no-load disconnect switch |
| 6 | 2 | Transformer 15 MVA, 69 KV - 6.9 KV, 3 phase, 60 herz, oil filled and skid mounted |
| 7 | 2 | Medium voltage starter line-up, 6.9 KV, skid mounted with 8 - 300 amp latched contactors |



PLAN OF PLANT

| NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE | NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE |
|-----|-----------------------|----|------|----------|----------|-----|-------------|----|------|----------|------|
| 1 | PRELIMINARY ISSUE | DK | | | 6-7-51 | | | | | | |
| 2 | 2ND PRELIMINARY ISSUE | DK | | | 5-5-51 | | | | | | |
| 3 | 3RD PRELIMINARY ISSUE | WT | | | 10-20-51 | | | | | | |
| 4 | ISSUED FOR REPORT | WT | DK | | 7-28-51 | | | | | | |



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CIRI/PLACER
BELUGA METHANOL PROJECT
COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
200 10th Ave. S.W.

TITLE
CAPPS MINE FACILITIES
PLAN OF PLANT

5530
601-P-001



SCALE 1/2"=400' 1/8"=200' DRAWING NO. PC-5530-X12

| DESIGNED BY | DATE | DATE TO | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|-------------|---------|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CRANK | 5/17/55 | 5-1 | | | | | | | | | | | | | | | | |
| CHECKED | | | | | | | | | | | | | | | | | | |
| APPROVED 1 | | | | | | | | | | | | | | | | | | |
| APPROVED 2 | | | | | | | | | | | | | | | | | | |
| APPROVED 3 | | | | | | | | | | | | | | | | | | |

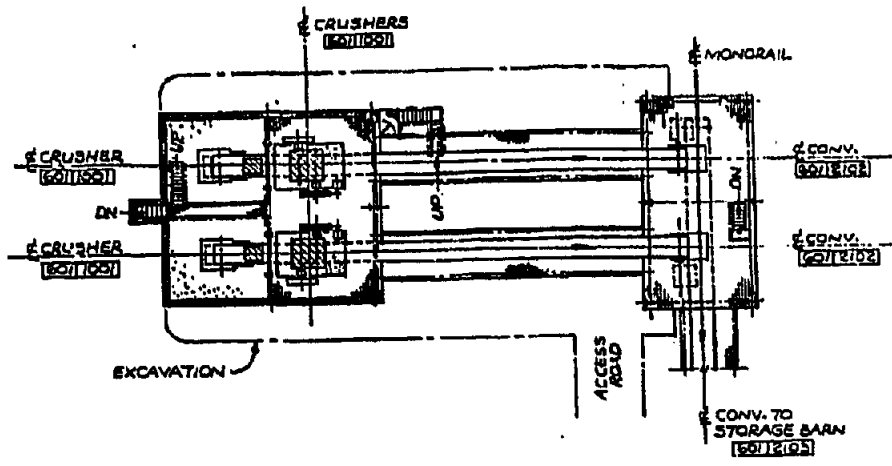
B

7

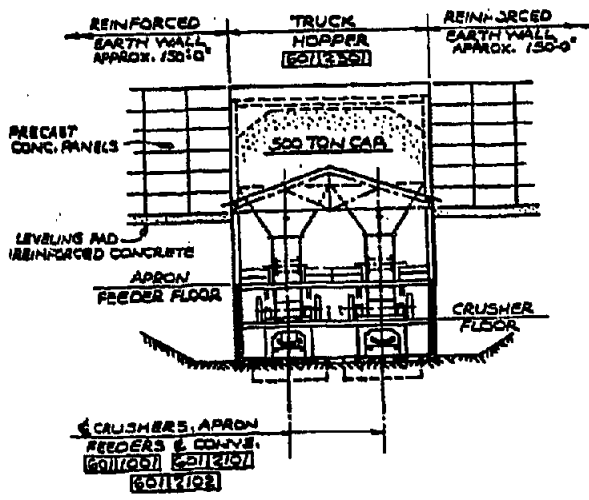
8

9

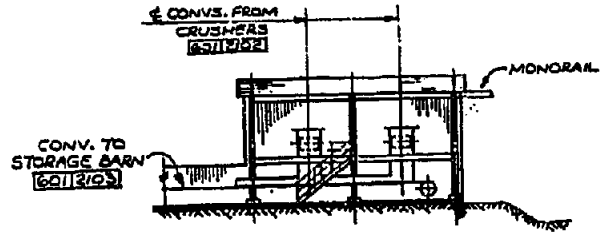
10



PLAN AT CRUSHERS



SECTION B-B



SECTION C-C

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COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
200-1942 Box 1170

| DESIGNED BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |
|-------------|-------|------------|------|-------------|------|
| ALLEN | 11/11 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

TITLE
CAPPS MINE FACILITIES
TRUCK HOPPER & CRUSHING
STATION - PLANS & SECTIONS
SCALE: 1" = 20'-0" U.S. ENGINE: PC-5530-X12

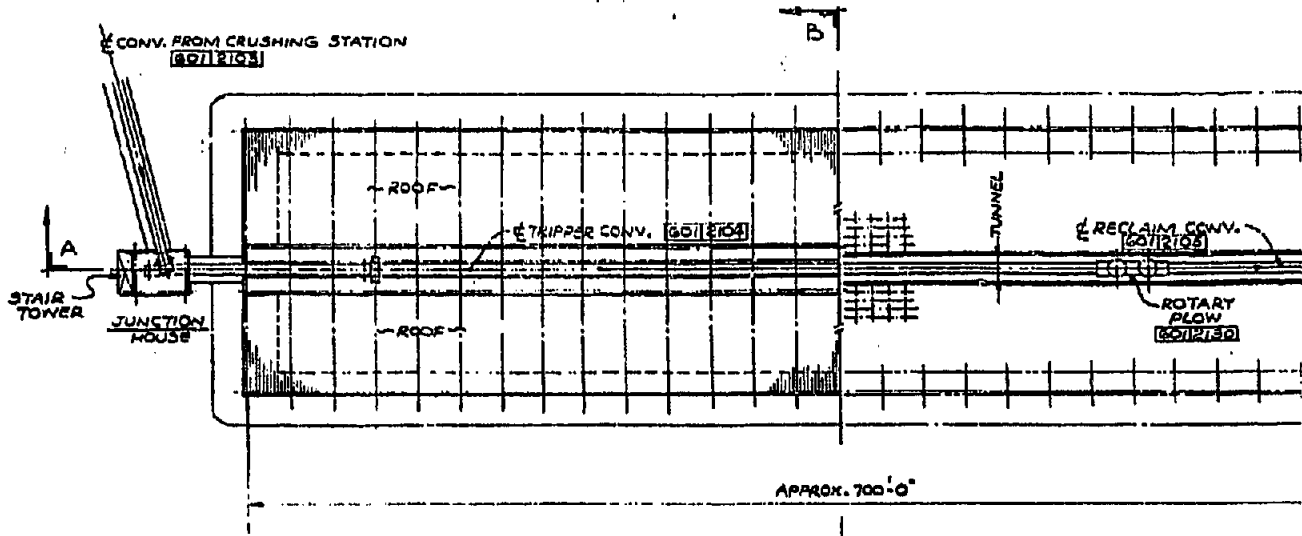
5530
601-P-002



SCALE RULES 1/4" = 10'

1/4" = 10'

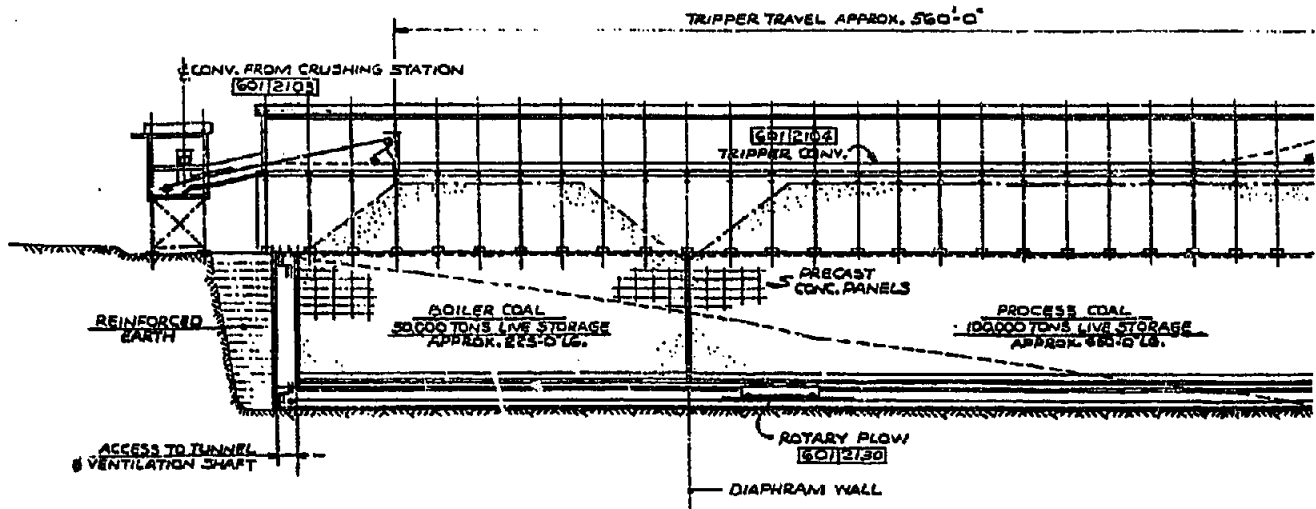
500-5-105
657



PLAN AT TRIPPER CONV.

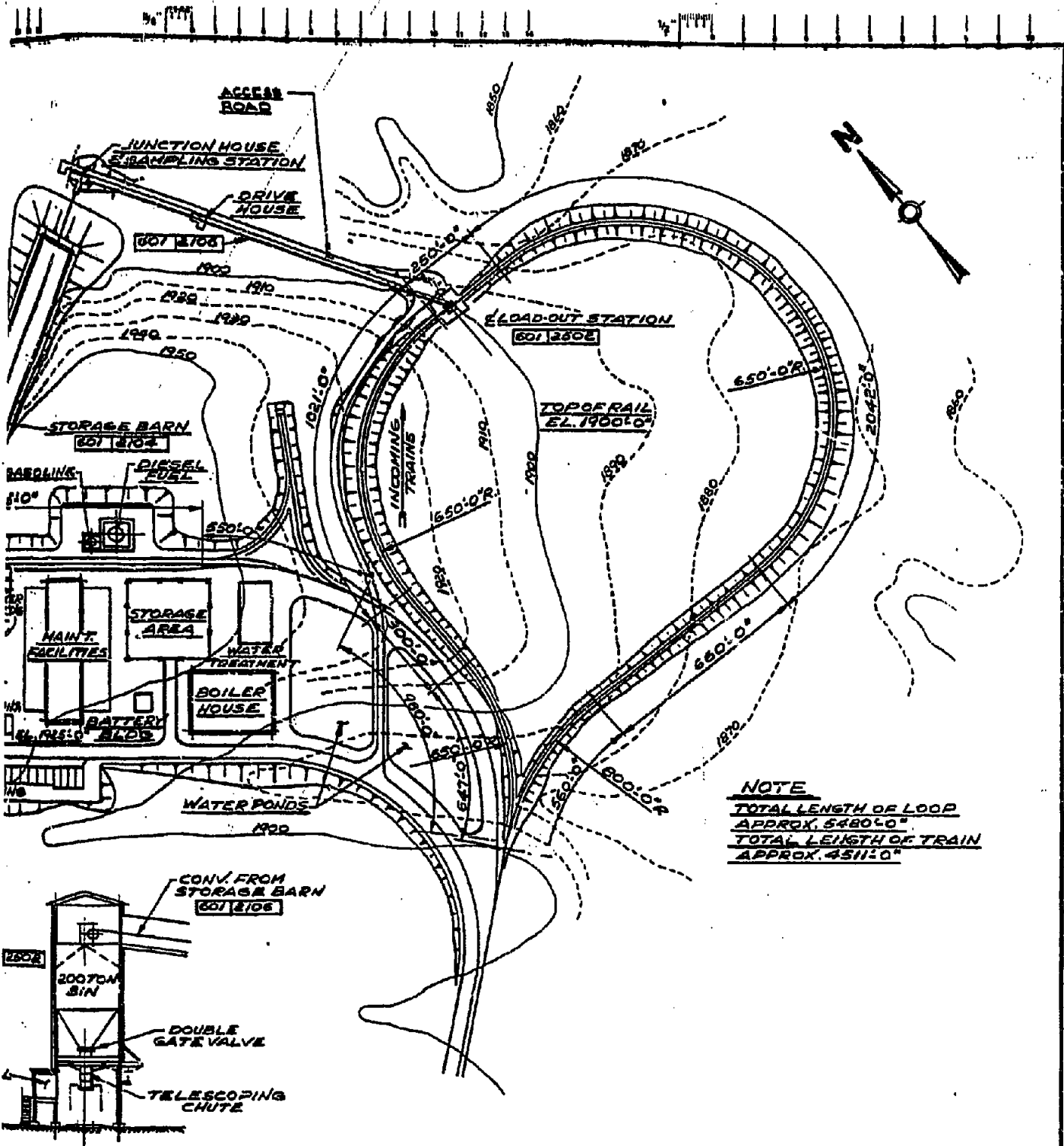
PLAN AT RECLU

TRIPPER TRAVEL APPROX. 560'-0"



SECTION A-A

| NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE | NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE |
|-----|-------------------|----|------|----------|---------|-----|-------------|----|------|----------|------|
| 1 | PRELIMINARY ISSUE | AK | | | 4-11-51 | 1 | | | | | |
| 2 | PRELIMINARY ISSUE | AK | | | 4-11-51 | 2 | | | | | |
| 3 | ISSUED FOR REPORT | AK | | | 4-11-51 | 3 | | | | | |
| 4 | | | | | | 4 | | | | | |
| 5 | | | | | | 5 | | | | | |



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COOK INLET, ALASKA

Davy McKee
 ENGINEERS AND CONSTRUCTORS
 68-1042 Rev. 776

| DESIGNED BY | DATE | CHECKED BY | DATE | APPROVED BY | DATE |
|-------------|---------|------------|------|-------------|------|
| DAVIS | 11/2/66 | | | | |
| CHONG | | | | | |
| APPROVED 1 | | | | | |
| APPROVED 2 | | | | | |
| APPROVED 3 | | | | | |

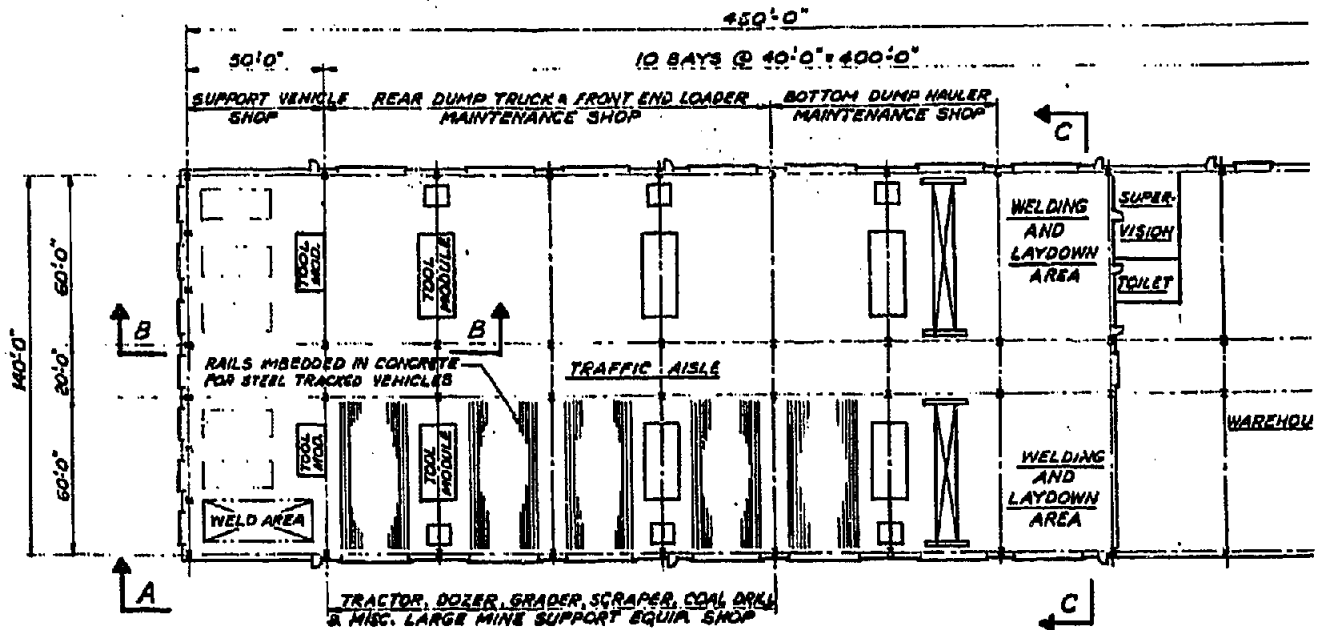
TITLE
CAPPS MINE
PLANT FACILITIES
ARRANGEMENT

SCALE 1"=500'±30' GRING.

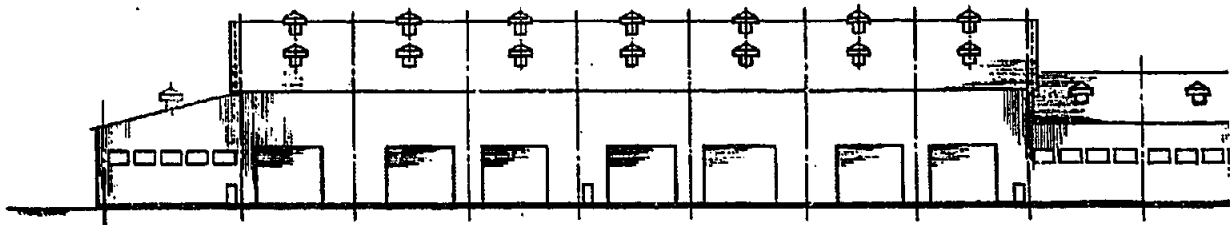
5530
601-P-004

REVISION

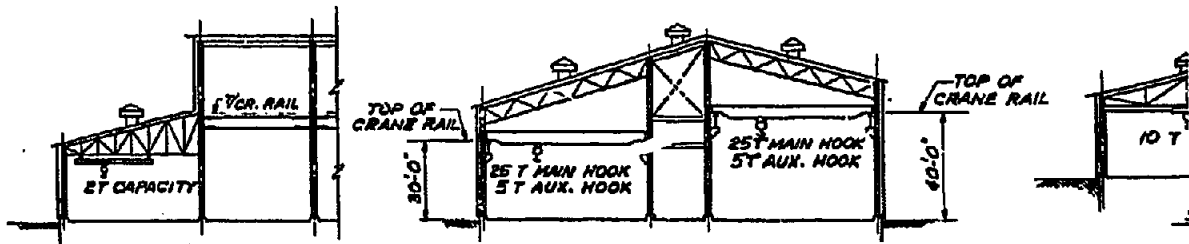
5638-604-P-006



PLAN - MAINTENANCE SHOP AND WAREHOUSE



ELEVATION A-A

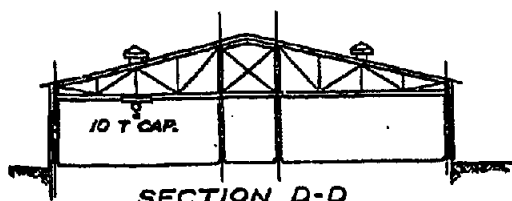
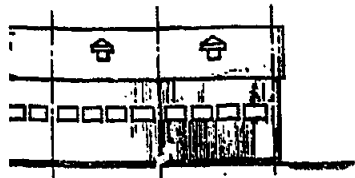
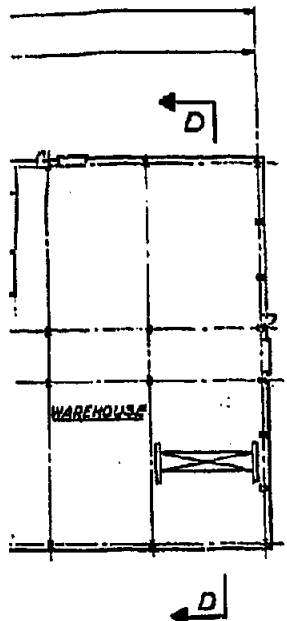


SECTION B-B

SECTION C-C

| NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE | NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE |
|-----|-------------------|----|------|----------|------|-----|-------------|----|------|----------|------|
| 1 | PRILIMINARY ISSUE | | | | | | | | | | |
| 2 | ISSUED FOR REPORT | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

1 2 3 4 5



SERVICES:

- COMPONENT MAINTENANCE AND EXCHANGE
- LIGHT WELDING OF TRUCK BEDS, SHOVEL DIPPERS, LOADER BUCKETS, DRAG-LINE BUCKETS, SCRAPER BLADES, ETC.
- INSPECTION AND DIAGNOSIS
- TUNE UPS
- TIRE AND OIL FILTER CHANGING
- MINOR MECHANICAL REPAIRS
- BODY REPAIRS AND PAINTING

UTILITIES:

- COMPRESSED AIR
- POTABLE WATER
- UTILITY WATER
- SANITARY SEWERS
- WASTE WATER DRAINS
- STEAM HEATING SYSTEM
- PRESSURIZED VENTILATION SYSTEM
- LUBE OIL AND COOLANT PIPING
- USED OIL DRAIN PIPING AND COLLECTION
- OXYGEN AND ACETYLENE PIPING
- ELECTRICAL SERVICE (32/110/220/440 V. POWER)
- BATTERY POWERED EMERGENCY LIGHTS
- FIRE PROTECTION SPRINKLERS

SERVICE EQUIPMENT:

- 25 1/2 TON BRIDGE CRANE, STD. INDUSTRIAL TYPE
- 10 TON TRAVELING BEAM CRANE
- 2 TON TRAVELING BEAM CRANE
- SMALL VEHICLE SERVICE HYDRAULIC LIFT
- LIGHT WELDING RIG (DIESEL DRIVEN)
- AIR COMPRESSOR (DIESEL DRIVEN)
- TIRE HANDLER LIFT TRUCK
- FORK LIFT TRUCKS (2)
- MOBILE SCAFFOLDING (4)
- MOBILE SWEEPER
- SELF PROPELLED JACK

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 COOK INLET, ALASKA

Davy McKee
 ENGINEERS AND CONSTRUCTORS
 DD-1942 Rev. 7/79

| | | |
|-------------|-------------|---------|
| DESIGNED BY | DATE | DATE TO |
| DRAWN | S.K. 5/1/71 | CLIENT |
| CHECKED | | FIELD |
| APPROVED 1 | | |
| APPROVED 2 | | |
| APPROVED 3 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

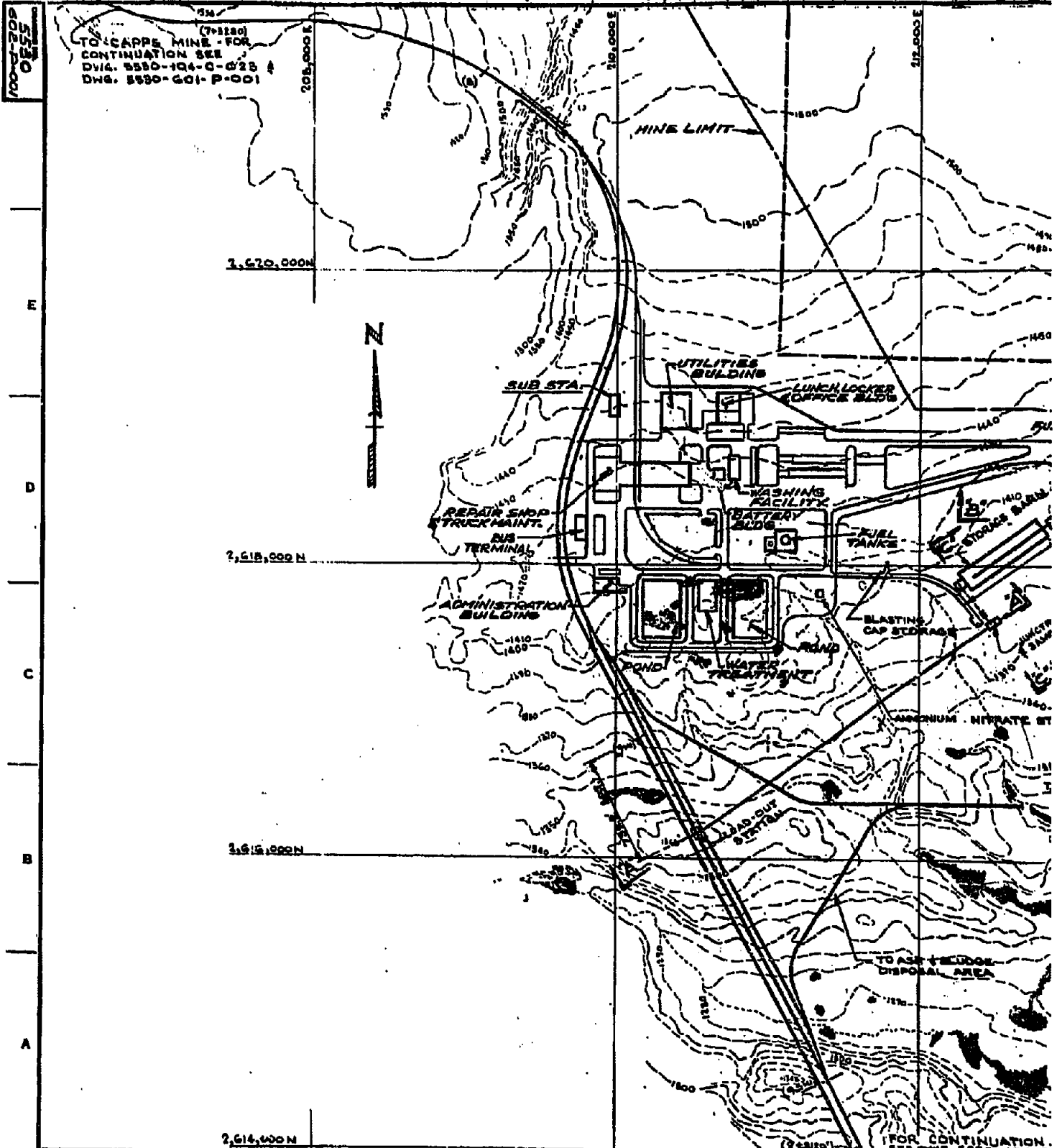
TITLE
 CAPPS MINE
 MAINTENANCE FACILITY
 SCALE 1" = 30'-0" BR. NO. PC-5530

5530
 601-P-005



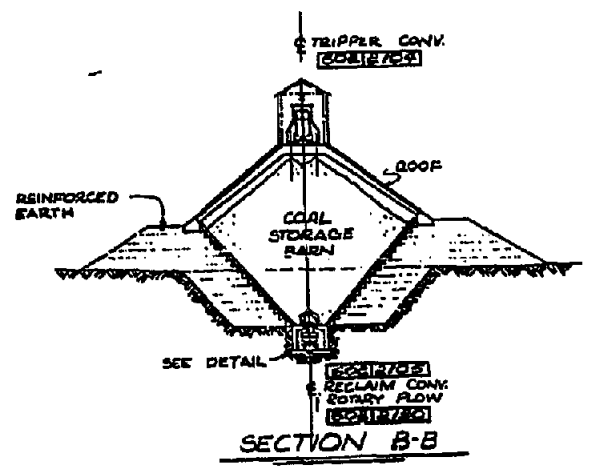
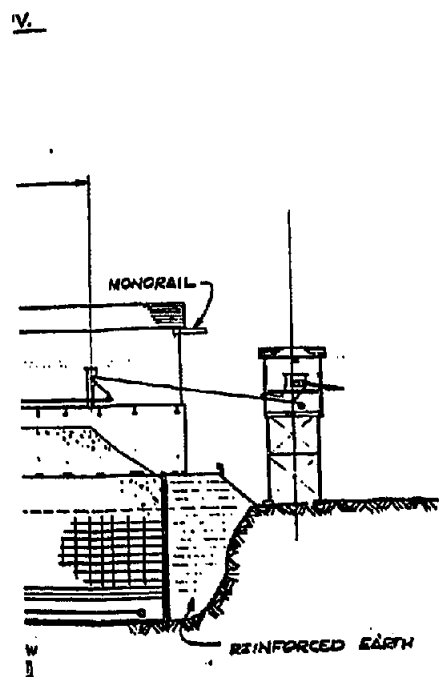
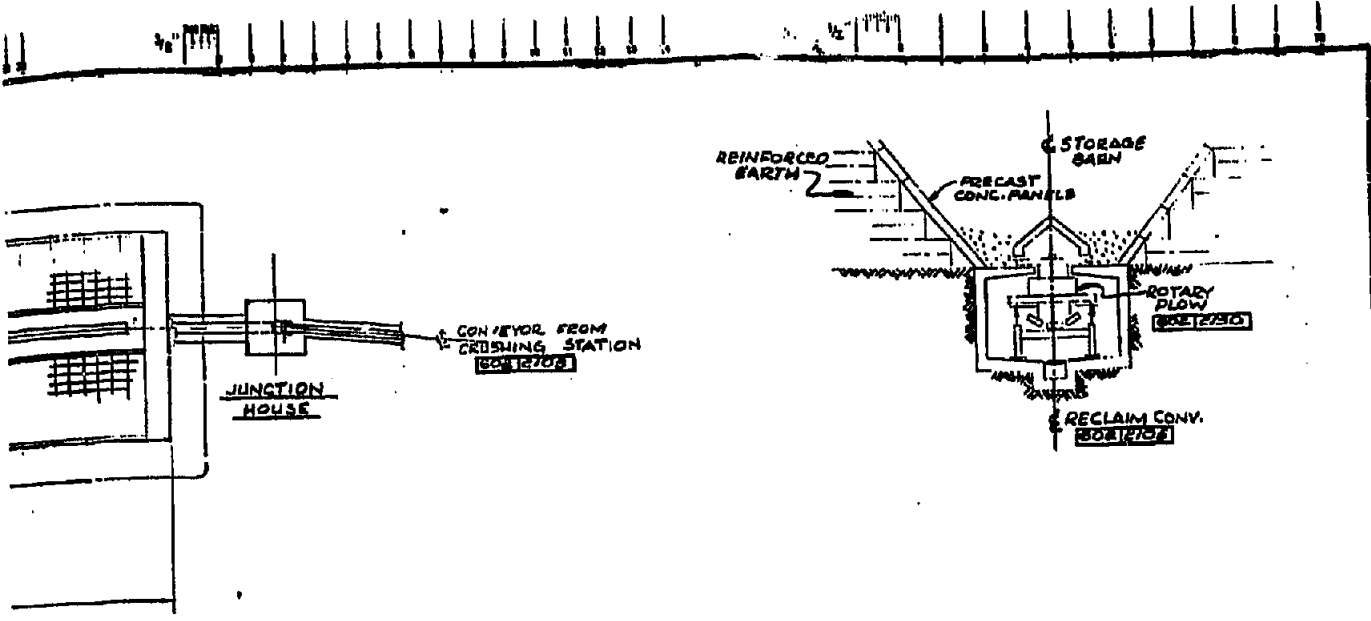
100-2-209
0855

(7-2250)
TO CAPPE MINE - FOR
CONTINUATION SEE
DWG. 5550-104-C-025
DWG. 5550-401-P-001



| NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE | NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE |
|-----|-------------------|----|------|----------|---------|-----|-------------|----|------|----------|------|
| 1 | ISSUED | JD | | | 4/15/50 | | | | | | |
| 2 | PRELIMINARY ISSUE | WY | | | 5/28/50 | | | | | | |
| 3 | PRELIMINARY ISSUE | WY | | | 5/28/50 | | | | | | |
| 4 | ISSUED FOR REPORT | WY | | | 5/28/50 | | | | | | |

(7-2250) FOR CONTINUATION SEE DWG. 5550-104-C



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COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
200-4442 Box 1170

| DESIGNED BY | DATE | DATE TO | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
|-------------|------|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRAWN | ICB | 5/10/70 | | | | | | | | | | | | | | | | | | | | | | |
| CHECKED | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 3 | | | | | | | | | | | | | | | | | | | | | | | | |

TITLE
CHUITNA MINE FACILITIES
COAL STORAGE BARN

5530
602-P-002

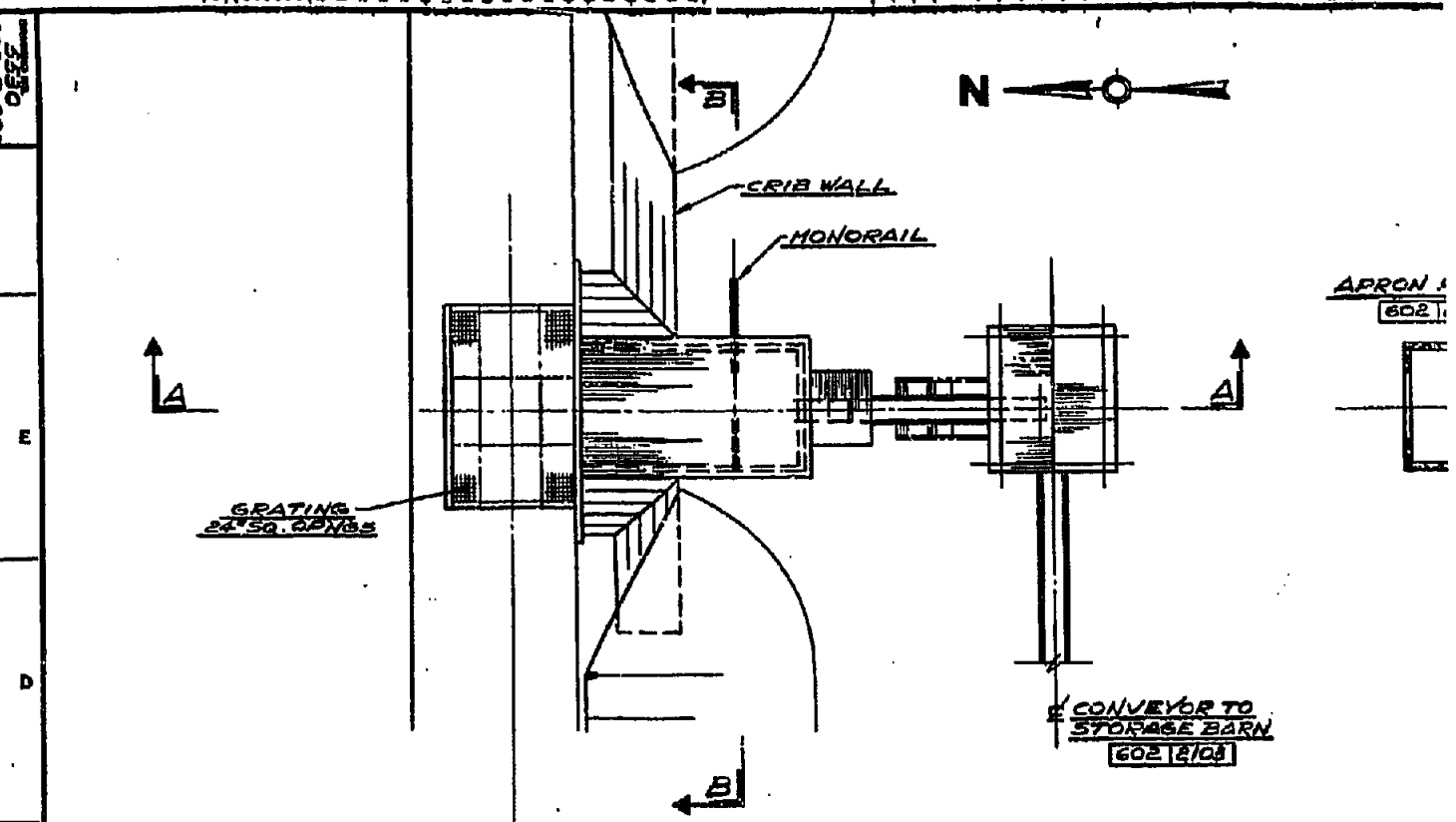


SCALE 1/2" = 1'-0" SHEET NO. 9

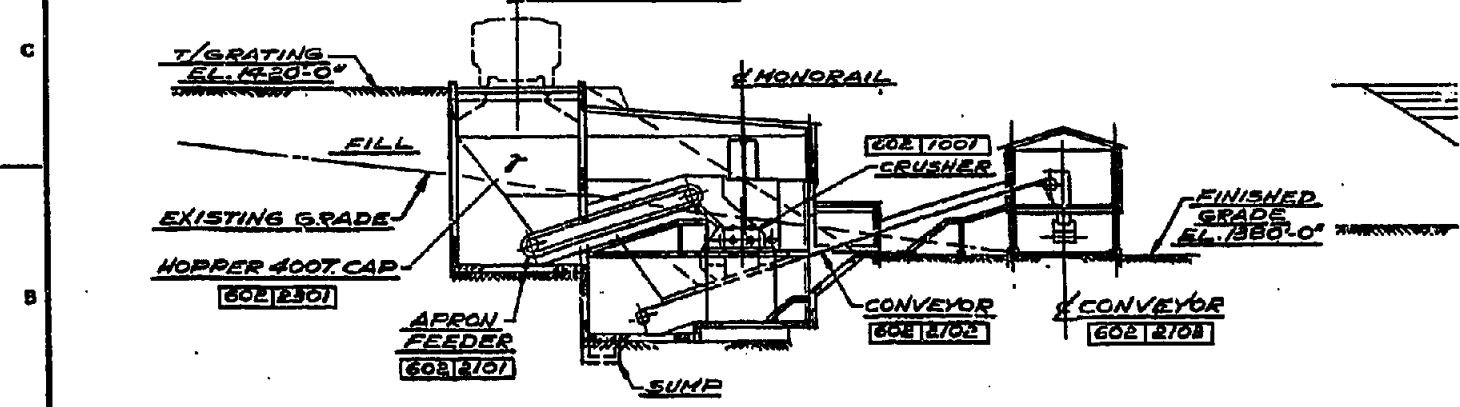
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SCALE RULER

602-P-008
2350



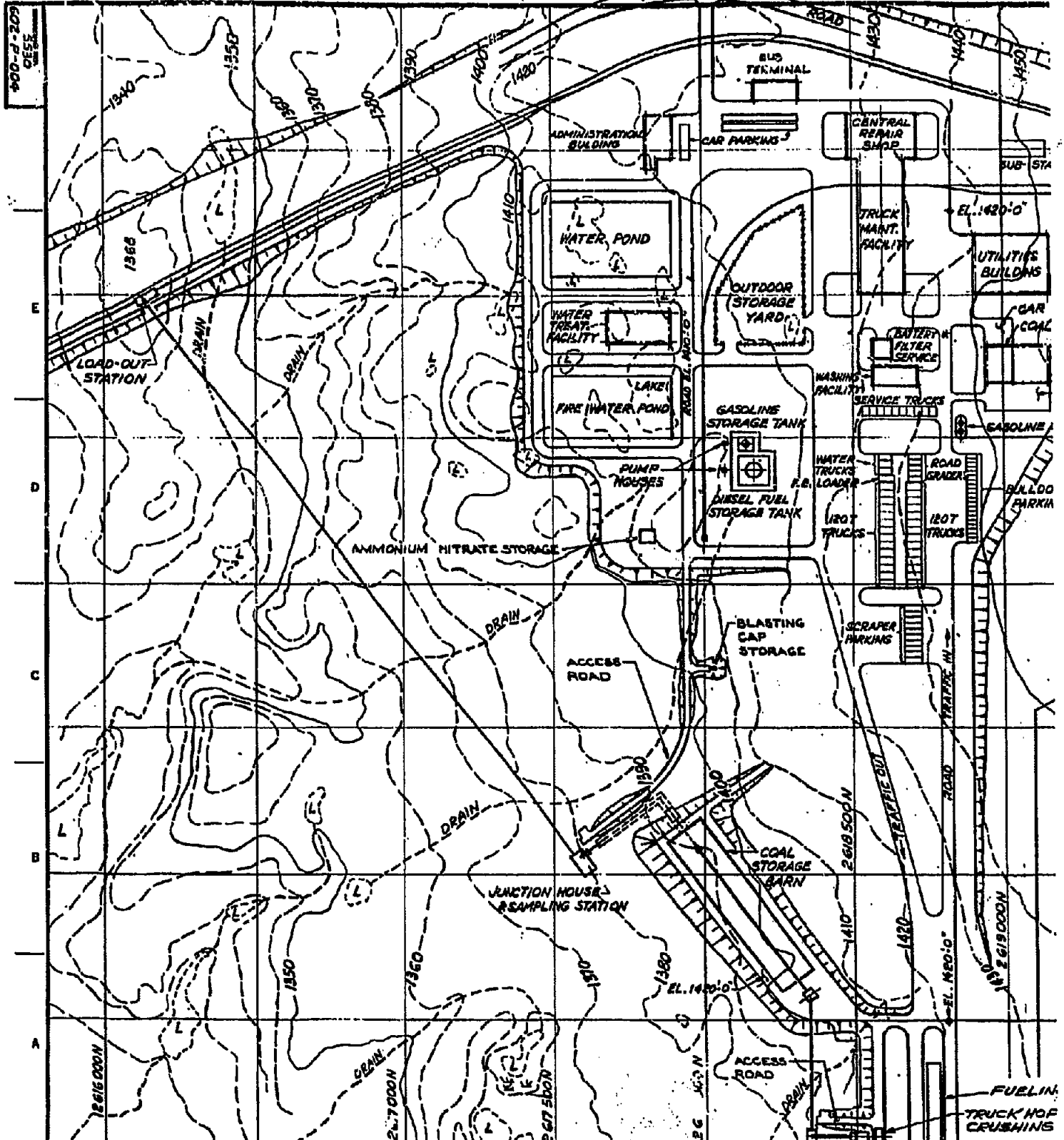
PLAN
TRUCK HOPPER



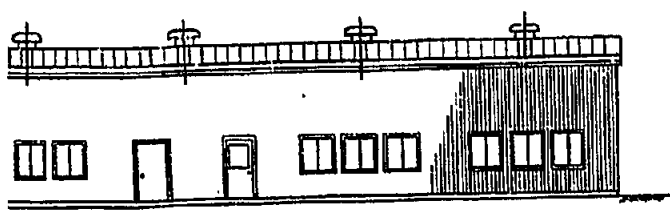
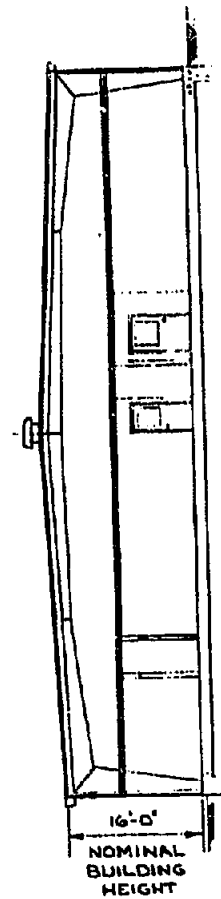
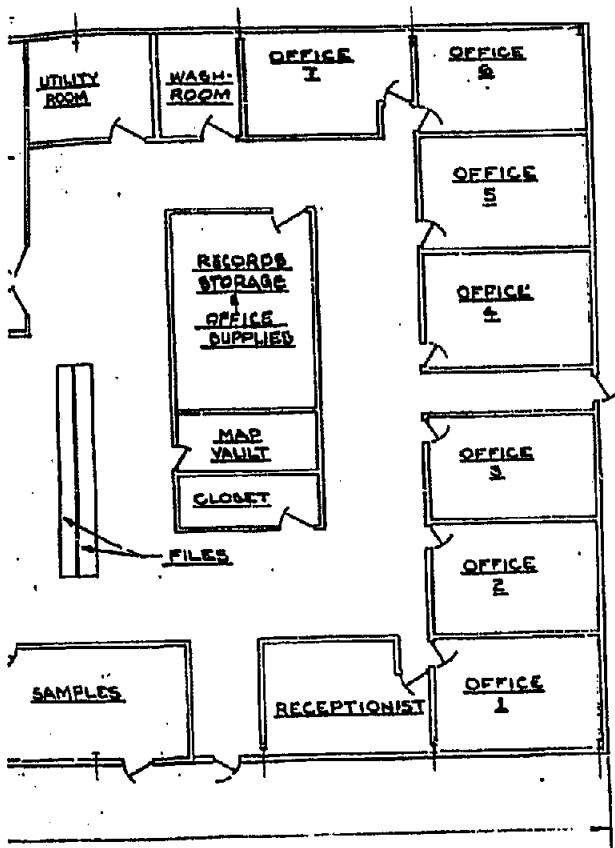
SECTION A-A

| NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE | NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE |
|-----|-------------------|-----|------|----------|------|-----|-------------|----|------|----------|------|
| 1 | PRELIMINARY ISSUE | AKH | | 230 | 5/14 | | | | | | |
| 2 | ISSUED FOR REPORT | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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1 2 3 4 5



| NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE | NO. | DESCRIPTION | BY | CHK. | APPROVED | DATE |
|-----|-------------------|----|------|----------|---------|-----|-------------|----|------|----------|------|
| 1 | PRELIMINARY ISSUE | WJ | | | 7-21-50 | 1 | | | | | |
| 2 | ISSUED FOR REPORT | WJ | | | 7-21-50 | 2 | | | | | |
| 3 | | | | | | 3 | | | | | |
| 4 | | | | | | 4 | | | | | |
| 5 | | | | | | 5 | | | | | |



NOTE:

PRE-ENGINEERED BUILDING SYSTEM WITH STEEL RANDED WALLS & ROOF. WALLS & ROOF TO HAVE INSULATION WITH AN INTERIOR VAPOR BARRIER.

ROOM FINISHES:

CEILINGS:
SUSPENDED ACOUSTICAL TILE
PLASTER IN WET AREAS

FLOORS:
TOILET ROOMS & SHOWER ROOMS - CERAMIC TILE
LOCKER ROOMS, CLOSETS & UTILITY ROOMS - FINISHED CONCRETE
ALL OTHERS - VINYL TILE

WALLS:
TOILET ROOMS & SHOWER ROOMS - CERAMIC TILE
ALL OTHERS - DEMOUNTABLE PARTITIONS

PROVIDE FLOOR DRAINS AS REQ'D.

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CLIENT **GIRI / PLACER**
BELUGA METHANOL PROJECT
COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
ONE 1642 DOW DRIVE

| DATE | BY | DATE TO | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | |
|------------|----|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| DESIGNED | BY | DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHECKED | BY | DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TITLE **CHUITNA MINE**
COAL PLANT OFFICE AND
CHANGE HOUSE

5530
602-P-006



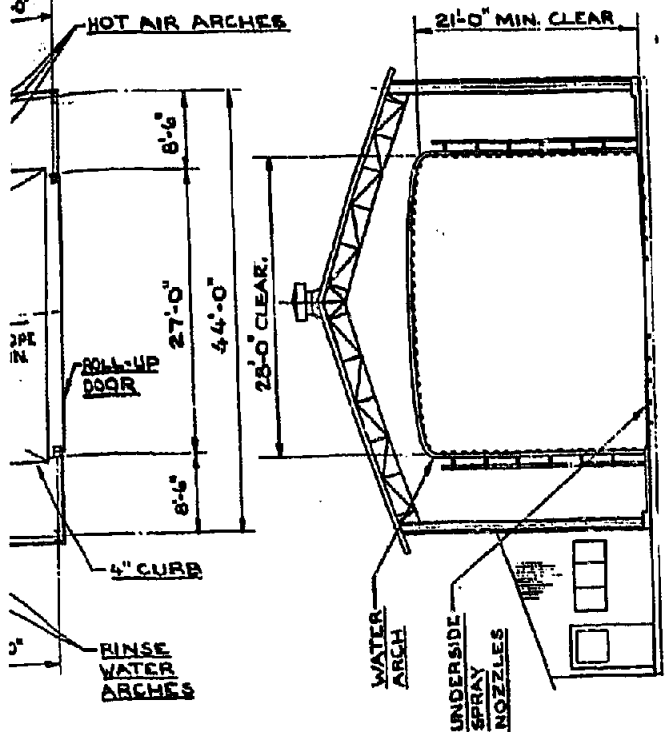
6

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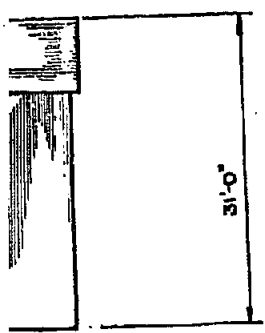


SECTION A-A

- EQUIPMENT REQUIRED:**
- (1) WATER SPRAY ARCH
 - (2) SOLUTION SPRAY ARCH
 - (1) SOLUTION MIXING TANK
 - (2) STEAM WAND & STEAM HOSE REEL
 - (2) WATER HOSE REEL
 - (4) MOBILE SCAFFOLDING
 - (2) RINSE WATER ARCH
 - (3) HOT AIR ARCH
 - (1) COMPRESSED AIR HEATER

- SERVICES REQUIRED:**
- WASTE WATER DRAINAGE
 - ELECTRIC POWER
 - WATER SUPPLY & PIPING
 - HEATING & VENTILATING
 - COMPRESSED AIR
 - STEAM
 - COMMUNICATIONS

NOTE:
 PRE-ENGINEERED BUILDING SYSTEM WITH STEEL PANELED WALLS & ROOF. WALLS & ROOF TO HAVE INSULATION WITH AN INTERIOR VAPOR BARRIER.
FLOOR:
 FINISHED CONCRETE



REMOVABLE GRATING



| | | | | | | | |
|--|------|------------|------|--|---|--|---|
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| | | | | TITLE CHUITNA MINE VEHICLE WASHING BLDG. SCALE $\frac{1}{8}'' = 1'-0''$ E/NO. PC-5530 | | 5530 602-P-007 | |
| DESIGNED BY | DATE | CHECKED BY | DATE | DATE | A | B | C |
| | | | | | | | |
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|--|--|---|--|--------------------------------------|
| AUTOMATIC TRANSFER SWITCH (2 POSITION) | | PHOTOCELL | | DOTTED ARROW |
| DISCONNECT SWITCH | | HOLDED CASE BREAKER THERMAL MAGNETIC TRIPPING ELEMENT | | METERING SIGNAL WITH ARROW |
| LOAD BREAK DISCONNECT SWITCH | | HOLDED CASE BREAKER MAGNETIC ONLY TRIPPING ELEMENT | | POWER FUSE |
| HIGH VOLTAGE CIRCUIT BREAKER | | SOLID STATE TRIPPING DEVICE WITH THE FOLLOWING CHARACTERISTICS L=LONG TIME I=INSTANTANEOUS B=SHORT TIME Q=GROUND | | RESISTOR |
| MEDIUM VOLTAGE CIRCUIT BREAKER (NUMBER INDICATES BREAKER UNIT LOCATION) | | DELTA CONNECTED WINDING | | CONTROL CIRCUIT FUSE |
| LOW VOLTAGE CIRCUIT BREAKER | | OPEN DELTA CONNECTED WINDING | | DIODE |
| NORMALLY OPEN CONTACT | | TEE OR SCOTT CONNECTED WINDING | | THYRISTOR |
| NORMALLY CLOSED CONTACT | | YVE CONNECTED WINDING UNGROUNDING | | GROUND |
| MOTOR, NUMBER INDICATES HORSEPOWER | | YVE CONNECTED WINDING SOLIDLY GROUNDING | | STAB-IN OR SEPARABLE CONNECTOR |
| PANEL WITH MAIN FUSED LOADBREAK SWITCH | | YVE CONNECTED WINDING REGISTER GROUNDING | | STAB-IN SEPARABLE CONNECTOR |
| PANEL WITH MAIN CIRCUIT BREAKER | | ZIG-ZAG CONNECTED WINDING SOLIDLY GROUNDING | | THERMAL OVERLOAD ELEMENT |
| RELAY OR INSTRUMENT | | ADJUSTABILITY | | LINK |
| 120 VAC RECEPTACLE | | DRAWING ELEMENT-4WAY | | SHUNT |
| 220 VAC RECEPTACLE | | DRAWING ELEMENT-3WAY | | BATTERY |
| WELDING RECEPTACLE | | DRAWING ELEMENT (POWER TO POWER) | | SPACE HEATER |
| STEPPED MOTOR REACCELERATION CIRCUIT | | CONTROL SIGNAL WITH DIRECTIONAL ARROW | | POWER FACTOR CORRECTION CAPACITOR |
| | | DRAWING ELEMENT (POWER TO CONTROL) | | SELECTOR SWITCH |
| | | LIGHTNING OR SURGE ARRESTOR | | CONTROL STATION SINGLE UNIT |
| | | POLARITY MARK-POSITIVE | | CONTROL STATION DOUBLE UNIT |
| | | POLARITY MARK-NEGATIVE | | CONTROL STATION THREE UNITS |
| | | CONTROL SIGNAL | | |
| | | KEY INTERLOCK | | |
| | | GENERATOR OR MOTOR FIELD | | |

F
E
D
C
B
A

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CLIENT: CIRI/PLACER
BELUGA METHANOL PROJECT
COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
SINCE 1912

DESIGNED BY: [] DATE: [] DRAWN BY: [] CHECKED BY: [] APPROVED BY: []

TITLE: ELECTRICAL SINGLE LINE LEGEND AND SYMBOLS

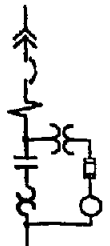
SCALE: NONE

5530-309-N-001

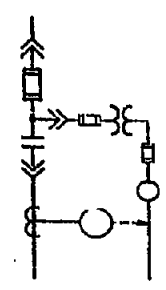
REVISION:

| | | | | |
|-------------|------|----------|------------|-------------|
| DESIGNED BY | DATE | DRAWN BY | CHECKED BY | APPROVED BY |
| CP | | | | |
| J.V.C. | | | | |
| | | | | |
| | | | | |

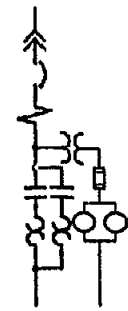
| | | | | |
|---|---|--------|---|----|
| 6 | 7 | 8 | 9 | 10 |
| | | NR1328 | | |



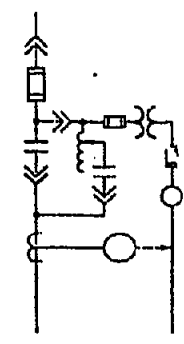
FULL VOLTAGE NON REVERSING
DRUM OUT TYPE MAGNETIC
MOTOR STARTER WITH
INSTANTANEOUS TRIP CIRCUIT
BREAKER, THERMAL OVERLOAD
RELAY AND CONTROL POWER
TRANSFORMER.
(LOW VOLTAGE)



FULL VOLTAGE NON REVERSING
DRUM OUT TYPE CONTROLLER
WITH CURRENT LIMITING
POWER FUSES, 3 CURRENT
TRANSFORMER, 3 POLE AMBIENT
COMPENSATED THERMAL OVERLOAD
RELAY, CONTROL POWER TRANSFORMER
WITH PRIMARY AND SECONDARY
FUSES.
(MEDIUM VOLTAGE)



FULL VOLTAGE NON REVERSING
DRUM OUT TYPE TWO SPEED
MAGNETIC MOTOR STARTER WITH
INSTANTANEOUS TRIP CIRCUIT
BREAKER, THERMAL OVERLOAD
RELAY AND CONTROL POWER
TRANSFORMER.
(LOW VOLTAGE)



REDUCED VOLTAGE NON-REVERSING
DRUM OUT TYPE CONTROLLER WITH
CURRENT LIMITING POWER FUSES, 3
CURRENT TRANSFORMER, 3 POLE
AMBIENT COMPENSATED THERMAL
OVERLOAD RELAY, CONTROL POWER
TRANSFORMER WITH PRIMARY AND
SECONDARY FUSES.
(MEDIUM VOLTAGE)

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CLIENT CRI./ PLACER
BELUGA METHANOL PROJECT
COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
D&M 1543 Rev. 7/76

| DESIGNED | BY | DATE | DATE TO | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | |
|------------|-----|---------|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| DRAWN | CP | 2/8/61 | CLIENT | | | | | | | | | | | | | | | | | | | | | |
| CHECKED | JTY | 2/17/61 | FIELD | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED 3 | | | | | | | | | | | | | | | | | | | | | | | | |

TITLE ELECTRICAL
SINGLE LINE LEGEND
AND SYMBOLS
SCALE NONE E.R. NO.

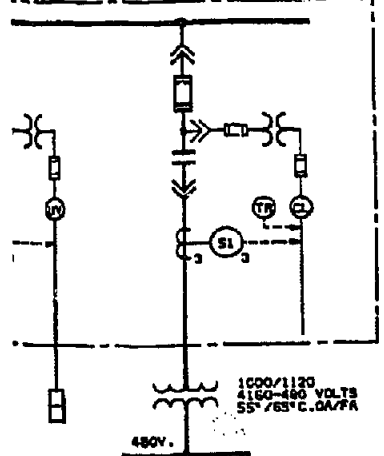
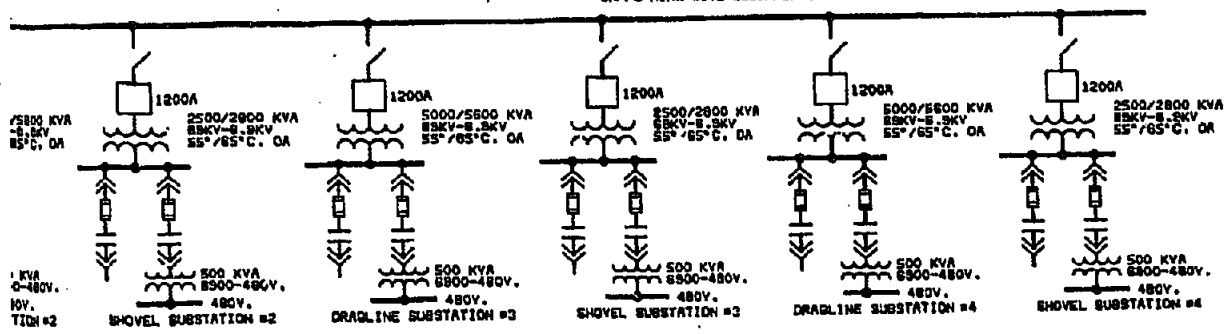
5530-309-N-002



NOTES:

1. EQUIPMENT SIZES SHOWN ON THIS DRAWING ARE PRELIMINARY AND SHOULD BE REVISED AS REQUIRED DURING DETAIL DESIGN.
2. ELECTRICAL EQUIPMENT AT THE MINE SITE SHALL BE SKID MOUNTED.

69KV TRANSMISSION LINE TO CAPPS MINE SITE EQUIPMENT.



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CLIENT
SIRI/PLACER
BELUGA METHANOL PLANT
COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
200-1000 Ave 227

| LINE LENGTH AND SYMBOLS | DESCRIPTION | SYMBOL | DATE | DATE TO | A | E | C | S | T | I | D | S | I | S | T | TITLE |
|-------------------------|-------------|--------|------|---------|---|---|---|---|---|---|---|---|---|---|---|--|
| LINE LENGTH AND SYMBOLS | DRAGLINE | CP | 7/8 | ELBY | | | | | | | | | | | | ELECTRICAL SINGLE LINE DIAGRAM CAPPS MINE SITE |
| LINE LENGTH AND SYMBOLS | DRAGLINE | 3/4 | 7/8 | WELB | | | | | | | | | | | | |
| LINE LENGTH AND SYMBOLS | DRAGLINE | 1/2 | 7/8 | WELB | | | | | | | | | | | | |
| LINE LENGTH AND SYMBOLS | DRAGLINE | 1/4 | 7/8 | WELB | | | | | | | | | | | | |

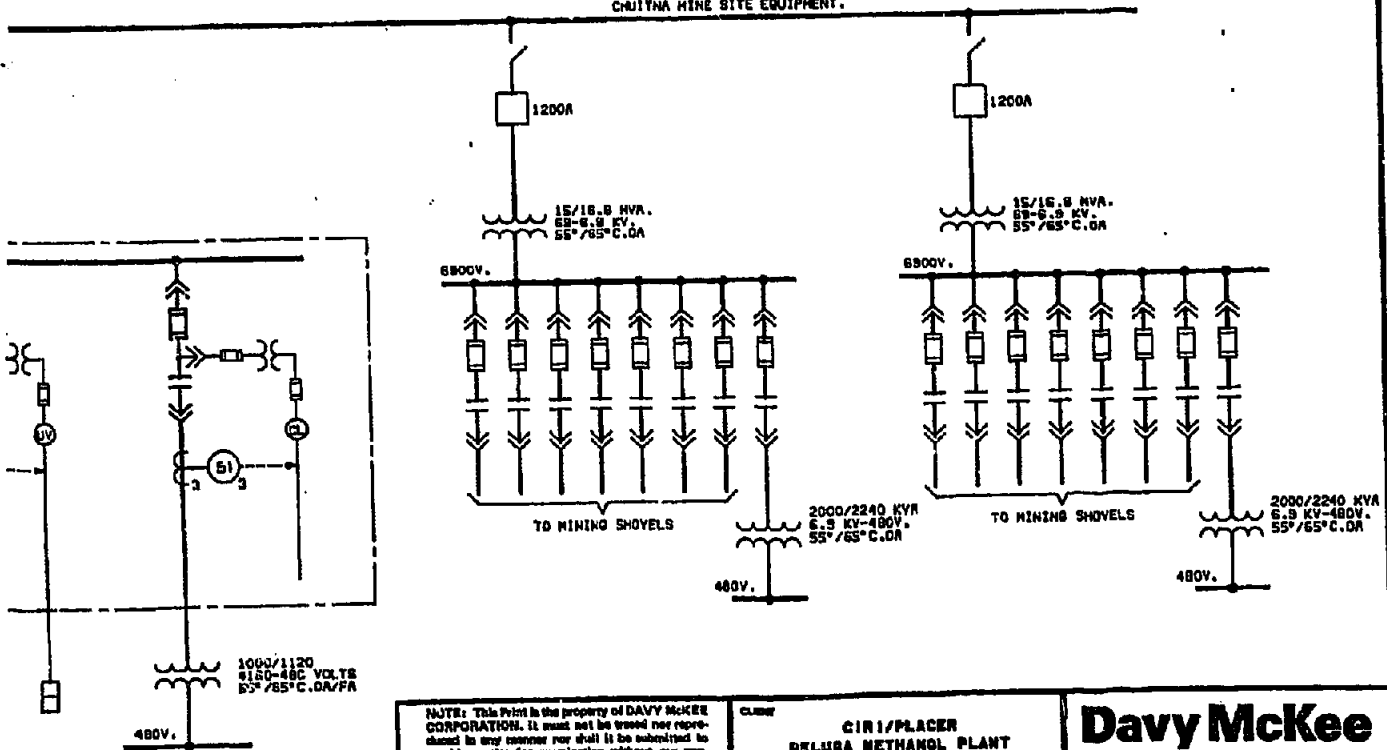
SCALE: NONE
DATE: 7/8
DRAWN BY: WELB
CHECKED BY: CP

5530-601-N-001

NOTES:

1. EQUIPMENT SIZES SHOWN ON THIS DRAWING ARE PRELIMINARY AND SHOULD BE REVISED AS REQUIRED DURING DETAIL DESIGN.
2. ELECTRICAL EQUIPMENT AT THE MINE SITE SHALL BE SKID MOUNTED.

69KV TRANSMISSION LINE TO CHUITNA MINE SITE EQUIPMENT.



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CLIENT
GRI/PLACER
BELUGA METHANOL PLANT
COOK INLET, ALASKA

Davy McKee
ENGINEERS AND CONSTRUCTORS
222-2222 2nd St. S.W.

| | | |
|----------|-----|------|
| DESIGNED | BY | DATE |
| DRAWN | CP | 7/28 |
| CHECKED | JJC | 7/28 |
| APPROVED | YVC | 7/28 |
| APPROVED | YVC | 7/28 |
| APPROVED | YVC | 7/28 |

| DATE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLIENT | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIELD | | | | | | | | | | | | | | | | | | | | | | | | | | |

TITLE
ELECTRICAL
SINGLE LINE DIAGRAM
CHUITNA MINE SITE

SCALE N/C
SHEET NO. 10/17

5530-602-N-001

REVISION
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