HISTORY of REVISION

Rev. No.	Effective Date	Revised Page (s)	Description	Prepared by	Checked by	Noted by	Approved by
01			New	DJN	HM	ON	HO

Prepared by	Checked by	Noted by	Approved by
Dexter J. Navales	Hiroyuki Mitsui	Osamu Nakai	Hirohisa Oda
Date:	Date:	Date:	Date:

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CONTENTS

I. General Description

This graphics screen shows tabulations of calculated values which are used as monitoring items for the operation of the Plant. Calculated values involve in the operations are mostly flow totalizers, differential pressure (PDI), average temperature and differential temperature (TDI) and others such as calculated density and heating rate. Refer to *Annex 1* for MISCELLANEOUS CALCULATION screen.

For the purpose and availability of calculated values, refer to the items corresponding manuals.

This screen has a shortcut link button to Graphics Overview for easy access to other screens.

II. Important Monitoring Items

1. Controllers' Description
None

2. Instruments' Description

1) 101FI008: Ore Thickener Total Flocculant Flowrate

This volumetric flow indicator monitors the total flocculant consumption of the Ore Preparation 101 and 201. This indicator is a totalizer for the flocculant consumption of 101TH01 and 201TH01.

101FI008 [m^3/h] = 101FIC007 + 201FIC007 [m^3/h]

(Operating Range: TBD m^3/h; Normal: TBD m^3/h)

2) 101/201XI001: 101TH01 Density

This density indicator monitors the calculated density of 101/201TH01 slurry which is based on manually measured height of water phase (Hw). This indicator is calculated using the following equation:

$$101/201XI001 \ [kg/m^3] = \frac{(101/201PIC001 \ [kPag] \times 1000) - (Dw \ [kg/m3] \times g \ [m/s^2] \times Hw \ [m])}{(g \ [m/s^2] \times Hs \ [m])}$$

Refer to *TNH-201-103 (2) ORE SLURRY THICKENING DCS Manual* for the discussion of the complex loop calculation for 101/201XI001.
(Operating Range: TBD kg/m^3; Normal: TBD kg/m^3)

3) 102LI001B: 102TK01 and 202TK01 Total Volume

This indicator is a totalizer of the individual volume of 102TK01 and 202TK01. This indicator is calculated using the following equation:

102LI001B [m^3] = 102LI001A + 202LI001A [m^3]

(Operating Range: TBD m^3; Normal: TBD m^3)

4) 102/202FI002: Feed Slurry Flowrate to 102HX02

This flow indicator is an electromagnetic type that monitors the flow rate of ore slurry to 102/202HX02.
(Operating Range: TBD m^3/h; Normal: TBD m^3/h)

5) 102/202FI038: Water Feed Flowrate to 102SR01

This flow indicator is an electromagnetic type that monitors the flow rate of clarified water to 102/202SR01.
(Operating Range: TBD m^3/h; Normal: TBD m^3/h)

6) 102/202FI041: Total Acid Flowrate

This volumetric flow indicator monitors the sulfuric acid feed going to HPAL 102/202. This indicator is a totalizer for the sulfuric acid feed to 102/202AC01 Comp.1A and 102/202AC01 Comp.1B.

102/202FI041 [m^3/h] = 102/202FI007 + 102/202FI039 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 51.9 m^3/h)

7) 102/202FI070: 102/202PU07A Calculated Flowrate

This calculated flow indicator monitors the HPAL feed slurry flow rate from 102/202PU07A to 102/202AC01. This indicator is calculated using the following equation:

102/202FI070 [m^3/h] = 102/202SI001 [rpm] x K [m^3/h-rpm]
    where, K = 6.642 m^3/h-rpm

(Operating Range: TBD m^3/h; Normal: TBD m^3/h)

8) 102/202FI071: 102/202PU07B Calculated Flowrate

This calculated flow indicator monitors the HPAL feed slurry flow rate from 102/202PU07B to 102/202AC01. This indicator is calculated using the following equation:

102/202FI071 [m^3/h] = 102/202SI002 [rpm] x K [m^3/h-rpm]
    where, K = 6.642 m^3/h-rpm

(Operating Range: TBD m^3/h; Normal: TBD m^3/h)

9) 102/202PDI051: LT Heater Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PU32AB discharge pressure and 102/202HX01 pressure or 102/202VE03 pressure (whichever is selected in 102/202HX01 Selector Switch). This indicator is calculated using the following equation:

102/202PDI051 [kPa] = 102/202PI001 [kPag] – 102/202PI002 [kPag]
or
102/202PDI051 [kPa] = 102/202PI001 [kPag] – 102/202PI021 [kPag]

(Operating Range: H = 50kPa; HH = 500 kPa; Normal: TBD kPa)

10) 102/202PDI052: MT Heater Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PU03AB discharge pressure and 102/202HX02 pressure or 102/202VE02 pressure (whichever is selected in 102/202HX02 Vent Control Selector Switch). This indicator is calculated using the following equation:

102PDI052 [kPa] = 102/202PI003 [kPag] – 102/202PIC004 [kPag]
or
102/202PDI052 [kPa] = 102/202PI003 [kPag] – 102/202PIC019 [kPag]

(Operating Range: H = 90kPa; HH = 500 kPa; Normal: TBD kPa)

11) 102/202PDI055: HT Heater Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PU06AB discharge pressure and 102/202HX03 pressure or 102/202VE01 pressure (whichever is selected in 102/202HX03 Vent Control Selector Switch). This indicator is calculated using the following equation:

102/202PDI055 [kPa] = 102/202PI005 [kPag] – 102/202PIC006 [kPag]
or
102/202PDI055 [kPa] = 102/202PI005 [kPag] – 102/202PIC017 [kPag]

(Operating Range: H = 50 kPa; HH = 500 kPa; Normal: TBD kPa)

12) 102/202PDI090: LT Heater – LP Flash Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202VE03 pressure and 102/202HX01 pressure. This indicator is calculated using the following equation:

102/202PDI090 [kPa] = 102/202PI021 [kPag] – 102/202PI002 [kPag]

(Operating Range: H = 100 kPa; Normal: TBD kPa)

13) 102/202PDI091: MT Heater – MP Flash Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202VE02 pressure and 102/202HX02 pressure. This indicator is calculated using the following equation:

102/202PDI091 [kPa] = 102/202PIC019 [kPag] – 102/202PIC004 [kPag]

(Operating Range: H = 100 kPa; Normal: TBD kPa)

14) 102/202PDI092: HT Heater – HP Flash Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202VE01 pressure and 102/202HX03 pressure. This indicator is calculated using the following equation:

102/202PDI092 [kPa] = 102/202PIC017 [kPag] – 102/202PIC006 [kPag]

(Operating Range: H = 100 kPa; Normal: TBD kPa)

15) 102/202PDI057A: 102/202PT010/023 (AC COMP. 1A) Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PI023 (102PU10AB discharge pressure to 102AC01 COMP. 1A) and 102/202PI010 (102/202AC01 vent pressure). This indicator is calculated using the following equation:

102/202PDI057A [kPa] = 102/202PI023 [kPag] – 102/202PI010 [kPag]

(Operating Range: L = 80 kPa; Normal: TBD kPa)

16) 102/202PDI057B: 102/202PT010/037 (AC COMP. 1B) Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PI037 (102PU10AB discharge pressure to 102AC01 COMP. 1B) and 102/202PI010 (102/202AC01 vent pressure). This indicator is calculated using the following equation:

102/202PDI057B [kPa] = 102/202PI037 [kPag] – 102/202PI010 [kPag]

(Operating Range: L = 80 kPa; Normal: TBD kPa)

17) 102/202PDI078: HP Air Injection Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PI033 (HP Air pressure to 102AC01) and 102/202PI010 (102/202AC01 vent pressure). This indicator is calculated using the following equation:

102/202PDI078 [kPa] = 102/202PI033 [kPag] – 102/202PI010 [kPag]

(Operating Range: TBD kPa; Normal: TBD kPa)

18) 102/202PDIC056: 102/202PY007/PT010 Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 102/202PI010 (102/202AC01 vent pressure) and 102/202PY007 (saturated steam pressure in 102AC01). This indicator is calculated using the following equation:
    102/202PDIC056 = 102/202PI010 – 102/202PY007
(Operating Range: -100 – 700 kPa; Normal: TBD kPa)

19) 102/202TY030: 102/202TI006 – 102 Autoclave Average Temperature

This calculated temperature indicator measures the average temperature inside 102/202AC01. This indicator is calculated using the following equation:

102/202TY030 [^{o}C] = (102/202TI006 [^{o}C] + 102/202TI007 [^{o}C] + 102/202TI008 [^{o}C] +
                102/202TI009 [^{o}C] + 102/202TI010 [^{o}C] + 102/202TI011 [^{o}C] +
                102/202TI012 [^{o}C]) / 7

(Operating Range: TBD ^{o}C; Normal: TBD ^{o}C)

20) 102/202TDY006: 102/202AC01 COMP. #1 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #1. This indicator is calculated using the following equation:

$$102/202TDY006\ [^oC/h\ ] = \frac{(102/202TI006_{Newest}\ [^oC\ ] - 102/202TI006_{Oldest}\ [^oC\ ])}{X\ [min]} \times 60[min/h]$$

(Operating Range: TBD ^oC/h; Normal: TBD ^oC/h)

21) 102/202TDY007: 102/202AC01 COMP. #2 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #2. This indicator is calculated using the following equation:

$$102/202TDY007\ [^oC/h\ ] = \frac{(102/202TI007_{Newest}\ [^oC\ ] - 102/202TI007_{Oldest}\ [^oC\ ])}{X\ [min]} \times 60\ [min/h]$$

(Operating Range: TBD ^oC/h; Normal: TBD ^oC/h)

22) 102/202TDY008: 102/202AC01 COMP. #3 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #3. This indicator is calculated using the following equation:

$$102/202TDY008\ [^oC/h\ ] = \frac{(102/202TI008_{Newest}\ [^oC\ ] - 102/202TI008_{Oldest}\ [^oC\ ])}{X\ [min]} \times 60\ [min/h]$$

(Operating Range: TBD ^oC/h; Normal: TBD ^oC/h)

23) 102/202TDY009: 102/202AC01 COMP. #4 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #4. This indicator is calculated using the following equation:

$$102/202TDY009\ [^oC/h\ ] = \frac{(102/202TI009_{Newest}\ [^oC\ ] - 102/202TI009_{Oldest}\ [^oC\ ])}{X\ [min]} \times 60\ [min/h]$$

(Operating Range: TBD ^oC/h; Normal: TBD ^oC/h)

24) 102/202TDY010: 102/202AC01 COMP. #5 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #5. This indicator is calculated using the following equation:

$$102/202TDY010\ [^oC\ /h] = \frac{(102/202TI010_{Newest}\ [^oC\ ] - 102/202TI010_{Oldest}\ [^oC\ ])}{X\ [min]} \times 60\ [min/h]$$

(Operating Range: -400 – 400 ^oC/h; Normal: TBD ^oC/h)

25) 102/202TDY011: 102/202AC01 COMP. #6 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #6. This indicator is calculated using the following equation:

$$102/202TDY011 \ [^{o}C \ /h] = \frac{(102/202TI011_{Newest} \ [^{o}C \ ] - 102/202TI011_{Oldest} \ [^{o}C \ ])}{X \ [min]} \times 60 \ [min/h]$$

(Operating Range: TBD ^{o}C/h; Normal: TBD ^{o}C/h)

26) 102/202TDY012: 102/202AC01 COMP. #7 Heating Rate

This calculated heating rate indicator measures the change in temperature per unit time inside 102/202AC01 Comp. #7. This indicator is calculated using the following equation:

$$102/202TDY012 \ [^{o}C/h \ ] = \frac{(102/202TI012_{Newest} \ [^{o}C] - 102/202TI012_{Oldest} \ [^{o}C])}{X \ [min]} \times 60 \ [min/h]$$

(Operating Range: TBD ^{o}C/h; Normal: TBD ^{o}C/h)

27) 102/202TDI026: 102/202AC01 Skin Temperature Difference

This calculated temperature difference indicator measures the skin temperature difference at 102/202AC01 Comp. #1 and 102/202AC01 Comp. #2. This indicator is calculated using the following equation:

102/202TDI026 [^{o}C] = 102/202TI013 [^{o}C] − 102/202TI014 [^{o}C]

(Operating Range: TBD ^{o}C; Normal: TBD ^{o}C)

28) 102/202TDI027: LT Heater Approach Temperature

This calculated temperature difference indicator measures the temperature difference of steam going in 102/202HX01 and heated slurry going out of 102/202HX01. This indicator is calculated using the following equation:

102/202TDI027 [^{o}C] = 102/202TI102 [^{o}C] − 102/202TI101 [^{o}C]

(Operating Range: TBD ^{o}C; Normal: 6 ^{o}C)

29) 102/202TDI028: MT Heater Approach Temperature

This calculated temperature difference indicator measures the temperature difference of steam going in 102/202HX02 and heated slurry going out of 102/202HX02. This indicator is calculated using the following equation:

102/202TDI027 [^{o}C] = 102/202TI104 [^{o}C] − 102/202TI103 [^{o}C]

(Operating Range: TBD ^{o}C; Normal: 8 ^{o}C)

30) 102/202TDI029: HT Heater Approach Temperature

This calculated temperature difference indicator measures the temperature difference of steam going in 102/202HX03 and heated slurry going out of 102/202HX03. This indicator is calculated using the following equation:

102/202TDI027 [^{o}C] = 102/202TI106 [^{o}C] − 102/202TI105 [^{o}C]

(Operating Range: TBD ^{o}C; Normal: 8 ^{o}C)

31) 103FI500: CCD Input Total Flowrate

This volumetric flow indicator monitors the total flow input of materials into the CCD circuit. This indicator is a totalizer of the pregnant liquor flow from PNTRL, barren liquor flow from MS, total flocculant flow and NTRL underflow slurry. This indicator is calculated using the following equation:

103FI500 [m^3/h] = 103FIC001 [m^3/h] + 103FIC020 [m^3/h] + 103FI068 [m^3/h] +
        104FIC004 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 2214.3 m^3/h)

32) 103FI501: CCD Output Total Flowrate

This volumetric flow indicator monitors the total flow output of materials from the CCD circuit. This indicator is a totalizer of the pregnant liquor flow from CCD-4, CCD-9 underflow slurry to FNTRL and CCD-5 underflow seed slurry to NTRL. This indicator is calculated using the following equation:

103FI501 [m^3/h] = 103FIC003 [m^3/h] + 103FIC021 [m^3/h] + 103FIC009 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 2342.5 m^3/h)

33) 104FI002: Coagulant Flowrate to 104TK02

This flow indicator is an electromagnetic type that monitors the flow rate of coagulant to 104TK02.

(Operating Range: L = 0.55 m^3/h; Normal: TBD m^3/h)

34) 104FIC006: Pregnant Liquor Flowrate to 105TK01

This flow indicator is an electromagnetic type that monitors the flow rate of pregnant liquor to 105TK01.

(Operating Range: L = 873 m^3/h; H = 1662 m^3/h; Normal: TBD m^3/h)

35) 104FI201: 104VP01AB- Coagulant Flowrate

This volumetric flow indicator monitors the flow of coagulant form 104VP01AB less the dilution water. This indicator is calculated using the following equation:

104FI201 [m^3/h] = 104FI002 [m^3/h] - 104FI001 [m^3/h]

(Operating Range: TBD m^3/h; Normal: TBD m^3/h)

36) 106FI043: Fresh H2S Gas Flowrate to MS

This volumetric flow indicator monitors the total fresh H2S gas flow to the MS reactors. This indicator is a totalizer of H2S gas flow to 106VE01, 106VE02, 106VE03 and 106VE04.

106FI043 [Nm^3/h] = 106FIC001 [Nm^3/h] + 106FIC231 [Nm^3/h] + 106FIC097 [Nm^3/h] + 106FIC911 [Nm^3/h]

(Operating Range: TBD Nm^3/h; Normal: 2138 Nm^3/h)

37) 106FQ033: Fresh H2S Gas Volume to MS

This indicator monitors the total amount/volume of fresh H2S gas to the MS reactors. This indicator is a totalizer of H2S gas volume to 106VE01, 106VE02, 106VE03 and 106VE04.

106FQ033 [Nm^3] = 106FQ001 [Nm^3] + 106FQ231 [Nm^3] + 106FQ097 [Nm^3] + 106FQ911 [Nm^3]

(Operating Range: TBD Nm^3; Normal: TBD Nm^3)

38) 106PDI100: 106VE01-106VE02 Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 106VE01 pressure and 106VE02 pressure. This indicator is calculated using the following equation:

106PDI100 [kPa] = 106PI002 [kPag] – 106PI003 [kPag]

(Operating Range: TBD kPa; Normal: 15 kPa)

39) 106PDI101: 106VE02-106VE03 Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 106VE02 pressure and 106VE03 pressure. This indicator is calculated using the following equation:

106PDI101 [kPa] = 106PI003 [kPag] – 106PI004 [kPag]

(Operating Range: TBD kPa; Normal: 15 kPa)

40) 106PDI102: 106VE03-106VE04 Differential Pressure

This calculated differential pressure indicator measures the pressure difference of 106VE03 pressure and 106VE04 pressure. This indicator is calculated using the following equation:

106PDI101 [kPa] = 106PI004 [kPag] – 106PIC005 [kPag]

(Operating Range: TBD kPa; Normal: 15 kPa)

41) 108FI202: 108PU02/03/04/05AB Total Flowrate

This calculated flow indicator measures the total flow rate of effluent slurry from FNTRL to Tailings Dam and 106TK14. This indicator is calculated using the following equation:

108FI202 [m^3/h] = 524FI008 [m^3/h] + 108FI007 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 901 m^3/h)

42) 112FI004: Slaked Lime Flowrate to FNTRL

This calculated flow indicator measures the flow rate of slaked lime to FNTRL. This indicator is calculated using the following equation:

112FI004 [m^3/h] = 112FI012 [m^3/h] – 112FI013 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 51.4 m^3/h)

43) 114FI004: Total Flocculant Flowrate

This calculated flow indicator measures the total flow rate of flocculant to the Plant. This indicator is a totalizer of the total flocculant flow to Ore Prep. 101/201, total flocculant flow to CCD circuit, flocculant flow to NTRL and flocculant flow to MS. This indicator is calculated using the following equation:

114FI004 [m^3/h] = 101FI008 [m^3/h] + 103FI068 [m^3/h] + 104FIC007 [m^3/h] + 106FIC007 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 80.1 m^3/h)

44) 103FI068: CCD Total Flocculant Flowrate

This calculated flow indicator measures the total flow rate of flocculant to the CCD thickeners. This indicator is a totalizer for the flocculant consumption of 103TH04/05/06/07/08/09. This indicator is calculated using the following equation:

103FI068 [m^3/h] = 103FIC014 [m^3/h] + 103FIC015 [m^3/h] + 103FIC016 [m^3/h] + 103FIC017 [m^3/h] + 103FIC018 [m^3/h] + 103FIC019 [m^3/h]

(Operating Range: TBD m^3/h; Normal: 40.5 m^3/h)

3. Motors

None

4. Actuated Valves

None

5. Switches

None

III. Interlocks/Controls

None

IV. Control Sequences

None

V. Alarms

None

VI. DCS Emergency Shutdown

None

VII. Trend Graphs Grouping

None

Annex 1: MISCELLANEOUS CALCULATION DCS Graphics

Free Memory 4883.84 MB   Free Disk(C:) 53389.19 MB   03/03/2012 (Sat) 15:44:29

13:58:13 BADPV   513PU02C   START/STOP   513HS009   95   ENG

SILENCE | ALARM | DEVICE ALERT | SYSTEM STATUS | MESSAGE | SEQ EVENT | PREV DISPLAY | GRAPHIC | GROUP | TREND | DETAIL | SYSTEM CONF | SUB MENU | PRINT

MISCELLANEOUS CALCULATION   Graphics Overview

Description	Tag Number	Value	Unit	Description	Tag Number	Value	Unit
101TH01 INPUT TOTAL FLOW	101FI008		m3/h				
101TH01 DENSITY	101XI001		kg/m3	201TH01 DENSITY	201XI001		kg/m3
102/202TK01 TOTAL VOLUME	102LI001B		%				
FR 102PU03AB TO 102HX02	102FI002		m3/h	FR 20203AB TO 202HX02	202FI002		m3/h
FR 102PU16AB TO 102SR01	102FI038		m3/h	FR 202PU16AB TO 202SR01	202FI038		m3/h
TOTAL ACID FLOW	102FI041		---	TOTAL ACID FLOW	202FI041		---
FLOW 102PU07A	102FI070		m3/h	FLOW 202PU07A	202FI070		m3/h
FLOW 102PU07B	102FI071		m3/h	FLOW 202PU07B	202FI071		m3/h
LT HEATER DIFF PRESS	102PDI051		kPag	LT HEATER DIFF PRESS	202PDI051		kPag
MT HEATER DIFF PRESS	102PDI052		kPag	MT HEATER DIFF PRESS	202PDI052		kPag
HT HEATER DIFF PRESS	102PDI055		kPag	HT HEATER DIFF PRESS	202PDI055		kPag
LT HTR- LP FLASH DIFF PRESS	102PDI090		kPag	LT HTR- LP FLASH DIFF PRESS	202PDI090		kPag
106CP01A RUN TIME DIFF PRESS	102PDI091		kPag	106CP01A RUN TIME DIFF PRESS	202PDI091		kPag
106CP01B RUN TIME DIFF PRESS	102PDI092		kPag	106CP01B RUN TIME DIFF PRESS	202PDI092		kPag
102PT010/037 DIFF PRESS	102PDI057A		kPag	202PT010/037 DIFF PRESS	202PDI057A		kPag
102PT010/023 DIFF PRESS	102PDI057B		kPag	202PT010/023 DIFF PRESS	202PDI057B		kPag
HP AIR INJ DIFF PRESS	102PDI078		kPag	HP AIR INJ DIFF PRESS	202PDI078		kPag
103FIC020 DIFF PRESS	102PDIC056		kPag	103FIC020 DIFF PRESS	202PDIC056		kPag
104FIC004 AVG TEMP	102TY030		deg C	104FIC004 AVG TEMP	202TY030		deg C
A/C COMP 1 HEATING RATE	102TDY006		deg C/h	A/C COMP 1 HEATING RATE	202TDY006	0.0	deg C/h
A/C COMP 2 HEATING RATE	102TDY007		deg C/h	A/C COMP 2 HEATING RATE	202TDY007	0.0	deg C/h
A/C COMP 3 HEATING RATE	102TDY008		deg C/h	A/C COMP 3 HEATING RATE	202TDY008	0.0	deg C/h
A/C COMP 4 HEATING RATE	102TDY009		deg C/h	A/C COMP 4 HEATING RATE	202TDY009	0.0	deg C/h
A/C COMP 5 HEATING RATE	102TDY010		deg C/h	A/C COMP 5 HEATING RATE	202TDY010	0.0	deg C/h
A/C COMP 6 HEATING RATE	102TDY011		deg C/h	A/C COMP 6 HEATING RATE	202TDY011	0.0	deg C/h
A/C COMP 7 HEATING RATE	102TDY012		deg C/h	A/C COMP 7 HEATING RATE	202TDY012	0.0	deg C/h
A/C SKIN TEMP TEMP DIFF	102TDI026		deg C	A/C SKIN TEMP TEMP DIFF	202TDI026		deg C
LT HEATER APPROACH TEMP	102TDI027		deg C	LT HEATER APPROACH TEMP	202TDI027		deg C
MT HEATER APPROACH TEMP	102TDI028		deg C	MT HEATER APPROACH TEMP	202TDI028		deg C
HT HEATER APPROACH TEMP	102TDI029		deg C	HT HEATER APPROACH TEMP	202TDI029		deg C
CCD INPUT TOTAL FLOW	103FI500		m3/h				
CCD OUTPUT TOTAL FLOW	103FI501		m3/h				
FR 104VP01AB TO 104TK02	104FI002		m3/h				
FR 104PU01AB TO 105TK01	104FIC006		m3/h				
104VP01AB FLOW IND	104FI201		---				
H2S FLOW FTO MS	106FI043		Nm3/h				
H2S FLOW FTO MS	106FQ033		Nm3				
106VE01-106VE02 DIFF PRESS	106PDI100		kPa				
106VE02-106VE03 DIFF PRESS	106PDI101		kPa				
106VE03-106VE04 DIFF PRESS	106PDI102		---				
108PU02/03/04/05AB TOTAL FLOW	108FI202		m3/h				
SLAKE LIME TO F-NTRL	112FI004		m3/h				
524FI008 FLOW	114FI004		m3/h				
FLOC TOTAL CCD	103FI068		m3/h				