

016942

ANVIL DB LOAD.

LONG SECTIONS.

(DHOOD APR. 08 SECT.) "THE IMPERIAL ANVIL!" PLUNGE = 0 @ 0 OFFSET = 70.7

NAME	POINT-1		POINT-2		ELEVATIONS	
	NORTHING	EASTING	NORTHING	EASTING	UPPER	LOWER
14+00 _{AAA} ✓	8,750.0	13,250.0	6,500.0	15,500.0	4400.0	2900.0
14+125 _{AA} ✓	8,838.4	13,338.4	6,588.4	15,588.4	4400.0	2900.0
16+00 _{AAA} ✓	8,950.0	13,450.0	6,700.0	15,700.0	4400.0	2900.0
17+00 _{AAA} ✓	9,050.0	13,550.0	6,800.0	15,800.0	4400.0	2900.0
18+00 _{AAA} ✓	9,150.0	13,650.0	6,900.0	15,900.0	4400.0	2900.0
19+00 _{AAA} ✓	9,250.0	13,750.0	7,000.0	16,000.0	4400.0	2900.0
19+99 _{AAA} ✓	9,316.5	13,816.5	7,066.5	16,066.5	4400.0	2900.0
20+26 _{AAA} ✓	9,368.4	13,868.4	7,118.4	16,118.4	4400.0	2900.0
21+00 _{AAA} ✓	9,450.0	13,950.0	7,200.0	16,200.0	4400.0	2900.0
22+00 _{AAA} ✓	9,550.0	14,050.0	7,300.0	16,300.0	4400.0	2900.0
23+00 _{AAA} ✓	9,650.0	14,150.0	7,400.0	16,400.0	4400.0	2900.0
24+00 _{AAA} ✓	9,750.0	14,250.0	7,500.0	16,500.0	4400.0	2900.0
25+00 _{AAA} ✓	9,850.0	14,350.0	7,600.0	16,600.0	4400.0	2900.0

Plunge 000 OFFSET 70.7

"! THE IMPERIAL ANVIL!"

PLUNGE - 22 @ 315

OFFSET = 70.7

CROSS-SECTIONS:

NAME	POINT-1		POINT-2		ELEVATIONS		
	<u>NORTHING</u>	<u>EASTING</u>	<u>NORTHING</u>	<u>EASTING</u>	<u>UPPER</u>	<u>LOWER</u>	
124+22 _{AA}	6,784.4	13,215.6	9,534.4	15,965.6	4400.	2900.	✓
125+00 _{AA}	6,700.0	13,300.0	9,450.0	16,050.0	4400.	2900.	✓
126+23 _{AA}	6,583.7	13,416.3	9,333.7	16,166.3	4400.	2900.	✓
127+09 _{AA}	6,493.6	13,506.4	9,243.6	16,256.4	4400.	2900.	✓
128+20 _{AA}	6,385.9	13,614.1	9,135.9	16,364.1	4400.	2900.	✓
129+00 _{AA}	6,300.0	13,700.0	9,050.0	16,450.0	4400.	2900.	✓
130+00 _{AA}	6,200.0	13,800.0	8,950.0	16,550.0	4400.	2900.	✓
131+22 _{AA}	6,084.4	13,915.6	8,834.4	16,665.6	4400.	2900.	✓
132+52 _{AA}	5,963.2	14,036.8	8,713.2	16,786.8	4400.	2900.	✓
133+00 _{AA}	5,900.0	14,100.0	8,650.0	16,850.0	4400.	2900.	✓
134+47 _{AA}	5,766.8	14,233.2	8,516.8	16,983.2	4400.	2900.	✓
135+54 _{AA}	5,661.8	14,338.2	8,411.8	17,088.2	4400.	2900.	✓
135+92 _{AA}	5,613.7	14,386.3	8,363.7	17,136.3	4400.	2900.	✓

PLUNGE 22 @ 315

OFFSET 70.7

! The Imperial Anvil!

→ IAWD1 → 10 incl - loaded onto the system Feb 10/83

FARD DEPOSIT

IALD1 Source Geology.

CSC NAME		ASSAY DbName	DDH db Name	change
F76X19C		Not on	76X-19	✓
67002		67002	(67-02)	✓
77007		77007	(77-07)	✓
81019		81019	(81-19)	✓
66E09	66E-09 ✓	66809	66E-09	✓
74010		74010	(74-10)	✓
81012		81012	(81-12)	✓
66E006	66E-06 ✓	66806	66E-06	✓
74020		74020	(74-20)	✓
66E005	66E-05 ✓	66805	66E-05	✓
81003		81003	(81-03)	✓
FAB2F12		FAB2F12	(82F-12)	✓
FA82F15		FA82F15	(82F-15)	✓
7545615		7545615	(75456-15)	✓

IALD2

77011		77011	(77-11)	✓
81016		81016	(81-16)	✓
75004		75004	(75-04)	✓
81020		81020	(81-20)	✓
74011		74011	(74-11)	✓
81001		81001	(81-01)	✓
74019		74019	(74-19)	✓
72012		72012	(72-12)	✓

IALD3

67001		67001	(67-01)	✓
81008		81008	(81-08)	✓
66E001	66E-01 ✓	66801	66E-01	✓
66E004	66E-04 ✓	66804	66E-04	✓
81004		81004	(81-04)	✓
66E007	66E-07 ✓	66807	66E-07	✓
74018		74018	(74-18)	✓
72011		NOT ON	72-11	✓
81007		81007	(81-07)	✓
81006		81006	(81-06)	✓

IALD 3 cont

CSC NAME

ASSAY DB name

DDH db Name

74021			74021	(74-21)
81005			81005	(81-05)
F66E003	66E-03		Not on	66E-03
F65053			Not on	
65055			65055	(65-55) (66-065)
66E002	66E-02		Not on	66E-02
66E08	Change to 66808		66808	66E-08

IALD 4

FAB2E24			FAB2E24	
7545618	75456-18		7545618	75456-18
FAB2E13			FAB2E13	82E-13
FAB2E11			FAB2E11	-11
FAB2E09			FAB2E09	-09
FAB2E06			FAB2E06	-06
FAB2E01			FAB2E01	-01
FAB2E04			NOT FAB2E04	-04
F71004	71-04	✓	71004	(71-04)
F67030	67-30	✓	67030	(67-30)
F67011	67-11	✓	67011	(67-11)
F67006	67-06	✓	67006	(67-06)
F67009	67-09	✓	67009	(67-09)
F76004	76-04	✓	76004	(76-04)

IALD 5

F81018	81-18	✓	81018	(81-18)
F81015	81-15	✓	81015	(81-15)
F81002	81-02	✓	81002	(81-02)
F81011	81-11	✓	81011	(81-11)
F81010	81-10	✓	81010	(81-10)
F77004	77-04	✓	77004	(77-04)
F77012	77-12	✓	77012	(77-12)
F77014	77-14	✓	77014	(77-14)

Checked

* ✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

IALD.6

CSC name

Janet

Assay Db name

DD db name

Janet

F77009

77-09

✓

77009

(77-09)

F77017

77-17

✓

77017

(77-17)

FA82F10

FA82F10

82F-10

FA82F08

FA82F08

82F-08

F77001

77-01

✓

77001

(77-01)

F77016

77-16

✓

77016

(77-16)

F80002

80-02

✓

80002

(80-02)

F80004

80-04

✓

80004

(80-04)

IALD.7

EA82F07

EA82F07

82F-07

F80003

80-03

✓

80003

(80-03)

F77002

77-02

✓

77002

(77-02)

F72015

72-15

✓

72015

(72-15)

F72013

72-13

✓

72013

(72-13)

F71005

71-05

✓

71005

(71-05)

F74008

74-08

✓

74008

(74-08)

F67010

67-10

✓

67010

(67-10)

F67003

67-03

✓

67003

(67-03)

IALD.8

F77015

77-15

✓

77015

(77-15)

F77003

77-03

✓

77003

(77-03)

F77013

77-13

✓

77013

(77-13)

F77010

77-10

✓

77010

(77-10)

FA82F02

Not on

FA82F02

82F-02

FA82F03

FA 03

82F-03

FA82F05

FA 05

82F-05

FA82F14

FA 14

82F-14

FA82F16

FA 16

82F-16

TALD9

CSC name		change	ASSAY Db name	DDA db name	
F81014	✓	✓	81014	(81-14)	✓
F77006	✓	✓	77006	(77-06)	✓
F81013	✓	✓	81013	(81-13)	✓
FA82E17	✓	✓	FA82E17	82E-17	✓
E67008	✓	✓	67008	(67-08)	✓
F67004	✓	✓	67004	(67-04)	✓
E67005	✓	✓	67005	(67-05)	✓
F81009	✓	✓	81009	(81-09)	✓
F70013	✓	✓	70013	(70-13)	✓

TALD10

F67007	✓	✓	67007	(67-07)	✓
DELETE F77016			77016	(77-16)	on ILAD.6

Reassigned 90000 Series Nos. To
GRUM DATA BASE - KA ASSAYS.

DDH

90000	F898 001	
90004 - 005	F898 004	
90006 - 019	F898 005	
90020 - 032	F898 009	
90033 - 040	F898 014	
90041 - 051	F898 068	
90052 - 071	F898 073	
90072	F898 114	
90073	F898 005	
90074 - 075	F898 006	
90077 - 079	F898 009	
90080	F898 016	
90081	F898 025	
90082 - 085	F898 027	
90086 - 089	F898 004	
90090 - 112	F898 021	
90113 - 115	F898 060	
90116	F898 028	
90117 - 124	F898 013	
90125 - 131	F898 017	
90132	F898 023	
90133	OPEN	
90134 - 135	F898 023	
90136 -	F898 055	
90137	OPEN	
90138 - 140	F898 096	(9895-9897)
90141 - 143	F898 070	(9826-9829)
90144 - 145	F898 003	(2468-2469)
90146 - 153	F898 088	(9250-9256, 9265)
90154	F898 157	(9298)
90155 - 159	F898 066	(9580-9584)
90160	F898 045	

90000 Series No Assignments
GRUM DB. - KA ASSAYS.

	<u>ddh</u>
90161	Faga 153
90162 - 163	Faga 045
90164 - 166	Faga 052
90167 - 168	OPEN
90169	Faga 052
90170 -	Faga 074
90171 - 172	Faga 134
90173 - 174	Faga 147
90175	Faga 021
90176	Faga 083
90177 - 178	Faga 132
90179 - 206	Faga 019
90207 - 214	Fagu 007
90215 - 216	Faga 056
90217 - 218	Fagu 018
90219 - 222	Fagu 022
90223 - 225	Fagu 023
90226	Fagu 086
90227	Faga 062
90228 - 229	Fagu 088
90230 - 231	Fagu 090 (relaq. by 0113)
90232 - 245	Fagu 098
90246 - 248	Fagu 102
90249 - 252	Fagu 106
90253 - 256	Fagu - 111
90257 -	Fagu - 113
90258 - 259	Fagu - 121
90260 - 261	Fagu - 035
90262	Fagu - 149
90263	Fagu - 150
90264	Fagu - 156
90265	Faga 163

90000 Series GRUMSB. Nos

90266-268	Faqo 069
90269-307	Faqo 024
90308-309	Faqo 004
90310	" 005
90311	Faqo 116
90312-315	Faqo 164
90316-341	Faqo 195
90342-347	Faqo 011
90348	Faqo 035
90349	Faqo 039
90350	Faqo 045
90351-353	Faqo 084
90354-356	Faqo 136
90357	Faqo 099
90358	Faqo 66
90359-366	Faqo 140
90367-370	Faqo 084
90371-374	
90375-377	Faqo 082
90378	
90379	
90380	
90381	
90382	
90383	
90384	
90385	
90386	
90387	
90388	
90389	
90390-413	Faqo 087
90414-449	Faqo 085
90450-461	Faqo 089

replaces
(11707-11711)
replaces
(11696-11699)

90000 Series Gram #s
used for KA assays

90462

FAGA075

90470

90480

90490

90497

90498

90500

90510

90520

90521 - 529

90530

531

532

533

90534 - 537

90538 - 552

90553 - 586

90587

90588 - 598

Faga 075

Faga 008

Faga 012

Faga 020

Faga 022

Fagu 036

Fagu 037

90000 Series[#] used
on GRUMDB for KA assays

90599 - 90604	F098111
90605 - 606	F098131
90607 - 617	F098185
90618 - 629	F098191
90630 - 633	F098193
90634 - 643	" 195
90644 - 682	" 196
90683 - 704	" 189
90705 - 715	" 198
90716 - 741	" 199
90742 - 753	" 200
90754 - 761	" 204
90762 - 771	" 207
90772 - 784	" 215
90785 - 798	" 216
90799 - 845	" 192
90846 - 893	" 194
90894 - 936	" 206
90937 - 948	" 038
90949 - 957	" 076
90958 - 968	F098104

REASSIGNED 91000 Series #
GRUMDB. - K.A. assays.

91000 - 021	Faga 027		
91022 - 028	" 069		
91029 - 045	" 076		
91046 - 063	" 079		
91064 - 065	Fagu 135		
91066	Faga 069		
91067	open		
91068	open		
91069 - 071	Faga 017		
91072 - 073	Faga 052		
91074 - 077	Faga 023		
91078	Faga 071		
91079	"		
91080	Faga 136		
91081 - 099	Faga 026		
91100 - 91126	Faga 128	(Manual ^{Assays} Entry)	86W
91127 - 91171	Faga 127	(Manual Assay Entry)	86W
91172 - 91212	Faga 125	(")	86W
91213 - 91297	Faga 123	(")	86W
91298 - 91343	Faga 059	(")	86U
91344 - 91353	Faga 061	(")	86W
91354 - 91373	Faga 020	(")	84W
91374 - 91395	FAGU 187		
91396 - 91415	FAGU 208		
91415 - 91435	FAGU 209		
91437 - 91470	FAGU 210		
91471 - 91500	FAGU 211		
91501 - 91530	FAGU 212		
91531 - 91559	FAGU 213		
91570 -	Fagu 206		
91571 -	Fagu 209		
91572 -	Fagu 180		
91573 - 91596	Faga 067		
91577 - 91596	Faga 078	- Replaces sample # 12000-12019	KARENUM Certificate #214
91597 - 91611	Faga 082	" " 12020-12034	

Reassigned 92000 Series #
GROM DB. - KA Assays.

92000 - 009

F892 026

92010 - 012

F892 028

92013 - 016

" 058

92017 - 023

" 065

92024 - 025

" 083

Reassigned 94000
Series KA ASSAYS

94056 - Foga.089 - Grm DB - (number transposed.)
(instead of 90456 -)

GRUM 1980-81

Grwm 1980

80-A200

201

202

203

~~204~~

205

~~206~~

207

~~208~~

209

~~210~~

~~211~~

212

213

X SECT

67W ✓

61W ✓

65W ✓

63W ✓

63W ✓

67W ✓

65W ✓

61W

70W ✓

61W ✓

65W

~~63W~~

65.5W

67 W.

81-A-214

215

216

80W

74W

68W

✓ BIAZ14 - }
✓ BIAZ15 - } wrong azimuths!
✓ BIAZ16 - }

Create 'Keyed' File Version of

PMG016 ?

74A058

AGA 010

AGA 019

AGA 056

AGA 060

AGA 062

AGA 067

AGA 070

AGA 072

AGA 077

AGA 078

AGA 080

AGA 081

AGA 082

AGA 083

AGA 084

~~EDIT, NEW, FRED~~

!\$TRIP, NUMBER file name

Key

GRUM SECT-62W

- ✓ FAG-A081 (75-A-081)
- ✓ AGA 102
- ✓ AGA 103
- ✓ AGA 105 (75-A105)
- ✓ FIGA 107 (75-A107)
- ✓ AGA 122
- ✓ AGA 129
- ✓ AGA 162

- ✓ AGU 169
- ✓ AGU 171
- ✓ AGU 173
- ✓ AGU 175
- ✓ AGU 177
- ✓ AGU 179

GRUM SECT. - 64W

() 74 - A 0 2 6 X

(16) 74 - A 0 2 8 X

(16) 74 - A 0 5 5 X

(16) 74 - A 0 5 8 X

(1) no samples. new samples.

(16) FAG - A 0 7 7

(16) FAG - A 1 1 2

(1)

(16) 76 - A 1 3 6 X

(16) 76 - A 1 3 7 X

(16) 76 - A 1 4 9 X

(16) 76 - A 1 5 2 X

(16) ? FAG - U 1 6 3

(16) 1 6 5

(16) 1 6 7

(1) sample #'s missing!
(1) no samples

not in FMG-01 file?

Westover
→ Pienward
1711

Grum 66W.

75 A 066 x

99 x

109 x

116 x

117 x

121 x

76 A 135 x

139 x

157 x

76 U 141 x

142 x

143 x

145 x

147 x

155 x

157 x

159 x

161 x

74 A 013 X

017 X

023 X

045 X

052 X

75A 074

106

76A 134

142

143 X

145

147

153 X

81A 216

76 U 181

183

GRUM SECT. - 70W

FAG-A062

(16) FAG A070

FAG-A096 X

AGA 100

133 ← no samples

138 ← no samples

AGA 159

AGA208?

(14) - 4088

90

- redrilled by U113 - put samples into U113

(16) AGU 092

(16) AGU 096

98 ? - no P-data

(16) FAGU 100

(16) AGU 102

AGU 104

AGU 106

AGU 108

AGU 111

AGU 113

← samples

~~114 X~~

AGU 115

AGU 119

AGU 121

AGU 123

AGU 125

AGU 127

AGU 131

AGU 133

AGU 136

137 - no P-data

FAGU 139

FAGA 019

021 X

056 X

060

083 X size 5: key: 0

095

132

FAGU 002

003 X

004

005

006

007

008

009

010

011

012

013

014

016

017

018

019

020

022

023

024 — no sample data

025

026

027

086

74A11

065 X

071 X

088

090

A 092

141

81A-216

U 15

U-117.

28

29

30

32

33

34

35

39

40

41

42

43

44

45

46

47

48

49

51

52

53

54

55

56

57

FAGA-001 X

FAGA-004 X

005 X

006

009 X

FAGA 014 X

030

053

068 X

073 X

155

FAGU 058

U 059

U 060

U 061

U 062

U 063

U 064

U 065

U 081

U 083

U 085

U 087

U 089

U 110

U 112

U 114 X

U 116

U 118

U 120

U 122

U 124

U 126

U 128

U-129

U-130

U-132

U-134

U-138.

GRUM - SECT. 78W

(1) FAG - A010
 AG A067 (75-A-67)
 AG A072
 AG → A078
 AG A080
 AG A082
 AG A084 (75-A-084)
 AG A158
 AG A161
 AG A214 (81-A214)

AG A075

FAG - U066
 AG U067 (76-4-67)
 AG U068
 AG U069
 AG U070
 AG U071 (76-4-71)
 AG U072
 AG U073 (76-4-073)
 AG U075
 AG U077
 AG U079
 AG U091
 AG U093
 U095 (76-4-095) ^{no samples}
 AG U097
 AG U099
 AG U101
 AG U103
 AG U105 (76-105)
 AG U107
 AG U109 (76-4109)
 AG U148

Grum Sect 80W.

74 - A 0 2 4? ← (?) no samples.

- A 0 2 7 X
- A 0 3 2
- A 0 3 5
- A 0 3 8
- A 0 4 1

- 75 - A 0 6 9 X
- A 0 7 6 X
- A 0 7 9 X
- 76 - A 1 6 0
- A 1 6 3
- A 1 6 4

- 76 - 4 1 3 5 X
- 4 1 4 0
- 4 1 4 4
- 4 1 4 6
- 4 1 4 9
- 4 1 5 0
- 4 1 5 1
- 4 1 5 2
- 4 1 5 3
- 4 1 5 4
- 4 1 5 6

ICAS
Software
Services

PCARD.80 RUNS
"PMGOIS"

Systems:
Routine:
By: J.M.-L.

P8005
Project: (906080)
Date:
Page: 1 of 2

← C56 ← HP3000 →						← C56 ← HP3000 →					
HOLE	PCARD.80	OUTPUT	RJE	EDIT	LOAD	HOLE	PCARD.80	OUTPUT	RJE	EDIT	LOAD
FV	74 A 0 1 1					76 A 1 6 4					
XFV	74 A 0 1 3					76 U 0 1 5					
XFV	74 A 0 1 7					76 U 0 2 8					
XFV	74 A 0 2 3					76 U 0 2 9					
FV	74 A 0 2 4					76 U 0 3 0					
XFV	74 A 0 2 7					76 U 0 3 2					
FV	74 A 0 3 2					76 U 0 3 3					
FV	74 A 0 3 5					76 U 0 3 4					
FV	74 A 0 3 8					76 U 0 3 5					
FV	74 A 0 4 1					76 U 0 3 9					
FV	74 A 0 4 5					76 U 0 4 0					
XFV	74 A 0 5 2					76 U 0 4 1					
XFV	75 A 0 6 5					76 U 0 4 2					
FV	75 A 0 6 6					76 U 0 4 3					
XFV	75 A 0 6 9					76 U 0 4 4					
XFV	75 A 0 7 1					76 U 0 4 5					
FV	75 A 0 7 4					76 U 0 4 6					
XFV	75 A 0 7 6					76 U 0 4 7					
XFV	75 A 0 7 9					76 U 0 4 8					
FV	75 A 0 8 8					76 U 0 4 9					
MV	75 A 0 9 0					76 U 0 5 1					
MV	75 A 0 9 2					76 U 0 5 2					
MV	75 A 0 9 9					76 U 0 5 3					
MV	75 A 1 0 6					76 U 0 5 4					
MV	75 A 1 0 9					76 U 0 5 5					
MV	75 A 1 1 6					76 U 0 5 6					
MV	75 A 1 1 7					76 U 0 5 7					
MV	75 A 1 2 1					76 U 1 1 7					
MV	76 A 1 3 4					X76 U 1 3 5					
MV	76 A 1 3 5					76 U 1 4 0					
MV	76 A 1 3 9					76 U 1 4 1					
MV	76 A 1 4 1					76 U 1 4 2					
MV	76 A 1 4 2					76 U 1 4 3					
MV	76 A 1 4 3					76 U 1 4 4					
MV	76 A 1 4 5					76 U 1 4 5					
MV	76 A 1 4 7					76 U 1 4 6					
MV	76 A 1 5 3					76 U 1 4 7					
MV	76 A 1 5 7					76 U 1 4 9					
MV	76 A 1 6 0					76 U 1 5 0					
MV	76 A 1 6 3					76 U 1 5 1					

ICAS
Software
Services

PCARD.80 RUNS

Systems:

Routine:

By: J.M.-L.

Project: P80005
(906080)

Date:

Page: 2 of 2

					← CSC →		HP3000 →							
					PHO10 PCARD.80	OUTPUT	RJE	EDIT	LOAD					
76	U	1	5	2										
76	U	1	5	3										
76	U	1	5	4										
76	U	1	5	5										
76	U	1	5	6										
76	U	1	5	7										
76	U	1	5	9										
76	U	1	6	1										
76	U	1	8	1										
76	U	1	8	3										
80	A	2	0	0										
80	A	2	0	1										
80	A	2	0	2										
80	A	2	0	3										
80	A	2	0	4										
80	A	2	0	5										
80	A	2	0	6										
80	A	2	0	7										
80	A	2	0	8										
80	A	2	0	9										
80	A	2	1	0										
80	A	2	1	1										
80	A	2	1	2										
80	A	2	1	3										

ICAS
Software
Services

GRUN H941-DB
SURFACE HOLES
LOADING STATUS

Systems:
Routine:
By:

Project: P8005
(906080)
Date:
Page:

SURFACE	HOLE	SECTION	OK	HP3000			9109W 9109W 9109W
AGA	001	76W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90000		✓
	002						
	003						
AGA	004	KA 76W?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90308, 90309 & 90001 → 90005		✓
AGA	005	76W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90310 & 90006 → 90019		✓
AGA	006	76W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO ASSAYS!		✓
	007						
	008	KA 84W					
AGA	009	76W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90020 → 90032		✓
FAGA	010	78W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-BI Assays 11606-11668		✓
74A	011	74W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA ASSAYS 90343-90347	****	Rock CODES ✓
	012	KA 84W					
74A	013	68W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90117-90124	****	Rock CODES ✓
FAGA	014	76W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90033-90040		✓
	015	KA					
	016	KA					
74A	017	68W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90125-90127 (MISSING Sample 90128-131)	****	Rock CODES ✓
	018	KA					
AGA	019	72W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays		✓
	020	KA 84W					
AGA	021	72W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays CAMC-BI Assays		✓
	022	KA 84W					
74A	023	68W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 90131, 90134, 90135 ^{was} CAMC 5081-5085 ^{5081, 5087-5089}	****	Rock CODES ✓
74A	024	80W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 90269-90307	****	Rock CODES ✓
	025	KA					
74A	026	64W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 91081-92009	****	Rock CODES ✓
74A	027	80W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 91000-91021	****	Rock CODES ✓
74A	028	64W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 92010-92012	****	Rock CODES ✓
	029	KA					
FAGA	030	76W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓

ICAS Software Services Inc.

SURFACE	HOLE	SECTION	OK	MP3000					PM6015	PM6016
	031	KA								
74-A	032	BOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>					**** ROCK CODES	✓
	033	KA								
	034	KA								
74-A	035	BOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 90260-261				**** ROCK CODES	✓
	036									
	037	KA								
74-A	038	BOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>					**** ROCK CODES	✓
	039	KA								
	040									
74-A	041	BOW	<input type="checkbox"/>	<input checked="" type="checkbox"/>					**** ROCK CODES	✓
	042	KA								
	043									
	044									
74-A	045	BOW								✓
	046	KA								
	047									
	048									
	049									
	050	KA								
	051	KA 84 W								
74-A	052	68 W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays	90169 not on			**** ROCK UNITS	✓
F A G A	053	76 W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-81 Assays	90164-90166 & 91072-91073				✓
	054	KA				7866 → 7868				
74-A	055	64 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SAMPLE # 8033 ?	also on 90100H			**** ROCK CODES	✓
A G A	056	72 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2 KA-Assays					✓
	057	KA								
74-A	058	64 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	92013-9206				**** Rock Codes	✓
	059	KA								
A G A	060	72 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2 KA-Assays					✓

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

SURFACE	HOLE	SECTION	OK	ASSAY		9109W	9109W
FA GA	061	KA					
FA GA	062	70 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1 KA Assay 90227		✓
	063	KA 60 W					
	064	KA					
7.5A	065	74 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assay 92017-023	**** Rock Codes	✓
7.5A	066	66 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9580, 9581, 9582, 9583	***	✓
FA GA	067	78 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-BI Assays 11492-11557		✓
AGA	068	76 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90043-90050		✓
7.5A	069	80 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 91022-91028, 91066, 90266-268	Check Cu @ 9954	**** Rock Codes ✓
AGA	070	70 W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
7.5A	071	74 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 91078, 91079	**** Rock Codes	✓
FA GA	072	78 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-BI Assays 11669-11699 (some gaps)		✓
AGA	073	76 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA Assays 90052 → 90071		✓
7.5A	074	68 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-BI Assays 5025-5032 KA 90170	(MISSING 5103) **** Rock Codes	✓
FA GA	075	78 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>			✓
7.5A	076	80 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 91029-91045	**** Rock Codes	✓
AGA	077	64 W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
FA GA	078	78 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-BI Assays 12000-12019		✓
7.5A	079	80 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	KA 91046-51, 91053-91063	**** Rock Codes	✓
FA GA	080	78 W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
AGA	081	62 W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
FA GA	082	78 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	**** Units CAMC-BI Assays 12020-12034		✓
AGA	083	72 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3 KA Assays		✓
FA GA	084	78 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-BI Assays 11707-11708, 11710-11711		✓
	085	82 W					
	086	82 W					
7.5A	088	74 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9250-9256 & 9265 } may be KA Assays needed	**** Rock Codes	✓
	089	82 W					
7.5A	090	74 W	<input type="checkbox"/>	<input checked="" type="checkbox"/>		**** Rock Codes	✓

ICAS Software Services Inc.

84W?

ICAS
Software
Services

By:
Routine:
Systems:

By:
Routine:
Systems:

Page:
Date:
Project:

SURFACE HOLE	SECTION	OK	HP/END		PM6015	PM6016
75A 091						
75A 092	74W	<input type="checkbox"/>	<input checked="" type="checkbox"/>		*** ROCK CODES	✓
093	82W					
094						
AGA 095	72W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
FAGA 096	70W		<input checked="" type="checkbox"/>	3 CAMC-81 Assays 9895-9897		✓
097						
098						
75A 099	66W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CA 9035T	*** ROCK CODES	✓
FAGA 100	70W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	CAMC-81 Assays 11453-11473		✓
101						
AGA 102	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
AGA 103	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
104	84W					
AGA 105	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
75A 106	68W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		*** ROCK CODES	✓
FAGA 107	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Samples 9952-9962 - may be CA#s.		✓
108						
75A 109	66W	<input type="checkbox"/>	<input checked="" type="checkbox"/>		*** Rock Codes	✓
110						
AGA 111	86W					
AGA 112	64W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			✓
113	86W					
114						
115	86W					
75A 116	66W	<input type="checkbox"/>	<input checked="" type="checkbox"/>		*** ROCK CODES	✓
75A 117	66W	<input type="checkbox"/>	<input checked="" type="checkbox"/>		*** ROCK CODES	✓
118	86W					
119						
120	86W					

ICAS Software Services Inc.

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

SURFACE HOLE	SECTION	OK	HP324H					PM/015	PM/016
75A	121	66W	✓	✓				✓	✓
AGA	122	62W	✓	✓				✓	✓
	123								
	124	66W							
	125								
	126								
	127								
AGA	128								
AGA	129	62W	✓	✓				✓	✓
	130								
	131								
AGA	132	72W	✓	✓	2 KA Assays			✓	✓
F AGA	133	70W	✓	✓	NO ASSAYS			✓	✓
76A	134	68W	✓	✓	KA Assays 90171-90172		**** ROCK CODES	✓	✓
76A	135	66W	✓	✓			**** ROCK CODES	✓	✓
76A	136	64W	✓	✓	90354-356			✓	✓
76A	137	64W	✓	✓			**** ROCK CODES	✓	✓
AGA	138	70W	✓	✓	NO ASSAYS			✓	✓
76A	139	66W	✓	✓	KA # 90358		**** ROCK CODES	✓	✓
	140	84W							
76A	141	74W	✓	✓			**** ROCK CODES	✓	✓
76A	142	68W	✓	✓			**** ROCK CODES	✓	✓
76A	143	68W	✓	✓	CAMP-80 Assays 1644-1646		**** ROCK CODES	✓	✓
	144								
76A	145	68W	✓	✓			**** ROCK CODES	✓	✓
	146								
76A	147	68W	✓	✓	CAMP-80 Assays many KA 90173-90174		**** ROCK CODES	✓	✓
	148								
76A	149	64W	✓	✓			**** ROCK CODES	✓	✓
	150								

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

SURFACE HOLE	SECTION	OK	ASSAY			9109M	5109M
76A 151							
76A 152	64W	✓	✓	CAMC-80 Assays 5359-5393	**** ROCK CODES	✓	✓
76A 153	68W		✓	KA Assays 90160	**** ROCK CODES	✓	✓
	86W			CAMC 157A-1618 ^{OK}	Pb Assays 5379-5382		
FAGA 155	76W	✓	✓				✓
	84W						
76A 157	66W		✓	MISSING ASSAYS FOR 9298	**** ROCK CODES	✓	✓
FAGA 158	78W	✓	✓				✓
FAGA 159	70W		✓	CAMC-81 Assays 11268-11277			✓
76A 160	80W		✓	8350 Cu Assay	*** Rock Codes	✓	✓
FAGA 161	78W	✓	✓				✓
AGA 162	62W	✓	✓				✓
76A 163	80W		✓	KA 90265 -	**** ROCK CODES	✓	✓
76A 164	80W		✓	KA 90312-315	**** ROCK CODES	✓	✓
165				NOT DRILLED			
166				"	"		
167				"	"		
168				"	"		
169				"	"		
170				"	"		
171				"	"		
172				"	"		
173				"	"		
174				"	"		
175				"	"		
176				"	"		
177				"	"		
178				"	"		
179				"	"		
180				"	"		

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

UNDERGROUND HOLE SECTION OK

0003AH

PM9015
PM9016

AGU 001	KA							
AGU 002	72 W	✓	✓				✓	✓
AGU 003	72 W		✓	2 CAMCBI Assays	2468 & 2469		✓	✓
AGU 004	72 W		✓	4 KA Assays	90086 - 90089		✓	✓
AGU 005	72 W	✓	✓				✓	✓
AGU 006	72 W	✓	✓	3 KA Assays	90074 - 90076		✓	✓
AGU 007	72 W	✓	✓	COMPLETE	KA Assays To Add.	KA 90207-90214	✓	✓
AGU 008	72 W	✓	✓				✓	✓
AGU 009	72 W		✓	2 KA Assays	90077 - 90078		✓	✓
AGU 010	72 W	✓	✓				✓	✓
AGU 011	72 W	✓	✓				✓	✓
AGU 012	72 W	✓	✓				✓	✓
AGU 013	72 W	✓	✓				✓	✓
AGU 014	72 W	✓	✓				✓	✓
76U 015	74 W		✓			**** ROCK CODES	✓	✓
AGU 016	72 W	✓	✓	1 KA Assay	90080		✓	✓
AGU 017	72 W	✓	✓				✓	✓
AGU 018	72 W	✓	✓	1 KA Assay	90218		✓	✓
AGU 019	72 W	✓	✓				✓	✓
AGU 020	72 W	✓	✓				✓	✓
AGU 021	KA 72 W	✓	✓				✓	✓
AGU 022	72 W	✓	✓	4 KA Assays	90219 - 90222		✓	✓
AGU 023	72 W	✓	✓	3 KA Assays	90223 - 90225		✓	✓
76U 024	72 W	☒	✓	← NO ASSAYS			✓	✓
AGU 025	72 W	✓	✓	1 KA Assay	90081		✓	✓
AGU 026	72 W	✓	✓				✓	✓
AGU 027	72 W	✓	✓	4 KA Assays	90082 - 90085		✓	✓
76U 028	74 W	✓	✓			**** ROCK CODES	✓	✓
76U 029	74 W	✓	✓				✓	✓
76U 030	74 W	✓	✓				✓	✓

ICAS
Software
Services

--	--	--

By:	Routine:	Systems:
-----	----------	----------

Page:	Date:	Project:
-------	-------	----------

ICAS Software Services Inc.

1/2

UNDERGROUND HOLE SECTION			OK	DEPTH			PM6015	PM6016
	031	KA						
76U	032	74W					✓	.
76U	033	74W					✓	.
76U	034	74W					✓	.
76U	035	74W		✓	KA 903AB		✓	.
	036	KA						
	037	KA						
	038	KA						
76U	039	74W		✓	KA 903AA		✓	.
76U	040	74W		✓			✓	.
76U	041	74W		✓			✓	.
76U	042	74W					✓	.
76U	043	74W		✓	7811-7813, 7815-7816 Missing Assays		✓	.
76U	044	74W		✓			✓	.
76U	045	74W		✓			✓	.
76U	046	74W		✓			✓	.
76U	047	74W		✓			✓	.
76U	048	74W		✓			✓	.
76U	049	74W		✓			✓	.
	050	KA		✓			✓	.
76U	051	74W					✓	.
76U	052	74W		✓			✓	.
76U	053	74W		✓	9031 - need Assays.		✓	.
76U	054	74W		✓	9598 - Check Cu Assay.		✓	.
76U	055	74W					✓	.
76U	056	74W		✓			✓	.
76U	057	74W		✓			✓	.
FAGU	058	76W		✓			✓	.
FAGU	059	76W		✓			✓	.
FAGU	060	76W		✓			✓	.

Check sample depth 0.0 → 1.1 OK

ICAS Software Services		Systems:	
		Routine:	
		By:	
		Project:	
		Date:	
		Page:	

UNDERGROUND HOLE SECTION OK

HP3000

5109M
PM6016

FAGU061	76W	✓	✓	Check Sample Depth 0.0 → 1.2 <u>OK</u>
FAGU062	76W	✓	✓	
FAGU063	76W	✓	✓	
FAGU064	76W	✓	✓	
FAGU065	76W	✓	✓	
FAGU066	78W	✓	✓	
FAGU067	78W	✓	✓	2 CAMC-B1 Assays 11490-11491
FAGU068	78W	✓	✓	
FAGU069	78W	✓	✓	
FAGU070	78W	✓	✓	
FAGU071	78W	✓	✓	CAMC-B1 Assays 11567-11605
FAGU072	78W	✓	✓	
FAGU073	78W	✓	✓	
074 KA				
FAGU075	78W	✓	✓	
076 KA				
FAGU077	78W	✓	✓	
078 KA				
FAGU079	78W	✓	✓	
080	W			
FAGU081	76W	✓	✓	
082 KA				
FAGU083	76W	✓	✓	
AGU084 KA	76W	✓	✓	90351 - 90353.
FAGU085	76W	✓	✓	
AGU086	72W	✓	✓	1 KA-Assays 90226
FAGU087	76W	✓	✓	
FAGU088	70W	✓	✓	2 KA-Assays 90228-90229
FAGU089	76W	✓	✓	
AGU090	70W	✓	✓	

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

UNDERGROUND HOLE	SECTION	OK	ASSAYS	PM6015	PM6016
FAGU 091	78W	✓		✓	✓
FAGU 092	70W	✓	1 CAMC-B1 Assay 11141	✓	✓
FAGU 093	78W	✓		✓	✓
094 KA					
FAGU 095	78W	✓		✓	✓
FAGU 096	70W	✓	CAMC-B1 Assays 11401-11443	✓	✓
FAGU 097	78W	✓		✓	✓
FAGU 098	70W	✓	KA Assays 90232-90245 (ALL)	✓	✓
FAGU 099	78W	✓		✓	✓
FAGU 100	70W	✓	CAMC-B1 Assays 11358-11388 (ALL)	✓	✓
FAGU 101	78W	✓		✓	✓
FAGU 102	70W	✓	KA Assays 90246-90248 CAMC-B1 Assays 11389-11400, WEST-11254 (ALL)	✓	✓
FAGU 103	78W	✓		✓	✓
FAGU 104	70W	✓	CAMC-B1 Assays 11278-11283	✓	✓
FAGU 105	78W	✓		✓	✓
FAGU 106	70W	✓	4 KA Assays 90249-90252	✓	✓
FAGU 107	78W	✓		✓	✓
FAGU 108	70W	✓	CAMC-B1 Assays 11445-11450, 11255-11267 (ALL)	✓	✓
FAGU 109	78W	✓		✓	✓
FAGU 110	76W	✓		✓	✓
FAGU 111	70W	✓	CAMC-B1 Assays 11195-11214, KA Assays 90253-90256	✓	✓
AGU 112	76W	✗	← NO ASSAYS	✓	✓
FAGU 113	70W	✓	CAMC-B1 Assays 11284-11300, 11451, 11452 KA Assay 90257	✓	✓
AGU 114	76W	✓	KA Assay 90272	✓	✓
AGU 115	70W	✓		✓	✓
AGU 116 KA	76W	✓	KA Assay 90311	✓	✓
76U 117 KA	74W	✗	Complete.	✓	✓
AGU 118	76W	✓		✓	✓
FAGU 119	70W	✓	CAMC-B1 Assays 11020-11033	✓	✓
AGU 120	76W	✗	← NO ASSAYS	✓	✓

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

UNDERGROUND HOLE	SECTION	OK	HP#			5109W	6109W
FAGU 121	70 W		✓	3 CAMC-81 Assays 11121-11123	2 KA Assays 90258-90259	✓	✓
AGU 122	76 W	✗	✓	NO ASSAYS!		✓	✓
FAGU 123	70 W		✓	8 CAMC-81 Assays 9920-9927		✓	✓
FAGU 124	76 W	✓	✓			✓	✓
FAGU 125	70 W	✓	✓	CAMC-81 Assays 11314-11357		✓	✓
FAGU 126	76 W	✓	✓			✓	✓
FAGU 127	70 W	✓	✓			✓	✓
FAGU 128	76 W	✓	✓			✓	✓
FAGU 129	76 W	✓	✓			✓	✓
FAGU 130	76 W	✓	✓			✓	✓
FAGU 131	70 W	✓	✓	CAMC-81 Assays 11096-11100		✓	✓
FAGU 132	76 W	✓	✓			✓	✓
FAGU 133	70 W	✓	✓	CAMC-81 Assays 9898-9900, 11101-11120		✓	✓
FAGU 134	76 W	✓	✓			✓	✓
76U 135	80 W	✓	✓	KA 91064-065	**** ROCK CODES	✓	✓
FAGU 136	70 W	✓	✓	CAMC-81 Assays 11151-11164		✓	✓
FAGU 137	70 W	✓	✓	NO RECORDS ON FILE NO ASSAYS TAKEN.		✓	✓
FAGU 138	76 W	✓	✓			✓	✓
FAGU 139	70 W	✓	✓	CAMC-81 Assays 11215-11224		✓	✓
76U 140	80 W	✓	✓	KA 90359-90366	**** ROCK CODES	✓	✓
76U 141	66 W	✓	✓		**** ROCK CODES	✓	✓
76U 142	66 W	✓	✓		**** ROCK CODES	✓	✓
76U 143	66 W	✓	✓		**** ROCK CODES	✓	✓
76U 144	80 W	✓	✓		**** ROCK CODES	✓	✓
76U 145	66 W	✓	✓		**** ROCK CODES	✓	✓
76U 146	80 W	✓	✓		**** ROCK CODES	✓	✓
76U 147	KA 66 W	✓	✓		**** ROCK CODES	✓	✓
FAGU 148	78 W	✓	✓			✓	✓
76U 149	80 W	✓	✓	KA 90262	**** ROCK CODES	✓	✓
76U 150	80 W	✓	✓	KA 90263	**** ROCK CODES	✓	✓

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

UNDERGROUND HOLE	SECTION	OK	HP#			PM9015	PM9016
76U 151	80W	✓	✓			**** ROCK CODES	✓
76U 152	80W	✓	✓			**** ROCK CODES	✓
76U 153	80W	✓	✓			**** ROCK CODES	✓
76U 154	80W	✓	✓			**** ROCK CODES	✓
76U 155	66W	✓	✓			**** ROCK CODES	✓
76U 156	80W	✓	✓	KA# 90264		**** ROCK CODES	✓
76U 157	66W	✓	✓			**** ROCK CODES	✓
76U 158	KA 82W	✓	✓				
76U 159	66W	✓	✓			**** ROCK CODES	✓
76U 160	KA 82W	✓	✓				
76U 161	66W	✓	✓			**** ROCK CODES	✓
76U 162	KA 82W	✓	✓				
AGU 163	64W	✓	✓				
AGU 164	KA 82W	✓	✓				
AGU 165	64W	✓	✓	7369 Cu Assay			
AGU 166	KA 82W	✓	✓				
AGU 167	64W	✓	✓				
AGU 168	KA 82W	✓	✓				
FAGU 169	62W	✓	✓				
FAGU 170	KA 84W	✓	✓				
FAGU 171	62W	✓	✓				
FAGU 172	KA 82W	✓	✓				
FAGU 173	62W	✓	✓				
FAGU 174	KA 82W	✓	✓				
FAGU 175	62W	✓	✓				
FAGU 176	KA 84W	✓	✓				
FAGU 177	62W	✓	✓				
FAGU 178	KA 84W	✓	✓				
FAGU 179	62W	✓	✓				
FAGU 180	KA 84W	✓	✓				

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

UNDERGROUND	HOLE	SECTION	OK	HP3000			PM015	PM016
76 U	181	68 W		✓			✓	
	182	KA 84 W						
76 U	183	68 W		✓	CAMC 80 Arrays 5128 - 5140		✓	
	184	KA 84 W						
	185	KA						
	186	KA 84 W						
	187	KA						
	188	KA						
	189	KA						
	190	KA 82 W						
	191	KA						
	192	KA						
	193	KA						
	194	KA						
	195	KA						
	196	KA						
	197	KA						
	198	KA						
	199	KA						
	200	KA						
	201	KA						
	202	KA						
	203	KA						
	204	KA						
	205	KA						
	206	KA						
	207	KA						
	208	KA						
	209	KA						
	210	KA						

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

ICAS Software Services Inc.

1
2

28
MAC 4/1
5/1 53

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

9109WD
5109WD

UNDERGROUND HOLE SECTION OK

4F3000

1 211 KA
2 212 KA
3 213 KA
4 214 KA
5 215 KA
6 216 KA
7 217 KA
8 218 KA.

219
220
221
222

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

GRUM HOLES

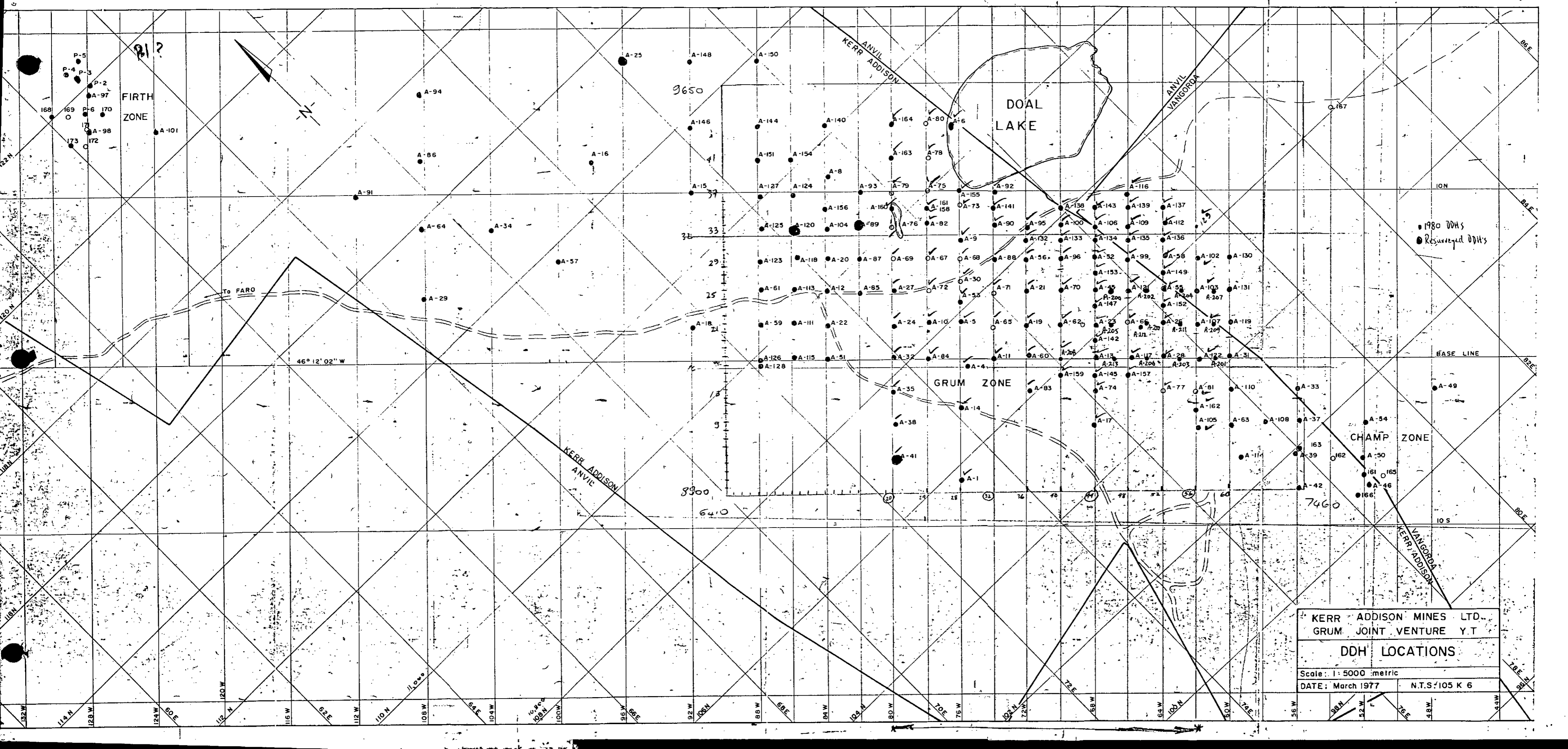
SURFACE HOLES	RELOGGED = 128	ADDITIONAL KA = 24
U/G HOLES	" = 157	" " = 61
	<u>285</u>	<u>85</u>

11/1/82

156 LOADED. of which 77 are complete
5 NOT LOADED as there were no assays.

12/1/82

80W, 74W, 66W & 64W SECTIONS ALL AT TETRAD.



KERR ADDISON MINES LTD.
GRUM JOINT VENTURE Y.T.

DDH LOCATIONS

Scale: 1:5000 metric

DATE: March 1977 N.T.S. 105 K 6

ASSEMBLY

1982 Grum Relogs

	Co-ods	Sect #	F	M	R. Data	Assays	
✓	FAGA 008x	84W	✓		?	91000-91008 90521-90529 12405-406	
✓	FAGA 012x	84W	✓		✓	90534-537 (14240-284) 7 Samples - NO. #s. S ₂ Azimuth ?	
✓	FAGA 020x	84W	✓		?	90538-90552 (14316-329)	"
✓	FAGA 022x	84W	✓		?	90553-90586	"
	FAGU 036x	69W		✓	✓	90587	"
	FAGU 037x	69W		✓	✓	90588-90598	"
	FAGU 038x	69W		✓	✓	? - 90937-90948	"
✓	FAGA 051	84W	✓		?	CAMC. (14188-213)	"
	FAGU 074	67W		✓	?	?	NO STRUCTURE Log.
	FAGU 076x	67W		✓	?	? 90949-90957	"
	FAGU 078	67W		✓	?	?	"
	FAGU 080	67W		✓	?	?	"
✓	FAGA 085x	82W	✓		✓	90414-90423 (12579-12607) 90424-90449	(Gauge Log ????????)
✓	FAGA 087x	82W	✓		✓	90390-90413 (12501-530)	Gauge Log.
* ✓	FAGA 089x	82W	✓	✓	✓	(?) 90459 90450 (12548-578) 90461 (Gauge Log.)	R. data - in feet - log in metres!
✓	FAGA 093x	82W	✓		✓	(?) 90457-90458 (12531-547)	Gauge Log?
✓	FAGA 104x	84W	✓		✓	Sample #s missing 90958-90968 (14614-642)	S ₂ Azimuth?
	FAGA 110	60W	✓		?	CAMC. (14595-14613)	S ₂ Azimuth?
✓	FAGA 111x	86W	✓		?	90599-90604 (14519-543)	S ₂ " ?
✓	FAGA 113	86W	✓		?	CAMC. (14426-14451)	" ?
	FAGA 114	60W	✓		?	CAMC. (14459-14485)	" ?
✓	FAGA 115	86W	✓		?	CAMC. (14486-14518)	S ₂ azimuth?
✓	FAGA 118	86W	✓		?	CAMC. (14546-583) (14589-594)	S ₂ azimuth ?
✓	FAGA 119	60W			?	12401-404	?
✓	FAGA 120	86W	✓		?	CAMC. (12847-906)	" ?
✓	FAGA 124	86W	✓		?	CAMC. (12907-948)	" ?

1982 Grum Relogs

	Co-ords	Sect#	F	M	R data	R _F	ASSAYS.	S ₂ Azimuth ?
FAGA 131x	✓	60 W		✓	✓	✓	✓ 90605, 90606	
✓ 140	✓	84W		✓	✓	?	CAMC. (14544-545)	"
144	✓	88W		✓		?	No Samples Taken.	"
✓ 154	✓	86W		✓	✓	?	CAMC. (14452-458)	"
✓ 156	✓	84W		✓	✓	?	CAMC. (14654-14696)	"
✓ FAGU 158	?	82W		✓	?	?	CAMC. (14075-092)	"
✓ U 160	✓	82W		✓	✓	?	CAMC. (14153-187)	"
✓ U 162	✓	82W		✓	✓	?	CAMC. (14031-055)	"
✓ U 164	✓	82W		✓	✓	?	CAMC. (14097-14103)	"
✓ U 166	✓	82W		✓	✓	?	CAMC. (14056-14074)	"
✓ U 168	✓	82W		✓	✓	?	CAMC. (14001-14029)	"
✓ U 170	✓	84W		✓	✓	?	CAMC. (14214-14239)	"
✓ U 172	✓	82W		✓	✓	?	CAMC. (12949-992)	"
✓ U 174	✓	82W		✓	✓	?	CAMC. (14094-14096)	"
✓ U 176	✓	84W		✓	✓	?	CAMC. (14340-14352)	"
✓ U 178	✓	84W		✓	✓	?	CAMC. (14299-14315)	"
✓ U 180	✓	84W		✓	✓	?	CAMC. (14285-14296)	"
✓ U 182	✓	84W		✓	✓	?	CAMC. (14401-14418)	"
✓ U 184	✓	84W		✓	✓	?	CAMC. (14353-14400)	"
U 185x	✓	67W		✓	✓	?	✓ 90607-90617	"
✓ U 186	✓	84W		✓	✓	?	CAMC. (14335-14339)	"
✓ U 188	✓	82W		✓	✓	?	CAMC. (14104-14124)	"
U 189x	✓	67W		✓	✓	?	✓ 90683-90704	"
✓ U 190	✓	82W		✓	✓	?	CAMC. (12993-13027) (14125) (14152)	"
U 191x	✓	67W		✓	✓	?	✓ 90618-90629	"
U 187		67W						

1982 Grum Relegs

	Co-ords	Sect#	F	M	R Data	RFE	ASSAYS
* FAGU 192	✓	75W	✓		✓	?	NEED KA FILL-IN. ⁹⁰⁷⁹⁹⁻⁹⁰⁸⁴⁵
U 193	✓	69W	✓		✓	?	✓ 90630-90633
* U 194	✓	75W	✓		✓	?	✓ No SAMPLES RECORDED. ⁹⁰⁸⁴⁶⁻⁸⁹³
U 195	✓	69W	✓		✓	?	✓ 90634-90643
U 196	✓	75W	✓		✓	?	✓ 90644-90682
U 197	✓	69W	✓		✓	?	0.4 m. - 4% AED No Assay Taken
<u>OFF Sections</u> U 198	✓	75 or 76W	✓		✓	?	✓ 90705-90715
U 199	✓	71W	✓		✓	?	✓ 90716-90741
U 200	✓	71W	✓		✓	?	✓ 90742-90753
U 204	✓	71W	✓		✓	?	✓ 90754-90761
U 205	✓	71W	✓		✓	?	No Samples Taken.
* U 206	✓	71W	✓		✓	?	✓ No ASSAY LOG. ⁹⁰⁸⁹⁴⁻⁹⁰⁹³⁶
U 207	✓	73W	✓		✓	?	✓ 90762-90771
U 214	✓	75W	✓		✓	?	CAMC. (14330-14334)
U 215	✓	75W	✓		✓	?	✓ 90772-90784
U 216	✓	75W	✓		✓	?	✓ 90785-90798

S₂ Azimuth ?

Allen was becoming tired and not included this.

(LITH Codes. - Assay LOG).

- U 208 - 73W
- 209 - "
- 210 - "
- 211 - "
- 212 - "
- 213 - "

90936.

	P CARD 80	R CARD 82	'P' CARD 81	'T' UPDATES	'R' UPDATES	'P' UPDATES	MANUAL ENTRY 'P'	RJE (LOADED -	1980 (D&H COR. DN) (DDHPT. DN) (LOCATE. DN)	1981 (D&H COR. 81) (DDHPT. 81)	1982 (D&H COR. 82-84. 81) (LOCATE. 81)	
FAGA 069	✓								✓			
070		✓								✓		
071	✓								✓			
072		✓								✓		
073		✓								✓		
074	✓								✓			
075		✓								✓		
076	✓								✓			
077		✓								✓		
078		✓								✓		
079	✓								✓			
080		✓								✓		
081		✓								✓		
082		✓								✓		
083		✓								✓		
084		✓								✓		
085							✓				1/10	GM3
086							✓					
087			✓				✓				30/9	
088	✓							✓				
089			✓				✓				30/9	
090	✓							✓				
091												
092	✓							✓				
093			✓				✓				30/9	
094												
095		✓								✓		
096		✓								✓		
097												
098												
099	✓							✓				
100		✓								✓		
101												
102	✓									✓		

FAGA M1

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200 ✓

201 ✓

202 ✓

203 ✓

204 ✓

PCARD. 80

PCARD. 02

PCARD. 01

T' UPDATES

R' UPDATES

P' UPDATES

MANUAL ENTRY 'P'

RJE

(DDHCOE. 81)
1980 (DDHPUT. 81)
(LOCATE. 81)

(DDHCOE. 81)
1981 (DDHPUT. 81)

(DDHCOE. 81)
1982 (DDHPUT. 81)
(LOCATE. 81)

✓
✓
✓
✓
✓

	PCARD.80	PCARD.82	PCARD.81	'Y' UPDATES	'E' UPDATES	'P' UPDATES	MANUAL ENTRY 'P'	RJE (Loaded)	1980 (DDHCOL.84) (DDHPLT.81) (LOCATE.81)	1981 (DDHCOL.81) (DDHPLT.81)	1982 (DDHCOL.81) (DDHPLT.81) (LOCATE.81)
FAGA 205	✓								✓		
206	✓								✓		
207	✓								✓		
208	✓								✓		
209	✓								✓		
210	✓								✓		
211	✓								✓		
212	✓								✓		
213	✓								✓		
214		✓								✓	
215		✓								✓	
216		✓								✓	
217			✓								✓
218			✓								✓
219			✓								✓
220			✓								✓
221			✓								✓
222			✓								✓
223			✓								✓
224			✓								✓
225			✓								✓
226			✓								✓
227			✓								✓
228			✓								✓
229			✓								✓
230			✓								✓
231			✓								✓
232			✓								✓
233			✓								✓
234											
235											✓
236											
237											
238											

REDO - Poor Data
 RIDE - Poor Data

GM 2

FAGA 239
240
241

PCARD.80
RPCARD.82
PCARD.81

'T' UPDATES
'R' UPDATES
'P' UPDATES

MANUAL ENTRY 'P'

PJE

~~Loadbox~~

(DIALOG.81)
1982 (SHOPS. - 084.81)
(LOCATE.81)

✓
✓
✓

Grum - DB Corrections

	PCARD.00	REPCARD.00	PCARD.01	T' UPDATES	R' UPDATES	P' UPDATES	MANUAL ENTRY 'P'	RJE	1980 (DBCOR.01) (DBHRT.01) (LOCATE.01)	1981 (DBCOR.01) (DBHRT.01)	1982 (DBCOR.01) (DBHRT.01) (LOCATE.01)
FAGU 001		✓								✓	
002		✓								✓	
003		✓								✓	
004		✓								✓	
005		✓								✓	
006		✓								✓	
007		✓								✓	
008		✓								✓	
009		✓								✓	
010		✓								✓	
011		✓								✓	
012		✓								✓	
013		✓								✓	
014		✓								✓	
015	✓								✓		
016		✓								✓	
017		✓								✓	
018		✓								✓	
019		✓								✓	
020		✓								✓	
021		✓								✓	
022		✓								✓	
023		✓								✓	
024		✓								✓	
025		✓								✓	
026		✓								✓	
027		✓								✓	
028	✓								✓		
029	✓								✓		
030	✓								✓		
031											
032	✓								✓		
033	✓								✓		
034	✓								✓		

Grum - DB Corrections

FAGU 206
207
208
209
210
211
212
213

PCARD.00

PCARD.01

PCARD.01

T' UPDATES

R' UPDATES

P' UPDATES

MANUAL ENTRY 'P'

RJE

(DDHOB, DH)
1980 (DDHOLT, DH)
(LOCATE, DH)

(DDHOB, DH)
1981 (DDHOLT, DH)

(DDHOB, DH)
1982 (DDHOLT, DH)
(LOCATE, DH)

1982 Grum. Relegs

	Co-ods	Sect #	F	M	R.Data	REF	ASSAYS.	
	FAGA 008	✓ 84W	✓		?		91000 - 91008	
	FAGA 012	✓ 84W	✓		✓		90534 - 537	7 Samples - NO. #s. S ₂ Azimuth ?
	FAGA 020	✓ 84W	✓		✓	?	90538 - 90552	"
	FAGA 022	✓ 84W	✓		✓	?	90553 - 90586	"
	FAGU 036	✓ 69W		✓	✓	?	90587	"
	FAGU 037	✓ 69W		✓	✓	?	90588 - 90598	"
	FAGU 038	✓ 69W		✓	✓	?	?	"
	FAGA 051	✓ 84W	✓		✓	?	CAMC.	"
	FAGU 074	✓ 67W		✓	✓	?	?	NO STRUCTURE LOG.
	FAGU 076	✓ 67W		✓	✓	?	?	"
	FAGU 078	✓ 67W		✓	✓	?	?	"
	FAGU 080	✓ 67W		✓	✓	?	?	"
	FAGA 085	✓ 82W	✓		✓	✓	90414 - 90423 - 90424 - 90449	(Gouge LOG ????????)
	FAGA 087	✓ 82W	✓		✓	✓	90390 - 90413	Gouge log.
*	FAGA 089	✓ 82W	✓	✓	✓	✓	90459 90450 - 90461 (Gouge log.)	R data - in feet - log in metres
	FAGA 093	✓ 82W		✓	✓	✓	90457 - 90458	Gouge log?
	FAGA 104	✓ 84W		✓	✓		Sample #s missing.	S ₂ Azimuth?
	FAGA 110	✓ 60W		✓	✓	?	CAMC.	S ₂ Azimuth?
	FAGA 111	✓ 86W		✓	✓	?	90599 - 90604	S ₂ " ?
	FAGA 113	✓ 86W		✓	✓	?	CAMC.	" ?
	FAGA 114	✓ 60W		✓	✓	?	CAMC	" ?
	FAGA 115	✓ 86W		✓	✓	?	CAMC.	S ₂ azimuth?
	FAGA 118	✓ 86W		✓	✓	?	CAMC.	S ₂ azimuth ?
	FAGA 120	✓ 86W		✓	✓	?	CAMC.	" ?
	FAGA 124	✓ 86W		✓	✓	?	CAMC.	" ?

1982 Grum Kelogs

	<u>Co-ords</u>	<u>Seet#</u>	<u>F</u>	<u>M</u>	<u>Rdata</u>	<u>R_FE</u>	<u>ASSAYS.</u>	<u>S₂ Azimuth ?</u>
FAGA 131	✓	60 W	✓	✓	✓	✓	90605, 90606	
140	✓	84W	✓	✓	✓	?	CAMC.	S ₂ Azimuth ?
144	✓	88W	✓			?	No Samples Taken.	"
154	✓	86W	✓	✓	✓	?	CAMC.	"
156	✓	84W	✓	✓	✓	?	CAMC.	"
FAGU 158	?	82W	✓	?	?	?	CAMC.	"
U 160	✓	82W	✓	✓	✓	?	CAMC.	"
U 162	✓	82W	✓	✓	✓	?	CAMC.	"
U 164	✓	82W	✓	✓	✓	?	CAMC.	"
U 166	✓	82W	✓	✓	✓	?	CAMC.	"
U 168	✓	82W	✓	✓	✓	?	CAMC.	"
U 170	✓	84W	✓	✓	✓	?	CAMC.	"
U 172	✓	82W	✓	✓	✓	?	CAMC.	"
U 174	✓	82W	✓	✓	✓	?	CAMC.	"
U 176	✓	84W	✓	✓	✓	?	CAMC.	"
U 178	✓	84W	✓	✓	✓	?	CAMC.	"
U 180	✓	84W	✓	✓	✓	?	CAMC.	"
U 182	✓	84W	✓	✓	✓	?	CAMC.	"
U 184	✓	84W	✓	✓	✓	?	CAMC.	"
U 185	✓	67W	✓	✓	✓	?	90607-90617	"
U 186	✓	84W	✓	✓	✓	?	CAMC.	"
U 188	✓	82W	✓	✓	✓	?	CAMC.	"
U 189	✓	67W	✓	✓	✓	?	90683-90704	"
U 190	✓	82W	✓	✓	✓	?	CAMC.	"
U 191	✓	67W	✓	✓	✓	?	90618-90629	"

1982 Grum Relegs

	<u>Co-ords</u>	<u>Sect#</u>	<u>F</u>	<u>M</u>	<u>R Data</u>	<u>RFE</u>	<u>ASSAYS</u>	<u>Sz Azimuth ?</u>
* FAGU 192	✓	75W	✓	✓	✓	?	NEED KA FILL-IN.	"
U 193	✓	69W	✓	✓	✓	?	90630-90633	"
* U 194	✓	75W	✓	✓	✓	?	NO SAMPLES RECORDED.	"
U 195	✓	69W	✓	✓	✓	?	90634-90643	"
U 196	✓	75W	✓	✓	✓	?	90644-90682	"
U 197	✓	69W	✓	✓	✓	?	0.4 m. - 4% FeO	"
U 198	✓	75 or 76W	✓	✓	✓	?	90705-90715	"
U 199	✓	71 W	✓	✓	✓	?	90716-90741	"
U 200	✓	71 W	✓	✓	✓	?	90742-90753	"
U 204	✓	71 W	✓	✓	✓	?	90754-90761	"
U 205	✓	71 W	✓	✓	✓	?	No Samples Taken.	"
* U 206	✓	71 W	✓	✓	✓	?	No ASSAY LOG.	"
U 207	✓	73 W	✓	✓	✓	?	90762-90771	"
U 214	✓	75 W	✓	✓	✓	?	CAMC.	"
U 215	✓	75 W	✓	✓	✓	?	90772-90784	"
U 216	✓	75 W	✓	✓	✓	?	90785-90798	"

Allen was becoming tired and not included this

(LITH Codes. - ASSAY LOG)

Data Base 1982/83

Nov 1/82

Most work done by mid Dec. 82. (PHASE IA)

① store collected data for past 7 yrs.

1982

1981

1980 - Pre data.

→ to put everything in one format.

② Tech control JML.

③ Admin. P. Clarke

④ Passwords - Wayne.

⑤ Project Control. - JML. - every Monday. - meeting for costs, etc. + problems.

Data Processing.

{ Grom. } When available & when needed -
{ Cirque. }
{ Anvil. } → urgent.

124-128 middle of Nov.
finished - end Nov.

Users

Manager of DB.

Data input.

Ultimate End user.

- PAPER CHASE.

- NO CHANGES ALLOWED.

Plotting

① Tetrad. HI DP-85

② " but install HI CPS-A.

③ CAMC - own plottu. HI CPS-19

- ① ALL Program Development will be done in the GEOLOGY Account.
- ② ALL Programs, Sub-routines and Functions will have their SOURCE language modules stored in the SOURCE Group as
`DHijkS.SOURCE.GEOLOGY`
where 'ijk' is the number assigned to the routine. All SOURCE language modules will be stored as QEDIT (Type=III) files.
- ③ ALL Sub-routine and function OBJECT (or relocatable) modules will be stored in the SOURCE Group within the Relocatable Library
`GEORL.SOURCE.GEOLOGY`
by their call name 'DHijk'.
- ④ ALL Program executable modules will be stored in the OBJECT Group as
`DHijkP.OBJECT.GEOLOGY` for COBOL programs
and
`DHijkPR.OBJECT.GEOLOGY` for FORTRAN programs.
- ⑤ ALL Program compile job stream files will be stored in the SOURCE Group as
`DHijkCJO.SOURCE.GEOLOGY` for COBOL programs
and
`DHijkCF.SOURCE.GEOLOGY` for FORTRAN programs.
All compile stream files are stored as QEDIT 'TEXT' files.
- ⑥ ALL Program, Sub-routine and Function Documentation files will be stored in the DOC Group as
`DHijkP.DOC.GEOLOGY`
and will be QEDIT 'TEXT' files (max. length = 80 characters)
- ⑦ ALL Programmers will have a 'home' GROUP = user id for working in and for storage of miscellaneous files.

① Output Units.

- All printed output will be written to logical device 9 (= FTNO9) if 132-character wide printout (standard) is used.
 - all reports will be headed by a banner page created by S/R LTITLE (ENS08S)
 - all report pages will have a standard header line created by S/R LPAGE (ENS08S)
- Other printed output will be written to logical device 8 (= FTNO8) when 85-character wide printout (non-standard) is used.
 - all reports will be headed by a banner page created by S/R STITLE (ENS07S)
 - all report pages will have a standard header line created by S/R SPAGE (ENS07S)
- All access to printers, and other output files will be initiated and controlled within program main-line elements through calls to the HP3000 INTRINSIC 'COMMAND'.
- The User's CRT-screen will always be the 'STDLIST' device and will always be logical device #6. Output to the screen will be done through

DISPLAY " ~ ~ ~"
or WRITE (6, format) ~ ~ ~

statements.

- If a punch-file is required (if necessary for the HI-plotter, etc.) it will be assigned to logical device #7 (= FTNO7) (by COMMAND)
- If an output file is required for temporary or permanent data storage it will be assigned as follows.
 - formatted data - logical units 10, ..., 19 as necessary
 - binary data - logical units 20, ..., 49 as necessary

All permanent output data files will be assigned names (by COMMAND).

- Note - as the bulk of data storage will be within the DATA BASE the need for binary data files is minimal and their usage will be discouraged.

② Input Units

- The User's CRT-screen will always be the 'STDIN' device and will always be logical device #5. Input from the screen will be done through

or ACCEPT xxx
READ (5, x) or READ (5, format) ← UNUSUAL

Statements.

- Formatted input data files may be assigned to logical units 1, 2, 3 or 4 if manually prepared.

- Input data files created by other programs should be assigned to the same logical device #, i.e.

logical units 10, ..., 19 for formatted input data
logical units 20, ..., 49 for binary input data.

③ Statement Numbers.

- should increase consistently throughout each program except for the following reservations in the 9000 series

9000 → 9100 Input format statements.

9500 → 9799 Output format statements (normal)

9800 → 9899	}	Error condition statements. paired with
+ 9900 → 9999		

④ DATA-BASE ACCESS

- Access to any of the Diamond Drill-Hole Data Bases may only be made programmatically through use of the DH700-series subroutines.
- Interactive display and reporting (for testing only) may be done via the QUERY processor.
- The common blocks (and ^{the} variables stored within them) are RESERVED exclusively for DATA-BASE ACCESS. You may not use them for any other purpose.

⑤ STANDARD SUBROUTINES

- many standard subroutines exist for
 - data base access
 - sorting
 - scientific constants
 - report and page control
 - plotting
 - date conversion.
 - etc.
- to minimize development/testing time and cost you must use a standard routine whenever available.
- if a standard routine is not available for a regular operation one may be created after consultation with the project director.

⑥ DOCUMENTATION

- A system workbook containing all program development notes etc. will be created. You are expected to organize your notes and enter them in this workbook, for use by other programmers and for programmer's documentation/maintenance in the future. Obsolete notes are to be marked as such and left in the workbook.
- It is expected that you will create ^{and maintain} formal notes for any
 - algorithms/calculations you code
 - decision logic tables
 - array allocations

used in the programs. Fortran coding will have sufficient comment cards inserted, that an experienced programmer can follow program flow readily.

⑥ DOCUMENTATION (Continued)

- It is also expected that you will create and maintain formal notes of significant variable usage within the programs you create.
- Formal user documentation will be organized by the Project Director.

⑦ OTHER

- Data values may not be stored in subroutines between calls unless the variables are located in labelled COMMON blocks.
- Use character variables for storage and manipulation of literal strings
 - when necessary - equate character strings to single integer arrays (cf. plotting strings via SYMBOL)
- Name variables according to regular FORTRAN usage.

A → H, O → Z as REAL variables.

try and reserve D_m for DOUBLE PRECISION
C_m for m-length characters
do not use 0.

I → N as INTEGER variables (max. value ± 32767)

try and reserve J_m for INTEGER*4
L_m for LOGICAL variables.

- Keep variable names significant, i.e. FDEPTH = from-depth, etc.
- When accepting interactive input always load it into a character string and then decode the character string.
 - note leading blanks are eliminated.
- always check for 'Y' and 'N' in YES/NO answer situations.

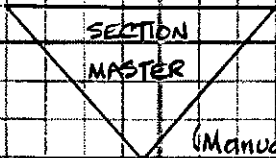
OVERVIEW OF DIAMOND DRILL HOLE DATA BASE ('DDHDB')

MASTER DATA SETS

DETAIL DATA SETS



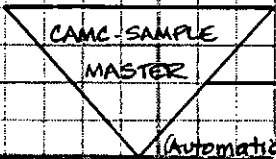
(1 Manual)



(Manual)



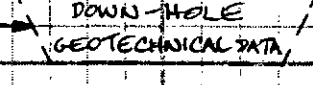
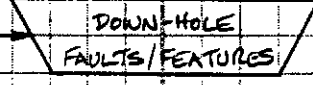
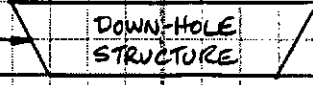
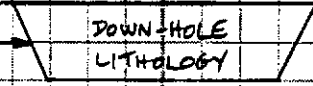
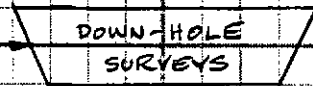
(Manual)



(Automatic)



(Automatic)



NOTE - SEPARATE DATA BASES WILL BE SET UP FOR INDIVIDUAL PROPERTIES.

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Date: 20.10.82
Page:

PROPERTY-MASTER DATA SET

PROPERTY
MASTER

R4 - Double precision calculations.

PROPERTY,		X20;		
UTM-LIMITS,	4	R4;	} Primary Grid.	
UTM-ZONE,		I;		
UTM-TRUEN,		R2;		
GEOLOG-GRID,	6	R4;	← Secondary grid:	S1
MODEL-GRID,	6	R4;	← " "	S2
SURVEY-GRID,	6	R4;	← " "	S3
CON-KEY (0),		X2;		
IND-GR,	3	I;		
PLUNGE,	2	I;	← ?	

(1) Holds conversions factors for various grids.

"PROPERTY-MASTER" DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /PRPRTY/

```
COMMON /PRPRTY/ PRNAME,UTMLIM(4),IUTMEN,UTMTRN,
1 GRGEOL(4),GRMODL(4),GRSURV(4),CONKEY,IINDSR(3),IPLNGE(2)
CHARACTER PRNAME*20, CONKEY*2
DOUBLE PRECISION UTMLIM,GRGEOL,GRMODL,GRSURV
```

26.10.82

Variables	Type	Size	Description
PRNAME	Character	20 bytes	Property Identifier
UTMLIM	D.P.	4	Property UTM-limits 1 = Min. Northing 2 = Max. Northing 3 = Min. Easting 4 = Max. Easting
IUTMEN	Integer		UTM-Zone * (usually 8)
UTMTRN	Real		Offset Angle UTM-North to True North (degrees)
GRGEOL	D.P.	6	Geological Grid Definition Parameters 1 = No. 2 = E ₀ 3 = Z ₀ 4 = α (degrees) 5 = S _H 6 = S _V
GRMODL	D.P.	6	Mine Model Grid Definition Parameters 1, ..., 6 as above
GRSURV	D.P.	6	Mine (Survey) Grid Definition Parameters 1, ..., 6 as above
CONKEY	Character	2 bytes	Control-Key (? P. Pollhammer)

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

Date: 26.10.82

By: J.M.-L.

Page:

PROPERTY-MASTER DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /PROPERTY/ (Continued)

INDGR	Integer	3	Grid Input Indicator (1) - Geological (2) - Mine Model (3) - Mine Survey	0 = NO 1 = YES
-------	---------	---	---	----------------

IPLNGE	Integer	2	General Property Structure Plunge (1) - Plunge Angle - integer degrees ± from horizontal (2) - Plunge Direction - integer degrees cw from UTM-North (i.e. a UTM-azimuth)
--------	---------	---	---

ICAS
Software
Services

Systems: DDHDB

Project: P02001

Routine: SCHEMA

Date: 27.10.62

By: J.M.-L.

Page:

"PROPERTY-MASTER" DATA SET (Continued)

FORTRAN ACCESS

1. GET 'Next' PROPERTY Master - CALL S/R DH701

SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
PROPERTY	X20	1- 10	PRNAMX	→	PRNAME
UTM-LIMITS	4 R4	11- 26	DUTMX(i)	→	UTMLIM(i)
UTM-ZONE	I	27	IZONE	→	IUTMZN
UTM-TRUEN	R2	28- 29	UTMRNX	→	UTMTRN
GEOLOG-GRID	6 R4	30- 53	GRGEOX(i)	→	GRGEOG(i)
MODEL-GRID	6 R4	54- 77	GRMDLX(i)	→	GRMODL(i)
SURVEY-GRID	6 R4	78-101	GRSRVX(i)	→	GRSRV(i)
CON-KEY	X2	102	CONKEY	→	CONKEY
IND-GR	3 I	103-105	INDGRX(i)	→	INDGR(i)
PLUNGE	2 I	106-107	IPLNGX(i)	→	IPLNGE(i)

2. PUT or UPDATE PROPERTY Master - CALL S/R DH702 or S/R DH703

COMMON	OPERATION	EQUIV.	PRBUFF(i)	SIZE	SCHEMA
PRNAME	→	PRNAMX	X20	1- 10	PROPERTY
UTMLIM(i)	→	DUTMX(i)	4 R4	11- 26	UTM-LIMITS
IUTMZN	→	IZONE	I	27	UTM-ZONE
UTMTRN	→	UTMRNX	R2	28- 29	UTM-TRUEN
GRGEOG(i)	→	GRGEOX(i)	6 R4	30- 53	GEOLOG-GRID
GRMODL(i)	→	GRMDLX(i)	6 R4	54- 77	MODEL-GRID
GRSRV	→	GRSRVX(i)	6 R4	78-101	SURVEY-GRID
CONKEY	→	CONKEY	X2	102	CON-KEY
INDGR(i)	→	INDGRX(i)	3 I	103-105	IND-GR
IPLNGE(i)	→	IPLNGX(i)	2 I	106-107	PLUNGE

"SECTIONS" MASTER DATA SET

SECTION
MASTER

SECTION (0),		X8;
UTM-ENDS,	4	R4;
UTM-ELEV,	2	R2;
GEOL-ENDS,	4	R2;
GEOL-ELEVS,	2	R2;
TRANSF-M,	16	R2;
IND-GR,		I;
SCALES,	2	R2;
UNITS,	2	X8;
ROTATE,	3	R2;
VIEW,		R2;
S-DIST,		R2;
PLUNGE	2	I;
S-PLUNGE	2	R2;

← Defines grid being used.

Mapisic → Transf-m. } - utm to mines grid
Plotter

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

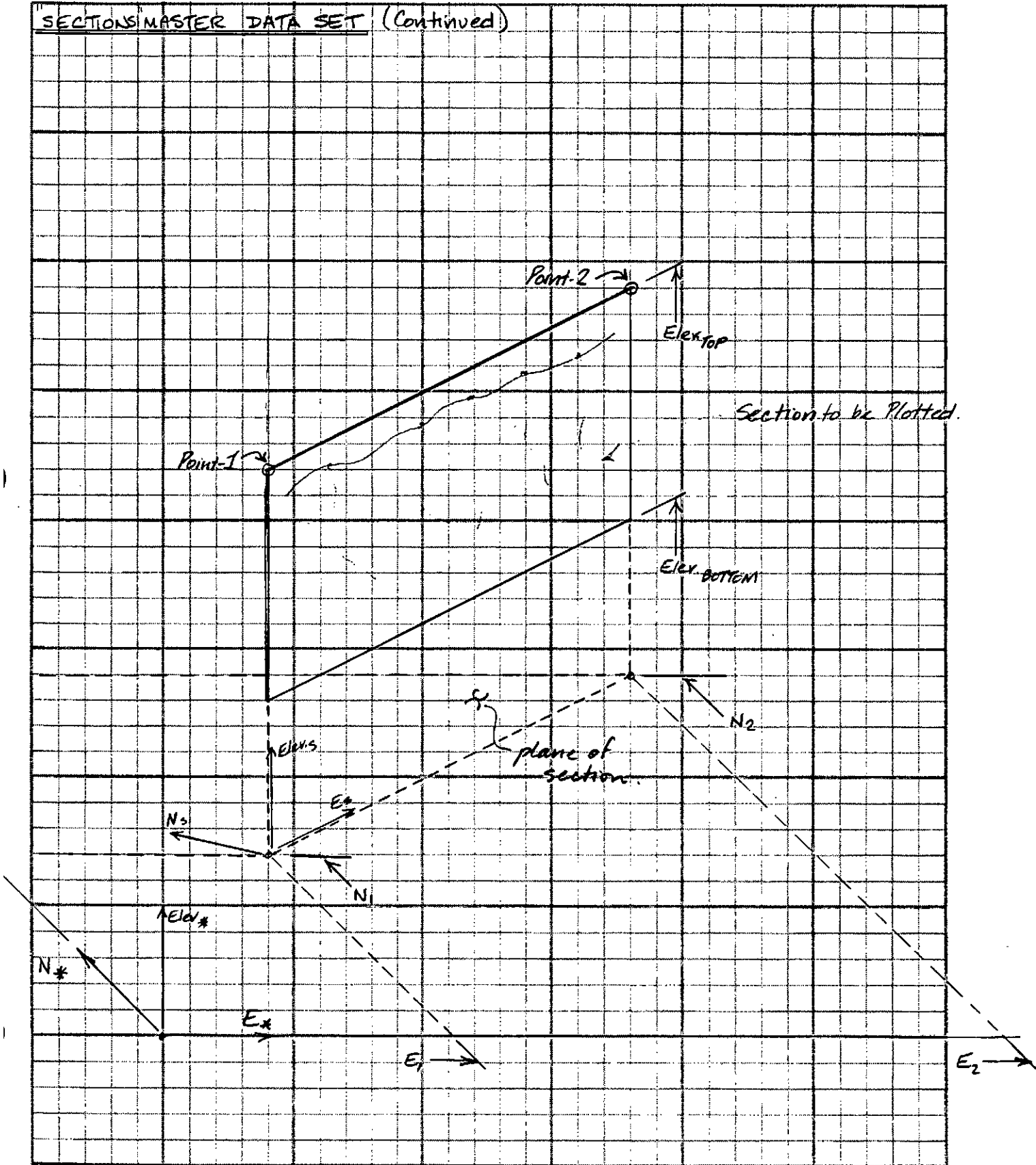
Routine: SCHEMA

Date: 28.10.82

By: J.M.-L.

Page:

SECTIONS MASTER DATA SET (Continued)



"SECTIONS" MASTER DATA (Continued)

FORTRAN ACCESS - LABELLED COMMON /CSECTN/

COMMON /CSECTN/ PSECTN, UTMEND(4), UTMELS(2), GEOLND(4), GEOELS(2),
 1 TRANSF(4,4), INDGRS, SCALES(2), UNITS(2), ROTATE(2,3),
 2 VIEW, SDIST, IPLNGS(2), PLUNGS(2)
 CHARACTER*8 PSECTN, UNITS
 DOUBLE PRECISION UTMEND

Variable	Type	Size	Description
PSECTN	Character	8 bytes	Section Identifier
UTMEND	D.P.	4	UTM-Coordinates of Section end-points (1) = Point 1 - Northing (2) = - Easting (3) = Point 2 - Northing (4) = - Easting
UTMELS	Real	2	UTM-Elevations of Section limits (1) Section Top (2) Section Bottom
GEOLND	Real	4	Coordinates (secondary) of Section end-points (1) = Point 1 - Northing (2) = - Easting (3) = Point 2 - Northing (4) = - Easting
TRANSF	Real	4,4	Coordinate Transformation Matrix from Secondary Co-ordinate System to Section Coordinates.
INDGRS	Integer		Base Point Co-ordinate System 0 = undefined 1 = UTM Co-ords 2 = Geological 3 = Mine Model 4 = Mine Survey } Secondary Coordinate Systems
GEOELS	Real	2	Elevations of Section Limits (secondary co-ordinate (1) = Top

ICAS
Software
Services

Systems: IDHDB

Project: PB2001

Routine: SCHEMA

Date: 28.10.82

By: J.M.-L.

Page:

"SECTIONS" MASTER DATA SET (Continued)

FORTTRAN ACCESS - LABELLED COMMON /CSECTN/ (Continued)

FORTTRAN ACCESS			
SCALES	Real	2	Section Plotting Scales (units/plotinch) (1) = Horizontal Scale (2) = Vertical Scale
UNITS	Character	2 x 8 bytes	Section Units (Distance) (1) = Horizontal (2) = Vertical
ROTATE	Real	2,3	Rotation Matrix to Project off-section points on to the Section
VIEW	Real		View azimuth - decimal degrees
SDIST	Real		Horizontal Distance to next section
IPLNGS	Integer	2	Section Structure Plunge (1) - Plunge Angle - integer degrees ± horizontal (2) - Plunge Direction - integer degrees c.w. from UTM-North (i.e. a UTM-azimuth)
PLUNGES	Real	2	Plunge angles (radians) relative to section (1) Plunge Angle (2) Plunge Direction

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

Date: 28.10.82

By: J.M.-L.

Page:

"SECTIONS" MASTER DATA SET (Continued)

FORTRAN ACCESS

1. GET 'Specific' and GET 'Next' SECTION MASTER - CALLS RDT04 & RDT05

SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
SECTION	XB	1 - 4	SECTX	→	PSECTN
UTM-ENDS	4 R4	5 - 20	UTMNX(i)	→	UTMEND(i)
UTM-ELEVS	2 R2	21 - 24	UTMELX(i)	→	UTMELS(i)
GEO-ENDS	4 R2	25 - 32	GEOIX(i)	→	GEOIND(i)
GEO-ELEV	2 R2	33 - 36	GEOLE(i)	→	GEOELS(i)
TRANSF-M	16 R2	37 - 68	TRANX(i,j)	→	TRANSF(i,j)
IND-GR	I	69	INDGRX	→	INDGRS
SCALES	2 R2	70 - 73	SCALEX(i)	→	SCALES(i)
UNITS	2 XB	74 - 89	UNITX(i)	→	UNITS(i)
ROTATE	6 R2	90 - 101	ROTATX(i,j)	→	ROTATE(i,j)
VIEW	R2	102 - 103	VIEWX	→	VIEW
S-DIST	R2	104 - 105	SDISTX	→	SDIST
PLUNGE	2 I	106 - 107	IPLNGX(i)	→	IPLNGS(i)
S-PLUNGE	2 R2	108 - 111	SPNGX(i)	→	PLUNGES(i)

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

Date: 28.10.82

By: J.M.-L.

Page:

"SECTIONS" MASTER DATA SET (Continued)

FORTRAN ACCESS

2. PUT and UPDATE SECTION MASTER - CALLS R DH707 & DH708

COMMON	OPERATION	EQUIV.	PRBUFF(i)	SIZE	SCHEMA
PSECTN	→	SECTX	1- 4	XB	SECTION
UTMEND(i)	→	UTMNX(i)	5- 20	4 R4	UTM-ENDS
UTMELS(i)	→	UTMELY(i)	21- 24	2 R2	UTM-ELEVS
GEDLND(i)	→	GEDLX(i)	25- 32	4 R2	GEO-ENDS
GEOELS(i)	→	GEOELZ(i)	33- 36	2 R2	GEO-ELEV
TRANS(i,j)	→	TRANX(i,j)	37- 68	16 R2	TRANSF-M
INDGRS	→	INDGRX	69	I	IND-GR
SCALES(i)	→	SCALEZ(i)	70- 73	2 R2	SCALES
UNITS(i)	→	UNITZ(i)	75- 89	2 XB	UNITS
ROTATE(i,j)	→	ROTATX(i,j)	90-101	6 R2	ROTATE
VIEW	→	VIEWX	102-103	R2	VIEW
S-DIST	→	S-DISTX	104-105	R2	S-DIST
IPLNGS(i)	→	IPLNGX(i)	106-107	2 I	PLUNGE
PLUNGES(i)	→	SPLNGX(i)	108-111	2 R2	S-PLUNGE

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

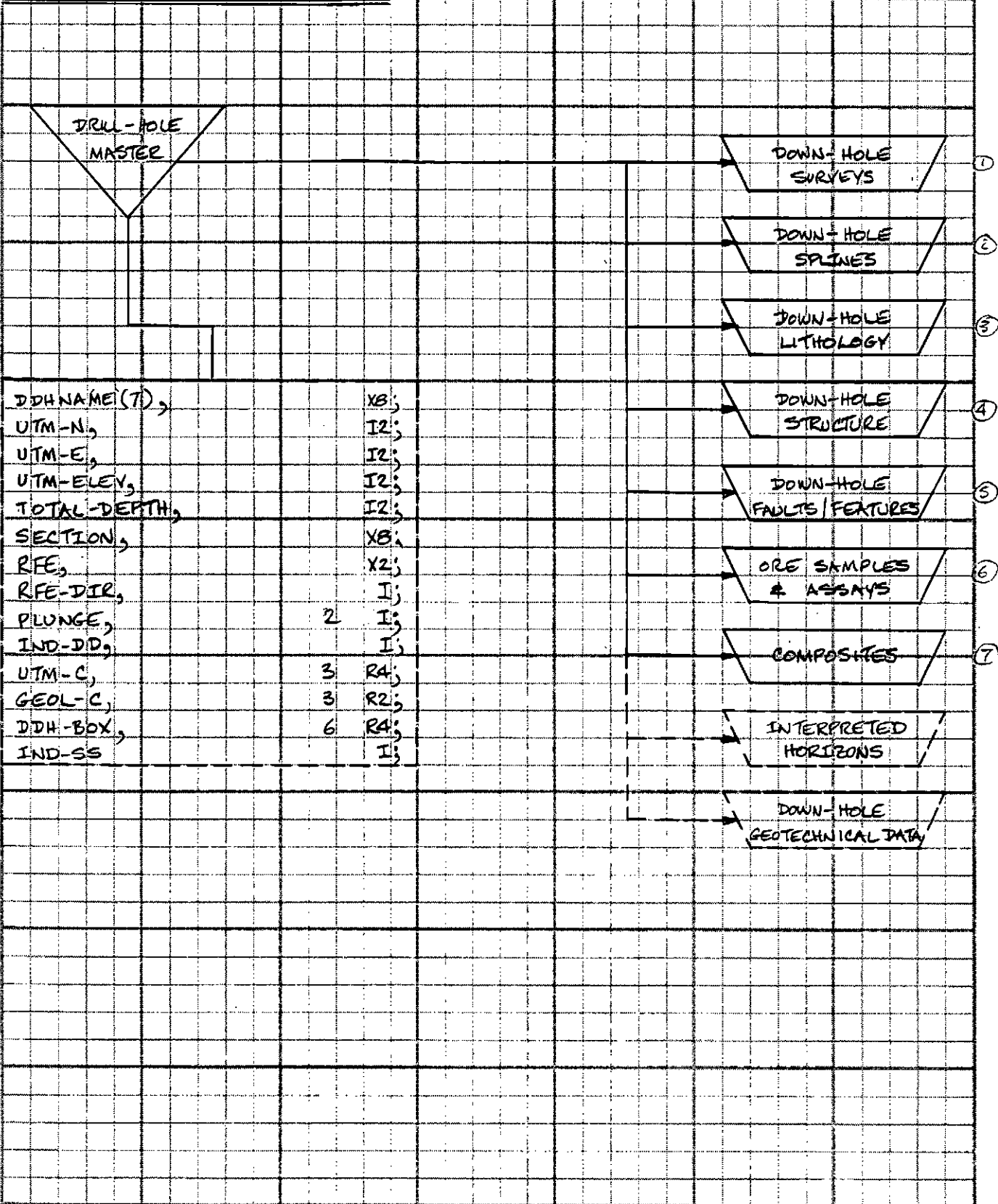
Routine: SCHEMA

Date: 27.10.82

By: J.M.-L.

Page:

"DRILL-HOLE MASTER" DATA SET



"DRILL-HOLE MASTER" DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /DHMSTR/

COMMON /DHMSTR/ DDHIDM, UTMCS(3), TOTALD, SECTION, RFE, IRDIR,
1 MPLNGE(2), INDDDM, DUTMS(3), GEOLCS(3),
2 DDHBOX(6), INDSSM
CHARACTER*8 DDHIDM, SECTION
CHARACTER*2 RFE
DOUBLE PRECISION DUTMS, DDHBOX

Variable	Type	Size	Description
DDHIDM	Character	8 bytes	DDH- Identifier
UTMCS	Real	3	Input UTM- Coordinates (1) Northing (2) Easting (3) Elevation
TOTALD	Real		Total depth (length) of DDH (metres)
SECTION	Character	8 bytes	Section descriptor (closest X-section to DDH-collar)
RFE	Character	2 bytes	Reference Fabric Element for DDH - "00" not defined - "S0", "S1", "S2"
IRDIR	Integer		Reference Fabric Element Direction (degrees azimuth)
MPLNGE	Integer	2	DDH local structure plunge angles (1) = plunge angle \pm ° from horizontal (2) = plunge direction -° from UTM-N (CW)
INDDDM	Integer		Indicator for down-hole displacement calculations - 0 = not done (default) 1 = done
DUTMS	D.P.	3	Double Precision UTM- Coordinates of DDH- Collar (N, E, Elev.)

ICAS
Software
Services

Systems: DDHDB

Project: PS2001

Routine: SCHEMA

Date: 28.10.82

By: J.M.L.

Page:

"DRILL-HOLE MASTER" DATA SET (Continued)

FORTTRAN ACCESS - LABELLED COMMON /DHMSTR/ (Continued)

GEOLCS	Real	3	Geological-coordinates of DDH-collar (1) = Northing (Geological) (2) = Easting (Geological) (3) = Elevation (Geological)
--------	------	---	---

DDHBOX	D.P.	6	UTM-Coordinates of location box containing entire DDH-trace (1) = Minimum Northing (2) = Maximum Northing (3) = Minimum Easting (4) = Maximum Easting (5) = Minimum Elevation (6) = Maximum Elevation
--------	------	---	---

INDSSM	Integer		Indicator for structural solution calc. - 0 = not done (default) 1 = done
--------	---------	--	---

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

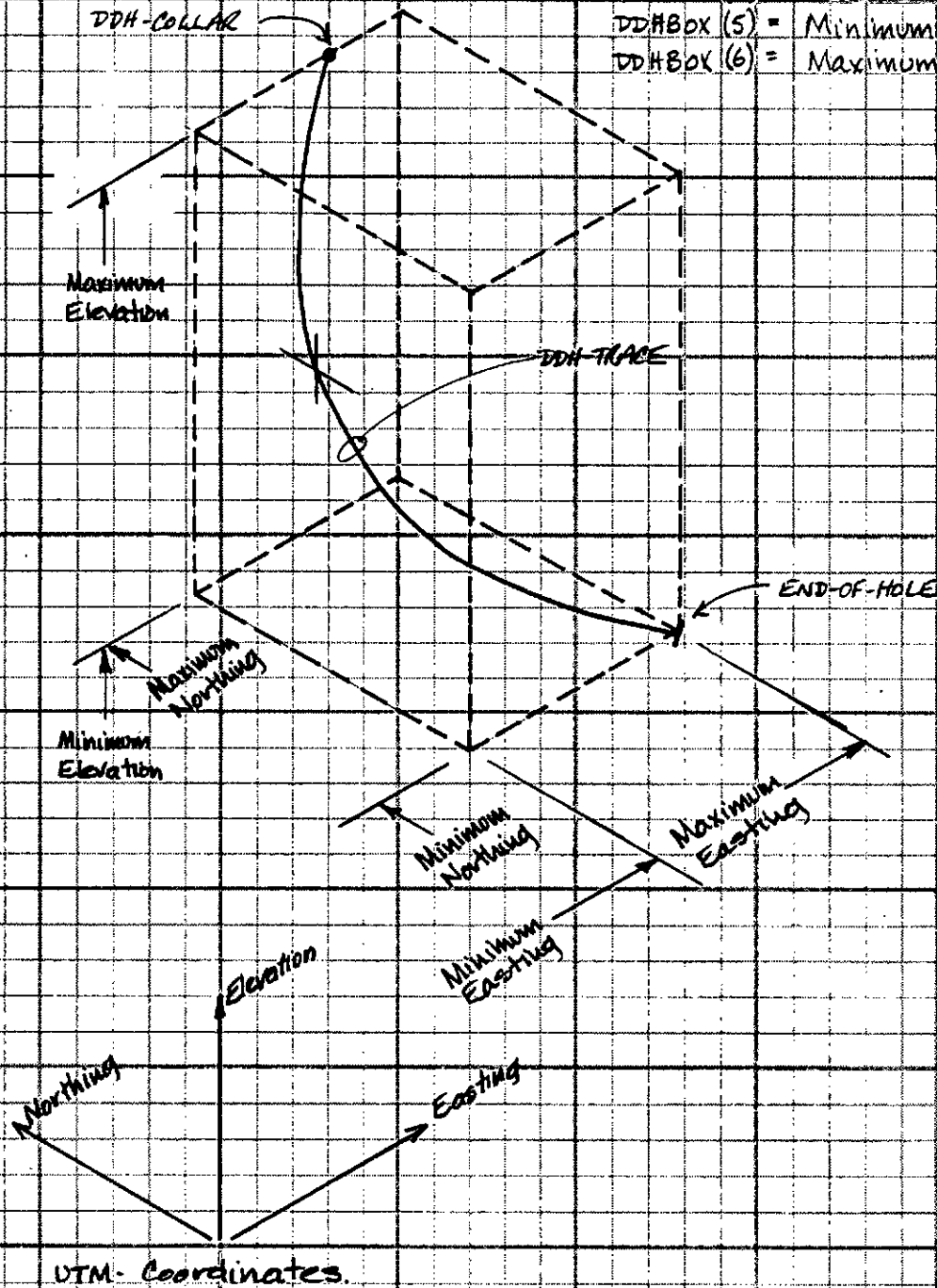
Date: 28.10.82

By: J.M.-L.

Page:

"DRILL-HOLE MASTER" DATA SET (Continued)

DDHBOX (1) = Minimum Northing
DDHBOX (2) = Maximum Northing
DDHBOX (3) = Minimum Easting
DDHBOX (4) = Maximum Easting
DDHBOX (5) = Minimum Elevation
DDHBOX (6) = Maximum Elevation



ISOMETRIC VIEW

ICAS
Software
Services

Systems: JDHDB

Project: FB2001

Routine: SCHEMA

Date: 28.10.82

By: J.M.-L.

Page:

"DRILL-HOLE MASTER" DATA SET (Continued)

FORTRAN ACCESS

1. GET Specific / Next DDH-MASTER - CALL S/R DH710 / E/R DH711

SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
DDHNAME	X8	1- 4	DDHIDX	→	DDHIDM
UTM-N	I2	5- 6	JUTM (1)	} JFLOAT (JUTM (i)) * 0.1	UTMCS (i)
UTM-E	I2	7- 8	JUTM (2)		
UTM-ELEV	I2	9- 10	JUTM (3)		
TOTAL-DEPTH	I2	11- 12	JTID	JFLOAT (JTID) * 0.1	TOTALD
SECTION	X8	13- 16	SECTX	→	SECTION
RFE	X2	17	RFEV	→	RFE
RFE-DIR	I	18	IRFEX	→	IRDIR
MPLNGE	2 I	19- 20	IMPLNGX(i)	→	MPLNGE(i)
IND-DD	I	21	INDDDX	→	INDDDM
UTM-C	3 R4	22- 33	DUTMX (i)	→	DUTMS (i)
GEOLOC	3 R2	34- 39	GEOGX (i)	→	GEOGCS (i)
DDH-BOX	6 R4	40- 63	DHBOXX (i)	→	DDHBOX (i)
IND-SS	I	64	INDSSX	→	INDSSM

only if
INDDDM > 0
otherwise
set = 0.0

2. UPDATE DDH-MASTER - CALL S/R DH714

COMMON	OPERATION	EQUIV.	PRBUFF(i)	SIZE	SCHEMA
DDHIDM	→	DDHIDX	1- 4	X8	DDHNAME
UTMCS (i)	Not Updated				
TOTALD	" "				
SECTION	" "				
RFE	" "				
IRDIR	" "				
MPLNGE (i)	" "				
INDDDM	→	INDDX	5	I	IND-DD
DUTMS (i)	→	DUTMX (i)	6- 17	3 R4	UTM-C
GEOGCS (i)	→	GEOGX (i)	18- 23	3 R2	GEOLOC
DDHBOX (i)	→	DHBOXX (i)	24- 47	6 R4	DDH-BOX
INDSSM	→	INDSSX	48	I	IND-SS

ICAS
Software
Services

Systems: DDHDB

Routine: SCHEMA

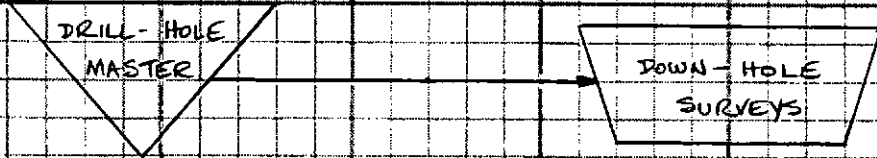
By: J.M.-L.

Project: F62001

Date: 19.10.82

Page:

"DOWN-HOLE SURVEYS" DETAIL DATA SET



DDHID (DDH-MASTER)
FDEPTH,
ZENITH,
AZIMUTH,

X8;
I2;
I2;
I2;

UNITS	STORED AS
	aaiaaaa
metres	9999.9
degrees	999.9
degrees	999.9

26.10.82

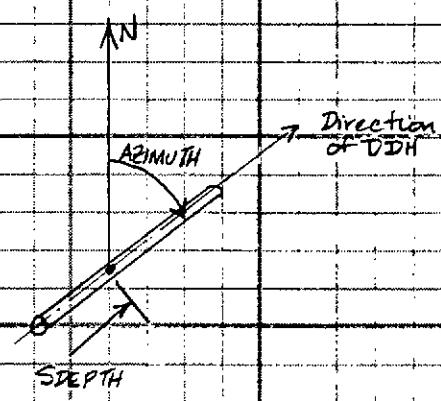
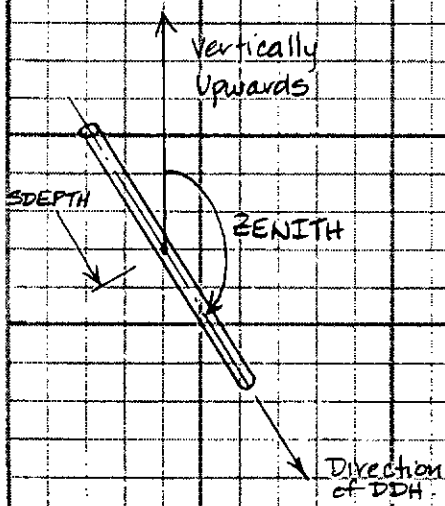
"DOWN-HOLE SURVEYS" "DETAIL DATA SET" (Continued)

FORTRAN ACCESS - LABELLED COMMON /DDHSUR/

COMMON /DDHSUR/ DDHIDZ, SDEPTH, ZENITH, AZMUTH

16.10.82

Variables	Type	Size	Description
DDHIDZ	Character	8 bytes	DDH- Identifier
SDEPTH	Real		Depth of Survey Measurement (≥ 0.0)
ZENITH	Real		Zenith angle ($0.0 \leq ZENITH \leq 180.0$)
AZMUTH	Real		Azimuth angle ($0.0 \leq AZMUTH \leq 359.9$)



VERTICAL SECTION VIEW

PLAN VIEW

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

Date: 19.10.82

By: J.M.L.

Page:

"DOWN-HOLE SURVEYS" DETAIL DATA SET (Continued)

FORTRAN ACCESS

1. GET 'Next' SURVEY DETAIL - S/R DHT17

SCHEMA	SIZE	PRBUFF(?)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDZ
FDEPTH	I2	5- 6	JSDPTH	JFLOAT (JSDPTH) *0.1	SDEPTH
ZENITH	I2	7- 8	JZENITH	JFLOAT (JZENITH) *0.1	ZENITH
AZIMUTH	I2	9- 10	JAZMTH	JFLOAT (JAZMTH) *0.1	AZMUTH

6.10.82*

26.10.82*

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

Date: 26.10.82

By: J.M.-L.

Page:

'DOWN-HOLE SPLINES' DETAIL DATA SET

DRILL-HOLE
MASTER

DOWN-HOLE
SPLINES

DDHID (DDH-MASTER);		X8;
SPLINE-NO;		I;
SPLINE-COND;		I;
TZERO;	3	R2;
SPLINEC;	12	R2;

DOWN-HOLE SPLINES" DETAIL DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /DHSPLN/

COMMON /DHSPLN/ DDHIDSP, ISPLINE, KSPLINE, TZERO(3), SPLINEC(12)
CHARACTER*8 DDHIDSP

Variable	Type	Size	Description
DDHIDSP	Character	8 bytes	DDH- Identifier
ISPLINE	Integer		Spline segment # (from DDH-Collar)
KSPLINE	Integer		Spline condition indicator = 1 for all segments except the last = 2 if last segment overlaps the next to last segment = 3 if only 1 segment for DDH
TZERO	Real	3	Down-hole depths (1) = t_0 start of spline-segment (2) = t_m mid-point of spline-segment (3) = t_n end of spline-segment.
SPLINEC	Real	12	Parametric cubic spline coefficients (1) = A } (2) = B } x-coefficients (UTM-E) (3) = C } (4) = D } (5) = E } (6) = F } y-coefficients (UTM-N) (7) = G } (8) = H } (9) = P } (10) = Q } y-coefficients (UTM-EI) (11) = R } (12) = S }

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

Routine: SCHEMA

Date: 26.10.82

By: J.M.-L.

Page:

"DOWN-HOLE SPLINES" DETAIL DATA SET (Continued)

FORTRAN ACCESS

1. GET NEXT SPLINES Detail - CALL S/R DH 722

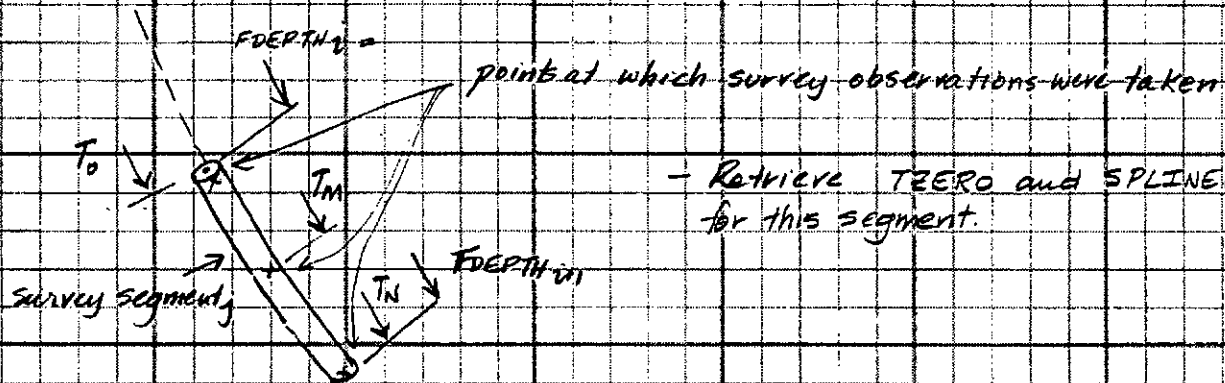
SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDSP
SPLINE-NO	I	5	ISPLNX	→	ISPLINE
SPLINE-COND	I	6	KSPLNX	→	KSPLINE
TZERO(i)	3 R2	7- 12	TZEROX(i)	→	TZERO(i)
SPLINEC(i)	12 R2	13- 36	SPLINX(i)	→	SPLINEC(i)

2. PUT SPLINES Detail - CALL S/R DH 723

COMMON	OPERATION	EQUIV.	PRBUFF(i)	SIZE	SCHEMA
DDHIDSP	→	DDHIDX	1- 4	X8	DDHID
ISPLINE	→	ISPLNX	5	I	SPLINE-NO
KSPLINE	→	KSPLNX	6	I	SPLINE-COND
TZERO(i)	→	TZEROX(i)	7- 12	3 R2	TZERO(i)
SPLINEC(i)	→	SPLINX(i)	13- 36	12 R2	SPLINEC(i)

DOWN-HOLE SURVEY CALCULATIONS

- for i^{th} spline segment along the drill-hole



$T =$ depth down-hole to point of interest $T_0 \leq T \leq T_N$

Set	$T_0 = TZERO(1)$	$A = SPLINEC(1)$	$E = SPLINEC(5)$	$P = SPLINEC(9)$
	$T_m = TZERO(2)$	$B = SPLINEC(2)$	$F = SPLINEC(6)$	$Q = SPLINEC(10)$
	$T_N = TZERO(3)$	$C = SPLINEC(3)$	$G = SPLINEC(7)$	$R = SPLINEC(11)$
		$D = SPLINEC(4)$	$H = SPLINEC(8)$	$S = SPLINEC(12)$

Calculate $t = T - T_0$ Check $t \geq 0.0$

Then

$$\begin{aligned}
 XE &= A + t * (B + t * (C + t * D)) \\
 YN &= E + t * (F + t * (G + t * H)) \\
 EL &= P + t * (Q + t * (R + t * S))
 \end{aligned}$$

XE, YN, EL are UTM-coordinates of point along the DDH-trace.

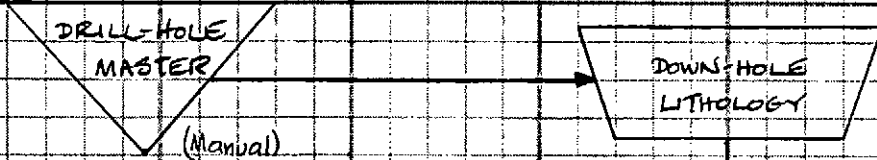
26.10.82

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Date: 27.10.82
Page:

"DOWN-HOLE LITHOLOGICAL UNITS" DETAIL DATA SET



		UNITS	STORED AS
		↓	↓
DDHID (DDH-MASTER),	X8;		aaaaaaaa
TDEPTH,	I2;	metres	9999.9
LITH UNIT,	I;		
LITH-CODE,	X8;		
LITH-DESC,	X30;		
RECOV,	I2;	metres	99.9
IND-DD,	I;		
DD2,	3 R2;	metres	±9999.9

ICAS
Software
Services

Systems: JDHDB
Routine: SCHEMA
By: J.M.L.

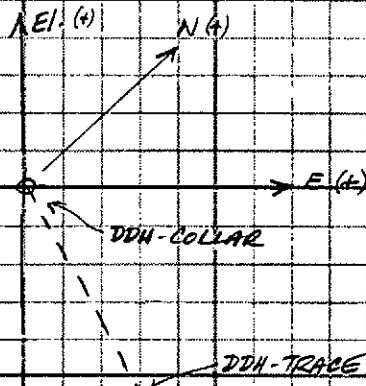
Project: PB2001
Revised 26-10-82
Date: 18-10-82
Page:

"DOWN-HOLE LITHOLOGICAL UNITS" DETAIL DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /DHLITH/

```
COMMON /DHLITH/ DDHIDL, TDEPTH, ILITHU, CLITH, DLITH, RECOV,
1 INDDL, DDZL(3)
CHARACTER DDHIDL*8, CLITH*8, DLITH*30
```

Variables	Type	Size	Description
DDHIDL	Character	8 bytes	DDH- Identifier
TDEPTH	Real		To-depth of lithological unit
ILITHU	Integer		Sequential Lithological Unit # (down-hole)
CLITH	Character	8 bytes	Main Lithological unit code (only first 5 characters used currently)
DLITH	Character	30 bytes	Lithological unit description (additional) (component) and [alternate] units.
RECOV	Real		Core recovery for unit (metres)
INDDL	Integer		Indicator for down-hole displacement calculation - 0 = not done (initial condition) 1 = done
DDZL	Real	3	Down-hole displacements of 'to-depth' position relative to collar location (metres) DDZL(1) = ΔN DDZL(2) = ΔE DDZL(3) = ΔElev.



- N, E are UTM-directions
Ei is UTM-elevation
the directions as shown

- Offsets to TDEPTH position are

DN	(+ve)	=	DD2(1)
DE	(+ve)	=	DD2(2)
DEL	(-ve)	=	DD3(3)

DEL

TDEPTH of previous lithologic unit

lithologic unit # = LITHUNIT

Lithologic code = LITH-CODE
+ 30-character supplemental
description. (LITH-DESC)

TDEPTH

DE

DN

Direction of DDH-drilling.

DD2(i)

* TDEPTH, DN, DE, DEL, RECOV are stored as "double integers" in the Data Base with one (1) implied decimal position.

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Revised 27.10.82
Date: 14.10.82
Page:

"DOWN-HOLE LITHOLOGICAL UNITS" DETAIL DATA SET (CONTINUED)

FORTRAN ACCESS

1. GET 'Next' LITHOLOGY Detail - CALL DH727

SCHEMA	SIZE	PREBUF(i)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDL
TDEPTH	I2	5- 6	JDEPTH	JFLOAT(JDEPTH)*0.	TDEPTH
LITHUNIT	I	7	ILITHX	→	ILITHU
LITH-CODE	X8	8- 11	CLITHX	→	CLITH
LITH-DESC	X30	12- 26	DLITHX	→	DLITH
RECOV	I2	27- 28	JRECOV	JFLOAT(JRECOV)*0.1	RECOV
IND-DD	I	29	INDDX	→	INDDL
DD2	3 R2	30- 35	DD2X(i)	IF →	DD2L(i)

only if
INDDL > 0
otherwise
set = 0.0

2. UPDATE LITHOLOGY Detail - CALL SR DH729

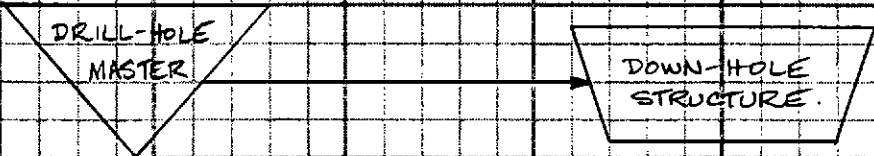
COMMON	OPERATION	EQUIV.	PREBUF(i)	SIZE	SCHEMA
DDHIDL	→	DDHIDX	1- 4	X8	DDHID
TDEPTH	Not Updated				
ILITHU	" "				
CLITH	" "				
DLITH	" "				
RECOV	" "				
INDDL	→	INDDX	5	I	IND-DD
DD2L(i)	→	DD2X(i)	6- 11	3 R2	DD2

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Revised 26.10.82
Date: ~~19.10.82~~
Page:

"DOWN-HOLE STRUCTURE" DETAIL DATA SET



			units	stored as
DDHID(DDH-MASTER),		X8;		aaaaaaaa
STYPE,		I;		
FDEPTH,		I2;	metres	9999.9
TDEPTH,		I2;	metres	9999.9
FEATURE,		X4;		
SYMMETRY,		X2;		
S-ZERO,	2	I;	degrees	
S-ONE,	2	I;	"	
S-TWO,	2	I;	"	
SX-TYPE,		I;		
IND-DD,		I;		
DD1	3	R2;	metres	
DD2	3	R2;	metres	
IND-SS,		I;		
SX-SOL,	4	R2;	degrees	
SXIM1-SOL,	8	R2;	"	
SXP1-SOL,	8	R2;	"	
S-ANGLE,	2	R2;	degrees	

"DOWN-HOLE STRUCTURE" DETAIL DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /DHSTRC/

```
COMMON /DHSTRC/ DDHIDY, ISTYPE, FDP1HY, TDP1HY, FEATRE, SYMTRY,
1 IS0(2), IS1(2), IS3(3), ISXTYP,
2 INDDY, DD1Y(3), DD2Y(3),
3 INDSY, SIXS(2,2), SIXMIS(4,2), SIXPLS(4,2), SANGLE(2)
CHARACTER DDHIDY*8, FEATRE*4, SYMTRY*2
```

Variables	Type	Size	Description
DDHIDY	Character	8 bytes	DDH- Identifier
ISTYPE	Integer		Processing Indicator 0 = do not process (-) 1 = processable (=S)
FDP1HY	Real		From depth of zone-measurement
TDP1HY	Real		To-depth of zone-measurement or At-depth of point-measurement
FEATRE	Character	4 bytes	Feature Code (only 1 st 3 bytes used)
SYMTRY	Character	2 bytes	Symmetry Code (only 1 st byte used)
IS0	Integer	2	S ₀ input 1 = core dip angle (degrees) 2 = core direction " "
IS1	Integer	2	S ₁ input 1 = core dip angle (degrees) 2 = " direction " "
IS2	Integer	2	S ₂ input 1 = core dip angle (degrees) 2 = " direction " "
ISXTYP	Integer		RFE code ≠ -1 = undefined 0 = S ₀ 1 = S ₁ 2 = S ₂ 3+ = S _x (use RFE = S ₂ pos=)

"DOWN-HOLE STRUCTURE" DETAIL DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /DHSTRC/ (Continued)

INDDDY	Integer		Indicator for down-hole displacement calculation - 0 = not done (default) 1 = done
DD1Y	Real	3	Down-hole displacement of from-depth position relative to collar location DD1Y (1) = ΔN DD1Y (2) = ΔE DD1Y (3) = Δ Elevation
DD2Y	Real	3	Down-hole displacement of 'to-depth' or 'at-depth' position ($\Delta N, \Delta E, \Delta$ Elevation) (as for DD1Y)
INDSSY	Integer		Indicator for structure direction calculation - 0 = not done (default) 1 = done
SXS	Real	2,2	Alternate angles for RFE plane (i,j) = i = solution # (1,2) j = angle 1 = dip 2 = direction
SXM1S	Real	4,2	Alternate angles for S_{X1} solutions (i,j) = i = 1,2 for RFE sol ⁿ #1 (3,4 for #2) j = angle: 1 = dip 2 = direction
SXP1S	Real	4,2	Alternate angles for S_{X11} solutions (i,j) = i = 1,2 for RFE sol ⁿ #1 (3,4 for #2) j = angle: 1 = dip 2 = direction
SANGLE	Real	2	Inclination of DDH at 'AT'-position 1 = Zenith angle 2 = azimuth angle

"DOWN-HOLE STRUCTURE" DETAIL DATA SET (Continued)

FORTRAN ACCESS					
1. GET 'Next' STRUCTURE Detail - CALL S/R DHT32					
SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDY
STYPE	I	5	ISTYPX	→	ISTYPE
FDEPTH	I2	6- 7	JFDPH	JFLOAT (JFDPH) * 0.1	FDPHY
TDEPTH	I2	8- 9	JTDPH	JFLOAT (JTDPH) * 0.1	TDPHY
FEATURE	X4	10- 11	FEATRY	→	FEATRE
SYMMETRY	X2	12	SYMTRY	→	SYMTRY
S-ZERO	2 I	13- 16	IS0X(i)	→	IS0(i)
S-ONE	2 I	17- 20	IS1X(i)	→	IS1(i)
S-TWO	2 I	21- 24	IS2X(i)	→	IS2(i)
SX-TYPE	I	25	ISTPXX	→	ISXTYP
IND-DD	I	26	INDDX	→	INDDY
DD1	3 R2	27- 32	DD1X(i)	→	DD1Y(i)
DD2	3 R2	33- 38	DD2X(i)	→	DD2Y(i)
IND-SS	I	39	INDSX	→	INDSSY
SX-SOL	4 R2	40- 47	SXSOL(i,j)	→	SXS(i,j)
SXM1-SOL	8 R2	48- 63	SX1(i,j)	→	SXM1S(i,j)
SXP1-SOL	8 R2	64- 79	SX2(i,j)	→	SXP1S(i,j)
S-ANGLE	2 R2	80- 83	SXXX(i)	→	SANGLE(i)

only if
INDDDY > 0
otherwise
set = 0.0

only if
INDSSY > 0
otherwise
set = 0.0

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

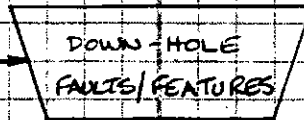
Routine: SCHEMA

Date: 21.10.82

By: J.M.-L.

Page:

"DOWN-HOLE FAULTS/FEATURES" DETAIL DATA SET.



DDHID (DDH-MASTER),		X8;
FDEPTH,		I2;
TDEPTH,		I2;
FEATURE,		X4;
FRECON,		X2;
PARALLEL,		X2;
UPPER,	2	I;
INTERNAL,	2	I;
LOWER,	2	I;
IND-DD,		I;
DD1,	3	R2;
DD2,	3	R2;

"DOWN-HOLE FAULTS/FEATURES" DETAIL DATA SET (Continued)

FORTRAN ACCESS - LABELLED COMMON /DDHFLT/

COMMON /DDHFLT/ DDHIDF, FDPTHF, TDPTHF, FEATRF, FRECOV, PARLLL,
1 IUPPER(2), INTRNL(2), ILOWER(2),
2 INDDF, DD1F(3), DD2F(3)
CHARACTER DDHIDF*8, FEATRF*4, FRECOV*2, PARLLL*2

Variable	Type	Size	Description
DDHIDF	Character	8 bytes	DDH-Identifier
FDPTHF	Real		From depth of zone measurement
TDPTHF	Real		To-depth of zone measurement or At-depth of point measurement
FEATRF	Character	4 bytes	Feature Code (Only 1 st 3 bytes used)
FRECOV	Character	2 bytes	Fault ^{core} recovery code (Only 1 st byte used)
PARLLL	Character	2 bytes	Parallel Code ('S0', 'S0', 'S1' or 'S2')
IUPPER	Integer	2	Upper plane core angles 1 = core dip 2 = core direction
INTRNL	Integer	2	Internal plane core angles 1 = core dip 2 = core direction
ILOWER	Integer	2	Lower plane core angles 1 = core dip 2 = core direction
INDDDF	Integer		Indicator for down-hole displacement calculations - 0 = not done (default) 1 = done
DD1F	Real	3	Down-hole displacement of 'From-depth' ($\Delta N_1, \Delta E_1, \Delta Elev. 1$)
DD2F	Real	3	Down-hole displacement of 'To-depth' ($\Delta N_2, \Delta E_2, \Delta Elev. 2$)

"DOWN-HOLE FAULTS/FEATURES" DETAIL DATA SET (Continued)

FORTTRAN ACCESS

1. GET 'Next' FAULTS Detail - CALL S/R DH737

SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDF
FDEPTH	I2	5- 6	JFDPHI	JFLOAT(JFDPHI) * 0.1	FDPTHF
TDEPTH	I2	7- 8	JTDPHI	JFLOAT(JTDPHI) * 0.1	TDPTHF
FEATURE	X4	9- 10	FEATRX	→	FEATRF
FRECOV	X2	11	FRECVX	→	FRECOV
PARALLEL	X2	12	PARLLX	→	PARLL
UPPER	2 I	13- 14	IUPPRX(i)	→	IUPPER(i)
INTERNAL	2 I	15- 16	INTRNX(i)	→	INTRNL(i)
LOWER	2 I	17- 18	ILOWRX(i)	→	ILOWER(i)
IND-DD	I	19	INDDX	→	INDDDF
DD1	3 R2	20- 25	DD1X(i)	→	DD1F(i)
DD2	3 R2	26- 31	DD2X(i)	→	DD2F(i)

only if
INDDDF > 0
otherwise
set = 0.0

2. UPDATE FAULTS Detail - CALL S/R DH739

COMMON	OPERATION	EQUIV.	PRBUFF(i)	SIZE	SCHEMA
DDHIDF	→	DDHIDX	1- 4	X8	DDHID
FDPTHF	Not Updated				
TDPTHF	" "				
FEATRF	" "				
FRECOV	" "				
PARLL	" "				
IUPPER(i)	" "				
INTRNL(i)	" "				
ILOWER(i)	" "				
INDDDF	→	INDDX	5	I	IND-DD
DD1F(i)	→	DD1X(i)	6- 11	3 R2	DD1
DD2F(i)	→	DD2X(i)	12- 17	3 R2	DD2

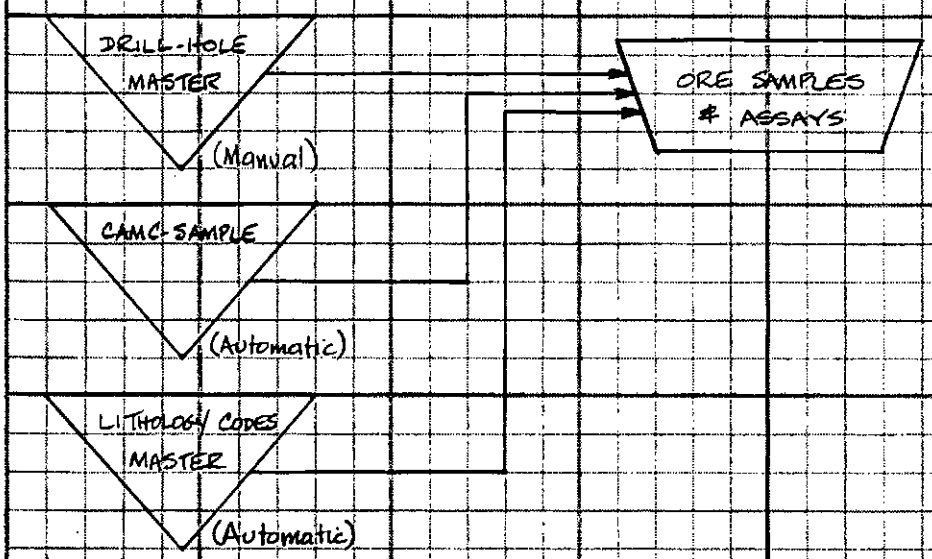
MS-YSH. 4-5-78

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Ran on 27.10.82
Date: 19.10.82
Page:

"ORE SAMPLES & ASSAYS" DETAIL DATA SET



			UNITS	STORED AS
DDH ID (DDH-MASTER),	X8;			aaaaaaaa
ISAMPLE (!SAMPLE-MASTER)	I2;			
ROCK-CODE (ROCK-MASTER)	X8;			aaaaa_ddd
ASSAY-LAB,	X10;			
CERTIFICATE,	X8;			
CERTNO,	I;			
FDEPTH,	I2;		metres	9999.9
TDEPTH,	I2;		metres	9999.9
RECOV,	I2;		metres	99.9
ASSAYS,	20 I2;		% , g/T, etc	9999.999
IND-DD,	I;			
DD1,	3 R2;		metres	1
DD2,	3 R2;		metres	
UTM-C,	3 R4;		metres	

"ORE SAMPLES & ASSAYS" DETAIL DATA SET. (Continued)

Definition of Assay Values Stored

Assays	Units	Min.	Max.
ASSAYS (1) = S.G. (Specific Gravity)	-	[2.0]	[5.0]
(2) = Cu (Copper)	%	0.0	[10.0]
(3) = Pb (Lead)	%	0.0	[10.0]
(4) = Zn (Zinc)	%	0.0	[10.0]
(5) = Ag(AA) (Silver-Atomic Absorption)	g/T	0.0	[1000.0]
(6) = Ag(FA) (Silver-Fire Assay)	g/T	0.0	[1000.0]
(7) = Au(FA) (Gold-Fire Assay)	g/T	0.0	[500.0]
(8) = Pb (Pyrrhotite)	%	0.0	[20.0]
(9) = Py (Pyrite)	%	0.0	[20.0]
(10) = BaO (Barium Oxide)	%	0.0	[30.0]
(11) = Hg (Mercury)	%	0.0	[5.0]
(12) = Mn (Manganese)	%	0.0	[5.0]
(13) = As (Arsenic)	%	0.0	[5.0]
(14)			
(15)			
(16)			
(17)			
(18)			
(19)			
(20) = WRSg (Whole Rock Specific Gravity)	-	[2.0]	[5.0]

not currently used.

Notes

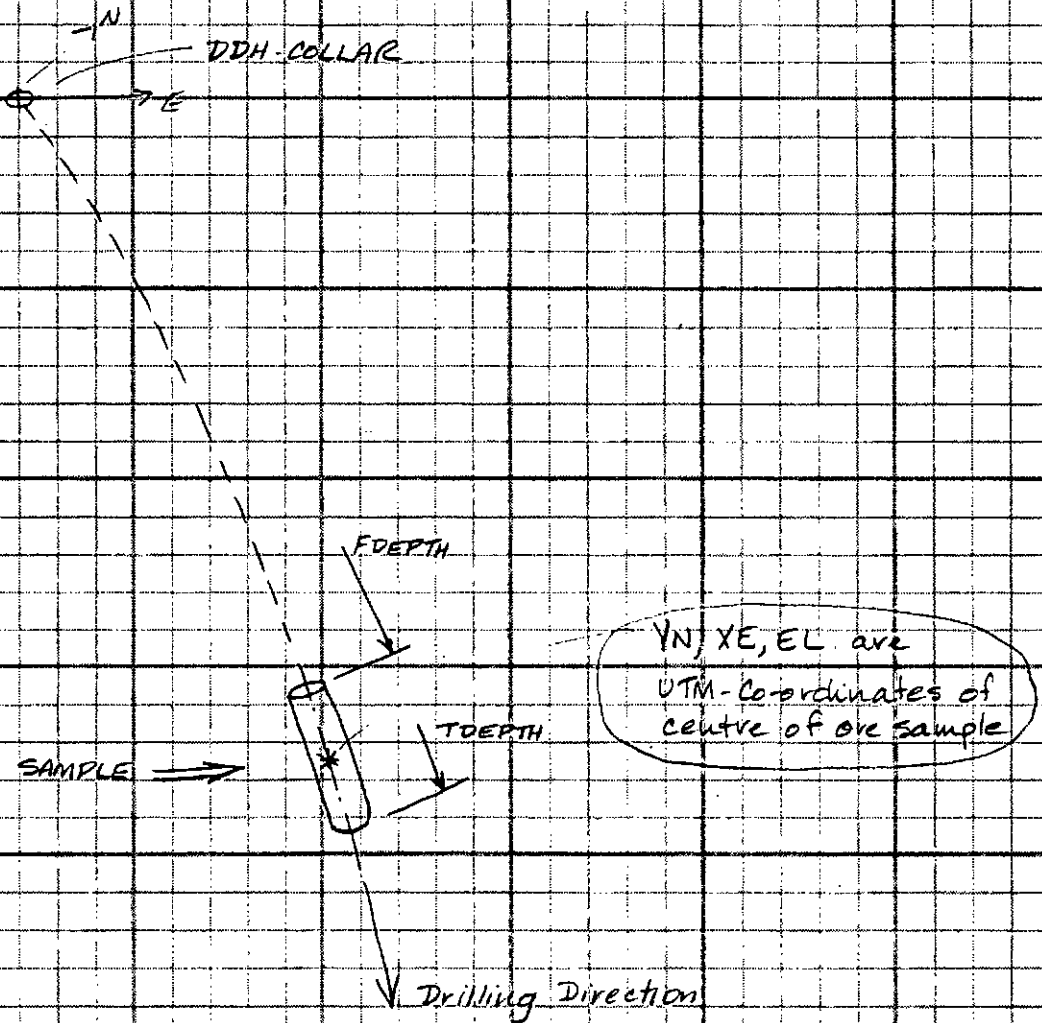
- Non-assayed components are to be set to (value) = -0.5
- [n.n] - means normal limit - ask data entry person to check value (it does not mean an absolute limit)

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Date: 19.10.82
Page:

"ORE SAMPLES + ASSAYS" - DETAIL DATA SET



"ORE SAMPLES & ASSAYS" DETAIL DATA SET (Continued)

FORTTRAN ACCESS - LABELLED COMMON / DDHSAM /

COMMON / DDHSAM / DDHIDN, JSAMPL, LITHCD, ASLAB, ASCERT, NASC,
1 FDEPTH, TDPTHA, RECON, ASSAYS(20), INDDS, DD1S(3), DD2S(3),
CHARACTER DDHIDN*8, ASLAB*10, ASCERT*8, LITHCD*8 UTMS(3),
INTEGER*4 JSAMPL
DOUBLE PRECISION UTMS

Variables	Type	Size	Description
DDHIDN	Character	8 bytes	DDH- Identifier
JSAMPL	Integer*4		CAME-Sample No.
LITHCD	Character	8 bytes	Rock (Lithology) Type Code
ASLAB	Character	10 bytes	Assay Lab Name
ASCERT	Character	8 bytes	Assay Lab Certificate Code
NASC	Integer		Assay # in Certificate
FDEPTH	Real		From-depth of sample (metres)
TDPTHA	Real		To-depth of sample (metres)
RECON	Real		Core-recovery of sample (metres)
ASSAYS	Real	20	Sample assay values
INDDS	Integer		Indicator for down-hole displacement calc. 0 = not done (initial condition) 1 = done
DD1S	Real	3	Down-hole displacements of from-depth ($\Delta N_1, \Delta E_1, \Delta E_{lev1}$)
DD2S	Real	3	Down-hole displacements of to-depth ($\Delta N_2, \Delta E_2, \Delta E_{lev2}$)
UTMS	Double Precision	3	UTM-co-ordinates of sample mid-point ($N_{UTM}, E_{UTM}, Elev_{UTM}$)

ICAS
Software
Services

Systems: DDHDB

Routine: SCHEMA

By: J.M.-L.

Project: PB2001

Revised 27.10.82
Date: 19.10.82

Page:

"ORE SAMPLES & ASSAYS" DETAIL DATA SET (Continued)

FORTRAN ACCESS

1. GET 'Next' SAMPLE Detail — CALL DH742

SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDN
JSAMPLE	I2	5- 6	JSAMPLX	→	JSAMPL
LITHCODE	X8	7- 10	LITHCX	→	LITHCD
ASSAY-LAB	X10	11- 16	ASLABX	→	ASLAB
CERTIFICATE	X8	17- 20	ASCERY	→	ASCERT
CERTNO	I	21	IASC	→	NASC
FDEPTH	I2	22- 23	JFDPH	JFLOAT(JFDPH)*0.1	FDPTHA
TDEPTH	I2	24- 25	JTDPH	JFLOAT(JTDPH)*0.1	TDPTHA
RECOV	I2	26- 27	JRECOV	JFLOAT(JRECOV)*0.1	RECOV
ASSAYS	20 I2	28- 67	JASSAY(i)	JFLOAT(JASSAY(i))*0.001	ASSAYS
IND-DD	I	68	INDDX	→	INDDDS
DD1	3 R2	69- 74	DD1X(i)	→	DD1S(i)
DD2	3 R2	75- 80	DD2X(i)	→	DD2S(i)
UTM-C	3 R4	81- 92	DUTMC(i)	→	UTMS(i)

only if
INDDDS > 0
otherwise
set = 0.0

2. UPDATE SAMPLE DETAIL — CALL DH744

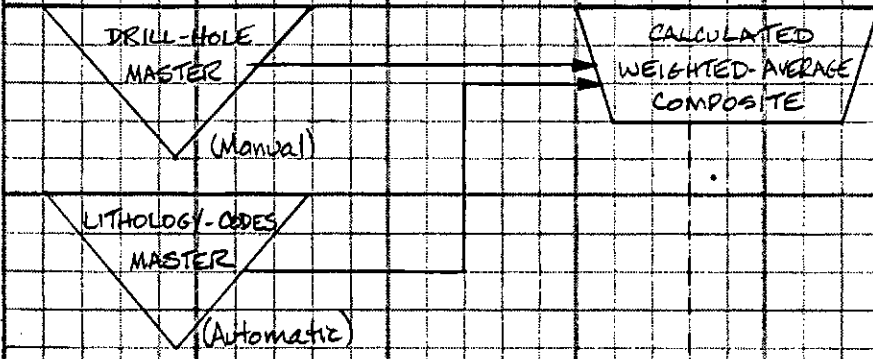
COMMON	OPERATION	EQUIV	PRBUFF(i)	SIZE	COMMON
DDHIDN	→	DDHIDX	1- 4	X8	DDHID
JSAMPL	Not Updated				
LITHCD	" "				
ASLAB	" "				
ASCERT	" "				
NASC	" "				
FDPTHA	" "				
TDPTHA	" "				
RECOV	" "				
ASSAYS	" "				
INDDDS	→	INDDX	5	I	IND-DD
DD1S(i)	→	DD1X(i)	6- 11	3 R2	DD1
DD2S(i)	→	DD2X(i)	12- 23	3 R2	DD2
UTMS(i)	→	DUTMC(i)	24- 35	3 R4	UTM-C

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: P82001
Revised 27-10-82
Date: 19-10-82
Page:

"CALCULATED WEIGHTED-AVERAGE COMPOSITES" DETAIL DATA SET



DDHID (DDH-MASTER),	X8;		aaaaaaaa
FDEPTH,	I2;	metres	9999.9
TDEPTH,	I2;	metres	9999.9
INTERVAL,	I2;	metres	99.9
AVERAGES, 20	I2;	% g/T etc	99.99.999
ROCK-TYPE (ROCK-MASTER),	X8;		aaaaa,aa
CUT-OFF-GRADE,	I2;	%	99.9
DATE,	X8;		ddMMMyyA
TIME,	X8;		hh:mm:ss

INTERVAL = TO-FROM

AVERAGES (1) = weighted average assay (S.G.) values (weighted by length)
 ↓
 Corresponding to ASSAYS (1) through (20)
 AVERAGES (20)

ROCK-TYPE = predominant rock-type in interval (assessed/interpreted by Geologist)

CUT-OFF-GRADE = cut-off-grade of Pb+Zn used in creating composite.

DATE }
 TIME } Date and time of composite calculation.

ICAS
Software
Services

Systems: DDHDB
Routine: SCHEMA
By: J.M.-L.

Project: PB2001
Revised 27.10.82
Date: 19.10.85
Page:

"CALCULATED WEIGHTED-AVERAGE COMPOSITES" DETAIL DATA SET (Continued)

FORTTRAN ACCESS - LABELLED COMMON /DHCOMP/

COMMON /DHCOMP/ DDHIDC, FDPTHC, TDPTHC, COMPL, AVRGES(20), CROCK,
1 CGRADE, DATEC, TIMEC
CHARACTER*8 DDHIDC, CROCK, DATEC, TIMEC

Variables	Type	Size	Description
DDHIDC	Character	8 bytes	DDH- Identifier
FDPTHC	Real		From-depth for composite
TDPTHC	Real		To-depth for composite.
COMPL	Real		Composite length or interval
AVRGES	Real	20	Average grades calc. for composite
CROCK	Character	8 bytes	Geologist specified composite rock code
CGRADE	Real		Cut-off-grade for Pb+Zn used in creation of composite.
DATEC	Character	8 bytes	Date of composite calculation
TIMEC	Character	8 bytes	Time of composite calculation

ICAS
Software
Services

Systems: DDHDB

Routine: SCHEMA

By: J.M.-L.

Project: PB2001

Revised 27.10.82

Date: ~~14.10.82~~

Page:

"CALCULATED WEIGHTED-AVERAGE COMPOSITES" DETAIL DATA SET (Continued)

FORTRAN ACCESS

GET "Next" COMPOSITE - Call S/R DH747

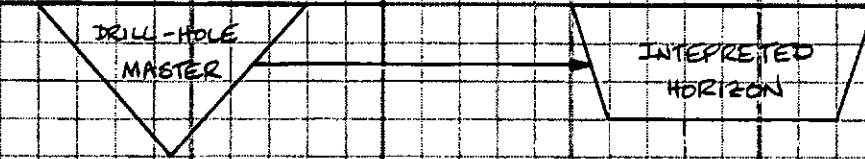
SCHEMA	SIZE	PRBUFF(i)	EQUIV.	OPERATION	COMMON
DDHID	X8	1- 4	DDHIDX	→	DDHIDC
FDEPTH	I2	5- 6	JFDPH	JFLOAT (JFDPH) * 0.1	FDPTHC
TDEPTH	I2	7- 8	JTDPH	JFLOAT (JFDPH) * 0.1	TDPTHC
INTERVAL	I2	9- 10	JCOMPL	JFLOAT (JCOMPL) * 0.1	COMPL
AVERAGES(i)	20 I2	11- 30	JAVGX(i)	JFLOAT (JAVGX(i)) * 0.001	AVRGES(i)
ROCK-TYPE	X8	31- 34	ROCKX	→	CROCK
CUT-OFF-GRADE	I2	35- 36	JCOG	JFLOAT (JCOG) * 0.1	CGRADE
DATE	X8	37- 40	DATEX	→	DATEC
TIME	X8	41- 44	TIMEX	→	TIMEC

ICAS
Software
Services

Systems: DIHSE
Routine: SCHEMA
By: J.M.-L.

Project: P81001
Date: 19.10.82
Page:

"INTERPRETED HORIZON" DETAIL DATA SET



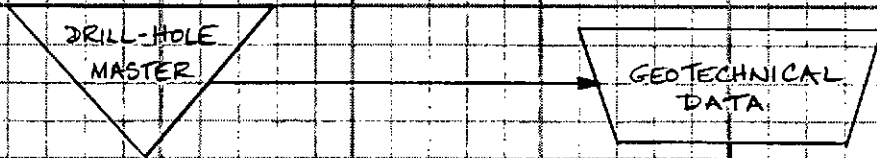
DDHID (DDH-MASTER),	X8;	aaaaaa
FDEPTH,	I2;	metres 9999.9
IDDEPTH,	I2;	metres 9999.9
HORIZON,	I;	99
F-WALL,	X2;	"H" or "F"
T-WALL,	X2;	"H" or "F"

interpretation!

- HORIZON - unique horizon# assigned by Geologist
- F-WALL - Horizon wall at from-depth
H = Hanging Wall
F = Foot Wall
- T-WALL - Horizon wall at to-depth
H = Hanging Wall
F = Foot Wall

Horizons need not be contiguous but must not overlap!

"DOWN-HOLE GEOTECHNICAL DATA" DETAIL DATA SET



			UNITS	STORED AS
DDHID (DDH-MASTER),	X8;			aaaaaaaa
FDEPTH,	I2;		metres	9999.9
TDEPTH,	I2;		"	9999.9
RECOVP100,	I2;		metres	99.9
NOFRACT,	I;			999
FRACT-FREQ,	I2;		fractures/metre	999.99
ROD,	I;			999
RECOV,	I2;		metres	99.9

RECOV = total length of core recovered in interval

RECOVP100 = total length of core pieces > 100 mm. recovered.

NOFRACT = no. of fractures in interval

FRACTFREQ = calculated fracture frequency = NOFRACT / (TDEPTH - FDEPTH)

ROD = Rock Quality Designator (cf. Deere - Univ. of Illinois)

= 100 * RECOVP100 / (TDEPTH - FDEPTH)

ICAS
Software
Services

DDHDB ACCESS
FORTRAN SUBROUTINE
LIBRARY

Systems: DDHDB
Routine: S/R LIBRARY
By: J.M.-L

Project: PB2001
Date: 26.10.81
Page:

	MASTER DATA SETS				DETAIL DATA SETS							
	GET SPECIFIC	GET NEXT	GET ALL	PUT	UPDATE	DELETE	FIND CHAIN	GET NEXT	PUT	UPDATE	DELETE	
PROPERTY		DH701		DH702	DH703							
SECTIONS		DH704	DH705	DH706	DH707	DH708	DH709					
DDH-MASTER		DH710	DH711	DH712	DH713	DH714	DH715					
- SURVEYS								DH716	DH717	DH718	DH719	DH720
- SPLINES								DH721	DH722	DH723	DH724	DH725
- LITHOLOGY								DH726	DH727	DH728	DH729	DH730
- STRUCTURE								DH731	DH732	DH733	DH734	DH735
- FAULTS								DH736	DH737	DH738	DH739	DH740
- SAMPLES								DH741	DH742	DH743	DH744	DH745
- COMPOSITES								DH746	DH747	DH748	DH749	DH750
- HORIZONS								DH751	DH752	DH753	DH754	DH755
- GEOTECHNICS								DH756	DH757	DH758	DH759	DH760
SAMPLE-MASTER		DH760	DH761	DH762	DH763	DH764	DH765					
- SAMPLES								DH766	DH767	DH768	DH769	DH770
Rock-CODES		DH771	DH772									
- SAMPLES								DH773	DH774	DH775	DH776	DH777
- COMPOSITES								DH778	DH779	DH780	DH781	DH782

ICAS
Software
Services

DDHDB ACCESS
FORTRAN SUBROUTINE
LIBRARY

Systems: DDHDB
Routine: S/R LIBRARY
By: J.M.-L.

Project: PB2001
Date: 26.10.82
Page:

S/R	PURPOSE
DH700	OPEN 'DDHDB' FOR 'PROPERTY'
DH701	GET (Next) PROPERTY MASTER
DH702	PUT PROPERTY MASTER
DH703	UPDATE PROPERTY MASTER
DH704	GET 'Specific' SECTION MASTER
DH705	GET 'New' SECTION MASTER
DH706	GET 'All' SECTION MASTERS
DH707	PUT SECTION MASTER
DH708	UPDATE SECTION MASTER
DH709	DELETE SECTION MASTER
DH710	GET 'Specific' DDH-MASTER
DH711	GET 'Next' DDH-MASTER
DH712	GET 'All' DDH-MASTERS
DH714	UPDATE DDH-MASTER
DH716	FIND 'DDH-MASTER' Chain through SURVEYS
DH717	GET 'Next' SURVEY Detail
DH721	FIND 'DDH-MASTER' Chain through SPLINES
DH722	GET 'Next' SPLINES Detail
DH723	PUT SPLINES Detail
DH725	DELETE SPLINES Detail
DH726	FIND 'DDH-MASTER' Chain through LITHOLOGIES
DH727	GET 'Next' LITHOLOGY Detail
DH729	UPDATE LITHOLOGY Detail
DH731	FIND 'DDH-MASTER' Chain through STRUCTURE
DH732	GET 'Next' STRUCTURE Detail
DH734	UPDATE STRUCTURE Detail
DH736	FIND 'DDH-MASTER' Chain through FAULTS
DH737	GET 'Next' FAULT Detail
DH739	UPDATE FAULT Detail

ICAS
Software
Services

Systems: DPHDB

Project: PB2001

Routine: S/R LIBRARY

Date: 28.10.52

By: J.M.-L.

Page:

SIR	PURPOSE
34781 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
DH799	'CLOSE' DPHDB FOR 'PROPERTY'

CO-ORDINATE SYSTEMS

All properties will use the UTM co-ordinate system as the primary definition for the location of major geological, mining, engineering and surveying features and/or facilities.

Location data entered into the Diamond Drill Hole Data Base for a property will consist of the full UTM co-ordinates calculated from high-order observations. Currently, only DDH-COLLAR co-ordinates fit into this category of data, and calculation of UTM-coordinates for DDH-COLLARS is standard CAME practice at all its properties.

Three secondary co-ordinate systems may be used for various purposes. These secondary co-ordinate systems are local planar grids of limited extent (to minimize distortion from the UTM-currilinear surface) which are fitted to (or usually above) the UTM-surface to provide convenient location references for geological, mine modelling and mine operations purposes. The three secondary co-ordinate systems are -

- (1) The Geological Co-ordinate System - a local planar grid usually defined by Exploration Geologists to fit perceived strike and dip directions of the orebody being explored. Usually cross- and long-sections will be constructed parallel to the axes of this co-ordinate system.
- (2) The Mine Modelling System - another local planar grid set up for definition of the mine model. This system is required as the MINTEC MEDSYSTEM block model developed for the orebody must have its rows and columns oriented parallel to the principal axes of this co-ordinate system.
- (3) The Mine Surveying and Operations Co-ordinate System - the planar grid set up for co-ordination of all mining operations. Ideally, this should be a local direct abstraction of the UTM grid. The Mine North Direction should coincide with UTM-North for a number of reasons, some of which are
 - mine operations people understand 'True North' and consciously orient themselves to this direction regardless of various presumed 'Grid-North' definitions presented to them. Serious confusion has and does exist at mines where the mining-North direction is significantly skewed from True North
 - dropping of the millions and hundred thousand values from the UTM co-ordinates often presents a very useable scale for mine operations. Standard government maps can often be used

CO-ORDINATE SYSTEMS (Continued)

directly as underlays or overlays of topographical and geographical information.

The above secondary coordinate systems are linearized from the UTM primary co-ordinate systems. Transformations between these systems will be a feature of the DDHDB System.

The above co-ordinate systems are illustrated in the sketch on the following page.

Data Required for Definition of Coordinate Systems (within DDHDB)

1. Primary Co-ordinates - UTM

- UTM zone (8 for Anvil District)
- offset angle (UTM-North from True-North for property) (used for correcting down-hole survey azimuths.)

2. Secondary Coordinate Systems

- origin of secondary grid in UTM-coordinates
- horizontal scale-factor
- vertical scale-factor
- vertical offset
- inclination (offset angle) (Grid-North from UTM-North)

ICAS
Software
Services

Systems: DDHDB

Project: PB2001

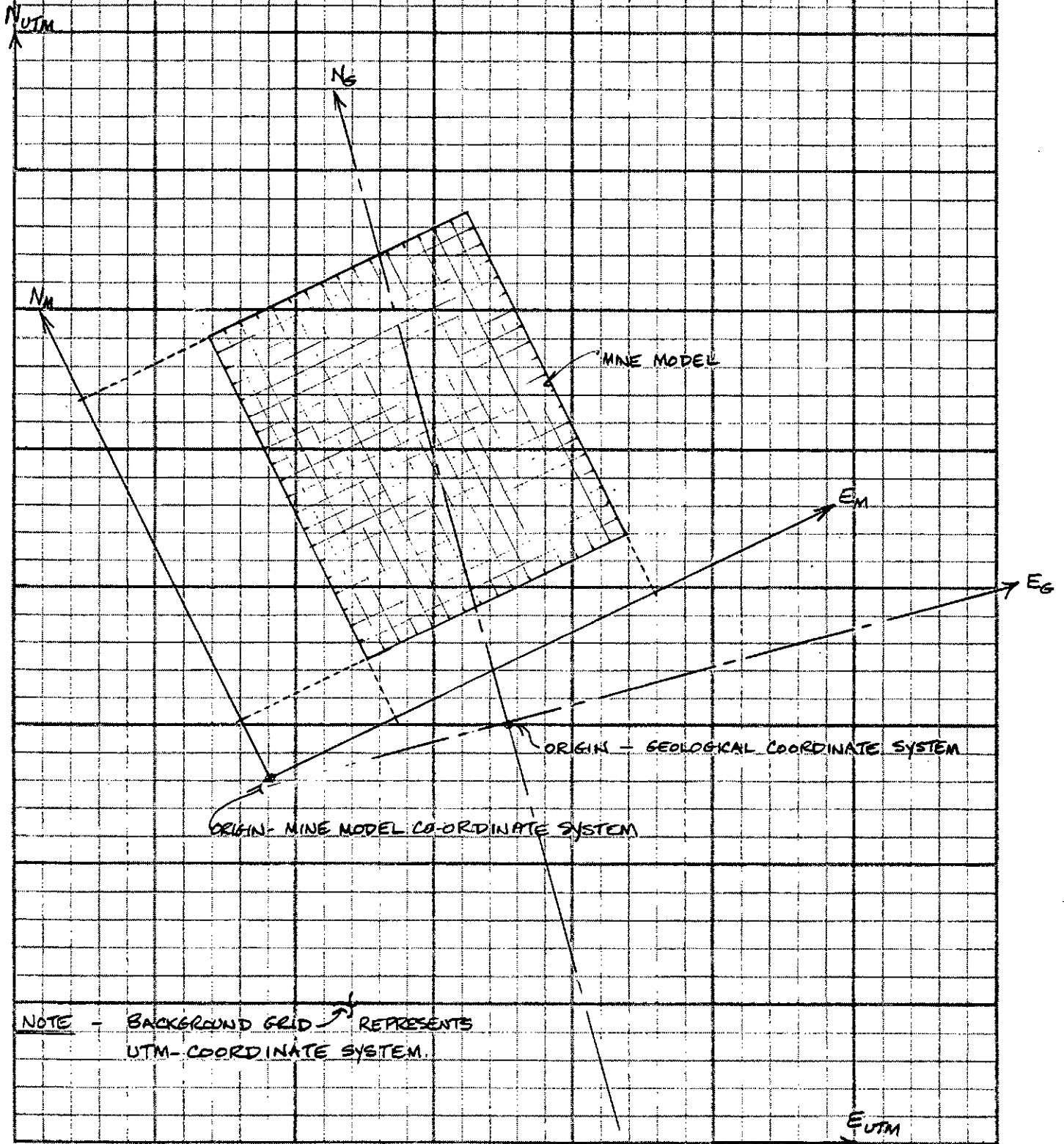
Routine:

Date: 21.10.82

By: J.M.-L.

Page: 3 of 4

COORDINATE SYSTEMS (Continued)



NOTE - BACKGROUND GRID REPRESENTS UTM-COORDINATE SYSTEM.

CO-ORDINATE SYSTEMS (Continued)

Equations for Transformation of Coordinates.

1. UTM → Secondary Grid.

$$N_s = ((N_{UTM} - N_0) \cdot \cos \alpha - (E_{UTM} - E_0) \cdot \sin \alpha) / S_H$$

$$E_s = ((N_{UTM} - N_0) \cdot \sin \alpha + (E_{UTM} - E_0) \cdot \cos \alpha) / S_H$$

$$Z_s = (Z_{UTM} - Z_0) / S_V$$

2. Secondary Grid → UTM

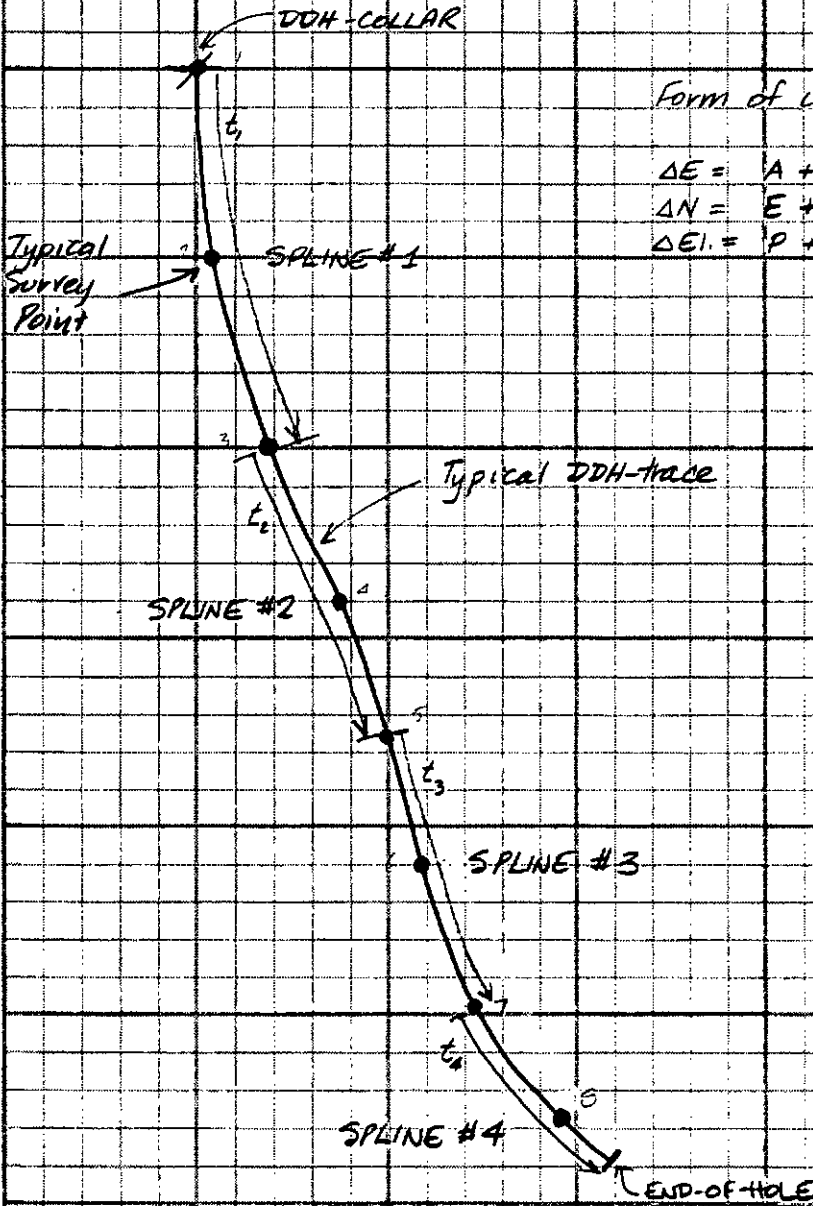
$$N_{UTM} = N_0 + S_H \cdot (N_s \cos \alpha + E_s \cdot \sin \alpha)$$

$$E_{UTM} = E_0 + S_H \cdot (-N_s \cdot \sin \alpha + E_s \cdot \cos \alpha)$$

$$Z_{UTM} = Z_0 + S_V \cdot Z_s$$

where $N_{UTM}, E_{UTM}, Z_{UTM}$ are UTM Northing, Easting and Elevation
 N_0, E_0, Z_0 are (UTM-coordinates) of Secondary Grid Origin
 N_s, E_s, Z_s are Secondary Grid Coordinates
 α = clockwise offset angle (secondary grid North to UTM-North)
 S_H = horizontal scale factor
 UTM-distance = $S_H \cdot$ grid-distance
 S_V = vertical scale factor.

CALCULATION OF DOWN-HOLE SPLINES



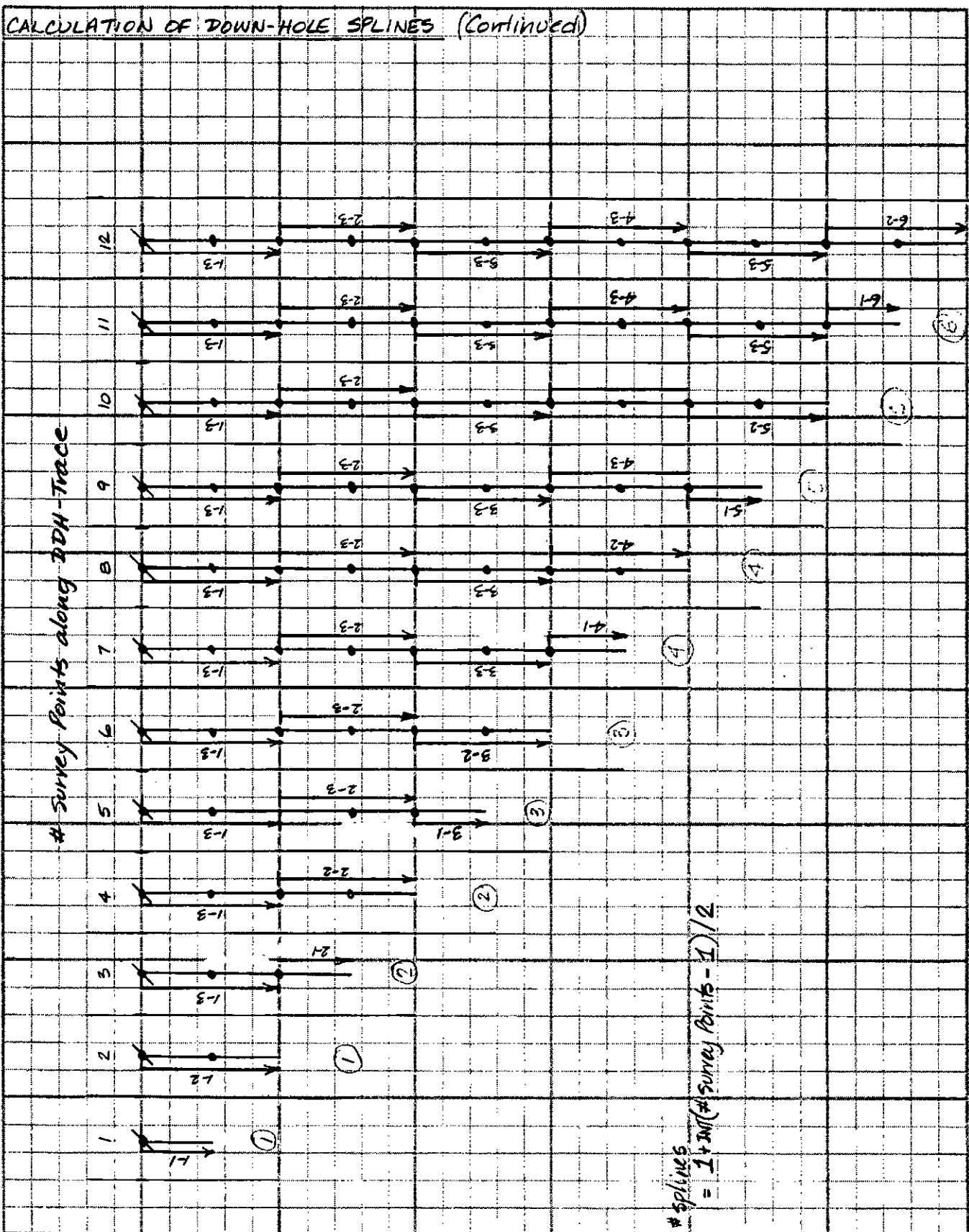
Form of individual parametric splines.

$$\Delta E = A + t(B + t(C + t \cdot D))$$

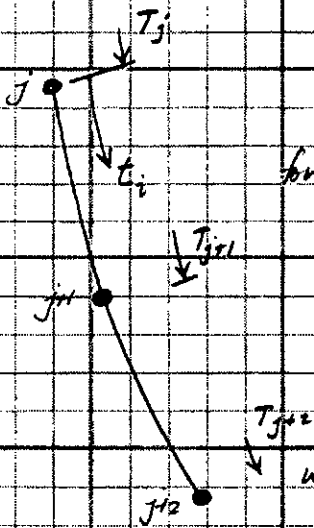
$$\Delta N = E + t(F + t(G + t \cdot H))$$

$$\Delta EI = P + t(Q + t(R + t \cdot S))$$

CALCULATION OF DOWN-HOLE SPLINES (CONTINUED)



CALCULATION OF DOWN-HOLE SPLINES (Continued)



$t_i =$ local arc length for spline i

$$j = (i-1)/2 \quad (j^{\text{th}} \text{ survey point})$$

for each survey point j calculate

$$L_j = -\sin(\text{ZENITH}_j) * \sin(\text{AZIMUTH}_j - \text{TN})$$

$$M_j = -\sin(\text{ZENITH}_j) * \cos(\text{AZIMUTH}_j - \text{TN})$$

$$N_j = \cos(\text{ZENITH}_j)$$

where $\left. \begin{matrix} \text{ZENITH}_j \\ \text{AZIMUTH}_j \end{matrix} \right\}$ are surveyed angles at point j

and TN is the angular difference (measured clockwise from true-North to UTM-North)

$$\Delta E_i = A_i + t_i (B_i + t_i (C_i + t_i \cdot D_i))$$

$$\Delta N_i = E_i + t_i (F_i + t_i (G_i + t_i \cdot H_i))$$

$$\Delta E_i = P_i + t_i (Q_i + t_i (R_i + t_i \cdot S_i))$$

for $0.0 \leq t_i - T_j \leq T_{j+2} - T_j$

(where T is down-hole depth)

now

$$A_i = \Delta E_j$$

$$E_i = \Delta N_j$$

$$P_i = \Delta E_j$$

} so for $i=1$ $A_i = E_i = P_i = 0.0$
(i.e. displacements at the collar are zero)

In general,

$$t_{i1} = 0.0$$

$$t_{i2} = T_{j+1} - T_j$$

$$t_{i3} = T_{j+1} - T_j$$

Note - if surveys at points $j+2$ or $j+2$ and $j+1$ are not available this is a special case (see a following page)

CALCULATION OF DOWN-HOLE SPLINES (Continued)

Coefficients $B_i, C_i, D_i, F_i, G_i, H_i$, and Q_i, R_i, S_i are calculated as shown below

$$B_i = L_j$$

$$C_i = d_{21} \cdot L_j + d_{22} \cdot L_{j+1} + d_{23} \cdot L_{j+2}$$

$$D_i = d_{31} \cdot L_j + d_{32} \cdot L_{j+1} + d_{33} \cdot L_{j+2}$$

$$F_i = M_j$$

$$G_i = d_{21} \cdot M_j + d_{22} \cdot M_{j+1} + d_{23} \cdot M_{j+2}$$

$$H_i = d_{31} \cdot M_j + d_{32} \cdot M_{j+1} + d_{33} \cdot M_{j+2}$$

$$Q_i = N_j$$

$$R_i = d_{21} \cdot N_j + d_{22} \cdot N_{j+1} + d_{23} \cdot N_{j+2}$$

$$S_i = d_{31} \cdot N_j + d_{32} \cdot N_{j+1} + d_{33} \cdot N_{j+2}$$

where $d_{21} = (b_1 - b_3) / (a_2 b_3 - a_3 b_2)$

$$d_{22} = b_3 / (a_2 b_3 - a_3 b_2)$$

$$d_{23} = -b_2 / (a_2 b_3 - a_3 b_2)$$

$$d_{31} = (a_3 - a_2) / (a_2 b_3 - a_3 b_2)$$

$$d_{32} = -a_3 / (a_2 b_3 - a_3 b_2)$$

$$d_{33} = a_2 / (a_2 b_3 - a_3 b_2)$$

and $a_2 = 2t_{i2}$ $b_2 = 3t_{i2}^2$

$$a_3 = 2t_{i3}$$
 $b_3 = 3t_{i3}^2$

CALCULATION OF DOWN-HOLE SPLINES (Continued)

Special Cases

Ⓐ if survey point $j+2$ not available (i.e. only 2 points on spline)

then $0.0 \leq t_i - T_j \leq T_{\text{OH}} - T_j$

$$D_i = H_i = S_i = 0.0$$

and $B_i = L_j$

$$C_i = f_{21} \cdot L_j + f_{22} \cdot L_{j+1}$$

$$F_i = M_j$$

$$G_i = f_{21} \cdot M_j + f_{22} \cdot M_{j+1}$$

$$Q_i = N_j$$

$$R_i = f_{21} \cdot N_j + f_{22} \cdot N_{j+1}$$

where $f_{21} = 2t_{i2}$ $f_{22} = -2t_{i2}$

Ⓑ if survey points $j+1$ and $j+2$ not available (i.e. only 1 point on spline)

then $0.0 \leq t_i - T_j \leq T_{\text{OH}} - T_j$

$$C_i = D_i = G_i = H_i = R_i = S_i = 0$$

and

$$B_i = L_j$$

$$F_i = M_j$$

$$Q_i = N_j$$

ICAS
Software
Services

Systems: DDHDB
Routine: System Programs
By: J.M.-L.

Project: PB2001
Date: 26-10-82
Page: 1 of

DIAMOND DRILL HOLE DATA BASE SYSTEM - LIST OF PROGRAMS

DDHDB PROGRAM	PURPOSE	DEVELOPMENT PROCESS	LANGUAGE (BY)
D H 0 0 0	DDHDB Data Base Status Report (Display)	Modify EX000	COBOL (ISS)
D H 0 0 1	SELECT Data Base for a PROPERTY	Modify EX007	COBOL (ISS)
D H 0 0 2	General DDH Logging Data Input	NEW Mainline + Modify EX004 + Modify EX005 + Modify EX006 + Modify EX009	COBOL (ISS)
D H 0 0 3	(ADD or) UPDATE Property Data	New	FORTRAN (JMS/CMC)
D H 0 0 4	ADD or DELETE or UPDATE Section Data	New	FORTRAN (JMS/CMC)
D H 0 0 5	UPDATE (Correction) of DDH-Master	Modify EX005	COBOL (ISS)
D H 0 0 6	Correction of Down-Hole Survey Data	Modify EX006	COBOL (ISS)
D H 0 0 7	Correction of Lithology Data	Modify EX009	COBOL (ISS)
D H 0 0 8	Correction of Structure Data	New	COBOL (ISS)
D H 0 0 9	Correction of Fault/Features Data	New	COBOL (ISS)
D H 0 1 0	Correction of Sample/Assays Data	Modify EX008	COBOL (ISS)
D H 0 1 1	Reserved (Corr. of Geotechnical Data)		
D H 0 1 2	Reserved (Input/Corr. Horieon Data)		

ICAS
Software
Services

--	--	--

Systems:	DDHDB System
Routine:	Programs
By:	J.M.-L.

Project:	PS2001
Date:	26.10.82
Page:	2 of 9

DIAMOND DRILL HOLE DATA BASE SYSTEM - LIST OF PROGRAMS (Continued)

DDHDB PROGRAM	PURPOSE	DEVELOPMENT PROCESS	LANGUAGE	(BY)
D H 0 1 3	ASSAY Data Posting	Modify EX001	COBOL	(ISS)
D H 0 1 4	ASSAY REPORT by SAMPLE No.	Modify EX010	COBOL	(ISS)
D H 0 1 5	ASSAY REPORT by DRILL-HOLE	Modify EX011	COBOL	(ISS)
D H 0 1 6	Weighted Average DDH Report	Modify EX013	COBOL	(ISS)
D H 0 1 7	Weighted Average / Interval DDH Report	Modify EX014	COBOL	(ISS)
D H 0 1 8	Calculate COMPOSITES	Modify EX014	COBOL	(ISS)
D H 0 1 9	Not assigned			
D H 0 2 0	General Input DDH-Data Report	Enhance + Modify EX019	COBOL	(ISS)

ICAS
Software
Services

Systems: DDHDB
System
Routine: Programms
By: J.M.-L.

Project: P02001
Date: 26.10.82
Page: 3 of 9

DIAMOND DRILL HOLE DATA BASE SYSTEM - LIST OF PROGRAMS (Continued)

DDHDB PROGRAM	PURPOSE	DEVELOPMENT PROCESS	LANGUAGE (By)
D H 0 3 0	Calculate Collar & Down-hole Co-ordinates	Modify CSC 'DH010' Extensively	FORTTRAN (Tetrad) + ICAS
D H 0 3 1	Calculate Structure Data Solutions	Modify CSC 'DH700' series routines	FORTTRAN (Tetrad) + ICAS
D H 0 3 8	General Individual DDH Data Report	New	FORTTRAN (Tetrad)
D H 0 3 9	DDH-Collar Co-ordinates Report	New	FORTTRAN (Tetrad)

ICAS
Software
Services

Systems: DDHDB
Routine: System Programs
By: J.M.-L.

Project: P82001
Date: 26.10.82
Page: 4 of 9

DIAMOND DRILL HOLE DATA BASE SYSTEM - LIST OF PROGRAMS (Continued)

DDHDB PROGRAM	PURPOSE	DEVELOPMENT PROCESS	LANGUAGE	(By)
D H 0 4 0	INDIVIDUAL DDH BASE PLOT	Modify CSC 'DH030'	FORTRAN	(Tetrad)
D H 0 4 1	INDIVIDUAL DDH STRUCTURE PLOT	Modify CSC 'DH030'	FORTRAN	(Tetrad)
D H 0 4 2	INDIVIDUAL DDH SAMPLE PLOT	Modify CSC 'DH030'	FORTRAN	(Tetrad)

ICAS
Software
Services

Systems: DDHDB
Systems Programs
Routine: Programs
By: J.M.-L.

Project: P82001
Date: 26.10.82
Page: 9 of 9

DDHDB DRILL HOLE DATA BASE - LIST OF PROGRAMS (Continued)

DDHDB PROGRAM	PURPOSE	DEVELOPMENT PROCESS	LANGUAGE (BY)
DH990	offload ASSAY Data Base to Tape File	New	COBOL (ISS)
DH991	Load DDHDB Data Base from ASSAY Tape File	New	COBOL (ISS)
DH992	Load DDHDB Data Base from '80 Anvil .FD file	New	COBOL (CAMC/ISS)
DH993	Load DDHDB Data Base from '80 Gataga .FD file	New	COBOL (CAMC/ISS)
DH994	Load DDHDB Data Base from '81 - format' .FD file	New	COBOL (CAMC/ISS)

DDH: *****

---DEPTHS---		SAMPLE INT. REC. ROCK	S.G.	-----ASSAYS-----													S.G.				
FROM	TO			NO.	UNIT	PULP	CU %	PB %	ZN %	AG(AA) G/MT	AG(FA) G/MT	AU(FA) G/MT	PO %	PY %	TOT FE	BAO %		HG %	MN %	AS %	BA %
.0	.0	14461	.0	.0	****		.23	.97	.83	19.00											
.0	.0	14462	.0	.0	****		.32	1.28	1.09	26.00											
.0	.0	14463	.0	.0	****		.24	1.34	1.32	26.00											
.0	.0	14464	.0	.0	****		.23	.84	.34	20.00											
.0	.0	14465	.0	.0	****		.21	.95	.61	27.00											
.0	.0	14466	.0	.0	****		.22	.99	.88	21.00											
.0	.0	14467	.0	.0	****		.28	1.26	1.38	23.00											
.0	.0	14468	.0	.0	****		.27	1.99	1.13	32.00											
.0	.0	14469	.0	.0	****		.10	.36	.35	7.00											
.0	.0	14470	.0	.0	****		.21	.89	.80	17.00											
.0	.0	14471	.0	.0	****		.30	1.59	1.72	28.00											
.0	.0	14472	.0	.0	****		.26	1.51	1.12	26.00											
.0	.0	14473	.0	.0	****		.33	1.42	1.20	26.00											
.0	.0	14474	.0	.0	****		.50	.84	.60	23.00											
.0	.0	14475	.0	.0	****		.37	.86	.60	23.00											
.0	.0	14476	.0	.0	****		.34	.92	.51	23.00											
.0	.0	14477	.0	.0	****		.19	1.19	.76	24.00											
.0	.0	14478	.0	.0	****		.21	2.46	2.58	42.00											
.0	.0	14479	.0	.0	****		.19	2.77	3.32	44.00											
.0	.0	14480	.0	.0	****		.11	.54	.38	11.00											
.0	.0	14481	.0	.0	****		.07	3.49	3.67	43.00											
.0	.0	14482	.0	.0	****		.27	.70	1.35	21.00											
.0	.0	14483	.0	.0	****		.15	2.01	2.79	41.00											
.0	.0	14484	.0	.0	****		.23	1.26	1.42	25.00											
.0	.0	14485	.0	.0	****		.31	1.10	.75	25.00											
.0	.0	14595	.0	.0	****		.20	.75	.83	14.00											
.0	.0	14596	.0	.0	****		.18	1.60	1.20	26.00											
.0	.0	14597	.0	.0	****		.19	2.09	2.13	32.00											
.0	.0	14598	.0	.0	****		.13	2.21	2.09	35.00											
.0	.0	14599	.0	.0	****		.41	2.44	2.19	53.00											
.0	.0	14600	.0	.0	****		.14	.15	.14	8.00											
.0	.0	14601	.0	.0	****		.20	.30	.40	17.00											
.0	.0	14602	.0	.0	****		.21	.26	.41	15.00											
.0	.0	14603	.0	.0	****		.26	.27	.64	11.00											
.0	.0	14604	.0	.0	****		.02	3.82	7.40	46.00											
.0	.0	14605	.0	.0	****		.10	3.88	7.40	58.00											
.0	.0	14606	.0	.0	****		.03	2.47	2.20	45.00											
.0	.0	14607	.0	.0	****		.07	4.01	8.00	53.00											
.0	.0	14608	.0	.0	****		.14	4.96	7.80	77.00											
.0	.0	14609	.0	.0	****		.04	1.13	1.68	18.00											
.0	.0	14610	.0	.0	****		.19	2.89	2.96	41.00											
.0	.0	14611	.0	.0	****		.16	1.00	1.75	21.00											
.0	.0	14612	.0	.0	****		.24	.65	.50	18.00											
.0	.0	14613	.0	.0	****		.01	.10	.05	9.00											
.0	.0	15332	.0	.0	****		.03	1.49	2.20	23.00											
.0	.0	29075	.0	.0	****			2.21	3.78												23.30
.0	.0	41407	.0	.0	****			4.65	7.12	81.60											
.0	.0	55230	.0	.0	****		.15	9.20	15.21	149.00											
.0	.0	55465	.0	.0	****																
.0	.0	58033	.0	.0	****																22.00
.0	.0	65987	.0	.0	****																4 16 20

Page 114

Page 110

91407
 9428255
 Mascott
 Gill Research
 6698929
 910

DDH: *****

---DEPTHS---				-----ASSAYS-----																	
FROM	TO	SAMPLE INT. NO.	REC.	ROCK UNIT	S.G. PULP	CU %	PB %	ZN %	AG(AA) G/MT	AG(FA) G/MT	AU(FA) G/MT	PO %	PY %	TOT FE	BAC %	HG %	MN %	AS %	BA %	S.G. W.R.	
#55-28	.0	D .0 00046	.0	.0	****				2.45	2.47											
K4527-699	.0	D .0 00699	.0	.0	****																
K4453-910	.0	D .0 00907	.0	.0	****	3.12															
K4781-754	.0	D .0 00987	.0	.0	****	3.38					1.51	1	17	18							
K4816-375	.0	D .0 01106	.0	.0	****	4.50					1.44	1	29	30							
4814-443	.0	D .0 01112	.0	.0	****	3.83				70.00	1.30	2	15	18							
4753-1371	.0	D .0 01213	.0	.0	****						.69	1	2	4							
4753-1371	.0	D .0 01219	.0	.0	****						1.17	1	9	11							
D .0 D .0 01251	.0	D .0 01251	.0	.0	****	2.89					.07		3	4							
K4486-113	.0	D .0 01647	.0	.0	****								1	22	24						
	.0	D .0 01648	.0	.0	****								1	31	32						
	.0	D .0 01649	.0	.0	****									21	22						
	.0	D .0 01650	.0	.0	****																
4753-1432	.0	D .0 02293	.0	.0	****								1	8	9						
K4478-837	.0	D .0 03508	.0	.0	****	3.35				149.00	.14	2	1	3							
	.0	D .0 03538	.0	.0	****	2.95					1.10	2	5	7							
	.0	D .0 11691	.0	.0	****																
	.0	D .0 11882	.0	.0	****																
	.0	D .0 12401	.0	.0	****																
	.0	D .0 12402	.0	.0	****																
	.0	D .0 12403	.0	.0	****																
	.0	D .0 12404	.0	.0	****																
31.2	33.3	13001	2.1	2.1	4A0																
33.3	34.9	13002	1.6	1.6	4C5																
34.9	36.5	13003	1.6	1.5	4C5																
36.5	38.4	13004	1.9	1.7	5D4*																
38.4	40.4	13005	2.0	1.8	4C0																
40.4	42.4	13006	2.0	1.9	4C0																
42.4	44.4	13007	2.0	1.9	4C0																
44.4	45.2	13008	.8	.6	4C0																
45.2	47.2	13009	2.0	2.0	4A0																
47.2	48.7	13010	1.5	1.5	4A0																
48.7	50.7	13011	2.0	2.0	4A30																
50.7	52.7	13012	2.0	1.8	4A30																
52.7	54.7	13013	2.0	1.9	4A30																
54.7	55.6	13014	.9	.9	4A30																
55.6	57.8	13015	2.2	2.1	4E4																
57.8	59.1	13016	1.3	1.3	4G4																
59.1	60.1	13017	1.0	1.0	4E46																
60.1	61.5	13018	1.4	1.4	4C3																
61.5	63.7	13019	2.2	2.1	4E46																
63.7	64.4	13020	.7	.7	4E0																
64.4	66.0	13021	1.6	1.5	4E0																
66.0	67.1	13022	1.1	1.1	4G4																
67.1	69.1	13023	2.0	1.6	4E4																
69.1	71.1	13024	2.0	1.8	4E4																
71.1	72.9	13025	1.8	1.7	4E4																
72.9	74.1	13026	1.2	1.2	4E46																
74.1	76.1	13027	2.0	1.9	4G4																
.0	.0	14459	.0	.0	****	.27	.49	.24	20.00												
.0	.0	14460	.0	.0	****	.26	1.33	.86	27.00												

Should be 12510
91074
Should be 91075
91076
91077 } FAGA023

~~FAGU06~~
~~FAGA215~~
~~FAGU179~~
~~FAGU133~~
~~FAGU146~~
~~FAGA200~~
~~FAGU208~~
~~FAGU214~~
~~FAGA023~~

Faga 119

Delete

SURFACE HOLE SECTION OK

M74000

9109WD
5109WD

AGA 001	76W		KA Assays 9000	✓
002				
003				
AGA 004	KA 76W?		KA Assays 90308, 90309 & 90001 → 90005	✓
AGA 005	76W		KA Assays 90310 & 90006 → 90019	✓
AGA 006	76W		NO ASSAYS!	✓
007				
008	KA			
AGA 009	76W		KA Assays 90020 → 90032	✓
FAGA 010	78W		CAMC-BI Assays 11606-11668	✓
74A 011	74W		KA ASSAYS 90343-90347	✓
012	KA			**** Rock CODES ✓
74A 013	68W		KA Assays 90117-90124	✓
FAGA 014	76W		KA Assays 90033-90040	✓
015	KA			
016	KA			
74A 017	68W		KA Assays 90125-90127 (MISSING, sampled 10125-131)	✓
018	KA			**** Rock CODES ✓
AGA 019	72W		KA Assays	✓
020	KA			
AGA 021	72W		KA Assays CAMC-BI Assays	✓
022	KA			
74A 023	68W		KA 90131, 90134, 90135 ^{with} CAMC 5021-5022, 5025, 5027-5029	✓
74A 024	80W		KA 90269-90307	✓
025	KA			**** Rock CODES ✓
74A 026	64W		KA 91081-92009	✓
74A 027	80W		KA 91000-91021	✓
74A 028	64W		KA 92010-92012	✓
029	KA			**** Rock CODES ✓
FAGA 030	76W			✓

ICAS Software Services Inc.

ICAS Software Services	
GRUN ASSAY-DB	PROJECT: (906080)
SURFACE HOLES	DATE:
LOADING STATUS	PAGE:
SYSTEMS:	
ROUTINE:	
BY:	

SURFACE HOLE SECTION OK

0003DH

9109 WJ
9109 WJ

74-A	031	KA				
	032	BOW	<input checked="" type="checkbox"/>		ROCK CODES	✓
	033	KA				
	034	KA				
74-A	035	BOW	<input checked="" type="checkbox"/>	KA 90260-261	ROCK CODES	✓
	036					
	037	KA				
74-A	038	BOW	<input checked="" type="checkbox"/>		ROCK CODES	✓
	039	KA				
	040					
74A	041	BOW	<input checked="" type="checkbox"/>		ROCK CODES	✓
	042	KA				
	043					
	044					
74A	045	BOW				✓
	046	KA				
	047					
	048					
	049					
	050	KA				
	051	KA				
74A	052	BOW	<input checked="" type="checkbox"/>	KA Assays	90169 not on 90164-90166 & 91072-91073	ROCK UNITS ✓
FAGA	053	76W	<input checked="" type="checkbox"/>	CANC-81 Assays	7866 → 7868	✓
	054	KA				
74A	055	64W	<input checked="" type="checkbox"/>	SAMPLE # 8933 ?	also on 76-0041	ROCK CODES ✓
AGA	056	72W	<input checked="" type="checkbox"/>	2 KA-Assays		✓
	057	KA				
74A	058	64W				✓
	059	KA				
AGA	060	72W	<input checked="" type="checkbox"/>	2 KA-Assays		✓

ICAS
Software
Services

By: _____
Routine: _____
Systems: _____

By: _____
Routine: _____
Systems: _____

Page: _____
Date: _____
Project: _____

ICAS Software Services Inc.

SURFACE HOLE SECTION OK

061-090

91001
91001

061 KA					
FAGA 062	70 W	<input checked="" type="checkbox"/>	1 KA Assay	90227	✓
063 KA					
064 KA					
75A 065	74 W	<input checked="" type="checkbox"/>	KA Assay	92017-023	**** Rock Codes ✓
75A 066	66 W				✓
FAGA 067	78 W	<input checked="" type="checkbox"/>	CAMC-BI Assays	11492-11557	✓
AGA 068	76 W	<input checked="" type="checkbox"/>	KA Assays	90043-90050	✓
75A 069	80 W	<input checked="" type="checkbox"/>	KA 91022-91028, 91066, 90266-268	Check @ 9954	*** Rock Codes ✓
AGA 070	70 W				✓
75A 071	74 W	<input checked="" type="checkbox"/>	KA 91078, 91079		**** Rock Codes ✓
FAGA 072	78 W	<input checked="" type="checkbox"/>	CAMC-BI Assays	11669-11699 (some gaps)	✓
AGA 073	76 W	<input checked="" type="checkbox"/>	KA Assays	90052 → 90071	✓
75A 074	68 W	<input checked="" type="checkbox"/>	CAMC-BI Assays	5025-5032 KA 90170	(MISSING) S103 **** Rock Codes ✓
FAGA 075	78 W				✓
75A 076	80 W	<input checked="" type="checkbox"/>	KA 91029-91045		**** Rock Code ✓
AGA 077	64 W				✓
FAGA 078	78 W	<input checked="" type="checkbox"/>	CAMC-BI Assays	12000-12019	✓
75A 079	80 W	<input checked="" type="checkbox"/>	KA 91046-51; 91053-91063		**** Rock Codes ✓
FAGA 080	78 W	<input checked="" type="checkbox"/>			✓
AGA 081	62 W	<input checked="" type="checkbox"/>			✓
FAGA 082	78 W	<input checked="" type="checkbox"/>	**** Units CAMC-BI Assays	12020-12034	✓
AGA 083	72 W	<input checked="" type="checkbox"/>	3 KA Assays		✓
FAGA 084	78 W	<input checked="" type="checkbox"/>	CAMC-BI Assays	11707-11708, 11710-11711	✓
085					
086					
087					
75A 088	74 W	<input checked="" type="checkbox"/>	9250-9256 + 9265	May be KA Assays needed	**** Rock Codes ✓
089					
75A 090	74 W	<input checked="" type="checkbox"/>			**** Rock Codes ✓

ICAS Software Services Inc.

ICAS
Software
Services

By: _____
Routine: _____
Systems: _____

Project: _____
Date: _____
Page: _____

SURFACE HOLE

SECTION OK

11/20/00

PM 09/11
PM 09/11

091								
75A 092	74W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			**** ROCK CODES	✓	
093								
094								
AGA 095	72W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				✓	
FAGA 096	70W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		3 CAMC-81 Assays 9895-9897		✓	
097								
098								
75A 099	66W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		KA 90357	**** ROCK CODES	✓	
FAGA 100	70W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAMC-81 Assays 11453-11473		✓	
101								
AGA 102	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				✓	
AGA 103	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				✓	
104								
AGA 105	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				✓	
75A 106	68W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			**** ROCK CODES	✓	
FAGA 107	62W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Samples 9952-9962 - may be KA#s		✓	
108								
75A 109	66W						✓	
110								
111								
AGA 112	64W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				✓	
113								
114								
115								
75A 116	66W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			**** ROCK CODES	✓	
75A 117	66W	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			**** ROCK CODES	✓	
118								
119								
120								

ICAS Software Services Inc.

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

SURFACE HOLE	SECTION	OK	DEPTH		PM6015	PM6016
75A 121	66W	<input checked="" type="checkbox"/>			✓	
AGA 122	62W	<input checked="" type="checkbox"/>			✓	
123						
124						
125						
126						
127						
128						
AGA 129	62W	<input checked="" type="checkbox"/>			✓	
130						
131						
AGA 132	72W	<input checked="" type="checkbox"/>		2 KA Assays	✓	
AGA 133	70W	<input checked="" type="checkbox"/>			✓	
75A 134	68W	<input checked="" type="checkbox"/>		KA Assays 90171-90172	**** ROCK CODES ✓	
76A 135	66W	<input checked="" type="checkbox"/>			**** ROCK CODES ✓	
76A 136	64W	<input checked="" type="checkbox"/>			✓	
76A 137	64W	<input checked="" type="checkbox"/>			**** ROCK CODES ✓	
AGA 138	70W	<input checked="" type="checkbox"/>			✓	
76A 139	66W	<input checked="" type="checkbox"/>		KA # 90358	**** ROCK CODES ✓	
140						
76A 141	74W	<input checked="" type="checkbox"/>			**** ROCK CODES ✓	
76A 142	68W	<input checked="" type="checkbox"/>			**** ROCK CODES ✓	
76A 143	68W	<input checked="" type="checkbox"/>		CANC-80 Assays 1644-1646	**** ROCK CODES ✓	
144						
76A 145	68W	<input checked="" type="checkbox"/>			**** ROCK CODES ✓	
146						
76A 147	68W	<input checked="" type="checkbox"/>		CANC-80 Assays many KA 90173-90174	**** ROCK CODES ✓	
148						
76A 149	64W	<input checked="" type="checkbox"/>			**** ROCK CODES ✓	
150						

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

SURFACE HOLE

SECTION OK

HP3000

PM9015
PM9016

151
76 A 152
76 A 153
154
FAGA 155
156
76 A 157
FAGA 158
FAGA 159
76 A 160
FAGA 161
AGA 162
76 A 163
76 A 164
~~165~~
~~166~~
~~167~~
~~168~~
~~169~~
~~170~~
~~171~~
~~172~~
~~173~~
~~174~~
~~175~~
~~176~~
~~177~~
~~178~~
~~179~~
~~180~~

64 W
68 W
76 W
66 W
78 W
70 W
80 W
78 W
62 W
80 W
80 W



CAMC-80 Assays 5359-5393
KA Assays 90164 CAMC 157A - 1610

**** ROCK CODES
**** ROCK CODES
Pb Assays 5374-5382

MISSING ASSAYS FOR 9298

**** ROCK CODES

CAMC-81 Assays 11268-11277

KA 90265 -
KA 90312-315
NOT DRILLED

**** ROCK CODES
**** ROCK CODES

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

SURFACE HOLE

SECTION OK

HP3000

BOA 211
 BOA 212
 BOA 213
 FAGA 214
 FAGA 215
 FAGA 216

63W
 65W
 67W
 80W/78W?
 74W
 68W

65

CAMC - Assays 11558 - 11586

PM601
PM601

✓
✓
✓
✓
✓
✓

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

ICAS Software Services Inc.

118.124 → (152)

UNDERGROUND HOLE SECTION OK

DEPTH

FAGU 061 76 W
 FAGU 062 76 W
 FAGU 063 76 W
 FAGU 064 76 W
 FAGU 065 76 W
 FAGU 066 78 W
 FAGU 067 78 W
 FAGU 068 78 W
 FAGU 069 78 W
 FAGU 070 78 W
 FAGU 071 78 W
 FAGU 072 78 W
 FAGU 073 78 W
 074 KA
 FAGU 075 78 W
 076 KA
 FAGU 077 78 W
 078 KA
 FAGU 079 ~~78 W~~ 80 W
 080 W
 FAGU 081 76 W
 082 KA
 FAGU 083 76 W
 FAGU 084 KA 74 W
 FAGU 085 76 W
 FAGU 086 72 W
 FAGU 087 76 W
 FAGU 088 70 W
 FAGU 089 76 W
 FAGU 090 70 W



Check Sample Depth 0.0 → 1.2 OK

2 CANC-BI Assays 11490-11491

CANC-BI Assays 11587-11605

80 W

1 KA-Assay 90226

2 KA-Assays 90228-90229

910916
 PM6015
 PM6016

ICAS
 Software
 Services

Systems:
 Routine:
 By:

Project:
 Date:
 Page:

UNDERGROUND HOLE	SECTION	OK	MP	ASSAYS	ASSAY NUMBERS	OTHER	PM6015	PM6016
FAGU 121	70 W			3 CAMC-81 Assays	1121-1123	2 KA Assays	90258-9029	✓
AGU 122	76 W	☒		NO ASSAYS!				✓
FAGU 123	70 W			8 CAMC-81 Assays	9920-9927			✓
FAGU 124	76 W							✓
FAGU 125	70 W			CAMC-81 Assays	11314-11357			✓
FAGU 126	76 W							✓
FAGU 127	70 W							✓
FAGU 128	76 W							✓
FAGU 129	76 W							✓
FAGU 130	76 W							✓
FAGU 131	70 W			CAMC-81 Assays	11096-11100			✓
FAGU 132	76 W							✓
FAGU 133	70 W			CAMC-81 Assays	9898-9900, 11101-11120			✓
FAGU 134	76 W							✓
76U 135	80 W			KA 91064-065		*** ROCK CODES		✓
FAGU 136	70 W			CAMC-81 Assays	11151-11164			✓
FAGU 137	70 W			NO RECORDS ON FILE		NO ASSAYS TAKEN		✓
FAGU 138	76 W							✓
FAGU 139	70 W			CAMC-81 Assays	11215-11224			✓
76U 140	80 W			KA 90359-90366		**** ROCK CODES		✓
76U 141	66 W					**** ROCK CODES		✓
76U 142	80 W					**** ROCK CODES		✓
76U 143	66 W					**** ROCK CODES		✓
76U 144	80 W					**** ROCK CODES		✓
76U 145	66 W					**** ROCK CODES		✓
76U 146	80 W					**** ROCK CODES		✓
76U 147	KA 66 W					**** ROCK CODES		✓
FAGU 148	78 W							✓
76U 149	80 W			KA 90262		**** ROCK CODES		✓
76U 150	80 W			KA 90263		**** ROCK CODES		✓

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

UNDERGROUND HOLE SECTION OK

HP5000

9/10/94
PMG/ML

UNDERGROUND HOLE	SECTION	OK	HP5000	9/10/94	PMG/ML
76U 151	80W			****	ROCK CODES ✓
76U 152	80W			****	ROCK CODES ✓
76U 153	80W			****	ROCK CODES ✓
76U 154	80W			****	ROCK CODES ✓
76U 155	66W			****	ROCK CODES ✓
76U 156	80W			****	ROCK CODES ✓
76U 157	66W			****	ROCK CODES ✓
158	KA				
76U 159	66W			****	ROCK CODES ✓
160	KA				
76U 161	66W				✓
162	KA				
AGU 163	64W				✓
164	KA				
AGU 165	64W				✓
166	KA				
AGU 167	64W				✓
168	KA				
FAGU 169	62W				✓
170	KA				
FAGU 171	62W				✓
172	KA				
FAGU 173	62W				✓
174	KA				
FAGU 175	62W				✓
176	KA				
FAGU 177	62W				✓
178	KA				
FAGU 179	62W				✓
180	KA				

KA# 90264

**** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓
 **** ROCK CODES ✓

ICAS Software Services Inc.

ICAS
Software
Services

--	--	--

Systems:
Routine:
By:

Project:
Date:
Page:

AKA
155 25

UNDERGROUND HOLE SECTION OK

HP3000

9109W
5109W

76 U 181 68W

182 KA



XXXX ROCK CODES ✓

76 U 183 68W

184 KA

185 KA

186 KA

187 KA

188 KA

189 KA

190 KA

191 KA

192 KA

193 KA

194 KA

195 KA

196 KA

197 KA

198 KA

199 KA

200 KA

201 KA

202 KA

203 KA

204 KA

205 KA

206 KA

207 KA

208 KA

209 KA

210 KA



CAMC-80 Apprais 5128 - 5140

XXXX ROCK CODES ✓

ICAS
Software
Services

Systems:
Routine:
By:

Project:
Date:
Page:

ICAS Software Services Inc.

157 1 05

UNDERGROUND HOLE SECTION OK

HP3000

- 2 1 1 KA
- 2 1 2 KA
- 2 1 3 KA
- 2 1 4 KA
- 2 1 5 KA
- 2 1 6 KA
- 2 1 7 KA
- 2 1 8 KA

9109WA
5109WA

ICAS Software Services

Systems:
Routine:
By:

Project:
Date:
Page: