1961239 - R8 SEMS

L06
1-1-93

Associated STENO NOTEBOOK

P3-C6925GG
GREGG RULED
60 SHEETS 6 IN. x 9 IN.

C:\ MS OFFICE\ WINWORD\AIR\

baghse x2
sub-x
Retort
tanks

1-6-92

GW-3	10.1
4	99.68
5	36.04
6	16.33
7	10.3
10	207.5
SW-2	No flow

.2" precip 1-1-93

ON-Sol Spill-Leak

Photo #7 N.W. Corner of pond → E
#8 " " " " " → N
#9 " " " " " → down
#10 " " " " " " "

Mark Keenahan onsite advised F.D. sampling
Any sample GW-3?
liner under leak area
✓ on anchor trench

LD	4:00			
1	0	PS	.83	
2	0	BS	.8	
3	0	CN	HR	
4	3.5	Nuet	.2	
5	.43	Nut	0	1:30
6	8.75 GAL	DE	0	
7	25 ml/min	SURGE	0	

1-7

GW-3 ↓IO

4 99.98

5 36.24

6 16.4

7 10.33

10 207.53

SW-2 No Flow

Sample Outfall "A", Cell #5 Col A+B

- dig soil out from ON-Sol spill 2 bucket

- Outfall "B" No flow

1-8 ~~[illegible]~~ ~~[illegible]~~

COVER ON-SOL spill

REMOVE ORANGE DW1+2 pipe

.12 precip

1-11-93

Thaw D.W. pipe ~~frozen~~ underground

LD 1 0 4:00

2 0

3 3.5

4 +R

5 3.5

6 +R

7 .15 ml/min

Sample GW-4, DMP-Seep

GW-3 - 10.3

4 - 100.14

5 - 36.64

DE 0 11:30 BS .8

SURGE 0 BS .83

NVET 0 CN +R

Nt .2

1-12-93

GW-3 ↓.02

4 100.71

5 37.

Photo FD (Blattner dug FD) → S

.11 precip

1-13-93

GW-3 10.18

GW-5 37.24

Keenaham Sample CN - GW-3

Bailers - Voss Technologies 1-800 247-6294

WE model 919 46 SW

$153 GD 24

MARBEL Ruth Sandy

1-14-

Sample BED-18, SW-35, GW-8, 9, 12, BED-11, BES-11

Out Fall "A" ("B" frozen)

.03 precip

1-15

Sample BES-14, BES-15, BED-15, SW-4

GW-4 100.71

3 - , 5 · 37.33

SW-2 no flow

394-2385

Sample GW-3, 5?

SW-2, Dugout-E

Pond-E seep

1-18-

EXCAVATE soil below ON-SOL leak 1.5 bucket

SAMPLE DW-1, GW-3

1-19

-SAMPLE: OF "C", SW-6, BES-17, GW-6, Cell #5
Col A+B, DW-1

-DTW GW-3 10.43 "C": 0°C, 8.4, 340
4 101.13
5 37.92
SW-2 No flow

-photo ON-SOL LEAK EXCAVATION X3

-LD 1 0 3:00 DE 0 11:30
2 0 SURGE 0 2:45
3 1.75 Nt 0 2:45
4 ~~.5~~ 0 BS .8
5 .9 PS .8
6 1.75 CN tr
7 550 ml/min NA .18

1-20 Wet + monthly sample OF "A"

SAMPLE GW-11, 1, 2 A: 1°, 550, 7.6 <16pm

1-20-93

Samples GW-11, 1, 2, SW-1

1-21

Sample SW-28, 8, 5, 11, 3

1-22

DTW GW-3 NO CHANGE

4 101.23

5 38.04

SW-2 NO FLOW

pull RECORDER from WIN 2

1-25

REPLACE RECORDER IN WIN 2

SW-2 NO FLOW .38 PRECIP

1-26

MARK WATER EDGE IN DMP

GW-3 NO CHANGE

GW-4 102.95

GW-5 38.89

SW-2 NO FLOW

SAMPLE: GW-3, OF "A" 2°, 650, 8.1,

Col A+B #5 6°, 2000+, 9.0

ON SOI 9°, 2000+ 10.2

1-26
1 0 3:00
2 tR
3 7.4 GAL
4 0
5 10.5
6 1.75
7 ~~18~~ 750 ml/min
1-27-93
H_2O in pipe 77-11"
TD 85-7"
pond - 82'
pond H_2O - 62'
Sample

Surge pond LD

1-28
#7 1800 ml/min
1-29
#7 1500 ml/min
GW-3
GW-4 102.17
GW-5 38.93
SW-2 No flow

Nt 0 2:00
DE ~~0~~ tR "
CN .1
Nt .15
PS .75
BS .75

2-1

Sample: GW-3, #7 LD (Sherry)

Survey: DMP Pile level 5304.0

DMP King Tunnel entrance 5321.91

Pond-E Seep 5294.4

#7 1850 ml/min

2-3 OF"A" 2°, 550, 7.9, 5760 GPD

Sample #5 Col A+B, OF"A", OF"C", Dugout-E

OF"B" dry

Winz ~~shaft~~ 22+ below H_2O level

Water level 5321.5 (approx)

Shaft level 5299.5

#7 1350 ml/min

2-4

LD 3:00

1-0

2-23.2 gal

3-13

4-0

5-2.6

6-33

7- .3 gal/min at 9:00

.368 gal/min 3:00

Nt 0 2:30

DE 0 2:30

Surge pumping 4237.2

PS .79

BS .74

CN tr

Nt .2

Surgepond 361 gal off 9:15

2-5 #7, 390

2-8
Tom Durkin 773-5877
#7 1090 ml/min

2-9
Sample GW-3, Cell #5, ON-Sol OF "A" 56PM 7.8, 6.10, 3°
#7 LD
GW-3 9.35
-4 102.21
-5 37.65
SW-2 no flow
LD:
1 - 0 4:00
2 - 17.5
3 - 13
4 - 0
5 - 5.25
6 - 19
7 - 9:00 AM 1040 ml/min > 1115 ml/min .29 Gal/min
4:00 PM 1190 ml/min

Nt - 0 2:30
SP 0 2:30
DE 0 12:00
BS .7.5
PS .7
CN tr
Nt .1

2-10 #7 1200 ml/min
2-11 #7 1240 ml/min .33
Mike Cepak, Ts Durkin, G Haug, Eric Home

2-12

GW-3 No change

5 37.55

4 103.4

SW-2 no flow

DMP 5304.35

Chapman, Diane Freise

#7 1140 m/min .3 Gal/min

2-16

GW-4 102.55

GW-5 37.72

2-17

Sample OF-"A" 0°, 7.4, 4000+ 3 GPM (Wet test) (GR Alpha)

OF-B No flow

OF-C 0°, 7.7, 180

Cell #5 8°, 8.5, 2000+

GW-3

GW-3 DTW 9.5'

2-18

LD 1-.5 GAL

2-19.25

3-7

4-0

5-~~[illegible]~~ 3.5

6-19.25

7-2000 m/min .5 B/min

Nuet 0 12:00

DE 0 12:00

Surge 400 ~~[illegible]~~ 2:30

PS .7

BS .75

Nt .18

CN tR

2-19 / #7 2000 ml/min
GW-5 37.81
GW-4 102.45
- Drain line from #6 leaking elevating #7 LD window

2-22-
Donavan Const. looking at #6 drain line
T. Dublin notified. #6 situation 9:35 AM
GW-4 102.65
5 38.21
#7 3500 ml/min

2-23
LD 1.0 4:00
2.0
3 7.9 gal
4 0
5 1.75
6 2.6
7 3300 ml/min .868 GPM
Sample OF-A 7.8, 620, 1°, 2 GPM
OF B No flow
#5 8.7 6° 2000+ NR
ON-SOI 10. 6° 2000+, 79 GPM

2-24-93
#7 2400 ml/min
GW-3 9.85
4 102.85
5 38.35
Mail OF REPORT, WEEKLY RAP

2-25
#7 3600 ml/min

2-26
3300 ml/min

SURGE	0	CN	tr
DE	0	BS	.7
Nt	0	BS	.75
		Nt	.18

3-1-93
#7 3300 ml/min
GW-4 103.2
3 9.85
5 38.95
Photo MVLEYS ON Nt slope

3-2

Sample OF-A 7.1, 210, 2° .9 GPM

B no flow

C 7.9, 270, 2°, NR

Cell #5 8.7 2000+ 6° NR

#7 LD

Col. A+B

Nuet #1+2

GW-3

LD 4:00

1 0

2 0

3 8.75

4 0

5 3

6 0

7 .87

DE 0 12:00

Nt 0 "

Surge probe 0"

BS .75

PS .85

Nt .1

CN tr

3-3

GW-3 9.37

4 10331

5 38.66

#7 1800 ml/min

.5 precip

3-4

Send off 60 report on-sol leak

#7 1800 ml/min

3-5

GW-3 9.5

4 103.43

5 38.81

#7 1300 ml/min

3-8 LD

1 0 4:00

2 14.9

3 5.25

4 0

5 3.5

6 2.6

7 3200 ml/min

GW-4 103.28

5 37.49

Fill Col 459.5 lb WASTE ROCK

3-9

LD

9:00 pm

SP 4313.9 start 4377.4

CN. tr

PS .85

BS .75

Nt .2

DE 0 2:00

Nt 0 2:00

3-9

SAMPLE OF A 6.4, 430, 2° 5 GPM 7200

B - NO flow

#5 - 8.8 2000+ 6° NR

ON - 9.8 2000+ 6° 80 GPM

#7 LD, LD-SRP, Col A+B,

1230 V 7.8 ph

09 PRECIP

3-10

pond level

3-2 /mill

3-9 1.4 mil.

GW-3 7.05'

4 103.36

5 37.3

DMP 5305.0

Sr Pond - dry "probe"

#7 600 ml/min

3-11

pump surge pond start-43781 end-44180 = 399

col. hght 9.6'

Mail - OF, Weekly LP ALR

Photo: Pond-E → BM/OB

" " " "

Sed control SBC

" " "

Surge pond 3-9 9:00 PM → 4:00

hrs 3+24+16 = 43 X 60 = 2580 min

399/2580 = .155 = 222.7/day

1.22 175 GPAD

#7 550 ml/min .145 GPM

.09 precip

Toxicity characteristic leaching procedure

- solid waste

CFR 261

3-12-93 .09 precip

GW-3 ↓

4 103.5

5 36.65

Spond 44355.5 1200 Level 1.55

44180

175.5 20hr x 60 1200

.146 x 60 x 24 / 1.27 166 GPAD

#7 No flow ↔ frozen

3-13 6:00

Spond 190 Gal 18 hr = 1080 min Level 1.45

.176 x 60 x 24 / 1.27 199.5 GPAD

3-14 195 Gal 4:30 22.5 hr 1350 min Level 1.45

.14 x 60 x 24 164 GPAD

3-15

S. Pond 192.5 1:00 20.5 hr 1230 Level 1.5

.156 x 60 x 24 / 1.27 177.4 GPAD

Sample OF-"C"

Sorge Pd

LD-Sr Pd

#5

LD-#7

Christenson starts digging out culvert.

3-15

LD 4:00

1 0
2 ~~[illegible]~~ 22
3 ~~[illegible]~~ 7
4 0
5 ~~[illegible]~~ 8
6 ~~[illegible]~~ 13
7 1.12

S.P 177.4 GPAD 1:00
DE 1 GAL.
Nt 0
BS .75
PS .85
Nt .2
CN-tr

3-16

#7 .31 GPM

SAMPLE - OF-A monthly 7.6, 1°, 650. 7560

#7	142	PPM	CN
SP	958	"	"
LDSP	216	"	"

LD-SRPd
Col A, B

SRpd 130 GAL 2:00 25 hr x 60 1500 Level 1.5
.08 x 60 x 24 98 GPAD

3-17

SRpd 97 GAL 11:00 21 x 60 1260 1.5
.077 87 GPAD

#7 1050 ml/min .28

GW-3 7.75
4 102.77
5 35.93
DMP 5305.5

3-18-93

LEVEL 1.7

#7 1400 ml/min .37

SP 74 GAL. 10:00 23 hr x 60 1380

.054 x 60 x 24 / 1.27 61 GPAD

SAMPLE: X-10 CHRISTENSEN DIGGING POND E

— 3.2, 2000+ 1°

Photo POND E → MET x2

3-19-93

#7 2200 ml/min .579

SP ~~[illegible]~~ 77 GAL. 9:00 23 x 60 1380

.0558 x 60 x 24 / 1.27 63 GPAD

GW-3 6.

4 102.54

5 35.51

KEENAHAN SAMPLE GW-3 5.39, 8°, 17 bails

CAME out to SAMPLE Ruby - did not

3-22

GW-3

4 102.12

5 34.68

3-22

Sample	OF A	6.0	1°	550	116PM
	OF B	3.4	3°	1650	39.5
	LD #7	7.5	—	420	
	Ruby Dump	6.2	3°	500	
	Cell #5	8.6	6°	2000+	
	On-Sol	9.6	8°	2000+	

LD 4:00

1 0
2 16.6
3 14.9
4 0
5 6.1
6 22
7 3500 ml/min

3:30

SP - dry probe
DE - 0
Nt - 1 GAL
CN
PS
BS
Nt.

3-23

M. Keenahan sample Ruby Dump 5.79, 2°C

3-24

3 3.61
4 101.21
5 33.52

3-25

#7 1150 → 7910.5 11:15

Sample #1,2,3,4 spt ORE ~~SEE~~ MAP

3-26

GW-3 1.19

4 99.61

5 31.56

SW-2 197.25 GPM 3.4

#7 10 GPAD .1

3-29

SW-2 pH 3.5, 177 GPM

#7 34 GPAD .325 GPM —— 9480 2:05

PRECIP .32 50 pH

J.R. Tech on board

Solid sample data SRK

3-30 AGRI data SRK

Raby dump 3.8

GW-4 29.22

GW-5 97.31

.17 PRECIP 6.2

#7 .32 GPM

9940 2:15

3-31 .17 PRECIP 6.2

GW-3 1.4

4 95.99

5 27.76

#7

1st 8 HEAP solid sample data ~~[illegible]~~ SRK

4-1

Sampler OF-A 48GPM 4.6 3°C 3:45

OF-B 3.8 3:15

OF-C 2:38

#5 8.8 6° 2000+

#7 .27

Spt ORE #1-4

4-2

photo SBC tails - SPRING

4-1

LD

1 0

2 0

3 8.75

4 0

5 19.25

6 40.25

7 .27 GPM

10267.3 - 9:30

10278.5 4:15

DE 27.5"

Nt 0

SURGE. work ON pump

4-2 #7 .092 GPM

S.A. IN RD 2:00 2gal bucket /5 hr.

4-2

DE dry 12:00

OF-B 165.5 GPM 3.8 PH

GW-3

4 27.5"

5 94.7"

4-5

M. Quick meeting

GW-3 1.36

4 26.32

5 92.75

#7 400 ml/16.77 SEC

OF-B 5.2

.4

138

OF-B = 143.6 GPM

3.5 PH

4-6

SAMPLE OF-"A" 5.5 850 3° 54 GPM

ON-SOI 9.3 2000+ 6° 79"

CELL #3 spill follow-up to P. Kindt mailed

LD 1 0 4:00

2 0

3 15.75 GAL

4 0

5 175

6 29.75

7 1400 ml/min

DE 1 GAL 3:30

NT 0

SURGE 0

GW-3 - 1.36
4 - 92.01
5 - 2605

4-7

#7 LD flow meter 1037.7 2:30 1400 ml/min

photo #6, #7 SNOW REMOVAL Sulphide Stockpile

RD ABOVE LS 4.4 below 5.3

OF-B = 196 GPM 4 pH

4-8

DTW WINZ 6.9 OF-B 392 GPM

RD. 4.5 4.2

REMOVE pipe + bucket RD.

#7 10875.2 9:50

GW-3 - 1.3
4 - 91.56
5 - 25.92

4-9

M. KEENAHAN samples Ruby Dump

TREAT RD W/SA

4-12

Sample #5 9.4 6° 2000+

LD #7

OF 'A' 6.4 — — √mk 126 720

RO Int. 8.0 7° 380

Ruby Dump

LD

DE - 0 10:00

NT - 0 11:00

SURG - 0 10:00

4-12

1	0	4:30
2	57.	
3	15.75	
4	0	
5	14"	
6	22.75	
7	12444	9:30

DE 0 12:00
Nt 0 12:00
SURG 0 12:00
Nt .2
CN tr
BS .75 PS.8
AVERAGE 4-8 → 4-12 , 27

DTW

GW-3	chart	DMP 5308.9
4	87.9	SP 5280.8
5	23.15	

OF-B 308 GPM 4.4
install pipe RD
M. KEENAHAN SAMPLE RD 3.2 -2.5°
"A" 6.2 2.4°
DAM 4.8 4.7°

4-13 #7 12719.2 1:30
SAMPLE BBCB4RV 7.0 5° 206
SW-4 7.8 5.0
SW-5 8.0 4°
SW-35
GW-12

.2 pH 5.5 PRECIP

OF-B 4 3°, 980
421 pH 3.7

4-14-93 #7) 12 903.1 – 3:30

M. Keenahan SW-35 5.5

Top Dam 4.5

Ruby Dump 3.4

GW-3 – 1.19
4 – 86.55
5 – 22.1

from T. Durkin SW-3A

Samples from M.K 4-9-93 Butcher Gulch

not Ruby

Mid-cont CHANGE NAME BBC Sherry BBCB4-Ru SW 3A

SW-3A 7.8

SW-4 7.6

Photo #11 SBC Not Pond D → N.

4-15 #7 13064.2 – 11:05

MK.

SW-35*	5.7 – 2.2°	~~2000+~~ 1968	45 GPM
"A"	6.3 – 2.6°	2000+	51 GPM
RD *	3.1 – 3.0°	"	66.6 GPM
GW-12*	6.5 – 7.6°	447	8+ Gal bailed

* sampled

4-16 #7 13128.5 10:10
MK

35	6.0-2.8	2000+	45 GPM
A	5.9-3.2	"	60 GPM
Pond	5.0		
Rd	3.0-2.6		60 GPM

Sample R.O. 200

OF-B	3.7	332,867
GW-3	1.16	
4	85.65	
5	21.61	

Photo #1
2
3
4

4-16 photo SBC, Ruby

4-19-92

Sample OF-B 4.2 4° 710 348,272

OF-A 6.4 3.4° 700 10:05

RO-200

GW-1, 2, 6, 7, 11,

SW-1

Cell #5 8.8, 2000+, 6°c LD #7

M.K Ph only

SW-35 6.4 - 2.5° mk

6.8 - 2.6°

OF A 6.2 - 3.3 mk

6.4 - 3.4°

Rd 3.1 - 2.5°

2.5 - ?° mk

Photo

#5-7 constructed dams Ruby

#8 #9 treatment below constr. dams

LD 1 0

2 tr DE-0 2:00

3 7.5 SrP 0 3:30

4 tr Nt 0

5 15 CNS

6 23 PS

7 14079 3:30 BS

4-20

Sample BED-18
SW-4

4-21

T. Durkin, M. Cepak, B Townsend, MK
Compliance Order Sampling
change short list

SP 5282.8
DMP 5310.6
3 1.18
4 83.75
5 20.78
WWS 5216.1
Sample RO-300, BED-11, BED-15

4-22

Sample FD-1
DW4
DW-2
SW-8
SW3
SW-5
SW-11
BES-14
BES-17
SW-28

4-23

SW-35	7.12 - 39°	90	3:53
"A"	6.78 - 5°	75	3:57
Dam	6.01 - 4.3	—	3:59
RD	3.3 - 3.	70	4:04

SW-4 ~~[illegible]~~

GW-4 - 82.9
~~4-24~~ 3 - NR
4 - NR

4-24

Toe	3.9 - 4.2°	70	2:22
Sed P	7.01 - 5.6°	—	2:39
A	7.28 - 4.8°	70	2:38
-35	7.7 - 4.6	72	2:29
SW-4	7.85 - 7.5	~~[illegible]~~ 105	2:15

4-24

Sample RO·400 7.75-12.3 460

GW-4

photo Conveyor

4-26

4-27

photo hole in liner LP Alleyway

precip .01

SW-35	6.9-5°		60	12:00
"A"	6.5-6.8		60 12:00	12:28
Sed	6.3			12:29
RD	2.8	2.9°	90	12:53
SW-4	7.5-7.5°		60 2:00	

4-27-93

Sample SW-35 6.9-5 60

GW-8 6.9-9.6° 280 28.7

mk 25GAL Bailed GW-12 6.2-9.1° 388

OF-A 6.5-6.8° 60

LD1 0 GW-3

2-20" BED-15

3-6" OF-B 3.2-13.1-500 215GM

4-0

5-1"

6 20"

4-28

Sample GW-10

RO-600

GW-5

4-29 11:12

SW-35 — 7.12-49 54

A — 6.7-4.1 56 11:25

POND — 5.6-4 n/a 11:27

RO — 3.2-3.4 48

SW-4 7.18-7.8° 75 7:45

4-27

Cell #7 17914.7

4-30 PRECIP

#7 17937.5

5-1-93

35	6.9 - 5.7°	53	Heavy melt
A	6.8 - 5.1°	48	
SedP	6.61 - 4.9	—	
RD	2.98 - 4.2	41	
SW-4	6.57 - 8.5	42	

Photo x3 SNOW REMOVAL Dump

SED. CONTROL

MOVE RAIN GAUGE → Dump

LANCE

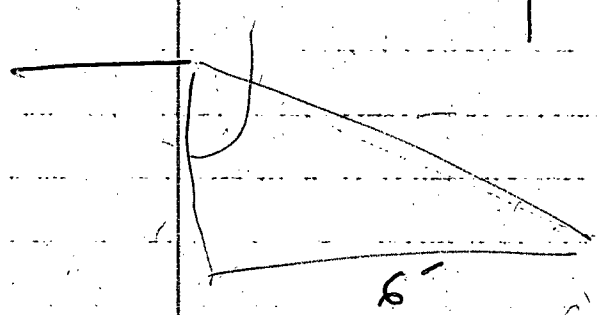
Include A SENTENCE About SW-35 being submitted

3.14

$V = \frac{\pi}{4} d^2 \times h_{ght}$ $^{.0625}$ $^{.111}$

12.56

.785

~~231~~ CU IN / GAL

231