LOGBOOK NO. SAS 110

PRC Environmental Management, Inc.

Logbook No. SAS 110

(For Single Project Use Only)

Project No.: G0069-030B0403

Project Location: Alameda Point

Site ID/GPS:

Issuance No.	Date	Name	Last Page Used

TC.0030.1082

Field Logbook No. SAS 110 Date 4/24/00

- Arrived on site at 7:50 (Alameda Point)
- Held kick off meeting at 8:00 to 8:20
  personel present: Michelle Reis TtEMI
  John Borrego U&A
  Mike Barnes U&A
  Brendan Mulholand U&A
  Juan Carlos Precision Sampling
- Roman Iglesia w/ TtEMI arrived @ 10:15
- Went to Building 1 to check out flight line key - Key checked out - no access to flight line ⇒ Start with 4/25/00 planned sampling
- Meet PG&E at 8:30 to show sample locations
  PG&E cleared: flight line, CAA 9A
  CAA 9B, CAA 3, CAA 4, CAA 7

4/24/00

- Arrived at CAA 9A at 9:03 and started setting up
- Began at HP-CA09-DG3-01 at 9:36
- Lithology logged by Brendan → switched to different boring log forms than in FSP/QAPP to include Sample Interval.
  Boring depth = 8.0 ft no odors or
  gw @ = 6.0 ft staining

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- gw sample collected at 10:20
  no floating product or sheen
  Grouted 1030
- Moved to boring FP-CA09-DG1-01
  began boring at 10:35 logged lithology
  boring depth = 8 ft G. Brendan
  g.w @ = 6.5 ft
- odor and high PID reading at
  7.5-8.0 ft --> no visible staining
- Inserted temporary piezometer
- qualitative product satin sample not considered necessary
- Moved to boring FP-CA09-DG1-02
  begun boring at 11:14
- boring depth = 10 ft
- gw @ = 6.5
- lithology logged by Brendan
- no odors visible staining
- Inserted temporary piezometer
- qualitative product satin sample not considered necessary
- Mobilized to CAA 9R @ 11:50
⇒ Begin logging by RVI:
- Moved to boring FP-CA09-DG1-03
  began boring at 12:00
  boring depth to
  g.w. @ 5.5 ft

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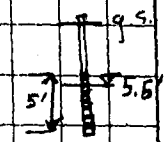
- lithology logged by Brendan
- no odors no staining
- clean sand
- inserted piezometer 1220



- no qualitative product satin sample not considered necessary

Crew Lunch break 12:30

Michelle Reis, John Barrego and utility locator (Paul) went to check on clearance of sampling locations at Bldg 372, Bldg 398 and Bldg 19 at 1215

Moved to boring GP-CA09-DG4-01
began boring at 1310
decided to label the boring location as the first soil sample field ID
boring depth = 8 ft

1320 3.5-4 dry sample GP-CA09-DG4-01
1325 5-6 wet sample GP-CA09-DG4-02
1335 gw @ 4.5 ft HP-CA09-DG4-01
RD
lithology logged by Brendan
- no odors or staining
- clean sand
- no floating product

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- samples collected by John Borrego.
- grouted hole 1345
  Loren Taylor 510-222-2728
  Fld sup. GW infil.

Moved to CAA7 1400
began boring at FP-CA07-DG1-01
at 1415
- boring depth to 10 ft bgs
- g.w. @ 4.5 ft
no odor PID 24 ppm at 8.0 ft
- sand is dark gray, but no staining, no odor
  no visible product
- inserted piezometer at 1430
- sampled core at 8.0 ft for
  product sat'n test 1445
  U&A to log observations in
  the product sat'n bottle.

Demob 1500.

Mobile lab had power problems so
no additional samples will be
collected for the day 1530 4-24-00
Ronan J Igloria

Field Logbook No. SAS-110 Date 4-25-00

Arrived on site at 7:00 am. Went to
Field office and loaded equipment
for the day.
Personel Present: Michelle Reis - TtEMI
Ronan Igloria - TtEMI
John Borrego - U&A
Mike Barnes - U&A
Brendan Mulholand - U&A
Juan Carlos - Precision Sampling
Emily Dean - U&A
Miguel Hermida - ~~[illegible]~~ MR
- MSE Group

- Went over VOC analysis w/ John Borrego,
Health and Safety, Daily Reports, &
days activities.

- Mobilized to flight line and held
Health and Safety meeting led
by Brendan. Everyone signed
H&S sheet. 0800

TC . 0030 . 10824

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Field Logbook No. SAS 110 Date 4-25-00

Mike and Emily off to CAA13 to sample monitoring wells 0820

Geoprobe mobilized to CAA1 to install piezometer
began boring at FP-CA01-DG1-01
at 0840
- boring depth to 10 ft
- g.w @ 3.0 ft
- no odor, no staining, no ~~floating~~ visible product
- 0 on PID
logged by Brendan
inserted piezometer 0855

mobilized to CAA2 0910
began boring 0925 at ~~FP~~-CA02-DG1-01
- boring depth to 10 ft
- g.w. @ 3.5 ft
- strong petroleum odor, no visible product
PID reading of +700 ppm at 3.5-4.0
collected soil sample from this interval for product sat'n test.
- no visible staining; gray sand

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borehole logged by Brendan
inserted piezometer at 0940

Mobilized to PAA-A at 0955
began boring at GP-PA01-DG9-01
at 1005
boring depth to 8 ft
~~waiting~~ PID GW @ 6.5 ft
installed PVC pipe w/ 5 ft screen ~~for~~ PID
for GW sample at 1015
no odor, no staining, no visible product
0 on PID
Soil samples: collected by Miguel
1020 GP-PA01-DG9-01 3.5-4
1020 GP-PA01-DG9-02 7-7.5
1040 HP-PA01-DG9-01

Grouted hole 1050

used U&A COC for these samples
(no TtEMI COCs available)

Mobilized to HP-PA01-DG9-03 at ~~0~~
1110
began boring at 1115

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boring depth to 8 ft bgs.
inserted slotted PVC w/ 5 ft screen
at 1120
no odor, no staining, no visible product
gw @ = 4 ft.

1130 HP-PA01-DG3-01
Grouted hole at 1150

Lunch Break 1150

RVI, MR returned to site 1300

boring started at HP-PA01-DG3-02
1245 to 8 ft bgs.
logged by Brendan; noted no
odor, no staining; no visible staining
gw @ 4.0 ft bgs

collected sample HP-PA01-DG3-02
at 1305
Grouted hole 1320

TC. 0030.10822

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Mobilized to HP-PA01-DG3-03
@ 1325
began boring @ 1330 gw @ 4.0 ft
Sample collected 1345
- no odors, no staining; no visible product
- clean sand
collected field duplicate gw sample
Grouted hole @ 1415

Mobilized to HP-PA01-DG3-04
@ 1420
began boring @ 1430
gw @ 3.5 ft bgs.
- no odors, no staining, no visible
product.
- sample collected 1440
Grouted hole at 1500

Mobilized to field office and
collected equipment rinsate sample
from geoprobe sampler at 1515
030-CAP-340 sent to mobile lab

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Emily and Mike check-in @ 1600 from monitoring well sampling
reported that they sampled
2 FP piezometers at CAA9 (-02, -03)
1 FP piezometer at CAA7
3 MW (06, 3) at CAA 13 (-01, -03, -04)

Stopped off at mobile lab to drop off samples 1650.

Met with Fred Farmsted to get access to Bldg. 397 at 1635
conducted walk-through of right test cell. Identified several sumps with no evidence of cracks or connecting drains; no evidence of former oil-water separators. Exhaust tunnels not feasible location for advancing a geoprobe.
Recommend no sampling be conducted at this site for data gap type I as planned.

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Will consult with Nadia Burleson on available information on the former oil-water separators

→ Continue at mobile lab. 1710
got a debrief from Ron about progress of analysis.

debriefed with John B. on schedule of sampling for Wednesday 4-26-00

Departed site 1730

4-25-00
1730

Field Logbook No. SAS 110 Date 4-26-00

Sunny 60°, no wind
- Arrived on site at 0715 went to field office and met Mike Barnes
- Informed Mike Barnes of which monitoring wells to sample (CAA 9 piezo, CAA13 MW, CAA1, 2 piezo CAA 2 MWs)
- Tetra Tech Staff: Michelle Reis, Ronan Tylor
- Met with John Borrego, Brendan Mullholand, Miguel Himeda, Juan Carlos (precision) at 0730 and discussed schedule for the day (met at CAA 3)
- Michelle Reis departed to meet storm drain contractor
- conducted HSS briefing

Mobilized to first location HP-CA03-D43-01 at 0800
began boring at 0805
boring depth to 8 ft bgs
used 5 ft screen on PVC
g.w. @ 5.5 ft.
boring logged by Brendan
no odor, no staining, no visible product, clean sand

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0820 PID not operational; attempting to get replacement unit
- decided to use unit used by Mike B. in the interim.
began collecting GW sample at 0815
well started going dry; waited for recharge to continue filling sample bottle.
returned @ 0930
to fill TEPH and metals bottles

Mobilized to HP-CA03-D41-01 @ 0850
began boring 0855

departed CAA3 at 0915 to meet with storm drain contractor at CAA11.
- All of the catch basins and manholes requiring plugging or covering were identified; the outfall sampling location was also identified at CAA11

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- based on field observations of catch basins, manholes and outfall conditions no outfall sample will be collected for CAA11 for the following reasons:
  1. no observed flow from outfall under "unplugged" conditions
  2. stagnant water sitting in the catch basins and manholes
  3. dry conditions in one catch basins

The following conditions will be logged by John Borrego:
  1. depth to GW in nearby monitoring wells
  2. depth of stagnant water in catch basins and manholes
  3. other relevant conditions in storm drain lines

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mobilized to CAA6 with storm drain contractor (1000) to assess site conditions.

- Decided to delay actual storm drain field work due to H and S issues with subcontractor.
- decided to postpone until Tuesday 5-2-00 while H&S paperwork is completed and reviewed.
- ~~with~~ continued site-walks with storm drain sub to assess site conditions for field work next week. (CAA6, 7)

Checked with Brendan (Geoprobe team) at 1145 (at CAA13) ~~found no~~ Geoprobe team reported having completed locations:

FP-CA03-DG1-01
FP-CA04-DG1-02
FP-CA04-DG1-03
HP-CA03-DG3-02
HP-CA13-DG3-01

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Decided to meet with Geoprobe team after lunch break. -

Returned to mobile lab at 1245 to discuss progress of analytical results.

Ron indicates very few detections from samples collected to date. He will provide the first reports by Friday (4-28).

Headed to CAA13 - Juan Carlos indicated boreholes were grouted at HP-CA13-DG3-02
HP-CA13-DG3-01

Work was being conducted to replace fire suppression lines at Bldg 530 which prevented advancing geoprobe at GP-CA13-DG4-01
will come back to this location if possible at a later date.
area around (near) sampling location

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was being excavated.

Checked back with Geoprobe team at 1400. Completed installation of FP-CA13-DG1-01.

- Decided not to continue to next boreholes (at CAA 4 DG 6) because holes go to 50'
- Decided to grout finished floating product holes at CAA 7 and CAA 9 which showed no floating product
- Will move IDW containers to lock area North of Site 16.
- Mike Barnes returned to field trailer 1450.
- Debriefed days sampling with John Barrego, R. Iglesia, M. Reis
- Decided to have J.B. work with Mobile lab to expedite and prioritize analytical reports for "critical path"

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samples (e.g. storm drain DG 3)

Brandon and Miguel collected equipment rinsate samples at 1500 - submitted to mobile lab. (except Pb to fixed.)

Brandon notified us that equip. rinsate samples:

030 - CAP-340 (not Anal. for SVOC, PCB, metals MNA)

030 - CAP 341 (N/A for MNA, metals)

will only be analyzed for VOCs, TEPH, TPPH, Pb.

Future equip. rinsate samples will also be analyzed for SVOCs, PCBs, MNA ~~when~~ on appropriate days when samples are analyzed for these constituents.

Finished reviewing schedule and ~~[illegible]~~ with John B. and departed field office 1630.

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Debriefed Ron with mobile lab and tomorrow's schedule and expected analytical results.

Departed field office and site at 0430

4-26-00
0432

[signature]

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Sunny 55°, no wind
Michelle Reis, Ronan Iglorio (TtEMI)
arrived at field office 0715
and met Mike Barnes (U&A)
- Brendan M. and Sergio (Precision) (U&A) arrived at 0725 Navarro
conducted HiS tailgate meeting
at ~~0740~~ 0730
Went over schedule with Mike B, Brendan M. for the day.
Miguel H. Arrived at 0740

Mobilized to CAA10 at 0750
Showed Sergio where to advance
Geoprobe; decided to move
one geoprobe location (FP-CA10-DG1-01)
south ~2 ft due to clearance
problems with existing scaffolding
from on-site construction at Bldg 19.

John Borrego (U&A) arrived on site @
0820

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Began boring at FP-CA10-DG1-01
at 0830
- advanced boring depth to 10 ft bgs
gw @ 4.5 ft
- ~~no odor~~, no staining, no visible
product; slight odor (petroleum) at
8 ft bgs.
- hole collapsed upon removal of
drive barrel; had to use expendable
tip to install piezometer.
- temp piezo. installed at 0915.

Mobilized to GP-CA10-DG5-01
began boring at 0925
decided to take 1 soil duplicate
and 1 gw duplicated at CAA 10
from this location.
gw @ 5.3 ft
- slight odor @ 8 ft.; no staining;
no visible product
- ~~use~~ samples collected at 0940

depth:

		fired, mobile
3-4	GP-CA10-DG5-01	0950
6.3-7.5	GP-CA10-DG5-02	0955

030-CA-363 dup for VOC (5.9-6.3) 030-CAP-363 dup for Pb (7.5-8.0)

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(3-8) HP-CA10-DG5-01 1015
dup for water 030-CAP-365

will collect second soil duplicate
from another location (Data Gap Type V)
or from CA10 if step-outs
are collected at this site.

Moved to FP-CA10-DG1-02
at 0925
began boring at 0935
advanced boring depth to 10 ft bgs.
g.w. @ 5.5 ft
piezometer installed at 1000
no odor; no staining; no visible
product; clean sand
hole collapsed; used expendable tip

Mike B. to check piezos at
CA4.
Will meet him ~12 noon
to see whether step-outs will
be advanced for FP at CA4.
if no FP observed, will advance
50 ft HPs north of Bldg 947

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Went to Bldg 372 (CA4) to
open extraction well on SW corner
of Bldg 372; had strong petroleum odor
- Interface probe indicated no
measureable product thickness
- collected bailer sample and
found no floating product; bailer
had "thick sheen" on outside of
bailer and top of water in well.
(1145)

Mobilized to HP-CA04-DG6-03 - 04
at 1200
began ~~concrete~~ boring at 1220
used Hydropunch technique w/ retracting barrel
MR, RI took lunch break at 1220
returned from break 1300
USA collected HP-CA04-DG6-03 at 1300
collected duplicate at 1305
high silt in groundwater; some
plugging of sampling screen.
(4 ft screen)
reached 50 ft bgs at 1335
sample collected 1340 (HP-CA04-DG6-04)

TC. 0030.10824

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Mobilized to HP-CA04-DG6-01; 02
@ 1410
began boring at 1415
reached 10ft at 1420
using HP technique
~~collected sample @ using~~ used
used 4 ft. screen w/ retracting
barrel; sampling barrel would
not collect water; decided to install
piezometer (10 ft well screen)
to allow rehydration while
advancing 50 ft location
~ 2ft south of 10ft location
- reached 50ft at 1505
- began collecting shallow sample
at 1510 (HP-CA04-DG6-01)

- Grouted hole HP-CA04-DG6-03-04
at 1515
- began collecting deep sample
at 1515 (HP-CA04-DG6-02)

- Grouted hole HP-CA04-DG6-01; -02
at 1520 & 1530, respectively

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collected equipment rinsate
from Hydropunch screen sampler
at 1540 (030-CAP-342)
submit to fixed; analyzed VOCs

- Brendan, Miguel, Sergio off site
0400.
- went to Mobil lab to get
download and debrief from Ron E.
at 0400

Michelle and Ronan ~~returned~~
~~to field office 1~~ reviewed COCs,
daily progress and schedule for
following day

Michelle, Ronan off-site @ 1645

4-27-00
1645

Field Logbook No. SAS 110 Date 4-28-00

Partly Cloudy; windy 55°

Meet at field trailer 0715
Ronan Igloria (TEMI)
Mike Burnes (UIA)
Miguel Himeda (Microsurge)
Juan Carlos (Precision)
Brendan Mulholland (UIA)
Michelle Reis (TEMI)

Discussed field schedule for the day:
Mike B. to sample MWs at CA17 (DG7)
and 2 ft pieces at CA10

Geoprobe crew to sample DG9 HPs
along Seaplane Lagoon at CA11

Went over HSS at 0740.

Mobilized to CA11 (Geoprobe crew)
at 0745

Met w/ John Borrego (0745) at CA11
- J.B. will log observations at all

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catch basins and manholes and measure
WLs at MWs associated with the
storm drain at CA11.

Began boring at HP-CA11-DG9-06
at 0805 finished hole at 0815
advanced slotted PVC.
boring logged by Brendan
gw @ 5.5 ft
- no odor, no staining, no visible product
sample collected at 0820

Began boring at HP-CA11-DG9-05
at 0835 finished hole at 0845
gw @ 5.5 ft
- no odor, no staining, no visible product
- sample collected at 0845
J.B. reported that GW levels in
MWs near storm drain were at ~6.5 ft
and the bottom of catch basin ~4.5 ft.
also noted no flow coming from
outfall. H.
gray sand @ 6-8 ft; water has
slight H_2S odor

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Began boring at HP-CA11-DG9-04
at 0915
~~similar~~ departed site 0920
returned 0950
crew reported that hole conditions
were similar to -05.
(had H_2S odor), required 2 filters
for ~~PB~~ sample due to high SS (plugged 1st filter)
~~Began boring at HP-CA11-DG9-03~~
~~at~~
Juan grouted holes at HP-CA11-DG9-04
at 1010 -05
-06

Began boring at HP-CA11-DG9-03
at 1020; completed 1030
similar borehole conditions as
-04 and -05.
collected sample at 1030
(H_2S odor)

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Began boring at HP-CA11-DG9-02
at 1045, completed
collected sample at 1100
same conditions as -03, -04, and -05
gray sand 6-8 ft; H_2S odor at this
interval. (strong)

Began boring at HP-CA11-DG9-01
at 1120
collected sample at ~~1140~~ 1135
same conditions as -02 through -05.
gray sand 3-8 ft; strong H_2S odor
4-8 ft.

Water samples at those locations had
strong H_2S odor (except for -06); but
had no visible product
Grouted holes -03, -02, -01
at 1145

Lunch Break

Returned to site 1245
Mobilized to OWS locations
at CA11

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Began boring at GP-CA11-DG4-01
at 1250; completed 1305.
Brendan logged boring
g.w @ 5.0 ft
- no odor; no staining; no visible product
samples collected 1310
GP-CA11-DG4-01 3-4 ft
GP-CA11-DG4-02 6-7 ft
HP-CA11-DG4-01
screened 3-8 ft for collection

Began boring at GP-CA11-DG4-03
at 1350 (concrete coring)
completed 1400
Brendan logged boring
~~g.w @~~ poor recovery at both
- intervals.
g.w @ 6.0 ft.
- no odor, no staining; no visible product
- samples collected 1410
GP-CA11-DG4-03 3-4 ft
GP-CA11-DG4-04 7-8 ft
HP-CA11-DG4-02

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Departed CA11 to mark CA16 FP
locations at 1420.

Departed site at 1500

4-28-00
1500

Field Logbook No. SAS 110 Date 5/1/00

Arrived on-site at the job trailer at 0730. Loaded trucks and went over days schedule.

Brendan Mulholland gave a tailgate H+S meeting.

Personel Present: Michelle Ruiz - TtEMI
John Lane - TtEMI
Mike Barnes - U4A
Brendan Mulholland - U4A
Juan Carlos - Prosission
Miguel Hinojosa

- Mobilized to CAA 11 @ 0750
- Brendan went to get geo - Team #2 walked borings at CAA 11 and set up
- Juan Carlos began boring at 0835 @ location FP-CA11-DG1-01
- Brendan logged lithology
  g.w. @ 4.5
- no odors, no staining, no visible product in soil boring

Field Logbook No. SAS 110 Date 5/1/00

- Pictures taken of soil boring from FP-CA11-DG1-01
- Moved to boring FP-CA11-DG1-02 and began boring at 0912
  - no odor, no staining, no visible product in soil boring
  - Brendan logged lithology and photos were taken of the soil boring
  - g.w @ 4.5 ft bgs (assumed)
  - no recovery from ~~0-2 ft bgs~~
- Mobilized to GP-CA11-DG8-01 and 02 began boring at 0948
  - no recovery from 0-2 ft bgs
  - colocated boring to try & get better recovery
  - no recovery from 0-2 ft bgs again
  - Samples collected @ 2-3 and 2.5 to 3.5 including duplicate
  - no staining or odors in soil sample
  - g.w. was not encountered

Field Logbook No. SAS 110 Date 5-1-00

030-CAP 344

- grouted both borings @ ~~1050~~ MR 1010
- collected equipment rensate for PCBs @ 1040
- Mobilized to FP-CAA11-DG1-03 and began boring @ 1045
  - g.w @ 4.5 feet bgs - good recovery.
  - MR ~~no odors or staining in soil~~ MR
  - MR ~~no evidence of floating product~~ MR
  - MR ~~in soil~~ MR
  - product odor detected @ 4-8 ft bgs
  - Sample collected for FP vial test
  - no staining observed in soil
  - PID Reading max 6.0 ppm
  - Brendan logged lithology and photos were taken of the soil boring.
- Mobilized to FP-CA11-DG1-04 and began boring at 1125
  - g.w @ 4.5 ft bgs
  - no staing, no odor, no product in soil
  - Brendan logged lithology & photos were taken of the soil borring

Field Logbook No. SAS 110 Date 5-1-00

- Field Team #2 left for lunch @ 1150
  Returned to CAA 11 @ 1240
- Mobilized to boring FP-CA11-DG1-05 and began boring at 1243
  - no odor, no staining or visible product in soil
  - Brendan logged lithology & photos were taken of soil boring
  - g.w @ 4.5 ft bgs
- Mobilized to boring FP-CA11-DG1-09 and began boring @ 1315
  - no odor, no staining or visible product in soil
  - Brendan logged lithology & photos were taken of soil boring
  - g.w @ 5.0 ft bgs.
- Mobilized to boring FP-CA11-DG1-10 and began boring @ 1340.
  - no odor, no staing or visible product in soil

Field Logbook No. SAS 110 Date 5/1/00

- Brendan logged lithology and photos were taken of soil boring
- g.w. @ 50 ft bgs.

- Team 2 finished and mobilized back to job trailer. Unloaded truck and IDW and left for the day

- Michelle, John Lane, + John Borrego stayed at job trailer and went over storm drain sampling schedule for tomorrow and the results from the mobile lab. Started posting results on poster boards. Determined that sites → CAA1, CAA2, CAA9, + Fuel Line CAA A are completed.

- Left site at 1830.

5-1-00
Michelle Reis
1830 - time

TC.0030.10824

BLUE INK - T. IVEY

Field Logbook No. SAS 110 Date 5-2-00

Personel arrived on site at 0730
Personel Present: Michelle Reis THEMI
Susan McLaughlin - THEMI
Tanzania Ivey - THEMI
Brendan Mulholland - U&A
Mike Barnes - U&A
John Borrego - U&A
John Lane - THEMI
Juan Carlos - Presisita Sampling
Miguel Himeda - MSE Group
Karen Stover - U&A

- Brendan gave a tail gate meeting at 0753 on H&S.

TI Mobilized to CAA 11 ~~0800~~ and began boring at 0823 (Juan Carlos did the drilling)
Samples - GP-CA11-DGA-05 ← [Boring #]

PID hit 119 @ 8 ft - Brendan logged the lithology

g.w. @ ~~4.5 ft~~ T.I. 50 ft

~~Grab~~ Took duplicates here

Miguel Himeda began collecting/preparing samples for laboratory at 0836

No visible product in soil [No staining] or odors

Blue Ink - T. Ivey

Field Logbook No. SAS 110 Date 5-2-00

(A) There is a visible sheen, possible free product observed and odors from the groundwater (collected by Juan Carlos)

Total Depth of Sample at 8 ft
GP-CA11-DG4-05
GP-CA11-DG4-06
HP-CA11-DG4-03 → 030-CAP-153
Soil Dup. 3-4' & ~~7-8'~~ (depth ~~7-8'~~ 3-4' T.I.) 030 CAP 368
GW Dup 030-CAP-369

(A) Possible free product observed so changed to a Data GAP 1 = need additional 2ft of drilling to get 10' screen. Drilling began at 0903, and peizometer installed.

0911 Juan Carlos Mobilized to
~~Mob~~ GP-CA11-DG4-09 [030-CAP-149 3-4'] [030-CAP-150 6-7' 0935]
GP-CA11-DG4-10
HP-CA11-DG4-05 [030-CAP-155 0945]

0920 Drilling began
gw @ ~5.0 ft.
Soil Boring - No odors, visible stains
G.W. - No odors, OR visible sheen

1 = feet
G.W. = groundwater

TC.0030.1082

Blue Ink - T. Ivey

Field Logbook No. SAS 110 Date 5-2-00

0955 Mobilized to FP-CA11-DG1-01

1001 - Drilling began
1005 - T.I. departed for mtg at Bldg 1

1336 Mobilized to corrective Action Area 6
No samples taken at this time
1st Sample location FPCA06-DG1-01

Drilling began @ ~ ~~12~~ T.I. ~1400 (Juan Carlos)
Installed piezometer at 10'
~~10~~ PID Rdg @ ~~100~~ 101 T.I. ppm (@ 10 ft)
1416
Soil Condition - strong product odor and no visible staining.
g.w. @ 5.0 ft
Note: Brendan Mulholland logged the lithology
g.w. = groundwater

Logbook No.: SAS 110
Page: 20 of 38

Blue Ink - T. Ivey

Field Logbook No. SAS 110 Date 5-2-00

CAA 6

Mobilized to @ 1425

↓

~~FP-06-DG1-02~~ TI FP-CA06-DG1-02

1425 - Drilling began (Juan Carlos)

Note - this ~~sample~~ piezometer T.I was requested by Brad Job

~~1428~~ 1430 - Installed piezometer

Soil Condition - no visible signs of staining, slight odors from the soil

	ppm
PID Rdgs	10 @ 5'
	4.6 @ 8'
	19 @ 10'

1449 Decontamination began

5-2-00 1630

Tanzina Ivey

Field Logbook No. SAS 110 Date 5-3-00

Arrived on site at 0730 and loaded trucks for the day

- Personel Present: Michelle Reis - TtEMI

Team #2 { Brendan Mulholland - U&A; Miguel Himeda - MSE Group; Juan Carlos - Pressision }

Team #1 { Mike Barnes - U&A; Karen Stover - U&A }

- Went over todays schedual for both teams
- Brendan gave tailgate H&S talk @ 0745.
- Mobilized to Fuel Line CAA B @ 0750
- Juan Carlos Began boring # HP-PA02-DG9-01 @ 0810
  - no staining or visible product and no odor in soil boring
  - Brendan logged lithology and photos were taken of soil boring
  - Juan & Miguel collected water sample at 0840 (030-CAP-294)
  - g.w at 4.0 ft bgs
  - Field Duplicate collected (030-CAP-386) at 0845
  - no odor or sheen on g.w samples.

Logbook No.: SAS 110
Page: 21 of 38

Field Logbook No. SAS 110 Date 5-3-00

- Mobilized to boring GP-PA02-D69-01 and 02 and began drilling at 0903
  - no staining or visible product and no odors in soil boring
  - Brendan logged lithology - no photos collected because samples will be collected
  - GP-PA02-D69-01 (030-CAP-270) collected @ 2-3 ft bgs @ 0920
  - GP-PA02-D69-02 (030-CAP-271) collected @ 5-6 ft bgs @ 0925
  - HP-PA02-D69-02 (030-CAP-295) collected at 0935 - no odor or sheen on groundwater sample
  - g.w at 4.0 ft bgs
  - soil fieldduplicate (030-CAP-384) collected @ 6-7 ft bgs
- Brad Job w/ RWQCB arrived at Fuel Line CAA 13 at 0915
  - went over todays schedual and observations made at Area 37 yesterday
  - Brad left for meeting at 0923 but will watch storm drain sampling after meeting. Also wants to see sampling for FP at CAA 6

Field Logbook No. SAS 110 Date 5-3-00

- Mobilized to boring GP-PA02-D69-03 and 04 and began boring at 0955.
- Michelle left Team # 2 at Fuel Line CAA 13 @ 1010 to see how storm drain sampling is going at CAA 13.
- Arrived at CAA 13 at 1015 - Refer to logbook No. SAS 109.
- Went to job trailer at 1230 to get Samples for Curtis & Tompkins (Fixed Lab) Relinquished Samples at 1240.
- Left site for lunch break at 1245.
- John Lane and Michelle Reis returned to site at 13:35 went to CAA 6 and meet team 1 to check for floating product.
- Went to Building 1 to look at maps for CAA 7 storm drain.

Field Logbook No. SAS 110 Date 5-3-00

- Went to CAA 11 to mark sample locations for USTs 37-13 thru. 13-16 @ 1455.

- Meet John Fortuna with Ram @ 1630 to locate former location of USTs 37-13 through 37-16.

- Mobilized back to job trailer at 1645 to unload sampling equipment

- Left site at 1700.

5-3-00
Michelle Reis
1700 - time

Field Logbook No. SAS 110 Date 5-4-00

- Arrived onsite 0715. Meet John Lane and storm drain crew → Refer to log book # SAS 109.

- Went to job Trailer and got flight line keys from Mike Barnes. Gave flight line keys to John Lane at 0720.

- Returned to job trailer at 0725. went over todays schedule.

- Personel Present: Michelle Reis - TtEMI
  Team #1 { Mike Barnes : U&A
  Karen stover : U&A
  Team #2 { Brendan Mullholland U&A
  Miguel Himeda : MSE Group

- 0800 went to CAA 6 to help with storm drain sampling → Refer to log book # SAS 109

- Michelle Left site at ~~0700~~ 1900

Field Logbook No. SAS 110 Date 5-4-00

5-4-00
Michelle Reis
time = 1900

Field Logbook No. SAS 110 Date 5-5-00

- Arrived on site at 0720.
- Personel Present: Michelle Reis - TtE MI
  Team #2 { Brendan Mullholland - U&A
  Miguel Himeda MSE Group
  Juan Carlos - Precision Sampling
  Team #1 — Mike Barnes - U&A
- 0730 went over todays schedule with both teams.
- 0746 - Team # 1 and 2 left job trailer. Michelle stayed and worked out the remainder of the project schedule.
- 0815 - Called USA to extend tickets. they were entered incorrectly so had to redo remaining tickets.
- Looked over COCs and cross referenced with FSP to make sure all samples are being

Logbook No.: SAS 110
Page: 24 of 38

IC. 0030.10824

Field Logbook No. SAS 110 Date 5-5-00

analyzed correctly.

- Updated FSP to include samples collected during week #2.

- 12:00 left for lunch

- 12:30 returned to site and meet Team #2 at CAA 11.

- 1245 Juan Carlos began boring GP-CA11-DG10-10.
  - no staining or visible product in soil boring and no odor
  - Brendan Mulhelland logged the lithology.
  - Sample 030-CAP-181 collected at 1250.
  - g.w @ ≈ 6.1 ft bgs

- 1300 Juan Carlos began boring FP-CA11-DG1-06!
  - no staining or visible product in soil boring → no odor

Field Logbook No. SAS 110 Date 5-5-00

  - Brendan logged lithology and photos were taken of soil boring
  - g.w at ≈ 5.5 ft bgs

- 1325 began boring GP-CA11-DG10-12
  - no staining or visible product in soil boring → no odor
  - Brendan logged lithology
  - Sample 030-CAP-183 collected at 5.7-6.7 ft bgs at 13:45.
  - Sample 030-CAP-185 collected at 1355 - no sheen or odor on g.w sample
  - g.w at ≈ 6.7 ft bgs.

- 1403 Carlos began boring FP-CA11-DG1-07
  - no staining or visible product in soil boring → no odor
  - Brendan logged lithology and photos were taken of boring

Field Logbook No. SAS 110 Date 5-5-00

- g.w @ ≈ 6.8 ft bgs

- 1429 Juan Carlos began boring
  GP-CA11-DG10-11
  - no staining or visible product in soil boring → no odors
  - Brendan logged lithology
  - Sample 030-CAA-182 collected at 5.8 to 6.8 ft bgs
  - g.w at ≈ 6.8 ft bgs.

- 1500 Mobilized to job trailer and unloaded trucks.

- 1515 left site

5-5-00
Michael Rio
time = 1515

Field Logbook No. SAS 110 Date 5-8-00

- Arrived onsite at 0730. Waited for storm drain crew until 0810 - did not show up.

- 0810 went to job trailer and met:
  John Borrego : U&A
  Mike Barnes : U&A
  Juan Carlos : Presision Sampling

- 0815 went over todays schedule

- 0830 Mobilized to CAA 11 and looked for correct location of FP-CA11-DG1-08 since USTs 37-13 through 37-16 were not correct in GIS. looked at asbuilts for utility lines to help position boring.

- 0915 Juan Carlos began boring
  FP-CA11-DG1-08
  - no staining or visible product in

Field Logbook No. SAS 110 Date 5-8-00

soil boring ⇒ no odor
- John Borrego logged lithology
- g.w. @ ≈ 50 ft bgs

- Mobilized to Fuel Line CAA B.

- 1015 Juan Carlos began boring
GP-PA02-DG9-09 & 10
- no staining or visible product in soil boring ⇒ no odor
- John Borrego logged lithology
- g.w @ ≈ 4ft bgs
- Soil sample (030-CAP-278) collected @ 3-4 ft bgs
- soil sample 030-CAP-279 collected @ 4-5 ft bgs
- no sheen or odor on g.w sample 030-CAP-299

- 1100 Juan Carlos began boring
GP-PA02-DG9-~~15~~ 17 and ~~16~~ 18
- no staining or visible product in soil boring ⇒ no odor
- John Borrego logged lithology
- g.w @ ≈ 39 ft bgs
- Soil sample 030-CAP-286

Field Logbook No. SAS 110 Date 5-8-00

collected @ 3-4 ft bgs
- Soil sample 030-CAP-287 collected @ 4-5 ft bgs
- no sheen or odor on g.w. sample 030-CAP-303

- 1140 Juan Carlos began boring
GP PA02-DG9-23 and 24
- no staining or visible product in soil boring ⇒ no odor
- John Borrego logged lithology
- g.w @ ≈ 3.5-40 ft bgs
- Soil sample 030-CAP-292 collected at 2.5-3.5 ft bgs
- soil sample 030-CAP-293 collected at 4-5 ft bgs
- no sheen or odor on g.w. sample 030-CAP-306

- 1230 left site for lunch

- 1300 returned to Fuel Line CAA B

- 1315 Juan Carlos began boring
GP-PA02-DG9-21 and 22
- no staining or visible product

Field Logbook No. SAS 110 Date 5-8-00

in soil boring ⇒ no odor
- John Bonnego logged lithology
- g.w. @ ≈ 4.0 ft bgs
- Soil Sample 030-CAP-290 collected @ 3-4 ft bgs
- Soil Sample 030-CAP-291 collected @ 4-5 ft bgs
- no sheen or odor on g.w. sample 030-CAP-305

- 1348 Juan Carlos began boring GP-PA02-DG9-11 and 12
- no staining or visible product in soil boring ⇒ no odor
- John Bonnego logged lithology
- g.w. @ ≈ 4.0 ft bgs
- Soil Sample 030-CAP-280 collected at 2.5-3.5 ft bgs
- Soil Sample 030-CAP-281 collected at 4.5 ft bgs
- Soil duplicate collected at 5.5-6.0 ft bgs 030-CAP-385
- no sheen or odor on g.w sample 030-CAP-300
- Mobilized to CAA 12

Field Logbook No. SAS 110 Date 5-8-00

- 1420 Juan Carlos began boring HP-CA12-DG3-01
  - no staining or visible product in soil boring ⇒ no odor
  - John Bonnego logged lithology
  - g.w @ 5.0 ft bgs
  - no sheen or odor on g.w. sample 030-CAP-186

- Mike Barnes & John Bonnego collected an Equipment Rinsate 030-CAP-347

- Juan Carlos grouted HP-CA12-DG3-01 at 1505

- 1511 Mobilized to job trailer to unload trucks

- 1645 left site

5-8-00
Michael [illegible]
Time = 1645

Field Logbook No. SAS 110 Date 5-9-00

0740 Arrived at job trailer

Personel present: Michelle Reis - TtEMI
Team #2 { John Borrego - U&A
Miguel Himeda - MSE Group
Juan Carlos - Precision
Team #1 { Mike Barnes - U&A
Kim Tom - U&A

0758 Mobilized to CAA 5

0817 Juan Carlos began boring
FP-CA05-DG1-01
- Staining and a strong hydrocarbon odor are present ⇒ no visible product in soil boring
- John Borrego logged lithology and photos were taken of the boring
- g.w. at ≈ 7.5 ft bgs

0853 Juan Carlos began boring
FP-CA05-DG1-02
- slight discoloration of soil and slight hydrocarbon odor ⇒ no visible product in soil boring

Field Logbook No. SAS 110 Date 5-9-00

- John Borrego logged lithology and a photo was taken of the boring
- g.w @ ≈ 6.0 ft bgs

0923 Juan Carlos began boring
FP-CA05-DG1-03
- no staining or visible product in soil boring ⇒ no odor
- John Borrego logged lithology and a photo was taken of the boring
- g.w at ≈ 60 ft bgs

0945 Mobilized to CAA 13

1011 Juan Carlos Began boring
GP-CA13-DG5-03 and 04
- Significant soil staining and visible product in soil boring @ 6 ft bgs to 7 ft bgs
Strong hydrocarbon odor
- Turned into a Type I data gap ⇒ will check for FP tomorrow
- Soil Sample 030-CAP-207 collected at 3-4 ft bgs
- Soil sample 030-CAP-208 collected at 4.5-5.3 ft bgs.

Field Logbook No. SAS 110 Date 5-9-00

- Soil dup 030-CAP-378 collected at 4.0-4.5 and 5.3-5.5 ft bgs
- g.w @ ≈ 4.0 ft bgs
- John Borrego logged lithology
- g.w. sample 030-CAP-226 did not have a sheen or odor.

- 1055 Juan Carlos began boring GP-CA13-DG5-01 and 02
- Significant soil staining but no visible product at 3-3.5 and 4-5 feet bgs ⇒ strong hydrocarbon odor
- Turned into a type I data gap & will check for FP tomorrow
- Soil Sample 030-CAP-205 collected at 2.5-3.5 ft bgs
- soil sample 030-CAP-206 collected at 7-8 ft bgs
- g.w. @ ≈ 4 ft bgs - but hard to tell
- John Borrego logged lithology
- g.w. sample 030-CAP-225 had a slight sheen and odor

- 1230 Team # 2 departed for lunch John Borrego went to V&A office

Field Logbook No. SAS 110 Date 5-9-00

- Michelle Stayed to show utility locations additional sampling locations at CAA 13 storage area and near building 397

- 1340 Mobilized to CAA 5

- 1350 Juan Carlos began boring GP-CA05-DG10-07 and 08
- Soil Sample 030-CAP-078 collected at 4.0 to 4.7 feet bgs.
- no staining or odors in boring TD=8.0 ft bgs
- g.w @ 4.5 ft bgs
- GP-CA05-DG10-08 (030-CAP-079) was not collected because g.w was at 4.5 ft bgs. (See FSP)
- lithology not logged

- 1405 Juan Carlos began boring GP-CA05-DG10-01 and 02
- Soil sample 030-CAP-072 collected at 4.0-4.7 ft bgs
- Soil duplicate 030-CAP-371 collected at 3.5 to 4.0 ft bgs
- Total depth of soil boring 8.0 ft bgs.

Field Logbook No. SAS 110 Date 5-9-00

- no staining or odors in soil boring
- g.w. @ 4.5 ft bgs
- GP-CA05-DG10-02 (030-CAP-073) was not collected since g.w. is @ 4.5 ft bgs.
- lithology was not logged.

1422 Juan Carlos began boring GP-CA05-DG10-03 and 04
- soil sample 030-CAP-074 collected @ 4.0-4.7 ft bgs
- Total depth of soil boring is 8.0 ft bgs
- g.w. @ 4.5 ft bgs
- no staining or odors in soil boring
- GP-CA05-DG10-04 (030-CAP-075) was not collected since g.w. is at 4.5 ft bgs
- lithology was not logged.

- 1435 Juan Carlos began boring GP-CA05-DG10-05 and 06
- Soil Sample 030-CAP-076

Field Logbook No. SAS 110 Date 5-9-00

collected at 4 to 4.7 ft bgs
- Total depth of soil boring was 8.0 ft bgs
- no staining or odors in soil boring
- g.w. @ 4.5 ft bgs
- soil sample 030-CAP-077 not collected since g.w. @ 4.5 ft.
- lithology was not logged.

- 1515 Juan Carlos grouted GP-CA05-DG10-01, 03, 05, and 07

- 1530 Collected equipment rinsate for SVOC - data Gap Type I analysis (030-CAP-348)

- 1543 Mobilized to job trailer to unload trucks. Michelle & John Bonnego went to mobile lab to compile analytical results.

- 1745 left site

5-9-00
Michelle [illegible]
Time - 1745

Field Logbook No. SAS 110 Date 5-10-00

- 0745 arrived on site at the job trailer.

- Personel Present: Michelle Reis - THEMI
  Team #2 { John Bonego - U&A
  Juan Carlos - Precision
  Miguel Himeda - MSE Group
  Team #1 { Mike Barnes - U&A
  Kim Tom - U&A

- 0755 Mobilized to CAA 5

- 0815 Juan Carlos began boring FP-CA05-DG1-04
  - no staining or visible product in soil boring ⇒ no odor
  - John Bonego logged lithology and a photo was taken of the boring
  - g.w @ ≈ 6 ft bgs

- 0840 Juan Carlos began boring FP-CA05-DG1-05
  - hit concrete foundation of building 400 and could not finish boring

Field Logbook No. SAS 110 Date 5-10-00

  - will have to get concrete cover to step out from building.

- 0920 Mobilized to CAA 13

- 0930 Juan Carlos began boring FP-CA13-DG1-03
  - significant staining @ 5.5 ft to 8.0 ft. Boring had visible product and a very strong hydrocarbon odor
  - Floating product in g.w in soil boring.
  - John Bonego logged lithology and a photo was taken of the boring.
  - g.w @ ≈ 6 ft bgs

- 1000 - Juan Carlos removed storm drain cover near FP-CA13-DG1-03 and stuck a clear bailer in.
  - water in storm drain had ≈ 3/8 in of floating product on it ⇒ very strong odor
  - photo was taken of bailer

Field Logbook No. SAS 110 Date 5-10-00

1015 Juan Carlos began boring FP-CA13-DG1-02
- soil staining and odor in soil boring. No visible product
- John Borrego logged lithology and a photo was taken of the soil boring
- g.w @ ≈ 6ft bgs

1047 Mobilized to Parcel 27

1100 Juan Carlos began boring HP-EP27-DS11-01
- water sample 030-CAP-237 was collected

1142 Michelle left team # 2 to check in with mobile lab. Picked up data packages for Vickie McCartney - T&EMI project chemist

1200 Left site (Michelle) to return to Sacramento office.

Field Logbook No. SAS 110 Date 5-10-00

- Teams #1 and 2 still onsite sampling.
- Refer to Uribe & Associate log books.

5-10-00
Michelle Rios
Time = 1200

Field Logbook No. SAS 110 Date 6/14/00

0830 Arrived on-site at parking area north of IR 3

Personel Present: Michelle Reis - TtEMI
Mike Barnes - U&A
Jason - U&A
Juan Carlos - Precission
John MR Taylor - Subtronic

0835 - Mobilized to Building 398 for GPR (John MR & Michelle)
- U&A & Precision mobilized to Building 397 (CAA 13) to begin FPs.

0845 - Metal detector did not pick up anything large enough to be a UST on the South side of Building 398 (Exterior only)
Area Searched =

0850 Began ~~using~~ setting up MR GPR on South side of Building 398 (Exterior Only)

Field Logbook No. SAS 110 Date 6/14/00

0900 - Jon walked length of South Side of Bld 398 about 5 ft from exterior wall using GPR - did not pick anything up except utilities & reinforced concrete

pass #1 (W→E)

0905 - Jon moved 5 ft South and walked another length. Found two dark areas on GPR (possible USTs ~ excavation of USTs)

pass #2 (E→W)

10' from wall

0910 - Jon moved 5 ft farther South & ~~[illegible]~~ MR walked length of Building 398.

15' from wall

pass #3 (W→E) Found 2 dark areas on GPR - same location as in pass #2

0915 - John Borrego w/ U&A arrived on-site. Went to Bld 397 (CAA 13) to start drilling FPs.

W to E ~~(E to W)~~ MR

Field Logbook No. SAS 110 Date 6/14/00

0920 - Jon moved 18' of South side of Building 398 a walked length. GPR picked
pass #4 up some 2 dark areas
(E → W) but not as "intense" as passes # 2 and 3.

0930 - Jon moved to 23' from S. Bld 398 a walked length. GPR picked up some
pass #5 disturbance near same
(W → E) 2 areas as detected before → but very faint.

0935 - Jon moved ≈ 5ft South of pass #5 a walked
pass #6 length of South side of
(E → W) Bld 398. GPR didn't pick anything up except a Utility line.

0943 - Jon marked a 5 ft grid pattern starting at the SW corner of Bld 398. N → S direction

Field Logbook No. SAS 110 Date 6/14/00

to 25 feet. E → W direction to 50 ft. This is the area in which the 2 dark areas were picked up by GPR

0950 @ -5' of SW corner of Bld 398 Jon walked
N → S 25 ft length

0952 @ 0 ft of SW Corner of Bld 398 Jon walked
S → N 25' length

0953 @ 5 ft of SW corner of Bld 398 Jon walked 25'
N → S length

0954 @ 10' of SW Corner of Bld 398 Jon walked 25'
S → N length

Field Logbook No. SAS 110 Date 6/14/00

1000 @ 15' of SW corner of Bld 398 Jon walked 25' length.
N→S

1002 @ 20' of SW corner of Bld 398 Jon walked 25 ft length.
S→N

1004 @ 25' of SW corner of Bld 398 Jon walked 25 ft length
N→S

1005 @ 30' of SW corner of Bld 398 Jon walked 25' length.
S→N

1006 @ 35' of SW corner of Bld 398 Jon walked 25' length
N→S

1007 @ 40' SW of corner of Bld 398 Jon walked 25' length
S→N

Field Logbook No. SAS 110 Date 6/14/00

1008 @ 45' of S.W. corner of Bld 398 Jon walked 25' length
N→S

1009 @ 50' of S.W corner of Bld 398 Jon walked 25' length
S→N

1015 - moved to inside of Bld 398. Jon walked length of South side of Bld 20' from wall. GPR picked up reinforced concrete
W→E

1020 - @ 15' off inside south wall of Bld 398 Jon walked length of Bld 398.
E→W

1023 @ 10' off inside south wall Jon walked partial length of Bld → desks & equipment blocking path.
W→E

Field Logbook No. SAS 110 Date 6/14/00

- 1024 @ 5' off inside wall Jon walked partial length of Bld 398. Desks & equipment blocking path
E → W

1030 Jon Began walking a 5' grid pattern N → S & S → N inside of Bld 398.
Total Length = 40 ft
- Area searched from South interior wall to 20' North and from middle interior ~~east~~ east wall to bathrooms in the SW corner of Bld. Striped area with desks & equipment → 10' off bathroom wall (west) to 30' off bathroom wall.

- 1045 - moved to second section of interior of Bld 398. Area between East & West interior walls

Field Logbook No. SAS 110 Date 6/14/00

Jon walked a 5 foot ~~grid~~ intervals ~~pattern~~ E → W & W → E on 2nd pass went ≈ 20 feet past ~~eastern~~ western interior wall (to the west) not a grid

- 1050 moved to third section of interior of Bld 398 (area 20 feet past ~~east~~ western interior wall) Jon walked 5 ft intervals from E → W & W → E → not a grid

- 1055 Jon packed up equipment Michelle mobilized to Bld 397 to meet QA and Precision

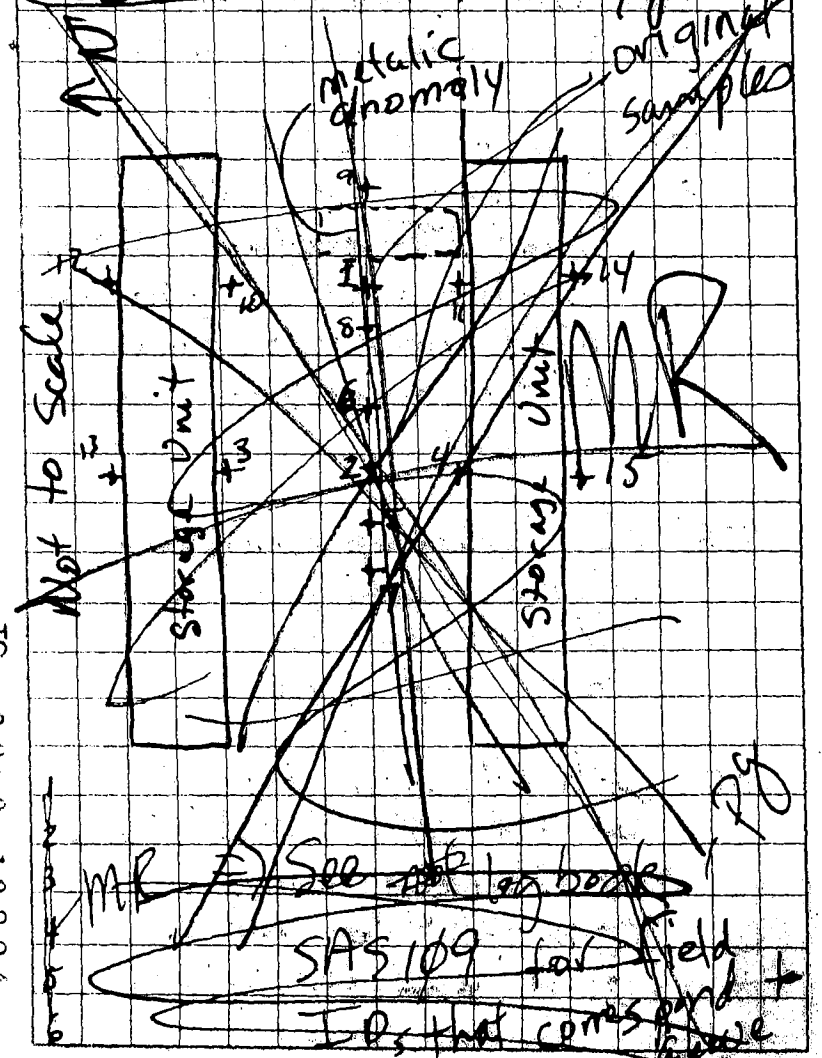
- 1100 Both FP's were drilled at Bld 397. Mobilized to storage area (CAA 13) to look for QA and Precision.

74

Field Logbook No. SAS 110 Date 6/14/00

1105 - Precision was drilling soil borings (stepouts) see diagram below

~~SEE LOG BOOK SAS 109 pg 35~~



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X-304

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LOGBOOK NO. SAS 109

PRC Environmental Management, Inc.

Logbook No. SAS 109

(For Single Project Use Only)

Project No.: _____

Project Location: _____

Site ID/GPS: _____

Issuance No.	Date	Name	Last Page Used

TC. 0030.10824

Field Logbook No. SAS 109 Date 5-2-00

Personell arrived @ 0800
Personel present
Mike D'Angelica Clearwater
Greg Johnson "
Loren Taylor "

Michelle Reis TtEMI
John Lane "
Susan McLaughlin "

Tailgate H+S brief 0830

Checked CAA 3 first
Discussed containerizing pumped water. Agreed can't containerize + can't drain to seperate system for cross contamination issues. Agreed will have to drain to 64-1 (hose will cross traffic so need traffic monitoring ~~or 2x4's for along the hose~~) Also decided they need a totalizer since can't containerize.
0920
Took Atmosphere readings
O_2, CO, LEL, H_2S

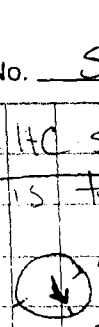
Logbook No.: SAS 109
Page: 1 of 24

Field Logbook No. SAS 109 Date ~~109~~ 5-2-00

0920

Noted HC smell + sheen

~~Flow is toward THC~~



2 here (one over another)
(looks like 24" diameter pipes)

flow appears to be toward middle ~~hole~~ pipe

Looks like 3' of water at center, has uneven bottom

Picture 1 IR3
2 Storm drain IR3

Since has 3' water, Loren doesn't want to put guys in hole. So will try to dewater

- Began dewatering @ 1010
1020 we decided to check water depth because it seemed to be increasing the depth

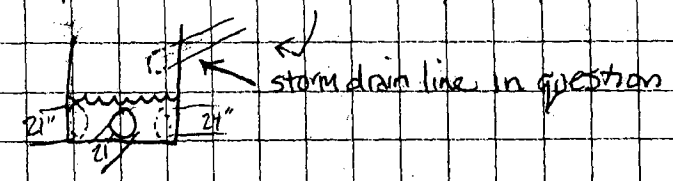
Field Logbook No. SAS 109 Date 5-2-00

Determined w/ makeshift water depth monitor that we increased depth to 4' 3" by dewatering into 6H-B storm drain. After pumping water still rose.

Decided to put this well off till we have waders, need someone inside in order to determine how to block the influent in order to dewater.

Tore down, may return later today w/ waders.

~~Into~~ The evidence in the field suggests that the line in question is 5 inches above the highest water depth in the storm drain convergence point.



Since the storm drain line in question is currently dry with only slight standing water below the actual piping - it can be concluded that no infiltration of contaminated groundwater occurs

Field Logbook No. SAS 109 Date 5-2-00

through the line in question.
In short - the line in question is above the groundwater.
Following this, storm drain infiltration study will not be conducted at this site. [illegible]

picture 3 storm drain line @ IR3

1 Catch basin on edge of Atlantic

- IR 7
Arrived @ 1110
Found 6G-11A
one inlet above (slightly) water level. ≈1ft of water. 1 inlet on south side,

6G-11 has 2 inlets w/ 3" standing water South inlet about 1' above water, East inlet bottom even

Field Logbook No. SAS 109 Date 5-2-00

with water level

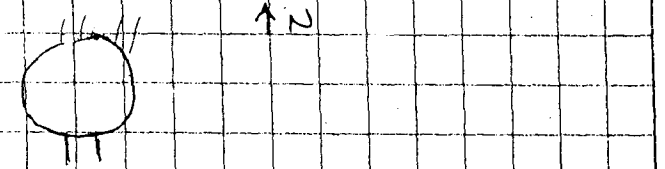
6G-15B is filled w/concrete.

So: 6G-11A has no inlet from tank direction
6G-11

Checked as built & found 6G-11 is the one we see as 6G-11A on story board & we need to check in manhole inside the fence line.
John got permission to open fence, ~~owner~~ manager of facility moved car from over manhole.

Opened cover (no monitoring) no floating product detected. (no odor, no sheen)

Field Logbook No. SAS 109 Date 5-20-00



Standing water ~2.5' before dewatering

picture 5 IR 7

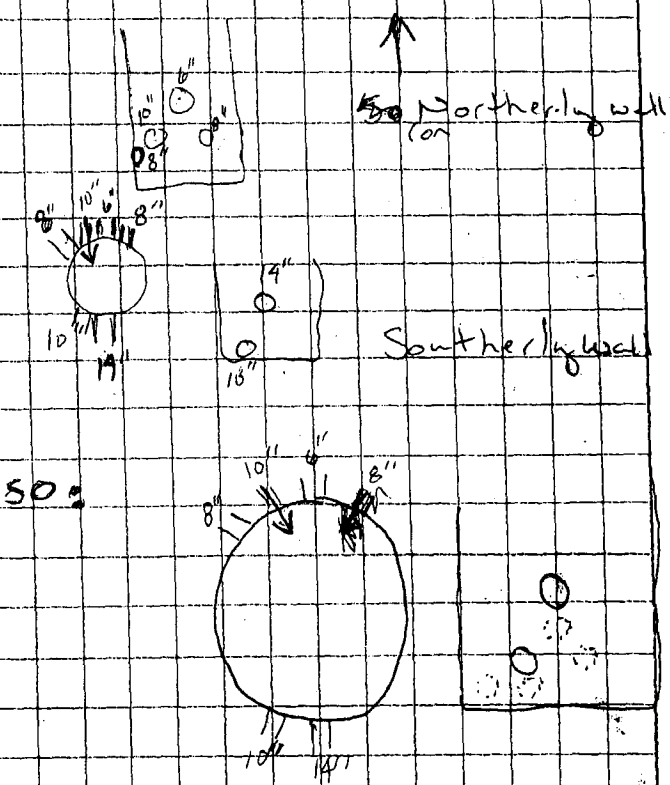
Began dewatering @ 1200 and water drain to catch basin marke to G-11 on story board After 10' we determined that we had to block off again. We weren't making much head now again.

We will break for lunch, get waders then try to dewater again.

Field Logbook No. SAS 109 Date 5-20-00

Returned 1330. Team had tripod hoist/halter set up for entry into sewer. Also had waders on.

Monitored the confined space. Found only 10" of standing water.



No eastern inlets leading to tank site.

Field Logbook No. SAS 109 Date 5-2-00

Began dewatering 1350
Picture 6 Mike down
in sewer
IR 7.

Water flowed back in the
10" inlet on the north side
of the sewer

As we were pumping it was
recharging, when we stopped,
recharge stopped.

Arrived @ CAA 13 1430

~~Manhole 5J~~ catch basin pretty close to
empty. is actually a man hole
Water flow toward manhole
5J as shown on story board.
Storm water flow agrees with
drawing

Field Logbook No. SAS109 Date 5-2-00

moved to manhole 6-J @ 1450
monitored

Smelled HC, found standing
water. Looks like gw flow from
north, all inlets correctly identified
same as story board.

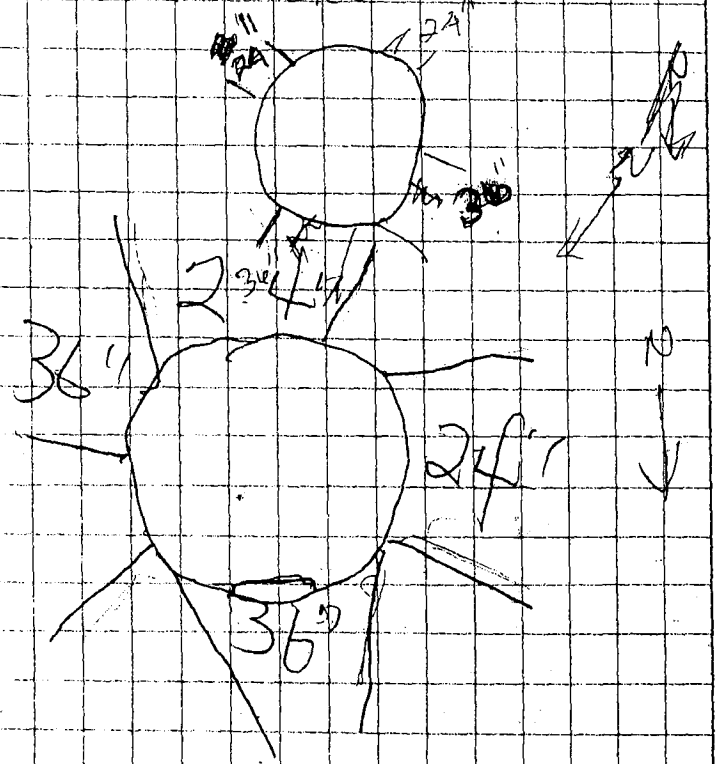
Went to CAA 6 arrived @ 1520
found the manhole 3A, opened
11A & found ~~gw~~ water flowing
toward ~~west~~ east
All catch basins & manholes
were identified in keeping w/
the story board.
Smelled hydrocarbon
Identified 3AA across taxi
way but same general direction.
11A ~~has~~ strong petroleum odor
& sheen. Manhole 3A is between
the northernmost & middle fuel
tank storage pad. 11AB doesn't
exist.

Field Logbook No. SAS 109 Date 5-2-00

11 A set up hoist to lower man in hole. Provided ventilation

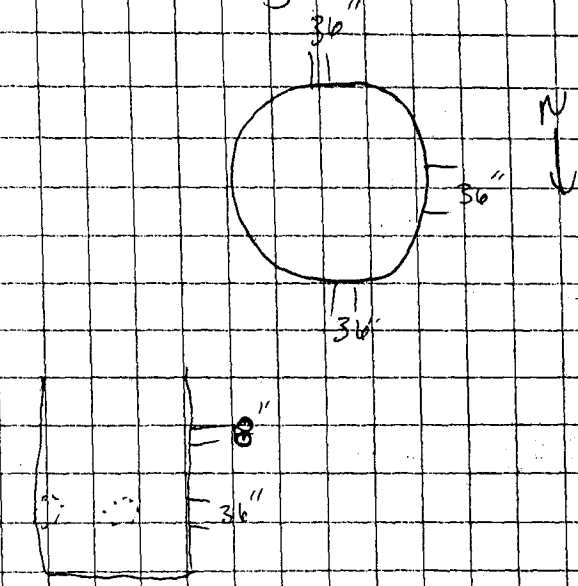
Picture 7 CAA 6

entered man hole @ 1605
4 water holes



Field Logbook No. SAS 109 Date 5-2-00

3A - 3 main holes 36" a little 12" higher



water line about 4.5'

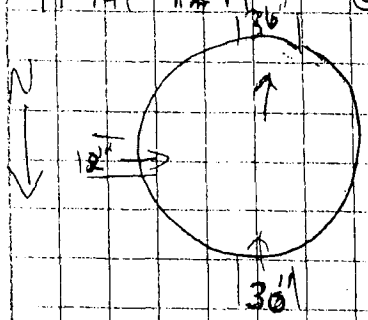
Went to most west catch basin, found filled w/ sediment.

Picture 8 Sediment filled catch basin

12

Field Logbook No. SAS 109 Date 5-2-00

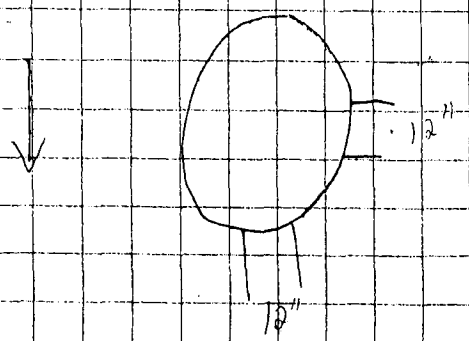
~~11 At~~ 11A @ 1700



definite flow toward 11A

11A-1 @ 1710

HC odor no sheen, not as strong



Finished @ 1712

13

Field Logbook No. Date

Submitted 5-8-00

Lauren's cell # 510-376-4431

Field Logbook No. _____ Date SAS-109 ~~5/4/00~~ 5/3/00

Loren Taylor
Gregg Johnson
Micheal Angelica

5/3/00
JAL ~~5/4/00~~

7:45am - Arrived at CAA 13 to perform storm drain infiltration study.

- Personell present - John Lane - TTEMI
  Greg, Lauren, - FASTEK
  Mike

- Partly cloudy/foggy - 65°F

7:50 am - Began to plug 6-J drop box.

8:00 - laid out 3" pump hose from 6-J to 5-J

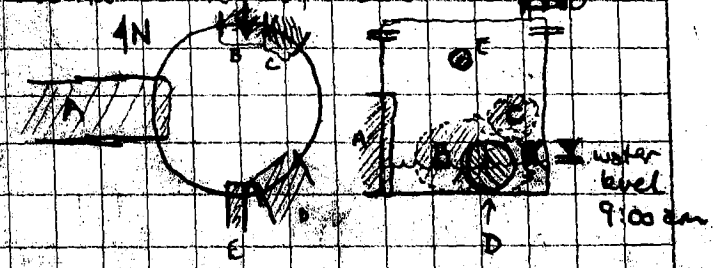
8:20 - Lauren filled out confined space entry permits

8:30 - Inspected and checked dates of certificates of FASTEK personell. All personell were certified within the last year. Micheal Angelica is only individual certified for confined space entry.

Field Logbook No. _____ Date 5/3/00 ~~5/4/00~~

8:45 - Loren held safety talk
- all FASTEK personell present.

Downward view of 6-J



- no observable sheen
- slight petroleum odor
- line C goes to
- little or no observable GW flow
  there seemed to be a slight flow from B

Picture 9 - lowering pig into 6-J
9:15 lowered Micheal into 6-J

Picture 10 - positioning and inflating pig in 6-J

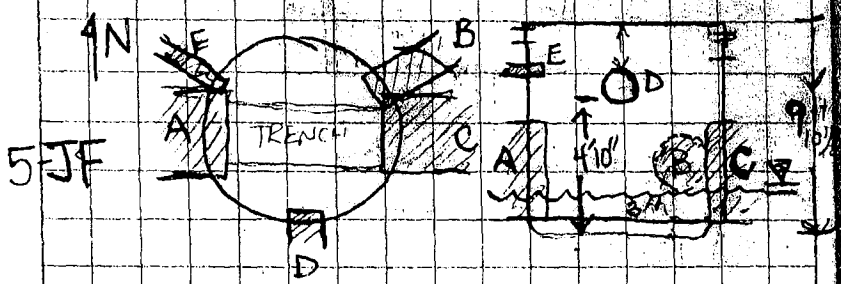
9:10 John Borrego arrived on site
9:25 - Pig pressure set @ 20 psi
Micheal removed from 6-J

SAS-109 JR

Field Logbook No. _____ Date ~~5/4/00~~ 5/3/00

9:35 Moved operations to 5-JF
- LEL read prior to removal of cover - OK 0% 20.9

9:40 Michael lowered into 5-JF
9:45 plug lowered into 5-JF



A: 24"
B: 12"
C: 24"
D: 8"
E: 2"

depth from lip of SD cover to CB - 9.87 ft

depth from lip of SD cover to top of GW 9.80 ft

- slight petroleum odor / no sheen
- No perceptable flow in trench that runs from A to C
- 3-4" of GW @ 9:50

9:50 plug set @ 20 psi
Michael removed from 5-JF

Field Logbook No. _____ Date ~~5/4/00~~ 5/3/00 JR

9:50 - Michelle arrived on site
10:00 Began pumping GW from isolated storm drain
- Fastek did not bring flow/total flow meter and so in order to measure the volume of water removed from the isolated line, a coleman cooler was filled to capacity. The volume will be determined when the volume of the cooler is measured later.

# of coolers filled. = volume of cooler =

Total Volume =
= # of coolers x volume of cooler

10:40 - Turned off water pump
- The GW that was being pumped from the SD had a petroleum odor and was dirty brown but no free product or sheen was observed.
- stopwatch started

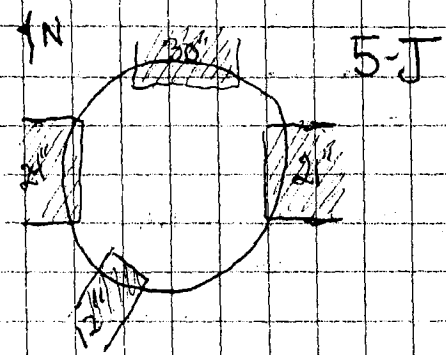
SAS-109

Field Logbook No. _____ Date 5/3/00

10:51 At 11:30 min the depth to gw from the lip of the SD cover was 9.54 ft

11:00 At 20:00 min, the depth to GW from the lip of the SD cover 9.52 f

11:05 Began to look inside 5-J to determine actual configuration of catch basin



Field Logbook No. _____ Date 5/3/00

11:10 Dropped mike into 5-J and check and measured SD lines - removed MIKE

11:30 Checked the pressure of both pigs and they were >20 psi

11:35 Inspected 5-JA and only one singe 12" line enters from northeast toward 5-J as shown in figures.

11:40 Ceased pumping water from line

11:10 Brad Job of the RWQCB arrived on site to observe field activities. He was on site while FASTEK was inside 5-J. He concurred that the evidence in the field suggested that no storm drain line entered 5-J from the south suggesting that no storm drain lines run south to north along the west side of Bldg. 530. from 5-J.

Field Logbook No. SAS-109 Date 5/3/00

It is possible that line D from 5-JF is the north-south line west of Bldg 530. This line however is well above the GW and therefore not a possible conduit for GW TPH contamination.

11:55 Mike Barnes & Karen Stover from Uribe arrived on site to sample the SD.

11:55 At 1hr 17 minutes, the depth to GW from the lip of SD cover = 9.50 ft

12:00 Began sampling GW infiltrate

Picture 11
- GW infiltrate sampling by Uribe.

Field Logbook No. SAS-109 Date 5/3/00

12:20 - GW infiltrate sampling concluded Mike and Karen depart

12:25 - John & Michelle leave as FASTEK removes the pigs.

END OF DAY 5/3/00

John H Lane

Field Logbook No. _____ Date 5/4/00 [illegible]

5/4/00 [illegible]

7:00 Met at front gate with FASTEK.

FASTEK Personell present:

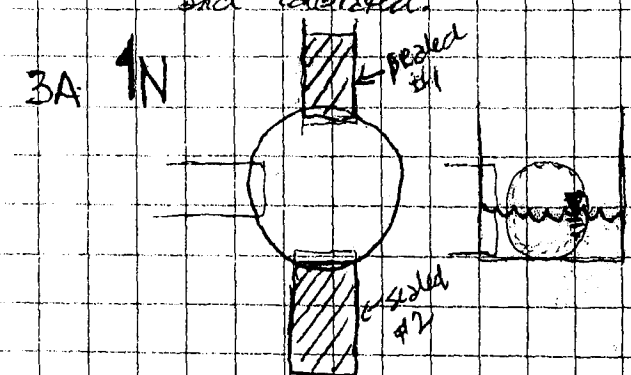
Team #3
- Loren Taylor
- Gregg Johnson
- Micheal Angelica

Partly cloudy/foggy 60°F

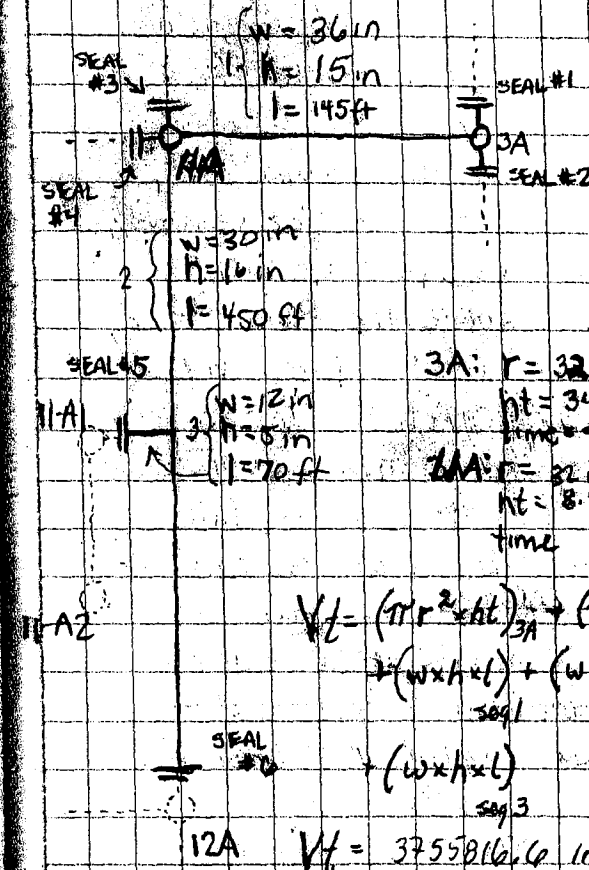
7:15 Fastek had supplies dropped off

7:45 Arrived @ CAA6 and began running 2" line from manhole 3A North across the taxiway to a contiguous catch basin downstream.

8:00 Loren checked LEL meter and calibrated.



Field Logbook No. _____ Date 5/4/00 [illegible]



1 { w = 36 in, h = 15 in, l = 145 ft

2 { w = 30 in, h = 16 in, l = 450 ft

3 { w = 12 in, h = 5 in, l = 70 ft

3A: r = 32.5, ht = 34 in, time = [illegible]

11A: r = 32 in, ht = 8.4 − 6.82 = 1.58 ft, time

$$V_t = (\pi r^2 \times ht)_{3A} + (\pi r^2 \times ht)_{3AA} + (w \times h \times l)_{seg1} + (w \times h \times l)_{seg2} + (w \times h \times l)_{seg3}$$

$V_t = 3755816.6\ in^3$

$= 16{,}258$ gallons

w = width of storm drain @ water surface

h = depth of water in storm drain

r = radius catch basin

ht = height water column in catch basin

Logbook No.: SAS 109
Page: 12 of 24

Field Logbook No. _____ Date 5/4/00 JAL

Once again, FASTER is without a device to measure the amount of water pumped. Because of the volume of water needed to be removed from this system, we will calculate the flow rate of the FASTER pump by pumping initially into a 55 gallon drum and measure the time it took to fill. Using the flow rate, we will ~~measure~~ calculate the time needed to evacuate the system ~~and calculate the amount of~~ + JA volume at least 2X.

FLOW RATE 2" = $\frac{55 \text{ gallons}}{\text{time in minutes to fill}}$

FLOW RATE 3"

= $\frac{55 \text{ gallon}}{0.717 \text{ min}}$ = $\frac{55 \text{ gall}}{0.725 \text{ min}}$ gallons per minute

= 77 gpm = 76 gallons/min

Field Logbook No. _____ Date 5/4/00 JAL

Time needed to pump 3X volume 3X Vt = 48,777

= 3×Vt ÷ pump rate = minutes to pump

=

8:45 Michael entered 3A and positioned first seal in North downstream. We did NOT inflate the seal at this time. SEAL #1 inflating seal #1 would back up system.

8:55 The second seal (SEAL #2) was positioned in southward line and inflated to 25 psi.

9:05 Michael exited 3A.

9:20 SEAL #2 complete, operations moved to 1/A. The observed flow in 3A is from the north line slowly into the west line (the line of interest)

10:30 Seal #3 placed in wrong pipe had to remove position of seal #3 is block ahead with a concrete plug. ⇒ Do not need plug

SAS-109

Field Logbook No. _____ Date 5/4/00

10:35 Mobilized to seal #6 (manhole 12A)

10:50 Loren monitored atmosphere in manhole 12A

10:53 Removed manhole cover

10:55 Mike went into manhole 12A. A visible sheen was present on the water surface → no petroleum odor was observed.

11:00 Installed plug #6 and removed mike from manhole

11:05 Replaced 12A manhole cover and mobilized to manhole 11-A1

11:10 Loren measured atmosphere in manhole 11-A1 and removed cover. No sheen or odors were observed.

11:20 Mike went into manhole 11-A1 took measurement and placed seal #5.

11:40 Started pumping @ 76 gallons per minute

12:00 Started second pump @ 76 gallons per minute

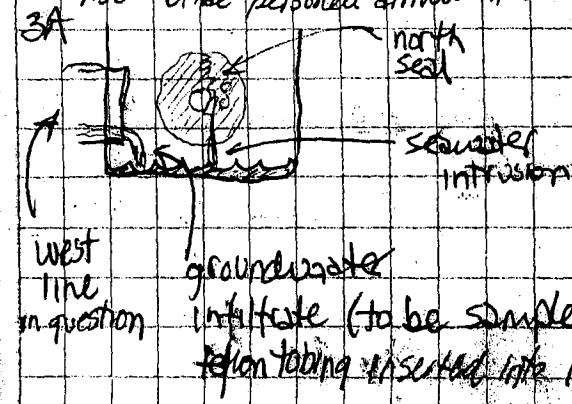
SAS-109
5/4/00

Field Logbook No. _____ Date _____

12:10 – departed for lunch while pumping proceeded

1:15 Arrive back from lunch ceased pumping of 3A. The water in 3A had been reduced well below the drain line in question. Seawater was intruding into 3A from the north seal #1. The rate of intrusion was low and not considered a problem since there was also groundwater intrusion draining from the west line in question.

1:30 Uribe personell arrived on site → Mike Barnes, Loren Stover



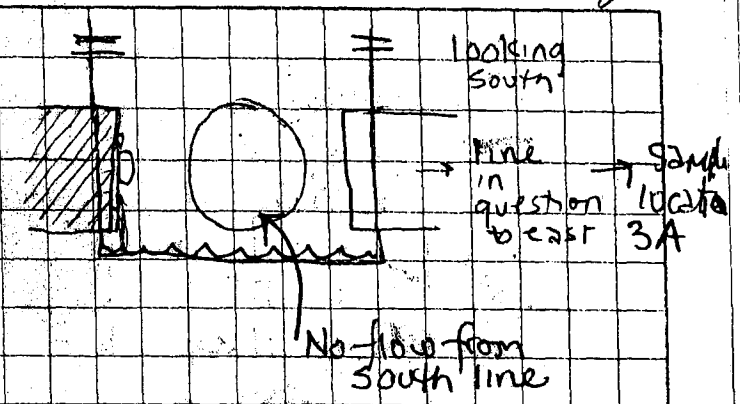
2:10 Sent Michael down the 3A to sample. He put the teflon tubing connected to the peristaltic pump into the west line. Uride personel collected sample

2:19 Sampling ceased

2:20 Infiltration rate measured with 5 gallon buckets
Infiltration rate = $\frac{5 \text{ gallons}}{0.5/\text{minute}}$
= 10 gallons/min

2:21 Michael removed from 3A

2:25 Inspected catch basin. There was NO infiltration of GW coming from the lines in question from the south. There was slight leakage of water through the west seal.



2:30 Arrived at 11-AG

Picture 12 Preparing to sample 3A 1st event

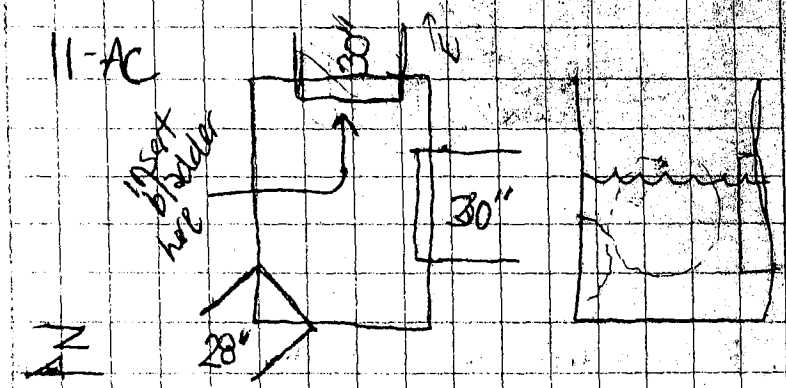
Picture 13 Michael holding teflon tubing in south line for sampling event #1

Picture 14 FASTEK stormwater infiltration study picture.

SAS-109

Field Logbook No. _____ Date 5/4/00

2:45 Catch Basin cover removed.

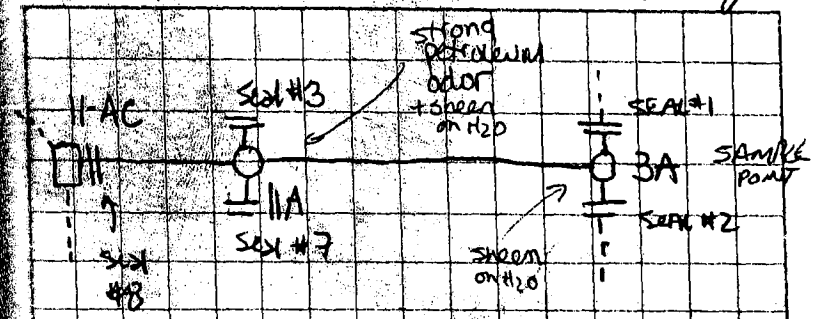


2:55 - Mike lowered into 11-AC

3:10 Could not get the inflatable bladder to insert into the east line. Attempted to create suction flow by releasing seal #4 but it did not work.

3:30 Arrived at 11-A in an attempt to install Seal #7. The problem was that seal #8 would not set with the pigs in-hand. The pig in Seal #6 would be

Field Logbook No. _____ Date 5/4/00



used once it was retrieved.

3:32 - Mike lowered into 11-A The inflatable bladder would not go in. Mike removed

3:45 - Seals #5 & 6 removed

3:50 - Once the Seals #5 & 6 were removed the flow of water in lines began to flow into the south line. A strong petroleum odor and sheen were observed on the flowing water.

4:00 Mike lowered into 11-AC to install the pig that was formerly Seal #6

Field Logbook No. _____ Date SAS 109 5-4-09 jc

4:10 Seal in catch basin 11Ac in place and begun filling with air.

4:15 mobilized back to 11A and removed seal #4 and installed seal #7

4:20 Began pumping water from 3A to downstream storm drain reach shown on pg 31.

Volume Calculation
$r = 18$ in
$l = 480$ ft

$V = \pi r^2 l = 5862966 \text{ in}^3$
$= 25380$ gal

time ~~≈ 25380~~ MR 2.6 hrs

Field Logbook No. _____ Date 5-4-09 jc

5:40 – A-3 inspected and found to be ready to sample. The water level below storm drain line. Significant infiltration of the sealed off section of line was present.

5:55 Uribe arrived on site to collect sample

6:00 – Mike entered A-3 and placed teflon tube in outflow (infiltrate) Uribe began collecting sample.

6:05 Samples collected and infiltration rate measured
5 gallons = 23.3 sec
infiltration rate =
Uribe left site

6:10 FASTEK began relieving the inflatable bladders.

Field Logbook No. SAS-109 Date 5-4-00 pm

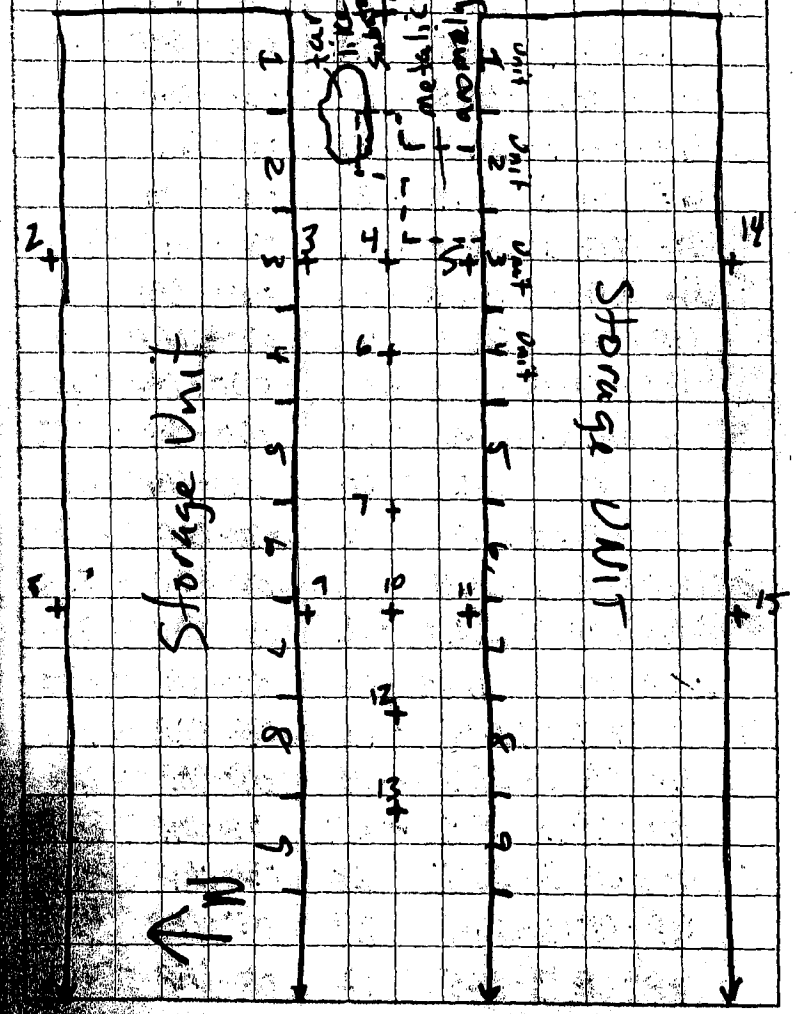
6:15 John Lane leaves site

END OF DAY 5-4-00 pm
John Lane

Field Logbook No. SAS 109 Date 6/14/00

- Continued from Log Book SAS 110 pg 74

Storage Area CAA 13 1 box = 5 ft²



Field Logbook No. SAS 109 Date 6/14/00

	FIELD ID	SAMPLE ID
1	GP-CA13-DG5-025	030-CAP-417
	GP-CA13-DG5-026	030-CAP-418
	HP-CA13-DG5-13	030-CAP-419
2	GP-CA13-DG5-27	030-CAP-420
	GP-CA13-DG5-28	030-CAP-421
	HP-CA13-DG5-14	030-CAP-422
3	GP-CA13-DG5-21	030-CAP-411
	GP-CA13-DG5-22	030-CAP-412
	HP-CA13-DG5-11	030-CAP-413
4	GP-CA13-DG5-01	030-CAP-205
	GP-CA13-DG5-02	030-CAP-206
	HP-CA13-DG5-01	030-CAP-225
5	GP-CA13-DG5-19	030-CAP-223
	GP-CA13-DG5-20	030-CAP-224
	HP-CA13-DG5-10	030-CAP-234
6	GP-CA13-DG5-11	030-CAP-215
	GP-CA13-DG5-12	030-CAP-216
	HP-CA13-DG5-06	030-CAP-230
7	GP-CA13-DG5-13	030-CAP-217
	GP-CA13-DG5-14	030-CAP-218
	HP-CA13-DG5-07	030-CAP-231
8	GP-CA13-DG5-23	030-CAP-414
	GP-CA13-DG5-24	030-CAP-415
	HP-CA13-DG5-12	030-CAP-416

Field Logbook No. SAS 109 Date 6/14/00

9	GP-CA13-DG5-09	030-CAP-213
	GP-CA13-DG5-10	030-CAP-214
	HP-CA13-DG5-05	030-CAP-229
10	GP-CA13-DG5-03	030-CAP-207
	GP-CA13-DG5-04	030-CAP-208
	HP-CA13-DG5-02	030-CAP-226
11	GP-CA13-DG5-07	030-CAP-211
	GP-CA13-DG5-08	030-CAP-212
	HP-CA13-DG5-04	030-CAP-228
12	GP-CA13-DG5-05	030-CAP-209
	GP-CA13-DG5-06	030-CAP-210
	HP-CA13-DG5-03	030-CAP-227
13	GP-CA13-DG5-29	030-CAP-424
	GP-CA13-DG5-30	030-CAP-425
	HP-CA13-DG5-15	030-CAP-426
14	GP-CA13-DG5-15	030-CAP-219
	GP-CA13-DG5-16	030-CAP-220
	HP-CA13-DG5-08	030-CAP-232
15	GP-CA13-DG5-17	030-CAP-221
	GP-CA13-DG5-18	030-CAP-222
	HP-CA13-DG5-09	030-CAP-253

1730 Left field for the day

Michael [illegible]
6-14-00

Field Logbook No. SAS 109 Date 6/15/00

0800 Arrived on-site at parking area North of IR Site 3
Mobilized to Parcel 27

Personnel Present: Michele Reis - TTEMI
Mike Barnes - U&A
Jason Catlett - U&A
Juan Carlos - Precision

0820 Juan began boring
HP-EP27-DG11-02 to 10 ft bgs
- no soil core collected
- Mike & Jason collected
Sample 030-CAP-238

0900 Mobilized to CAA 5

0913 Juan began boring FP-CA05-DG1-05
- no staining or visible product in soil boring → no odor
- John Borrego logged lithology and a photo was taken of the boring
- g.w @ ≈ 5.5 ft bgs

Field Logbook No. SAS 109 Date 6/15/00

1020 Mobilized to CAA 13 Storage Area

1035 Juan Carlos Began boring
GP-CA13-DG5-025 & 026
- tar-like substance present in boring - strong hydrocarbon odor
- John Borrego logged the lithology
- Soil samples collected at 3.5-4.0 ft bgs & 5.0-5.5 ft bgs
- depth to groundwater is approximately 4.5 ft bgs
- water sample collected screen depth = 3-8 ft bgs

1110 Juan Carlos Began boring
GP-CA13-DG5-027 & 028
- no visible staining in soil boring - slight hydrocarbon odor
- John Borrego logged the lithology
- Soil samples collected at 2.5-3.0 ft bgs & 4.0-4.5 ft bgs

Field Logbook No. SAS 109 Date 6/15/00

- depth to ground water at approximately 3.0ft bgs
- groundwater sample collected screed interval = 3-8ft bgs

- 1405 Checked storm drain manhole 5J- for floating product with clear disposable bailer → no floating product, sheen, or odor detected.

- 1407 - Mobilized to CAA 11

- 1410 Juan Carlos began Hydropunch to recollect sample 030-CAP-185 for VOC analysis. John Barego collected sample 030-CAP-185A with a disposable bailer.

- 1500 Mobilized to job trailer to unload trucks & fill out extended COC

Field Logbook No. SAS 109 Date 6/15/00

- 1605 Left Site

Michael Rios
6/15/00

Field Logbook No. SAS 109 Date 6/21/00

- Arrived on-site at 0830 @ CAA 13
- Personel Present: Michelle Reis - THEMI
  John Borrego - U&A
  Juan Carlos - Precision
- Juan was drilling boring GP-CA13-DG4-03 and 04 @ 7 ft bgs
  - staining and a hydrocarbon odor present in soil boring
  - John logged lithology
  - 030-CAP-427 collected @ 3.5-4.5 ~~@0910~~ MR 0910
  - 030-CAP-428 collected @ 6.5-7.0 ft bgs 0915
  - Sheen and hydrocarbon odor present in the groundwater
  - 030-CAP-429 collected @ 8 ft bgs. @ 0900
  - g.w @ 5 ft bgs
- Juan Begun boring FP-CA13-DG1-06 @ 0930
  - staining and

Field Logbook No. SAS 109 Date 6/21/00

  - floating product in soil boring. Strong hydrocarbon odor. → 5-9 ft bgs
  - John Borrego logged lithology and photographs were taken of the boring.
  - total depth of boring 10 ft bgs
  - g.w @ 5 ft bgs.
- ~~0945~~ MR
- 1055 mobilized to IDW storage area.

Drums 1-6 - 6 full decon/purge water
Drum 7 - 1/4 full decon/purge water
- ~~1 decon~~ MR
Drum 8 - 1/20 full decon/purge/product
Drums 9-10 - 2 full soil cutting
- 1/4 5 gallon bucket soil cutting

- 030-CAP-431 composite water sample from drums #1-7

Field Logbook No. SAS 109 Date 6/21/00

- 030-CAP-432 - sample from drum #8 - product
- 030-CAP-433 - sample (composite) from drums 9 + 10 and from 5 gallon bucket.

composite method for drums 1 through 7:
- John Borrego took 3 x 250 ml from each drum + combined in a 5 gallon bucket
- collected samples from 5 gallon bucket for 030-CAP-431
- used paristaltic pump to collect sample 030-CAP-432 from drum #8
- used glass jars & collected a composit sample of the soil cuttings 030-CAP-433

Field Logbook No. SAS 109 Date 6/21/00

1245 - left for lunch

- 1305 - Mobilized to Bld 15 and looked for Monitoring wells.

- 1400 - Began Micro-purge on MW-BG15-DGG-01
  - collected sample 030-CAP-406 + duplicate 030-CAP-409
  - no odor, no sheen on groundwater

- 1445 Began Micropurge on MW-BG15-DGG-02
  - collected sample 030-CAP-407
  - no odor or sheen on groundwater

1520 - Began Micropurge on MW-BG15-DGG-03
  - collected sample 030-CAP-408
  - no odor no sheen on groundwater

Field Logbook No. SAS 109 Date 6/21/00

- 1555 Mobilized to IR Site 16
- 1605 Began micropurge on MW-IR16-DG6-01
  - collected sample 030-CAP-405
  - no odor & no sheen on groundwater
- 1700 Left Site

Michael Rios
6/21/00

Field Logbook No. Date

APPENDIX B
SOIL BORING LOGS

CORRECTIVE ACTION AREA 1

Point Name: CA01-01
Sample Identification: 030-CAP-001

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA01-DG1-01	Date Started: 4-25-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: Juan Carlos
Depth to Water (ft./bgs.) ~3.0'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.S. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
0941	0.0					Sand, 0.0' to 10.0' bgs, well graded sand, 10YR 4/1, dark gray, dry, loose, no cementation, no odor present, no product staining observed,	SW		0.0
	1.0								
	2.0								
	3.0					Sand, as above Wet @ 3.0' bgs			
	4.0								
						Sand, as above	SW		0.0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	5.0							
	6.0							
	7.0							
						Sand as above, wet	SW	C
	8.0							
	9.0							
						Sand, as above, wet	SW	O
	10.0							
						Borehole terminated @ 10.0' bgs		

CORRECTIVE ACTION AREA 2

Point Name: CA02-01
Sample Identification: 030-CAP-002

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA02-DG1-01	Date Started: 4-25-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: ~	Driller: Juan Carlos
Depth to Water (ft./bgs.) ~3.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
0924	0.0					Sand, 0.0 to 4.0' bgs, well graded sand, 10R 4/3, weak red, dry, loose, no cementation, odor present, no visible staining, PID = 729 ppm	SW		
	1.0								
	2.0								
	3.0								
	3.5				▼	Sand, as above, wet @ 3.5' bgs			
	4.0								729
						Sand, as above (assumed) no recovery 4.0 to 7.0' bgs.			
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
						no recovery 4.0 to 7.0' bgs			
	6.0								
	7.0					7.0 to 8.0' bgs, Sand, well graded sand, 10YR 4/1, dark grey, wet, loose, no cementation, odor present, no visible staining.	SW		14.4
	8.0					Sand, 8.0 to 9.0' bgs, as above	SW		0.0
	9.0					inorganic silts & clay, very fine sands, 9.0 to 10.0' bgs, 10BG 2.5/1, greenish black, wet, soft, no odor present, no visible staining.	ML		0.0
	10.0					Borehole terminated @ 10.0' bgs			

CORRECTIVE ACTION AREA 3

Point Name: CA03-01
Sample Identification: 030-CAP-006

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA03-D062-01	Date Started: 4-26-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B. J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.5' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
155	0.0					0.0 to ~10.0' bgs, sand, poorly graded sands, gravelly sand, dry, loose, no cementation, no odor, no visable staining. 10R 4/3, weak red.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, gravelly sand	SP		0.0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	5.0							
	5.5				▼	Sand, as above, gravelly sand, wet @ 5.5' bgs	SP	0
	6.0							
	7.0							
	8.0							
	9.0					Sand, as above, gravelly sand.	SP	0
	10.0					Borehole terminated @ 10.0' bgs.		

Point Name: CA03-02
Sample Identification: 030-CAP-008

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA03-DG3-01	Date Started: 4-26-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4-26-00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B. J. Mulholland
Outer Diameter of Boring: 2" OD.	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~ 5.5' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	Other
303	0.0					0.0 to 1.0' – no recovery, assumed sand.			
	1.0					1.0 to 4.0', sand, well graded sand, 10Y 4/1, dark greenish gray, dry, loose, no cementation, no odor, no visable staining.	SW		No Air
	2.0								
	3.0								
	4.0					Sand, as above, dry	SW		Air
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
0815	6.5					Sand, as above, wet.	SW		Not Avail
	6.0								
	7.0	030-SAP-008							
	8.0					Sand, as above, wet.	SW		No Avail
						Borehole terminated @ 8.0' bgs. Borehole grouted on 4-26-00.			

CORRECTIVE ACTION AREA 4

Point Name: CA04-01
Sample Identification: 030-CAP-036

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA04-DG2-01	Date Started: 4-26-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos.
Depth to Water (ft./bgs.) ~3.0' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
55	0.0					0.0 to 10.0' bgs, sand, poorly graded sand, gravelly sand dry, loose, no cementation, no odor, no visable staining, 10R 4/3, weak red.	SP		0.0
	1.0								
	2.0								
	3.0				▼	sand, as above, wet @ 3.0' bgs			
	4.0								
							SP		0.0
	5.0					sand, as above.			

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM/[illegible]
	5.0								
						Sand, as above, gravelly sand.	SP		0.
	6.0								
	7.0								
	8.0								
						Sand as above, gravelly sand.	SP		0.
	9.0								
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA04-02
Sample Identification: 030-CAP-037

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA04-DG1-02	Date Started: 4-26-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B. J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~4.0' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
015	0.0					0.0 to 10.0' bgs, sand, poorly graded sand, gravelly sand, dry, loose, no cementation, no odor, no visible staining, 10R 4/3 weak red.	SP	0
	1.0							
	2.0							
	3.0							
	4.0				▼	Sand, as above, wet @ 4.0' bgs	SP	(
	5.0							

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, gravelly sand.	SP		0.
	6.0								
	7.0								
	8.0					Sand, as above, gravelly sand.	SP		0.
	9.0								
	10.0					Sand, as above, gravelly sand.	SP		0.
						Borehole terminated @ 10.0' bgs.			

Point Name: CA04-03
Sample Identification: 030-CAP-038

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA04-DG5.01	Date Started: 6-4-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing:	Driller: J. Carranza
Depth to Water (ft./bgs.) ~4.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. / utility typ. dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
330	0.0					0.0 to 0.4' - concrete.			
						0.4 to 3.0' - no recovery, gravel-sand mixture, backfill debris material, no odor, no visible staining, no sample collected.	GW		0.0
	1.0								
	2.0								
	3.0					3.0 to 3.8' bgs, no recovery.			
						3.8 to 5.0' bgs, sand, gravel-sand mixture, 10YR, 3/1 very dark gray, moist, loose, no cementation, no odor, no visible staining.	GW		0.
0850	4.0	030-CAP-038			?	sand, as above, wet @ ~4.5'			
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. / utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					5.0 to 6.0' – no recovery, appears to be sand/w gravel as above.	GW		0.
	6.0					Borehole terminated @ 6.0' bgs.			

Point Name: CA04-04
Sample Identification: 030-CAP-040
Sample Identification: 030-CAP-041

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP.CA04.DG5.03	Date Started: 5-4-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Camuza
Depth to Water (ft./bgs.) ~4.0' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
915	0.0					0.0 to 0.5' - no recovery, asphalt & base material			
0925	0.5	030-CAP-040				0.5 to 2.0 - Sand, gravelly sand, poorly graded, 10YR 3/1, very dark gray, ~~moist~~ dry, loose, no cementation, no odor, no visible staining	SP		0.1
	1.0								
	1.5					2.0 to 2.8 - no recovery - gravelly sand(?)	SP		0.1
	2.0					2.8 to 4.0 - Sand, gravelly sand, poorly graded, 10YR 3/1, very dark gray, moist, loose, no cementation, no odor, no visible staining.	SP		0.
0930	3.0	030-CAP-041							
	4.0				▼	Borehole terminated @ 4.0' bgs			
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)

Point Name: CA04-05
Sample Identification: 030-CAP-058
Sample Identification: 030-CAP-059

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP.CA04.DG6-01	Date Started: 4.27.2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: ~	Driller: S. Navarro
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow counts (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
10	0.0								
	5.0					0.0 to 10.0' bgs. - no soil samples logged or collected, hydropunch to 10.0' bgs, collect groundwater sample, install PVC screen @ 10.0' bgs, allow gw infiltration, collocate @ borehole, advanced hydropunch to 50' bgs sample interval.			0.0
	10.0	@10'							
1510		030-CAP-058				10.0 to 50.0' bgs, no soil samples logged or collected, hydropunch to 50.0' bgs, collect groundwater sample			
	15.0								
	20.0								
	25.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	25.0								
	30.0								
	35.0								
	40.0								
	45.0								
1515		030-CAP-059							
	50.0					Borehole terminated @ 50.0', Borehole grouted on 4.27.00.			

Point Name: CA04-06
Sample Identification: 030-CAP-060
Sample Identification: 030-CAP-061
Sample Identification: 030-CAP-360

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA04-DG6-03	Date Started: 4-27-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD.	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: S. Navarro
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
15	0.0								
						0.0 to 50.0' - no soil samples logged or collected, hydro-punch to 10' bgs, collect groundwater sample.			0.0
	5.0								
	10.0	@10'	@10'						
1300		030-CAP-060	1305 030-CAP-360			10.0 to 50.0' - no soil samples logged or collected, hydro punch to 50.0' bgs, collect groundwater sample			
	15.0								
	20.0								
	25.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction	OVM (ppm)
	25.0								
	30.0								
	35.0								
	40.0								
1340	45.0								
		030-CNP. OG1							
	50.0					Borehole terminated @ 50.0' bgs., Borehole grouted on 4.27.00			

CORRECTIVE ACTION AREA 5

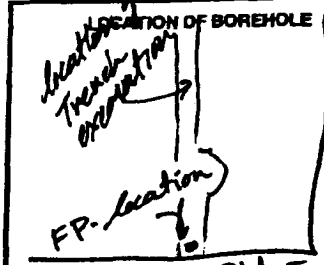
Point Name: CA05-01
Sample Identification: 030-CAP-067
Sample Identification: 030-CAP-361

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET 1 OF 1

LOCATION OF BOREHOLE



JOB NO.:	BOREHOLE ID: FP-CA05-DG1-01
CLIENT:	DEPTH TO WATER: 7.5'
SITE: Alameda Point	LOGGED BY: JCB
SUBSITE: CAA-05	DRILLING DATE(S): 5/9
DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				815					Concrete ~8"
							1		Sand - fine sand, loose, tan-to lt brown
							2		gravel - road base gravel type fill. well graded angular gravel, up to 1.5cm loose, med to coarse sand 10%; green to red-brown; HC odor; green appears to be discoloration from HC, moist
		NR		818			3		
							4		
							5		
							6		
							7	▽	
				825			8		Sand - poorly graded, fine sand, gren ~~to black~~ black discoloration, wet
							9		
				828			0		
							1		TD-boring 10' bgs
									Set casing for FP 10' bgs
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

S:\Awareness Discipline\Field Forms\CAD Files\ BOREHOLE LOG FORM.dwg 02/23/2000 FORDD DN

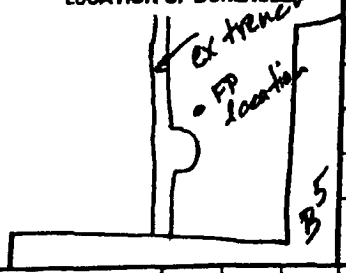
Point Name: CA05-02
Sample Identification: 030-CAP-068

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ____ OF ____

LOCATION OF BOREHOLE



JOB NO.:	BOREHOLE ID: FP-CA05-DG1-02
CLIENT:	DEPTH TO WATER:
SITE: Alameda Point	LOGGED BY: KCB
SUBSITE: CAA-05	DRILLING DATE(S): 5/9
DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				849					concrete - 8"
							1		Sand - fine sand, loose, tan to H brown, moist, v. minor fines (<1%)
							2		
							3		
				852			4		
							5		
							6	▽	sand - fine sand, loose, HC odor, sharp color contact from above
							7		
				854			8		
							9		color grades back to H. brown.
				856			10		
							1		TD of boring 10' bgs
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA05-03
Sample Identification: 030-CAP-069

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ____ OF ____

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: FP-CA05-DGI-03
	CLIENT:	DEPTH TO WATER: 6
	SITE: Alameda Point	LOGGED BY: JCB
	SUBSITE: CAA-05	DRILLING DATE(S): 5/9
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: JVan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				9:20					Concrete - 3"
							1		Base rock fill - well graded sand + gravel w/ 10% fines; angular gravel to 2.5 cm, dry
							2		
							3		Sand - fine sand w/ 10% gravel to 1 cm, loose, moist, tan to redish lt brown; no odor or HC discoloration
				9:25			4		
							5		
							6	▽	wet @ 6.0' bgs
							7		
				9:30			8		
							9		
				9:35			10		
							1		TD = 10.0' bgs set 10' screen.
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA05-04
Sample Identification: 030-CAP-070

Tetra Tech EM Inc.

BOREHOLE LOG
SHEET 1 OF 1

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: FP-CA05-DG1-04
	CLIENT:	DEPTH TO WATER: 6' bgs
	SITE: Alameda Point	LOGGED BY: ACB
	SUBSITE: CA05	DRILLING DATE(S): 5/10/00
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Juan M	SAMPLING METHOD: —

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
									asphalt
							1		gravelly sand - med to coarse sand, gravel to 1cm, loose, no fines
							2		Sand - fine sand, no fines, loose, wet, no odor, lt. brown to greenish brown
							3		
							4		
							5		
							6	▽	color change to greenish grey
							7		
							8		
							9		
							10		
									TD = 10.0
							1		Screen to 10' bgs
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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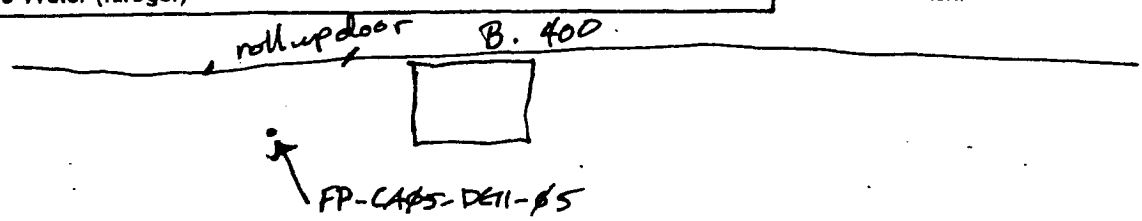
Point Name: CA05-05
Sample Identification: 030-CAP-071

CTO: ~~TTE~~ 030
Bldg./Site:
Project Name: ~~Site 14/25 Remedial Inv~~

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Boring Number: FP-CA05-DG01-05	Date Started: 6/15
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: CJC/MB/ACB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction
						Concrete		
	1					Sand - fine to med sand, brown to ltbrown, moist, v. minor ~~silt~~ fines, loose thin "lens" of concrete (3")		
	2					Sand - fine to med sand, brown to ltbrown, v. minor fines, loose		
	3							
	4							
	5					HSA bound		

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TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~127~~ 830
Bldg./Site:
Project Name:

~~Site 14/25 Remedial Investigation~~

Boring # FP-CA05-DG1-05

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5				▽	Sand - fine to med sand, minor silt, loose grey to greenish grey, wet, no odor			
	6								
	7								
	8					as above			
	9					Silty Sand - fine to med sand, ~~minor~~ silt (10%), loose, grey to greenish grey, wet, no odor			
	10					TD = 10.0 Set screen 0-10'			

CORRECTIVE ACTION AREA 6

Point Name: CA06-01
Sample Identification: 030-CAP-080

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA06-DG1-01	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core GeoProbe Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~ 5.0' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
30	0.0					0.0 to 10.0' bgs, Sand, gravelly sand, poorly graded, 10YR 5/1, greenish gray, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, wet @ ~ 5.0'	SP		0.0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count per 6 inches / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	5.0							
						Sand, as above, wet @ 5.0' bgs	SP	0
	6.0							
	7.0							
	8.0							
						Sand, as above, strong product odor, no visible staining	SP	
	9.0							
							SP	
	10.0							10
						Borehole terminated @ 10.0' bgs.		

Point Name: CA06-02
Sample Identification: 030-CAP-400

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA06-DG1-02	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.O. utility type, dia.	Description	USCS soil symbol	Well construction	
1425	0.0					0.0 to 10.0' bgs, sand, gravelly sand, poorly graded, 10YR 5/1, greenish gray, dry, loose, no cementation, no odor, no visible staining.	SP		0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, slight odor, no visible staining, wet @ 5.0' bgs	SP		TC
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	5.0					Sand, as above, wet @ 5.0' bgs, slight odor, no visable staining.	SP	11
	6.0							
	7.0							
	8.0					Sand, as above, slight product odor, no visable staining	SP	4
	9.0							
	10.0					Borehole terminated @ 10.0' bgs.	SP	19

CORRECTIVE ACTION AREA 7

Point Name: CA07-01
Sample Identification: 030-CAP-082

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA07-DG1-01	Date Started: 4-24-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: ~	Driller: Juan Carlos
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	0.0					Sand, 0.0 to 10.0' bgs, well graded sand, 10BK, dark bluish grey, dry, loose, no cementation, no odor, no visable staining.	SW		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, wet @ ~4.5' bgs. Some gravel present (gravelly sand).	SW		
	4.5								0.0
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
						Sand, as above, wet.			
	6.0								
	7.0								
						Sand, as above, wet, odor present, no visible staining.			
	8.0								24
	9.0								
	10.0								
						Borehole terminated @ 10.0' bgs.			

CORRECTIVE ACTION AREA 9

Point Name: CA09-01
Sample Identification: 030-CAP-090

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA09-DG1-01	Date Started: 4-24-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2"	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: Juan Carlos
Depth to Water (ft./bgs.) ~6.5'bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	0.0					Sand, 0.0 to 8.0' bgs, poorly graded sand, 7.5YR, 3/3, dark brown, dry, loose, no cementation, no odor present in 0.0 to 4.0' interval, no visible staining.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above	SP		0.0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
						Sand, as above, wet @ 6.5' bgs, odor present @ 8.0' bgs, no visible staining.	SP		
	6.0								
	6.5				▼				
	7.0								
	8.0								99.0
						Borehole terminated @ 8.0' bgs.			

Point Name: CA09-02
Sample Identification: 030-CAP-091

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA09-DG1-02	Date Started: 4-24-00
Drilling Method: (*Circle one*) HSA Continuous Core GeoProbe Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B. J. Mulholland
Outer Diameter of Boring: 2"	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: Juan Carlos
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1	0.0					Sand, 0.0 to 10.0' bgs, well graded sand, 7.5YR 3/3, dark brown, dry, loose, no cementation, no odor, no visible staining.	SW		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above,	SW		0.0
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM
	5.0								
	6.0						SW		0.
	6.5				▼	Sand, as above, wet @ 6.5' bgs, no odor, no staining present.			
	7.0								
	8.0								
	9.0								
	10.0						SW		0.0
						Borehole terminated @ 10.0' bgs.			

Point Name: CA09-03
Sample Identification: 030-CAP-092

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA09-DG1-03	Date Started: 4.24.2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B. J. Mullholland
Outer Diameter of Boring: 2"	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: Juan Carlos
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	
8	0.0					Sand, 0.0 to 10.0' bgs, well graded sand, 7.5YR 3/3, dark brown, dry, loose, no cementation, no odor present, no visable staining	SW		0.
	1.0								
	2.0								
	3.0								
						Sand, as above,	SW		0.
	4.0								
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	[illegible]
	5.0								
	5.5				▼	Sand, as above, wet @ 5.5' bgs, no odor present	SW		0.[illegible]
	6.0								
	7.0								
	8.0								
						Sand, as above, wet, no odor, no visible staining.			
	9.0						SW		0.0
	10.0								
						Borehole terminated @ 10.0' bgs.			

Point Name: CA09-04
Sample Identification: 090-CAP-094

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA09-DG3-01	Date Started: 4-24-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4-24-2000
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mullolland
Outer Diameter of Boring: 2"	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: -	Driller: Juan Carlos
Depth to Water (ft./bgs.) ~6.0' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1326	0.0					Sand, 0.0 to 8.0' bgs, well graded sand, 7.5YR, 3/3, dark brown, dry, loose, no cementation, no odor present, no visible staining.	SW		0.0
	1.0								
	2.0								
	3.0					Sand, as above.	SW		0.0
	4.0								
						Sand, as above	SW		0.0
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
	6.0					Sand, as above, wet @ ~6.0' bgs.			
	7.0	030-CA2-094 @ 1020					SW		0.0
	8.0					Borehole terminated @ 8.0' bgs., grouted on 4-24-2000.			

Point Name: CA09-05
Sample Identification: 030-CAP-095
Sample Identification: 030-CAP-096
Sample Identification: 030-CAP-097

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA09-DG4-01	Date Started: 4-29-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4-29-2000
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2"	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: Juan Carlos
Depth to Water (ft./bgs.) ~ 4.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1305	0.0					Sand, 0.0 to 8.0' bgs, well graded sand, 7.5YR, 3/3, dark brown, dry, loose, no cementation, no odor present, no visible staining	SW		0.0
	1.0								
	2.0								
	3.0								
	3.5	030-CAP-095 GP-CA09 Dist-01							
1320	4.0					Sand, as above, wet @ ~ 4.5' bgs	SW		0.0
	4.5	030-CAP-097 GP-CA09 Dist-01							
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No. 030-CAP-0%	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
1325		~~GP-CAP-DOH~~ ~~07~~				Sand, as above, no odor, no staining, wet	SW		0.0
	6.0								
	7.0								
	8.0					Sand, as above, no odor, no staining, wet	SW		0.0
						Borehole terminated @ 8.0' bgs, grouted on 4.24.00			

CORRECTIVE ACTION AREA 10

Point Name: CA10-01
Sample Identification: 030-CAP-098

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA10-DG1-01	Date Started: 4-27-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: ~	Driller: Sergio Navarro
Depth to Water (ft./bgs.) ~4.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
28	0.0					0.0' to 10.0' bgs, sand, poorly graded sand, 5YR 4/3, reddish brown, dry, loose, no cementation, no odor, no visable staining.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0								
	4.5					sand, as above wet@ 4.5' bgs	SP		0.1
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above.	SP		0.
	6.0								
	7.0					Sand, as above, @ 6.5' bgs, sand color changes @ 10G 4/, dark greenish gray.	SP		0.
	8.0								
	9.0								
	10.0					Sand, as above, wet.	SP		0.
						Borehole terminated @ 10.0' bgs.			

Point Name: CA10-02
Sample Identification: 030-CAP-099

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA10-DG1-02	Date Started: 4-27-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: S. Navarro
Depth to Water (ft./bgs.) ~5.5' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1233	0.0					0.0' to 10.0' bgs, sand, poorly graded sand, 5YR 4/3, reddish brown, dry, loose, no cementation, no odor, no visable staining.	SP		0.0
	1.0								
	2.0								
	3.0					Sand, as above, dry	SP		0.
	4.0								
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow counts (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
	5.5				▼	Sand, as above, wet @ 5.5' bgs	SP		0.1
	6.0								
	7.0								
	8.0					Sand, as above; wet.	SP		0.
	9.0								
	10.0					Sand, as above, wet.	SP		0
						Borehole terminated @ 10.0' bgs			

Point Name: CA10-03
Sample Identification: 030-CAP-100
Sample Identification: 030-CAP-101
Sample Identification: 030-CAP-118
Sample Identification: 030-CAP-363
Sample Identification: 030-CAP-365

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA10-DG5-01	Date Started: 4-27-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4-27-00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: Sergio Navarro
Depth to Water (ft./bgs.) ~5.3'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
23	0.0					0.0 to 8.0'bgs, Sand, poorly graded sand, 5YR 4/3, reddish brown, dry, loose, no cementation, no odor, no visible staining	SP		0.0
	1.0								
	2.0								
	3.0								
0950	3.5	030-CAP-100				Sand, as above, dry.	SP		0.0
	4.0								
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
1015	5.3				▼	Sand, as above, wet @ 5.3'	SP		0.0
	5.9	030 CAP 363							
1000	6.0	030 CAP 363							
	6.3								
0955	6.8	030 CAP 101				@ 6.8' sand, sand color changes, 10G 4/1, dark greenish gray	SP		0.
	7.0								
	7.5								
'00	8.0	030 CAP 363					SP		0.
						Borehole terminated @ 8.0' bgs., borehole grouted on 4/27.00			

CORRECTIVE ACTION AREA 11

Point Name: CA11-01
Sample Identification: 030-CAP-127

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DG1-01	Date Started: 5-1-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos.
Depth to Water (ft./bgs.) ~4.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
29	0.0					0.0 to 10.0' bgs, sand, gravelly sand, 10YR 4/1, dark greenish gray, dry, loose, no cementation, no odor detected,	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, wet @ 4.5' bgs.			
	4.5						SP		0.0
	5.0					Sand w/ gravel.			

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
						Sand, as above, wet @ 4.5' bgs	SP		0.0
	6.0								
	7.0								
	8.0								
	9.0					Sand, as above, wet @ 4.5' bgs.	SP		0.0
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA11-02
Sample Identification: 030-CAP-128

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DG1-02	Date Started: 5-1-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B. J. Mullholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos.
Depth to Water (ft./bgs.) ~ 4.5' bgs	Location Sketch:

ame	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
12	0.0					0.0 to 4.0' bgs, Sand, poorly graded sand, 10Y 4/1, dark greenish grey, dry, loose, no cementation, no odor	SP		6.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, dry.			
	4.5				▼	4.0 to 6.0'-no recovery, water table assumed to be @ 4.5' bgs	SP		0.
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	6.0					6.0 to 10.0' bgs, Sand, poorly graded sand, 10YR 4/1, dark greenish gray, wet, loose, no cementation, no visible staining, no odor.	SP		0.0
	7.0								
	8.0					Sand, as above, gravelly sand	SP		0.0
	9.0								
	10.0					Borehole terminated @ 10.0' bgs.	SP		0.0

Point Name: CA11-03
Sample Identification: 030-CAP-129

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DG1-03	Date Started: 5-1-2000
Drilling Method: (*Circle one*) HSA Continuous Core GeoProbe Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~4.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
45	0.0					0.0 to 10.0' bgs, Sand, poorly graded sand, 10YR, dark greenish gray, dry, loose, no cementation, no odor detected	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, dry,	SP		0
	4.6					Sand, as above, wet @ 4.5'			
	5.0					odor detected @ ~5.0' bgs, color changes (not stained)	SP		6

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					from 10YR 4/1, to 5YR 3/4, reddish brown sand, as above, gravelly sand,	SP		0.0
	6.0								
	7.0								
	8.0					sand, as above, gravelly sand,	SP		0.0
	9.0								
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA11-04
Sample Identification: 030-CAP-130

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP.CA11.DG1-04	Date Started: 5.1.2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2"OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~4.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1125	0.0					0.0 to 10.0'bgs, sand, poorly sorted sand, 10YR 4/1, dark greenish gray, dry, loose, no cementation,	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, dry,			
	4.5					sand, as above, wet @ 4.5', faint odor	SP		0.
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, wet, no product odor, no staining	SP		0.0
	6.0								
	7.0								
	8.0					Sand, as above, wet, no product odor, no staining	SP		0.0
	9.0								
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA11-05
Sample Identification: 030-CAP-131

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DGZ-05	Date Started: 6-1-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~4.5' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
13	0.0					0.0 to 10.0' bgs, sand, poorly graded sand, gravelly sand, 10YR 4/1, dark greenish gray, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, dry	SP		0.
	4.5					Sand, as above, wet @ ~4.5'			
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, gravelly sand, as above, wet, no odor, no visible staining	SP		0.0
	6.0								
	7.0								
	8.0					Sand, as above, wet no odor, no visible staining.	SP		0.1
	9.0								
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA11-06
Sample Identification: 030-CAP-132

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-D61-0006	Date Started: 5-5-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Cerdos
Depth to Water (ft./bgs.) ~5.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
00	0.0					0.0 to 10.0' bgs, sand, gravelly sand, poorly graded, 10YR 5/2, grayish brown, dry, loose, no cementation, no odor, no visable staining	SP		0.0
	1.0								
	2.0								
	3.0					Sand, as above, dry, no odor, no visable staining	SP		0.
	4.0								
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
	5.5				▼	Sand, as above, wet @ 5.5' bgs	SP		0.0
	6.0								
	7.0								
						@ 7.2' bgs, sand color changes to 5BG3/1, dark greenish gray, no odor, no visible staining	SP		0.0
	8.0								
	9.0								
						Sand, as above, no odor, no visible staining	SP		0.0
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA11-07
Sample Identification: 030-CAP-133

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DGI-07	Date Started: 5-5-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) 6.8'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1103	0.0					0.0 to 10.0' bgs - sand - gravelly sand - poorly graded, 10YR 5/2, greyish brown, dry, loose, no cementation, no odor, no visable staining.	SP ~~GW~~		0.0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, no odor, no visable staining	SP		0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

DG1-07

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, no odor, no visable staining	SP		0.0
	6.0								
	6.8				▼	Sand, as above, wet @ 6.8' bgs.	SP		0.0
	7.0								
	8.0								
	9.0								
						Sand, as above, no odor, no visable staining	SP		0.0
	10.0					Borehole terminated @ 10.0' bgs.			

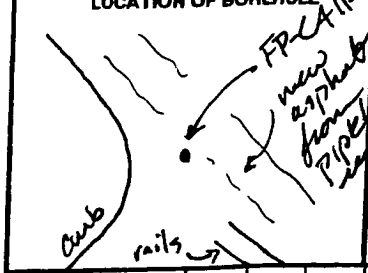
Point Name: CA11-08
Sample Identification: 030-CAP-134
Sample Identification: 030-CAP-366

Tetra Tech EM Inc. 1-08

BOREHOLE LOG

SHEET 1 OF 1

LOCATION OF BOREHOLE



JOB NO.:	BOREHOLE ID: FP-CA11-DG1-08
CLIENT:	DEPTH TO WATER: 4.5-5' bgs
SITE: Alameda Point	LOGGED BY: [signature]
SUBSITE: CAA 11	DRILLING DATE(S): 5/8
DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				0913					Concrete ~4"
							1		sand; fine sand; well sorted; ~~go~~ tan to lt. brown dry, loose, no fines
							2		
							3		
				0914			4		
				0915					sand; fine sand; well sorted; ~~tan to lt brown~~ moist; medium dense, no fines
					▽		5		wet/sat @ 5' bgs
							6		sand; fine sand; well sorted; brown; medium dense; color change @ ▽
							7		sand; fine to med sand; grey to blue grey; wet;
				0918			8		
				0920			9		
				0924			10		
							1		• Set casing to 10' bgs
							2		• TD boring 10' bgs
							3		• no odors or staining present
							4		
							5		
							6		
							7		
							8		
							9		
							0		

S:\Geosciences Discipline\Field Forms\CAD Files\ BOREHOLE LOG FORM.dwg 02/23/2000 FORDD DN

Point Name: CA11-09
Sample Identification: 030-CAP-135

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

5.1.2000, FP-CA11-DG1-09, Geoprobe, Precision, J. Carlos

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1315	0.0					0.0 to 10.0'bgs, sand, gravelly sand, 10YR 4/1 dark greenish gray, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, with what appears to be as asphalt chips used as backfill,	SP		0.0
	5.0					Color changes to 10B 2.5/1, bluish black, no odor detected, wet @ 5.0'bgs.			
	6.0								
	7.0					Sand, w/ "asphalt chips" as above	SP		0.0

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	7.0								
	8.0					Sand, as above, w/asphalt, no odor, no visible staining.	SP		0.0
	9.0								
	10.0					Sand, as above.	SP		0.0
						Borehole terminated @ 10.0' bgs.			

Point Name: CA11-10
Sample Identification: 030-CA9-136

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

5-1-2000, FP-CA11-DG1-10, Inspector, Precision, J. Carlos

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction	OVM (ppm)
1340	0.0					0.0 to 10.0' bgs, Sand, gravelly sand, poorly graded sands, 10YR 4/1, dark greenish gray, dry, loose, no cementation, no odor, no visible staining	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, wet @ 5.0' bgs.	SP		0.0
	5.0								
	6.0					sand, as above, no odor, no visible staining, gravelly sand.	SP		0.0
	7.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	7.0								
						Sand, as above, gravelly sand.	SP		0.0
	8.0								
	9.0								
						Sand, as above, gravelly sand	SP		0.0
	10.0					Borehole terminated @ 10.0' bgs.			

Point Name: CA11-11
Sample Identification: 030-CAP-137

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DG1-11	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
000	0.0					0.0 to 10.0' bgs, sand, poorly graded sand, gravelly sand, 7.5YR 5/3, brown, dry, loose, no consistency, no odor, no visible staining	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, wet @ ~5.0' bgs	SP		0.
	5.0				▼				

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, wet @ 5.0' bgs.	SP		0.0
	6.0								
	7.0					Sand, @ 7.2' bgs, color changes to 5BG 4/1, dark greenish gray, no odor, no visible staining.	SP		0.0
	8.0								
	9.0								
	10.0					Sand, as above, no odor, no visible staining	SP		0.0
						Borehole terminated @ 10.0' bgs.			

Point Name: CA11-12
Sample Identification: 030-CAP-138

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP. CA11. DG1. 12	Date Started: 5.2.2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mullholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered Interval	Drive Interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
10	0.0					0.0 to 10.0' bgs, sand, gravelly sand, poorly graded sand, 7.5YR 5/3, brown, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	1.0								
	2.0								
	3.0					Sand, as above, dry	SP		0.
	4.0								
	5.0					Sand, as above, wet @ 5.0' bgs	SP		0.

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	V.B. / Blow count (per 6 inches) / utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, wet @ 5.0' bgs., no odor, no visible staining	SP		0.0
	6.0								
	7.0					Sand, as above, sand color changes to 5BG 4/1, dark greenish gray, no odor, no visable staining	SP		0.0
	8.0								
	9.0								
	10.0					Sand, as above, no odor, no visible staining Borehole terminated @ 10.0' bgs.	SP		0.0

Point Name: CA11-13
Sample Identification: 030-CAP-139

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA11-DG1-13	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mullholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
45	0.0					0.0 to 10.0' bgs, sand, poorly graded sand, gravelly sand, 7.5YR 5/3, brown, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, wet @ 5.0' bgs	SP		0.0
	5.0				▼				

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	V.B. utility type, dia. / Blow count (per 6 inches)	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, wet @ 5.0' bgs	SP		0.0
	6.0								
	7.0								
	8.0					@ 7.5' bgs, sand as above, changes color to 5BG 4/1, dark greenish gray, no odor, no visable staining.	SP		0.1
	9.0								
	10.0					Borehole terminated @ 10.0' bgs.	SP		0.0

Point Name: CA11-14
Sample Identification: 030-CAP-141
Sample Identification: 030-CAP-142
Sample Identification: 030-CAP-151

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA11-DG4-01	Date Started: 4-28-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4-28-2000
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
50	0.0					0.0 to 0.5 - concrete.			
	1.0					0.5 to 8.0', sand, gravelly sand, 10YR 3/4, dark yellowish brown, dry, loose, no cementation, no odor, no visible staing.	SP		0.1
	2.0								
	3.0								
1310		030-CAP-141				sand, as above, dry	SP		0.1
	4.0								
	5.0				▼	sand, as above, wet @ 5.0' bgs.			

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, wet @ 5.0' bgs.	SP		0.0
1315	6.0	030-CAP. 142				@ 6.0', sand changes color to 10YR 4/1, dark greenish grey			
1320	7.0	030-CAP 151							
	8.0					Sand, as above.	SP		0.0
						Borehole terminated @ 8.0' bgs., grouted on 4-28-00.			

Point Name: CA11-15
Sample Identification: 030-CAP-143
Sample Identification: 030-CAP-144
Sample Identification: 030-CAP-152

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA11-DG4-03	Date Started: 4-28-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4-28-2000
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.): ~6.0'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1445	0.0					0.0 to 0.5'- concrete			
						0.5 to 8.0'- sand, gravelly sand, 10YR 3/4, dark yellowish brown, dry, loose, no cementation, no odor, no visable staining	SP		0.1
	1.0								
	2.0								
1410	3.0	030-CAP-143				sand, as above, dry	SP		0.1
	4.0								
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0						SP		0.
1425	6.0					Sand, as above, wet @ 6.0' bgs.			
1415	7.0	030-CAP-144			030-CAP-162				
	8.0					Sand, as above, wet.	SP		0.2
						Borehole terminated @ 8.0' bgs, grouted on 4-28-00			

Point Name: CA11-16
Sample Identification: 030-CAP-145
Sample Identification: 030-CAP-146
Sample Identification: 030-CAP-153
Sample Identification: 030-CAP-368
Sample Identification: 030-CAP-369

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA11-DG4-05	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mullholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.): ~5.0'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
24	0.0					0.0 to 8.0' bgs, sand, poorly graded sand, gravelly sand, 7.5YR 5/3, brown, dry, loose, no cementation, no odor, no visible staining	SP	0.
	1.0							
0840	2.0							
	2.5	030-CAP 146						
0845	3.0	030-CAP 146						
	3.5	030-CAP 368				030-CAP-368 submitted but not analyzed. @ 0845.		
	4.0	030-CAP 368				Sand, as above, dry. no odor, no visible staining	SP	0.
	5.0							

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
					030-CAP-153 (0850)	Sand, as above, wet @ 5.0' bgs	SP		0.0
0850	6.0	030-CAP-146							
0855	7.0				030-CAP-369 (0900)	Sand, as above, sand changes color to 10G 3/1 @ 7.2' dark greenish gray, strong product odor from groundwater sample.	SP		
	7.2	030-CAP-368							
	8.0					Borehole terminated @ 8.0' bgs. possible product observed in groundwater, drill to 10' bgs, install piezometer			19.0
	9.0								
	10.0					Borehole terminated @ 10.0' bgs	SP		0.0

Point Name: CA11-17
Sample Identification: 030-CAP-149
Sample Identification: 030-CAP-150
Sample Identification: 030-CAP-155

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: GP-CA11-DG4-09	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 5-2-2000
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0' bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
0920	0.0					0.0 to 8.0', Sand, poorly graded sand, gravelly sand, 7.5YR 3/3, brown, dry, loose, no cementation, no odor, no visible staining	SP		0.0
	1.0								
	2.0								
0930	3.0	030-CAP-149							
	4.0					Sand, as above, dry, no odor, no staining	SP		0.0
	5.0				▼	Sand, as above, wet @ 5.0' bgs			

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0					Sand, as above, wet @ 5.0' bgs.	SP		0.0
0935	6.0	030-CAP-150			030-CAP-155 (0945)				
	7.0					@ 7.2 sand ~~soil~~ changes color to 10G 3/1, dark greenish gray, strong product odor from soil, no visible sheen from groundwater	SP		6.0
	8.0					Borehole terminated @ 8.0' bgs, grouted on 5-2-00.			

Point Name: CA11-20
Sample Identification: 030-CAP-166

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP.CA11.DG9.01	Date Started: 4.28.00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2"OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
20	0.0					0.0' to 8.0', sand, gravelly sand, 10YR 4/4, dark yellowish brown, dry, loose, no cementation, no odor, no visible staining	SP		0.
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, dry	SP		0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
1135	5.5				▼	Sand, as above, wet @ 5.5' bgs	SP		0.0
						odor detected from groundwater			
	6.0					Sand, as above, color changes to 10YR4/1, dark greenish gray @ 5.8'			
	7.0	030-CAP-1606							
	8.0					Sand, as above.	SP		0.0
						Borehole terminated @ 8.0' bgs, grouted on 4-28-00.			

Point Name: CA11-21
Sample Identification: 030-CAP-167

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA11-DG9-02	Date Started: 4-28-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
45	0.0					0.0 to 8.0', sand, gravelly sand, 10YR 4/4, dark yellowish brown, dry, loose, no cementation, no odor, no visible staining	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, dry	SP		0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
1110	5.5				▼	Sand, as above, wet @ 5.5' bgs.	SP		0.0
						odor detected from groundwater.			
	6.0								
		030-CAP.167				Sand, as above, color changes to 10YR 4/1, dark greenish gray @ 6.6'	SP		0.0
	7.0								
	8.0						SP		0.0
						Borehole terminated @ 8.0' bgs. Borehole grouted on 4-28-00.			

Point Name: CA11-22
Sample Identification: 030-CAP-168

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP.CA11.DG9.03	Date Started: 4.28.00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.): ~5.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
315	0.0					0.0 to 8.0' bgs, sand, gravelly sand, 10YR 4/4, dark yellowish brown, dry, loose, no cementation, no odor no visible staining	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					Sand, as above, dry	SP		0.
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. / utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
1030	5.5	030·CAP·168			▼	Sand, as above, wet @ 5.5'bgs.	SP		0.0
	6.0								
						Sand, as above, color changes to 10YR 4/1, dark greenish gray @ 6.8'			
	7.0								
							SP		0.0
	8.0					Borehole terminated @ 8.0'bgs, grouted on 4.28.00.			

Point Name: CA11-23
Sample Identification: 030-CAP-169

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP.CA11.DG9.04	Date Started: 4.28.00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4.28.00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD.	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
130	0.0					0.0 to 8.0' bgs, sand, gravelly sand, 10YR 4/4, dark yellowish brown, dry, loose, no cementation, no odor, no visable staining	SP		0.0
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, dry	SP		0.
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
0935	5.5				▼	Sand, as above, wet @ 6.5' bgs	SP		0.
	6.0								
	7.0	030-CAP-169							
	8.0					Sand, as above.	SP		0.0
						Borehole terminated @ 8.0' bgs. Borehole grouted w 4.28.00.			

Point Name: CA11-24
Sample Identification: 030-CAP-170

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA11-DG9-05	Date Started: 4-28-00
Drilling Method: (*Circle one*) HSA Continuous Core GeoProbe/Hand Auger	Date Completed: 4-28-00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos.
Depth to Water (ft./bgs.) ~5.5'	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
1030	0.0					0.0 to 8.0' bgs, sand, gravelly sand, 10YR 4/4, dark yellowish brown, dry, loose, no cementation, no odor, no visible staining	SP		0.2
	1.0								
	2.0								
	3.0								
	4.0					sand, as above, dry	SP		0
	5.0								

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Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
0845	5.5				▼	sand, as above, wet @ 5.5' bgs.	SP		0.0
	6.0								
		030-CAP-170				sand, as above, color changes to 10YR 4/1, dark greenish gray @ 6.6'			
	7.0								
							SP		0.0
	8.0					Borehole terminated @ 8.0' bgs. Borehole grouted on 4-28-00.			

Point Name: CA11-25
Sample Identification: 030-CAP-171

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA11-DG9-06	Date Started: 4.28.00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 4.28.00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carles
Depth to Water (ft./bgs.) ~5.5' bgs.	Location Sketch:

Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
0.0					0.0 to 8.0' bgs, sand, gravelly sand, 10YR 4/4, dark yellowish brown, dry, loose, no cementation, no odor, no visible staining	SP		0.0
1.0								
2.0								
3.0								
4.0					sand, as above, dry	SP		0.0
5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5.0								
0920	5.5				▼	Sand, as above, wet @ 5.5' bgs.	SP		0.0
	6.0								
	7.0	030-CAP-171							
	8.0					Sand, as above.	SP		0.0
						Borehole terminated @ 8.0' bgs. Borehole grouted on 4-28-00.			

CORRECTIVE ACTION AREA 12

Point Name: CA12-01
Sample Identification: 030-CAP-186

510 - 719-8064 Otis

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BOREHOLE LOG

SHEET 1 OF 1

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: HP-CA12-DG13-01
	CLIENT:	DEPTH TO WATER:
	SITE: Alameda Point	LOGGED BY: JCB
	SUBSITE: CAA-12	DRILLING DATE(S):
	DRILLING CO.: Precision	DRILLING METHOD:
	PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				14.20					~~concrete~~ asphalt; base rock fill;
							1		Sand, fine sand, no fines loose, tan - lt. brown ~~thin layers of gravel angular (bas rock)~~ <2cm, no odors, staining
							2		
							3		
				14.25			4		
							5	▽	
							6		Sand - fine sand w/ minor med sand; grey to grey - green; loose, wet, no odors or staining.
							7		
				14.30			8		TD = 8.0'
							9		
				14.40			0		HP-CA12-DG13-Ø1; Ø3Ø-CAP-186
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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CORRECTIVE ACTION AREA 13

Point Name: CA13-01
Sample Identification: 030-CAP-187

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: FP-CA13-DGI-01	Date Started: 4-26-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: —	Driller: J. Carlos.
Depth to Water (ft./bgs.) ~4.0' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
10	0.0					0.0' to 2.5' sand, poorly graded sand, 2.5YR, 3/2, dusky red, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	1.0								
	2.0					2.5' to 10.0' bgs, sand, poorly graded sand, 10G, 2.5/1, greenish black, dry, loose, no cementation, no odor, no visible staining.	SP		0.0
	3.0								
	4.0					Sand, as above, wet @ 4.0' bgs.	SP		0.0
	5.0								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	5.0							
						Sand, as above, wet @ 4.0' bgs.	SP	
	6.0							
	7.0							
	8.0							
						Sand, as above,	SP	
	9.0							
	10.0						SP	
						Borehole terminated @ 10.0' bgs.		

Point Name: CA13-02
Sample Identification: 030-CAP-188

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ____ OF ____

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: FP-CA13-DG1-02
	CLIENT:	DEPTH TO WATER: ~6' bgs
	SITE: Alameda Point	LOGGED BY: JCB
	SUBSITE: CAA-13	DRILLING DATE(S): 5/10
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Jan M	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				10:10					Asphalt
							1		Base rock fill - angular gravel + sand
							2		Sand - green - olive green fine sand; minor cobbles angular to 2cm; other debris (wood); loose, moist to wet
							3		
				10:15			4		
							5		
							6	▽	color change to olive grey; slight HC odor
							7		
				10:20			8		~~Sa~~ Silty Sand - fine sand w/ tan to yellowish brown silt (<15%); moist; medium dense,
							9		
				10:25			10		TD= 10.0, set screen 10' bgs
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-03
Sample Identification: Not collected

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BOREHOLE LOG
SHEET 1 OF 1

LOCATION OF BOREHOLE: Bld 397 (FP-3, FP)	JOB NO.:	BOREHOLE ID: PP-CA13-DG11-03
	CLIENT:	DEPTH TO WATER:
	SITE: Alameda Point	LOGGED BY: [illegible]
	SUBSITE: CAA 13	DRILLING DATE(S): 5/10
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				0930					Asphalt Base rock fill
							1		
							2		Sand - fine sand, lt brown grading to grey-green, loose, trace gravel up to 2cm
							3		
		NR		0935	HCOA		4		
							5		thin (.2') layer of concrete Significant discoloration, strong HC odor Sheen and NAPL noted in saturated soils
							6	▽	gravel @ 5.7-6.0 - angular gravel up to 1.5cm
							7		Sand - grey-green to black fine sand
		NR		0940			8		
							9		Silty Sand - fine sand, brown to lt. brown silt (≈5%) non-plastic, moist, medium dense
				0944	▽		0		
									TD=10.0' bgs Set screen for FP 10' bgs
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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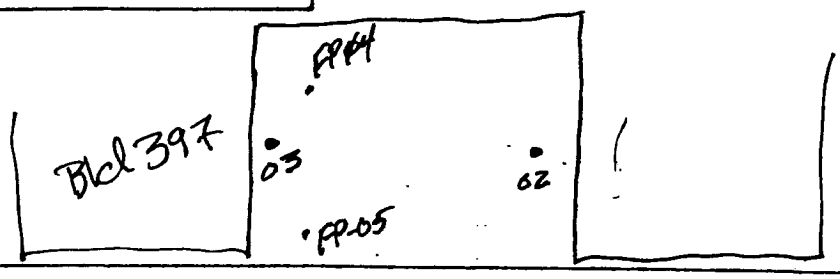
Point Name: CA13-04
Sample Identification: 030-CAP-189
Sample Identification: 030-CAP-374

CTO: ~~III~~ 030
Bldg./Site:
Project Name:
~~Site 14/25 Demolition~~

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Boring Number: FP-~~B~~CA13-DG1-04	Date Started: 6/14/00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 6/14/00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: ACB/JC
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	PID ~~Recovered interval~~	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
15						Asphalt		
						Baserock fill -		
	1							
	2					Sand - fine to medium sand; w/gravel (2-5%); greenish grey to olive grey, moist, loose, minor silt + clay. angular to subangular		
	3							
	4		315			gravel w/sand - gravel to 1.5 cm, sand (20%) black; HC odor; loose; subangular		
	5					Gravelly sand - fine to medium sand; gravel up to 3 cm (30%); minor silt + clay; moist to wet, olive grey to ~~olive~~ grey green; loose; gravel angular to subangular		

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 030
Bldg./Site:
Project Name:
Site 14/25 Remedial Investiga

Boring # FP-CA13-DG1 - 04

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
						as above			
	6				▽	sheen on soil + black (HC?) discoloration wet			
	7					Silty sand - fine to medium sand w/ silt (20%) minor clay, medium dense, grey green, wet.			
	8								
	9					color change to lt. brown, increasing silt.			
0927	10								
						TD=10.0'			
						Set screen to 10' bgs			

Point Name: CA13-05
Sample Identification: 030-CAP-423
Sample Identification: 030-CAP-423A

Sheet 1 of

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~122~~
Bldg./Site:
Project Name:
~~Site 11/25 Remedial In~~

Boring Number: FP-CA13-PGI-05	Date Started: 6/14/00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 6/14/00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB/JC
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	PID ~~Recovered interval~~	Drive interval	Blow count (per 6 inches) / V.S. utility type, etc.	Description	USCS soil symbol	Well construction
1150	1					Asphalt Base rock fill.		
	2					Sand - fine sand w/ very minor silt; dry, blue green to grey green, moist		
	3		ϕ					
	4							
	5		36			Silty sand - fine to med sand w/ silt up to 20%;		

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: 122
Bldg./Site:
Project Name:
Site 14/25 Remedial Investigo

Boring # FP-CA13-DG01-05

Time	Depth (ft) bgs	Sample type and No.	~~Recovered interval~~ PID	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5				▽	as above			
	6								
			∅						
	7								
	8					"			
	9								
10.20	10					TD = 10.0' set scrn 10.0' bgs			

Point Name: CA13-06
Sample Identification: Not collected

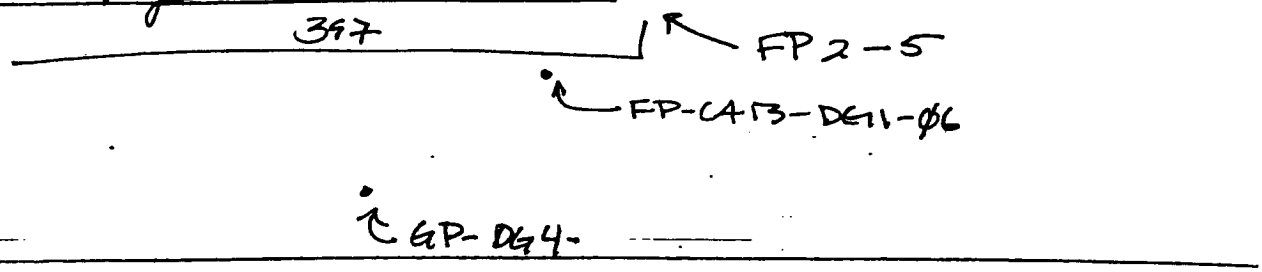
Sheet 1 of 2

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: 122
Bldg./Site:
Project Name: Site 14/25 Remedial In

Boring Number: FP-RCA13-DG1-06	Date Started: 6/21
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: (6/21)
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.) 6'bgs	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
1110						Asphalt		
						Baserock fill		
	1							
						Sand- fine, clean, sand lt. brown, loose, dry to moist.		
	2							
	3					Color change to greenish gray to dive gray from lt. brown. lt. odor,		
	4							
	5							

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: 122
Bldg./Site:
Project Name:
Site 14/25 Remedial Investig

Boring # FP-CA13-DG1-06

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dia.	Description	USCS soil symbol	Well construction
	5					gravel - angular drain rock type gravel, poorly graded to 3cm; silty matrix, wet, strong HCodo		
	6					Sand - fine sand w/ increasing silt content (to 5% by TD.), medium dense, wet to moist, gray green to olive gray, w/ discoloration dk brown to dark grey.		
	7							
	8					no discoloration (from NAPL?)		
	9							
	10					TD = 10.0' bgs Set Screen to 10' bgs		

Point Name: CA13-07
Sample Identification: 030-CAP-200
Sample Identification: 030-CAP-376

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA13-DG3-01	Date Started: 4-26-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: -	Driller: J. Carlos
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
1146						0.0 to 0.5' bgs, concrete.		
	0.5					0.5 to 8.0' bgs, sand, gravelly sand, poorly graded, dry, loose, no cementation, no odor, no visable staining 10YR 4/1, dark greenish gray	SP	0.
	1.0							
	2.0							
	3.0							
						Sand, as above, wet @ 4.5'	SP	0.
	4.0							
	4.5							
1200		030CAP 200						
	5.0							

1210 030-CAP 376 (Dupe -200)

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	5.0					Sand, as above, wet	SP	0
	6.0							
	7.0					Sand, as above, wet.	SP	0
	8.0					Borehole terminated @ 8.0' bgs., grouted on 4.26.00		

Point Name: CA13-08
Sample Identification: 030-CAP-200A
Sample Identification: 030-CAP-376A

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA13-DG3.0X3	Date Started: 5-2-2000
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.S. Mulholland
Outer Diameter of Boring: 2"OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos
Depth to Water (ft./bgs.) ~5.0'bgs	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
1240	0.0					0.0 to 0.5'bgs concrete.		
	1.0					0.5 to 8.0'bgs, sand, gravelly sand, poorly graded, 10Y 3/1, dark greenish gray, dry, loose, no cementation, no odor, no visible staining	SP	C
	2.0							
	3.0							
	4.0					Sand, as above, wet @ 5.0'bgs	SP	O
	5.0							

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
1310	5.0					Sand, as above, wet @ 5.0' bgs, no odor, no visible staining	SP	C
	6.0				030-CAP-2.0A			
1315								
	7.0				030-CAP-3.0A			
	8.0					Sand, as above, slight odor from groundwater no visible staining.	SP	4
						Borehole terminated @ 8.0' bgs.		

Point Name: CA13-09
Sample Identification: 030-CAP-201

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Boring Number: HP-CA13-DG3-02	Date Started: 4-26-00
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: B.J. Mulholland
Outer Diameter of Boring: 2" OD	Drilling Subcontractor: Precision
Inner Diameter of Well Casing: –	Driller: J. Carlos.
Depth to Water (ft./bgs.) ~4.0' bgs.	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
1108	0.0					0.0 to 8.0' bgs, sand, well graded sand, some gravel, dry, loose, no cementation, no odor, no visible staining 10Y 4/1, dark greenish grey.	SW	
	1.0							
	2.0							
	3.0							
	4.0				▼			
1115	5.0	030-CAP-201				Sand, as above, wet @ 4.0' bgs	SW	

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction
	5.0					Sand, as above, wet.	SW	0
	6.0							
	7.0							
						Sand, as above, wet	SW	0
	8.0					Borehole terminated @ 8.0' bgs., grouted on 4-26-00		

Point Name: CA13-10
Sample Identification: 030-CAP-202
Sample Identification: 030-CAP-203
Sample Identification: 030-CAP-204
Sample Identification: 030-CAP-377

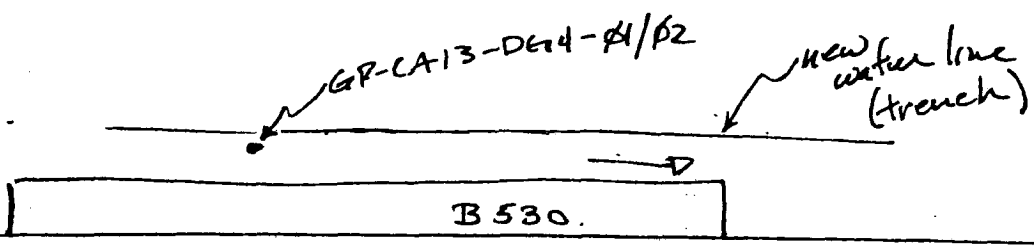
Sheet 1 of 2

CTO: ~~[illegible]~~ 030

BORING AND WELL INSTALLATION D VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name: ~~Site 11/25 Remedial Inv~~

Boring Number: GP-CA13-DG4-Ø1/Ø2	Date Started: 6/15
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller:
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM
10						asphalt			
	1					Base rock fill			
						Sand- clean, fine sand, no fines, dry, loose, tan to lt brown.			
	2								
	3								
13.11	4								
						GP-CA13-DG4-Ø1 030-CAP-202			
						as above			
	5								

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~177~~ 030
Bldg./Site:
Project Name:
~~Site 14/95 Remedial Investigat~~

Boring # GP-CA13-DG4-Ø1/Ø2

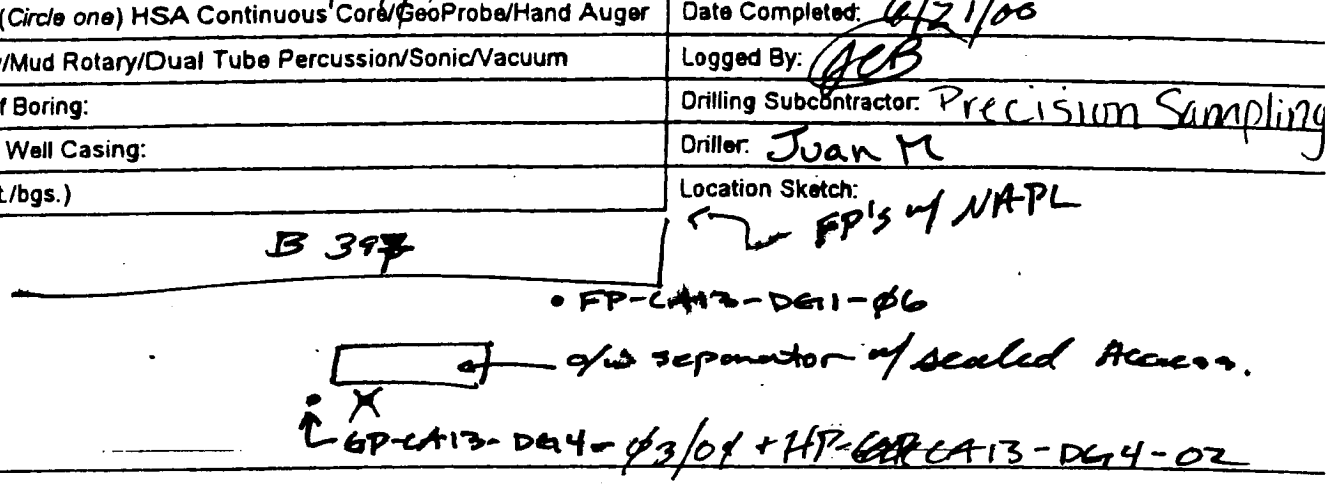
Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5					do above			
					▽				
	6								
						color change from tan to lt. brown to olive-grey + ~~green~~ greenish grey.			
						GP-CA13-DG4-Ø2 030-CAP-203			
	7								
1315	8								
						TD = 8.0'			
						Set screen 3'-8' bgs			
						HP-CA13-DG4-Ø1 + Duplicate.			
						030CAP-204 + -377			

Point Name: CA13-26
Sample Identification: 030-CAP-427
Sample Identification: 030-CAP-428
Sample Identification: 030-CAP-429

BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: 122
Bldg./Site:
Project Name: Site 14/25 Remedial Inv

Boring Number: GP-CA13-DG4-03/04	Date Started: 6/21/00
Drilling Method: (Circle one) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 6/21/00
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller: Juan M
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dia.	Description	USCS soil symbol	Well construction
30						Asphalt		
						Base rock fill		
	1					Sand - clean fine to med sand. tan to lt. brown moist to wet, loose		
	2							
	3					Sandy gravel - angular gravel, some gravel pieces are crushed concrete to 3cm, sand (30-20) med to coarse, green to olive gray moist, loose		
(910) 0832	4		X			GP-CA13-DG4-03, 030-CAP-427		
						~~as above~~ concrete		
0	5							

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: 122
Bldg./Site:
Project Name:
Site 14/25 Remedial Investiga

Boring # GP-CA13-DG4-Ø3/Ø4

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	6					Sand - fine to med, clean sand, HC odor, loose, visible sheen on soil, wet.			
	4								
(9:15)	7		X NR			GP-CA13-DG4-Ø4, 030 CAP 428 silt - clayey silt - olive grey to greenish grey. streaks of black, wet, very soft, low plasticity. minor sand (5%).			
40	8					TD = 8.0'			
9:00						Set Screen 3'-8' bgs HP-CA13-DG4-ØZ 030-CAP-429			

Point Name: CA13-11
Sample Identification: 030-CAP-205
Sample Identification: 030-CAP-206
Sample Identification: 030-CAP-225
Sample Identification: 030-CAP-379

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ____ OF ____

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: GP-CA13-DG15-01
	CLIENT:	DEPTH TO WATER: ?
	SITE: Alameda Point	LOGGED BY: JCB
	SUBSITE: CAA-13	DRILLING DATE(S): 5/9
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				1050					asphalt
							1		base rock gravel fill, angular gravel, med to coarse sand 20%; 5% fines; moist;
							2		some/slight HC odor; grey to brown
						X	3		030-CAP-205 -2.5-3.5
						X			color change to black; w/ strong HC odor
				1055			4		
							5		Sand - fine to med sand, medium dense loose, <5% fines; black tarry discoloration
		1/2					6		@5-5.5 color change to green
						X	7		030-CAP-206 -7-8' bgs
				1110		X	8		
		1/2					9		
				1115			0		
							1		TD = 10.5' bgs
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-12
Sample Identification: 030-CAP-207
Sample Identification: 030-CAP-208
Sample Identification: 030-CAP-226
Sample Identification: 030-CAP-378

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ____ OF ____

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: GP-CA13-DG5-03
	CLIENT:	DEPTH TO WATER: ~4' bgs
	SITE: Alameda Point	LOGGED BY: JCB
	SUBSITE: CAA-13	DRILLING DATE(S): 5/9
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				10:07					Asphalt
							1		sand - fine sand to med sand; loose to medium dense.
							2		
							3		-very dark discoloration; gravel + wood debris in sand.
						X			
				10:10		X	4		030-CAP-207;
						D			sand - fine to med sand; no fines, H2S odor grey to grey green, wet, loose
						X	5		
						X			030-CAP-207 + 030-CAP-378
						D	6		6.0 very black, NAPL type; taffy; liquid?
							7		
				10:15			8		
							9		
				10:30			10		
									Set 10' screen for FP test 5/10.
							1		
							2		HP-CA13-DG5-02; 030-CAP-226
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-13
Sample Identification: 030-CAP-209
Sample Identification: 030-CAP-210
Sample Identification: 030-CAP-227

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET 1 OF 1

LOCATION OF BOREHOLE		
• GP-03, 04	JOB NO.:	BOREHOLE ID: GP-CA13-DG5-05
• GP-05, 06	CLIENT:	DEPTH TO WATER: 4.5'
	SITE: Alameda Point	LOGGED BY: AB
	SUBSITE: CAA-13	DRILLING DATE(S): 5/4
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
							1		asphalt base rock fill
							2		sand - fine sand, loose, grey to grey green, wet
						X	3		GP-CA13-DG5-05
							4		
						X	5		GP-CA13-DG5-06
						X	6		
							7		wood debris, tarry sand
							8		refusal on wood + asphalt debris
							9		collect water sample 2.5-7.5' bgs screen
							0		HP-CA13-DG5-03
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-14
Sample Identification: 030-CAP-211
Sample Identification: 030-CAP-212
Sample Identification: 030-CAP-228

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ____ OF ____

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: GP-CA13-DG15-07
	CLIENT:	DEPTH TO WATER: 7' bgs
	SITE: Alameda Point	LOGGED BY: [illegible]
	SUBSITE: CAP-13	DRILLING DATE(S): 5/11
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Ivan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				12:58					asphalt + base rock fill.
							1		Tar/asphalt
							2		Sand - fine sand, loose, no fines, moist,
						X	3		GP-CA13-DG15-07
				1300		X	4		
							5		
							6		
							7	I	asphalt & and brick debris, black + red orange, H codor
				1310		X	8		GP-CA13-DG15-08 Sand - fine sand, 10% silt, loose, wet, green to grey green
							9		HP-CA13-DG15-04
									TD = 8.0' bgs
							0		
							1		
							2		
							3		sleeve shattered
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-15
Sample Identification: 030-CAP-213
Sample Identification: 030-CAP-214
Sample Identification: 030-CAP-229

Tetra Tech EM Inc.

BOREHOLE LOG

SHEET ___ OF ___

LOCATION OF BOREHOLE		
	JOB NO.:	BOREHOLE ID: GP-CA13-DG5-Ø9
	CLIENT:	DEPTH TO WATER: 4' bgs
	SITE:	LOGGED BY: [illegible]
	SUBSITE:	DRILLING DATE(S): 5/11
	DRILLING CO.:	DRILLING METHOD:
	PERSONNEL:	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
									asphalt + base rockfill
							1		debris - gravel, brick, asphalt, wood all with a very tarry matrix including some sand. HC odor
							2		
							3		
				1350		X X	4	▽	GP-CA13-DG5-Ø9
						X X	5		GP-CA13-DG5-1Ø
							6		sand - fine sand, loose to medium dense, 10% fines, wet to moist,
							7		
				1400			8		TD = 8.0'
							9		
				1410			0		Water Sample HP-CA13-DG5-Ø5
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-16
Sample Identification: 030-CAP-215
Sample Identification: 030-CAP-216
Sample Identification: 030-CAP-230

Tetra Tech EM Inc.

BOREHOLE LOG
SHEET ___ OF ___

LOCATION OF BOREHOLE		
• GP-CA13-DG5-01 • GP-CA13-DG5-11	JOB NO.:	BOREHOLE ID: GP-CA13-DG5-11
	CLIENT:	DEPTH TO WATER: ~3 bgs
	SITE: Alameda Point	LOGGED BY: JCB
	SUBSITE: CAA-13	DRILLING DATE(S): 5/11
	DRILLING CO.: Precision	DRILLING METHOD: Geoprobe
	PERSONNEL: Juan M.	SAMPLING METHOD:

SAMPLE INTERVAL TOP	BOTTOM	RECOVERED	BLOWS/6 IN. SAMPLE	TIME	PID READING	LABORATORY ANALYSIS	DEPTH IN FEET	USCS SOIL TYPE	SOIL DESCRIPTION
				14:20					asphalt + base rock fill
							1		debris – gravel + tarry sand + broken glass, wood, HC odor,
						X	2		GP-CA13-DG5-11
						X			
							3	▽	
				14:25			4		GP-CA13-DG5-12
						X			
						X	5		
							6		
							7		sand – fine sand, loose to medium dense, 10% fines, wet to moist
				14:35			8		TD = 8.0' bgs
				15:00			9		HP-CA13-DG5-06
							0		
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
							0		

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Point Name: CA13-17
Sample Identification: 030-CAP-217
Sample Identification: 030-CAP-218
Sample Identification: 030-CAP-231

Sheet 1 of 2

CTO: ~~[illegible]~~ 030
Bldg./Site:
Project Name: ~~Site 14/25 Remedial In~~

BORING AND WELL INSTALLATION
VISUAL CLASSIFICATION LOG

Boring Number: GP-CA13-DGS-13/14	Date Started: 6/14
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB/CJC
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller: Juan Sergio
Depth to Water (ft./bgs.)	Location Sketch:

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
						Asphalt Base rock fill w/ debris (brick + wood)		
	1					Silty gravelly sand - silty fine sand w/ 10% gravel, 5% debris, ~~green~~ gray to black HC odor,		
	2							
	3		X	NR	▽			
	4		X			Silty Sand - fine sand w/ 20% silt, black, HC sheen, strong HC odor		
	5							

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CTO: ~~122~~ 030
Bldg./Site:
Project Name:
~~Site 11/125 Remedial Investigat~~

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Boring # GP-CA13-DG15-13/14

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	6					Silty sand - fine sand 20% silt, grey-green Soft, wet			
	7								
	8					TD - 8.0.			
						screen 3-8' bgs			
						HP-DG13-CA5-P7			
						030-CAP-231			
						Seen on some sample			

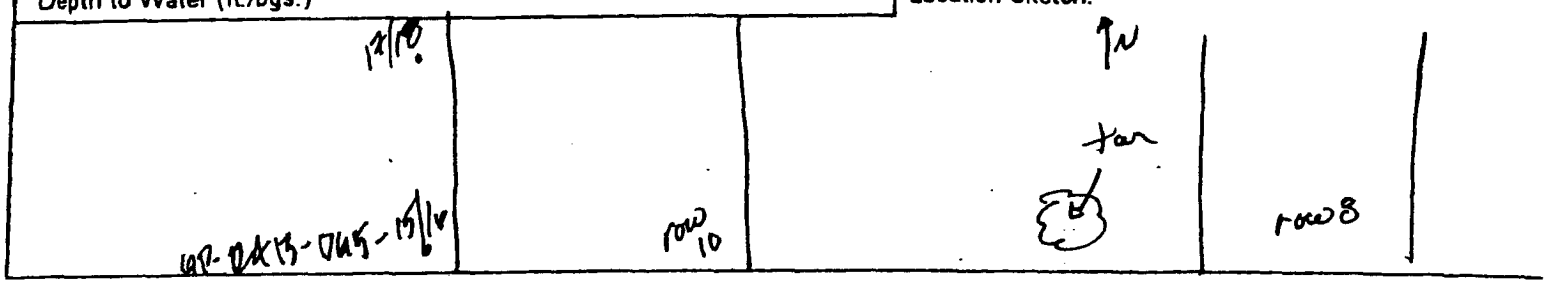
Sheet 1 of 2

Point Name: CA13-18
Sample Identification: 030-CAP-219
Sample Identification: 030-CAP-220
Sample Identification: 030-CAP-232

BORING AND WELL INSTALLATION ID VISUAL CLASSIFICATION LOG

CTO: ~~TTE~~ 030
Bldg./Site:
Project Name: ~~Site 14/25 Remedial In~~

Boring Number: GP-CA13-DG5-15/16	Date Started: 6/14
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller:
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
						Asphalt		
	1					Baserock fill		
	2					Sandy gravel w/ debris - V. minor debris grey gray sand + gravel aquifer to subangular Sand - fine to med sand, minor silt, tan to lt. brown loose moist		
	3		X		▽	GP-CA13-DG5-15		
	4		X			GP-CA13-DG5-16 as above, wet		
	5							

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SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~122~~ 2 -
Bldg./Site:
Project Name:

~~Site 11/25 Remedial Investigation~~

Boring # GP-CA13-DG5-15/16

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5					as above			
	6								
	7								
	8					Set screen 3'-8' bgs TD = 8' bgs HP-CA13-DG5-08			

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Point Name: CA13-19
Sample Identification: 030-CAP-221
Sample Identification: 030-CAP-222
Sample Identification: 030-CAP-233

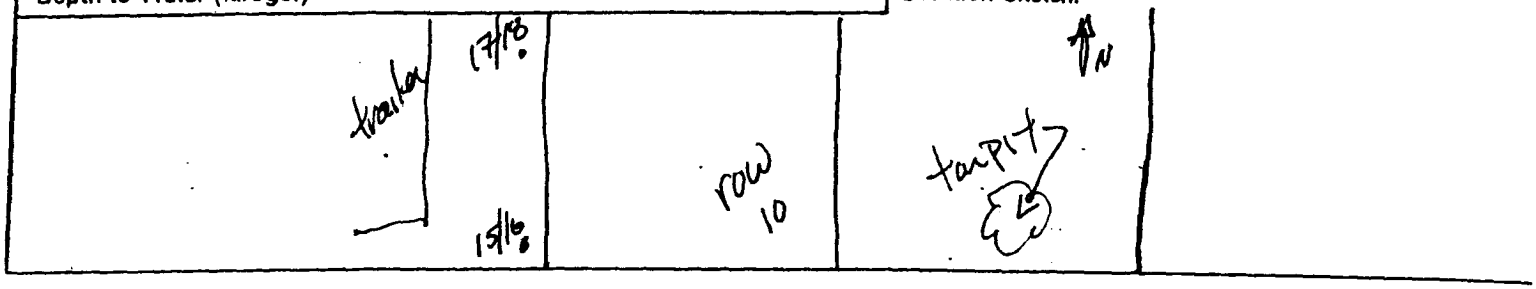
Sheet 1 of 2

CTO: ~~TEE030~~
Bldg./Site:
Project Name: ~~Site 14/25 Remedial Inv~~

TETRA TECH EM INC.

OIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

Boring Number: GP-CA13-DG5-17/18	Date Started: 6/14
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 6/14
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JEB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller: Joan/Sergio
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow counts (per 6 inches) / V.O. utility type, dia.	Description	USCS soil symbol	Well construction
						Asphalt		
	1					base rock fill		
	2					Sand - fine sand v. minor silt, loose, tan to lt. brown, moist		
	3					color changes to grey		
	4		NR					
	5					Sand - fine sand v. minor silt, loose, wet, ~~color changes~~ grey to blue grey to tan		

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TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 0030
Bldg./Site:
Project Name:

~~Site #1/25 Remedial Investigation~~

Boring # GP-CA13-DG5-17/18

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5					as above.			
	6								
	7								
	8					TD = 8.0' Set screen ~~#~~ ϕ3 to 8' bgs HP-CA13-DG5-ϕ9			

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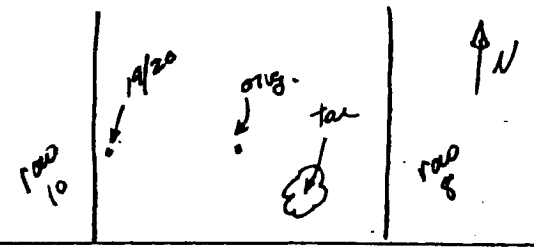
Point Name: CA13-20
Sample Identification: 030-CAP-223
Sample Identification: 030-CAP-224
Sample Identification: 030-CAP-234

CTO: ~~122~~ 030
Bldg./Site:
Project Name: ~~Site 14/25 Remedial In~~

BORING AND WELL INSTALLATION D VISUAL CLASSIFICATION LOG

Boring Number: GP-CA13-DG5-19/20	Date Started: 6/14
Drilling Method: (Circle one) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 6/14
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: PD
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	~~Sample type and No.~~ PID	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dia.	Description	USCS soil symbol	Well construction
						Asphalt		
	1					Roadbase/base rock fill		
	2					Sand - silty sand; fine w/ 30% silt.		
	3					gravelly sand - fine to med sand w/ gravel up to 2cm, gravel (35%) angular + debris (10%); black; wet; H odor		
						GP-CA13-DG5-19		
	4							
						as above		
	5							

CTO: ~~[illegible]~~ 0JD
Bldg./Site:
Project Name:

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

~~Site 14/15 Remedial Investigat~~

Boring # GP-CA13-DG5-19/20

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5					as above			
	6					GP-CA13-DG5-20			
			X			Sand - fine to medium sand, v. minor fines, wet, no odor, grey green to dk. grey; medium dense,			
	7								
	8					TD = 8.0' bgs Set screen 3'-8' bgs Sample HP-CA13-DG5-10			

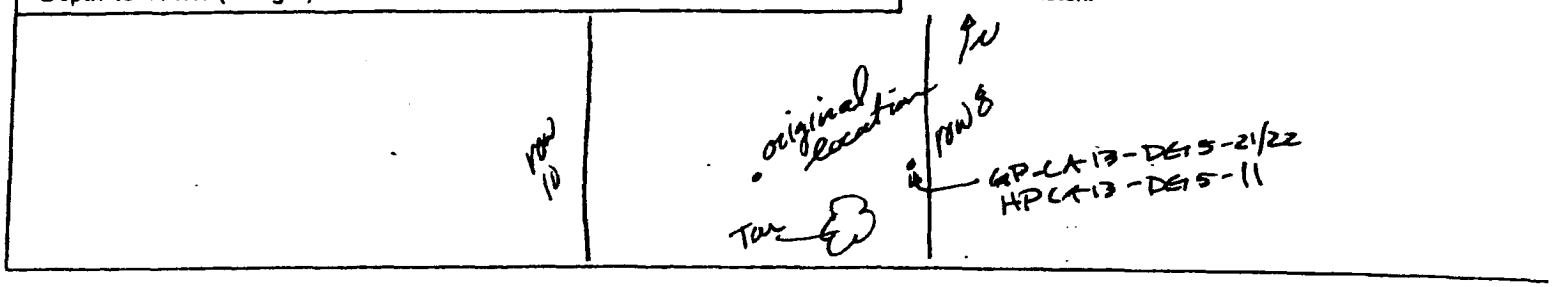
Point Name: CA13-21
Sample Identification: 030-CAP-411
Sample Identification: 030-CAP-412
Sample Identification: 030-CAP-413

Sheet 1 of 2

BORING AND WELL INSTALLATION
D VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 030
Bldg./Site:
Project Name: ~~Site 14/25 Remedial Inv~~

Boring Number: GP-CA13-DG5-21/22	Date Started: 6/14
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: [illegible]
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
20						Asphalt.		
	1					base rock fill		
	2					Sand - fine sand w/silt (5%), loose, moist to wet, black; HC odor		
	3							
			X			GP-CA13-DG5-21 ~~[illegible]~~ 030-CAP-411		
1426	4				▽?	as above, wet		
	5							

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TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~122~~ 030
Bldg./Site:
Project Name:
~~Site 14/15 Remedial Investigat~~

Boring # GP-CA13-DG5-21/22

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5								
			X			GP-CA13-DG5-22, 030CAP412			
	6								
	7					color change to grey green.			
14:30	8					TD=8.0' bgs Setscreen 3'-8' bgs HP-~~GP~~CA13-DG1-11 030CAP-413			

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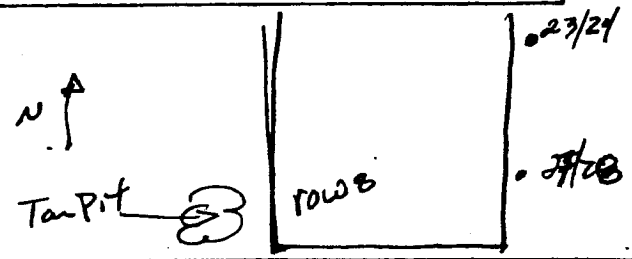
Point Name: CA13-22
Sample Identification: 030-CAP-414
Sample Identification: 030-CAP-415
Sample Identification: 030-CAP-416

CTO: ~~122~~ 030

BORING AND WELL INSTALLATION D VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name: ~~Site 14/25 Remedial In~~

Boring Number: GP-CA13-DG5-23/24	Date Started: 6/14
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed: 6/14
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: [illegible]
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller: Juan M.
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
	1					Asphalt Baserock fill		
	2					Sand - fine to med clean sand; black w/ some areas grey green to olive grey.		
	3							
	4							
	5		X			GP-CA13-DG5-23 030-CAP-414/14		

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 30
Bldg./Site:
Project Name:

Site ~~[illegible] Remedial Investig~~

Boring # GPCA13DG5-23/24

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5								
	6								
	7								
			X			GP-CA13-DG5-24 030-CAP-415			
	8					TD=8.0 Set Screen 3'-8' HP-CA13-DG5-12 030-CAP416 (6/15)			

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Point Name: CA13-23
Sample Identification: 030-CAP-417
Sample Identification: 030-CAP-418
Sample Identification: 030-CAP-419

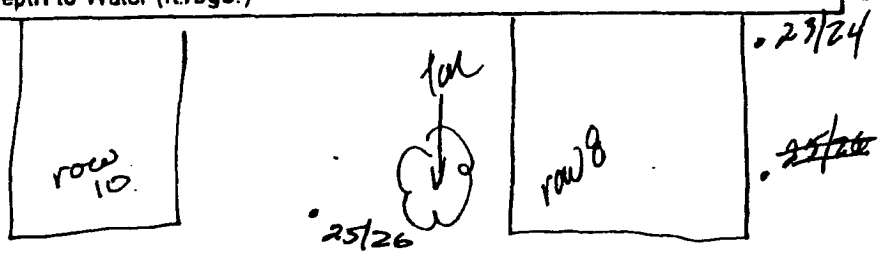
Sheet 1 of 2

CTO: ~~112~~ 030

BORING AND WELL INSTALLATION VISUAL CLASSIFICATION LOG

Bldg./Site:
Project Name:
~~Site 111/25 Remedial Inv~~

Boring Number: GP-CA13-DG5-25/26	Date Started:
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By:
Outer Diameter of Boring:	Drilling Subcontractor: Precision Sampling
Inner Diameter of Well Casing:	Driller:
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction
						asphalt		
	1					Roadrock fill		
	2					Sand - fine sand w/ minor fines, minor gravel w/ debris, medium dense, tarry-like matrix, strong HC odor, moist		
	3							
	4		X			Silty sand - fine to med sand, greyish-green silt, loose, wet GP-CA13-DG5-25 ; 030CAP-417		
	5				▽	as above		

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TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 030
Bldg./Site:
Project Name:

~~SHC 17/25 Remedial Investigation~~

Boring # GP-CA13-DG5-~~24~~ 25/26

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5		X			GP-CA13-DG5-26, 030 CAP 418			
						as above			
	6								
	7								
	8					TD= 8.0' bgs			
						Set screen 3'-8' bgs			
						HP-CA13-DG5-13 030-CAP-419			
	9								
	10								

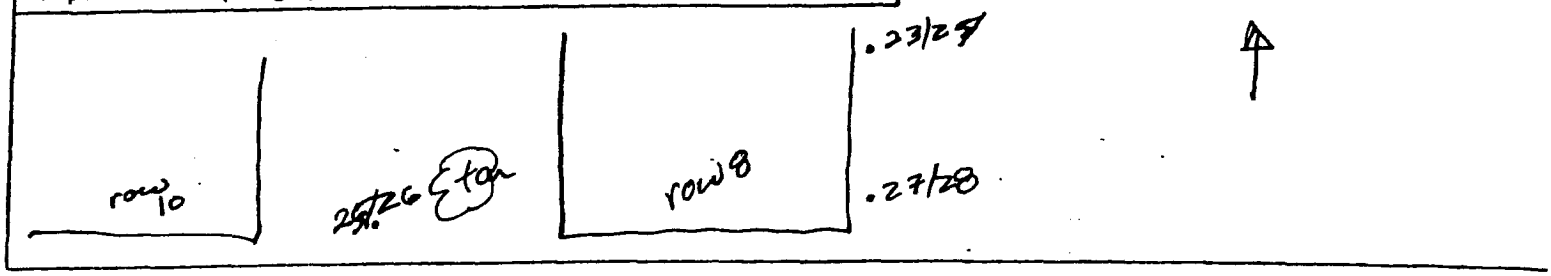
Point Name: CA13-24
Sample Identification: 030-CAP-420
Sample Identification: 030-CAP-421
Sample Identification: 030-CAP-422

Sheet 1 of 2

CTO: ~~112~~ 030
Bldg./Site:
Project Name: ~~Site 11/25 Remedial In~~

BORING AND WELL INSTALLATION ND VISUAL CLASSIFICATION LOG

Boring Number: GP-CA13-DG5-27/28	Date Started: 6/14
Drilling Method: (Circle one) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.)	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility typ. dis.	Description	USCS soil symbol	Well construction
1110						asphalt		
	1					base rock fill		
	2					Sand- fine to med sand, loose, moist, tan to lt. brown		
1115	3		X			GP-CA13-DG5-27, 030-CAP-420		
					▽	as above.		
1115	4							
1120			X			GP-CA13-DG5-28, 030-CAP-421		
	5					as above; color change to brown		

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TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 030
Bldg./Site:
Project Name:
Site ~~[illegible] Remedial Investigat~~

Boring # GP-CA13-DG5-27/28

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5					as above; color change to dirk grey to ~~[illegible]~~.			
	6								
	7								
11:20	8								
						Set Screen 3'-8' bgs TD= 8.0' bgs HP-~~R~~CA13-DG5-14 030-CAP-422			

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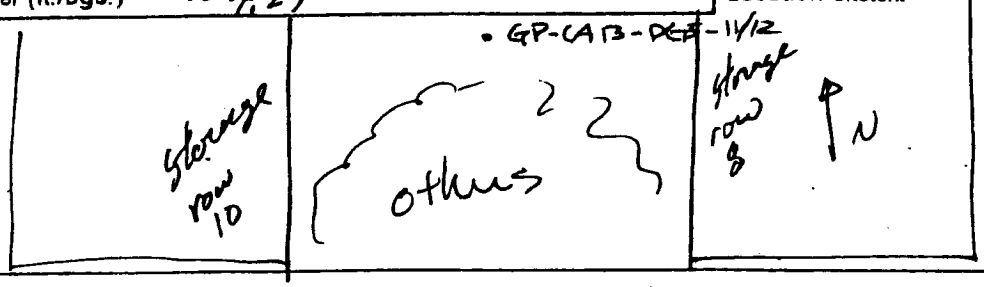
Point Name: CA13-25
Sample Identification: 030-CAP-424
Sample Identification: 030-CAP-425
Sample Identification: 030-CAP-426

Sheet 1 of 2

BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~192~~
Bldg./Site:
Project Name: ~~Site 14/25 Remedial In~~

Boring Number: GP-CA13-DG5-~~X~~/29/30	Date Started: 6/14
Drilling Method: (*Circle one*) HSA Continuous Core/GeoProbe/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: JCB/CJC
Outer Diameter of Boring:	Drilling Subcontractor: Precision Samplin
Inner Diameter of Well Casing:	Driller: Juan
Depth to Water (ft./bgs.) ~4.25'	Location Sketch:



Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, etc.	Description	USCS soil symbol	Well construction
	1					Asphalt backfill		
	2					gravelly sand - sand - med, w/gravel 20%, moist, loose,		
	3							
	4		X			Sand - fine sand - olive gray to grayish gray, loose, moist. sample to lab GP-CA13-DG5-~~X~~ 29 JCB		
	5		X		▽	Sample to lab GP-CA13-DG5-~~X~~ 30 JCB		

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Continue

Sheet ____ of ____

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

CTO: ~~[illegible]~~ 2 2

Bldg./Site:

Project Name:

Site 14/25 Remedial Investiga

Boring # GP-CA13-DG5-~~[illegible]~~ 29/30

Time	Depth (ft) bgs	Sample type and No.	Recovered interval	Drive interval	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
	5					Sand - silt + sand fine to med. Minor angular gravel. wet.			
	6								
	7								
	8					TD = 8.0' Scrn 3'-8' bgs HP-~~DG~~CA13-DG5-~~[illegible]~~ 15 JCB 6/15 030-CAP-~~[illegible]~~ JCB			

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