Detterman, Mark, Env. Health

From: Detterman, Mark, Env. Health
Sent: Friday, July 12, 2013 9:06 AM
To: 'Cem Atabek'
Cc: Kris Larson
Subject: RE: ACEH Correspondence for RO3009

Cem, Kris,
Thanks. Please incorporate the data into the final report so that it's all captured in one document.

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

From: Cem Atabek [mailto:catabek@ninyoandmoore.com]
Sent: Thursday, July 11, 2013 6:01 PM
To: Detterman, Mark, Env. Health
Cc: Kris Larson
Subject: RE: ACEH Correspondence for RO3009

Hi Mark, attached are the analytical results for the two composite samples of the imported recycled crushed concrete backfill material. The only detections were minor concentrations of TPHd, TPHmo, fluoranthene, and pyrene. We will approve the demolition contractor to continue backfilling the pits with this material unless we here otherwise from you.

Thanks,

-Cem

Cem R. Atabek
Senior Project Engineer
Ninyo & Moore
Geotechnical & Environmental Sciences Consultants
1956 Webster Street, Suite 400
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catabek@ninyoandmoore.com

New San Jose office
2149 O'Toole Avenue, Suite 10
San Jose, CA 95131
(408) 435-9000
(408) 435-9006 (Fax)

-----Original Message-----
From: Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]
Sent: Thursday, July 11, 2013 12:03 PM
To: Cem Atabek
Cc: Kris Larson; Roe, Dilan, Env. Health; Walter R. Pierce
Subject: RE: ACEH Correspondence for RO3009

Cem and Kris,

Thank you for your comments. In regards to 1b, 1c, 1d, and 1g; these seem reasonable and are requested to be placed in the requested CAP Addendum. The previously forwarded test interval for concrete seems reasonable as well and should be included in the addendum.

In regards to the arsenic background determination, I refer to the first page of the 2007 DTSC document. At the bottom of the page, Option 2 states that the data set may include data from the site, as well as background values from the immediate area. At present the arsenic calculations only involve "data from the site", and not "background values from the immediate area". It is ACEHs judgment that calculations may have determined site background arsenic concentrations, but has not determined background concentrations in the area (or public health risks, previously addressed in an email). As stated in the earlier email, this is very similar to determining that a gas station has high background benzene concentrations due to a release; it does not address area vicinity background concentrations (or public health risks). Determination of the background becomes very important at sites where higher values are proposed, and that gets into sample density. The number of samples from this site appears to be fairly limited, based on a review of the following document (http://www.dtsc.ca.gov/AssessingRisk/upload/backgrnd.pdf). Also a review of the executive summary of the arsenic Master's thesis, indicates that 11 mg/kg is the upper bound within undifferentiated flatland soils, but also indicates that Holocene alluvium and Pleistocene alluvium have much lower mean concentrations than indicated with onsite calculations. I've not checked, but I would expect the site vicinity to fit one of these other categories. My personal experience from several sites also informs me that background concentrations are generally closer to those means, and upper bounds have been below 11 mg/kg; however, I do recognize that each site is different.

We should discuss these issues further, but one thought, will the site be an unpaved or paved corp. yard?

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http://www.acgov.org/aceh/lop/ust.htm

From: Cem Atabek [mailto:catabek@ninyoandmoore.com]
Sent: Wednesday, July 10, 2013 10:22 AM
To: Detterman, Mark, Env. Health
Cc: Kris Larson; Drogos, Donna, Env. Health; Roe, Dilan, Env. Health; Walter R. Pierce
Subject: RE: ACEH Correspondence for RO3009

Hi Mark, below are comments we have in response to your directive letter dated June 28, 2013:

1.a. Given that the ESL for arsenic is driven by human health risk, it's likely that any further risk assessment will be non-productive because the results will most likely be similar to the existing Commercial ESLs. Therefore; it's our opinion that a site specific human health risk assessment for arsenic will not provide any benefit. Because background arsenic is commonly detected throughout the region at concentrations exceeding Commercial ESLs, we feel that establishing an arsenic cleanup goal should be instead based on a site specific evaluation of background arsenic similar to the method used in the attached *Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals for Proposed and Existing School Sites* prepared by the DTSC. Because this strategy has been used successfully on school facilities throughout the state where the potential for risk of exposure to a more sensitive population (children) is far more likely than our site (which will be developed into a city maintenance facility), using this strategy appears to be the most effective way to establish CGs for 540 Cleveland Avenue.

1.b. Collection of bottom samples for areas of excavation of up to 50' by 50' to a specific depth is common practice for us and regulatory agencies have always agreed with this approach. Collection of bottom confirmation samples for every 250 square feet (approximately 16' by 16' area) would significantly increase project costs, and would likely provide much more information than necessary given that the contaminants of concern are heavy petroleum hydrocarbons (which wouldn't migrate either vertically or laterally a significant distance beneath the shallow groundwater table) and metals which are also not very mobile. We propose a compromise of one bottom sample for up to 25' by 25' of excavation area to a specific depth, and we propose to collect the bottom sample from areas where physical signs of impacts (staining, odors, etc.) are most pronounced as we will do for all confirmation samples. The proposed depths of sidewall confirmation samples are the depths where the most significant impacts were previously detected within the excavation areas as discussed in Section 13.8 of the CAP and indicated in Table 6 of the CAP.

1.c. Sidewall samples were not proposed for excavation EX1 because step-out samples defined the limits of impacts in this area. This approach was previously approved by ACEH in our original CAP, however we can add sidewall confirmation samples to EX1 if you feel it is necessary. We did not propose sidewall samples at the east end of excavations EX1 or EX2 because these sidewalls will fall beneath the edge of the former building slab which we assumed would have prevented impacts from extending in that direction, however we will add confirmation samples to the east side of these excavations to confirm this. There will be no sidewalls at the east side of EX4 or the north side of EX5 because of their locations adjacent to each other, a previous test pit, and Pit 2.

1.d. The proposed excavation depth of 2 feet in EX8 is based the results from Boring B-19 and B-14. No impacts from TPHho were detected in boring B-14A at 4 to 5 feet bgs. If areas of major staining are observed to remain within EX-8 after excavation to 2 feet bgs or within the eastern sidewall of EX10 after excavation to 6 feet bgs, we may perform deeper excavation within EX8 as necessary.

1.g. Regarding the relocation of the site monitoring wells, we recommend moving monitoring well MW-2 to just north of excavation EX9.

Thanks,

-Cem

Cem R. Atabek
Senior Project Engineer
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New San Jose office
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Experience · Quality · Commitment

-----Original Message-----
From: Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]
Sent: Friday, June 28, 2013 5:19 PM
To: Walter R. Pierce
Cc: Kris Larson; Cem Atabek; Drogos, Donna, Env. Health; Roe, Dilan, Env. Health; dehloptoxic, Env. Health; Detterman, Mark, Env. Health
Subject: ACEH Correspondence for RO3009

Dear Interested Parties,

Attached is Alameda County Environmental Health's (ACEH) correspondence for your case, RO0003009.

Please add our e-mail address to your address book to prevent future e-mails from being filtered as spam.

Sincerely,

ACEH

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-50816-1
Client Project/Site: Western Forge & Flange

For:
Ninyo & Moore
1956 Webster Street
Suite 400
Oakland, California 94612

Attn: Mr. Cem Atabek

Authorized for release by:
7/11/2013 5:48:03 PM

Dimple Sharma, Project Manager I
dimple.sharma@testamericainc.com

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Job ID: 720-50816-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-50816-1

Comments
No additional comments.

Receipt
The samples were received on 7/10/2013 6:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1° C.

GC/MS Semi VOA
Method 8270C SIM: The following sample was diluted due to the color: CONCRETE COMPOSITE-1 (720-50816-1), CONCRETE COMPOSITE-2 (720-50816-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-1 **Lab Sample ID: 720-50816-1**

Sample Analysis Not Complete.

Client Sample ID: CONCRETE COMPOSITE-2 **Lab Sample ID: 720-50816-2**

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-1
Date Collected: 07/10/13 12:00
Date Received: 07/10/13 18:20

Lab Sample ID: 720-50816-1
Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Acenaphthylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[a]anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[a]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[b]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[g,h,i]perylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Benzo[k]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Chrysene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Dibenz(a,h)anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Fluoranthene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Fluorene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Indeno[1,2,3-cd]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Naphthalene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Phenanthrene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2
Pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 15:43	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*33 - 120*	*07/10/13 20:06*	*07/11/13 15:43*	*2*
Terphenyl-d14	*102*		*35 - 146*	*07/10/13 20:06*	*07/11/13 15:43*	*2*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**67**		0.99		mg/Kg		07/11/13 10:27	07/11/13 13:39	1
Motor Oil Range Organics [C24-C36]	**92**		50		mg/Kg		07/11/13 10:27	07/11/13 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*85*		*40 - 130*	*07/11/13 10:27*	*07/11/13 13:39*	*1*

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-2
Date Collected: 07/10/13 13:00
Date Received: 07/10/13 18:20

Lab Sample ID: 720-50816-2
Matrix: Solid

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Acenaphthylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[a]anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[a]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[b]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[g,h,i]perylene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Benzo[k]fluoranthene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Chrysene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Dibenz(a,h)anthracene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Fluoranthene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Fluorene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Indeno[1,2,3-cd]pyrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Naphthalene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Phenanthrene	ND		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2
Pyrene	**11**		9.8		ug/Kg		07/10/13 20:06	07/11/13 16:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*33 - 120*	*07/10/13 20:06*	*07/11/13 16:06*	*2*
Terphenyl-d14	*99*		*35 - 146*	*07/10/13 20:06*	*07/11/13 16:06*	*2*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**71**		1.0		mg/Kg		07/11/13 10:27	07/11/13 14:08	1
Motor Oil Range Organics [C24-C36]	**93**		50		mg/Kg		07/11/13 10:27	07/11/13 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*53*		*40 - 130*	*07/11/13 10:27*	*07/11/13 14:08*	*1*

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: MB 720-139862/1-A
Matrix: Solid
Analysis Batch: 139906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Acenaphthylene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Anthracene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[a]anthracene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[a]pyrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Chrysene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Fluoranthene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Fluorene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Naphthalene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Phenanthrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1
Pyrene	ND		5.0		ug/Kg		07/10/13 10:49	07/10/13 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*33 - 120*	*07/10/13 10:49*	*07/10/13 18:13*	*1*
Terphenyl-d14	*95*		*35 - 146*	*07/10/13 10:49*	*07/10/13 18:13*	*1*

Lab Sample ID: LCS 720-139862/2-A
Matrix: Solid
Analysis Batch: 139906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	332	258		ug/Kg		78	49 - 120
Acenaphthylene	332	277		ug/Kg		84	52 - 120
Anthracene	332	284		ug/Kg		86	52 - 120
Benzo[a]anthracene	332	304		ug/Kg		92	52 - 120
Benzo[a]pyrene	332	307		ug/Kg		93	54 - 120
Benzo[b]fluoranthene	332	320		ug/Kg		96	51 - 120
Benzo[g,h,i]perylene	332	318		ug/Kg		96	48 - 120
Benzo[k]fluoranthene	332	313		ug/Kg		95	56 - 120
Chrysene	332	272		ug/Kg		82	40 - 120
Dibenz(a,h)anthracene	332	331		ug/Kg		100	50 - 120
Fluoranthene	332	293		ug/Kg		88	57 - 120
Fluorene	332	270		ug/Kg		81	52 - 120
Indeno[1,2,3-cd]pyrene	332	323		ug/Kg		97	48 - 120
Naphthalene	332	249		ug/Kg		75	46 - 120
Phenanthrene	332	259		ug/Kg		78	48 - 120
Pyrene	332	321		ug/Kg		97	53 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*33 - 120*
Terphenyl-d14	*101*		*35 - 146*

Method: 8270C SIM - PAHs by GCMS (SIM) (Continued)

Lab Sample ID: LCSD 720-139862/3-A
Matrix: Solid
Analysis Batch: 139906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 139862

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene			331	258		ug/Kg		78	49 - 120	0	20
Acenaphthylene			331	268		ug/Kg		81	52 - 120	3	20
Anthracene			331	285		ug/Kg		86	52 - 120	0	20
Benzo[a]anthracene			331	316		ug/Kg		95	52 - 120	4	20
Benzo[a]pyrene			331	318		ug/Kg		96	54 - 120	4	20
Benzo[b]fluoranthene			331	321		ug/Kg		97	51 - 120	0	20
Benzo[g,h,i]perylene			331	330		ug/Kg		99	48 - 120	4	20
Benzo[k]fluoranthene			331	328		ug/Kg		99	56 - 120	5	20
Chrysene			331	282		ug/Kg		85	40 - 120	4	20
Dibenz(a,h)anthracene			331	340		ug/Kg		103	50 - 120	3	20
Fluoranthene			331	300		ug/Kg		91	57 - 120	2	20
Fluorene			331	270		ug/Kg		81	52 - 120	0	20
Indeno[1,2,3-cd]pyrene			331	333		ug/Kg		100	48 - 120	3	20
Naphthalene			331	249		ug/Kg		75	46 - 120	0	20
Phenanthrene			331	260		ug/Kg		78	48 - 120	0	20
Pyrene			331	324		ug/Kg		98	53 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*33 - 120*
Terphenyl-d14	*104*		*35 - 146*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-139942/1-A
Matrix: Solid
Analysis Batch: 139928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 139942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		07/11/13 10:27	07/11/13 14:03	1
Motor Oil Range Organics [C24-C36]	ND		49		mg/Kg		07/11/13 10:27	07/11/13 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl	*106*		*40 - 130*	*07/11/13 10:27*	*07/11/13 14:03*	*1*

Lab Sample ID: LCS 720-139942/2-A
Matrix: Solid
Analysis Batch: 139928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 139942

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			83.1	72.3		mg/Kg		87	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*109*		*40 - 130*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 720-139942/3-A
Matrix: Solid
Analysis Batch: 139928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 139942

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			83.1	77.4		mg/Kg		93	50 - 150	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*113*		*40 - 130*

QC Association Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

GC/MS Semi VOA

Prep Batch: 139862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	3546	
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	3546	
LCS 720-139862/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-139862/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-139862/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 139906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-139862/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	139862
LCSD 720-139862/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	139862
MB 720-139862/1-A	Method Blank	Total/NA	Solid	8270C SIM	139862

Analysis Batch: 139950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	8270C SIM	139862
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	8270C SIM	139862

GC Semi VOA

Analysis Batch: 139928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 720-139942/2-A	Lab Control Sample	Total/NA	Solid	8015B	139942
LCSD 720-139942/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	139942
MB 720-139942/1-A	Method Blank	Total/NA	Solid	8015B	139942

Analysis Batch: 139934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	8015B	139942
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	8015B	139942

Prep Batch: 139942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-50816-1	CONCRETE COMPOSITE-1	Total/NA	Solid	3546	
720-50816-2	CONCRETE COMPOSITE-2	Total/NA	Solid	3546	
LCS 720-139942/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-139942/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-139942/1-A	Method Blank	Total/NA	Solid	3546	

Lab Chronicle

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Client Sample ID: CONCRETE COMPOSITE-1

Lab Sample ID: 720-50816-1

Date Collected: 07/10/13 12:00

Matrix: Solid

Date Received: 07/10/13 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			139862	07/10/13 20:06	AFM	TAL PLS
Total/NA	Analysis	8270C SIM		2	139950	07/11/13 15:43	MQL	TAL PLS
Total/NA	Prep	3546			139942	07/11/13 10:27	MRP	TAL PLS
Total/NA	Analysis	8015B		1	139934	07/11/13 13:39	DCH	TAL PLS

Client Sample ID: CONCRETE COMPOSITE-2

Lab Sample ID: 720-50816-2

Date Collected: 07/10/13 13:00

Matrix: Solid

Date Received: 07/10/13 18:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			139862	07/10/13 20:06	AFM	TAL PLS
Total/NA	Analysis	8270C SIM		2	139950	07/11/13 16:06	MQL	TAL PLS
Total/NA	Prep	3546			139942	07/11/13 10:27	MRP	TAL PLS
Total/NA	Analysis	8015B		1	139934	07/11/13 14:08	DCH	TAL PLS

Laboratory References:

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Method	Method Description	Protocol	Laboratory
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
PCBs	General Sub Contract Method	NONE	

Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: Ninyo & Moore
Project/Site: Western Forge & Flange

TestAmerica Job ID: 720-50816-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-50816-1	CONCRETE COMPOSITE-1	Solid	07/10/13 12:00	07/10/13 18:20
720-50816-2	CONCRETE COMPOSITE-2	Solid	07/10/13 13:00	07/10/13 18:20

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Test America 1220 Quarry Lane Pleasanton, CA 94566	Client Project ID: #72008928; Western Forge & Flange	Date Sampled: 07/10/13
		Date Received: 07/11/13
	Client Contact: Dimple Sharma	Date Reported: 07/11/13
	Client P.O.:	Date Completed: 07/11/13

WorkOrder: 1307319

July 11, 2013

Dear Dimple:

Enclosed within are:

1) The results of the **2** analyzed samples from your project: **#72008928; Western Forge & Flange,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

1307319

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-18428.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: McCampbell Analytical, Inc.				Job #: 720-50816-1
Address: 1534 Willow Pass Road,	Due Date Requested: 7/11/2013			
City: Pittsburg	TAT Requested (days):			
State, Zip: CA, 94565				
Phone:	PO #:			
Email:	WO #:			
Project Name: Western Forge & Flange	Project #: 72006928			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
CONCRETE COMPOSITE-1 (720-50816-1)	7/10/13	12:00 Pacific		Solid			X		
CONCRETE COMPOSITE-2 (720-50816-2)	7/10/13	13:00 Pacific		Solid			X		

RUSH

Same day per Angela

ICE/t° 6.2 ✓
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION	VOAS	O&G	METALS	OTHER

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7.11.13 12:05	TAST		7/11/13 1207	MAI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1307319 **ClientCode: TAM**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Dimple Sharma
Test America
1220 Quarry Lane
Pleasanton, CA 94566
(925) 484-1919 FAX: (925) 600-3002

Email: dimple.sharma@testamericainc.com
cc:
PO:
ProjectNo: #72008928; Western Forge & Flange

Bill to:
Accounts Payable
Test America
P.O. Box 2912
North Canton, OH 44720
SEND HARDCOPY

Requested TAT: 0 day

Date Received: 07/11/2013
Date Printed: 07/11/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1307319-001	Concrete Composite -1 (720-50816-1)	Solid	7/10/2013 12:00	☐	A											
1307319-002	Concrete Composite -2 (720-50816-2)	Solid	7/10/2013 13:00	☐	A											

Test Legend:

1	8082A_PCB_Solid	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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Sample Receipt Checklist

Client Name: **Test America**
Date and Time Received: **7/11/2013 12:32:54 PM**
Project Name: **#72008928; Western Forge & Flange**
LogIn Reviewed by: Melissa Valles
WorkOrder N°: **1307319** Matrix: Solid
Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☐	No ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 6.2°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Comments:

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Test America	Client Project ID: #72008928; Western Forge & Flange	Date Sampled: 07/10/13
		Date Received: 07/11/13
1220 Quarry Lane	Client Contact: Dimple Sharma	Date Extracted: 07/11/13
Pleasanton, CA 94566	Client P.O.:	Date Analyzed: 07/11/13

Polychlorinated Biphenyls (PCBs) Aroclors by GC-ECD*

Extraction Method: SW3550B | Analytical Method: SW8082 | Work Order: 1307319

Lab ID	1307319-001A	1307319-002A			Reporting Limit for DF =1	
Client ID	Concrete Composite - 1 (720-50816-1)	Concrete Composite - 2 (720-50816-2)				
Matrix	S	S				
DF	1	1			S	W
Compound	**Concentration**				mg/kg	ug/L
Aroclor1016	ND	ND			0.05	NA
Aroclor1221	ND	ND			0.05	NA
Aroclor1232	ND	ND			0.05	NA
Aroclor1242	ND	ND			0.05	NA
Aroclor1248	ND	ND			0.05	NA
Aroclor1254	ND	ND			0.05	NA
Aroclor1260	ND	ND			0.05	NA
PCBs, total	ND	ND			0.05	NA
Surrogate Recoveries (%)						
%SS:	130	128				
Comments	h4	h4				

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

h4) sulfuric acid permanganate (EPA 3665) cleanup

CDPH ELAP 1644 ♦ NELAP 12283CA CK Analyst's Initial Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8082

W.O. Sample Matrix: Solid | QC Matrix: Soil | BatchID: 79287 | WorkOrder: 1307319

EPA Method: SW8082 | **Extraction: SW3550B** | **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aroclor1260	N/A	0.15	N/A	N/A	N/A	110	N/A	N/A	70 - 130
%SS:	N/A	0.050	N/A	N/A	N/A	130	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 79287 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1307319-001A	07/10/13 12:00 PM	07/11/13	07/11/13 2:32 PM	1307319-002A	07/10/13 1:00 PM	07/11/13	07/11/13 4:28 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

QA/QC Officer

TestAmerica Pleasanton
1220 Quarry Lane

Pleasanton, CA 94566
phone 925.484.1919 fax 925.600.3002

Chain of Custody Record

720 - 50816

147097

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Cem Atabek	Site Contact: Melissa Terry	Date: 7/10/13	COC No. 1
Cem Atabek	Tel/Fax: 510-343-3000/510-343-3001	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
1956 Webster Street	Analysis Turnaround Time			Sampler: Melissa Terry
Oakland, CA 94612	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(510) 343-3000 Phone	TAT if different from Below _____			Walk-in Client
(510) 343-3001 FAX	☐ 2 weeks			Lab Sampling:
Project Name. Western Forge & Flange	☐ 1 week			
Site 540 Cleveland Avenue, Albany	☐ 2 days			Job / SDG No..
P O # 401823001	☑ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	PAHs (8270 SIM)	TPHd & TPHmo (8015M)	PCBs (8082)	Sample Specific Notes.
Concrete Composite - 1	7/10/2013	12:00	C	Solid	1	x	x	x	
Concrete Composite - 2	7/10/2013	13:00	C	Solid	1	x	x	x	

RUSH

720-50816 Chain of Custody

Preservation Used: (1= Ice,) 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5.1°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
MJerry	Ninyo & Moore	7/10/13 1650		TAF	7-10-13 1650
Relinquished by:	Company: TAF	Date/Time: 7/10/13 1820	Received by:	Company: TAP	Date/Time: 7/10/13 1820
Relinquished by:	Company	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

7/11/2013

Login Sample Receipt Checklist

Client: Ninyo & Moore

Job Number: 720-50816-1

Login Number: 50816

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	