FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

Preliminary Assessment of an Identified Illegal Drug Laboratory at:

198 Blueberry Trail
Bailey, Colorado 80421

Prepared for:

Jerry Keel
2 Barrington Drive
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CO 80127

Prepared by:

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June 25, 2011

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EXECUTIVE SUMMARY

On Tuesday, March 29, 2011, FACTs was contracted by a potential buyer of 198 Blueberry Trail, Bailey, (the subject property) to perform an assessment of the presence of methamphetamine at the property. Consistent with the Colorado Real Estate methamphetamine disclosure and testing statute (CRS §38-35.7-103(2)(a)), Forensic Applications Consulting Technologies, Inc. (FACTs) confirmed the presence of methamphetamine contamination at the property in excess of regulatory concentrations. The testing indicated widespread contamination throughout the residence.

On March 31, 2011, FACTs issued a written report of the cursory testing which met the definition of "discovery" and "notification" and which triggered Colorado State Board of Health Regulation 6 CCR 1014-3.

During the first week of June 2011, FACTs was contracted by a potential buyer (Jerry Keel) to perform a standard State-mandated Preliminary Assessment (PA) for the subject property. From June 10, 2011 to June 25, 2011 personnel from FACTs performed the PA pursuant to Colorado Regulation 6 CCR 1014-43, Part 4.

Samples taken during the cursory testing and the Preliminary Assessment conclusively demonstrated the presence of methamphetamine contamination throughout the structure, including the furnace system, but excluding the septic system and the four small attics.

Pursuant to Colorado Revised Statutes, CRS §16-13-103, the residence, and all remaining personal items therein, meet the definition of an "illegal drug laboratory." Based on the totality of the circumstances, FACTs makes the following observations:

- The property exhibits overt noncompliance with Colorado's methamphetamine cleanup standards.

- "Discovery" and "Notification" existed by virtue of the FACTs March 29, 2011 samples as described in our March 31, 2011 report.

- A noncompliant illegal drug lab, as that term is defined in CRS §25-18.5-101, existed at the subject property from at least March 29, 2011 forward, and continues to exist at the time of this Preliminary Assessment.

- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from at least March 29, 2011 forward, and continues to exist at the time of this report.

- The entire interior structure, including the furnace system, but excluding the four attics, must be decontaminated in a manner consistent with State regulations.

- Following the decontamination activities, a qualified Industrial Hygienist must perform the post-decontamination process and issue a Decision Statement before reentry or occupancy of the subject property may occur.

- The PA and sampling was performed by Mr. Caoimhín P. Connell, Forensic Industrial Hygienist with FACTs. Mr. Connell was assisted by Ms. Christine Carty, Field Technician[1] and Mr. Glenn Hardey, Field Technician[2] both of whom worked under direct supervision and direction of Mr. Connell.

REGULATORY REQUIREMENTS

Federal Requirements

All work associated with this PA was performed in a manner consistent with regulations promulgated by the Federal Occupational Safety and Health Administration (OSHA).

State Requirements

Preliminary Assessment

According to Colorado State Regulation 6-CCR 1014-3, following the discovery of an illegal drug lab, as that term is defined in CRS §25-18.5-101, and following "notification," the property must either be demolished or a "Preliminary Assessment" must be conducted at that property to characterize extant contamination (if any), and to direct appropriate decontamination procedures (if any). Pursuant to these regulations, information obtained in the PA and those findings, enter the public domain and are not subject to confidentiality.[3]

The PA must be conducted according to specified requirements[4] by an authorized Industrial Hygienist as that term is defined in CRS §24-30-1402. This document, and all associated appendices and photographs, is the PA pursuant to those regulations. Included with this discussion is a read-only digital disc. The disc contains mandatory information and photographs required by State regulation for a PA. This PA is not complete without the digital disc and all associated support documents.

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[1] Ms. Carty received a training certificate in Clandestine Drug Lab Safety through the Colorado Regional Community Policing Institute (CRCPI) sponsored by the US Dept. of Justice High Intensity Drug Trafficking Area fund consistent with 29 CFR §1910.120.

[2] Mr. Hardey received a training certificate in Clandestine Drug Lab Safety through the Colorado CRCPI sponsored by the US Dept. of Justice High Intensity Drug Trafficking Area fund as well as site specific training pursuant to 29 CFR §1910.120. Mr. Hardey is further certified in Clandestine Drug Lab entry and processing through the US Drug Enforcement Agency.

[3] Section 8.26 of 6 CCR 1014-3

[4] Section 4 of 6 CCR 1014-3

Pursuant to CRS §25-18.5-105, the subject property is deemed a "public health nuisance." Pursuant to CRS §16-13-303, the subject property and all of its contents is deemed a Class 1 Public Nuisance. As such, the subject property must be remediated according to State Board of Health regulations 6-CCR-1014-3 or demolished (CRS §25-18.5-103).

Preliminary Hypothesis

During the PA, the initial hypothesis is made that the subject area is clean, and data are collected to find support for this hypothesis. Any reliable data that fails to support the hypothesis, including police records, visual clues of illegal production, storage, or use, or documentation of drug paraphernalia being present, is considered conclusive, and requires the Industrial Hygienist to accept the null hypothesis and declare the area non-compliant.[5] The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, trained in aspects of meth laboratories, to conclude the *presence* of methamphetamine, and/or its precursors or waste products as related to processing.

Contrary to common belief, sampling is **not** required during a PA; however, if sampling is performed, it is conducted in the areas with the highest probability of containing the highest possible concentrations of contaminants. According to the State regulations:[6]

> *Identification and documentation of areas of contamination. This identification may be based on visual observation, law enforcement reports, proximity to chemical storage areas, waste disposal areas, or cooking areas, or based on professional judgment of the consultant; or the consultant may determine that assessment sampling is necessary to verify the presence or absence of contamination.*

Initial Statement on Hypothesis Testing

Regarding this subject property, objective sampling performed by FACTs on Tuesday, March 29, 2011, confirmed overt methamphetamine contamination. In the totality of circumstances, any one of the samples would challenge the Primary Hypothesis, and require FACTs to accept the null hypothesis and declare the primary residence and all contents therein as non-compliant.

Pursuant to testing consistent with Section 7, 6 CCR 1014-3, FACTs further challenged the compliance status of the four attics, the furnace, the ISDS[7] and surrounding soils.

Through that sampling, we determined that although widespread methamphetamine was present in the furnace system and throughout the structure, the concentrations in the four attics did not rise to the standard of contaminant, and the concentrations were below the appropriate regulatory thresholds. Therefore, the attics are excluded from the need for any corrective actions.

[5] This language and emphasis is verbatim from Appendix A (mandatory) of 6 CCR 1014-3

[6] Section 4.6 of 6 CCR 1014-3

[7] Individual Sewerage Disposal System.

Similarly, pursuant to Section 4.11, 6 CCR 1014-3, our screening samples confirmed that the ISDS, including the septic tank, leach field and surrounding soils did not exhibit signs of contamination. Therefore, no further corrective actions are required for the ISDS or soils.

Elements of the Preliminary Assessment

Specific mandatory information must be presented as part of the PA. This discussion, in its totality, contains the mandatory information for a PA as follows:

Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§4.1	Property description field form	✓
§§4.4, 4.5	Description of manufacturing methods and chemicals	✓
§4.2	Law Enforcement documentation review discussion	✓
§4.7	Description and Drawing of Storage area(s)	✓
§4.8	Description and Drawing of Waste area(s)	✓
§4.9	Description and Drawing of Cook area(s)	✓
§§4.3, 4.6, 4.10	Field Observations field form	✓
	FACTs Functional space inventory field form	✓
§4.11	Plumbing inspection field form	✓
	FACTs ISDS field form	✓
§4.12	Contamination migration field form or description	✓
§4.13	Identification of common ventilation systems	✓
§8.11	Description of the sampling procedures and QA/QC	✓
§8.12	~~Analytical Description and~~ Laboratory QA/QC	✓
§8.13	Location and results of initial sampling with drawings	✓
§8.14	FACTs health and safety procedures in accordance with OSHA	✓
§8.15 - §8.19	These sections are not applicable to a Preliminary Assessment	
§8.20	FACTs Pre-remediation photographs and log	✓
	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	✓
§8.22	Certification of procedures, results, and variations	✓
§8.23	Mandatory Certification Language	✓
§8.24	Signature Sheet	✓
NA	Analytical Laboratory Reports	✓
	FACTs final closeout inventory document	NA
	FACTs Field Sampling Forms	✓

Table 1
Inventory of Mandatory Elements and Documentation

Subject Structure

The primary residential structure was listed by the Park County (Colorado) Assessor's Office as a 1,264 square foot residence built *circa* 1983. For the purposes of regulatory compliance, traditionally non-taxable spaces (such as the attics) must be included in the assessment. Therefore, for the purposes of this PA, the approximate total square feet of potentially impacted floor space used in the PA is 2,184 square feet. Sampling requirements, excluding the exterior decking, are based on this value.

A general aerial layout of the residential setting is depicted in the aerial photograph below. A plat map was not readily available, and therefore the property line is not depicted but, rather, a general site location is indicated by the red ellipse.

Figure 1
General Site Layout[8]

Review of Law Enforcement Documentation

As part of the PA, FACTs is required by regulation[9] to review available law enforcement documents pertinent to a subject property. During this project, the Park County Sheriff's Office exhibited the highest standard of professionalism and courtesy, and participated openly with our requests for information. The PCSO informed us that his search of the records system did not reveal any reports or information pertaining to controlled substances for the subject property.

Based on the best available information, there are no law enforcement documents pertaining to controlled substances for this subject property.

Governing Body

The *de facto* "Governing Body" as defined in CRS 25-18.5-101 for this property is:

[8] The best available aerial photograph was presented. Although later aerial photos are available, they lacked the clarity of the photograph used here.

[9] 6 CCR 1014-3 (Section 4.2)

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County Requirements

To our knowledge, Park County does not have county specific regulations regarding clandestine drug laboratories.

Visual Inspection of the Property

As part of the Preliminary Assessment, on June 10, 2011, Mr. Caoimhín P. Connell, Forensic Industrial Hygienist with FACTs, performed a visual inspection of the subject property. During the assessment, Mr. Connell was assisted by Field Technicians Ms. Carty and Mr. Hardey. The property was in an "unoccupied" condition, and was devoid of most chattels.

FUNCTIONAL SPACE SUMMARY

During a Preliminary Assessment, the Industrial Hygienist is required by regulation to divide the study area into "functional spaces," and evaluate the potential for contamination in each area. The idea is to segment a property into specific areas which may present different potentials for contamination, based on the anticipated use or function conducted in that area. Thus, functions of bedrooms and bathrooms may be different, kitchens and living rooms, may be different, etc. Pursuant to regulations, a building is divided into such areas based solely on subjective professional judgment with foundational guidance in Federal Regulation.[10]

A general overview of each space is provided in the following discussion. Indicators are detailed in FACTs form ML5, included in the appendix of this report. For evaluation purposes, the following Functional Spaces have been identified and are addressed below:

Functional Space Number	Describe the functional space
1	Living Room, Kitchen and stairs to second floor
2	Main floor bedroom, and closet
3	Main floor bathroom
4	Basement living room, kitchenette, stairs and back hallway

Table 2
Functional Space Inventory

[10] Asbestos Containing Materials in Schools; Final Rule and Notice, Title 40 CFR Part 763, Fed. Reg. Vol. 52, No. 210, Fri. Oct. 30, 1987

5	Basement laundry room and utility room
6	Basement bedroom and closet
7	Basement bathroom
8	Second floor East Bedroom
9	Second floor East Bedroom, north attic
10	Second floor East Bedroom, south attic
11	Second floor West Bedroom and closet
12	Second floor West Bedroom, north attic
13	Second floor West Bedroom, south attic
14	Second floor bathroom
15	Furnace system

Table 2 (cont)
Functional Space Inventory

Functional Space 1: Living Room Complex

Upon entry into the residence from the main west door, one enters the living room complex which is delineated by the entire west exterior wall, entire south exterior wall and the western half of the north exterior wall.

From this location one can take the south stairwell to the basement or the north stairwell to the second floor. Also from this functional space one may enter either the bathroom or the bedroom which occupied this floor.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations in excess of seven micrograms of methamphetamine per 100 square centimeters of surface area (7 µg/100cm2).

There were no conclusive visual indicators in this functional space.

Functional Space 2: Bedroom and Closet

Exiting the living room to the east, one enters the northeast quadrant of the main floor; the walls of which delineate the boundaries of this functional space.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations of approximately 3.5 µg/100cm2.

There were no conclusive visual indicators in this functional space.

Functional Space 3: Main Floor Bathroom

This is the bathroom which communicates with the bedroom described above and the kitchen to the south.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations in excess of 7 µg/100cm2.

There were no conclusive visual indicators in this functional space.

Functional Space 4: Basement Living Room Complex

As one enters the residence from the door on the east, one enters this functional space which occupies the entire east half of the basement floor and includes the stairs leading up to the main floor and the small hallway leading to the basement bedroom.

This functional space had suspicious yellow staining on the ceiling of the kitchenette.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations of approximately 3.5 µg/100cm2.

Functional Space 5: Basement Laundry Room Complex

This space occupies the southwest quadrant of the structure and houses the forced-air furnace system and laundry hook-ups.

Although this space did not exhibit any conclusive visual indictors, this functional space was included in the cursory sampling which indicated methamphetamine concentrations of approximately 3.5 µg/100cm2.

Functional Space 6: Basement Bedroom and Closet

This space occupies the northwest quadrant of the structure and is delineated as the term bedroom is commonly known.

Although this space did not exhibit any conclusive visual indictors, this functional space was included in the cursory sampling which indicated methamphetamine concentrations of approximately 3.5 µg/100cm2.

Functional Space 7: Basement Bathroom

This space is accessible exclusively through the basement bedroom. Although there were no conclusive visual indicators associated with this space, this functional space was included in the cursory sampling which indicated methamphetamine concentrations of approximately 3.5 µg/100cm2.

Functional Space 8: Second Floor East Bedroom

The upstairs floor is identified by the County Assessor as a "finished attic." This space is roughly divided into an eastern half and a western half separated by the stairwell and the second floor bathroom.

The second floor east bedroom has two adjoining attics, north and south.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations in excess of 7 µg/100cm2.

There were no conclusive visual indicators in this functional space.

Functional Space 9: Second Floor East Bedroom North Attic

This is a small, narrow attic accessible exclusively from the second floor east bedroom.

There were no conclusive visual indicators in this functional space.

A discreet regulatory sample was collected from this functional space to challenge the compliance status of the area. The result of that sample indicated a methamphetamine concentration of 0.38 µg/100cm2. Therefore, this attic space has been excluded from the remediation process.

Functional Space 10: Second Floor East Bedroom South Attic

This is a small, narrow attic accessible exclusively from the second floor east bedroom.

There were no conclusive visual indicators in this functional space.

A discreet regulatory sample was collected from this functional space to challenge the compliance status of the area. The result of that sample indicated a methamphetamine concentration of 0.06 µg/100cm2. Therefore, this attic space has been excluded from the remediation process.

Functional Space 11: Second Floor West Bedroom

This space is the western half of the second floor, and similarly has two adjoining attics; east and west. Unlike its eastern counterpart, this space also contains a closet, which was included in this functional space.

There were no conclusive visual indicators in this functional space.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations in excess of 7 µg/100cm2.

Functional Space 12: Second Floor West Bedroom North Attic

This is a small, narrow attic accessible exclusively from the second floor east bedroom.

There were no conclusive visual indicators in this functional space.

A discreet regulatory sample was collected from this functional space to challenge the compliance status of the area. The result of that sample indicated a methamphetamine concentration of 0.03 µg/100cm2. Therefore, this attic space has been excluded from the remediation process.

Functional Space 13: Second Floor West Bedroom South Attic

This is a small, narrow attic accessible exclusively from the second floor east bedroom.

There were no conclusive visual indicators in this functional space.

A discreet regulatory sample was collected from this functional space to challenge the compliance status of the area. The result of that sample indicated a methamphetamine concentration of 0.04 µg/100cm2. Therefore, this attic space has been excluded from the remediation process.

Functional Space 14: Upstairs Bathroom and Toilet

Used here as those terms are commonly understood. There were no visual indicators in this space.

This functional space was included in the cursory sampling which indicated methamphetamine concentrations in excess of 7 µg/100cm2.

There were no conclusive visual indicators in this functional space.

Functional Space 15: Furnace

The Furnace System in the structure is a standard residential forced air system. The actual mechanical unit is located in the basement laundry room with a ducted distribution system throughout the entire residential structure (excluding the four attics).

Although arguably not a functional space *per se*, the sample collected from the duct interior (the actual fan blades) indicated that methamphetamine contamination in the furnace system was significantly elevated (approximately 2.3 µg/100 cm2).[11]

It is well established knowledge in the Industrial Hygiene and medical professions that the use of methamphetamine in a home results in elevated exposures to the occupants via airborne migration. When methamphetamine is smoked, between 80%[12] and half[13] of the substance is released from the user's pipe. Of that material which is inhaled, between

[11] Collection of the sample for this Functional Space was inhibited by extreme lack of physical access and heavy dust loading. As such, we estimated that the selected surface was undersampled by approximately 60%. That is, only approximately 40% of the available surface material was removed during sampling. It is for this reason that if one attempts to calculate the concentration directly from the laboratory report, and the surface area given, the values will not reconcile. The values reported in this PA, consistent with proper Industrial Hygiene practices has been corrected for loss.

[12] Cook CE, *Pyrolytic Characteristics, Pharmacokinetics, and Bioavailability of Smoked Heroin, Cocaine, Phencyclidine, and Methamphetamine* (From: Methamphetamine Abuse: Epidemiologic Issues and Implications Research Monograph 115, 1991, U.S. Department Of Health And Human Services Public Health Service Alcohol, Drug Abuse, and Mental Health Administration National Institute on Drug Abuse

[13] Cook CE, Jeffcoat AR, Hill JM, et al. *Pharmacokenetics of Methamphetamine Self-Administered to Human Subjects by Smoking S-(+)-Methamphetamine Hydrochloride*. Drug Metabolism and Deposition Vol. 21 No 4, 1993 as referenced by Martyny JW, Arbuckle SL, McCammon CS, Erb N, Methamphetamine Contamination on Environmental Surfaces Caused by Simulated Smoking of Methamphetamine (The publication of this study is currently pending. Copies of the study are available from the Colorado Alliance for Drug Endangered Children.)

33%[14] and 10%[15] of the nominal dose is not absorbed into the body, but rather exhaled back into the ambient air.

Recent work conducted by Industrial Hygienists at the National Jewish Hospital[16] in Denver, CO indicate that a single use of methamphetamine, by smoking, could result in an average residential area ambient airborne concentration of methamphetamine ranging from 35 micrograms per cubic meter (µg/m3) to over 130 µg/m3. These authors found that smoking methamphetamine just once in the residence can result in surfaces being contaminated with methamphetamine. The authors concluded:

> "*If methamphetamine has been smoked in a residence, it is likely that children present in that structure will be exposed to airborne methamphetamine during the "smoke" and to surface methamphetamine after the 'smoke*."[17]

Since it is the purpose of the forced air ventilation system to move air throughout the structure, and the furnace (as evidenced by the sample collected from the duct interior) conclusively contained significantly elevated concentrations of methamphetamine, we conclude the furnace was an effective mechanism of dissemination of methamphetamine and may be a continued source of contamination until appropriately addressed.

The results of the furnace sample alone would lead a reasonable person, trained in aspects of methamphetamine laboratories, to conclude the *presence* of widespread elevated methamphetamine contamination throughout the entire occupied space, all other sample results notwithstanding, and in the absence of any sample result for any specific location.

Therefore, it is for this reason that FACTs confidently concludes that, based on just this sample alone, an high probability of elevated concentrations of methamphetamine exists throughout the residence including all chattels, new carpets and all areas that have not been confirmed as contaminated by sampling. Having said this, the remaining samples have nevertheless objectively confirmed the existence of widespread contamination.

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[14] Harris DS, Boxenbaum H, Everhart ET, Sequeira G, et al, *The bioavailability of intranasal and smoked methamphetamine*, Pharmacokinetics and Drug Disposition, 2003;74:475-486.)

[15] Cook CE, Jeffcoat AR, Hill JM, Pugh DE, et al *Pharmacokinetics of methamphetamine self-administered to human subjects by smoking S-(+)-methamphetamine hydrochloride* Drug Metabolism and Disposition, Vol 21, No. 4, pp. 717-723, 07/01/1993

[16] Martyny JW, Arbuckle SL, McCammon CS, Erb N, *Methamphetamine Contamination on Environmental Surfaces Caused by Simulated Smoking of Methamphetamine* (The publication of this study is currently pending. Copies of the study are available from the Colorado Alliance for Drug Endangered Children.)

[17] Martyny JW, Arbuckle SL, McCammon CS, Erb N, *Methamphetamine Contamination on Environmental Surfaces Caused by Simulated Smoking of Methamphetamine* (The publication of this study is currently pending. Copies of the study are available from the Colorado Alliance for Drug Endangered Children.)

EXTERIOR GROUNDS

Although not truly a functional space *per se*, the exterior grounds were assessed independently. Although we did observe evidence of stressed vegetation in many areas of the property, as far down as to the ravine to the east, the stressed vegetation was not consistent with that which would be observed with illegal dumping.

During our evaluation of the ISDS, we observed indicators of waste materials being deposited in the sewerage system, and which may have contaminated the surrounding soils. However, as discussed later, upon subsequent detailed objective investigations, we were able to rule out contamination of the ISDS, leach field and surrounding soils.

SEWERAGE SYSTEM

Regulation 6-CCR-1014-3 (§4.11) requires inspection of plumbing system integrity and identification and documentation of potential disposal into the sanitary sewer or an individual sewage disposal system (ISDS). The ISDS for this property consisted of a septic tank and leach field.

FACTs assessed the septic system and, performed subsoil gas analysis to determine if hydrocarbons (waste products) may have been deposited in the septic tank and subsequently leaked from the septic tank or leach field into surrounding soils. Hydrocarbons were measured using an on-site, state-of-the-art, broad-range hydrocarbon meter which is capable of detecting virtually all hydrocarbons in the vapor phase. The device also has an acid gas sensor. Our instrument was an Enmet™ Target® Series instrument employing MOS technology, and had been calibrated according to the manufacturer's procedure using toluene as a span gas.

Also for this project, we used standard semi-quantitative water quality wet chemistry methods to test the effluent for acidity/alkalinity.

State statutes require a utilities location to be performed prior to any digging and prior to sinking any soil gas probes. Locator documentation was obtained and is included in the data package.

Soil Gas Assessment

To assess the soils around the septic tanks and the leach field, FACTs employed direct push soil sampling techniques, wherein we drove an hollow gas sampling tip to a desired depth in the soils. The tip is attached to a length of Teflon® tubing, and using an high vacuum hand pump, soil gases are extracted into a Tedlar® gas sampling bag (See Photograph 1, below). The accompanying DVD also has a video clip of the soil gas sampling procedure. Gases from the Tedlar bag are then introduced into suitable instruments for direct reading qualitative analysis (in this case, we measured broad range hydrocarbons and acid gases).

Photograph 1
Direct Push Soil Gas Sampling

The diagram that follows provides the approximate locations for each of the soil gas probe sampling locations. The large red outlined square identifies the location of the septic tank; the red triangles are the locations where the soil gas was sampled.

Figure 2
Soil Gas Probe Sampling Locations

All soil gas samples were collected exclusively down gradient from the septic system. One sample (Number 4) was collected over the property line at the residence to the north. The location in the photograph are approximations, the actual locations are given on Form ML 6 included with this discussion.

During this project, soil gas was sampled at a depth of one meter. The samples indicated a solvent vapor concentration gradient from high to low as one moved in elevation from south to north and laterally from west to east (i.e. down gradient as would be expected if a contaminant had been discarded in the system and leached through the soils). This observation would be consistent with a contamination plume originating from the leach field. The highest solvent vapor concentration was in excess of 200 parts of hydrocarbons per one million parts of soil gas (200 ppm). More typically, we generally do not encounter concentrations exceeding 60 ppm in mountain areas. In the table below, we have summarized the results of the soil gas testing.

Hole #	BRH ppm	HCl ppm	PH_3 ppm	Vacuum (Hg")	Instrument Response (sec)
1	68	<0.01	<0.01	<1	45
2	>200	<0.01	<0.01	<1	15
3	>200	<0.01	<0.01	<1	4
4	>200	<0.01	<0.01	<1	15

BRH=total hydrocarbons, HCl= hydrogen chloride, PH_3=phosphine

Table 3
Soil Gas Probe Sampling Summary

We initially interpreted the data to indicate that hydrocarbons had in fact leaked from the ISDS into surrounding soils. The state of Colorado regulations state:

> *For laboratories with outdoor components, or laboratories which are exclusively outdoors, the following sampling shall be performed when conditions indicate the potential for soil contamination. Sampling shall be conducted in accordance with the grid sampling method as described in the Midwest Research Institute's publication titled "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup" (referenced in 40 CFR § 761.130), which is incorporated herein by reference. Surface samples shall be taken to a depth of no greater than 8 cm. Sample volume should be at least 100 cm^3 and no more than 250 cm^3. …*

In this case, the soil gas samples were not conclusive, and we lacked sufficient information to conclusively indicate a plume. Therefore, prior to initiating a grid, a single screening soil sample was collected from 18" down the penetration hole that had exhibited the highest hydrocarbon solvent vapor concentration. The sample was submitted to a USA EPA CLP laboratory for analysis by USEPA Method SW846 8260B. In the table below, we have presented a summary of the analysis of the soil sample.

CAS	Compound	Result	RL	MDL	Units
67-64-1	Acetone	ND	1100	530	µg/kg
71-43-2	Benzene	ND	53	16	µg/kg
75-27-4	Bromodichloromethane	ND	270	110	µg/kg
75-25-2	Bromoform	ND	270	110	µg/kg
108-90-7	Chlorobenzene	ND	270	110	µg/kg
75-00-3	Chloroethane	ND	270	110	µg/kg
67-66-3	Chloroform	ND	270	53	µg/kg
110-75-8	2-Chloroethyl vinyl ether	ND	1100	640	µg/kg
75-15-0	Carbon disulfide	ND	270	110	µg/kg
56-23-5	Carbon tetrachloride	ND	270	110	µg/kg
75-34-3	1,1-Dichloroethane	ND	270	110	µg/kg
75-35-4	1,1-Dichloroethylene	ND	270	110	µg/kg
107-06-2	1,2-Dichloroethane	ND	270	53	µg/kg
78-87-5	1,2-Dichloropropane	ND	270	110	µg/kg
124-48-1	Dibromochloromethane	ND	270	110	µg/kg
156-59-2	cis-1,2-Dichloroethylene	ND	270	110	µg/kg
10061-01-5	cis-1,3-Dichloropropene	ND	270	110	µg/kg
541-73-1	m-Dichlorobenzene	ND	270	110	µg/kg
95-50-1	o-Dichlorobenzene	ND	270	110	µg/kg
106-46-7	p-Dichlorobenzene	ND	270	110	µg/kg
156-60-5	trans-1,2-Dichloroethylene	ND	270	110	µg/kg
10061-02-6	trans-1,3-Dichloropropene	ND	270	110	µg/kg
100-41-4	Ethylbenzene	ND	110	21	µg/kg
591-78-6	2-Hexanone	ND	1100	160	µg/kg
108-10-1	4-Methyl-2-pentanone	ND	1100	160	µg/kg
74-83-9	Methyl bromide	ND	270	110	µg/kg
74-87-3	Methyl chloride	ND	270	110	µg/kg
75-09-2	Methylene chloride	ND	270	110	µg/kg
78-93-3	Methyl ethyl ketone	ND	1100	210	µg/kg
100-42-5	Styrene	ND	270	110	µg/kg
71-55-6	1,1,1-Trichloroethane	ND	270	53	µg/kg
79-34-5	1,1,2,2-Tetrachloroethane	ND	530	110	µg/kg

ND= Not detected at MDL, MDL=Method Detection Limit, RL= Reporting Limit

Table 4
Summary of Soil Analysis

The shaded compounds are those we would use as "probable indicators" for methlab contamination. In each case the concentration of the contaminant was below the detection limit and, therefore, below the Reporting Limit (RL) for that compound. Based on these data and the totality of the circumstance, including the inspection of the septic tank (discussed below), we concluded that further investigation, including the initiation of a grid, was not warranted.

Septic Tank

We were able to locate and easily access the holding tank and the septic tank serving the residence. Our visual inspections indicated that the tank was devoid of "slick" and bi-phasic liquids, indicating that organic solvents had not been discarded in the septic system. Subjectively, we did not observe any odors associated with cyclic aromatic or

aliphatic solvents. The vapor phase hydrocarbon concentration in the headspace above the holding tank liquid was less than 2 ppm.

Using a coliwasa, we collected a stratified sample from the tank (see Photograph 2)

Photograph 2
Coliwasa Stratified Septic Tank Contents

Using standard semi-quantitative wet chemistry methodologies, we determined that the pH of the septic tank contents was 7.2.

The tank appeared to be at full capacity, and also appeared to contain an appropriate fraction of solids indicating that the tank had not been emptied after the end of the last occupancy. Therefore, we would expect that if the surrounding soil gas hydrocarbons were due to the material being dumped into the ISDS, there would be residual concentrations in the ISDS tank head space.

Based on these observations, we concluded that the septic system and the leach field can be excluded from the remediation process.

SAMPLE COLLECTION

During this project, we collected four distinct types of samples:

Liquid samples (effluent from the ISDS, described above)
Air samples (ISDS evaluation soil gas samples)
Bulk sample (soil sample)
Wipe samples (methamphetamine analysis)

Liquid Sample

The liquid sample was collected using a standard single use coliwasa and deposited into a glass I-Chem jar. See the discussion on the ISDS.

Air Samples

See the discussion on the ISDS for a description of the soil gas samples.

Bulk Sample

Prior to collecting the soil sample, the sampling equipment was decontaminated pursuant to standard SW 846 decontamination methods. See the discussion on the ISDS for additional information. The sample was submitted under chain of custody to AccuTest Laboratories in Wheat Ridge for GCMS volatiles by SW846 8260B.

Wipe Samples

The samples collected throughout the subject property comprised of "discreet" samples and "composite" samples.

Discreet samples were collected during the PA and are a single wipe, collected from a single area, and submitted for analysis as a unique location.

Composite samples were collected during the cursory evaluation and are single wipes, which are included with other single wipes placed together and analyzed as a single sample.

Each sample location was identified by the Industrial Hygienist based on authoritative bias sampling theory. In this theory, as mandated by State regulation, samples are purposely collected from those areas which have the highest probability of containing the highest concentrations of methamphetamine.

Methamphetamine

Wipe samples were collected in a manner consistent with State regulations. The wipe sample medium was individually wrapped commercially available Johnson and Johnson™ brand gauze pads. Each gauze material was assigned a lot number for quality assurance and quality control (QA/QC) purposes and recorded on a log of results. Each pad was moistened with reagent grade methyl alcohol. Each batch of alcohol was assigned a lot number for QA/QC purposes and recorded on a log of results. Each proposed sample area was delineated with a measured outline.

Each wipe sample was collected by methodically wiping the entire surface of the selected area with moderate pressure; first in one direction and then in the opposite direction, folding the gauze to reveal fresh material as necessary. Each sample was returned to its centrifuge tube and capped with a screw-cap. The wipe samples were submitted for analysis to Analytical Chemistry Inc. in Tukwila, Washington.

QA/QC Precautions

The sampling media were prepared in small batches in a clean environment (FACTs Corporate Offices). The sample media were inserted into individually identified disposable plastic centrifuge tubes with caps.

Field Blanks

For QA/QC purposes, and in accordance with State requirements, one field blank was submitted for every ten discreet wipe samples. The field blank was randomly selected from the sampling sequence and included with the samples. To ensure the integrity of the blank, FACTs personnel were unaware, until the actual time of sampling, which specific sample would be submitted as a blank.

Cross Contamination

Prior to the collection of each specific sample area, the Industrial Hygienist donned fresh surgical gloves, to protect against the possibility of cross contamination. For the regulatory compliance samples, the ruler used to delineate specific areas was decontaminated with disposable alcohol wipes between each sample.

Collection Rationale

Primary Objective

It is a common misconception that the Industrial Hygienist is required to collect samples during a PA. However, no such requirement exists in Colorado. Rather, regarding samples, the regulations state:

> Pre-decontamination sampling
> In pre-decontamination sampling, the question that is being asked is "Is there evidence of the presence of methamphetamine production in this area?" The assumption (hypothesis) is that the area is clean i.e. "compliant," and data will be collected to find support for the hypothesis. Data (such as samples) are collected to "prove" the area is compliant. Sampling, if it is performed, is conducted in the areas potentially containing the highest possible concentrations of contaminants. Any data that disproves the hypothesis, including police records, visual clues of production, storage, or use or documentation of drug paraphernalia being present, is considered conclusive, and leads the consultant to accept the null hypothesis and declare the area non-compliant. The strength of evidence needed to reject the hypothesis is low, and is only that which would lead a reasonable person, trained in aspects of methamphetamine laboratories, to conclude the presence of methamphetamine, its precursors as related to processing, or waste products.

Similarly, there is a misconception that if samples are collected, and the laboratory results are below the value often misinterpreted as the State's regulatory threshold value (0.5 µg/100 cm2), the samples necessarily indicate that the area is not contaminated and no action is

required. However, the regulatory threshold values are exclusively to be used as *prima fascia* evidence during verification activities in the absence of all other information. Except, during a verification or a properly designed Preliminary Assessment, there is no *de minimis* concentration of methamphetamine below which a statement of compliance can be made in the absence of final verification sampling. Although State regulation does not require samples to be collected during a Preliminary Assessment, as part of this Preliminary Assessment, wipe samples were collected to challenge the compliance status of specific areas (the attics and the furnace).

For this project, FACTs had sufficient information from the cursory sampling results to conclude that the contamination in the subject property was widespread, and, based on the totality of the circumstances, in accordance with 6 CCR 1014-3, we concluded that those areas not sampled were similarly contaminated. This argument was supported with the confirmation of elevated methamphetamine concentrations in the furnace interior.

However, to objectively test the *a priori* assumption for the four attics, FACTs selected a sample from each functional space which would best represent the worst case scenario in those spaces, as required by regulation. These samples, along with a blank, were submitted for analysis. Based on these samples, we were able to exclude the attics from the scheduled remediation, but we were unable to exclude the furnace system.

Sample Results

Methamphetamine

The results of the methamphetamine samples are summarized in the table below. The shaded samples are those that were collected during the cursory evaluation.

Sample ID	Location	Area	Result	Criteria	Status
BM032911-01A	Main floor bath light fixture	NA	7.27	0.10	FAIL
BM032911-01B	Living room top of window molding				
BM032911-01C	Upstairs bath top of light fixture				
BM032911-01D	Upstairs E Bedroom ceiling fan				
BM032911-01E	Upstairs west bedroom window frame				
BM032911-02A	Furnace supply	NA	3.5	0.10	FAIL
BM032911-02B	Main floor bedroom door jamb				
BM032911-02C	Bsmnt SW bath top of shower head				
BM032911-02D	Bsmnt laundry top of duct				
BM032911-02E	Bsmnt kitchen top of fridge fins				
BM061011-01	Second floor W BR attic N	500	0.03	0.50	PASS
BM061011-02	Second floor W BR attic S	560	0.04	0.50	PASS
BM061011-03	Second floor E BR attic N	500	0.38	0.50	PASS
BM061011-04	Second floor E BR attic S	500	0.06	0.50	PASS
BM061011-05	Furnace interior	500	2.26	0.50	FAIL
BM061011-06	Field Blank	NA	<0.03	0.03	PASS

Area is expressed in square centimeters
Result and Criteria are expressed as µg/100cm2 (Field blanks are reported as absolute mass)
The symbol "<" indicates that methamphetamine was not detected at the detection limit expressed.

Table 5
Results of Methamphetamine Wipe Samples

Wipe Sample Results

The samples confirm widespread noncompliant concentrations of methamphetamine throughout the structure to within a very strong degree of confidence.

Quality Assurance/Quality Control

The following section is required by regulation and is not intended to be understood by the casual reader. All abbreviations are standard laboratory use, and the data pertains to the attic sample only (since the attic sample is the only sample that can be used for compliance purposes).

Data Set (Regulatory Samples only)

MDL was 0.004 µg; LOQ was 0.03 µg; MBX <MDL; LCS 0.1 µg (RPD 5%, recovery =105%); Matrix spike 0.020 µg (RPD <1%; recovery 100%); Matrix spike Dup 0.020 µg; (RPD 10%; recovery 110%); Surrogate recovery: High 111% (Samples 1 and 2), Low 106% (Sample 6); FACTs reagents: MeOH lot #A11Ø1 <MDL for n=9, >MDL for n=0; Gauze lot G1ØØ6 <MDL for n=23, >MDL for n=0. The QA/QC indicate the results appear to exhibit slight positive bias (the actual concentrations may be slightly lower than represented by the laboratory report).

Sample Locations

Consistent with State Regulations and good sampling theory, the location of the samples was based on professional judgment. In this case, it was FACTs' Industrial Hygienist's professional judgment that authoritative biased sampling would be appropriate.

As such, during this project, the Industrial Hygienist selected those areas which had the highest probability of exhibiting the highest concentrations of contamination. Based on our experience, state of the art information on indoor methamphetamine migration patterns and professional judgment, FACTs selected specific locations throughout the structure in an attempt to represent the highest possible concentrations of methamphetamine. Each sample area was then delineated with a measured outline.

In the figures that follow, the sample locations have been presented. The drawings are stylized and not to scale. In the diagrams, the sample locations are indicated by triangles. Where the identifier has an alpha code, the sample was collected during the cursory evaluation.

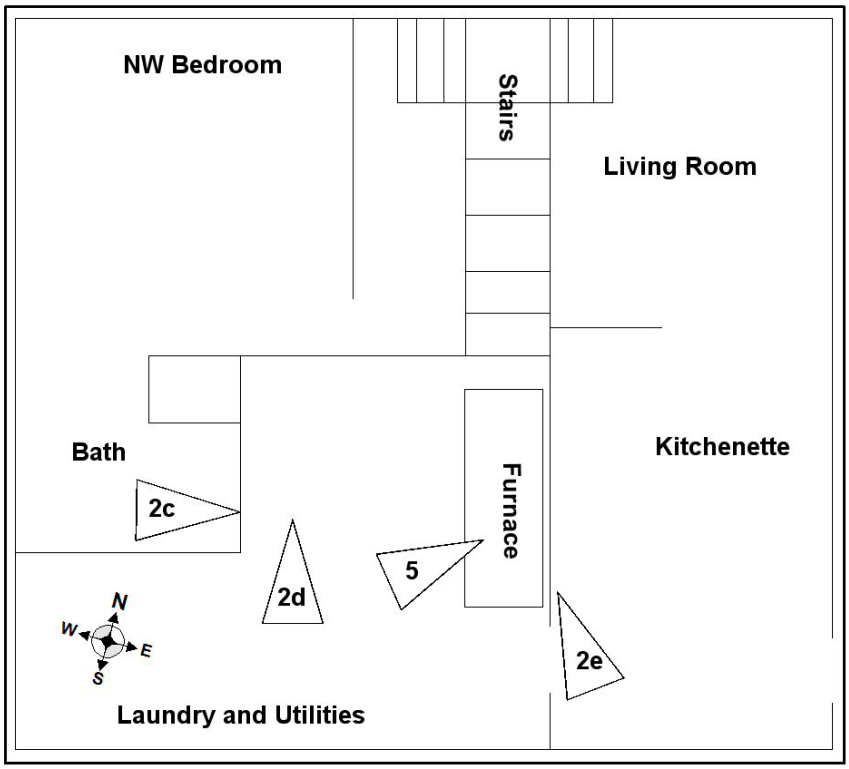


Figure 3
Basement Level Sample Locations

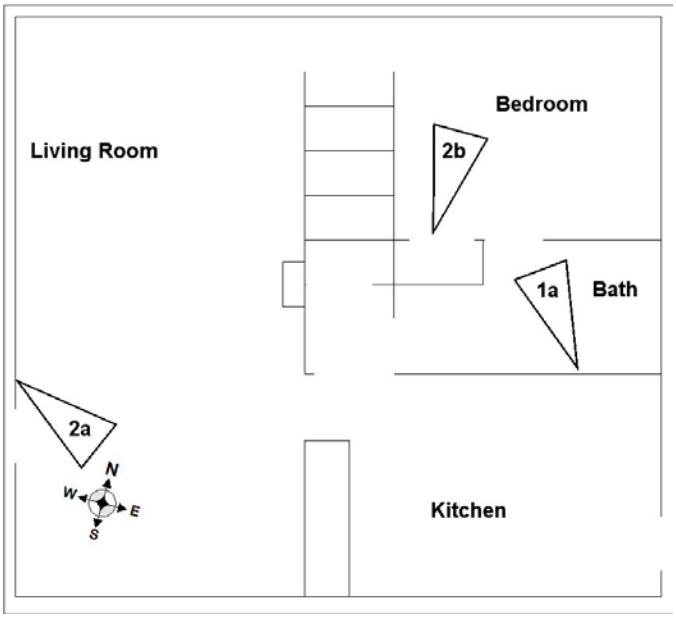


Figure 4
Main Floor Sample Locations

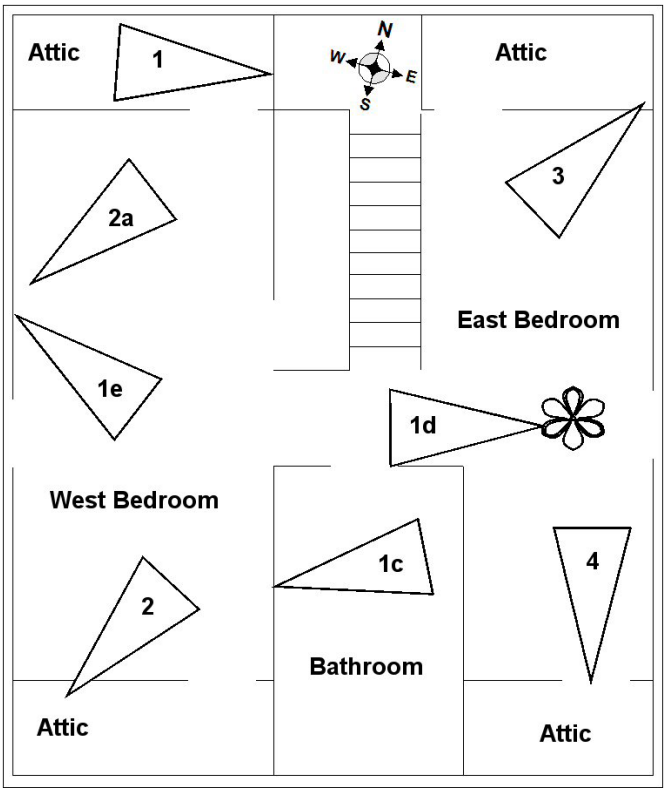


Figure 5
Second Floor Sample Locations

Identification of Cook/Storage Areas

Colorado Regulations 6 CCR 1014-3 (4.2) states that the Industrial Hygienist is required to perform a:

> Review of available law enforcement reports that provide information regarding the manufacturing method, chemicals present, cooking areas, chemical storage areas, and observed areas of contamination or waste disposal

In this case, we were not able to confidently identify *if* manufacturing took place at all, never mind *where* it may have taken place (if at all). Our best assessment at this point is that the widespread contamination is the result of methamphetamine smoked at the property. The question of whether or not methamphetamine was actually manufactured is not of regulatory significance.

Identification of Contamination Migration

FACTs has knowledge that chemicals such as methamphetamine were stored on the property. However, FACTs must rely exclusively on subjective extant observations we make on site. Based on the best information readily available, FACTs was not able to find any indicators that would suggest contamination migration.

CONCLUSIONS

Based on the totality of the circumstances, including our subjective observations and objective data from sampling, we find that there is insufficient evidence to support the preliminary hypothesis and we accept the null hypothesis and conclude that widespread methamphetamine contamination exists throughout the entire residential structure (but not the attics) of the subject property.

Based on our observations, the entire structure, including all surfaces in the occupiable space (but excluding the attics), must be cleaned pursuant to 6 CCR 1014-3.

RECOMMENDATION

Universal Site Requirements

Based on our observations, and laboratory results, we recommend standard industry practices for decontamination be followed. The remediation contractor should be given full responsibility for their own standard operating procedures. The following are provided as guidance and reflect standard practices for the remediation of similar properties. The Governing Body has statutory authority to require a greater degree of decontamination of the subject property.

1. An on-site storage container should be established on the grounds (such as a poly lined and covered roll on-roll off container (ro-ro) or temporary trailer).

2. The on-site container shall be secured with a padlock at all times when not immediately manned by remediation personnel.

3. A licensed contractor, who is trained and experienced in methlab decontamination, as required by State regulations, should be contracted for the decontamination work. All work performed at the residence should be conducted by an experienced contractor whose employees are documented to have been properly trained in accordance with 29 CFR §1910.120 and Colorado Revised Statute §25-18.5-104; *Entry into illegal drug laboratories*.

4. We recommend the decontamination process be conducted in Level C PPE ensembles with a minimum of half-face APRs.

5. We recommend that a decontamination corridor with showers be established at the east door.

6. All remediation work performed at the residence should be conducted under written contract with a reputable remediation company qualified to perform the work.

7. All work performed at the residence should be conducted with open communication and cooperation with the Park County Department of Health.

8. All remediation work should be presumed to be pursuant to Title 29 of the Code of Federal Regulations, §1910.120 until otherwise indicated.

9. The contractor should be contractually obligated to perform personnel air monitoring for methamphetamine for at least one full shift employee per day to allow for support of proper PPE selection. If the air monitoring results in a concentration of greater than 120 µg methamphetamine per cubic meter, the contractor is required to upgrade respiratory protection to a minimum of either full face APR or PAPR.

10. The contractor *should* be contractually obligated to include the personnel air monitoring data in their final documentation.

11. Any contractors (and their subcontractors) should be contractually obligated, through a written contract, to decontaminate the subject property to below the statutory limits. Any recleaning required by a contractor (or their subcontractor) pursuant to a failed final assessment should be contractually obligated to be performed at the expense of the contractor.

12. Contractors should be contractually obligated to cover costs of return visits by the Industrial Hygiene and sample expenses as a result of a failed final clearance.

13. State regulations prohibit painting or otherwise encapsulating surfaces prior to final clearance sampling by the Industrial Hygienist.

14. State regulations prohibit the use of strong oxidizers to mask the presence of methamphetamine; no cleaning agents greater than 5% hydrogen peroxide (or other oxidizer) are permitted on site.

15. Following the decontamination process, and prior to the final clearance sampling by the Industrial Hygienist, the remediation contractor/subcontractor should be contractually obligated to collect a minimum of three QA/QC wipe samples from the subject property, as part of their own QA program, and required to submit those samples for methamphetamine analysis. The contractor should be contractually obligated to provide their wipe sampling data (including location of sample, area of sample, and analysis results), to the consulting Industrial Hygienist for review prior to final clearance sampling.

16. If the contractor's three QA/QC samples suggest that contamination in the subject property remains at a concentration in excess of 0.25 µg/100 cm^2, the contractor should be contractually obligated to continue to clean, and sample, until the elevated concentrations are not observed.

17. Once the contractor's samples indicate the contamination has been sufficiently reduced, the Industrial Hygienist should perform final clearance sampling according to 6-CCR 1014-3.

Decontamination of the Residence

Although FACTs does not believe that the furnace can be economically decontaminated, the contractor may propose removal of the furnace and associated ductwork, *in toto*, or may propose cleaning, and decontamination of the ventilation system.

For this property, FACTs is of the opinion that all carpets, and all cabinets, and all other fixtures are salvable. The remediation contract should specify that with the exception of ceiling fans, bathroom fans, all carpets and fixtures in the property are to be salvaged.

It is possible that the ceiling materials are Asbestos Containing Materials (ACMs). Any and all disturbance of asbestos containing materials (ACMs or PACMs) in the subject property must be in accordance with State and Federal Regulations.

The following decontamination process should take place in this order: (any asbestos abatement not withstanding):

1. Establish critical barriers for the attics.

2. Establish negative pressure inside the decontamination area pursuant to State regulations. The contractor should visually inspect each critical barrier associated with the attics and ensure proper negative pressure.

3. The contractor shall be required to periodically check and monitor the negative to ensure that the negative pressure (pressure differential) between the work area and the attics is not less than 0.02 inches of water column at all times.

4. Exhaust from the negative enclosure may take place at any exterior location.

5. No work, except as needed to establish critical barriers, shall begin until negative pressure is established.

6. Negative pressure should be maintained at all times until final sampling has been completed and the written intent to issue a Decision Statement has been issued to the contractor by the consulting Industrial Hygienist.

7. The contractor should establish a standard, two-chambered decon and/or bag-out/load-out at the back (east) door.

8. Initially the carpeting should be protected with a poly drop cloth. After decontamination of all surfaces, the drop cloth shall be removed and the carpets shall be steam cleaned. (The contractor may petition the property owner to remove the carpeting instead of cleaning).

9. Window coverings (window blinds) shall be discarded.

10. All large household appliances (refrigerator) in the affected areas shall be wiped down and salvaged.

11. Once all items are bagged and/or wrapped, the items can be transported through the airlock and transloaded to the bag-out. At the bag-out, the exterior surfaces of the bags and wrapping should be wiped down, and the bags and items may be discarded.

12. All bathroom exhaust fans shall be removed and discarded.

13. Carpeting and other textiles and fabrics remaining in the property shall be subject to final clearance sampling in accordance with standard industrial hygiene microvacuum sampling procedures.[18]

    a. The interpretation of the results of the vacuum samples takes into account the surface area sampled, and the mass of material removed from that surface. The laboratory is instructed to weigh and report the mass of debris recovered from the cassette, along with the total mass of methamphetamine in that debris. From this information, we calculate and report a "density" of methamphetamine. The "Density" used here is expressed in units of micrograms of methamphetamine recovered in a unit milligram of removable material per unit area of surface (µg*(mg/cm2)) and is designated with the Greek letter rho (ρ). There are no regulatory guidelines by which we may compare densities; the interpretation of the data is exclusively within the realm of professional judgment of the Industrial Hygienist.

       In our opinion, based on our database of samples from previous methamphetamine contaminated properties, FACTs has set a qualified density "threshold of concern" of 0.5ρ. That is, where densities exceed 0.5ρ, FACTs makes the qualified statement that in the absence of conflicting information, the material requires decontamination. The value of "0.5" in this case, has no association with the State mandated decision threshold of 0.5 µg/100cm2 – the resemblance of the two values is purely coincidental.

14. Following the removal of interior contents, <u>all</u> surfaces in the remediation areas including all ceilings, all hanging fixtures, all cabinets (interior and exterior surfaces), all shelving, all floors, doors, hinges, bathtubs, sinks, appliances (interior and exterior surfaces), exterior fireplaces, and every other interior surface

[18] For example, see ASTM Method D 5756-02

whether specifically mentioned or not, shall be thoroughly wiped down to remove residual contamination.

In an effort to expedite this PA, FACTs has not sent this report through our normal internal review process prior to release. Therefore, FACTs reserves the right to amend the PA and correct any errors or omissions without penalty. Any such amendments will be issued as an errata sheet.

Enclosures: One CD; Data package, and Appendices

-*END*-

Appendix A:

Supporting Documents

FACTs project name: Blueberry	Form # ML1
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

PROPERTY DESCRIPTION:

Physical address	198 Blueberry Trail, Bailey CO 80421	
Legal description or VIN	T07 R72 S24 NW4 Burland Ranchettes Unit 29 Lot 27	
Registered Property Owner	Bank Of New York Mellon FKA: Bank Of New York (Successor To J.P. Morgan) 2780 Lake Vista Dr Lewisville, TX 75067-3884	
Number of structures	One (excluding the dog house)	
Type of Structures	Primary Residence	2,184 Square feet
Adjacent and/ or surrounding properties	North: Rural mountain residence South: Rural mountain residence East: Rough mountain terrain West: Dirt road	
General Property Observations	Good condition	
Presumed Production Method	Pseudoephedrine reduction and smoking methamphetamine	

Plumbing Inspection and Inventory

FACTs project name: Blueberry	Form # ML2
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Functional Space	Room	Fixture	Indicia?	Comments
14	Bathroom # 1	Bath/Shower	N	Winterized
14	Bathroom # 1	Sink	N	
14	Bathroom # 1	Toilet	N	
3	Bathroom # 2	Shower/Bath	N	
3	Bathroom # 2	Sink	N	
3	Bathroom # 2	Toilet	N	
7	Bathroom # 3	Shower/Bath	N	
6	Bathroom # 3	Sink	Y	White crystalline material
7	Bathroom # 3	Toilet	N	Winterized
4	Kitchenette	Dishwasher	None	NA
4	Kitchenette	Sink	N	Winterized
1	Kitchen	Dishwasher	None	NA
1	Kitchen	East Sink	N	Winterized
1	Kitchen	West Sink	N	Winterized
5	Laundry Room	Slop sink	None	NA
5	Laundry Room	Washing machine	None	Winterized?

Ventilation Inspection and Inventory

Item	Y/N	Indicia ?	Sampled ?	Comments
Isolated AHU?	Y	Y	Y	BM061011-05
Common air intake?	N	Blank	Blank	Blank
Common bathroom exhausts?	N			
Forced air system?	Y			
Steam heat?	N			
Common ducts to other properties?	N			
Passive plena to other properties?	N			
Active returns to other properties?	N			
Passive wall grilles to other properties?	N			
Industrial ventilation?	N			
Residential ventilation?	Y			
Pressurized structure?	N			

FUNCTIONAL SPACE INVENTORY

FACTs project name: Blueberry	Form # ML3
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Structure Number	Functional Space Number	Indicia (Y/N)	Describe the functional space (See drawings for delineating structural features)
1	1	Y	Living Room, Kitchen and stairs to second floor
1	2	Y	Main floor bedroom, and closet
1	3	Y	Main floor bathroom
1	4	Y	Basement living room, kitchenette, stairs and back hallway
1	5	Y	Basement laundry room and utility room
1	6	Y	Basement bedroom and closet
1	7	Y	Basement bathroom
1	8	Y	Second floor East Bedroom
1	9	N	Second floor East Bedroom, north attic
1	10	N	Second floor East Bedroom, south attic
1	11	Y	Second floor West Bedroom and closet
1	12	N	Second floor West Bedroom, north attic
1	13	N	Second floor West Bedroom, south attic
1	14	Y	Second floor bathroom
1	15	Y	Furnace system

BLANK

Law Enforcement Documentation

FACTs project name: Blueberry	Form # ML4
Date: June 10, 2011	
Reporting IH:	**Caoimhín P. Connell, Forensic IH**

Inventory of Reviewed Documents	PCSO ATIMS and PCSO CAD Records No pertinent readily available records identified
Described method(s) of production	No notations
Chemicals identified by the LEA as being present	No notations
Cooking areas identified	No notations
Chemical storage areas identified	No notations
LE Observation on areas of contamination or waste disposal	No notations

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

May 21, 2011

On Duty Supervisor
Park County Sheriff's Office
1180 CR 16
P.O. Box 604
Fairplay, CO 80440

Via Fax: 303-816-5911

Dear To Whom It May Concern:

Forensic Applications, Inc. has been contracted to perform a "Preliminary Assessment" an illegal clandestine drug lab pursuant to Colorado Board Of Health Regulations 6-CCR-1014-3, and CRS §25-18.5-101 *et seq*. The property is located in Park County at:

198 Blueberry Trail, Bailey, CO

As you are aware, as part of that assessment, the Industrial Hygienist is required by regulation 6-CCR-1014-3 (§4.2) to review available Law Enforcement documents associated with the property. Generally, we initially do not require copies of any documents; and, if preferable, we can visit your office and review available information there.

We would like to review any narratives or documents regarding controlled substances or hazardous materials responses, or speak with any Law Enforcement personnel who may be familiar with the property. We are only interested in issues involving controlled substances or hazardous materials responses in the last five years. If no such records are available please let us know and we will merely make that notation in our report to the Park County Department of Health.

We will be performing the on-site assessment on about May 26, 2011 and would like to review any available documents before then. We apologize for the short notice, however, we generally do not have any control over the timeframes involved.

Forensic Applications takes extreme caution to protect all Law Enforcement Sensitive information. When requested by the Law Enforcement Agency, we do NOT reveal names, document identities, or include <u>any</u> information considered sensitive by an investigating agency. We have developed a close working relationship with Park County Sheriff's Office, and we value and respect that open line of communication. I have included my SOQ. Please feel free to call me directly with any comments or questions.

<u>Pursuant to CRS §24-72-305.5, I affirm that upon receipt of requested records of official actions and/or criminal justice records from the Park County Sheriff's Office, such records shall not be used for the direct solicitation of business for pecuniary gain.</u>

Sincerely,

Caoimhín P. Connell
Forensic Industrial Hygienist

185 BOUNTY HUNTER'S LANE, BAILEY, COLORADO 80421
PHONE: 303-903-7494 www.forensic-applications.com

Field Observations

FACTs project name: Blueberry	Form # ML5
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Structure:

Indicator	Functional Space	Indicator	Functional Space
Acids	No Comment	Match components	No Comment
Aerosol cans	No Comment	Mercury	No Comment
Alcohols (MeOH, EtOH)	No Comment	Methamphetamine	1,2,3,4,5,6,7,8,11,14,15
Ammonia	No Comment	Modified coolers/containers	No Comment
Ammunition	No Comment	Modified electrical	No Comment
Artistic expressions	No Comment	Modified plumbing	No Comment
Bags of salt	No Comment	Modified structure	No Comment
Bases	No Comment	Modified ventilation	No Comment
Basters/Pipettes	No Comment	Needles/Syringes	No Comment
Batteries	No Comment	OTC Containers	No Comment
Bi-phasic wastes	No Comment	OTC drugs	No Comment
Booby traps	No Comment	pH papers/indicators	No Comment
Bullet holes	No Comment	Phenyl-2-propanone	No Comment
Burn marks	No Comment	Pornography, Sex toys	No Comment
Cat litter	No Comment	Prescription drugs	No Comment
Chemical storage	No Comment	Presence of cats	No Comment
Colored wastes	No Comment	Propane bottles	No Comment
Corrosion on surfaces	No Comment	Pseudoephedrine	No Comment
Death bag	No Comment	Red P	No Comment
Delaminating paint	No Comment	Red Staining	No Comment
Drug paraphernalia	No Comment	Reserved	NA
Empty OTC Containers	No Comment	Salters	No Comment
Ephedrine	No Comment	Security devices	No Comment
Feces	No Comment	Signs of violence	1
Filters	No Comment	Smoke detectors disabled	No Comment
Forced entry marks	1	Solvents - (organic)	No Comment
Funnels	No Comment	Squalor	No Comment
Gang markings	No Comment	Staining on floors	No Comment
Gas cylinders	No Comment	Staining on walls or ceiling	4
Gerry cans	No Comment	Stash holes	No Comment
Glassware	No Comment	Taping on surfaces	No Comment
Graffiti	No Comment	Tubing	No Comment
Heating mantle/hot plate	No Comment	Urine containers	No Comment
Hidden items	No Comment	Wall anchors	No Comment
Hydrogen peroxide	No Comment	Wall coverings	No Comment
Iodine	No Comment	Wall damage	No Comment
Lead	No Comment	Weapons	No Comment
Lithium	No Comment	Window block material	No Comment
Marijuana	No Comment	Yellow staining	4

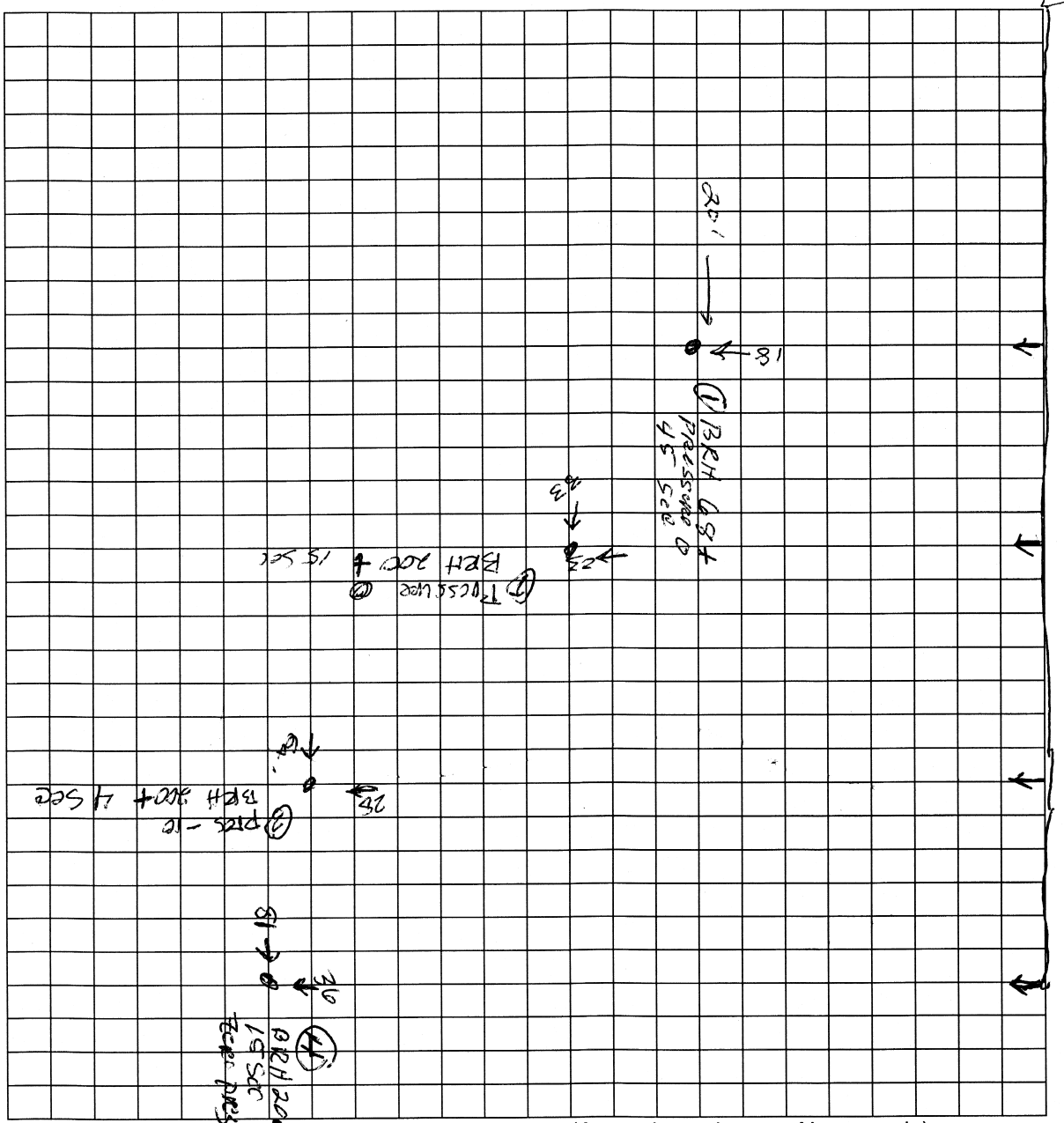
① Present but not as indicia
② Copious or unusual quantities
③ Present in normal household expectations
④ Modified in manner consistent with clanlab use

LEFT 1155

CONTAMINANT MIGRATION OBSERVATIONS

FACTs project name: Blueberry	Form # ML6
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Describe/identify adjacent areas where contaminants may have migrated.



Each grid equals approximately _____ (Approximate lay-out; Not to scale)

Describe the area:_____

_____

_____

_____

Individual Sewage Disposal System Field Form

FACTs project name: Blueberry	**Form # ML7**
Date: June 10, 2011	
Reporting IH:	**Caoimhín P. Connell, Forensic IH**

	Yes	No	N/C
Does the property have an ISDS	X		
Is there unusual staining around internal drains		X	
Are solvent odors present from the internal drains		X	
Is there evidence of wastes being disposed down internal drains	X		
Are solvent odors present from the external sewer drain stacks		X	
Was the septic tank lid(s) accessible	X		
Was the leach field line accessible	X		
Was the septic tank or leach field lines opened	X		
Are solvent odors present from the leach field lines (if "yes" see below)		X	
Are solvent odors present from the septic tank (if "yes" see below)		X	
Is "slick" present in the septic tank		X	
Are biphasic (aqueous-organic) layers present in the septic tank		X	
Was pH measured in the septic tank	X		
Were organic vapors measured in the septic tank (if "yes" see below)	X		
Is sampling of the ISDS warranted		X	
Were coliwasa/drum thief samples collected from the septic tank	X		

*NC = Not checked

Qualitative Organic Vapor Monitoring

Instrument Type	Make and Model
Hydrocarbon detector	EnMet Target Series, MOS detector
pH	Taylor "Complete"

Location	MOS*	PID*	FID*
All internal sinks	<1	NA	
Septic tank	<1		
Leach field cleanout	<1		
All surrounding soils (see body of report for explanation)			

*Units of measurement are in parts per million equivalents compared to the toluene calibration vapor. Detection limit 1 ppm

Locator Notes:
Flag this messageUNCC EMLCFM 2011/05/14 #00154 B113100181-00B NORM RESP LREQSaturday, May 14, 2011 12:19 AMFrom: "OCARS_Pro@uncc.org" <OCARS_Pro@uncc.org>Add sender to ContactsTo: ADMIN@FORENSIC-APPLICATIONS.COMEMLCFM 00154 UNCCb 05/14/11 12:19 AM B113100181-00B NORM RESP STRT LREQ
Ticket : B113100181 Rev: 00B Taken: 05/11/11 09:09 AM
State: CO Cnty: PARK Place: BAILEY, Address : 198 BLUEBERRY TRL
Utility Description Response
CONG1A COL0RADO NATL GAS, INC. 05/13/11 08:55 AM 001
LOCATE AREA MARKED
PCEV03 XCEL ENERGY 05/13/11 11:59 PM 999
FACILITY OWNER HAS NOT POSTED +RESPONSE TO UNCC
QLNCSD00 QWEST LOCAL NETWORK 05/13/11 11:59 PM 999
FACILITY OWNER HAS NOT POSTED +RESPONSE TO UNCC
Message from QwestFriday, May 13, 2011 2:57 PMFrom: "IRTH.Net@qwest.com" <IRTH.Net@qwest.com>Add sender to ContactsTo: ADMIN@FORENSIC-APPLICATIONS.COM==========
To: FORENSIC APPLICATIONS Attn: CAOIMHIN CONNELL

FACTs project name: Blueberry	Form # ML7
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Locator Notes (cont)
Voice: 3039037494 Fax:
Re: Message from Qwest
Ticket: B113100181
County: PARK Place: BAILEY
Address: 198 BLUEBERRY TRL
QLNCSD00:
The described dig area of your locate request has been marked. Qwest Communications Local Network facilities are present in the dig area. If you have any questions, please call Qwest at 1-800-283-4237.

UNCC EMLCFM 2011/05/11 #00517 B113100181-00B NORM NEW LREQWednesday, May 11, 2011 9:17 AMFrom: "OCARS_Pro@uncc.org" <OCARS_Pro@uncc.org>Add sender to ContactsTo: ADMIN@FORENSIC-APPLICATIONS.COMEMLCFM 00517 UNCCb 05/11/11 09:17 AM B113100181-00B NORM NEW STRT LREQ
Ticket Nbr: B113100181-00B
Original Call Date: 05/11/11 Time: 09:16 AM Op: ADV
Locate By Date : 05/13/11 Time: 11:59 PM Meet: N Extended job: N
State: CO County: PARK City: BAILEY
Addr: 198 Street: BLUEBERRY TRL
Grids: 07S072W24*W : : Legal: Y
Lat/Long: 39.425324/-105.406573 39.425324/-105.401246
: 39.422934/-105.406573 39.422934/-105.401246
Type of Work: SOIL GAS TESTING/SHALLOW PROBE Exp.: N Boring: N
Location: LOC ENTIRE LOT PROPERTY LN TO PROPERTY LN & ALL EASEMENTS *ACCESS
: OPEN* (AREA HAS 9 TO 10 INCHES OF SNOW)
Company : FORENSIC APPLICATIONS Type: NONR
Caller : CAOIMHIN CONNELL Phone: (303)903-7494
Alt Cont: CELL Phone: (303)903-7852
Fax: Email: ADMIN@FORENSIC-APPLICATIONS.COM
Done for: BANK
Remarks: Members CONG1A = COLORADO NATL GAS, INC PCEV03 = XCEL ENERGY
Members QLNCSD0= QWEST LOCAL NETWORK
You are responsible for contacting any other utilities that are not listed above
including the following tier 2 members not notified by the center:
PARK01 PARK COUNTY ROAD & BRIDGE (719)836-4282
Response to Dig Request Wednesday, May 11, 2011 9:22 AM From: "XcelLocates@xcelenergy.com" <XcelLocates@xcelenergy.com>Add sender to Contacts To: ADMIN@FORENSIC-APPLICATIONS.COM==To: FORENSIC APPLICATIONS Attn: CAOIMHIN CONNELL
Voice: 3039037494 Fax:
Re: Response to Dig Request
This is an important message from XCEL Energy replying to your request to locate our underground facilities in an area described on the one call center ticket.
Ticket: B113100181
County: PARK Place: BAILEY
Address: 198 BLUEBERRY TRL
PCEV03: In reference to request for locate, XCEL ENERGY has determined due to the type of excavation or where the excavation is to occur, XCEL ENERGY has no conflict within the dig area requested. Please insure all other affected facility owners have responded. If you have any questions please contact the Damage Prevention department at Xcel Energy 303-716-2038

Pre-Remediation Photograph Log Sheet

FACTs project name: Blueberry	Form # ML8
Date: June 10 - 24, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
2nd fl bath	6/24/2011 10:27 AM
2nd fl bath (2)	6/24/2011 10:27 AM
2nd fl bath (3)	6/24/2011 10:27 AM
2nd fl bath (4)	6/24/2011 10:27 AM
2nd fl bath (5)	6/24/2011 10:27 AM
2nd floor stairs	6/24/2011 10:16 AM
2nd floor stairs (2)	6/24/2011 10:16 AM
2nd floor stairs (3)	6/24/2011 10:16 AM
Bsmnt bath	6/24/2011 10:26 AM
Bsmnt bath (2)	6/24/2011 10:26 AM
Bsmnt bath (3)	6/24/2011 10:26 AM
Bsmnt bath (4)	6/24/2011 10:26 AM
Bsmnt bath (5)	6/24/2011 10:26 AM
Bsmnt BR	6/24/2011 10:21 AM
Bsmnt BR (2)	6/24/2011 10:22 AM
Bsmnt BR (3)	6/24/2011 10:22 AM
Bsmnt BR (4)	6/24/2011 10:22 AM
Bsmnt BR (5)	6/24/2011 10:22 AM
Bsmnt BR (6)	6/24/2011 10:23 AM
Bsmnt BR (7)	6/24/2011 10:23 AM
Bsmnt BR (8)	6/24/2011 10:23 AM
Bsmnt BR (9)	6/24/2011 10:23 AM
Bsmnt BR (10)	6/24/2011 10:23 AM
Bsmnt BR (11)	6/24/2011 10:23 AM
Bsmnt BR (12)	6/24/2011 10:23 AM

Name	Date taken
Bsmnt hall	6/24/2011 10:21 AM
Bsmnt living room	6/24/2011 10:18 AM
Bsmnt living room (2)	6/24/2011 10:18 AM
Bsmnt living room (3)	6/24/2011 10:18 AM
Bsmnt living room (4)	6/24/2011 10:18 AM
Bsmnt living room (5)	6/24/2011 10:21 AM
Bsmnt stairs	6/24/2011 10:17 AM
Bsmnt stairs (2)	6/24/2011 10:18 AM
Bsmnt stairs (3)	6/24/2011 10:21 AM
Exterior	6/24/2011 10:17 AM
Exterior (1)	6/10/2011 7:22 AM
Exterior (2)	6/10/2011 7:23 AM
Exterior (3)	6/10/2011 7:26 AM
Exterior (4)	6/10/2011 7:26 AM
Exterior (5)	6/10/2011 7:26 AM
Exterior (6)	6/10/2011 7:31 AM
Exterior (7)	6/10/2011 7:33 AM
Exterior (8)	6/10/2011 7:37 AM
Exterior (9)	6/10/2011 7:38 AM
Exterior (10)	6/10/2011 7:38 AM
Exterior (11)	6/10/2011 7:38 AM
Exterior (12)	6/10/2011 7:38 AM
Exterior (13)	6/10/2011 7:38 AM
Exterior (14)	6/10/2011 7:38 AM
Exterior (15)	6/10/2011 7:39 AM

Pre-Remediation Photograph Log Sheet

FACTs project name: Blueberry	Form # ML8
Date: June 10 - 24, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Exterior (16)	6/10/2011 7:39 AM
Exterior (17)	6/10/2011 7:39 AM
Exterior (18)	6/10/2011 7:39 AM
Exterior (19)	6/10/2011 7:39 AM
Exterior (20)	6/10/2011 7:40 AM
Exterior (21)	6/10/2011 7:40 AM
Exterior (22)	6/10/2011 7:40 AM
Exterior (23)	6/10/2011 8:11 AM
Exterior (24)	6/10/2011 8:12 AM
Exterior (25)	6/10/2011 8:12 AM
Exterior (26)	6/10/2011 8:12 AM
Exterior (27)	6/10/2011 8:12 AM
Exterior (28)	6/10/2011 8:13 AM
Exterior (29)	6/10/2011 8:13 AM
Exterior (30)	6/10/2011 8:13 AM
Exterior (31)	6/10/2011 8:13 AM
Exterior (32)	6/10/2011 8:13 AM
Exterior (33)	6/10/2011 8:13 AM
Exterior (34)	6/10/2011 8:14 AM
Exterior (35)	6/10/2011 8:14 AM
Exterior (36)	6/10/2011 8:14 AM
Exterior (37)	6/10/2011 8:14 AM
Exterior (38)	6/10/2011 8:14 AM
Exterior (39)	6/10/2011 8:14 AM
Exterior (40)	6/10/2011 8:15 AM
Exterior (41)	6/10/2011 8:15 AM
Exterior (42)	6/10/2011 8:15 AM
Exterior (43)	6/10/2011 8:15 AM
Exterior (44)	6/10/2011 8:15 AM
Exterior (45)	6/10/2011 8:15 AM
Exterior (46)	6/10/2011 8:15 AM
Exterior (47)	6/10/2011 8:16 AM
Exterior (48)	6/24/2011 10:17 AM
Exterior (49)	6/24/2011 10:18 AM
Exterior (50)	6/24/2011 10:18 AM
Exterior (51)	6/24/2011 10:20 AM
Exterior (52)	6/24/2011 10:20 AM
Exterior (53)	6/24/2011 10:20 AM
Exterior (54)	6/24/2011 10:20 AM
Exterior (55)	6/24/2011 10:20 AM
Exterior (56)	6/24/2011 10:20 AM
Kitchen	6/24/2011 10:17 AM
Kitchenette	6/24/2011 10:19 AM
Kitchenette (2)	6/24/2011 10:19 AM
Kitchenette (3)	6/24/2011 10:19 AM
Kitchenette (4)	6/24/2011 10:19 AM
Kitchenette (5)	6/24/2011 10:19 AM
Kitchenette (6)	6/24/2011 10:21 AM
Living room	6/24/2011 10:17 AM
Main floor bath	6/24/2011 10:17 AM

Pre-Remediation Photograph Log Sheet

FACTs project name: Blueberry	Form # ML8
Date: June 10 - 24, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Main floor bath	6/24/2011 10:17 AM
Main Floor BR	6/24/2011 10:16 AM
Main Floor BR (2)	6/24/2011 10:16 AM
Main Floor BR (3)	6/24/2011 10:17 AM
Main Floor BR (4)	6/24/2011 10:17 AM
Main Floor BR (5)	6/24/2011 10:17 AM
Mud	
Mud.THM	
Ruler decon (1)	6/10/2011 8:41 AM
Ruler decon (2)	6/10/2011 8:49 AM
Sample 1 (1)	6/10/2011 8:47 AM
Sample 1 (2)	6/10/2011 8:49 AM
Sample 1 (3)	6/10/2011 8:49 AM
Sample 1 (4)	6/10/2011 8:50 AM
Sample 1 (5)	6/10/2011 8:50 AM
Sample 1 (6)	6/10/2011 8:50 AM
Sample 2 (1)	6/10/2011 8:46 AM
Sample 2 (2)	6/10/2011 8:46 AM
Sample 2 (3)	6/10/2011 8:46 AM
Sample 2 (4)	6/10/2011 8:46 AM
Sample 2 (5)	6/10/2011 8:47 AM
Sample 2 (6)	6/10/2011 8:48 AM
Sample 3 (1)	6/10/2011 8:35 AM
Sample 3 (2)	6/10/2011 8:36 AM
Sample 3 (3)	6/10/2011 8:36 AM
Sample 3 (4)	6/10/2011 8:39 AM
Sample 4 (1)	6/10/2011 8:42 AM
Sample 4 (2)	6/10/2011 8:43 AM
Sample 4 (3)	6/10/2011 8:44 AM
Sample 5 (1)	6/10/2011 8:32 AM
Sample 5 (2)	6/10/2011 8:32 AM
Sample 5 (3)	6/10/2011 8:32 AM
Sample 5 (4)	6/10/2011 8:32 AM
Septic sample (1)	6/10/2011 8:54 AM
Septic sample (2)	6/10/2011 8:54 AM
Septic sample (3)	6/10/2011 8:55 AM
Septic sample (4)	6/10/2011 8:59 AM
Septic sample (5	6/10/2011 8:59 AM
Septic sample (6)	6/10/2011 8:59 AM
Septic sample (7)	6/10/2011 8:59 AM
Septic sample (8)	6/10/2011 9:00 AM
Septic sample (9)	6/10/2011 9:01 AM
Septic sample (10)	6/10/2011 9:01 AM
Septic sample (11)	6/10/2011 9:01 AM
Septic sample (12)	6/10/2011 9:02 AM
Septic sample (14)	6/10/2011 9:03 AM
Septic sample (15)	6/10/2011 9:03 AM
Septic sample (16)	6/10/2011 9:04 AM
Septic sample (17)	6/10/2011 9:04 AM
Septic sample (18)	6/10/2011 9:04 AM

Pre-Remediation Photograph Log Sheet

FACTs project name: Blueberry	Form # ML8
Date: June 10 - 24, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Septic sample (19)	6/10/2011 9:04 AM
Septic sample (20)	6/10/2011 9:12 AM
Septic sample (21)	6/10/2011 9:12 AM
Septic sample (22)	6/10/2011 9:13 AM
Septic sample (23)	6/10/2011 9:13 AM
Septic sample (24)	6/10/2011 9:13 AM
Septic sample (25)	6/10/2011 9:14 AM
Septic sample (26)	6/10/2011 9:14 AM
Septic sample (27)	6/10/2011 9:14 AM
Septic sample (28)	6/10/2011 9:14 AM
Septic sample (29)	6/10/2011 9:14 AM
Septic sample(13)	6/10/2011 9:02 AM
Soil sample (1)	6/10/2011 9:03 AM
Soil sample (2)	6/10/2011 9:05 AM
Soil sample (3)	6/10/2011 9:08 AM
Soil sample (4)	6/10/2011 9:17 AM
Soil sample (5)	6/10/2011 9:39 AM
Soil sample (6)	6/10/2011 9:44 AM
Soil sample (7)	6/10/2011 9:46 AM
Soil sample (8)	6/10/2011 9:48 AM
Soil sample (9)	6/10/2011 9:48 AM
Soil sample (10)	6/10/2011 9:48 AM
Soil sample (11)	6/10/2011 9:48 AM
Soil sample (12)	6/10/2011 9:51 AM
Soil sample (13)	6/10/2011 9:59 AM

Name	Date taken
Soil sample (14)	6/10/2011 9:59 AM
Soil sample (15)	6/10/2011 10:00 AM
Soil sample (16)	6/10/2011 10:00 AM
Soil sample (17)	6/10/2011 10:00 AM
Soil sample (18)	6/10/2011 10:01 AM
Soil sample (19)	6/10/2011 10:01 AM
Soil sample (20)	6/10/2011 10:02 AM
Soil sample (21)	6/10/2011 10:02 AM
Soil sample (22)	6/10/2011 10:03 AM
Soil sample (23)	6/10/2011 10:03 AM
Soil sample (24)	6/10/2011 10:03 AM
Soil sample (26)	6/10/2011 10:04 AM
Soil sample (27)	6/10/2011 10:04 AM
Soil sample (28)	6/10/2011 10:05 AM
Soil sample (29)	6/10/2011 10:11 AM
Soil sample (30)	6/10/2011 10:11 AM
Soil sample (31)	6/10/2011 10:24 AM
Soil sample (32)	6/10/2011 10:24 AM
Soil sample video (1)	
Soil sample video (1).T...	
Soil sample video (2)	
Soil sample video (2).T...	
Soil sample video (3)	
Soil sample video (3).T...	
Ssoil sample (25)	6/10/2011 10:04 AM

PRE-REMEDIATION PHOTOGRAPH LOG SHEET

FACTs project name: Blueberry	Form # ML8
Date: June 10 - 24, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

Name	Date taken
Utility room	6/24/2011 10:19 AM
Utility room (2)	6/24/2011 10:19 AM
Utility room (3)	6/24/2011 10:19 AM
Utility room (4)	6/24/2011 10:20 AM
Utility room (5)	6/24/2011 10:20 AM
Utility room (6)	6/24/2011 10:21 AM
West entrance	6/24/2011 10:28 AM
West entrance (2)	6/24/2011 10:21 AM

Drawing of Cook Area(s)

FACTs project name: Blueberry	Form # ML10
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

See Body of Report

Each grid equals approximately _____ (Approximate lay-out; Not to scale)

Describe the area:_____

_____

_____

_____

Drawing of Storage/Disposal Area(s)

FACTs project name: Blueberry	Form # ML11
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH

See Body of Report

Each grid equals approximately _____ (Approximate lay-out; Not to scale)

Describe the area:_____

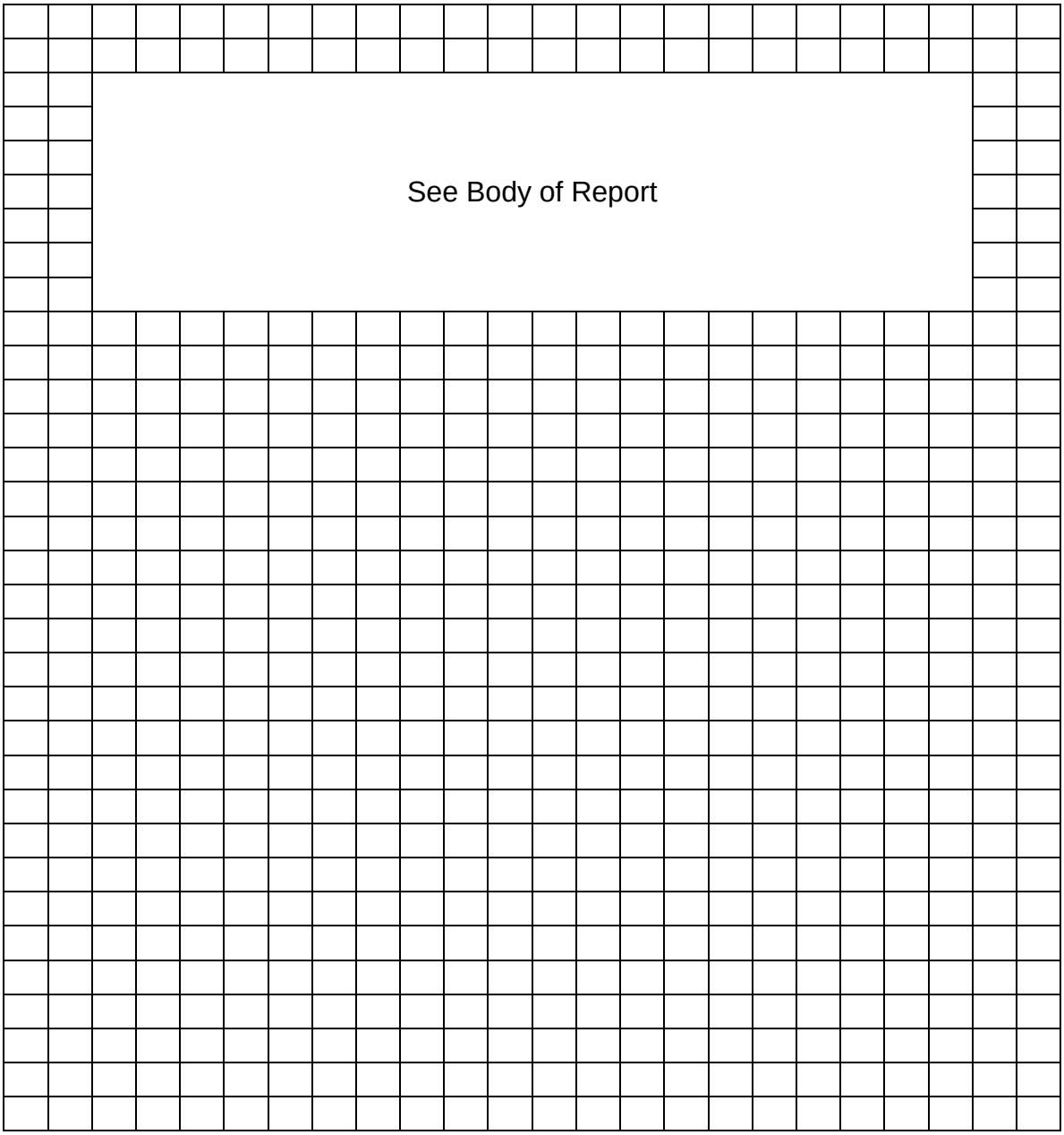
_____

_____

_____

Drawing of General Lab Area

FACTs project name: Blueberry	Form # ML12
Date: June 10, 2011	
Reporting IH:	Caoimhín P. Connell, Forensic IH



Each grid equals approximately _____ (Approximate lay-out; Not to scale)

Describe the area:_____

_____

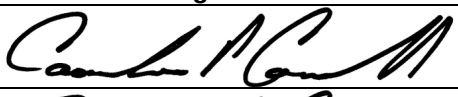
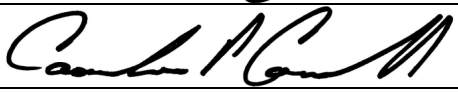
_____

_____

CERTIFICATION, VARIATIONS AND SIGNATURE SHEET

FACTs project name: Blueberry	**Form # ML14**
Date: June 24, 2011	
Reporting IH:	**Caoimhín P. Connell, Forensic IH**

Certification

Statement	Signature
I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, § 4.	
I do hereby certify that the analytical results reported here are faithfully reproduced.	

In the section below, describe any variations from the standard.

No known deviation of standard occurred.

I do hereby certify that I conducted a preliminary assessment of the subject property in accordance with 6 CCR 1014-3, § 4. ~~I further certify that the cleanup standards established by 6 CCR 1014-3, § 7 have been met as evidenced by testing I conducted.~~

Signature  Date: June 24, 2011

Forensic Applications Consulting Technologies, Inc.
Consultant Statement of Qualifications

(as required by State Board of Health Regulations 6 CCR 1014-3 Section 8.21)

FACTs project name:	Blueberry	Form # ML15
Date June 24, 2011		
Reporting IH:	Caoimhín P. Connell, Forensic IH	

Caoimhín P. Connell, who has been involved in clandestine drug lab (including meth-lab) investigations since 2002, is a consulting forensic Industrial Hygienist meeting the Colorado Revised Statutes §24-30-1402 definition of an "Industrial Hygienist." He has been a practicing Industrial Hygienist in the State of Colorado since 1987; and is the contract Industrial Hygienist for the National Center for Atmospheric Research.

Mr. Connell is a recognized authority in methlab operations and is a Certified Meth-Lab Safety Instructor through the Colorado Regional Community Policing Institute (Colorado Department of Public Safety, Division of Criminal Justice). Mr. Connell has provided over 260 hours of methlab training for officers of over 25 Colorado Police agencies, 20 Sheriff's Offices, federal agents and probation and parole officers throughout Colorado judicial districts. He has provided meth-lab lectures to prestigious organizations such as the County Sheriff's of Colorado, the American Industrial Hygiene Association, US Air Force, and the National Safety Council.

Mr. Connell is Colorado's only private consulting Industrial Hygienist certified by the Office of National Drug Control Policy High Intensity Drug Trafficking Area Clandestine Drug Lab Safety Program, and P.O.S.T. certified by the Colorado Department of Law; he is a member of the Colorado Drug Investigators Association, the American Industrial Hygiene Association (where he serves on the Clandestine Drug Lab Work Group), the American Conference of Governmental Industrial Hygienists and the Occupational Hygiene Society of Ireland. Mr. Connell served as the Industrial Hygiene Subject Matter Expert for the Department of Homeland Security, IAB (Health, Medical, and Responder Safety SubGroup), from 2009 and was elected full member of the HMRS in 2011, and he conducted the May 2010 Clandestine Drug Lab Professional Development Course for the AIHA.

He has received over 144 hours of highly specialized law-enforcement sensitive training in meth-labs and clan-labs (including manufacturing and identification of booby-traps commonly found at meth-labs) through the Iowa National Guard/Midwest Counterdrug Training Center and the Florida National Guard/Multijurisdictional Counterdrug Task Force, St. Petersburg College as well as through the US NHTSA, and the U.S. Bureau of Justice Assistance (US Dept. of Justice). Additionally, he received extensive training in the Colorado Revised Statutes, including Title 18, Article 18 "Uniform Controlled Substances Act of 1992" and is currently ARIDE Certified.

Mr. Connell is a current law enforcement officer in the State of Colorado, who has conducted clandestine laboratory investigations and performed risk, contamination, hazard and exposure assessments from both the law enforcement (criminal) perspective, and from the civil perspective in residences, apartments, motor vehicles, and condominia. Mr. Connell has conducted over 240 assessments in illegal drug labs in Colorado, Nebraska and Oklahoma, and collected over 2,330 samples during assessments (a detailed list of drug lab experience is available on the web at:

http://forensic-applications.com/meth/DrugLabExperience2.pdf

He has extensive experience performing assessments pursuant to the Colorado meth-lab regulation, 6 CCR 1014-3, (State Board Of Health *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*) and was an original team member on two of the legislative working-groups which wrote the regulations for the State of Colorado. Mr. Connell was the primary contributing author of Appendix A (*Sampling Methods And Procedures*) and Attachment to Appendix A (*Sampling Methods And Procedures Sampling Theory*) of the Colorado regulations. He has provided expert witness testimony in civil cases and testified before the Colorado Board of Health and Colorado Legislature Judicial Committee regarding methlab issues. Mr. Connell has provided services to private consumers, Indian Nations, state officials and Federal Government representatives with forensic services and arguments against fraudulent industrial hygienists and other unauthorized consultants performing invalid methlab assessments.

Mr. Connell, who is a committee member of the ASTM International Forensic Sciences Committee, was the sole sponsor of the draft ASTM E50 *Standard Practice for the Assessment of Contamination at Suspected Clandestine Drug Laboratories*, and he is a coauthor of a 2007 AIHA Publication on methlab assessment and remediation.

Appendix B

Analytical Reports for FACTs Samples

SAMPLING FIELD FORM

FACTs project name: Blueberry	**Form # ML17**
Date: June 10, 2011	**Alcohol Lot#: A11Ø1 Gauze Lot#: G1ØØ6**
Reporting IH: Caoimhín P. Connell, Forensic IH	**Preliminary X Intermediate____ ~~Final X~~**

Sample ID BMØ61Ø11-	Type	Location	Funct. Space	Dimensions	Substrate
-Ø1		2ND FLOOR NW ~~E~~ BR ATTIC N/INSULATION	12	25X25	METAL
-Ø2		NE BR S/BACK OF DRESSER	13	20 X25	V WD
-Ø3		2ND FLOOR ~~E~~ W BR ATTIC N/INSULATION	9	8 X 70	METAL
-Ø4		~~E~~ W S/BACK OF DOOR	10	20X25	V WD
#5 -Ø5		FURNACE INTERIOR/FAN BLADES	15	2 X 10X25	METAL
-Ø6		BR			
-Ø7					
-Ø8					
-Ø9					
-1Ø					

Sample Types: W=Wipe; V=Microvacuum; A=Air; B=Bulk; L=liquid
Surfaces: DW= Drywall, P=Painted; W= Wood, L= Laminated, V= Varnished, M= Metal, C=Ceramic, Pl=Plastic

#5 = undersampled by 60%

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

ANALYTICAL CHEMISTRY INC.

Established in 1979

4611 S. 134th Place, Ste 200
Tukwila WA 98168-3240

Website: www.acilabs.com

Phone: 206-622-8353
E-mail: info@acilabs.com

Lab Reference:	11149-03
Date Received:	June 13, 2011
Date Completed:	June 14, 2011

June 15, 2011

CAOIMHIN P CONNELL
FORENSIC APPLICATIONS INC
185 BOUNTY HUNTER'S LN
BAILEY CO 80421

CLIENT REF: Blueberry

SAMPLES: wipes/6

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	***Methamphetamine, ug***	***% Surrogate Recovery***
BM061011-01	0.166	111
BM061011-02	0.204	111
BM061011-03	1.89	109
BM061011-04	0.317	108
BM061011-05	4.52	109
BM061011-06	< 0.030	106
QA/QC Method Blank	< 0.004	
QC 0.100 ug Standard	0.105	
QA 0.020 ug Matrix Spike	0.020	
QA 0.020 ug Matrix Spike Duplicate	0.022	
Method Detection Limit (MDL)	0.004	
Practical Quantitation Limit (PQL)	0.030	

'<': less than, not detected above the PQL

Robert M. Orheim
Director of Laboratories

ANALYTICAL CHEMISTRY INC.

4611 S 134th Pl, Ste 200 Tukwila WA 98168-3240
Website: www.acilabs.com
Phone: 206-622-8353
FAX: 206-622-4623

CDL SAMPLING & CUSTODY FORM

Please do not write in shaded areas.

SAMPLING DATE:	June 10, 2011	REPORT TO:	Caoimhín P. Connell
PROJECT Name/No:	Blueberry	COMPANY:	Forensic Applications, Inc.
eMail:	Fiosrach@aol.com	ADDRESS:	185 Bounty Hunters Lane, Bailey, CO 80421
SAMPLER NAME:	Caoimhín P. Connell	PHONE	303-903-7494

ANALYSIS REQUESTED

1	Methamphetamine
2	Use entire contents
3	Normal Turn-around time
4	RUSH
5	Weigh and report in mg
6	Not Submitted

LAB Number	Sample Number	SAMPLE MATRIX			ANALYSIS REQUESTS						SAMPLER COMMENTS	LAB COMMENTS	No of Containers
		Wipe	Vacuum	Other	1	2	3	4	5	6			
B01	BMØ61Ø11-Ø1	X			X	X	X						1
B02	BMØ61Ø11-Ø2	X			X	X	X						1
B03	BMØ61Ø11-Ø3	X			X	X	X						1
B04	BMØ61Ø11-Ø4	X			X	X	X						1
B05	BMØ61Ø11-Ø5	X			X	X	X						1
B06	BMØ61Ø11-Ø6	X			X	X	X						1
	BMØ61Ø11-Ø7	X			X	X	X			X			
	BMØ61Ø11-Ø8	X			X	X	X			X			
	BMØ61Ø11-Ø9	X			X	X	X			X			
	BMØ61Ø11-1Ø	X			X	X	X			X			

CHAIN OF CUSTODY RECORD

Wipes Results in: ☐ µg/100cm² ☒ Total µg

Total Number of Containers (verified by laboratory): 6

PRINT NAME	Signature	COMPANY	DATE	TIME	Turnaround Time
Caoimhín P. Connell		FACTs, Inc.	~~06/10/11~~ 6/11/11	1200	☐ 24 Hours (2X)
MIA SAZON		ACI	6/13/11	1202	☐ 2 Days (1.75X)
					☐ 3 Days (1.5X)
					☒ Routine

Custody Seals: Yes (No)
Container: (Intact) Broken
Temperature: (Ambient) Cooled
Inspected By: MIA SAZON
11149-03

ANALYTICAL CHEMISTRY INC.

Established in 1979

4611 S. 134th Place, Ste 200
Tukwila WA 98168-3240

Website: www.acilabs.com

Phone: 206-622-8353
E-mail: info@acilabs.com

Lab Reference:	11125-10
Date Received:	March 30, 2011
Date Completed:	March 31, 2011

March 31, 2011

CAOIMHIN P CONNELL
FORENSIC APPLICATIONS INC
185 BOUNTY HUNTER'S LN
BAILEY CO 80421

CLIENT REF: Blueberry

SAMPLES: wipes/2

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	***Methamphetamine, ug***	***% Surrogate Recovery***
BM032911-01	0.818	96
BM032911-02	0.393	99
QA/QC Method Blank	< 0.004	
QC 4.00 ug Standard	3.76	
QA 0.020 ug Matrix Spike	0.019	
QA 0.020 ug Matrix Spike Duplicate	0.020	
Method Detection Limit (MDL)	0.004	
Practical Quantitation Limit (PQL)	0.030	

'<': less than, not detected above the PQL

Robert M. Orheim
Director of Laboratories

ANALYTICAL CHEMISTRY INC.

4611 S 134th Pl, Ste 200 Tukwila WA 98168-3240
Website: www.acilabs.com
Phone: 206-622-8353
FAX: 206-622-4623

CDL SAMPLING & CUSTODY FORM

Please do not write in shaded areas.

				ANALYSIS REQUESTED	
SAMPLING DATE:	3/29/2011	REPORT TO:	Caoimhín P. Connell	1	Methamphetamine
PROJECT Name/No:	Blueberry	COMPANY:	Forensic Applications, Inc.	2	Use entire contents
eMail:	Fiosrach@aol.com	ADDRESS:	185 Bounty Hunters Lane, Bailey, CO 80421	3	Normal Turn-around time
				4	RUSH
SAMPLER NAME:	Caoimhín P. Connell	PHONE	303-903-7494	5	Weigh and report in mg
				6	Not Submitted

LAB Number	Sample Number	SAMPLE MATRIX			ANALYSIS REQUESTS						SAMPLER COMMENTS	LAB COMMENTS	No of Containers
		Wipe	Vacuum	Other	1	2	3	4	5	6			
BM-01	BM032911-01	X			X	X		X					1
BM-02	BM032911-02	X			X	X		X					1

CHAIN OF CUSTODY RECORD | **Wipes Results in:** ☐ µg/100cm² ☒ Total µg | **Total Number of Containers** (verified by laboratory): 2

PRINT NAME	Signature	COMPANY	DATE	TIME	Turnaround Time		
Caoimhín P. Connell		FACTs, Inc.	3/29/2011	4:50P	☒ 24 Hours (2X)	Custody Seals:	Yes / No
MIA SAZON		ACI	3/30/11	1330	☐ 2 Days (1.75X)	Container:	Intact / Broken
					☐ 3 Days (1.5X)	Temperature:	Ambient / Cooled
					☐ Routine	Inspected By:	MIA SAZON 11/25-10

Mountain States ACCUTEST LABORATORIES

06/23/11

Technical Report for

Forensic Application

Blueberry

Accutest Job Number: D24440

Sampling Date: 06/10/11

Report to:

Forensic Application
185 Bounty Hunters Lane
Bailey, CO 80421
info@forensic-applications.com

ATTN: Caoimhin Connell

Total number of pages in report: **18**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

John Hamilton
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

Sample Summary

Forensic Application

Job No: D24440

Blueberry

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D24440-1	06/10/11	10:00	CC	06/15/11	SO	Soil	BM061011-07

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Forensic Application	**Job No**	D24440
Site:	Blueberry	**Report Dat**	6/23/2011 5:34:21 PM

On 06/15/2011, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 25.1 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D24440 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO **Batch ID:** V5V946

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D24253-3MS, D24253-3MSD were used as the QC samples indicated.
- The blank spike (BS), matrix spike (MS), and matrix spike duplicate (MSD) recovery(s) of Vinyl Acetate are outside control limits. Compound ND in associated samples.
- The matrix spike and matrix spike duplicate (MS/MSD) recovery(s) of multiple analytes are outside control limits. Outside control limits due to possible matrix interference.
- The RPD(s) for the MS and MSD recoveries of Vinyl Acetate are outside control limits for sample D24253-3MSD. Probable cause due to sample homogeneity.
- D24253-3MS for Tetrachloroethylene, Trichloroethylene, Xylene (total): Compound ND in associated samples.

Wet Chemistry By Method SM19 2540B M

Matrix SO **Batch ID:** GN10136

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BM061011-07		
Lab Sample ID:	D24440-1	**Date Sampled:**	06/10/11
Matrix:	SO - Soil	**Date Received:**	06/15/11
Method:	SW846 8260B	**Percent Solids:**	94.9
Project:	Blueberry		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V16036.D	1	06/18/11	DC	n/a	n/a	V5V946
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1100	260	ug/kg	
71-43-2	Benzene	ND	55	24	ug/kg	
75-27-4	Bromodichloromethane	ND	110	27	ug/kg	
75-25-2	Bromoform	ND	110	27	ug/kg	
108-90-7	Chlorobenzene	ND	110	27	ug/kg	
75-00-3	Chloroethane	ND	110	32	ug/kg	
67-66-3	Chloroform	ND	110	32	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	110	30	ug/kg	
75-15-0	Carbon disulfide	ND	110	35	ug/kg	
56-23-5	Carbon tetrachloride	ND	110	36	ug/kg	
75-34-3	1,1-Dichloroethane	ND	110	31	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	110	33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	110	38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	110	27	ug/kg	
124-48-1	Dibromochloromethane	ND	110	31	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	110	27	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	110	27	ug/kg	
541-73-1	m-Dichlorobenzene	ND	110	27	ug/kg	
95-50-1	o-Dichlorobenzene	ND	110	27	ug/kg	
106-46-7	p-Dichlorobenzene	ND	110	27	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	110	39	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	110	27	ug/kg	
100-41-4	Ethylbenzene	ND	110	27	ug/kg	
591-78-6	2-Hexanone	ND	110	27	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	550	270	ug/kg	
74-83-9	Methyl bromide	ND	270	140	ug/kg	
74-87-3	Methyl chloride	ND	110	32	ug/kg	
75-09-2	Methylene chloride	ND	270	140	ug/kg	
78-93-3	Methyl ethyl ketone	ND	550	270	ug/kg	
100-42-5	Styrene	ND	110	27	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	110	43	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	110	27	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BM061011-07		
Lab Sample ID:	D24440-1	**Date Sampled:**	06/10/11
Matrix:	SO - Soil	**Date Received:**	06/15/11
Method:	SW846 8260B	**Percent Solids:**	94.9
Project:	Blueberry		

VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	110	32	ug/kg	
127-18-4	Tetrachloroethylene	ND	110	38	ug/kg	
108-88-3	Toluene	ND	110	55	ug/kg	
79-01-6	Trichloroethylene	ND	110	39	ug/kg	
75-01-4	Vinyl chloride	ND	110	30	ug/kg	
108-05-4	Vinyl Acetate	ND	550	270	ug/kg	
1330-20-7	Xylene (total)	ND	220	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%
17060-07-0	1,2-Dichloroethane-D4	106%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

PAGE 1 OF 1

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL. 303-425-6021 877-737-4521
FAX 303-425-6021

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: D24440

Client / Reporting Information

Company Name: Forensic Applications
Street Address: 185 Bounty Hunters LN
City: Bailey State: CO Zip: 80421
Project Contact: Cadimhin Connell E-mail:
Phone #: 303-903-7494 Fax #:
Sampler(s) Name(s): Email Phone #:
info@forensic-applications.com

Project Information

Project Name: Blueberry
Street:
City:
Project#:
Client PO#:
Project Manager:

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

8260 HSL

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB- Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	LAB USE ONLY
	BM061011-07		6/10/11	10am	CC	SO	1										X	01

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ Commercial "B" +Narrative
- ☐ FULLT1 (Level 3+4)
- ☐ State Forms
- ☐ EDD Format
- ☐ PDF

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- ☒ Std. 10 Business Days
- ☐ Std. 5 Business Days (By Contract only)
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/11/11 3p	1 S. Drevna 6/15/11 3pm	2		2
3			3	4		4
5			5			

Custody Seal #: HD ☒ Intact ☐ Not Intact | Preserved where applicable: ☒ | On Ice: ☐ NO ICE | Cooler Temp: 25.1°

D24440: Chain of Custody
Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D24440 **Client:** Forensic Applications **Immediate Client Services Action Required:** Yes

Date / Time Received: 6/15/2011 3:00:00 PM **Delivery Method:**

Project: Blueberry **No. Coolers:** **Airbill #'s:** HD

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☐		☑
2. Cooler temp verification:	Infared gun		
3. Cooler media:	No Ice		

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample rec'd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Temp was above 6.0.C No ice

Accutest Laboratories
V:303.425.6021

4036 Youngfield Street
F: 303.425.6854

Wheat Ridge, CO
www/accutest.com

D24440: Chain of Custody
Page 2 of 3

Sample Receipt Summary - Problem Resolution

Accutest Job Number: D24440

CSR: Renea Jackson **Response Date** 6/15/2011

Response: Client notified via email. Please proceed. Thank you.

Accutest Laboratories
V:303.425.6021

4036 Youngfield Street
F: 303.425.6854

Wheat Ridge, CO
www/accutest.com

D24440: Chain of Custody
Page 3 of 3

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D24440
Account: FORENCOB Forensic Application
Project: Blueberry

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V946-MB	5V16016A.D	1	06/18/11	DC	n/a	n/a	V5V946

The QC reported here applies to the following samples: **Method:** SW846 8260B

D24440-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1000	240	ug/kg	
71-43-2	Benzene	ND	50	22	ug/kg	
75-27-4	Bromodichloromethane	ND	100	25	ug/kg	
75-25-2	Bromoform	ND	100	25	ug/kg	
108-90-7	Chlorobenzene	ND	100	25	ug/kg	
75-00-3	Chloroethane	ND	100	29	ug/kg	
67-66-3	Chloroform	ND	100	29	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	100	28	ug/kg	
75-15-0	Carbon disulfide	ND	100	32	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	33	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	29	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	100	31	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	35	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	25	ug/kg	
124-48-1	Dibromochloromethane	ND	100	29	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	100	25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	25	ug/kg	
541-73-1	m-Dichlorobenzene	ND	100	25	ug/kg	
95-50-1	o-Dichlorobenzene	ND	100	25	ug/kg	
106-46-7	p-Dichlorobenzene	ND	100	25	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	100	36	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	100	25	ug/kg	
100-41-4	Ethylbenzene	ND	100	25	ug/kg	
591-78-6	2-Hexanone	ND	100	25	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	500	250	ug/kg	
74-83-9	Methyl bromide	ND	250	130	ug/kg	
74-87-3	Methyl chloride	ND	100	30	ug/kg	
75-09-2	Methylene chloride	ND	250	130	ug/kg	
78-93-3	Methyl ethyl ketone	ND	500	250	ug/kg	
100-42-5	Styrene	39.4	100	25	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	100	39	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	25	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	30	ug/kg	
127-18-4	Tetrachloroethylene	ND	100	35	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
79-01-6	Trichloroethylene	ND	100	36	ug/kg	

Method Blank Summary

Job Number: D24440
Account: FORENCOB Forensic Application
Project: Blueberry

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V946-MB	5V16016A.D	1	06/18/11	DC	n/a	n/a	V5V946

The QC reported here applies to the following samples: **Method:** SW846 8260B

D24440-1

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	100	27	ug/kg	
108-05-4	Vinyl Acetate	ND	500	250	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%
17060-07-0	1,2-Dichloroethane-D4	111%	70-130%

Blank Spike Summary

Job Number: D24440
Account: FORENCOB Forensic Application
Project: Blueberry

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V946-BS	5V16017A.D	1	06/18/11	DC	n/a	n/a	V5V946

The QC reported here applies to the following samples: **Method:** SW846 8260B

D24440-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	50	58.9	118	34-130
71-43-2	Benzene	50	58.4	117	68-130
75-27-4	Bromodichloromethane	50	46.9	94	65-133
75-25-2	Bromoform	50	43.5	87	55-130
108-90-7	Chlorobenzene	50	55.7	111	70-130
75-00-3	Chloroethane	50	53.2	106	67-130
67-66-3	Chloroform	50	56.8	114	70-130
110-75-8	2-Chloroethyl vinyl ether	50	44.3	89	20-177
75-15-0	Carbon disulfide	50	59.2	118	23-130
56-23-5	Carbon tetrachloride	50	51.4	103	62-130
75-34-3	1,1-Dichloroethane	50	63.5	127	70-130
75-35-4	1,1-Dichloroethylene	50	56.7	113	70-130
107-06-2	1,2-Dichloroethane	50	59.6	119	70-130
78-87-5	1,2-Dichloropropane	50	54.1	108	70-130
124-48-1	Dibromochloromethane	50	49.6	99	65-130
156-59-2	cis-1,2-Dichloroethylene	50	62.1	124	70-130
10061-01-5	cis-1,3-Dichloropropene	50	47.4	95	66-130
541-73-1	m-Dichlorobenzene	50	53.2	106	70-130
95-50-1	o-Dichlorobenzene	50	52.6	105	70-130
106-46-7	p-Dichlorobenzene	50	51.7	103	70-130
156-60-5	trans-1,2-Dichloroethylene	50	63.1	126	70-130
10061-02-6	trans-1,3-Dichloropropene	50	45.1	90	70-130
100-41-4	Ethylbenzene	50	59.3	119	70-130
591-78-6	2-Hexanone	50	51.7	103	46-130
108-10-1	4-Methyl-2-pentanone	50	52.7	105	58-130
74-83-9	Methyl bromide	50	48.3	97	40-145
74-87-3	Methyl chloride	50	44.0	88	42-130
75-09-2	Methylene chloride	50	56.3	113	70-130
78-93-3	Methyl ethyl ketone	50	49.2	98	21-130
100-42-5	Styrene	50	48.2	96	38-130
71-55-6	1,1,1-Trichloroethane	50	54.7	109	68-130
79-34-5	1,1,2,2-Tetrachloroethane	50	54.9	110	70-130
79-00-5	1,1,2-Trichloroethane	50	59.8	120	70-130
127-18-4	Tetrachloroethylene	50	57.5	115	70-130
108-88-3	Toluene	50	54.4	109	70-130
79-01-6	Trichloroethylene	50	60.8	122	70-130

Blank Spike Summary

Job Number: D24440
Account: FORENCOB Forensic Application
Project: Blueberry

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V946-BS	5V16017A.D	1	06/18/11	DC	n/a	n/a	V5V946

The QC reported here applies to the following samples: **Method:** SW846 8260B

D24440-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
75-01-4	Vinyl chloride	50	43.7	87	55-130
108-05-4	Vinyl Acetate	50	67.9	136* [a]	54-130
1330-20-7	Xylene (total)	100	108	108	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	107%	70-130%
17060-07-0	1,2-Dichloroethane-D4	107%	70-130%

(a) Compound ND in associated samples.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24440
Account: FORENCOB Forensic Application
Project: Blueberry

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24253-3MS	5V16024.D	1	06/18/11	DC	n/a	n/a	V5V946
D24253-3MSD	5V16025.D	1	06/18/11	DC	n/a	n/a	V5V946
D24253-3	5V16023.D	1	06/18/11	DC	n/a	n/a	V5V946

The QC reported here applies to the following samples: **Method:** SW846 8260B

D24440-1

CAS No.	Compound	D24253-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		3650	4330	119	5200	143* [a]	18	34-130/30
71-43-2	Benzene	ND		3650	5480	150* [a]	5830	160* [a]	6	55-140/30
75-27-4	Bromodichloromethane	ND		3650	4310	118	4700	129	9	50-146/30
75-25-2	Bromoform	ND		3650	3780	104	4090	112	8	56-130/30
108-90-7	Chlorobenzene	ND		3650	5270	145* [a]	5310	146* [a]	1	66-130/30
75-00-3	Chloroethane	ND		3650	4900	134* [a]	5040	138* [a]	3	62-130/30
67-66-3	Chloroform	ND		3650	5380	148* [a]	5610	154* [a]	4	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		3650	4600	126	4970	136	8	20-162/30
75-15-0	Carbon disulfide	ND		3650	5550	152* [a]	5690	156* [a]	2	19-130/30
56-23-5	Carbon tetrachloride	ND		3650	4520	124	4980	137	10	54-141/30
75-34-3	1,1-Dichloroethane	ND		3650	6140	168* [a]	6250	171* [a]	2	70-130/30
75-35-4	1,1-Dichloroethylene	ND		3650	5170	142* [a]	5370	147* [a]	4	70-140/30
107-06-2	1,2-Dichloroethane	ND		3650	5620	154* [a]	5890	162* [a]	5	68-130/30
78-87-5	1,2-Dichloropropane	ND		3650	4970	136* [a]	5300	145* [a]	6	70-130/30
124-48-1	Dibromochloromethane	ND		3650	4310	118	4680	128	8	56-130/30
156-59-2	cis-1,2-Dichloroethylene	ND		3650	6050	166* [a]	6160	169* [a]	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND		3650	4320	119	4620	127	7	56-130/30
541-73-1	m-Dichlorobenzene	ND		3650	4960	136* [a]	4960	136* [a]	0	70-130/30
95-50-1	o-Dichlorobenzene	ND		3650	4910	135* [a]	4890	134* [a]	0	70-130/30
106-46-7	p-Dichlorobenzene	ND		3650	4710	129	4850	133* [a]	3	70-130/30
156-60-5	trans-1,2-Dichloroethylene	ND		3650	6130	168* [a]	6360	174* [a]	4	64-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		3650	4040	111	4350	119	7	53-130/30
100-41-4	Ethylbenzene	ND		3650	5610	154* [a]	5690	156* [a]	1	56-139/30
591-78-6	2-Hexanone	ND		3650	4320	119	4540	125	5	48-132/30
108-10-1	4-Methyl-2-pentanone	ND		3650	4330	119	4900	134	12	58-138/30
74-83-9	Methyl bromide	ND		3650	4200	115	4320	119	3	10-165/30
74-87-3	Methyl chloride	ND		3650	3490	96	3540	97	1	35-130/30
75-09-2	Methylene chloride	357	J	3650	5860	151* [a]	5950	153* [a]	2	70-130/30
78-93-3	Methyl ethyl ketone	ND		3650	5130	141* [a]	4390	120	16	20-130/30
100-42-5	Styrene	62.4	J	3650	4650	126	4690	127	1	33-130/30
71-55-6	1,1,1-Trichloroethane	ND		3650	5070	139* [a]	5400	148* [a]	6	55-138/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		3650	4630	127	4880	134* [a]	5	69-130/30
79-00-5	1,1,2-Trichloroethane	ND		3650	5260	144* [a]	5460	150* [a]	4	62-134/30
127-18-4	Tetrachloroethylene	ND		3650	5340	146* [b]	5380	148* [b]	1	47-136/30
108-88-3	Toluene	77.7	J	3650	5140	139	5260	142	2	57-144/30
79-01-6	Trichloroethylene	ND		3650	5620	154* [b]	5930	163* [b]	5	70-149/30

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D24440
Account: FORENCOB Forensic Application
Project: Blueberry

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D24253-3MS	5V16024.D	1	06/18/11	DC	n/a	n/a	V5V946
D24253-3MSD	5V16025.D	1	06/18/11	DC	n/a	n/a	V5V946
D24253-3	5V16023.D	1	06/18/11	DC	n/a	n/a	V5V946

The QC reported here applies to the following samples: **Method:** SW846 8260B

D24440-1

CAS No.	Compound	D24253-3 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
75-01-4	Vinyl chloride	ND		3650	3820	105	3860	106	1	59-131/30
108-05-4	Vinyl Acetate	ND		3650	16200	444* [b]	6350	174* [b]	87* [b]	20-141/30
1330-20-7	Xylene (total)	ND		7290	10300	141* [b]	10400	143* [b]	1	51-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D24253-3	Limits
2037-26-5	Toluene-D8	90%	89%	91%	70-130%
460-00-4	4-Bromofluorobenzene	109%	108%	95%	70-130%
17060-07-0	1,2-Dichloroethane-D4	108%	111%	116%	70-130%

(a) Outside control limits due to possible matrix interference.
(b) Compound ND in associated samples.

Appendix C

Compact Digital Disk
(Photographs and Additional Documentation)