FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

Cursory Industrial Hygiene Evaluation In the Context of Methamphetamine Contamination

At:

2035 Newland Street
Edgewater CO 80214

Prepared for:

Deborah Feketa
2601 W 35th Ave
Denver 20211

Prepared by:

FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.
185 Bounty Hunter's Lane
Bailey, CO 80421

August 1, 2008

EXECUTIVE SUMMARY

On Monday, July 28, 2008 Forensic Applications Consulting Technologies, Inc. (FACTs) was contracted to perform a standard cursory evaluation for the presence of methamphetamine at, 2035 Newland Street, Edgewater, Colorado (the subject property).

FACTs collected two standard composite samples for the determination of the presence of methamphetamine from ten locations in the subject property. The sampling data quality objectives (DQOs) employed by FACTs were to determine, within normal analytical confidences,[1] the possibility of methamphetamine *presence* at the subject property. The samples were collected by Mr. Caoimhín P. Connell, who is an Industrial Hygienist, as that term is defined in CRS §24-30-1402. The samples were quantitatively analyzed using GCMS.

FACTs collected two standard composite samples for the determination of the presence of methamphetamine from ten locations in the subject property. The sampling data quality objectives (DQOs) employed by FACTs were to determine, within one half of the lowest possible regulatory limit, the presence of methamphetamine in the property.

Based on state of the art sampling and analysis techniques, both of the samples conclusively contained methamphetamine at concentrations greater than the specified detectable concentrations. Additionally, if the samples had been collected as part of the final verification process pursuant to State regulations, both samples would have demonstrated non-compliance with State regulations.

The samples collected from the upper portion of the residence (including the garage) contained approximately twice as much methamphetamine than would be permitted by State regulations if the samples had been part of a final verification sampling protocol. The samples collected from the downstairs of the residence contained approximately seventeen (17) times greater methamphetamine than would be permitted by State regulations if the samples had been part of a final verification sampling protocol.

Background Information

Structure

The subject property was a single story, single family dwelling constructed in *cir.* 1963 with an unattached garage. Total occupiable floor space including the extended garage was approximately 2,895 ft2. At the time of our visit, the structure was not occupied, and was in a fair state of repair.

[1] Colorado Department Of Public Health And Environment, State Board Of Health, Regulations Pertaining to the Cleanup of Methamphetamine Laboratories, 6 CCR 1014-3, used merely as a sampling reference.

ASSESSMENT PROTOCOLS

Sampling Protocol

The assessment was performed pursuant to the intent of Colorado's Real Estate methamphetamine disclosure and testing statute as described by CRS §38-35.7-103(2)(a).

During our cursory assessment, the hypothesis was made that the subject property was devoid of cumulative methamphetamine concentrations greater than one half the lowest possible regulatory limit for the State of Colorado, and samples from ten locations were collected to support the hypothesis. Based on the current state regulations (which did not apply to the property during our sampling visit), the lowest allowable concentration of methamphetamine that would be permitted during a final verification sampling assessment for a five parted sample such as these would be 0.1 µg/100 cm2.

As such, the data quality objectives were not designed to quantify or characterize the *extent* or degree of contamination throughout the property, but rather to support the statement:

"Cumulative methamphetamine concentrations are not present in the property at a concentration of greater than 0.05 µg/100 cm2 as determined by ten sample locations."

Our testing produced results that failed to support the hypothesis, and we therefore accept the null hypothesis; *viz*:

"Cumulative methamphetamine concentrations <u>are</u> present in the property at a concentration of greater than 0.05 µg/100 cm2 as determined by ten sample locations."

Sample Collection

Using standard industrial hygiene methods, we collected two, 5-part composite samples from each of the two primary interior levels (basement and ground floor). The samples were submitted to Analytical Chemistry, Inc. for quantitative analysis using gas chromatography coupled with mass spectrometry. Analytical Chemistry Inc. is one of the laboratories listed in Colorado's regulations as being proficient in methamphetamine analysis.

To ensure that our data quality objectives were met, each individual wipe area comprising the composite was approximately 13 cm2 for an accumulative area of approximately 65 cm2 per sample. This method results in a reportable quantity of 0.05 µg/100 cm2.

Wipe Samples

The wipe sample medium was individually wrapped commercially available *Johnson & Johnson*™ 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.

The sampling media were prepared off-site in small batches in a clean environment. The sample media were inserted into individually identified polyethylene centrifuge tubes with screw caps and assigned a unique sample identifier.

Field Blanks

Although no field blanks were required or submitted, historical data from these sampling materials indicate that the methanol contains less than detectable concentrations of methamphetamine (for n=18) and the gauze material also contains less than detectable concentrations of methamphetamine (for n=5); indicating that the reported methamphetamine was exclusively from the interior of the subject property.

Sample Results

As stated our data quality objectives were to determine, within stated levels of confidence the presence of methamphetamine, and not to characterize extent or degree. Therefore, the actual values are not required and are not presented here. Below is a summary of the results.

Sample ID	Location	Status
NM08280801A	Furnace air return living room hallway	POSITIVE
NM08280801B	Top of kitchen cabinet	
NM08280801C	NE Bedroom top of ceiling fan	
NM08280801D	Reznor space heater in garage	
NM08280801E	NW patio add-on	
NM08280802A	Top of furnace duct in furnace room	POSITIVE
NM08280802B	NW Bedroom closet shelf	
NM08280802C	NW Bedroom NW ceiling	
NM08280802D	Bathroom top of lighting fixture	
NM08280802E	Recreation room E wall shutter	

PERTINENT REGULATORY STANDARDS

The State of Colorado currently has one methamphetamine regulation and three methamphetamine statutes that are germane to this particular property.

State Statutes

Environmental Statutes

Colorado has one of the country's most comprehensive and scientifically based clandestine drug laboratory regulations. The Colorado regulations become applicable when the owner of a property has received "notification" from a peace officer that chemicals, equipment, or supplies indicative of a "drug laboratory" are located at the property, ***or when a "drug laboratory" is otherwise discovered***,[2] and the owner of the property where the "drug laboratory" is located has received notice.

[2] CRS §25-18.5-103

In turn, "drug laboratory" is defined in Colorado Revised Statutes §25-18.5-101 as the areas where controlled substances have been manufactured, *processed*, cooked, disposed of, *or stored* and all proximate areas that are *likely* to be contaminated as a result of such manufacturing, *processing*, cooking, disposing, or *storing*. The definitions of an illegal drug lab includes smoking methamphetamine, since smoking is a process, and its mere presence in the context of illegal possession constitutes *storage* and therefore, an "illegal drug lab" as defined by State statutes.

Pursuant to State statute CRS §25-18.5-105(1), an illegal drug laboratory that has not met the cleanup standards set by the State Board of Health must be deemed a public health nuisance.

Criminal Proceedings – Public Nuisance Statutes

Pursuant to State statute CRS §16-13-303(c)(1), every building or part of a building including the ground upon which it is situated and all fixtures and contents thereof, and every vehicle, and any real property shall be deemed a class 1 public nuisance when used for the unlawful ***storage or possession*** of any controlled substance, or any other drug the possession of which is an offense under the laws of Colorado. Based on CRS §16-13-303(c)(1), the presence of extant methamphetamine in the property is *prima facie* evidence of possession of the same.

Pursuant to State statute §16-13-308)(1)(a), if probable cause for the existence of a Class 1 Public Nuisance is shown to the court by means of a complaint supported by an affidavit, the court shall issue a temporary restraining order to abate and prevent the continuance or recurrence of the nuisance or to secure property subject to forfeiture. Such temporary restraining order shall direct the County Sheriff or a peace officer to seize and, where applicable, close the public nuisance and keep the same effectually closed against its use for any purpose until further order of the court.

An alternative declaration of Public Nuisance may be found in statute §16-13-307(4), wherein an action to abate a public nuisance may be brought by the district attorney, or the attorney general with the consent of the district attorney, in the name of the people of the State of Colorado or in the name of any officer, agency, county, or municipality whose duties or functions include or relate to the subject matter of the action.

State Regulations

Pursuant to Colorado regulations 6 CCR 1014-3,[3] following discovery and notification, a comprehensive and detailed "Preliminary Assessment" must be commissioned by the property owner and performed by an authorized and properly trained Industrial Hygienist who must characterize extant contamination. The content and context of the "Preliminary Assessment" is explicitly delineated by regulation. Any remediation or

[3] Titled: Colorado Department Of Public Health And Environment, State Board Of Health, *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*.

cleaning of the property must be based on the Industrial Hygienist's Preliminary Assessment, and cannot occur until such assessment has been conducted.

Mandatory Contamination Thresholds

A recurring myth in methlab related issues is that if an Industrial Hygienist performs a cursory investigation (such as that performed at the subject property) or a "Preliminary Assessment" and finds methamphetamine, but the concentration is less than 0.5 micrograms per one hundred square centimeters (µg/100cm2) of surface area, then the property is "OK," and not covered by the State regulations.

However, this argument is erroneous and no such provisions are found anywhere in State statutes or State regulation. A strict interpretation of regulation is if an Industrial Hygienist chooses non-mandatory sampling (such as performed at the subject property) during a cursory industrial hygiene evaluation, and those samples result in ANY contamination, even below the value of 0.5 µg/100cm2, then the property must, by state regulation, be declared a methlab.[4] This is due to the fact that cursory sampling does not meet the data quality objectives upon which the State clean-up level of "0.5 µg/100cm2" value is based.

In any event, contrary to erroneous public belief, the mere value of "0.5 µg/100cm2" is not the State of Colorado cleanup level, but rather that value is the basis upon which the final cleanup level is established and which is described in the mandatory Appendix A of the State regulations. The Colorado clearance level of "0.5 µg/100cm2," frequently misquoted by members of the general public, applies exclusively as *prima facie* evidence of decontamination at the end of a project[5] and is that attainment threshold occasionally needed to issue a "decision statement" (final clearance).

Contrary to popular misconception, there is no *de minimis* concentration during a cursory evaluation or Preliminary Assessment below which a property could be declared "not a meth lab" or "not of regulatory concern" since virtually any concentration of meth present in a sample at the property 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.*[6]

In a recent unofficial opinion issued by the State of Colorado Department of Public Health and the Environment,[7] the state opined that even when the cursory concentrations are far below state mandated limits:

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[4] *Ibid*. Appendix A

[5] Colorado Department Of Public Health And Environment, State Board Of Health, *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*, 6 CCR 1014-3.

[6] *Ibid*.

> *"Performing a PA* [Preliminary Assessment] *and clearance sampling is the only way to meet the requirements of the Reg, get the liability shield, and provide protection for future Real Estate transactions."*

Current technology is such that our sampling and analytical abilities allow us to detect concentrations of methamphetamine thousands of times lower than regulatory limits. Therefore, detection limits as established by our data quality objectives must be capable of ensuring that elevated levels of methamphetamine would be detected and reported, but without causing "false positives" (i.e., identifying minute, trace, levels of methamphetamine, which are far below levels of regulatory concern, but which may trigger regulatory provisions).

CONCLUSIONS

Based on our visual inspection the property, the property contains a variety of inconclusive visual indicators of methamphetamine production.

Based on state of the art sampling and analysis techniques, we conclusively determined the presence of methamphetamine in the subject property; and based on current statutes and regulations, the property meets the definition of an "illegal drug lab" as described below.

According to current State of Colorado Regulations and Statutes, this discussion serves as "Discovery" as that term is found in Colorado Revised Statutes §25-18.5-103 and, upon delivery of this document to the property owner, serves as "Notification" as that term is used in CRS §25-18.5-103 (1)(a).

As such, this document also serves as the identification of probable contamination and, therefore, the conclusive presence of an "illegal drug lab" as defined by State statute (CRS §25-18.5-101). Based on this finding, after notification, **entry into the property is prohibited by statute CRS §25-18.5-104**. (From this point forward entry into the property is prohibited by all personnel including the seller and the seller's representatives unless they meet the training requirements pursuant to State statutes and state regulations.)

Pursuant to State statutes, and State regulations, the property must now be subject to an assessment known as a "Preliminary Assessment" whose elements are defined by State Regulations. The work must be performed by a legitimate Industrial Hygienist with specific methlab training and experience. In the recent past, FACTs has encountered "environmental consultants" who are fraudulently presenting themselves as Industrial Hygienists and who are performing fatally flawed assessments. Attached to this discussion is a copy of our SOQ, for your protection.

[7] Email transmission from Craig Sanders to FACTs, January 31, 2008, quoting Coleen Bresnahan, CDPHE, regarding a property at 32548 Kinsey Lane Conifer, Colorado.

Our qualitative interpretation of the data suggests that the contamination is sufficiently elevated that the Preliminary Assessment will probably require some limited remediation activities in the basement.

RECOMMENDATIONS

This letter must be provided to the seller in a timely fashion. We recommend that a copy of the letter be forwarded to the Governing Body. The contact for the Governing Body is for this property is:

Mr. Craig Sanders
Environmental Protection Supervisor
Jefferson County Department of Health and Environment
1801 19th Street
Golden, CO 80401

Sincerely,

Caoimhín P. Connell
Forensic Industrial Hygienist

Appendix A
Laboratory Report

ANALYTICAL CHEMISTRY INC.

Established in 1979

4611 S. 134th Place, Ste 200
Tukwila WA 98168-3240
Phone: 206-622-8353
Fax: 206-622-4623

E-mail: aci@acilabs.com Website: www.acilabs.com

Lab Reference:	08142-02
Date Received:	July 30, 2008
Date Completed:	July 31, 2008

July 31, 2008

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

CLIENT REF: Newland

SAMPLES: wipes/2

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	***Methamphetamine, ug***	***% Surrogate Recovery***
NM082808 - 01	0.101	103
NM082808 - 02	1.08	102
QA/QC Method Blank	< 0.004	
QC 0.100 ug Standard	0.098	
QA 0.020 ug Matrix Spike	0.020	
QA 0.020 ug Matrix Spike Duplicate	0.018	
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:	August 28, 2008	REPORT TO:	Caoimhín P. Connell	1	Methamphetamine
PROJECT Name/No:	Newland	COMPANY:	Forensic Applications, Inc.	2	Use entire contents
eMail:	Fiosrach@aol.com	ADDRESS:	185 Bounty Hunters Lane, Bailey, CO 80421	3	
				4	
SAMPLER NAME:	Caoimhín P. Connell	PHONE	303-903-7494	5	
				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			
	NM082808-01				X	X							1
	NM082808-02				X	X							1
					X								
					X								
					X								
					X								
					X								
					X								
					X								
					X								

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	Custody Seals:	Yes	No
Caoimhín P. Connell		FACTs, Inc.	8/29/08		X 24 Hours (2X)	Container:	Intact	Broken
MIA SAZON		ACI	7/30/08		☐ 2 Days (1.75X)	Temperature:	Ambient	Cooled
					☐ 3 Days (1.5X)	Inspected By:	MIA SAZON	
					Routine	Lab File No.	08142-02	

Appendix B
Consultant's SOQ

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:	**Newland Street**	**Form # ML15**
Date: July 28, 2008		
Reporting IH:	**Caoimhín P. Connell, Forensic IH**	

Caoimhín P. Connell, is a private consulting forensic Industrial Hygienist meeting the definition of an "Industrial Hygienist" as that term is defined in the Colorado Revised Statutes §24-30-1402. Mr. Connell has been a practicing Industrial Hygienist in the State of Colorado since 1987 and has been involved in clandestine drug lab (including meth-lab) investigations since May of 2002.

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 methlab training for officers of over 25 Colorado Police agencies, 20 Sheriff's Offices, federal agents, and probation and parole officers from the 2nd, 7th and 9th 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, 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 (Certification Number B-10670); he is a member of the Colorado Drug Investigators Association, the American Industrial Hygiene Association, and the Occupational Hygiene Society of Ireland.

He has received over 120 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 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."

Mr. Connell is also 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 80 assessments in illegal drug labs, and collected approximately 1,000 samples during assessments.

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 private consumers, state officials and Federal Government representatives with forensic 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 an author of a recent (2007) AIHA Publication on methlab assessment and remediation.

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