



FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

**Cursory Industrial Hygiene Assessment
of an Unoccupied Property
In the Context of Methamphetamine Contamination**

At:

4901 W 5th Ave, Denver, Colorado

**Prepared for:
Michael Dwyer
Quality Homes, LLC,
PO Box 3346 Boulder, CO 80307**

Prepared by:

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



October 3, 2008

EXECUTIVE SUMMARY

On Thursday, October 2, 2008, Forensic Applications Consulting Technologies, Inc. (FACTs) was contracted by Quality Homes LLC to perform a standard cursory evaluation for the presence of methamphetamine at 4901 W 5th Ave, Denver, Colorado.

FACTs collected standard surface wipe samples from ten locations in the subject property and combined the ten wipes into two composite samples for analysis. The sampling data quality objectives (DQOs) employed by FACTs were to determine the presence of methamphetamine in the property with a lowest reportable quantity set at the lowest possible regulatory limit.

The samples were collected by Mr. Caoimhín P. Connell, who is an Industrial Hygienist, as that term is defined in Colorado Revised Statutes (CRS) §24-30-1402. The samples were quantitatively analyzed by a recognized laboratory using GCMS.

Based on state of the art sampling and analysis techniques, we conclusively determined the presence of methamphetamine in the residential structure at concentrations of not less than 75 times greater than would be permitted by State regulations, with one composite set with methamphetamine concentrations in excess of 350 times the permitted level.¹

Background Information

Structure

The subject structure consisted of single family stand-alone dwelling. At the time of our visit, the structure was unoccupied, however it had not been emptied of all tenant chattels, and was in a generally poor state of repair.

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 methamphetamine at concentrations greater than the lowest possible regulatory limit and data would be collected to support the hypothesis. Based on current state *regulations* (which did not apply to the property at the time of our assessment), the lowest allowable concentration of methamphetamine that would be permitted during a final verification sampling assessment for a five parted sample would be 0.1 µg/100 cm². Therefore, we adjusted our detection limits such that the laboratory would not report detectable values of methamphetamine until the concentration exceeded that value. As

¹If the sampling had been performed as part of a final clearance sampling project pursuant to State regulations.



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 hypothesis statement:

“Methamphetamine is not present in the property at a concentration greater than 0.1 µg/100 cm².”

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

“Methamphetamine is present in the property at a concentration greater than 0.1 µg/100 cm².”

Although the exact degree and extend of contamination throughout the property remains unknown, our sampling did confirm that the concentrations of methamphetamine in the subject property were not less than 76 times greater than permitted by State regulations.²

Sample Collection

Using standard industrial hygiene methods, we collected two, 5-part composite samples from each of the primary interior levels and the garage. The samples were submitted to Analytical Chemistry, Inc. (Tukwila, WA) 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.

Wipe Samples

The wipe sample medium was commercially available *Johnson & Johnson*TM 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

To control costs, a field blank was not included in the sample suit. However, our blank log indicates that a total of 19 blanks have been submitted for our current solvent and six blanks have been analyzed for our current wipe medium. In each case, the results have all demonstrated concentrations of methamphetamine below the analytical detection limit of the method.

² If the sampling had been performed as part of a final clearance sampling project.



In addition, as a reagent blank, the laboratory is required to perform a sample blanks during the analysis. Those results indicate that the method blank was also below the analytical detection limit.

Sample Results

In the table below, we have presented the results of the sampling.

Sample ID	Location of Wipe	Result Concentrations in Excess of Regulatory Limit?
DM100208-01A	Top of smoke detector in kitchen	YES
DM100208-01B	Living room return air	
DM100208-01C	Top of vanity shelf in small toilet room	
DM100208-01D	Top of light fixture in bathroom	
DM100208-01E	Top of corner shelf in blue room	
DM100208-02A	Top of furnace duct in furnace room	YES
DM100208-02B	Top of copper pipe in lattice room	
DM100208-02C	Fan housing in lattice room	
DM100208-02D	Top of closet door jamb in pink room	
DM100208-02E	Top of door motor in garage	

Table 1
Results of Methamphetamine Samples

Based on our data quality objectives, a sample would have been considered “positive” for methamphetamine if the methamphetamine surface concentration was greater than or equal to 0.1 µg/100 cm²; for this data set, neither of the sample was less than 5.0 µg/100 cm². A copy of the laboratory report is appended to this discussion.

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,³ and the owner of the property where the “drug laboratory” is located has received notice.

³ 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.

Property Statutes

Pursuant to CRS §38-35.7-103 (1) a buyer of residential real property has the right to test the property for the purpose of determining whether the property has ever been used as a methamphetamine laboratory.

The fatal flaws of CRS §38-35.7-103, notwithstanding, pursuant to CRS §38-35.7-103 (2)(a):

If the buyer's test results indicate that the property has been used as a methamphetamine laboratory but has not been remediated to meet the standards established by rules of the state board of health..., the buyer shall promptly give written notice to the seller of the results of the test, and the buyer may terminate the contract.

The pertinent State *regulations* (discussed below) are unequivocal and state:

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.

Pursuant to CRS §38-35.7-103(3)(c), a buyer has up to three years to perform such testing. Pursuant to CRS §38-35.7-103 (3)(a), the seller shall disclose in writing to the buyer whether the seller knows that the property was previously used as a methamphetamine laboratory. Similarly, pursuant to CRS §38-35.7-103(3)(b) a seller who fails to disclose the presence of a methamphetamine lab is liable to the buyer for:

- (I) Costs relating to remediation of the property according to the standards established by rules of the state board of health promulgated pursuant to section 25-18.5-102, C.R.S.;
- (II) Costs relating to health-related injuries occurring after the sale to residents of the property caused by methamphetamine production on the property; and
- (III) Reasonable attorney fees for collection of costs from the seller.



Criminal Proceedings – Public Nuisance Statutes

Pursuant to 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 CRS §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 1014-3,⁴ following discovery and notification, a comprehensive and detailed study called a “Preliminary Assessment” must be commissioned by the property owner and performed by an authorized and properly trained Industrial Hygienist who must characterize extant contamination, and develop a remediation plan. The content and context of the “Preliminary Assessment” is explicitly delineated by regulation. Any remediation or cleaning of the property must be based on the Industrial Hygienist’s Preliminary Assessment, and cannot occur until such assessment has been conducted. (Fraudulent consultants identifying themselves as industrial hygienists, have performed invalid Preliminary Assessments in the area).

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 ($\mu\text{g}/100\text{cm}^2$) 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 in State statutes or State regulation. A strict interpretation of regulation is if an Industrial Hygienist chooses

⁴ Titled: Colorado Department Of Public Health And Environment, State Board Of Health, *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*.



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.⁵ 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 project⁶ 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 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.*⁷

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

“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.”

CONCLUSIONS

- 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-

⁵ *Ibid.* Appendix A

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

⁷ *Ibid.*



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 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 commission a “Preliminary Assessment” whose elements are defined by State Regulations.
- Based on our visual inspection the property, the property contains several inconclusive visual indicators of methamphetamine production, and possibly a marijuana cultivation operation.
- Our qualitative interpretation of the data suggests that the contamination is extensive, widespread and significant in all parts of the property.
- Mandatory remediation of the contamination is required for the property, based on the Preliminary Assessment.

RECOMMENDATIONS

Pursuant to State regulations 6 CCR 1014-3 (8.26), the report must be submitted to the Governing Body. Based on our information, the Governing Body for this property is:

Mr. Gene Hook
Environmental Protection Specialist
City and County Of Denver
Department of Environmental Health
201 W. Colfax Ave. Dept.. 1009
Denver CO 80202

We recommend that a copy of this letter of discovery and Notification be forwarded to the Governing Body. (At your request, FACTs will make all necessary notifications).

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:	08153-10
Date Received:	October 3, 2008
Date Completed:	October 3, 2008

October 3, 2008

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

CLIENT REF: Qual Home

SAMPLES: wipes/2

ANALYSIS: Methamphetamine by Gas Chromatography-Mass Spectrometry.

RESULTS: in total micrograms (ug)

Sample	Methamphetamine, ug	% Surrogate Recovery
DM100208 - 01	9.15	110
DM100208 - 02	1.97	118
QA/QC Method Blank	< 0.004	
QC 2.00 ug Standard	2.02	
QA 0.020 ug Matrix Spike	0.017	
QA 0.020 ug Matrix Spike Duplicate	0.016	
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.

CDL SAMPLING & CUSTODY FORM

4611 S 134th Pl, Ste 200 Tukwila WA 98168-3240
Website: www.acliabs.com

Phone: 206-622-8353
FAX: 206-622-4623

Page of
Please do not write in shaded areas.

SAMPLING DATE: 10/02/08	REPORT TO: Caoimhin P. Connell	ANALYSIS REQUESTED
PROJECT Name/No: <u>Coal Home</u>	COMPANY: Forensic Applications, Inc.	1 Methamphetamine
eMail: Fiosrach@aol.com	ADDRESS: 185 Bounty Hunters Lane, Bailey, CO 80421	2 Use entire contents
SAMPLER NAME: Caoimhin P. Connell	PHONE: 303-903-7494	3
		4
		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				
	DMP020801	W			X	X								1
	-02				X	X								1
	-03				X					X				
	-04				X					X				
	SCREAMING MAD "RUSH"!													
	Thanks Mia!													

CHAIN OF CUSTODY RECORD				Wipes Results in:		Total Number of Containers (verified by laboratory)	
PRINT NAME	Signature	COMPANY	DATE	TIME	<input type="checkbox"/> µg/100cm ²	<input checked="" type="checkbox"/> Total µg	2
Caoimhin P. Connell	<i>C Connell</i>	FACTS, Inc.	10/02/08	14:30	<input type="checkbox"/> Turnaround Time	<input checked="" type="checkbox"/> 24 Hours (2X)	Yes
VICTE SORRENTI MIA SAZON	<i>adry</i>	AEI	10/3/08	1005	<input type="checkbox"/> 2 Days (1.75X)	<input checked="" type="checkbox"/> 3 Days (1.5X)	No
					<input type="checkbox"/> Routine		
					Inspected By:	Temperature:	Container:
					MIA SAZON	Ambient	Intact
					Lab File No.		Broken
					08153-10		Cooled

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:	Quality Homes	Form # ML15
Date:	October 2, 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 condominiums. Mr. Connell has conducted over 80 assessments in illegal drug labs, and collected over 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.